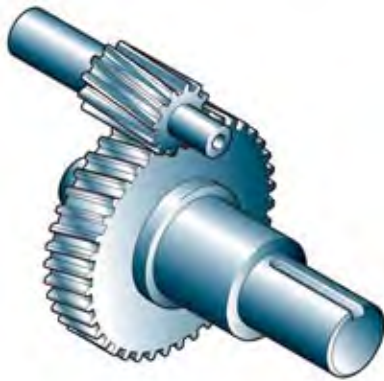


TSUBAKI EMERSON GEARMOTOR HYPOID MOTOR



Cutting-edge gear systems with the most useful functions

HELICAL



Our low-noise, high-efficiency Inline gear motor can be mounted easily. Size and weight have also been further reduced and functionality has been enhanced. Tsubaki Emerson's cutting-edge technology has achieved quieter operation, high efficiency and easy maintenance.

- Inline gear motor that can be mounted easily
- Low noise and high efficiency
- Excellent temperature characteristics enabling high performance even in cold climates
- Reduction in size and weight and a wide variety of options
- Ratios of 1/5 to 1/1200
- Strong lineup from 0.1 kW to 5.5 kW
- Foot mount, face mount and flange mount types available

※For further details refer to the pages beginning p.03~.

Gear Motor TA Series

0.1kW~5.5kW

GEAR MOTOR TA Series



HYPOID



Tsubaki Emerson has developed this new type of Right Angle reducer which was devised in the U.S.A. and produced in Japan. Offering excellent starting and operating efficiency and allows for great space savings. The compact body has its height reduced as much as possible to allow for flexible installation.

- Excellent space savings in a right angle reducer
- Compact body has its height reduced as much as possible to fit tight spaces
- Outstanding space-saving efficiency
- Excellent temperature characteristics enabling high performance even in cold climates
- Ratios of 1/5 to 1/1200
- Strong lineup from 0.1 kW to 5.5 kW
- Foot mount, face mount, hollow shaft and solid shaft (single shaft, double shaft) types available

※For further details refer to the pages beginning p.117~.

Hypoid Motor TA Series

0.1kW~5.5kW

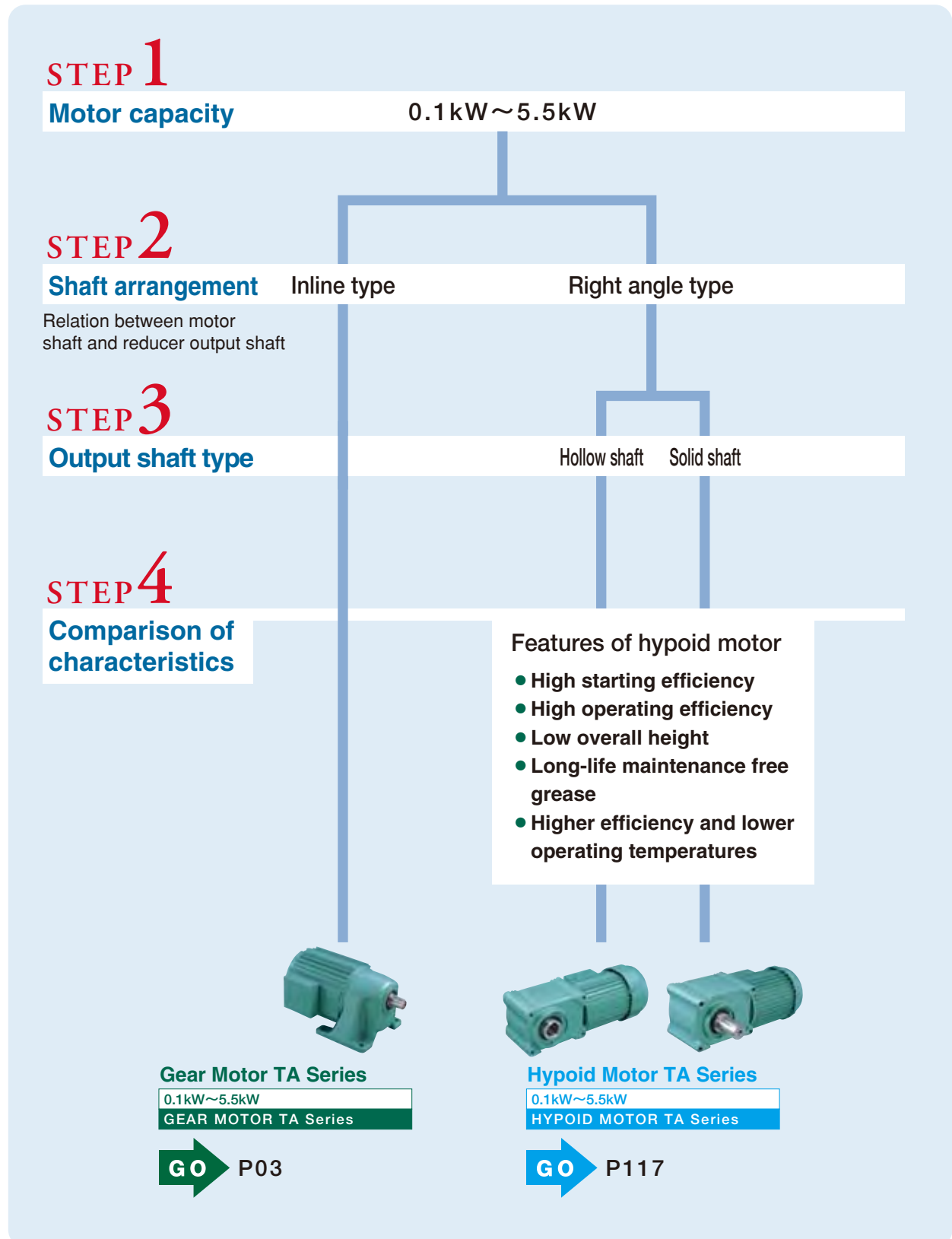
HYPOID MOTOR TA Series



Guidance flowchart

Variations to meet diverse needs

In order to devise equipment in anticipation of user needs, it was necessary to develop a small-size gear motor that meets those needs in advance. Tsubaki Emerson's gear motors adequately meets various needs relating to international standards, high efficiency, low noise, environmental consideration, color selection, etc. Proceed from Step 1 to Step 4 and you will be guided to the starting line for selecting the new standard gear motors.



■ Motorized type

Features • Nomenclature

P 13

Specifications

P 16

Specification Chart

P 25

Outline Dimensions Non-brake/Foot mount/Face mount

P 28

Outline Dimensions Brake type/Foot mount/Face mount

P 42

Structure • Options • Installation • Others

P 56

Note) For selection, refer to pages 233 to 237 of Hypoid Motor TA Series Selection.

■ Inline Reducer type

Structure • Specification Chart

P 68

Outline Dimensions Foot mount/Face mount

P 72

■ Adapter type

Structure • Specification Chart

P 82

Outline Dimensions Foot mount/Face mount

P 86

■ CB gear motor

Features

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Specifications

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Specification Chart

P106

Outline Dimensions Foot mount/Face mount

P108

Model Lineup 5

Motorized type

Features · Nomenclature 13

Specifications

Specifications 16

Brake part specifications 18

Terminal boxes 22

Outdoor type specifications 24

Specification chart 25

Outline Dimensions (Non-brake type)

0.1 kW foot mount 28

0.1 kW face mount 29

0.2 kW foot mount 30

0.2 kW face mount · flange mount 31

0.4 kW foot mount 32

0.4 kW face mount · flange mount 33

0.75 kW foot mount 34

0.75 kW face mount · flange mount 34

1.5 kW foot mount · face mount · flange mount 35

2.2 kW foot mount · flange mount 36

3.7 kW foot mount · flange mount 37

5.5 kW foot mount · flange mount 37

100 W foot mount 38

100 W face mount 39

200 W foot mount 40

200 W face mount · flange mount 41

Outline Dimensions (Brake type)

0.1 kW foot mount 42

0.1 kW face mount 43

0.2 kW foot mount 44

0.2 kW face mount · flange mount 45

0.4 kW foot mount 46

0.4 kW face mount · flange mount 47

0.75 kW foot mount 48

0.75 kW face mount · flange mount 48

1.5 kW foot mount · face mount · flange mount 49

2.2 kW foot mount · flange mount 50

3.7 kW foot mount · flange mount 51

5.5 kW foot mount · flange mount 51

100 W foot mount 52

100 W face mount 53

200 W foot mount 54

200 W face mount · flange mount 55

Structure · Options · Others

Structure 56

Options 57

Installation 59

Others 65

Inline Reducer type

Structure · Specification chart 68

Outline Dimensions

0.1 kW foot mount 72

0.1 kW face mount 73

0.2 kW foot mount 74

0.2 kW face mount · flange mount 75

0.4 kW foot mount 76

0.4 kW face mount · flange mount 77

0.75 kW foot mount 78

0.75 kW face mount · flange mount 78

1.5 kW foot mount · face mount · flange mount 79

2.2 kW foot mount · flange mount 80

3.7 kW foot mount · flange mount 81

5.5 kW foot mount · flange mount 81

Adapter type

Structure · Specification chart 82

Outline Dimensions

0.1 kW foot mount 86

0.1 kW face mount 87

0.2 kW foot mount 88

0.2 kW face mount · flange mount 89

0.4 kW foot mount 90

0.4 kW face mount · flange mount 91

0.75 kW foot mount 92

0.75 kW face mount · flange mount 92

1.5 kW foot mount · face mount · flange mount 93

2.2 kW foot mount · flange mount 94

3.7 kW foot mount · flange mount 95

5.5 kW foot mount · flange mount 95

CB gear motor

Features 96

Specifications 98

Specification chart 106

Outline Dimensions

0.1 kW foot mount 108

0.1 kW face mount 108

0.2 kW foot mount 109

0.2 kW face mount 109

0.4 kW foot mount · face mount · flange mount 110

0.75 kW foot mount · face mount · flange mount 111

1.5 kW foot mount · flange mount 112

2.2 kW foot mount · flange mount 113

3.7 kW foot mount · flange mount 114

100 W foot mount · face mount 115

200 W foot mount · face mount 116

Gear Motor TA Series Lineup

Motorized type

GEAR MOTOR TA Series Lineup

Motor capacity	Mounting type	Reduction ratio								
		51015202530405060								
		Brake								
Output 0.1kW Model number GMTA010 ● Specification chart→P25	Foot mount L	Not provided	P28 M-11				P28 M-12			
		Provided	P42 B-11				P42 B-12			
	Face mount U	Not provided	P29 M-16				P29 M-17			
		Provided	P43 B-16				P43 B-17			
Output 0.2kW Model number GMTA020 ● Specification chart→P25	Foot mount L	Not provided	P30 M-21		P30 M-22			P30 M-23		
		Provided	P44 B-21		P44 B-22			P44 B-23		
	Face mount U Flange mount F	Not provided	P31 M-27		P31 M-28			P31 M-29		
		Provided	P45 B-27		P45 B-28			P45 B-29		
Output 0.4kW Model number GMTA040 ● Specification chart→P26	Foot mount L	Not provided	P32 M-33					P32 M-34		
		Provided	P46 B-33					P46 B-34		
	Face mount U Flange mount F	Not provided	P33 M-38					P33 M-39		
		Provided	P47 B-38					P47 B-39		
Output 0.75kW Model number GMTA075 ● Specification chart→P26	Foot mount L	Not provided	P34 M-43					P34 M-44		
		Provided	P48 B-43					P48 B-44		
	Face mount U Flange mount F	Not provided	P34 M-47					P34 M-48		
		Provided	P48 B-47					P48 B-48		
Output 1.5kW Model number GMTA150 ● Specification chart→P26	Foot mount L	Not provided	P35 M-51					P35 M-52		
		Provided	P49 B-51					P49 B-52		
	Face mount U Flange mount F	Not provided	P35 M-54					P35 M-55		
		Provided	P49 B-54					P49 B-55		
Output 2.2kW Model number GMTA220 ● Specification chart→P27	Foot mount L	Not provided	P36 M-57					P36 M-58		
		Provided	P50 B-57					P50 B-58		
	Flange mount F	Not provided	P36 M-60					P36 M-61		
		Provided	P50 B-60					P50 B-61		

※ Page number for outline dimensions, Drawing number **P28 M-11**

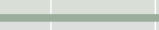
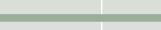
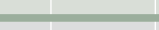
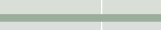
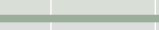
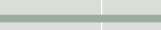
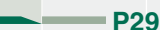
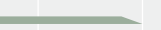
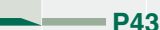
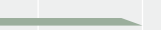
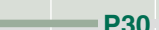
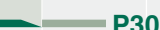
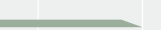
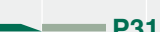
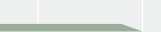
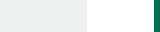
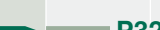
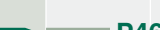
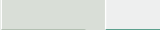
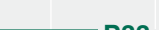
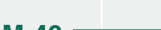
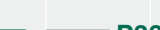
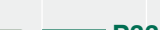
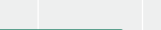
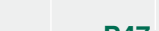
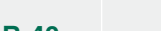
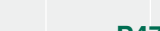
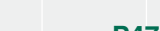
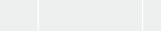
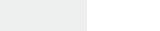
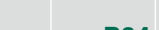
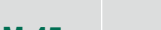
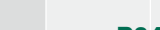
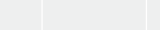
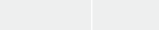
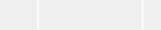
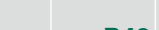
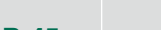
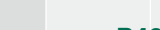
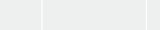
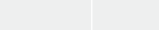
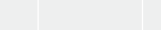
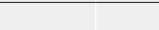
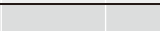
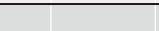
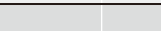
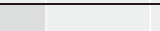
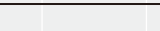
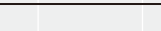
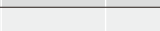
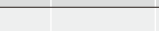
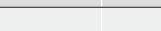
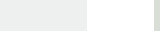
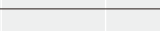
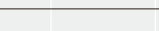
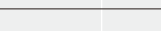
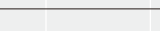
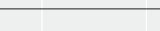
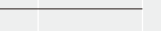
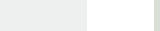
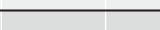
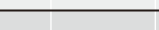
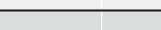
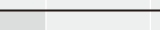
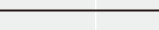
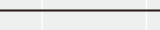
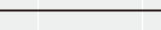
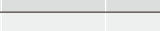
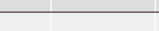
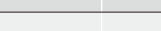
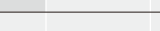
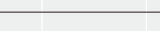
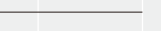
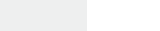
※  indicates that the case is made of die-cast aluminum. Otherwise, the case is made of cast iron.

 indicates products in stock.  indicates quick delivery products.

Gear Motor TA Series

GEAR MOTOR TA Series Lineup

75 100 120 165 200 300 360 450 600 720 1000 1200

Gear Motor TA Series Lineup

Motorized type

GEAR MOTOR TA Series Lineup

Motor capacity		Mounting type	Reduction ratio										
			Brake	5	10	15	20	25	30	40	50	60	
Three-phase motor types	Output 3.7kW Model number GMTA370 ● Specification chart→P27	Foot mount L	Not provided	P37 M-63						P37 M-64			
			Provided	P51 B-63						P51 B-64			
		Flange mount F	Not provided	P37 M-65						P37 M-66			
			Provided	P51 B-65						P51 B-66			
	Output 5.5kW Model number GMTA550 ● Specification chart→P27	Foot mount L	Not provided	P37 M-67									
			Provided	P51 B-67									
		Flange mount F	Not provided	P37 M-68									
			Provided	P51 B-68									
Single-phase motor types	Output 100w Model number GMTA100 ● Specification chart→P25	Foot mount L	Not provided	P38 M-69		P38 M-70							
			Provided	P52 B-69		P52 B-70							
		Face mount U	Not provided	P39 M-74		P39 M-75							
			Provided	P53 B-74		P53 B-75							
	Output 200w Model number GMTA200 ● Specification chart→P25	Foot mount L	Not provided	P40 M-79		P40 M-80		P40 M-81					
			Provided	P54 B-79		P54 B-80		P54 B-81					
		Face mount U Flange mount F	Not provided	P41 M-85		P41 M-86		P41 M-87					
			Provided	P55 B-85		P55 B-86		P55 B-87					

※Page number for outline dimensions, Drawing number **P37 M-63**

※  indicates that the case is made of die-cast aluminum. Otherwise, the case is made of cast iron.

11/11/2019

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Gear Motor TA Series

GEAR MOTOR TA Series Lineup

Model Lineup

Gear Motor TA Series Lineup

Inline reducer adapter types

GEAR MOTOR TA Series Lineup

Motor capacity	Mounting type	Reduction ratio									
		5	10	15	20	25	30	40	50	60	
Output 0.1kW Model number GRTA010 ● Specification charts →P69, 83	Foot mount L	Inline reducer types	P72 G-11		P72 G-12						
		Adapter types	P86 A-11		P86 A-12						
	Face mount U	Inline reducer types	P73 G-16		P73 G-17						
		Adapter types	P87 A-16		P87 A-17						
Output 0.2kW Model number GRTA020 ● Specification charts →P69, 83	Foot mount L	Inline reducer types	P74 G-21		P74 G-22		P74 G-23				
		Adapter types	P88 A-21		P88 A-22		P88 A-23				
	Face mount U Flange mount F	Inline reducer types	P75 G-27		P75 G-28		P75 G-29				
		Adapter types	P89 A-27		P89 A-28		P89 A-29				
Output 0.4kW Model number GRTA040 ● Specification charts →P70, 84	Foot mount L	Inline reducer types	P76 G-33				P76 G-34				
		Adapter types	P90 A-33				P90 A-34				
	Face mount U Flange mount F	Inline reducer types	P77 G-38				P77 G-39				
		Adapter types	P91 A-38				P91 A-39				
Output 0.75kW Model number GRTA075 ● Specification charts →P70, 84	Foot mount L	Inline reducer types	P78 G-43				P78 G-44				
		Adapter types	P92 A-43				P92 A-44				
	Face mount U Flange mount F	Inline reducer types	P78 G-47				P78 G-48				
		Adapter types	P92 A-47				P92 A-48				
Output 1.5kW Model number GRTA150 ● Specification charts →P70, 84	Foot mount L	Inline reducer types	P79 G-51				P79 G-52				
		Adapter types	P93 A-51				P93 A-52				
	Face mount U Flange mount F	Inline reducer types	P79 G-54				P79 G-55				
		Adapter types	P93 A-54				P93 A-55				
Output 2.2kW Model number GRTA220 ● Specification charts →P71, 85	Foot mount L	Inline reducer types	P80 G-57				P80 G-58				
		Adapter types	P94 A-57				P94 A-58				
	Flange mount F	Inline reducer types	P80 G-60				P80 G-61				
		Adapter types	P94 A-60				P94 A-61				
Output 3.7kW Model number GRTA370 ● Specification charts →P71, 85	Foot mount L	Inline reducer types	P81 G-63				P81 G-64				
		Adapter types	P95 A-63				P95 A-64				
	Flange mount F	Inline reducer types	P81 G-65				P81 G-66				
		Adapter types	P95 A-65				P95 A-66				
Output 5.5kW Model number GRTA550 ● Specification charts →P71, 85	Foot mount L	Inline reducer types	P81 G-67								
		Adapter types	P95 A-67								
	Flange mount F	Inline reducer types	P81 G-68								
		Adapter types	P95 A-68								

※ Page number for outline dimensions, Drawing number **P72 G-11**

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Gear Motor TA Series

GEAR MOTOR TA Series Lineup

75 100 120 165 200 300 360 450 600 720 1000 1200

P72 G-13

P72 G-14

P72 G-15

P86 A-13

P86 A-14

P86 A-15

P73 G-18

P73 G-19

P73 G-20

P87 A-18

P87 A-19

P87 A-20

P74 G-24

P74 G-25

P74 G-26

P88 A-24

P88 A-25

P88 A-26

P75 G-30

P75 G-31

P75 G-32

P89 A-30

P89 A-31

P89 A-32

P76 G-35

P76 G-36

P76 G-37

P90 A-35

P90 A-36

P90 A-37

P77 G-40

P77 G-41

P77 G-42

P91 A-40

P91 A-41

P91 A-42

P78 G-45

P78 G-46

P92 A-45

P92 A-46

P78 G-49

P78 G-50

P92 A-49

P92 A-50

P79 G-53

P93 A-53

P79 G-56

P93 A-56

P80 G-59

P94 A-59

P80 G-62

P94 A-62

Model Lineup

Gear Motor TA Series Lineup

CB gear motors

GEAR MOTOR TA Series Lineup

Motor capacity	Reduction ratio	Mounting type	5	10	15	20	25	30	40	50	60
Three-phase motor types Output 0.1kW Model number GMTA010 ● Specification chart→P106 Output 0.2kW Model number GMTA020 ● Specification chart→P106 Output 0.4kW Model number GMTA040 ● Specification chart→P106 Output 0.75kW Model number GMTA075 ● Specification chart→P107 Output 1.5kW Model number GMTA150 ● Specification chart→P107 Output 2.2kW Model number GMTA220 ● Specification chart→P107 Output 3.7kW Model number GMTA370 ● Specification chart→P107	Foot mount L	Face mount U	P108 C-11		P108 C-12			P108 C-13			
			P108 C-15		P108 C-16			P108 C-17			
	Foot mount L	Face mount U	P109 C-19		P109 C-20			P109 C-21			
			P109 C-23		P109 C-24			P109 C-25			
	Foot mount L	Face mount U	P110 C-27						P110 C-28		
			P110 C-30						P110 C-31		
	Foot mount L	Face mount U	P111 C-33						P111 C-34		
			P111 C-36						P111 C-37		
	Foot mount L	Flange mount F	P112 C-39						P112 C-40		
			P112 C-42						P112 C-43		
	Foot mount L	Flange mount F	P113 C-45						P113 C-46		
			P113 C-48						P113 C-49		
	Foot mount L	Flange mount F	P114 C-51						P114 C-52		
			P114 C-53						P114 C-54		
Single-phase motor type Output 100w Model number GMTA100 ● Specification chart→P106 Output 200w Model number GMTA200 ● Specification chart→P106	Foot mount L	Face mount U	P115 C-55		P115 C-56			P115 C-57			
			P115 C-59		P115 C-60			P115 C-61			
	Foot mount L	Face mount U	P116 C-63		P116 C-64			P116 C-65			
			P116 C-67		P116 C-68			P116 C-69			

※ Page number for outline dimensions, Drawing number **P108 C-11**
 ※  indicates that the case is made of die-cast aluminum. Otherwise, the case is made of cast iron.

 indicates products in stock.  indicates quick delivery products.

Gear Motor TA Series

GEAR MOTOR TA Series Lineup

75 100 120 165 200

P108 C-14

P108 C-18

P109 C-22

P109 C-26

P110 C-29

P110 C-32

P111 C-35

P111 C-38

P112 C-41

P112 C-44

P113 C-47

P113 C-50

P115 C-58

P115 C-62

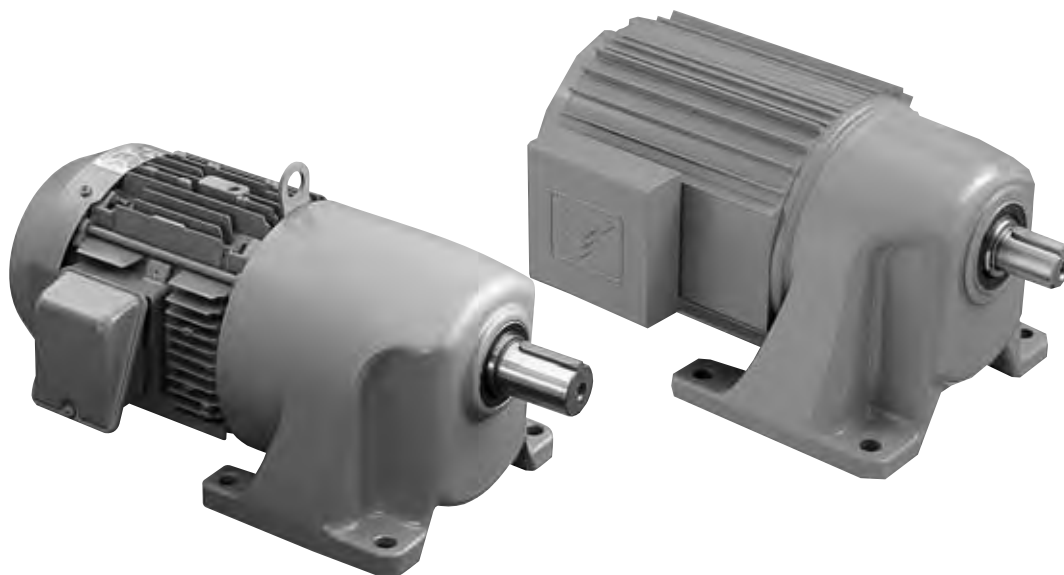
P116 C-66

P116 C-70

Gear Motor TA Series Features

Gear Motor TA Series Features

Helical-Gear Inline Types - The Standard for Reducers



Compact!

Three-phase 0.1 kW to 5.5 kW and single-phase 100 W and 200 W models provide many variations!

1

Low Noise & Long Life

These low-noise and long-life reducers are based on the silent design and processing technology of the Gear Motor T Series.

2

Small Size & Light Weight

Further reduction in size and weight has been realized through the adoption of motors made with aluminum frames.

3

Environmental Friendliness

In consideration of the global environment, unleaded grease is used and, the environmentally green paint identifies this change. (Munsell 2.5G6/3)

4

Ease-of-use

A frame number is included in the model number. A tapped (screw) hole is provided in the end of the output shaft. The face mount type is standard, which allows for easy fastening with bolts from the output shaft side into screw holes in the gear case mounting face.

5

Inverter Motor Type

As option, an inverter-ready motor is connected directly. Continuous operation with 100% constant torque is possible even at low frequencies (6 Hz or more). (For 2.2 kW and 3.7 kW devices, reduced torque occurs at frequencies of 10 Hz or less.)

Quick-delivery made-to-order products

Nomenclature

■ Model number 1 (0.1kW~0.75kW)

G M T A 0 1 0 - 3 8 L 1 2 0 0

①

②

③

④

⑤

⑥

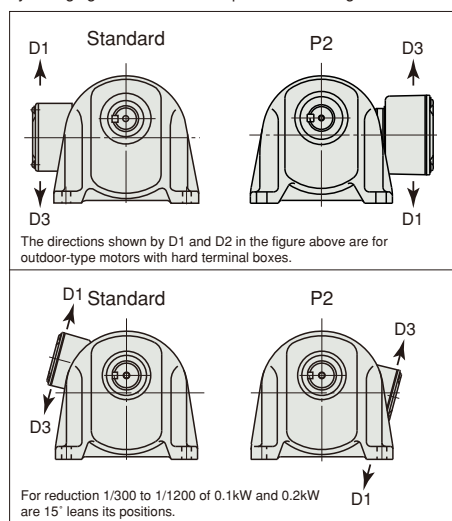
⑦

① Product series name	GMTA	Motorized type
	GRTA	Inline reducer and adapter type
② Motor capacity (example)	010	Three-phase 0.1 kW
	100	Single-phase 100 W
③ Frame number (example)	38	Frame number 38 (Note 1)
④ Mounting type	L	Foot mount
	U	Face mount type
	F	Flange mount
⑤ Reduction ratio (example)	1200	1/1200
⑥ Specification code	No code	Without B, CB or BE
	B	Brake type
	CB	Clutch type with brake
	FI	Adapter type
	BE	Encoder type
	SR	Shock relay type, for 0.1 and 0.2 kW only
⑦ Option code (Order of priority)	1. Z	Inverter motor type
	2. W	Outdoor type
	3. J	Water proof type
	4. V	400 V class (400/400/440V 50/60/60Hz)
	5. V1	380V50Hz
	6. V2	380V60Hz
	7. V3	415V50Hz
	8. V4	460V60Hz
	9. N	Ready for CE marking
	10. N2	UL (Note2)
	11. N3	CCC (Note2)
	12. H	Hard terminal box type
	13. Q	One-touch manual release type
	14. M	Manual shaft type

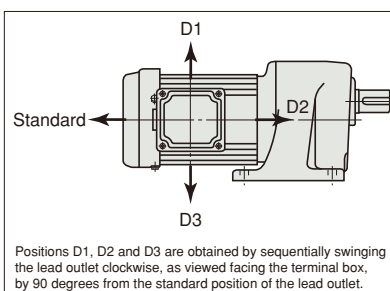
Note 1) For the frame number, refer to the specification chart and outline dimensional drawing.
Note 2) Please consult us for voltage.

Codes for terminal box positions

For standard motors, change the position of the lead outlet by changing the terminal box top cover mounting direction.



Codes for positions of lead outlets of outdoor-type hard terminal boxes



Supplementary code (indicated on the second line of the model number)
Supplementary codes may be combined arbitrarily.

Position of terminal box
P2 : 180° swing
Position of lead outlet of hard terminal box of outdoor type
D1 : 90° swing
D2 : 180° swing
D3 : 270° swing

Note) The standard position is opposite the load side.

For resin terminal boxes, the position of the lead outlet can be changed by changing the top cover mounting direction.

Paint color (The standard color : Munsell 2.5G6/3)

C1 : Light silver metallic

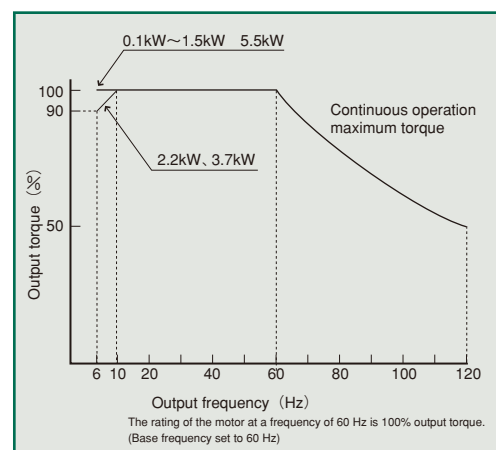
C2 : Ivory white (Munsell 7.5Y9/1)

C3 : Dark silver metallic

Combination of specification codes and option codes

No brake type			Brake type			Clutch brake type		
Z	ZW	ZWV	Z	ZV	ZVH	Z	ZV	
	ZJ	ZJV			ZVQ			
	ZV	ZVH			ZVM	V		
	ZH			ZH	ZHQ			
W	WV				ZHM			
	WV1			ZQ	ZQM			
	WV2			ZM				
	WV3		V	VN				
	WV4			VN2				
	WN	WVN		VN3				
	WN3	WVN3		VH	VHQ			
J	JV				VHM			
	JV1			VQ	VQM			
	JV2			VM				
	JV3			V1	V1H			
	JV4			V2	V2H			
V	VN			V3	V3H			
	VN2			V4	V4H			
	VN3							
V1	V1H		N					
V2	V2H		N2					
V3	V3H		N3					
V4	V4H		H	HQ	HQM			
N								
N2								
N3								
H			Q	QM				
			M					

Note) Combinations of brake-types and outdoor-use are made-to-order products.
Please contact us for details.



① Quick delivery

Available on short delivery

② Compact

Realization of exactly the same size as the standard product

③ Low price

For a reduction ratio of 1/30, the price of the standard product is raised by about 20%

Nomenclature

■ Model number 2 (1.5kW~5.5kW)

GMTA150-50L200

① ② ③ ④ ⑤ ⑥ ⑦

① Product series name	GMTA GRTA	Motorized type Inline reducer and adapter type
② Motor capacity (example)	150	Three-phase 1.5 kW
③ Frame number (example)	50	Frame number 50 (Note 1)
④ Mounting type	L U F	Foot mount Face mount type Flange mount
⑤ Reduction ratio (example)	200	1/200
⑥ Specification code	No code B CB FI BE	Without B, CB and BE Brake type Clutch type with brake Adapter type Encoder type for 1.5 and 2.2 kW only
⑦ Option code (Order of priority)	1. Z 2. W 3. V 4. V1 5. V2 6. V3 7. V4 8. N 9. Q 10. M	Inverter motor type Outdoor type 400 V class (400/400/440V 50/60/60Hz) 380V50Hz 380V60Hz (Only the 5.5 kW option is handled as a made-to-order product.) 415V50Hz 460V60Hz Ready for CE (without brake only) One-touch manual release type Manual shaft type

Note 1) For the frame number, refer to the specification chart and outline dimensional drawing.

Supplementary code (indicated on the second line of the model number)
Supplementary codes may be combined arbitrarily.

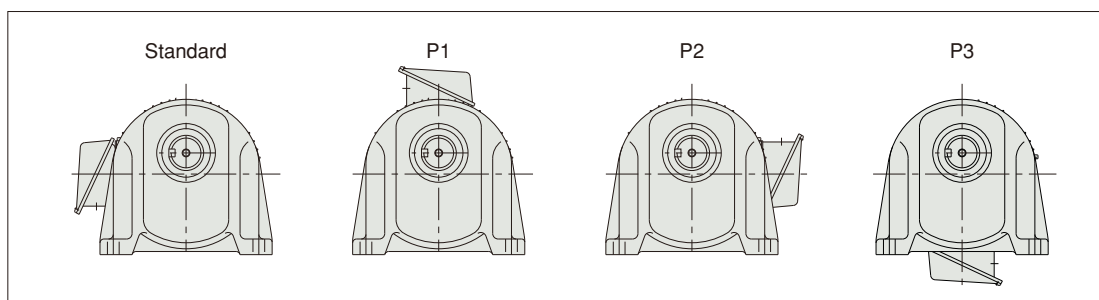
Position of terminal box
P1 : 90° swing
P2 : 180° swing
Position of lead outlet of terminal box of outdoor type and standard model
E1 : 90° swing
E2 : 180° swing
E3 : 270° swing
Note) The standard position is downward.
Paint color (The standard color : Munsell 2.5G6/3)
C1 : Light silver metallic
C2 : Ivory white (Munsell 7.5Y9/1)
C3 : Dark silver metallic

■ Combination of specification codes and option codes

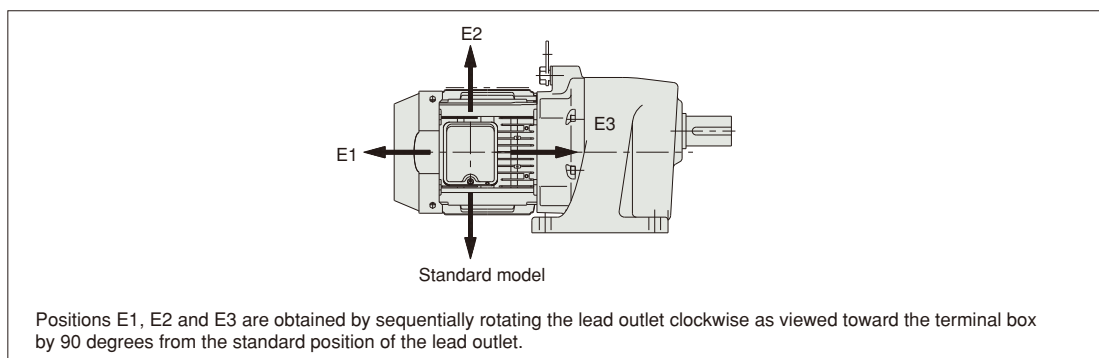
Non brake type			Brake type			Clutch brake type	
Z	ZW	ZWV	Z	ZV	ZVQ	Z	ZV
	ZV			ZQ		V	
W	WV		V	VQ			
	WV1		V1				
	WV2		V2				
	WV3		V3				
	WV4		V4				
	WN	WVN	Q				
V	VN						
V1							
V2							
V3							
V4							
N							

Note) Combinations of brake-types and outdoor-use are made-to-order products.
Please contact us for details.

■ Codes for position of terminal box



■ Codes for position of lead outlet of terminal box of outdoor type and standard product



Gear Motor TA Series Specifications

Motorized type

GEAR MOTOR TA Series

Specifications

Motor	Output	Three-phase : 0.1, 0.2, 0.4, 0.75, 1.5, 2.2, 3.7, 5.5kW	Single-phase : 100, 200W
		Non-brake type · Brake type	Non-brake type · Brake type
	Power supply	200/200/220V 50/60/60Hz	100V 50/60Hz
	Number of poles	4	4
	Protection type	0.1 kW - Totally-enclosed type (IP44), 0.2-5.5 kW - Totally-enclosed external fan type (IP44)	Drip-proof protection type (IP22)
	Cooling method	0.1 kW - Self-cooled type (IC410), 0.2-5.5 kW - Self-managed type (IC411)	Draft type (IC01)
	Starting method	—	Split-phase starting type
	Rating	Continuous	Continuous
	Insulation	0.1 kW-3.7 kW - Class E, 5.5 kW - Class B	Class E
	Brake	Non-excitation type · DC electromagnetic brake	
Reducer	Reduction ratio	1/5 to 1/1200	
	Lubricating method	Grease	
	Shaft end key way	New JIS key (JIS B 1301-1976): Output shaft key attached (Ordinary-class key way)	
	Output shaft end	Tapped	
Ambient conditions	Installation place	Indoor not exposed to dust or water	
	Ambient temperature	-20°C to 40°C	
	Ambient humidity	Less than 85% (non condensing)	
	Altitude	Elevations below 1000 m	
	Atmosphere	Free from corrosive gases, explosive gases and steam	
	Mounting direction	No limitations on mounting angles: horizontal, vertical or inclined	
Paint color		Munsell 2.5G6/3	

Note) The protective construction for the brake-type is IP20.

Motor specifications

Number of phases	Output	Number of poles	Frequency Hz	Voltage V	Rated current A	Rated revolution r/min	AC-side brake current Reference value at 20°C
Three-phase	0.1kW	4	50/60/60	200/200/220 (400/400/440)	0.63/0.57/0.58 (0.32/0.29/0.29)	1420/1680/1710 (1440/1740/1740)	0.12 A
	0.2kW				1.2/1.1/1.1 (0.59/0.55/0.55)	1420/1700/1720 (1410/1690/1720)	0.12 A
	0.4kW				2.3/2.0/2.0 (1.2/1.0/1.0)	1380/1650/1680 (1390/1670/1700)	0.16 A
	0.75kW				3.8/3.4/3.4 (2.0/1.7/1.7)	1410/1690/1710 (1410/1690/1710)	0.17 A
	1.5kW				7.0/6.2/6.0 (3.5/3.1/3.0)	1420/1710/1730 (1420/1710/1730)	0.10 A
	2.2kW				9.8/8.9/8.5 (4.9/4.5/4.3)	1420/1710/1730 (1420/1710/1730)	0.10 A
	3.7kW				16.0/14.8/14.0 (8.0/7.4/7.0)	1420/1710/1730 (1420/1710/1730)	0.08 A
	5.5kW				23.8/21.0/20.0 (11.9/10.5/10.0)	1430/1730/1740 (1430/1730/1740)	0.10 A
Single-phase	100W	4	50/60	100	3.2/2.8	1440/1730	0.21 A
	200W				5.2/4.6	1430/1710	0.21 A

Note 1) The values in parentheses under "Rated current" and "Rated revolution" are for 400/400/440 V.

Note 2) For brake-type models, the brake current shown above is added for the phase where the brake lead wire is connected to the motor lead wire. The AC-side brake current is for 200 V AC 60 Hz and 100 V AC 60 Hz.

Specifications

0.1 0.2
0.4 0.75
1.5 2.2
3.7 5.5

Gear Motor TA Series Specifications

GEAR MOTOR TA Series

Special motor types (Applied to gear motors and gear motors with brakes)

○ Quick delivery product
△ Made-to-order product

Motor specifications			Three-phase motor type															
			0.1kW		0.2kW		0.4kW		0.75kW		1.5kW		2.2kW		3.7kW		5.5kW	
			Brake		Brake		Brake		Brake		Brake		Brake		Brake		Brake	
			Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided
Voltage	Double voltage	400/400/440V 50/60/60Hz	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage (Note 1)	200 V · 400 V level	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage	Special voltage	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Terminal box type	Standard voltage		Standard model															△
	Double voltage	400/400/440V 50/60/60Hz	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage (Note 1)	200 V level	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage (Note 1)	400 V level	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage	Special voltage	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Outdoor type	Standard voltage		○	△	○	△	○	△	○	△	○	△	○	△	○	△	○	△
	Double voltage	400/400/440V 50/60/60Hz	○	△	○	△	○	△	○	△	○	△	○	△	○	△	○	△
	Other voltage (Note 1)	200 V · 400 V level	○	△	○	△	○	△	○	△	○	△	○	△	○	△	○	△
	Other voltage	Special voltage	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Explosion-proof type	Standard voltage (Note 2)		○	—	○	—	○	—	○	—	△	—	△	—	△	—	△	—
	Double voltage (Note 2)	400/400/440V 50/60/60Hz	○	—	○	—	○	—	○	—	△	—	△	—	△	—	△	—
	Other voltage (Note 2)	Special voltage	△	—	△	—	△	—	△	—	△	—	△	—	△	—	△	—

(Note 1) The other voltage 200 V level and 400 V level function at the levels indicated by "○" in the table below.
(Note 2) The explosion-proof-type 0.1 kW device is of the same size and dimensions as the 0.2 kW device.

(1) 0.1kW · 0.2kW · 0.4kW · 0.75kW · 1.5kW · 2.2kW · 3.7kW

	Three-phase 200 V level				Three-phase 400 V level							
	Frequency of 50 Hz		Frequency of 60 Hz		Frequency of 50 Hz				Frequency of 60 Hz			
	Voltage (V)		Voltage (V)		Voltage (V)				Voltage (V)			
	210	220	210	230	380	415	420		380	415	420	460
Non-Brake	○	○	○	○	○	○	○		○	○	○	○
Brake-type	○	○	○	○	○	○	○		○	○	○	○

(2) 5.5kW

	Three-phase 200 V level				Three-phase 400 V level							
	Frequency of 50 Hz		Frequency of 60 Hz		Frequency of 50 Hz				Frequency of 60 Hz			
	Voltage (V)		Voltage (V)		Voltage (V)				Voltage (V)			
	210	220	210	230	380	415	420		380	415	420	460
Non-Brake	△	△	○	○	○	○	△		△	○	○	○
Brake-type	△	△	○	○	○	○	△		△	○	○	○

0.1 , 0.2
0.4 , 0.75
1.5 , 2.2
3.7 , 5.5

One-touch manual release brake-type

○ Quick delivery product
△ Made-to-order product

	Three-phase brake motor type									Single-phase brake motor type	
	0.1kW	0.2kW	0.4kW	0.75kW	1.5kW	2.2kW	3.7kW	5.5kW		100W	200W
One-touch manual release brake-type	○	○	○	○	○	○	○	△		○	○

Brake Part Specifications (Common to Hypoid Motors and Gear Motors)

GEAR MOTOR TA Series

1. Features

(1) Non-excitation type (spring-close type)

Because this type allows the brake to be actuated with the power OFF, it can cope with a sudden power failure.

(2) SLB brake, VNB brake: Dry multiple-plate DC system SBH brake: Dry single-plate DC system

The construction is simple and compact. It is possible to brake and release with low noise.

(3) No asbestos

Harmful asbestos is not used in the brake lining.

(4) Ready for various applications

It is possible to use with external wiring and for external operation.

The SLB brake comes with a manual release.

The optional one-touch manual release is also available.

2. Brake specifications

Motor output	Three-phase	0.1kW	0.2kW	0.4kW	0.75kW	1.5kW	2.2kW	3.7kW	5.5kW
	Single-phase	100W	200W						
Brake model number	Three-phase 200V	SLB01	SLB02	SLB04	SLB07	VNB158K	VNB228K	VNB371K	VNB55K
	Three-phase 400V	SLB01	SLB02	SLB04V	SLB07V	VNB158KV	VNB228KV	VNB371KV	
	Single-phase	SBH01	SBH02						
DC module model number	Three-phase 200V	DM200D						PM90B	PM180B
	Three-phase 400V	DM200D			DM400D				
	Single-phase	DM100A							
Rated torque	Static friction torque	0.98	1.96	3.92	7.35	14.7	21.6	36.3	53.5
	(kgf·m)	0.1	0.2	0.40	0.75	1.50	2.20	3.70	5.50
	Dynamic friction torque	0.78	1.57	3.14	5.88	11.8	17.2	29.0	43.1
	(kgf·m)	0.08	0.16	0.32	0.60	1.20	1.76	2.96	4.40
Voltage	Three-phase 200V	DC90V							DC54V
	Three-phase 400V	DC90V			DC180V				
	Single-phase	DC90V							
Current at 20°C	A	0.178	0.178	0.232	0.273	0.273	0.273	0.261	0.288
Capacity at 20°C	W	16.0	16.0	20.9	24.6	27.3	27.3	26.1	16.7
Normal gap	mm	0.15~0.20	0.15~0.20	0.15~0.20	0.15~0.20	0.2	0.2	0.2	0.35
Maximum gap	mm	0.5	0.5	0.5	0.5	0.6	0.6	0.7	1.2
Total braking workload	J	1.31×10^8	1.85×10^8	1.85×10^8	3.66×10^8	10.8×10^8	10.8×10^8	13.5×10^8	24.7×10^8
	(kgf·m)	1.34×10^7	1.89×10^7	1.89×10^7	3.73×10^7	11.0×10^7	11.0×10^7	13.8×10^7	25.2×10^7
Allowable starting frequency		10 times/minute							
Braking delay time S (reference value)	AC internal wiring	0.18~0.25	0.15~0.21	0.14~0.17	0.20~0.24	0.30~0.40	0.30~0.40	0.15~0.25 (0.50~0.70)	0.20~0.30
	AC external wiring	0.11~0.18	0.09~0.12	0.06~0.09	0.10~0.13	0.10~0.20	0.10~0.20	0.05~0.15 (0.20~0.40)	0.03~0.13
	AC external operation	0.11~0.18	0.09~0.12	0.06~0.09	0.10~0.13	0.10~0.20	0.10~0.20	0.05~0.15 (0.20~0.40)	0.03~0.13
	DC external wiring	0.05~0.07	0.04~0.06	0.03~0.05	0.04~0.06	0.01~0.02	0.01~0.02	(0.02~0.04)	

Note 1) If the single-phase motor starting frequency is 6 times/minute, keep the duty rate below 50% ED (5 seconds running, 5 seconds stopping). The life of the contacts in the built-in centrifugal switch (governor switch) is approximately 300,000 cycles.

Note 2) The rated torque values shown above are static and dynamic friction torque values after rubbing.

Note 3) The braking delay time is a reference value, which may differ depending on the brake condition, use conditions, individual part differences, etc. If you want to shorten the braking delay time (for elevators, etc.), we recommend that you employ DC external wiring.

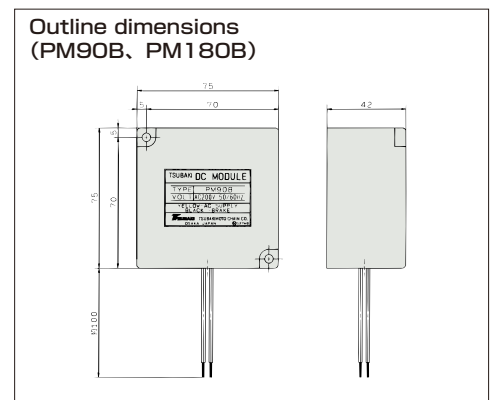
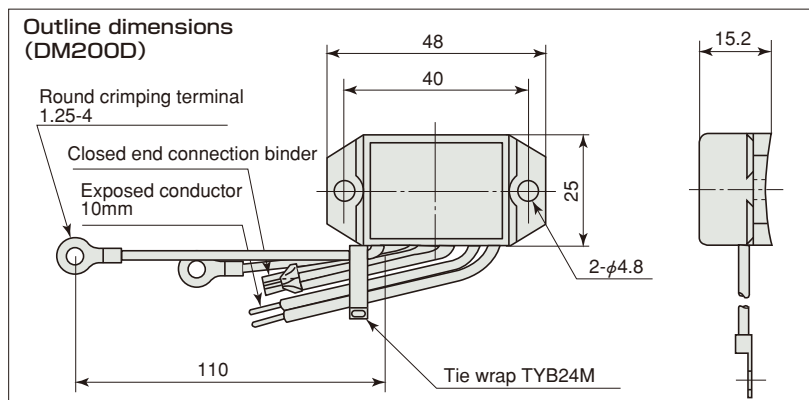
Note 4) The values in parentheses in the box of the braking delay time of the 3.7 kW device are for 400 V. If you want to shorten this braking delay time, employ DC external wiring.

Note 5) The 5.5 kW device is a made-to-order product. Please contact us for details.

3. Rectifier (DC module)

The built-in DC module is connected with the motor lead wire. If you intend to employ a DC external wiring circuit, please inform us at the time of order placement or make the connections according to the wiring diagram on page 63.

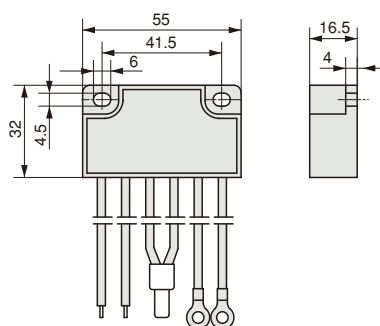
If you want us to deliver the DC module separately for use in the control panel, etc., please instruct us to do so at the time of placement of the order.



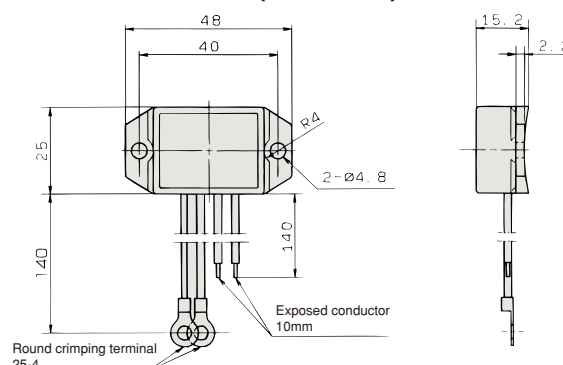
Gear Motor TA Series Specifications

GEAR MOTOR TA Series

Outline dimensions (DM400D)

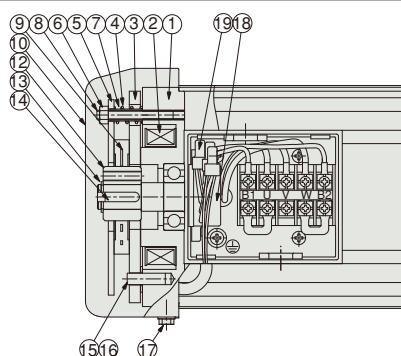


Outline dimensions (DM100A)



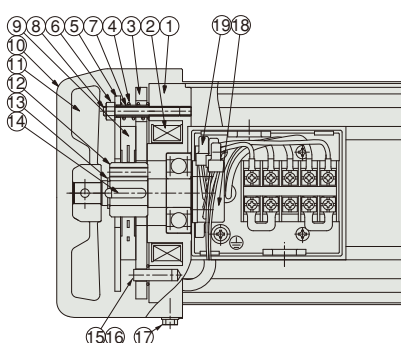
4. Brake structure

- GMTA010 (SLB01)
- HMTA010 (SLB01)



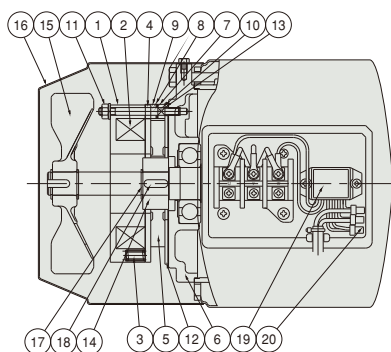
1. Anti-load bracket with yoke
2. Coil
3. Armature
4. Presser bar spring
5. Brake plate
6. U nut
7. Collar
8. Guide bolt
9. Lining
10. Fan cover
12. Square hub
13. Snap ring
14. Key
15. Spring pin
16. Brake spring
17. Fan cover fastening screw
18. DC module
19. Closed end connection binder

- GMTA020 (SLB02)
- GMTA040 (SLB04)
- GMTA075 (SLB07)
- HMTA020 (SLB02)
- HMTA040 (SLB04)
- HMTA075 (SLB07)



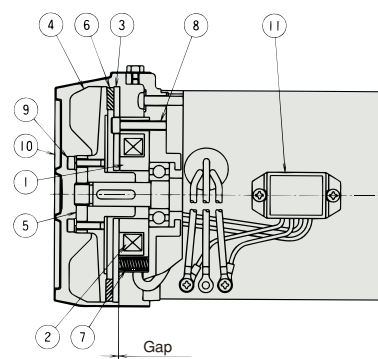
1. Anti-load bracket with yoke
2. Coil
3. Armature
4. Presser bar spring
5. Brake plate
6. U nut
7. Collar
8. Guide bolt
9. Lining
10. Fan cover
11. Fan (not provided in the figure above)
12. Square hub
13. Snap ring
14. Key
15. Spring pin
16. Brake spring
17. Fan cover fastening screw
18. DC module
19. Closed end connection binder

- GMTA150 (VNB158K)
- GMTA220 (VNB228K)
- GMTA370 (VNB371K)
- GMTA550 (VNB55K)
- HMTA150 (VNB158K)
- HMTA220 (VNB228K)
- HMTA370 (VNB371K)
- HMTA550 (VNB55K)



1. Yoke
2. Coil
3. Brake spring
4. Armature
5. Lining
6. Anti-load bracket
7. Stud bolt
8. Liner
9. Distance collar
10. Protective liner
11. Hexagon nut
12. Brake plate
13. Sheet packing
14. Center hub
15. Fan
16. Fan cover
17. Snap ring
18. Key
19. DC module
20. Closed end connection binder

- GMTA100 (SBH01)
- GMTA200 (SBH02)
- HMTA100 (SBH01)
- HMTA200 (SBH02)

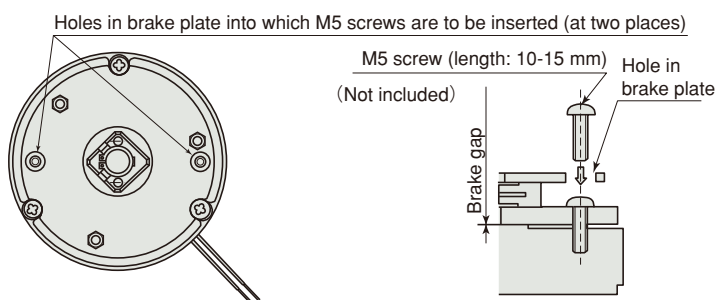


1. Yoke
2. Coil
3. Armature
4. Brake plate
5. Adjusting nut
6. Lining
7. Brake spring
8. Mounting bolt
9. Hexagon socket head bolt
10. Fan cover
11. DC module

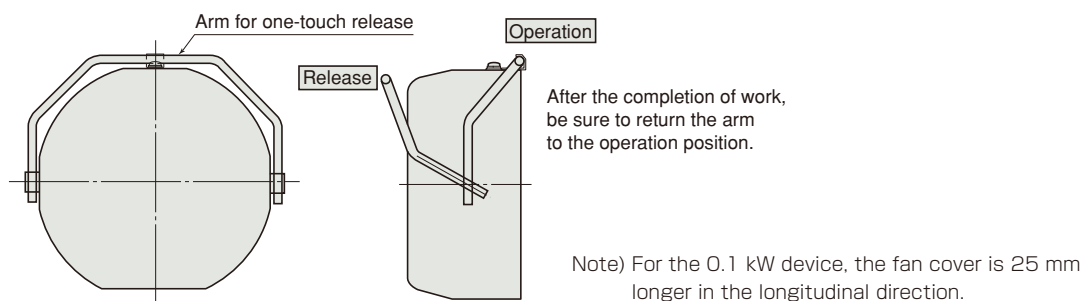
5. Manual release

(1) For 0.1 kW-0.75 kW: SLB brake ※The manual release is included as standard equipment.

- Perform release with no load applied to the output shaft.
- Remove the fan cover and install the screws.
- After the completion of work, be sure to remove the screws and install the cover before starting operation.

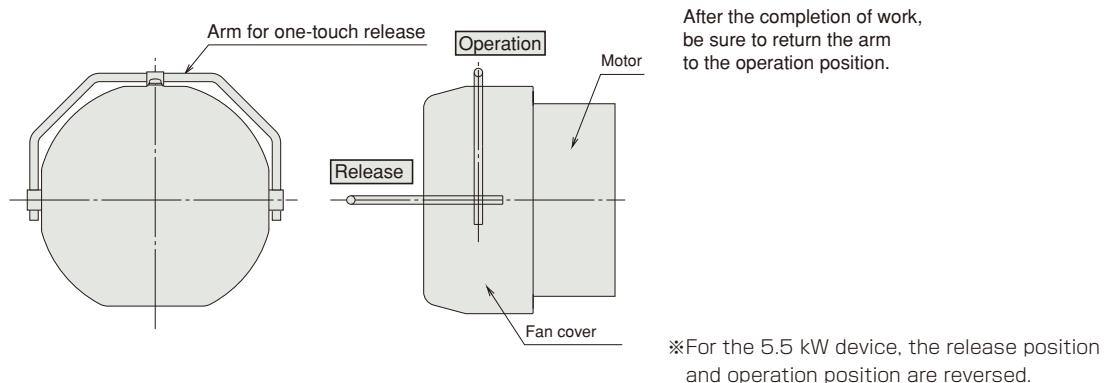


The one-touch manual release is optional. Can be supplied made-to-order with short lead times.



(2) For 1.5 kW-5.5 kW: VNB brake

The one-touch manual release type is optional. Can be supplied made-to-order with short lead times.

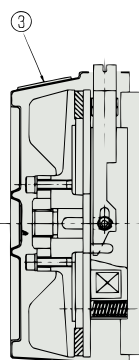
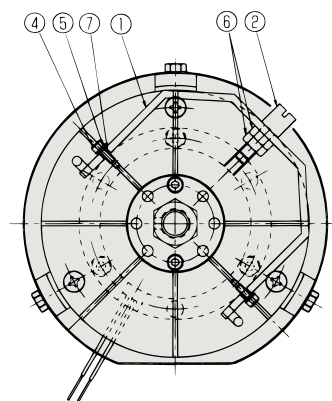


Gear Motor TA series Specifications

GEAR MOTOR TA Series

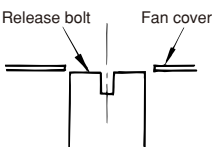
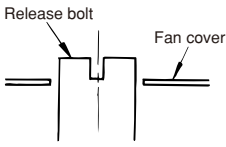
(3) For 100 W-200 W: SBH brake

The one-touch manual release type is optional. We can supply with short lead times.



1. Release arm
2. Release bolt
3. Release nameplate
4. Hexagon socket head bolt
5. Flat washer
6. U nut
7. Spacer

* The outline dimensions are the same as those of the standard product.

Operating procedure	Manual release	Brake operation
	 For brake release, turn the release bolt about five turns clockwise until it touches the stopper, using a flat-blade screwdriver or similar tool.	 For brake operation, turn the release bolt about seven turns counter-clockwise until it turns freely. * Before starting operation, make sure that the brake works properly.

6. Formula for brake life span and braking distance

SI units

1. Braking workload

$$E_b = \frac{(I_M + I_L) \times n^2}{182.5} \times \frac{T_b}{(T_b \pm T_L)}$$

- E_b : Braking workload per operation J
 I_M : Moment of inertia of hypoid motor (gear motor) with brake $\text{kg} \cdot \text{m}^2$ (Table 2 on page 191)
 I_L : Moment of inertia of motor-shaft-equivalent load $\text{kg} \cdot \text{m}^2$
 n : Motor shaft revolution r/min
 T_b : Dynamic friction torque of brake N·m (Brake characteristics chart on page 18)
 T_L : Motor-shaft-equivalent load torque N·m
 $\pm$ sign : ($-T_L$) is applied for a negative load such as a suspension load.

2. Brake life span

$$Z = \frac{E_T}{E_b} \quad \begin{array}{l} Z : \text{Total number of working cycles} \\ E_T : \text{Total braking workload J} \end{array}$$

(Refer to the brake specifications on page 18)

3. Braking time

$$t = t_a + t_b$$

$$t_b = \frac{(I_M + I_L) \times n}{9.55 \times (T_b \pm T_L)}$$

t_a : Braking delay time s
 Time between operation signal issuing and brake operation
 (Refer to the brake specifications on page 18.)

4. Braking distance

$$S = \left(t_a + \frac{1}{2} t_b\right) \times V$$

S : Braking distance mm
 V : Speed of linear motion mm/s

Gravitational units

1. Braking workload

$$E_b = \frac{(GD_M^2 + GD_L^2) \times n^2}{7160} \times \frac{T_b}{(T_b \pm T_L)}$$

- E_b : Braking workload per operation $\text{kgf} \cdot \text{m}$
 GD_M^2 : GD^2 of hypoid motor (gear motor) with brake $\text{kg} \cdot \text{m}^2$ (Table 2 on page 191)
 GD_L^2 : GD^2 of motor-shaft-equivalent load $\text{kgf} \cdot \text{m}^2$
 n : Motor shaft revolution r/min
 T_b : Dynamic friction torque of brake $\text{kgf} \cdot \text{m}$ (Brake characteristics chart on page 18)
 T_L : Motor-shaft-equivalent load torque $\text{kgf} \cdot \text{m}$
 $\pm$ sign : ($-T_L$) is applied for a negative load such as a suspension load.

2. Brake life span

$$Z = \frac{E_T}{E_b} \quad \begin{array}{l} Z : \text{Total number of working cycles} \\ E_T : \text{Total braking workload } \text{kgf} \cdot \text{m} \end{array}$$

(Refer to the brake specifications on page 18)

3. Braking time

$$t = t_a + t_b$$

$$t_b = \frac{(I_M + I_L) \times n}{9.55 \times (T_b \pm T_L)}$$

t_a : Braking delay time s
 Time between operation signal issuing and brake operation
 (Refer to the brake specifications on page 18.)

4. Braking distance

$$S = \left(t_a + \frac{1}{2} t_b\right) \times V$$

S : Braking distance mm
 V : Speed of linear motion mm/s

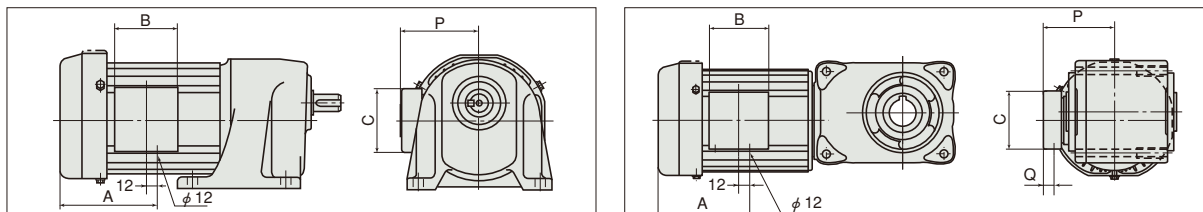
About terminal boxes (common to gear motors and hypoid motors) 0.1 kW-0.75 kW

1. Standard terminal boxes

(1) A resin terminal box is included as standard equipment.

Note) If you need a hard terminal box type (made of die-cast aluminum), order it using the option code.

(2) Position and dimensions of terminal box



Motor output	A	B	C	P	Q
0.1kW	64.5	67	67	81	12.5
0.2kW	102.5	67	67	81	12.5
0.4kW	102.5	67	67	81	12.5
0.75kW	98.5	67	67	90	12.5

(3) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

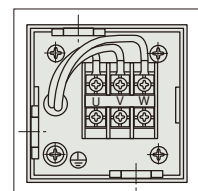
Change of position: For a 180° swing for a gear motor or a hypoid motor, or a 90° or 270° swing for a face mount or hollow shaft type, use an option code to instruct us to change the position.

(4) Change of the lead outlet direction of the terminal box

The lead outlet direction can be changed 90° to the left (anti-load side) or 180° (upper side) by changing the top cover mounting direction. For the hard terminal box, the lead outlet direction can be changed 90°.

(5) Construction of the terminal box

- Resin terminal box (standard)

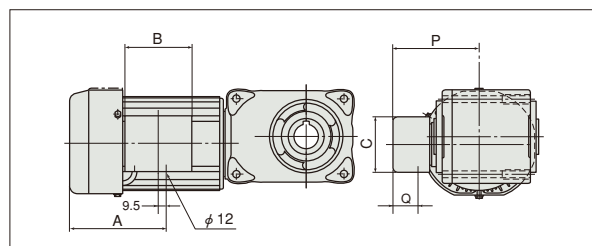


- The hard terminal box (optional) is of the same specifications as the outdoor type.
Refer to this type. The cable port is $\phi 18$.

2. Terminal box of brake-types

(1) A resin terminal box is included as standard equipment.

(2) Position and dimensions of the terminal box



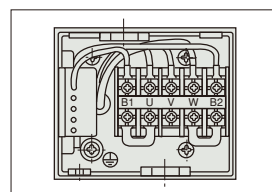
Motor output	A	B	C	P	Q
0.1kW	102.5	83	70	104.5	31
0.2kW	119.5	83	70	104.5	31
0.4kW	119.5	83	70	104.5	31
0.75kW	125.5	83	70	113.5	31

(3) Change of the lead outlet direction of the terminal box

The lead outlet direction can be changed by 180° upper side by changing the top cover mounting direction.

(4) Construction of terminal box

- Resin terminal box (standard)



Gear Motor TA Series Specifications

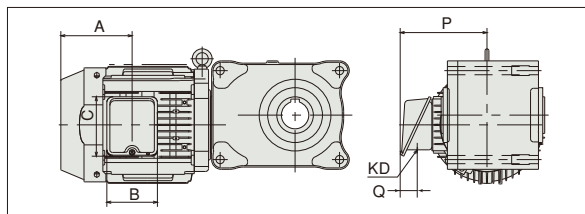
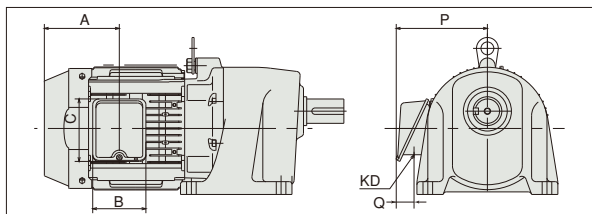
GEAR MOTOR TA Series

Terminal boxes (common to gear motors and hypoid motors) for 1.5 kW-5.5 kW

1. Standard terminal boxes

(1) A steel plate terminal box is included as standard equipment.

(2) Position and dimensions of the terminal box



Motor output	A	B	C	P	Q	ϕ KD	θ°
1.5kW	117	83	97	143	37	27	0
2.2kW	117	83	97	143	37	27	0
3.7kW	137.5	83	97	151	37	27	0
5.5kW	151.5	123	128	202	32	35	15

Note) For the 5.5 kW device, the position of the terminal box is turned 15 degrees clockwise (upward) from the horizontal.

(3) Change of the position of the terminal box

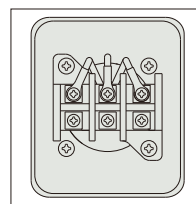
If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

Change of position: 90° swing is possible for both the gear motor and hypoid motor. Use the option code to instruct us to change the position.

(4) Change of lead outlet direction of the terminal box The lead outlet direction can be changed by 90°.

(5) Construction of terminal boxes

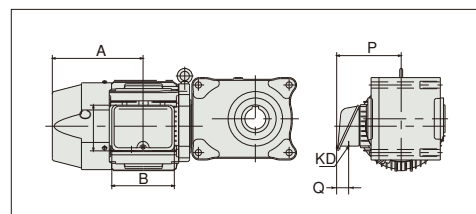
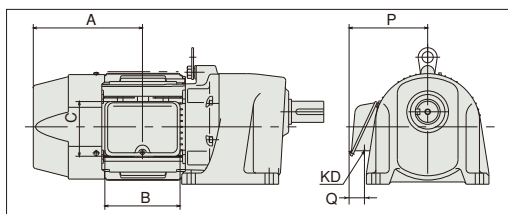
- Steel plate terminal boxes (standard)



2. Terminal boxes of brake-types

(1) A resin terminal box is included as standard equipment.

(2) Position and dimensions of the terminal box



Motor output	A	B	C	P	Q	ϕ KD
1.5kW	196	135	96	141	35.5	27
2.2kW	196	135	96	141	35.5	27
3.7kW	211.5	176.5	97	154	35.5	27

(3) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

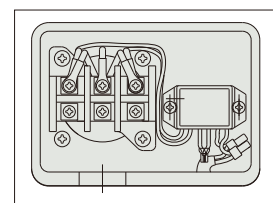
Change of position: 90° swing is possible for both gear motors and hypoid motors. Use the option code to instruct us to change the position.

(4) Change of lead outlet direction of the terminal box

The lead outlet direction can be changed by 90°.

(5) Construction of the terminal box

- Steel plate terminal box (standard)



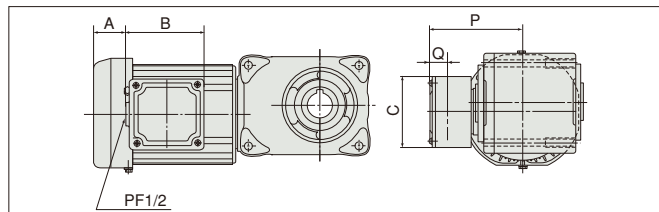
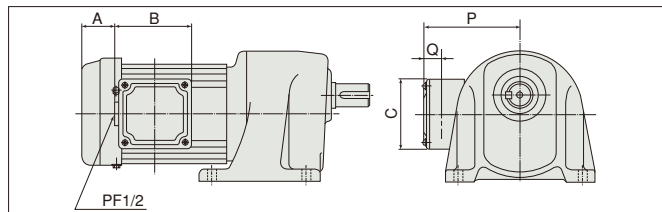
Note) For the 3.7 kW device, the DC module is positioned outside the terminal box.

Gear Motor TA Series Specifications

GEAR MOTOR TA Series

Outdoor type (common to gear motors and hypoid motors) 0.1 kW-0.75 kW (Protective construction IP55)

(1) Position and dimensions of the terminal box (Note) If the motor is not to be installed horizontally, please contact us.



(2) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

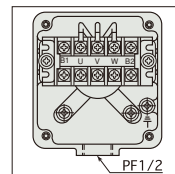
Change of position: For a 180° swing for a gear motor or hypoid motor, or a 90° or 270° swing for a face mount type or a hollow shaft type, use the option code to instruct us to change the position.

Motor output	A	B	C	P	Q
0.1kW	2.5	95	84	118	21.5
0.2kW	40.5	95	84	118	21.5
0.4kW	40.5	95	84	118	21.5
0.75kW	36.5	95	84	127	21.5

Note) The entire length is the same as that of the indoor-type standard product.

(3) Change of the lead outlet direction of the terminal box The lead outlet direction can be changed by 90°.

(4) Construction of the terminal box



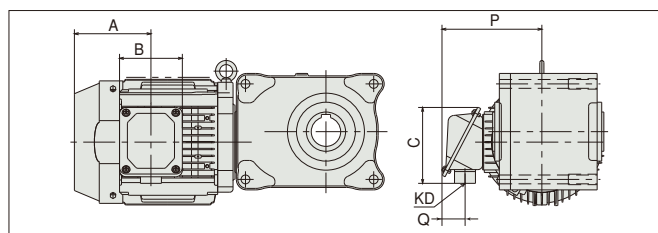
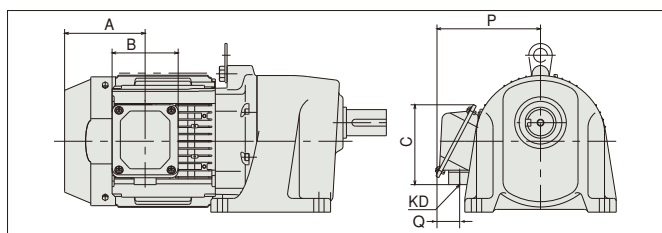
(5) Restrictions on types of gear motor foot mounting bolts

For a combination of the outdoor type, hard terminal box type and foot mount type, the terminal box interferes with tools and bolts in some models. The type of bolt should therefore be restricted as shown below.

- GMTA020-28L100 to 200: Hexagon socket head bolts should be used.
- GMTA010-18L10 to 50, GMTA020-18L10 to 25: The thread length of bolts to be used should be M 8-25 mm or less.

Outdoor type (common to gear motors and hypoid motors) 1.5 kW-5.5 kW (Protective construction IP55)

(1) Position and dimensions of the terminal box (Note) If the motor is not to be installed horizontally, please contact us.



(2) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

Change of position: 90° swing is possible for both gear motors and hypoid motors. Use the option code to instruct us to change the position.

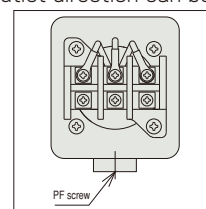
Motor output	A	B	C	P	Q	KD	θ°
1.5kW	117	96	116	153	47	PF3/4	0
2.2kW	117	96	116	153	47	PF3/4	0
3.7kW	137.5	96	116	162	47	PF3/4	0
5.5kW	151.5	158	185	254	54	PF1	15

Note) The entire length is the same as that of the indoor-type standard product.

Note) For the 5.5 kW device, the position of the terminal box is turned 15 degrees clockwise (upward) from the horizontal.

(3) Change of the lead outlet direction of the terminal box The lead outlet direction can be changed by 90°.

(4) Construction of the terminal box



Gear Motor TA Series Specification Chart

GEAR MOTOR TA Series

Specification Chart

() The values in parentheses are for brake types.

Model number		Motor output (kW)	Frame number	Nominal reduction ratio	Number of reduction steps	Output shaft revolution rate r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions			
								N·m		{kgf·m}				N·m		{kgf·m}	
						50Hz	60Hz	50Hz		60Hz		N	{kgf}	Foot mount	Flange mount	Foot mount	Flange mount
GMTA010	5	0.1	18	1/5	2	300	360	2.8	{0.29}	2.4	{0.24}	274	{ 28}	P28 Drawing M-11	P29 Drawing M-16	P38 Drawing M-69	P39 Drawing M-74
	10			1/10		150	180	5.7	{0.58}	4.8	{0.49}	431	{ 44}				
	15			1/15		100	120	8.6	{0.88}	7.2	{0.73}	568	{ 58}	P28	P29	P38	P39
	20			1/20		75	90	11.8	{ 1.2}	9.5	{0.97}	686	{ 70}	Drawing M-12	Drawing M-17	Drawing M-70	Drawing M-75
	25			1/25		60	72	14.7	{ 1.5}	11.8	{ 1.2}	804	{ 82}	{P42}	{P43}	{P52}	{P53}
	30			1/30		50	60	17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}	Drawing B-12	Drawing B-17	Drawing B-70	Drawing B-75
	40			1/40		37.5	45	22.5	{ 2.3}	19.6	{ 2.0}	1098	{ 112}				
	50			1/50		30	36	28.4	{ 2.9}	23.5	{ 2.4}	1264	{ 129}				
	60		24	1/60	3	25	30	34.3	{ 3.5}	28.4	{ 2.9}	1431	{ 146}	P28	P29	P38	P39
	75			1/75		20	24	43.1	{ 4.4}	36.3	{ 3.7}	1666	{ 170}	Drawing M-13	Drawing M-18	Drawing M-71	Drawing M-76
	100			1/100		15	18	56.8	{ 5.8}	48.0	{ 4.9}	2009	{ 205}	{P42}	{P43}	{P52}	{P53}
	120			1/120		12.5	15	68.6	{ 7.0}	56.8	{ 5.8}	2274	{ 232}	Drawing B-13	Drawing B-18	Drawing B-71	Drawing B-76
	165			1/165		9.1	10.9	94.1	{ 9.6}	78.4	{ 8.0}	2813	{ 287}				
	200			1/200		7.5	9	115	{11.7}	95.1	{ 9.7}	3195	{ 326}				
	300		28	1/300	4	5	6	143	{14.6}	120	{12.2}	3195	{ 326}	P28 Drawing M-14	P29 Drawing M-19	P38 Drawing M-72	P39 Drawing M-77
	360			1/360		4.2	5	172	{17.5}	143	{14.6}	3606	{ 368}	{P42}	{P43}	{P52}	{P53}
	450			1/450		3.3	4	215	{21.9}	179	{18.3}	4185	{ 427}	Drawing B-14	Drawing B-19	Drawing B-72	Drawing B-77
	600			1/600		2.5	3	286	{29.2}	239	{24.4}	5076	{ 518}	P28 Drawing M-15	P29 Drawing M-20	Drawing M-73	P39 Drawing M-78
	720		38	1/720	4	2.1	2.5	344	{35.1}	286	{29.2}	5733	{ 585}	{P42}	{P43}	{P52}	{P53}
	1000			1/1000		1.5	1.8	446	{45.5}	319	{32.5}	6664	{ 680}	Drawing B-15	Drawing B-20	Drawing B-73	Drawing B-78
	1200			1/1200		1.3	1.5	*459	*{46.8}	382	{39.0}	6684	{ 682}				
GMTA020	5	0.2		18		1/5	2	300	360	5.7	{0.58}	4.7	{0.48}	431	{ 44}	P30 Drawing M-21	P31 Drawing M-27
	10		1/10		150	180		11.8	{ 1.2}	9.5	{0.97}	686	{ 70}	P30	P31	P40	P41
	15		1/15		100	120		17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}	Drawing M-22	Drawing M-28	Drawing M-80	Drawing M-86
	20		1/20		75	90		22.5	{ 2.3}	19.6	{ 2.0}	1098	{ 112}	{P44}	{P45}	{P54}	{P55}
	25		1/25		60	72		28.4	{ 2.9}	23.5	{ 2.4}	1264	{ 129}	Drawing B-22	Drawing B-28	Drawing B-80	Drawing B-86
	30		1/30		50	60		34.3	{ 3.5}	28.4	{ 2.9}	1431	{ 146}				
	40		1/40		37.5	45		46.1	{ 4.7}	38.2	{ 3.9}	1735	{ 177}	P30	P31	P40	P41
	50		24		1/50	3		30	36	56.8	{ 5.8}	48.0	{ 4.9}	2009	{ 205}	Drawing M-23	Drawing M-29
	60			1/60	25		30	68.6	{ 7.0}	56.8	{ 5.8}	2274	{ 232}	{P44}	{P45}	{P54}	{P55}
	75			1/75	20		24	86.2	{ 8.8}	71.5	{ 7.3}	2636	{ 269}	Drawing B-23	Drawing B-29	Drawing B-81	Drawing B-87
	100			1/100	15		18	115	{11.7}	95.1	{ 9.7}	3195	{ 326}	P30	P31	P40	P41
	120			1/120	12.5		15	137	{14.0}	115	{11.7}	3606	{ 368}	Drawing M-24	Drawing M-30	Drawing M-82	Drawing M-88
	165			1/165	9.1		10.9	189	{19.3}	158	{16.1}	4459	{ 455}	{P44}	{P45}	{P54}	{P55}
	200		28	1/200	3	7.5	9	218	{22.2}	181	{18.5}	4822	{ 492}	Drawing B-24	Drawing B-30	Drawing B-82	Drawing B-88
	300			1/300		5	6	286	{29.2}	239	{24.4}	4861	{ 496}	P30	P31	P40	P41
	360			1/360		4.2	5	343	{35.0}	286	{29.2}	5488	{ 560}	Drawing M-25	Drawing M-31	Drawing M-83	Drawing M-89
	450			1/450		3.3	4	430	{43.9}	358	{36.5}	5792	{ 591}	{P44}	{P45}	{P54}	{P55}
	600		42	1/600	4	2.5	3	611	{62.3}	509	{51.9}	7301	{ 745}	P30	P31	P40	P41
	720			1/720		2.1	2.5	733	{74.8}	611	{62.3}	8242	{ 841}	Drawing M-26	Drawing M-32	Drawing M-84	Drawing M-90
	1000			1/1000		1.5	1.8	827	{84.4}	689	{70.3}	9800	{1000}	{P44}	{P45}	{P54}	{P55}
	1200			1/1200		1.3	1.5	*840	*{85.7}	*700	*{71.4}	9800	{1000}	Drawing B-26	Drawing B-32	Drawing B-84	Drawing B-90

(Note 1) The nominal reduction ratio is shown as the reduction ratio.
(Note 2) The output shaft revolution rate is calculated by dividing the motor synchronous revolution rate by the nominal reduction ratio.
For the actual reduction ratio, refer to the specification chart for the inline reducer on pages 69 to 71.
(Note 3) The page and drawing numbers of the brake type outline dimensions for the models marked with *1 and *2 are as shown to the right.
(Note 4) The models marked with * are ones for which the torque is limited.

	Three-phase		Single-phase	
	Foot mount	Flange mount	Foot mount	Flange mount
Models marked with *1	(P42 Drawing B-11)	(P43 Drawing B-16)	(P52 Drawing B-69)	(P53 Drawing B-74)
Models marked with *2	(P44 Drawing B-21)	(P45 Drawing B-27)	(P54 Drawing B-79)	(P55 Drawing B-85)

Gear Motor TA Series Specification Chart

GEAR MOTOR TA Series

Specification Chart

() The values in parentheses are for brake type.

Model number		Motor output (kW)	Frame number	Nominal reduction ratio	Number of reduction steps	Output shaft revolution rate r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions					
								N·m		{kgf·m}				Three-phase					
						50Hz	60Hz	50Hz		60Hz		N	{kgf}	Foot mount	Flange mount				
GMTA040	5	0.4	24	1/5	2	300	360	12.1	{ 1.23 }	10.0	{ 1.02 }	686	{ 70 }	P32 Drawing M-33 (P46 Drawing B-33)	P33 Drawing M-38 (P47 Drawing B-38)				
	10			1/10		150	180	24.5	{ 2.5 }	20.6	{ 2.1 }	1098	{ 112 }						
	15			1/15		100	120	36.3	{ 3.7 }	30.4	{ 3.1 }	1431	{ 146 }						
	20			1/20		75	90	48.0	{ 4.9 }	40.2	{ 4.1 }	1735	{ 177 }						
	25			1/25		60	72	60.8	{ 6.2 }	50.0	{ 5.1 }	2009	{ 205 }						
	30			1/30		50	60	72.5	{ 7.4 }	60.8	{ 6.2 }	2274	{ 232 }						
	40		28	1/40	3	37.5	45	94.1	{ 9.6 }	78.4	{ 8.0 }	2754	{ 281 }	P32 Drawing M-34 (P46 Drawing B-34)	P33 Drawing M-39 (P47 Drawing B-39)				
	50			1/50		30	36	118	{ 12.0 }	98.0	{ 10.0 }	3195	{ 326 }						
	60			1/60		25	30	140	{ 14.3 }	118	{ 12.0 }	3606	{ 368 }						
	75			1/75		20	24	175	{ 17.9 }	146	{ 14.9 }	4185	{ 427 }						
	100			1/100		15	18	234	{ 23.9 }	195	{ 19.9 }	5076	{ 518 }						
	120			1/120		12.5	15	281	{ 28.7 }	234	{ 23.9 }	5733	{ 585 }						
	165		38	1/165	4	9.1	10.9	364	{ 37.1 }	303	{ 30.9 }	6664	{ 680 }	P32 Drawing M-35 (P46 Drawing B-35)	P33 Drawing M-40 (P47 Drawing B-40)				
	200			1/200		7.5	9	389	{ 39.7 }	324	{ 33.1 }	6684	{ 682 }						
	300			42		1/300	4	5	6	611	{ 62.3 }	509	{ 51.9 }			7301	{ 745 }	P32 Drawing M-36 (P46 Drawing B-36)	P33 Drawing M-41 (P47 Drawing B-41)
	360		1/360		4.2	5		733	{ 74.8 }	611	{ 62.3 }	8242	{ 841 }						
	450		1/450		3.3	4		916	{ 93.5 }	763	{ 77.9 }	9565	{ 976 }						
	600		50	1/600	4	2.5	3	1222	{124.7}	1018	{103.9}	11584	{1182}	P32 Drawing M-37 (P46 Drawing B-37)	P33 Drawing M-42 (P47 Drawing B-42)				
	720			1/720		2.1	2.5	1466	{149.6}	1222	{124.7}	13073	{1334}						
	1000			1/1000		1.5	1.8	1654	{168.8}	1379	{140.7}	13230	{1350}						
	GMTA075			1200		1/1200	1.3	1.5	*1680	*{171.4}	*1400	*{142.9}	13230			{1350}			
5		0.75		28		1/5	2	300	360	22.6	{ 2.31 }	18.8	{ 1.92 }			1049	{ 107 }	P34 Drawing M-43 (P48 Drawing B-43)	P34 Drawing M-47 (P48 Drawing B-47)
10			1/10		150	180		45.1	{ 4.6 }	38.2	{ 3.9 }	1666	{ 170 }						
15			1/15		100	120		67.6	{ 6.9 }	56.8	{ 5.8 }	2176	{ 222 }						
20			1/20		75	90		91.1	{ 9.3 }	75.5	{ 7.7 }	2636	{ 269 }						
25			1/25		60	72		114	{ 11.6 }	94.1	{ 9.6 }	3058	{ 312 }						
30			1/30		50	60		136	{ 13.9 }	114	{ 11.6 }	3459	{ 353 }						
40			38	1/40	3	37.5	45	175	{ 17.9 }	146	{ 14.9 }	4185	{ 427 }	P34 Drawing M-44 (P48 Drawing B-44)	P34 Drawing M-48 (P48 Drawing B-48)				
50				1/50		30	36	220	{ 22.4 }	183	{ 18.7 }	4861	{ 496 }						
60				1/60		25	30	264	{ 26.9 }	220	{ 22.4 }	5488	{ 560 }						
75				1/75		20	24	300	{ 30.6 }	250	{ 25.5 }	5792	{ 591 }						
100				1/100		15	18	439	{ 44.8 }	369	{ 37.7 }	7301	{ 745 }						
120				1/120		12.5	15	527	{ 53.8 }	439	{ 44.8 }	8242	{ 841 }						
165			42	1/165	4	9.1	10.9	724	{ 73.9 }	604	{ 61.6 }	9800	{1000}	P34 Drawing M-45 (P48 Drawing B-45)	P34 Drawing M-49 (P48 Drawing B-49)				
200				1/200		7.5	9	735	{ 75.0 }	613	{ 62.5 }	9800	{1000}						
300				50		1/300	4	5	6	1146	{116.9}	955	{ 97.4 }			9418	{ 961 }	P34 Drawing M-46 (P48 Drawing B-46)	P34 Drawing M-50 (P48 Drawing B-50)
360			1/360		4.2	5		1289	{131.5}	1074	{109.6}	10633	{1085}						
450			1/450		3.3	4		*1396	*{142.4}	*1163	*{118.7}	12338	{1259}						
GMTA150	5		1.5	38	1/5	2	300	360	45.3	{ 4.62 }	37.7	{ 3.85 }	1666	{ 170 }	P35 Drawing M-51 (P49 Drawing B-51)	P35 Drawing M-54 (P49 Drawing B-54)			
	10	1/10			150		180	91.1	{ 9.3 }	75.5	{ 7.7 }	2548	{ 260 }						
	15	1/15			100		120	136	{ 13.9 }	114	{ 11.6 }	3342	{ 341 }						
	20	1/20			75		90	181	{ 18.5 }	151	{ 15.4 }	4047	{ 413 }						
	25	1/25			60		72	226	{ 23.1 }	189	{ 19.3 }	4694	{ 479 }						
	30	1/30			50		60	272	{ 27.8 }	226	{ 23.1 }	5302	{ 541 }						
	40	42			1/40		3	37.5	45	351	{ 35.8 }	293	{ 29.9 }	6292			{ 642 }	P35 Drawing M-52 (P49 Drawing B-52)	P35 Drawing M-55 (P49 Drawing B-55)
	50				1/50			30	36	439	{ 44.8 }	366	{ 37.3 }	7301			{ 745 }		
	60			1/60	25	30		527	{ 53.8 }	439	{ 44.8 }	8242	{ 841 }						
	75			1/75	20	24		659	{ 67.2 }	549	{ 56.0 }	9565	{ 976 }						
	100			1/100	15	18		878	{ 89.6 }	732	{ 74.7 }	11584	{1182}						
	120			1/120	12.5	15		1054	{107.5}	878	{ 89.6 }	13073	{1334}						
	165	50		1/165	4	9.1	10.9	1449	{147.9}	1207	{123.2}	13230	{1350}	P35 Drawing M-53 (P49 Drawing B-53)	P35 Drawing M-56 (P49 Drawing B-56)				
	200			1/200		7.5	9	*1470	*{150.0}	*1225	*{125.0}	13230	{1350}						

(Note 1) The output shaft revolution rate is calculated by dividing the motor synchronous revolution rate by the nominal reduction ratio.

For the actual reduction ratio, refer to the specification chart for the inline reducer on pages 69 to 71.

(Note 2) The models marked with * are ones for which the torque is limited.

Gear Motor TA Series Specification Chart

GEAR MOTOR TA Series

Specification Chart

() The values in parentheses are for brake type.

Model number		Motor output (kW)	Frame number	Nominal reduction ratio	Number of reduction steps	Output shaft revolution rate r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions	
								N·m		{ kgf·m }					
						50Hz	60Hz	50Hz		60Hz		N	{ kgf }	Foot mount	Flange mount
GMTA220	5	2.2	42	1/5	2	300	360	66.6	{ 6.8 }	55.9	{ 5.7 }	2078	{ 212 }	P36	P36
	10			1/10		150	180	133	{ 13.6 }	111	{ 11.3 }	3293	{ 336 }	Drawing	Drawing
	15			1/15		100	120	200	{ 20.4 }	167	{ 17.0 }	4312	{ 440 }	M-57	M-60
	20			1/20		75	90	266	{ 27.1 }	221	{ 22.6 }	5223	{ 533 }	{ P50 }	{ P50 }
	25			1/25		60	72	332	{ 33.9 }	277	{ 28.3 }	6066	{ 619 }	Drawing	Drawing
	30			1/30		50	60	399	{ 40.7 }	332	{ 33.9 }	6850	{ 699 }	B-57	B-60
	40	50	50	1/40	3	37.5	45	515	{ 52.6 }	429	{ 43.8 }	8114	{ 828 }	P36 Drawing	P36 Drawing
	50			1/50		30	36	644	{ 65.7 }	537	{ 54.8 }	9418	{ 961 }	M-58	M-61
	60			1/60		25	30	773	{ 78.9 }	644	{ 65.7 }	10633	{1085}	{ P50 Drawing	{ P50 Drawing
	75			1/75		20	24	966	{ 98.6 }	805	{ 82.1 }	12338	{1259}	B-58	B-61
	100	63	63	1/100	3	15	18	1288	{131.4}	1073	{109.5}	14955	{1526}	P36 Drawing	P36 Drawing
	120			1/120		12.5	15	1545	{157.7}	1288	{131.4}	16885	{1723}	M-59	M-62
	165			1/165		9.1	10.9	2126	{216.9}	1771	{180.7}	17640	{1800}	{ P50 Drawing	{ P50 Drawing
	200			1/200		7.5	9	*2156	*{220.0}	*1796	*{183.3}	17640	{1800}	B-59	B-62
GMTA370	5	3.7	50	1/5	2	300	360	112	{ 11.4 }	93.1	{ 9.5 }	2930	{ 299 }	P37	P37
	10			1/10		150	180	223	{ 22.8 }	186	{ 19.0 }	4645	{ 474 }	Drawing	Drawing
	15			1/15		100	120	335	{ 34.2 }	279	{ 28.5 }	6096	{ 622 }	M-63	M-65
	20			1/20		75	90	448	{ 45.7 }	372	{ 38.0 }	7389	{ 754 }	{ P51 }	{ P51 }
	25			1/25		60	72	560	{ 57.1 }	466	{ 47.6 }	8565	{ 874 }	Drawing	Drawing
	30			1/30		50	60	671	{ 68.5 }	560	{ 57.1 }	9673	{ 987 }	B-63	B-65
	40	3	3	1/40	37.5	45	866	{ 88.4 }	722	{ 73.7 }	10290	{1050}	P37 Drawing	P37 Drawing	
	50			1/50	30	36	1083	{110.5}	903	{ 92.1 }	10290	{1050}	M-64	M-66	
												{ P51 Drawing	{ P51 Drawing		
GMTA550	5	5.5	50	1/5	2	300	360	167	{ 17.0 }	138	{ 14.1 }	3812	{ 389 }	P37	P37
	10			1/10		150	180	332	{ 33.9 }	277	{ 28.3 }	6056	{ 618 }	Drawing	Drawing
	15			1/15		100	120	499	{ 50.9 }	416	{ 42.4 }	7938	{ 810 }	M-67	M-68
	20			1/20		75	90	665	{ 67.9 }	554	{ 56.5 }	9624	{ 982 }	{ P51 }	{ P51 }
	25			1/25		60	72	831	{ 84.8 }	693	{ 70.7 }	10290	{1050}	Drawing	Drawing
	30			1/30		50	60	*893	*{ 91.1 }	*744	*{ 75.9 }	10290	{1050}	B-67	B-68

(Note 1) The nominal reduction ratio is shown as the reduction ratio.

(Note 2) The output shaft revolution rate is calculated by dividing the motor synchronous revolution rate by the nominal reduction ratio.

For the actual reduction ratio, refer to the specification chart for the inline reducer on pages 69 to 71.

(Note 3) The models marked with ※ are ones for which the torque is limited.

2.2
3.7
5.5

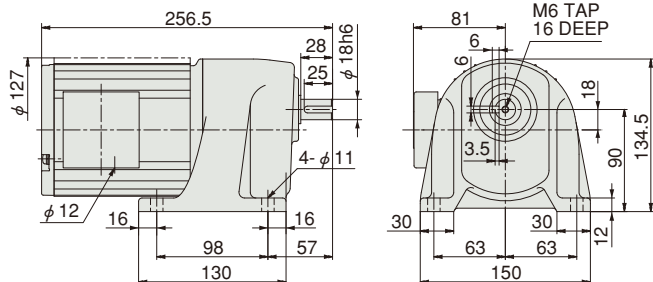
Gear Motor TA Series Outline Dimensions

Three-phase 0.1 kW · L : Foot mount non-brake type

GEAR MOTOR TA Series

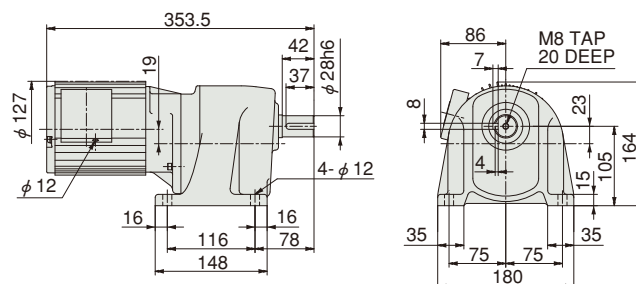
M-11 0.1kW GMTA010-18L5

Reduction ratio : 5
Approx. weight : 6.6kg
Reference page : Specification Chart→P25



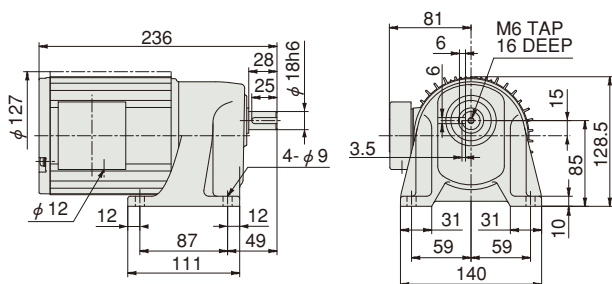
M-14 0.1kW GMTA010-28L300~450

Reduction ratio : 300, 360, 450
Approx. weight : 10.5kg
Reference page : Specification Chart→P25



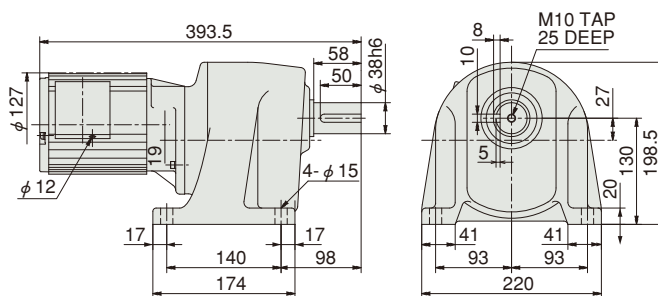
M-12 0.1kW GMTA010-18L10~50

Reduction ratio : 10, 15, 20, 25, 30, 40, 50
Approx. weight : 5.4kg
Reference page : Specification Chart→P25



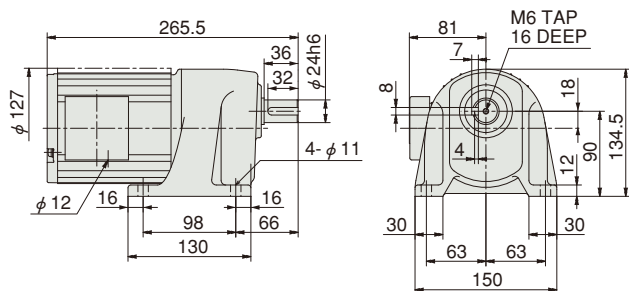
M-15 0.1kW GMTA010-38L600~1200

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 14.5kg
Reference page : Specification Chart→P25



M-13 0.1kW GMTA010-24L60~200

Reduction ratio : 60, 75, 100, 120, 165, 200
Approx. weight : 6.8kg
Reference page : Specification Chart→P25



Outline Dimensions

L

M-11
M-12
M-13
M-14
M-15

0.1

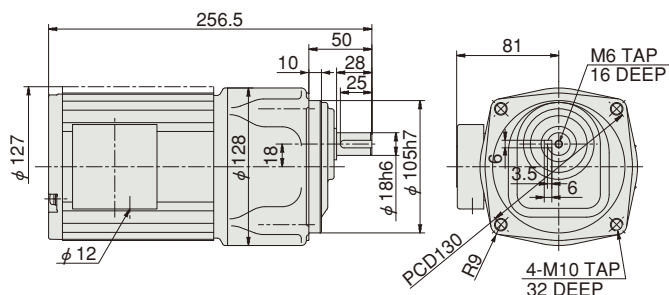
Gear Motor TA Series Outline Dimensions

Three-phase 0.1 kW · U : Face mount non-brake type

GEAR MOTOR TA Series

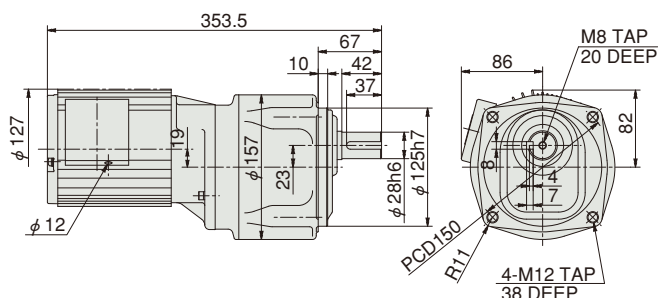
M-16 0.1kW GMTA010-18U5

Reduction ratio : 5 Approx. weight : 6.6kg
Reference page : Specification Chart→P25 Options →P57



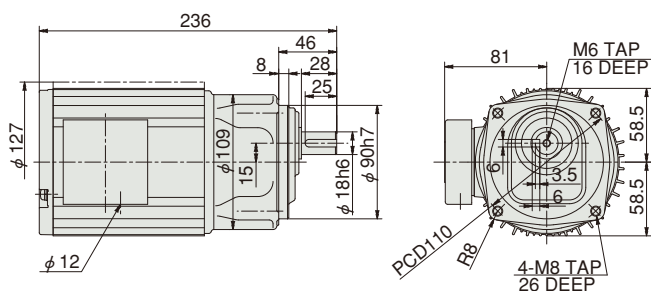
M-19 0.1kW GMTA010-28U300~450

Reduction ratio : 300, 360, 450 Approx. weight : 10.5kg
Reference page : Specification Chart→P25 Options →P57



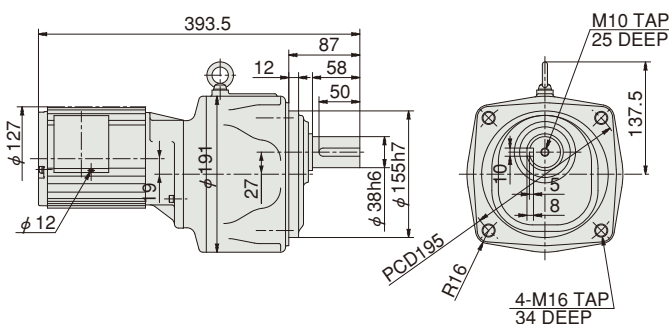
M-17 0.1kW GMTA010-18U10~50

Reduction ratio : 10, 15, 20, 25, 30, 40, 50 Approx. weight : 5.2kg
Reference page : Specification Chart→P25 Options →P57



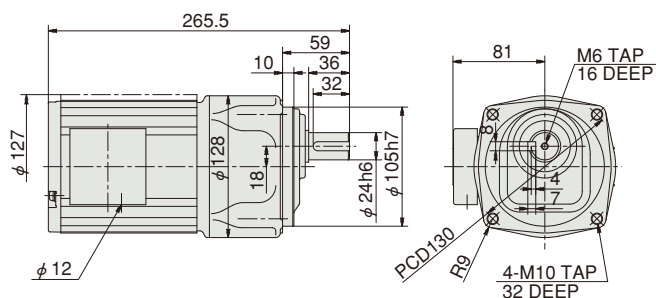
M-20 0.1kW GMTA010-38U600~1200

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 20.0kg
Reference page : Specification Chart→P25 Options →P58



M-18 0.1kW GMTA010-24U60~200

Reduction ratio : 60, 75, 100, 120, 165, 200 Approx. weight : 6.6kg
Reference page : Specification Chart→P25 Options →P57



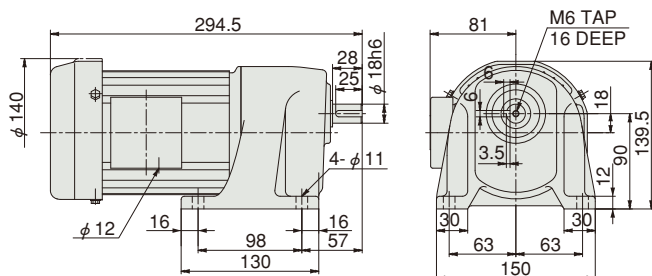
Gear Motor TA Series Outline Dimensions

Three-phase 0.2 kW · L : Foot mount non-brake type

GEAR MOTOR TA Series

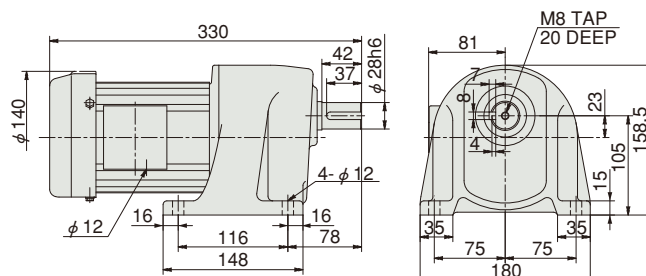
M-21 0.2kW GMTA020-18L5

Reduction ratio : 5
Approx. weight : 6.7kg
Reference page : Specification Chart→P25



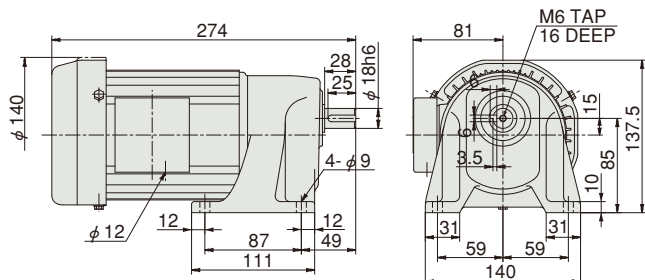
M-24 0.2kW GMTA020-28L100~200

Reduction ratio : 100, 120, 165, 200
Approx. weight : 9.3kg
Reference page : Specification Chart→P25



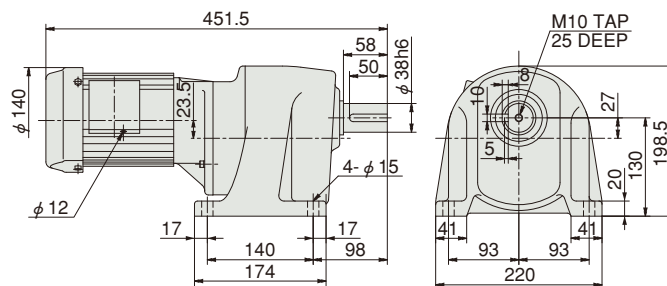
M-22 0.2kW GMTA020-18L10~25

Reduction ratio : 10, 15, 20, 25
Approx. weight : 5.5kg
Reference page : Specification Chart→P25



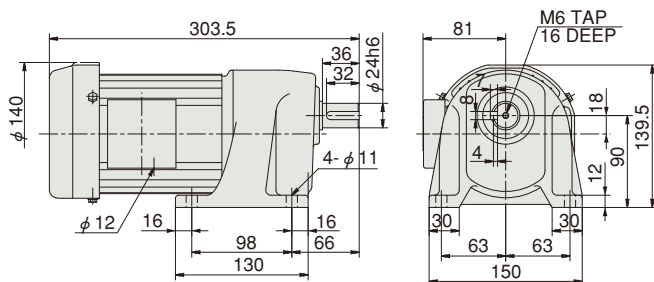
M-25 0.2kW GMTA020-38L300~450

Reduction ratio : 300, 360, 450
Approx. weight : 15.3kg
Reference page : Specification Chart→P25



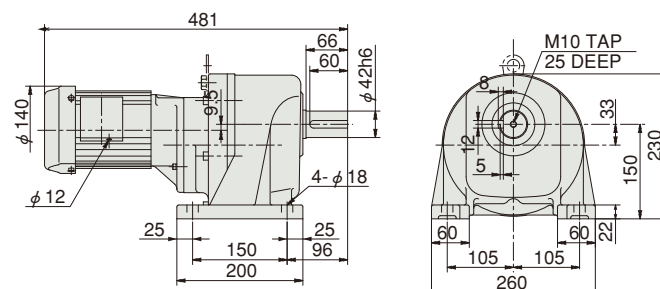
M-23 0.2kW GMTA020-24L30~75

Reduction ratio : 30, 40, 50, 60, 75
Approx. weight : 6.9kg
Reference page : Specification Chart→P25



M-26 0.2kW GMTA020-42L600~1200

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 37.4kg
Reference page : Specification Chart→P25



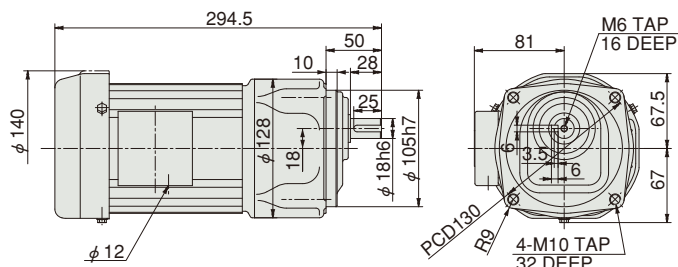
Gear Motor TA Series Outline Dimensions

Three-phase 0.2 kW · U : Face mount type / F : Flange mount non-brake type

GEAR MOTOR TA Series

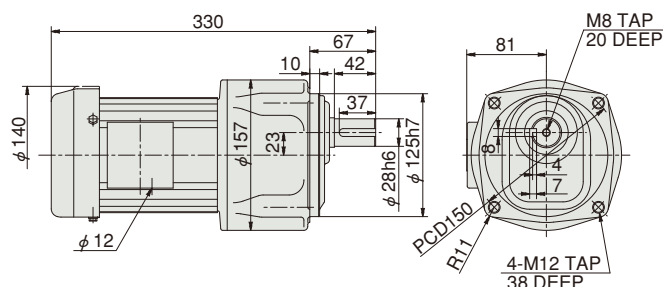
M-27 0.2kW GMTA020-18U5

Reduction ratio : 5 Approx. weight : 6.7kg
Reference page : Specification Chart→P25 Options→P57



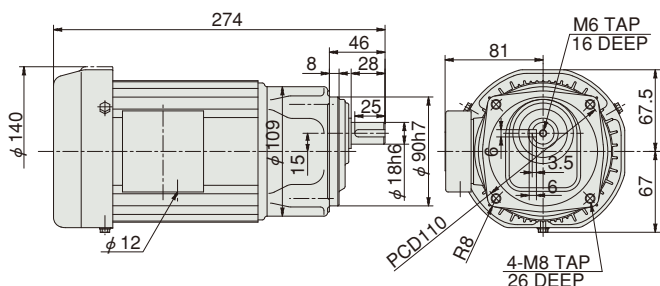
M-30 0.2kW GMTA020-28U100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 9.1kg
Reference page : Specification Chart→P25 Options→P57



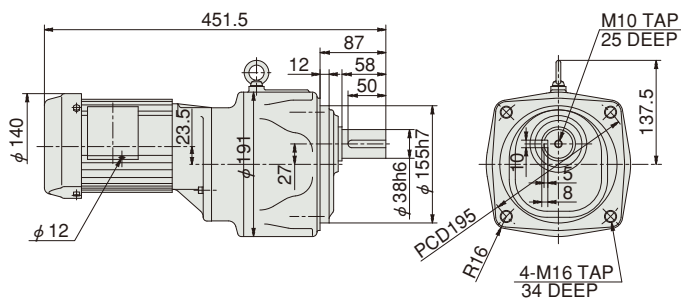
M-28 0.2kW GMTA020-18U10~25

Reduction ratio : 10, 15, 20, 25 Approx. weight : 5.3kg
Reference page : Specification Chart→P25 Options→P57



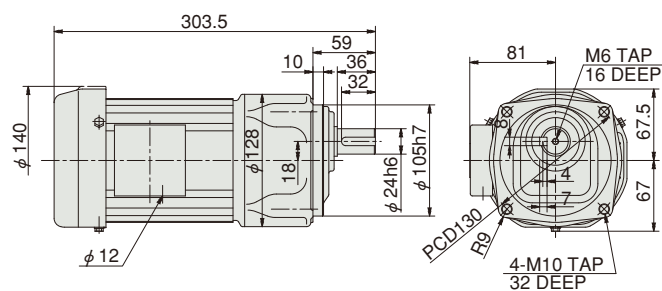
M-31 0.2kW GMTA020-38U300~450

Reduction ratio : 300, 360, 450 Approx. weight : 21.3kg
Reference page : Specification Chart→P25 Options→P58



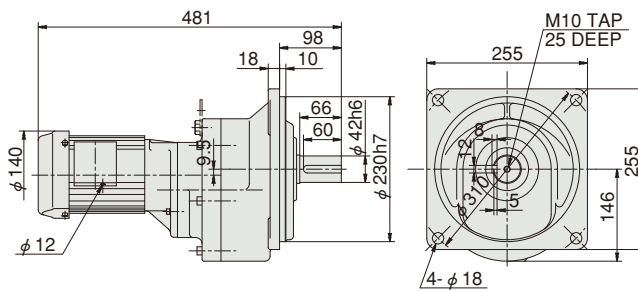
M-29 0.2kW GMTA020-24U30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 6.7kg
Reference page : Specification Chart→P25 Options→P57



M-32 0.2kW GMTA020-42F600~1200

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 39.4kg
Reference page : Specification Chart→P25



Gear Motor TA Series Outline Dimensions

Three-phase 0.4 kW · L : Foot mount non-brake type

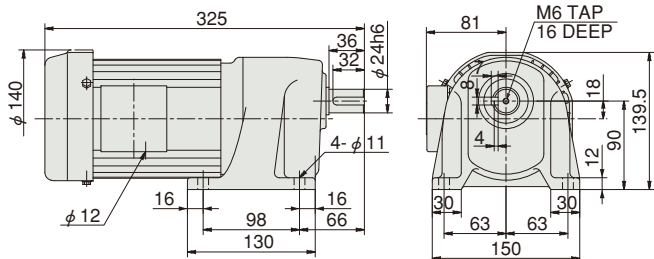
GEAR MOTOR TA Series

M-33 0.4kW GMTA040-24L5~25

Reduction ratio : 5, 10, 15, 20, 25

Approx. weight : 7.5kg

Reference page : Specification Chart→P26

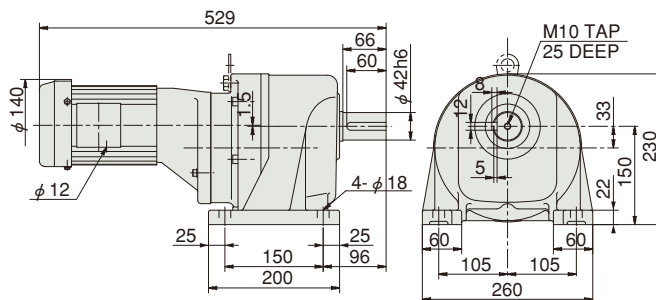


M-36 0.4kW GMTA040-42L300~450

Reduction ratio : 300, 360, 450

Approx. weight : 43.1kg

Reference page : Specification Chart→P26

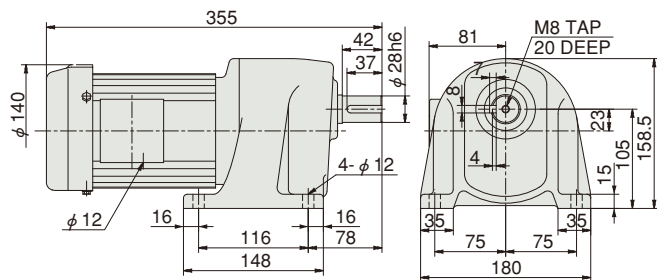


M-34 0.4kW GMTA040-28L30~75

Reduction ratio : 30, 40, 50, 60, 75

Approx. weight : 10.0kg

Reference page : Specification Chart→P26

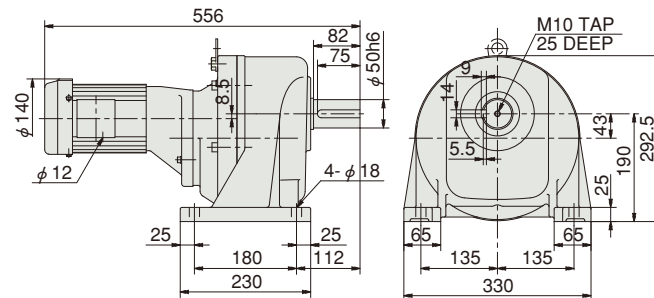


M-37 0.4kW GMTA040-50L600~1200

Reduction ratio : 600, 720, 1000, 1200

Approx. weight : 63.1kg

Reference page : Specification Chart→P26

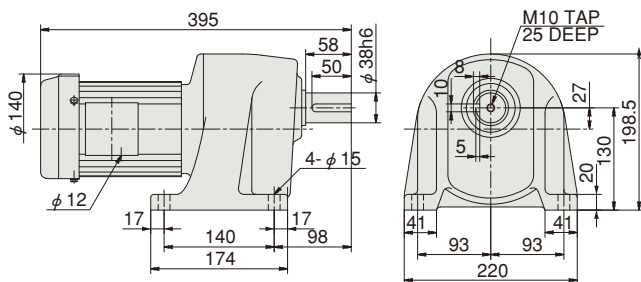


M-35 0.4kW GMTA040-38L100~200

Reduction ratio : 100, 120, 165, 200

Approx. weight : 14.0kg

Reference page : Specification Chart→P26



Outline Dimensions

L

M-33
M-34
M-35
M-36
M-37

0.4

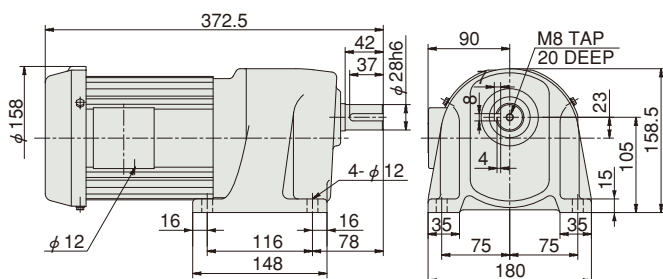
Gear Motor TA Series Outline Dimensions

Three-phase 0.75 kW · L : Foot mount type / U : Face mount type / F : Flange mount non-brake type

GEAR MOTOR TA Series

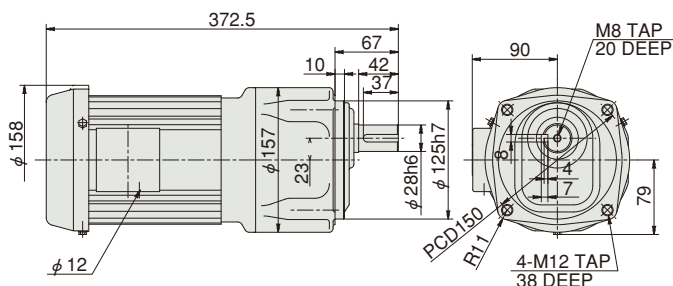
M-43 0.75kW GMTA075-28L5~25

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 12.5kg
Reference page : Specification Chart→P26



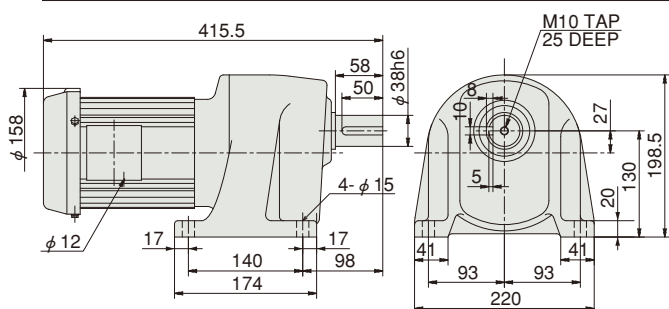
M-47 0.75kW GMTA075-28U5~25

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 12.5kg
Reference page : Specification Chart→P26 Options→P57



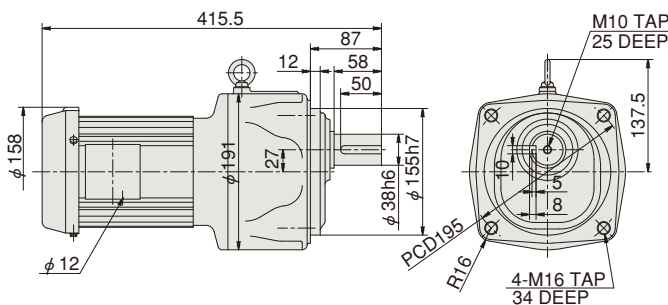
M-44 0.75kW GMTA075-38L30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 16.5kg
Reference page : Specification Chart→P26



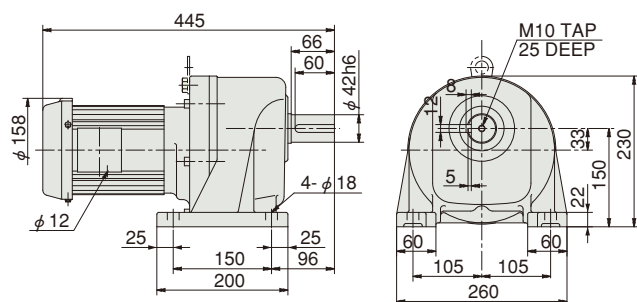
M-48 0.75kW GMTA075-38U30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 22.5kg
Reference page : Specification Chart→P26 Options→P58



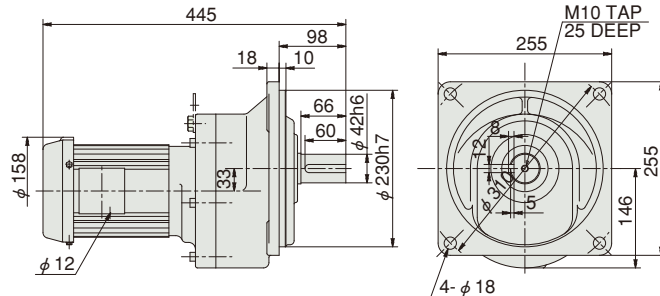
M-45 0.75kW GMTA075-42L100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 38.0kg
Reference page : Specification Chart→P26



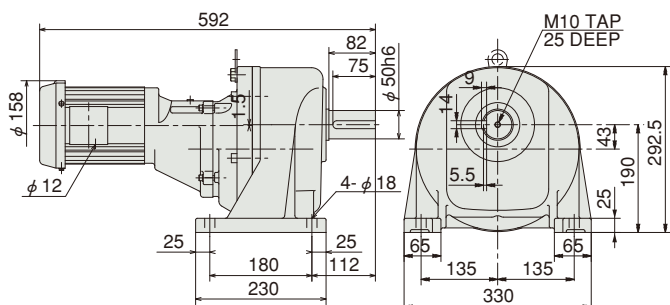
M-49 0.75kW GMTA075-42F100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 40.0kg
Reference page : Specification Chart→P26



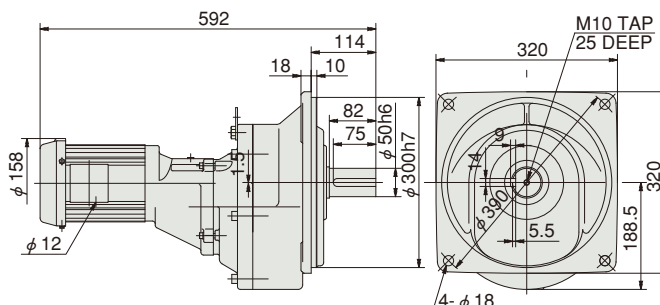
M-46 0.75kW GMTA075-50L300~450

Reduction ratio : 300, 360, 450 Approx. weight : 62.1kg
Reference page : Specification Chart→P26



M-50 0.75kW GMTA075-50F300~450

Reduction ratio : 300, 360, 450 Approx. weight : 65.1kg
Reference page : Specification Chart→P26



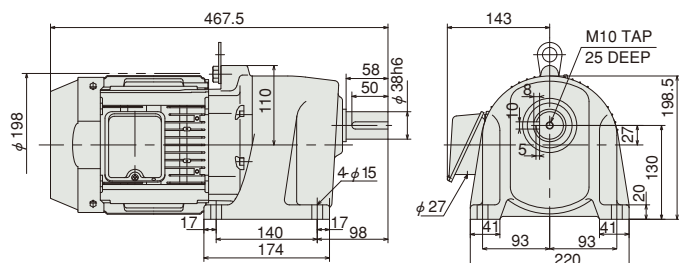
Gear Motor TA Series Outline Dimensions

Three-phase 1.5 kW · L : Foot mount type / U : Face mount type / F : Flange mount non-brake type

GEAR MOTOR TA Series

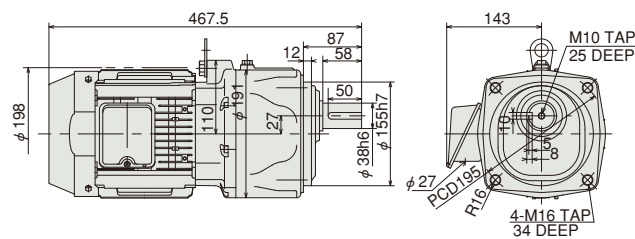
M-51 1.5kW GMTA150-38L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 26.0kg
Reference page : Specification Chart→P26	



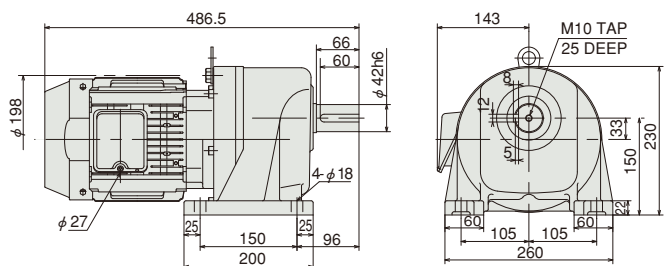
M-54 1.5kW GMTA150-38U5~30

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 33.0kg
Reference page : Specification Chart→P26 Options→P58	



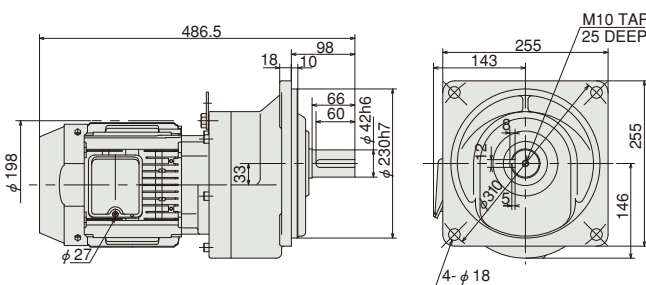
M-52 1.5kW GMTA150-42L40~75

Reduction ratio : 40, 50, 60, 75	Approx. weight : 47.0kg
Reference page : Specification Chart→P26	



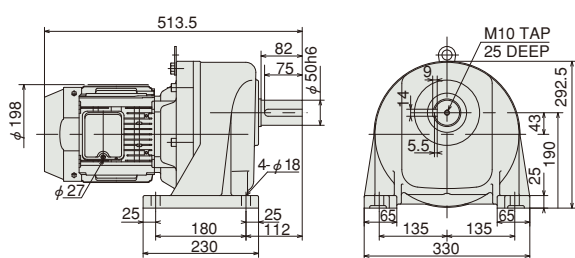
M-55 1.5kW GMTA150-42F40~75

Reduction ratio : 40, 50, 60, 75	Approx. weight : 48.0kg
Reference page : Specification Chart→P26	



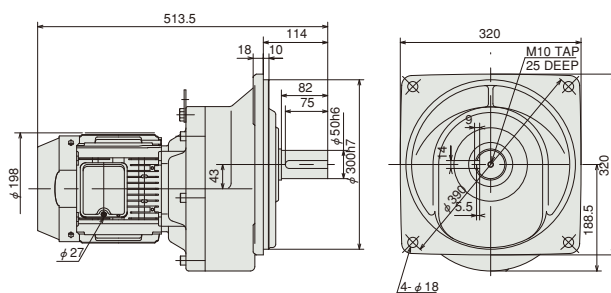
M-53 1.5kW GMTA150-50L100~200

Reduction ratio : 100, 120, 165, 200	Approx. weight : 67.0kg
Reference page : Specification Chart→P26	



M-56 1.5kW GMTA150-50F100~200

Reduction ratio : 100, 120, 165, 200	Approx. weight : 69.0kg
Reference page : Specification Chart→P26	



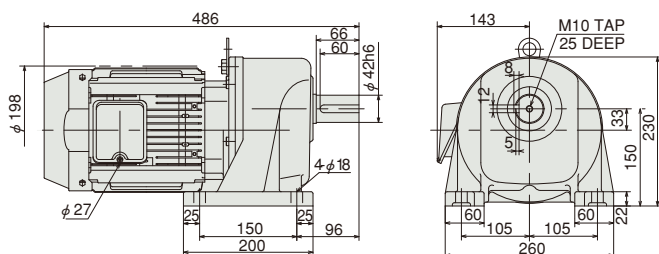
Gear Motor TA Series Outline Dimensions

Three-phase 2.2 kW · L : Foot mount type / F : Flange mount non-brake type

GEAR MOTOR TA Series

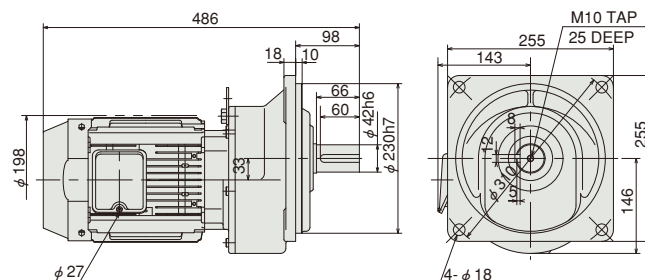
M-57 2.2kW GMTA220-42L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 46.0kg
Reference page : Specification Chart→P27



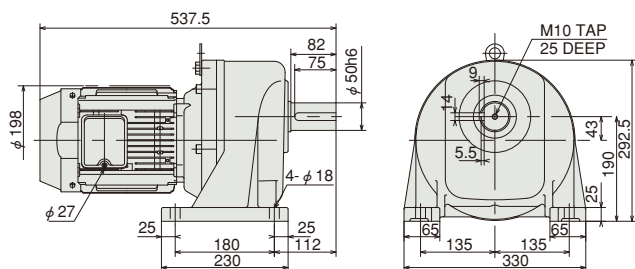
M-60 2.2kW GMTA220-42F5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 48.0kg
Reference page : Specification Chart→P27



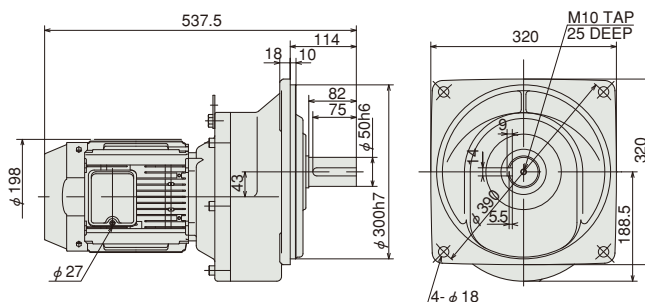
M-58 2.2kW GMTA220-50L40~75

Reduction ratio : 40, 50, 60, 75 Approx. weight : 67.0kg
Reference page : Specification Chart→P27



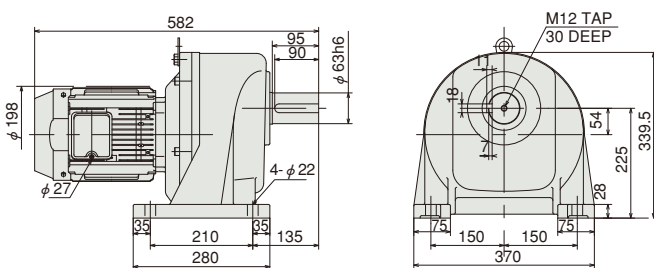
M-61 2.2kW GMTA220-50F40~75

Reduction ratio : 40, 50, 60, 75 Approx. weight : 70.0kg
Reference page : Specification Chart→P27



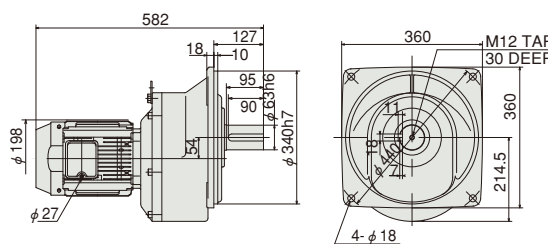
M-59 2.2kW GMTA220-63L100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 98.0kg
Reference page : Specification Chart→P27



M-62 2.2kW GMTA220-63F100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 102.0kg
Reference page : Specification Chart→P27



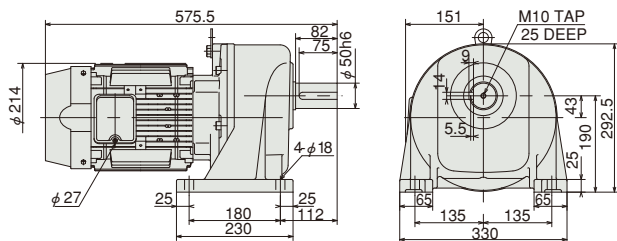
Gear Motor TA Series Outline Dimensions

Three-phase 3.7 kW · L : Foot mount type / F : Flange mount non-brake type

GEAR MOTOR TA Series

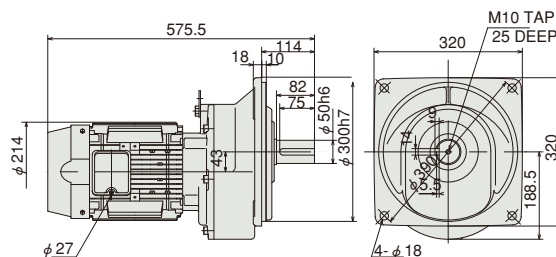
M-63 3.7kW GMTA370-50L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 72.0kg
Reference page : Specification Chart→P27	



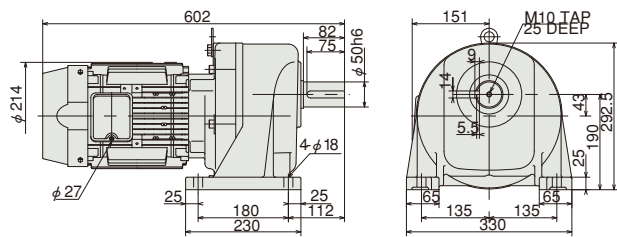
M-65 3.7kW GMTA370-50F5~30

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 74.0kg
Reference page : Specification Chart→P27	



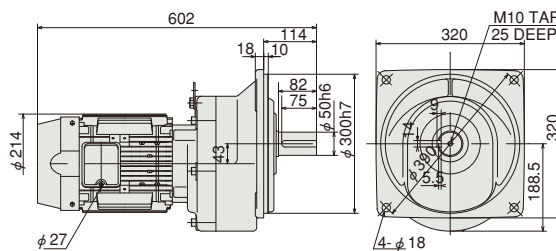
M-64 3.7kW GMTA370-50L40~50

Reduction ratio : 40, 50	Approx. weight : 76.0kg
Reference page : Specification Chart→P27	



M-66 3.7kW GMTA370-50F40~50

Reduction ratio : 40, 50	Approx. weight : 78.0kg
Reference page : Specification Chart→P27	

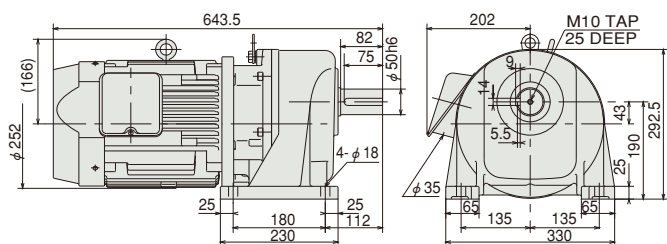


Three-phase 5.5 kW · L : Foot mount type / F : Flange mount brakeless-type

GEAR MOTOR TA Series

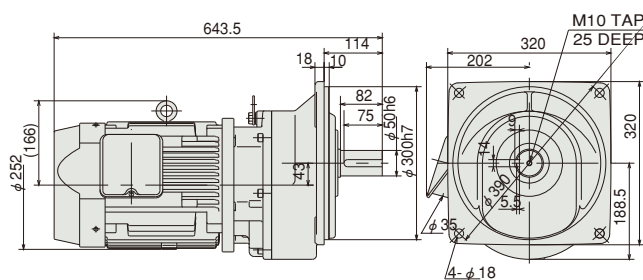
M-67 5.5kW GMTA550-50L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 92.0kg
Reference page : Specification Chart→P27	



M-68 5.5kW GMTA550-50F5~30

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 95.0kg
Reference page : Specification Chart→P27	



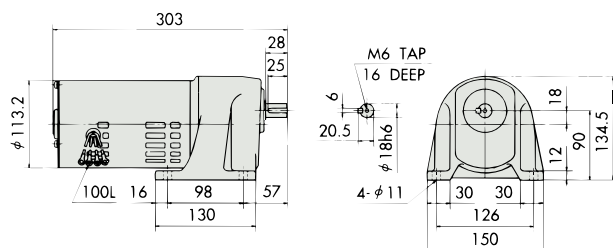
Gear Motor TA Series Outline Dimensions

Single-phase 100 W · L : Foot mount non-brake type

GEAR MOTOR TA Series

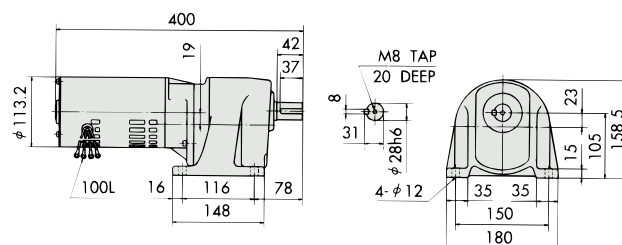
M-69 100W GMTA100-18L5

Reduction ratio : 5
Approx. weight : 7.4kg
Reference page : Specification Chart→P25



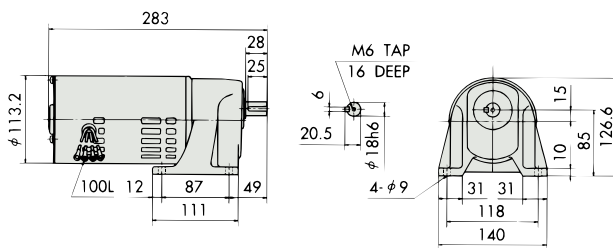
M-72 100W GMTA100-28L300~450

Reduction ratio : 300, 360, 450
Approx. weight : 11.0kg
Reference page : Specification Chart→P25



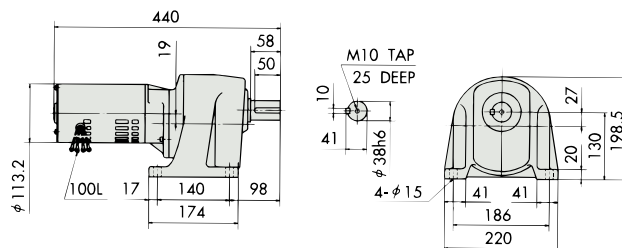
M-70 100W GMTA100-18L10~50

Reduction ratio : 10, 15, 20, 25, 30, 40, 50
Approx. weight : 6.2kg
Reference page : Specification Chart→P25



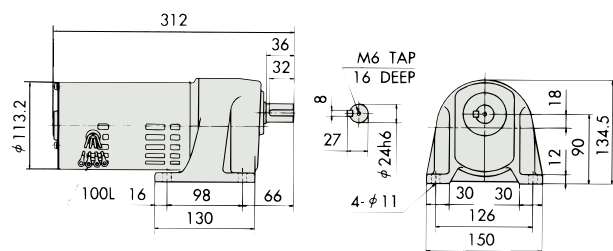
M-73 100W GMTA100-38L600~1200

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 15.0kg
Reference page : Specification Chart→P25



M-71 100W GMTA100-24L60~200

Reduction ratio : 60, 75, 100, 120, 165, 200
Approx. weight : 7.4kg
Reference page : Specification Chart→P25



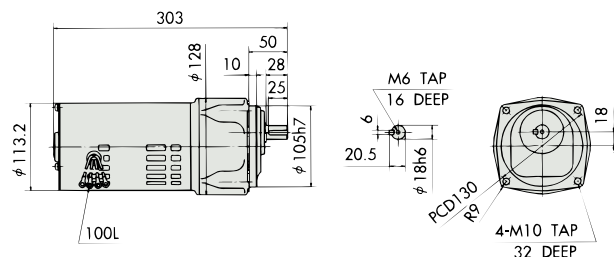
Gear Motor TA Series Outline Dimensions

Single-phase 100 W · U : Face mount non-brake type

GEAR MOTOR TA Series

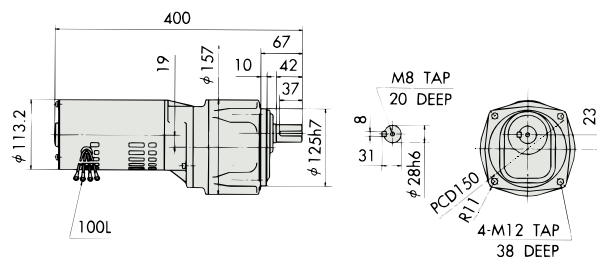
M-74 100W GMTA100-18U5

Reduction ratio : 5
Approx. weight : 7.2kg
Reference page : Specification Chart→P25 Options→P57



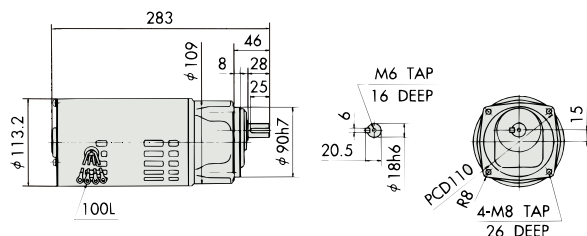
M-77 100W GMTA100-28U300~450

Reduction ratio : 300, 360, 450
Approx. weight : 11.0kg
Reference page : Specification Chart→P25 Options→P57



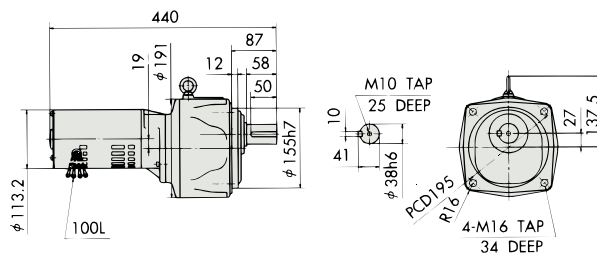
M-75 100W GMTA100-18U10~50

Reduction ratio : 10, 15, 20, 25, 30, 40, 50
Approx. weight : 6.0kg
Reference page : Specification Chart→P25 Options→P57



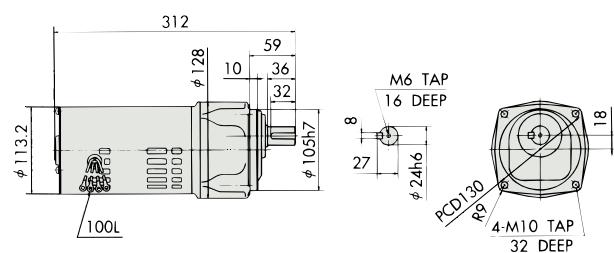
M-78 100W GMTA100-38U600~1200

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 21.0kg
Reference page : Specification Chart→P25 Options→P58



M-76 100W GMTA100-24U60~200

Reduction ratio : 60, 75, 100, 120, 165, 200
Approx. weight : 7.4kg
Reference page : Specification Chart→P25 Options→P57



U

M-74
M-75
M-76
M-77
M-78

100

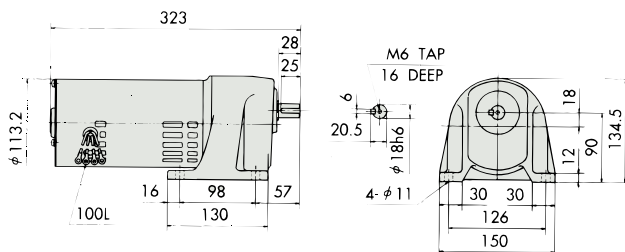
Gear Motor TA Series Outline Dimensions

Single-phase 200 W · L : Foot mount non-brake type

GEAR MOTOR TA Series

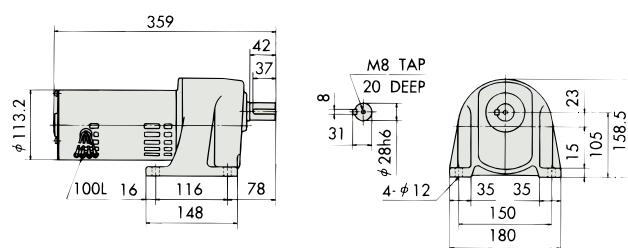
M-79 200W GMTA200-18L5

Reduction ratio : 5
Approx. weight : 9.0kg
Reference page : Specification Chart→P25



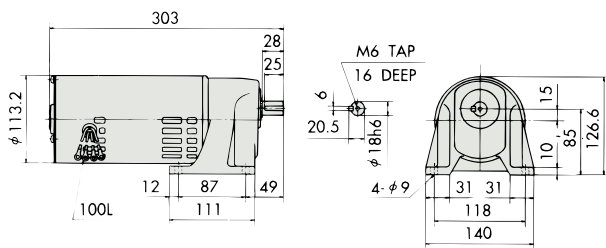
M-82 200W GMTA200-28L100~200

Reduction ratio : 100, 120, 165, 200
Approx. weight : 11.5kg
Reference page : Specification Chart→P25



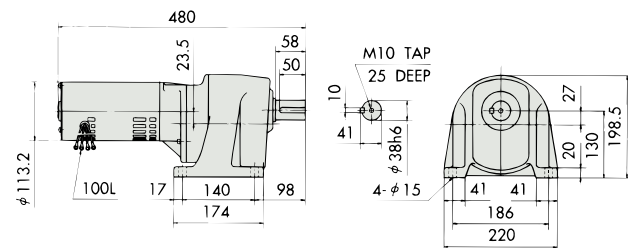
M-80 200W GMTA200-18L10~25

Reduction ratio : 10, 15, 20, 25
Approx. weight : 7.8kg
Reference page : Specification Chart→P25



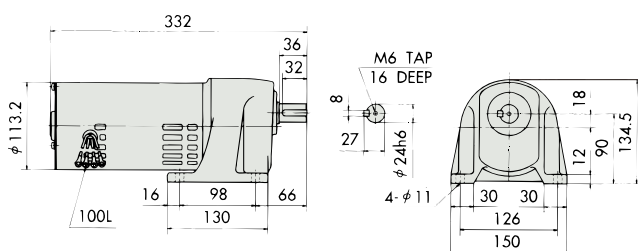
M-83 200W GMTA200-38L300~450

Reduction ratio : 300, 360, 450
Approx. weight : 17.5kg
Reference page : Specification Chart→P25



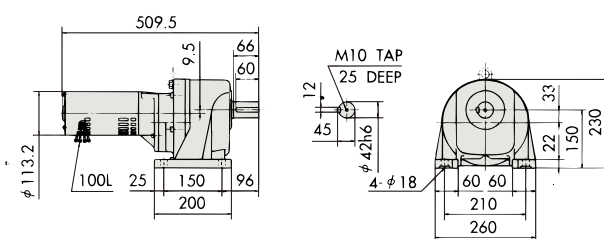
M-81 200W GMTA200-24L30~75

Reduction ratio : 30, 40, 50, 60, 75
Approx. weight : 9.2kg
Reference page : Specification Chart→P25



M-84 200W GMTA200-42L600~1200

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 39.7kg
Reference page : Specification Chart→P25



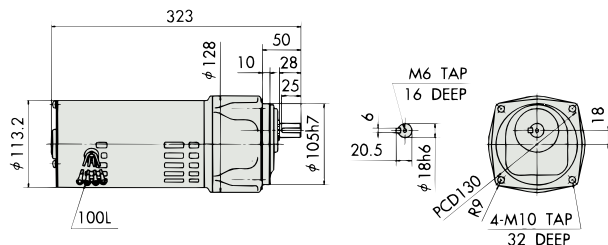
Gear Motor TA Series Outline Dimensions

Single-phase 200 W · U : Face mount type / F : Flange mount non-brake type

GEAR MOTOR TA Series

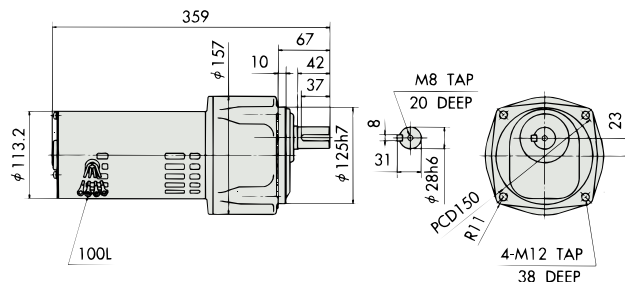
M-85 200W GMTA200-18U5

Reduction ratio : 5 Approx. weight : 9.0kg
Reference page : Specification Chart→P25 Options→P57



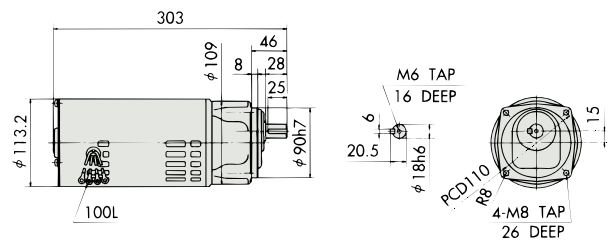
M-88 200W GMTA200-28U100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 11.5kg
Reference page : Specification Chart→P25 Options→P57



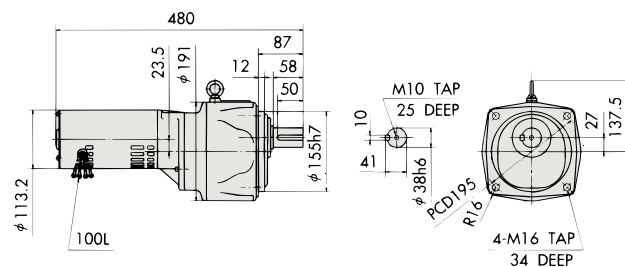
M-86 200W GMTA200-18U10~25

Reduction ratio : 10, 15, 20, 25 Approx. weight : 7.6kg
Reference page : Specification Chart→P25 Options→P57



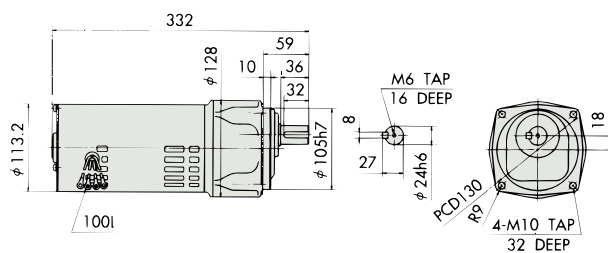
M-89 200W GMTA200-38U300~450

Reduction ratio : 300, 360, 450 Approx. weight : 23.5kg
Reference page : Specification Chart→P25 Options→P58



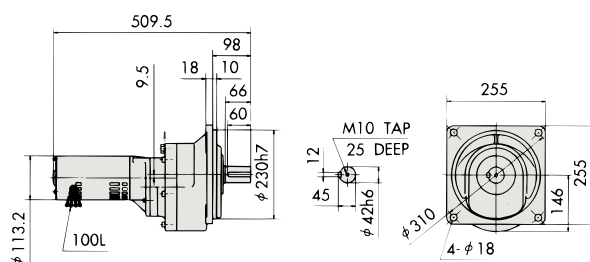
M-87 200W GMTA200-24U30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 9.0kg
Reference page : Specification Chart→P25 Options→P57



M-90 200W GMTA200-42F600~1200

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 41.7kg
Reference page : Specification Chart→P25



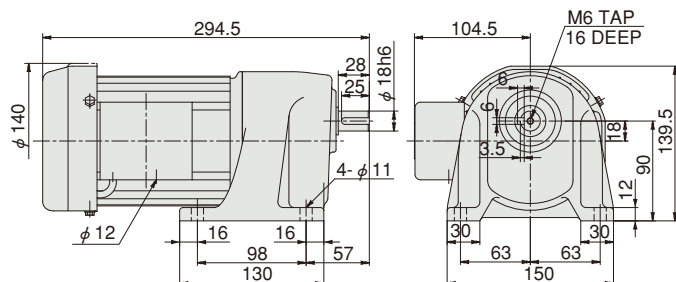
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.1 kW · L : Foot mount brake type

GEAR MOTOR TA Series

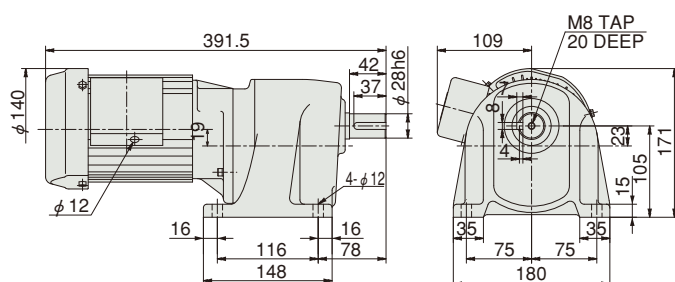
B-11 0.1kW GMTA010-18L5B

Reduction ratio : 5
Approx. weight : 8.4kg
Reference page : Specification Chart→P25



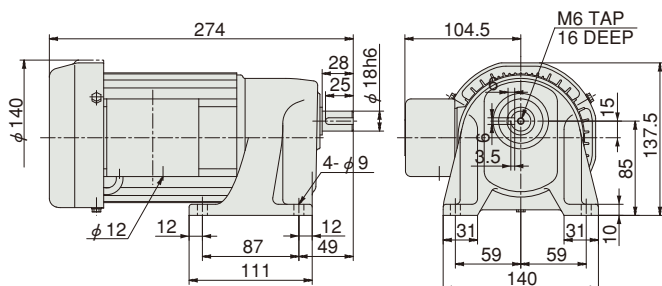
B-14 0.1kW GMTA010-28L300~450B

Reduction ratio : 300, 360, 450
Approx. weight : 12.0kg
Reference page : Specification Chart→P25



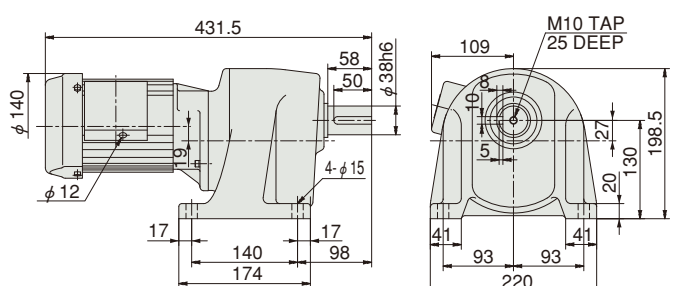
B-12 0.1kW GMTA010-18L10~50B

Reduction ratio : 10, 15, 20, 25, 30, 40, 50
Approx. weight : 7.0kg
Reference page : Specification Chart→P25



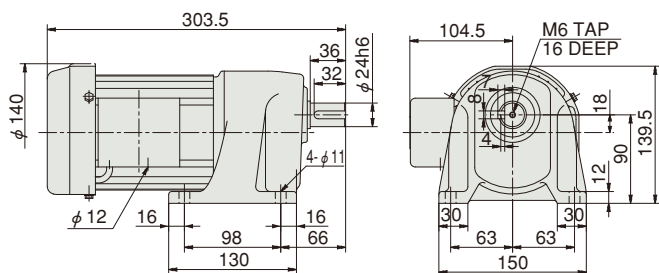
B-15 0.1kW GMTA010-38L600~1200B

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 16.0kg
Reference page : Specification Chart→P25



B-13 0.1kW GMTA010-24L60~200B

Reduction ratio : 60, 75, 100, 120, 165, 200
Approx. weight : 8.4kg
Reference page : Specification Chart→P25



Outline Dimensions

L

B-11
B-12
B-13
B-14
B-15

0.1

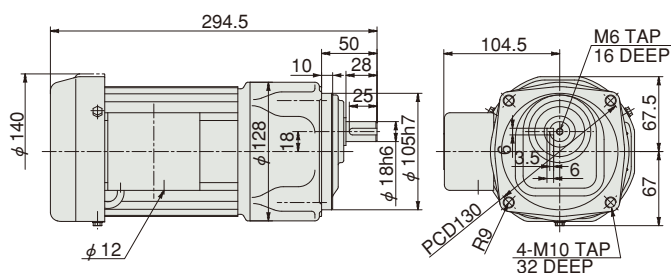
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.1 kW · U : Face mount brake type

GEAR MOTOR TA Series

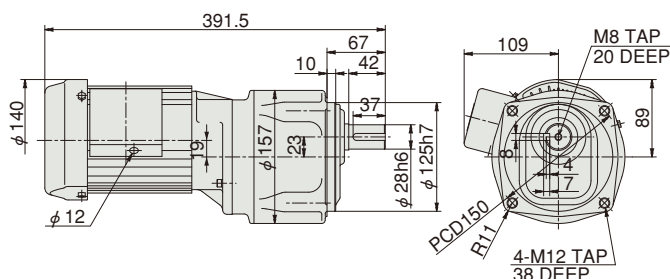
B-16 0.1kW GMTA010-18U5B

Reduction ratio : 5 Approx. weight : 8.2kg
Reference page : Specification Chart→P25 Options→P57



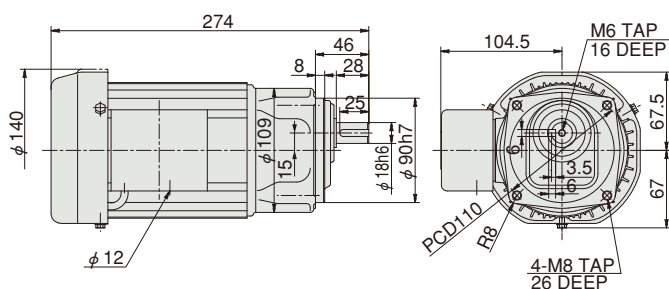
B-19 0.1kW GMTA010-28U300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 12.0kg
Reference page : Specification Chart→P25 Options→P57



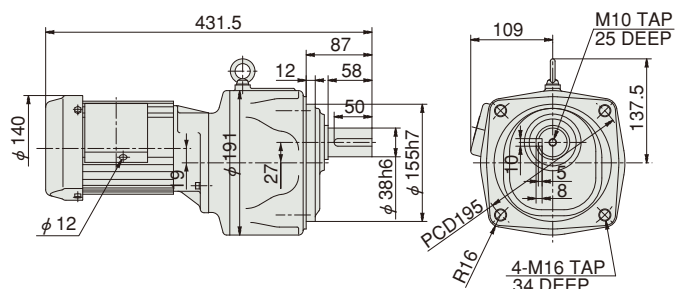
B-17 0.1kW GMTA010-18U10~50B

Reduction ratio : 10, 15, 20, 25, 30, 40, 50 Approx. weight : 6.8kg
Reference page : Specification Chart→P25 Options→P57



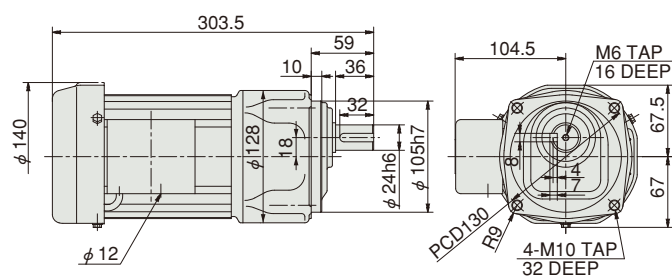
B-20 0.1kW GMTA010-38U600~1200B

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 22.0kg
Reference page : Specification Chart→P25 Options→P58



B-18 0.1kW GMTA010-24U60~200B

Reduction ratio : 60, 75, 100, 120, 165, 200 Approx. weight : 8.4kg
Reference page : Specification Chart→P25 Options→P57



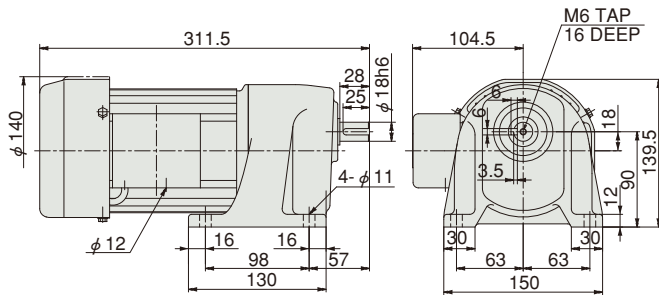
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.2 kW · L : Foot mount brake type

GEAR MOTOR TA Series

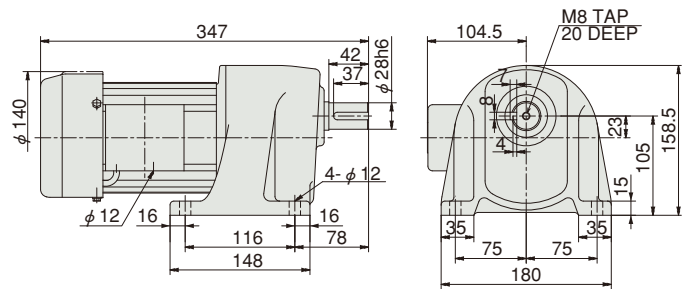
B-21 0.2kW GMTA020-18L5B

Reduction ratio : 5
Approx. weight : 8.8kg
Reference page : Specification Chart→P25



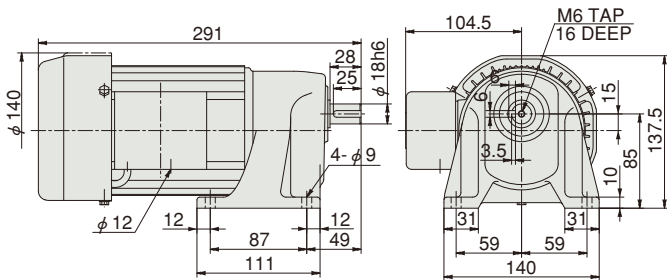
B-24 0.2kW GMTA020-28L100~200B

Reduction ratio : 100, 120, 165, 200
Approx. weight : 11.3kg
Reference page : Specification Chart→P25



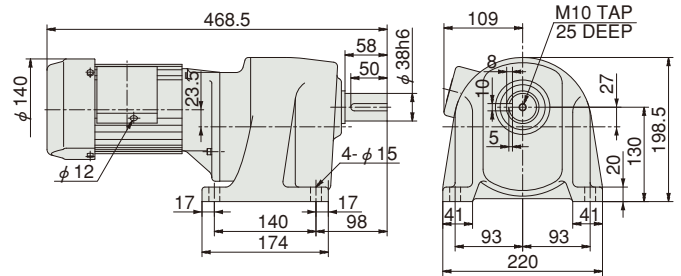
B-22 0.2kW GMTA020-18L10~25B

Reduction ratio : 10, 15, 20, 25
Approx. weight : 7.6kg
Reference page : Specification Chart→P25



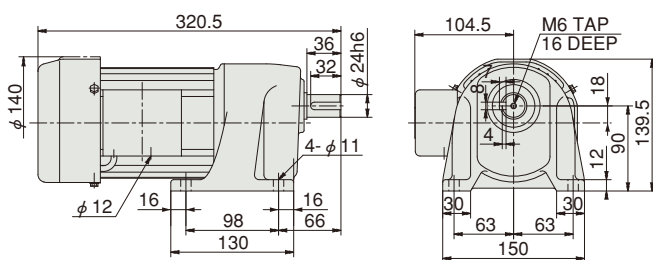
B-25 0.2kW GMTA020-38L300~450B

Reduction ratio : 300, 360, 450
Approx. weight : 17.3kg
Reference page : Specification Chart→P25



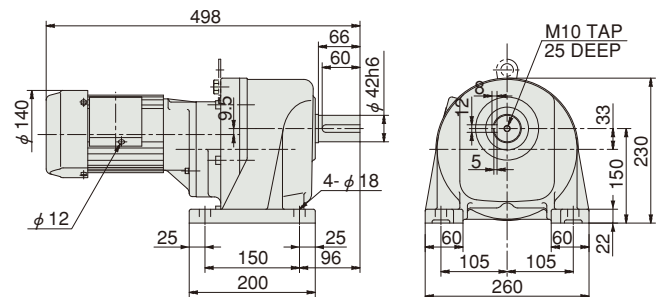
B-23 0.2kW GMTA020-24L30~75B

Reduction ratio : 30, 40, 50, 60, 75
Approx. weight : 9.0kg
Reference page : Specification Chart→P25



B-26 0.2kW GMTA020-42L600~1200B

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 39.0kg
Reference page : Specification Chart→P25



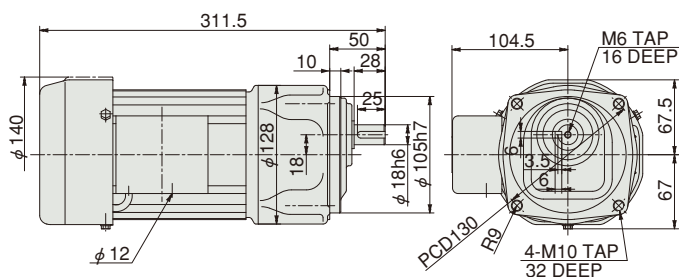
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.2 kW · U : Face mount type / F : Flange mount brake type

GEAR MOTOR TA Series

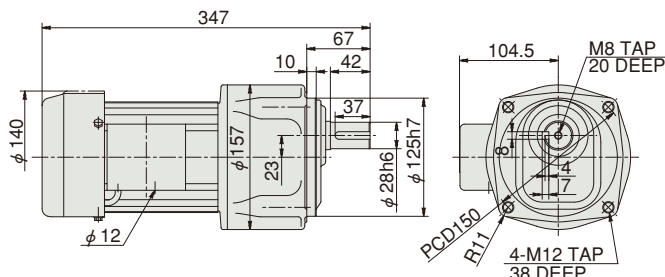
B-27 0.2kW GMTA020-18U5B

Reduction ratio : 5 Approx. weight : 8.8kg
Reference page : Specification Chart→P25 Options→P57



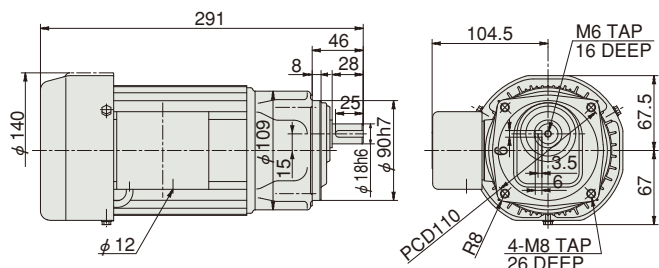
B-30 0.2kW GMTA020-28U100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 11.3kg
Reference page : Specification Chart→P25 Options→P57



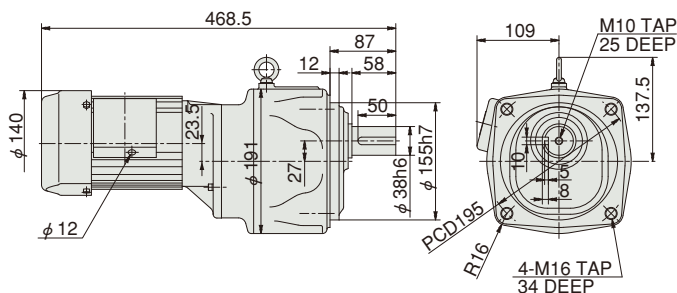
B-28 0.2kW GMTA020-18U10~25B

Reduction ratio : 10, 15, 20, 25 Approx. weight : 7.4kg
Reference page : Specification Chart→P25 Options→P57



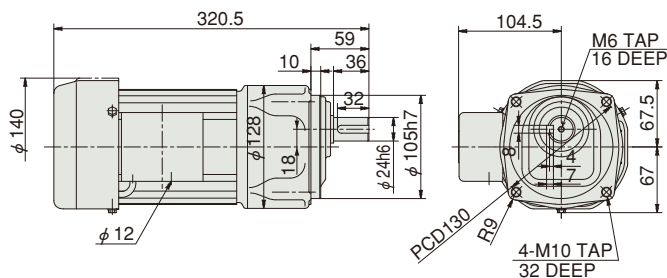
B-31 0.2kW GMTA020-38U300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 23.3kg
Reference page : Specification Chart→P25 Options→P58



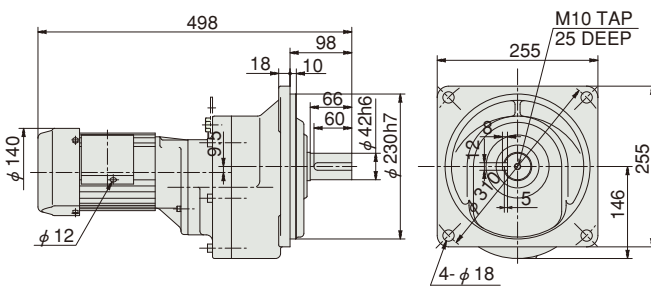
B-29 0.2kW GMTA020-24U30~75B

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 8.8kg
Reference page : Specification Chart→P25 Options→P57



B-32 0.2kW GMTA020-42F600~1200B

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 41.0kg
Reference page : Specification Chart→P25



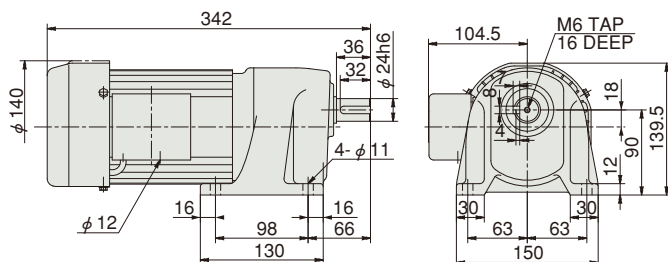
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.4 kW · L : Foot mount brake type

GEAR MOTOR TA Series

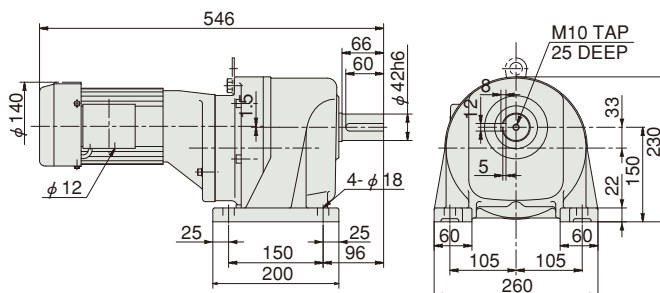
B-33 0.4kW GMTA040-24L5~25B

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 10.0kg
Reference page : Specification Chart→P26



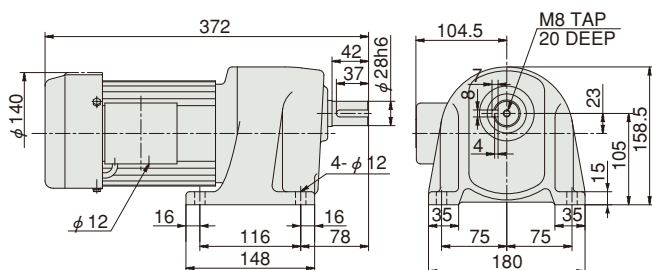
B-36 0.4kW GMTA040-42L300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 44.9kg
Reference page : Specification Chart→P26



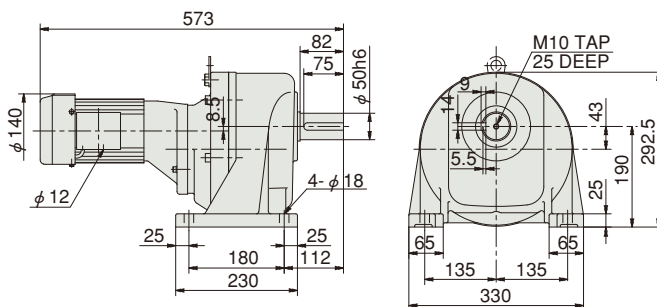
B-34 0.4kW GMTA040-28L30~75B

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 12.5kg
Reference page : Specification Chart→P26



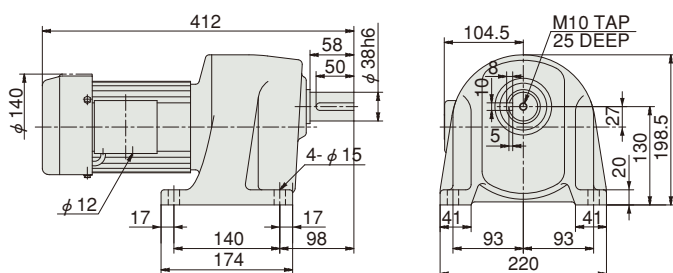
B-37 0.4kW GMTA040-50L600~1200B

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 64.9kg
Reference page : Specification Chart→P26



B-35 0.4kW GMTA040-38L100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 16.5kg
Reference page : Specification Chart→P26



Outline Dimensions

L

B-33
B-34
B-35
B-36
B-37

0.4

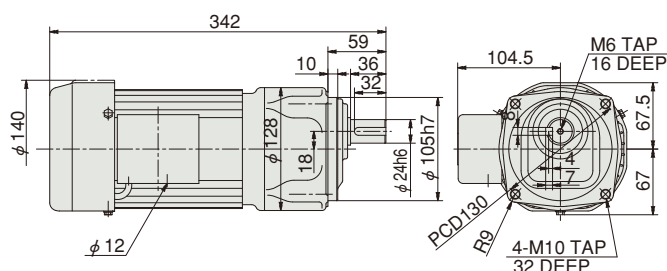
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.4 kW · U : Face mount type / F : Flange mount brake type

GEAR MOTOR TA Series

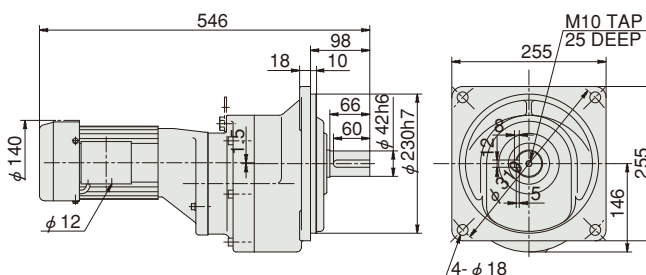
B-38 0.4kW GMTA040-24U5~25B

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 10.0kg
Reference page : Specification Chart→P26 Options→P57



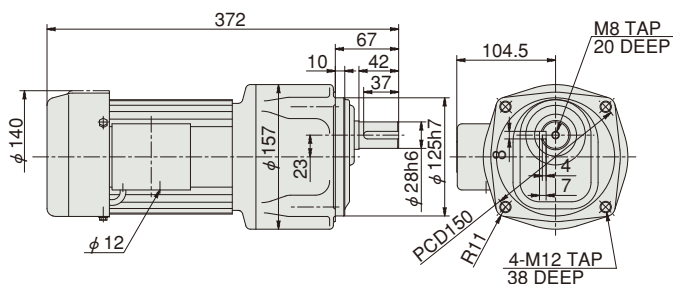
B-41 0.4kW GMTA040-42F300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 45.9kg
Reference page : Specification Chart→P26



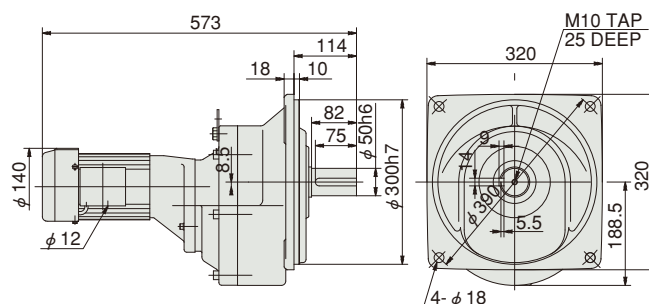
B-39 0.4kW GMTA040-28U30~75B

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 12.5kg
Reference page : Specification Chart→P26 Options→P57



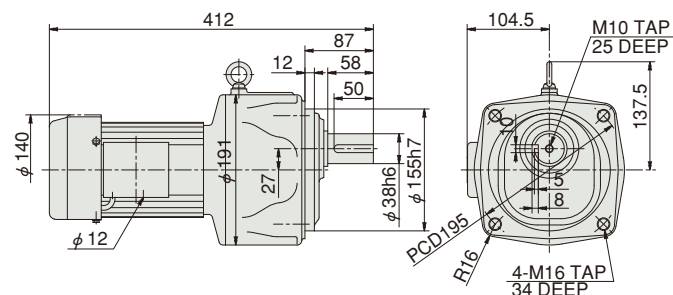
B-42 0.4kW GMTA040-50F600~1200B

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 66.9kg
Reference page : Specification Chart→P26



B-40 0.4kW GMTA040-38U100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 22.0kg
Reference page : Specification Chart→P26 Options→P58



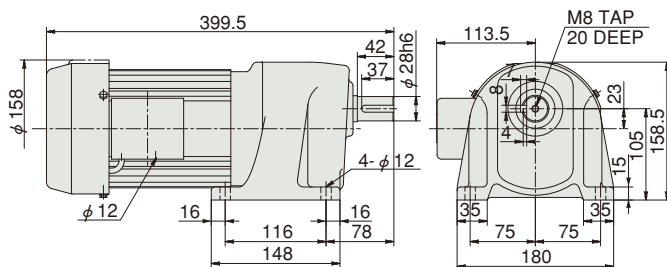
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 0.75 kW · L : Foot mount type / U : Face mount type / F : Flange mount brake type

GEAR MOTOR TA Series

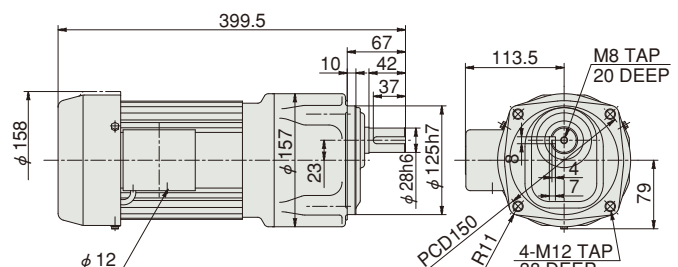
B-43 0.75kW GMTA075-28L5~25B

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 16.0kg
Reference page : Specification Chart→P26



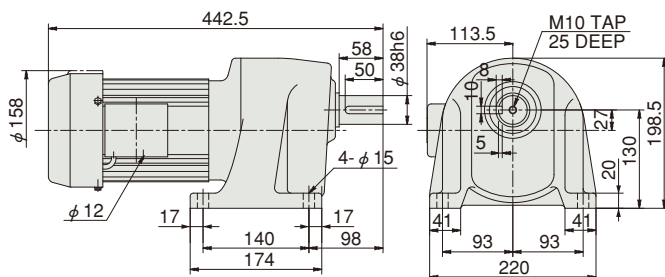
B-47 0.75kW GMTA075-28U5~25B

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 16.0kg
Reference page : Specification Chart→P26 Options→P57



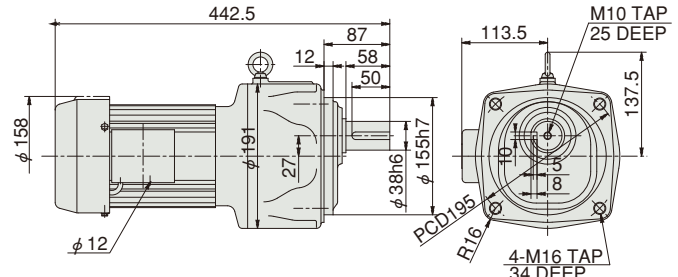
B-44 0.75kW GMTA075-38L30~75B

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 20.0kg
Reference page : Specification Chart→P26



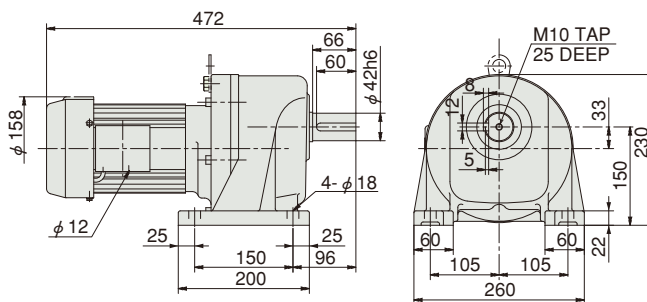
B-48 0.75kW GMTA075-38U30~75B

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 25.5kg
Reference page : Specification Chart→P26 Options→P58



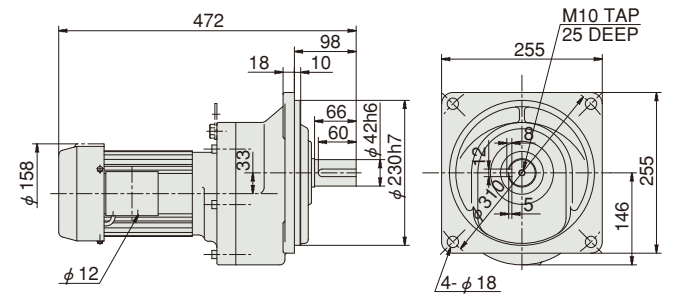
B-45 0.75kW GMTA075-42L100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 41.0kg
Reference page : Specification Chart→P26



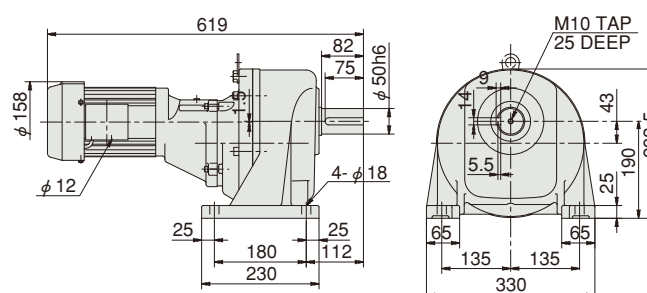
B-49 0.75kW GMTA075-42F100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 43.0kg
Reference page : Specification Chart→P26



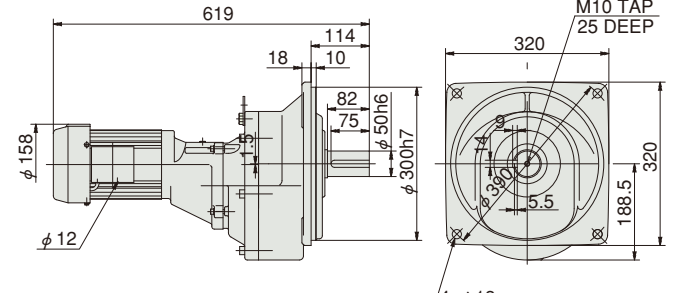
B-46 0.75kW GMTA075-50L300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 65.0kg
Reference page : Specification Chart→P26



B-50 0.75kW GMTA075-50F300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 68.0kg
Reference page : Specification Chart→P26



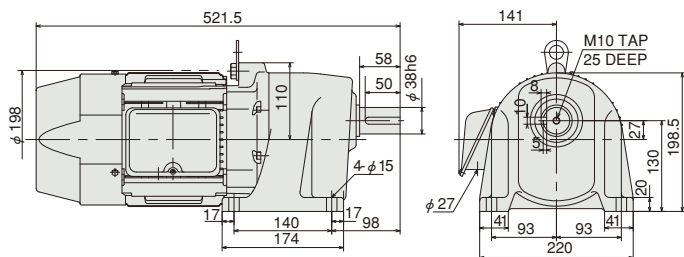
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 1.5 kW · L : Foot mount type / U : Face mount type / F : Flange mount brake type

GEAR MOTOR TA Series

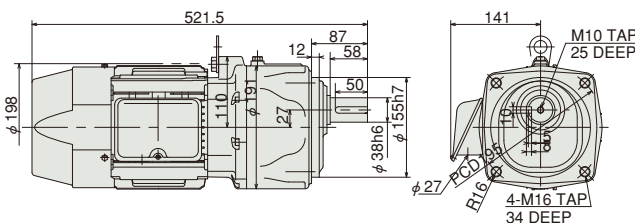
B-51 1.5kW GMTA150-38L5~30B

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 31.0kg
Reference page : Specification Chart→P26



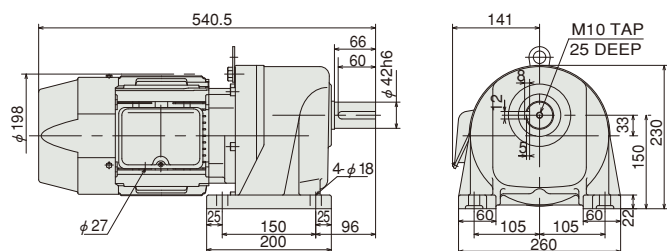
B-54 1.5kW GMTA150-38U5~30B

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 38.0kg
Reference page : Specification Chart→P26 Options→P58



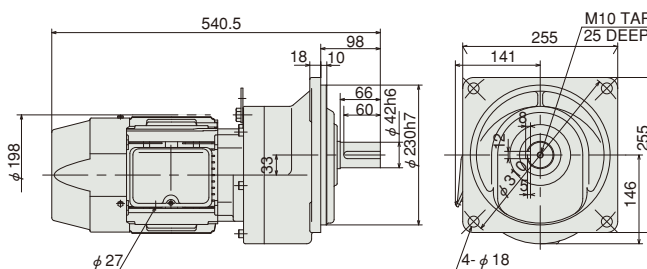
B-52 1.5kW GMTA150-42L40~75B

Reduction ratio : 40, 50, 60, 75 Approx. weight : 52.0kg
Reference page : Specification Chart→P26



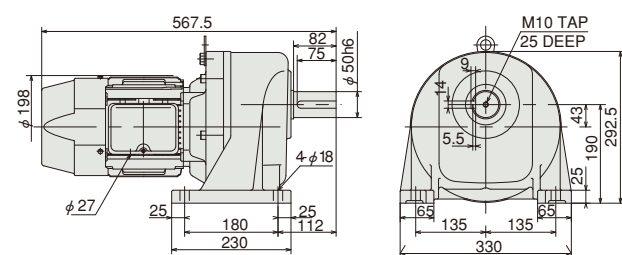
B-55 1.5kW GMTA150-42F40~75B

Reduction ratio : 40, 50, 60, 75 Approx. weight : 53.0kg
Reference page : Specification Chart→P26



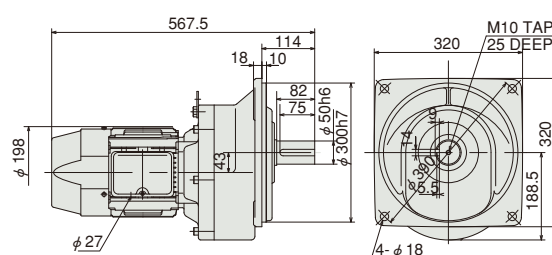
B-53 1.5kW GMTA150-50L100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 72.0kg
Reference page : Specification Chart→P26



B-56 1.5kW GMTA150-50F100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 74.0kg
Reference page : Specification Chart→P26



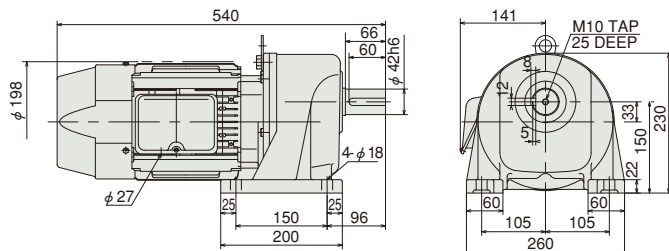
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 2.2 kW · L : Foot mount type / U : Flange mount brake type

GEAR MOTOR TA Series

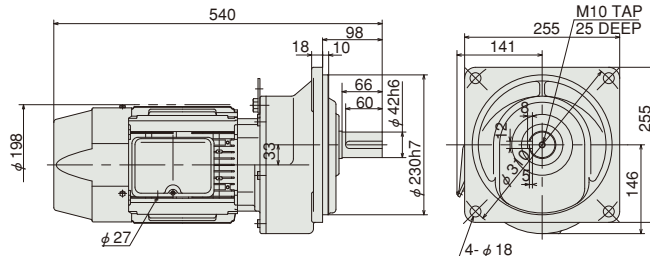
B-57 2.2kW GMTA220-42L5~30B

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 51.0kg
Reference page : Specification Chart→P27



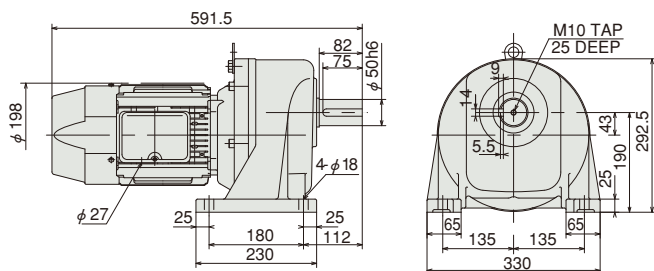
B-60 2.2kW GMTA220-42F5~30B

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 53.0kg
Reference page : Specification Chart→P27



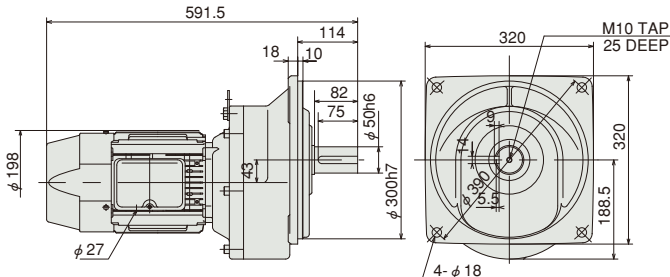
B-58 2.2kW GMTA220-50L40~75B

Reduction ratio : 40, 50, 60, 75 Approx. weight : 72.0kg
Reference page : Specification Chart→P27



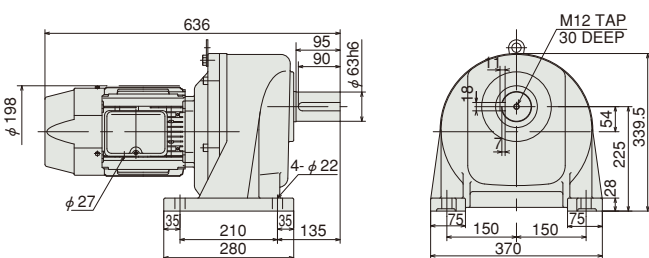
B-61 2.2kW GMTA220-50F40~75B

Reduction ratio : 40, 50, 60, 75 Approx. weight : 75.0kg
Reference page : Specification Chart→P27



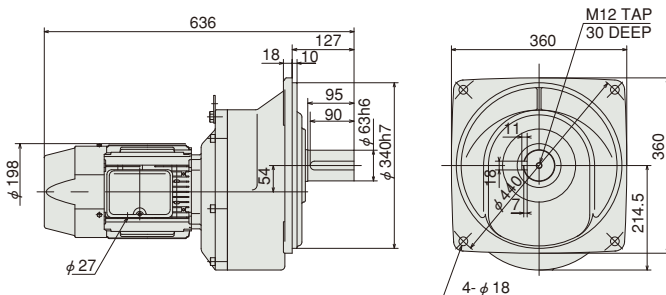
B-59 2.2kW GMTA220-63L100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 103.0kg
Reference page : Specification Chart→P27



B-62 2.2kW GMTA220-63F100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 107.0kg
Reference page : Specification Chart→P27



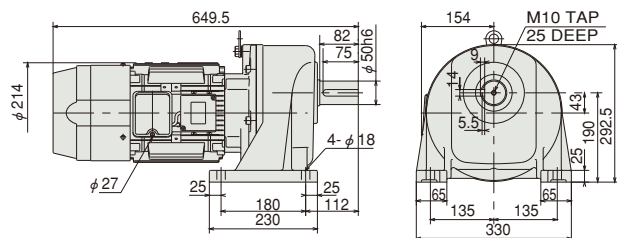
Brake-Type Gear Motor TA Series Outline Dimensions

Three-phase 3.7 kW · L : Foot mount type / U : Flange mount brake type

GEAR MOTOR TA Series

B-63 3.7kW GMTA370-50L5~30B

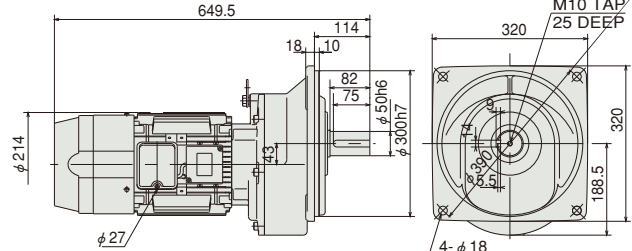
Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 80.0kg
Reference page : Specification Chart→P27	



Note) For 400 V, the DC module is incorporated in the terminal box.

B-65 3.7kW GMTA370-50F5~30B

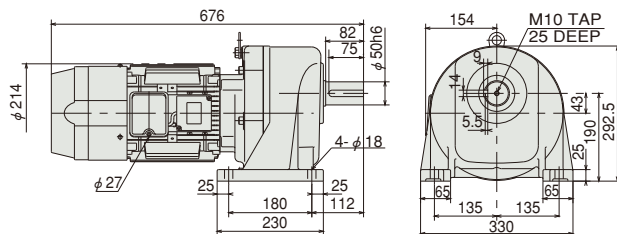
Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 82.0kg
Reference page : Specification Chart→P27	



Note) For 400 V, the DC module is incorporated in the terminal box.

B-64 3.7kW GMTA370-50L40~50B

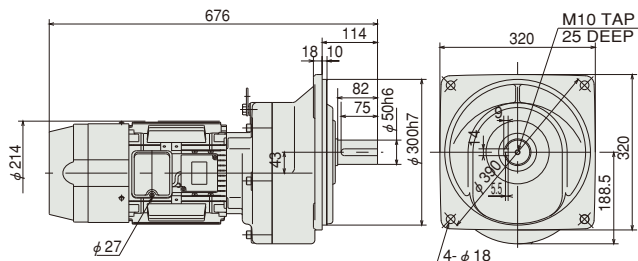
Reduction ratio : 40, 50	Approx. weight : 84.0kg
Reference page : Specification Chart→P27	



Note) For 400 V, the DC module is incorporated in the terminal box.

B-66 3.7kW GMTA370-50F40~50B

Reduction ratio : 40, 50	Approx. weight : 86.0kg
Reference page : Specification Chart→P27	



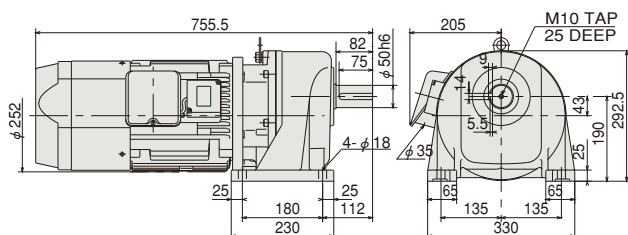
Note) For 400 V, the DC module is incorporated in the terminal box.

Three-phase 5.5 kW · L : Foot mount type / F : Flange mount brake type

GEAR MOTOR TA Series

B-67 5.5kW GMTA550-50L5~30B

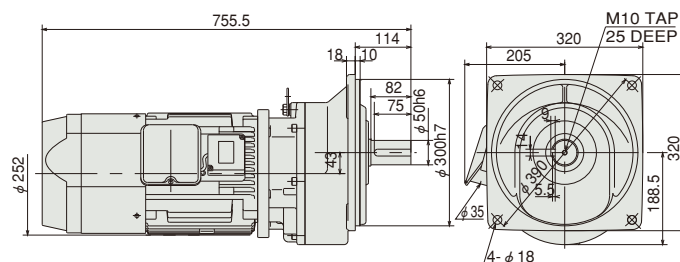
Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 104.0kg
Reference page : Specification Chart→P27	



We can make it to order with short lead times.

B-68 5.5kW GMTA550-50F5~30B

Reduction ratio : 5, 10, 15, 20, 25, 30	Approx. weight : 107.0kg
Reference page : Specification Chart→P27	



We can make it to order with short lead times.

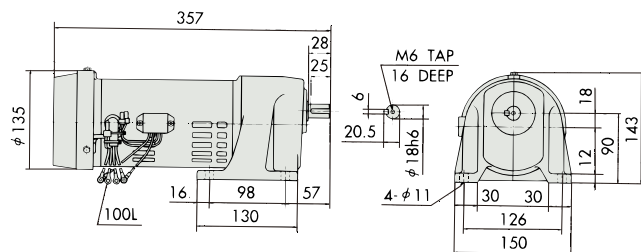
Brake-Type Gear Motor TA Series Outline Dimensions

Single-phase 100 W · L : Foot mount brake type

GEAR MOTOR TA Series

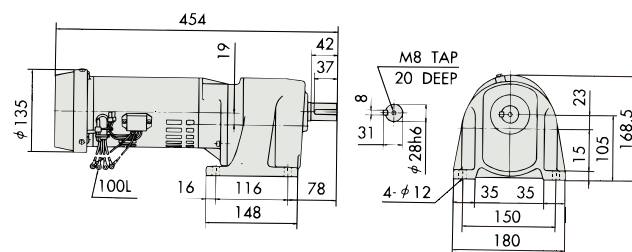
B-69 100W GMTA100-18L5B

Reduction ratio : 5
Approx. weight : 8.6kg
Reference page : Specification Chart→P25



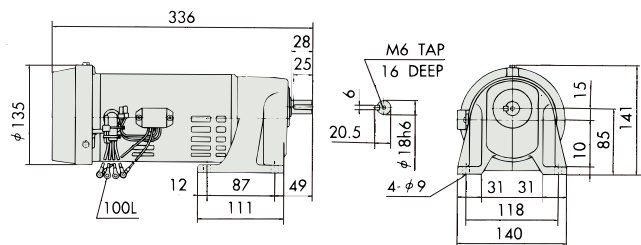
B-72 100W GMTA100-28L300~450B

Reduction ratio : 300, 360, 450
Approx. weight : 12.5kg
Reference page : Specification Chart→P25



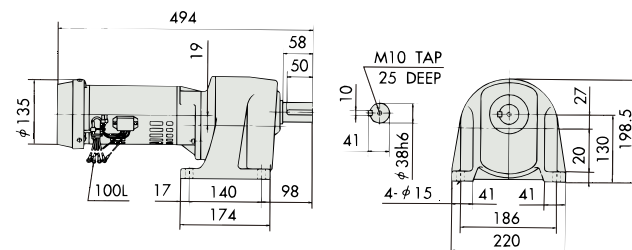
B-70 100W GMTA100-18L10~50B

Reduction ratio : 10, 15, 20, 25, 30, 40, 50
Approx. weight : 7.4kg
Reference page : Specification Chart→P25



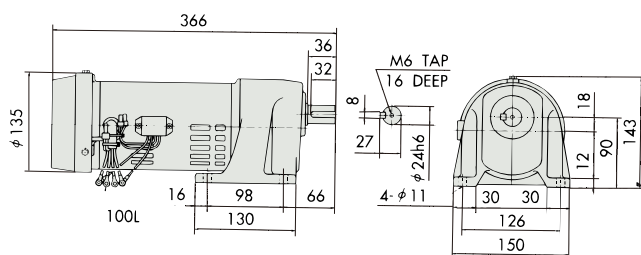
B-73 100W GMTA100-38L600~1200B

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 16.0kg
Reference page : Specification Chart→P25



B-71 100W GMTA100-24L60~200B

Reduction ratio : 60, 75, 100, 120, 165, 200
Approx. weight : 8.8kg
Reference page : Specification Chart→P25



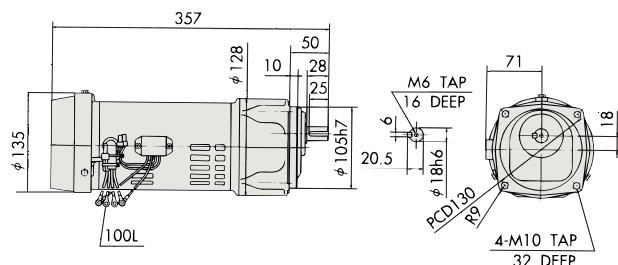
Brake-Type Gear Motor TA Series Outline Dimensions

Single-phase 100 W · U : Face mount brake type

GEAR MOTOR TA Series

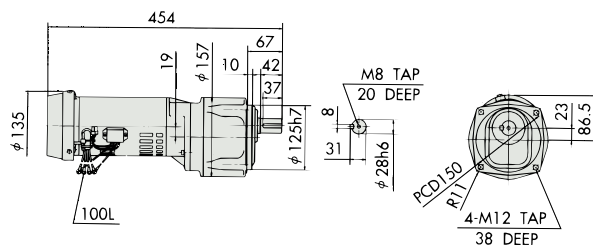
B-74 100W GMTA100-18U5B

Reduction ratio : 5 Approx. weight : 8.6kg
Reference page : Specification Chart→P25 Options→P57



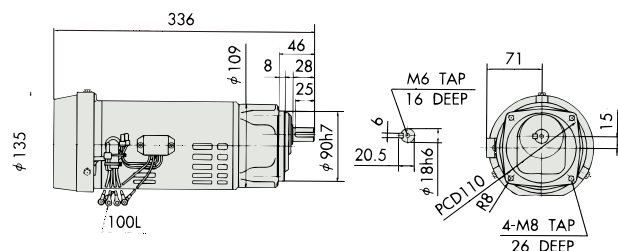
B-77 100W GMTA100-28U300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 12.0kg
Reference page : Specification Chart→P25 Options→P57



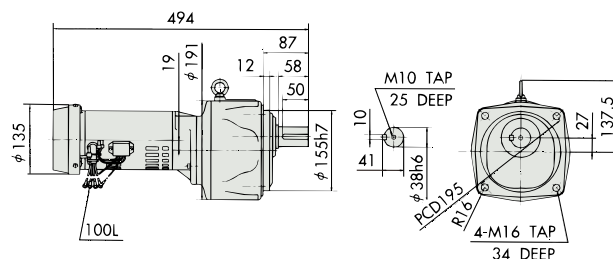
B-75 100W GMTA100-18U10~50B

Reduction ratio : 10, 15, 20, 25, 30, 40, 50 Approx. weight : 7.2kg
Reference page : Specification Chart→P25 Options→P57



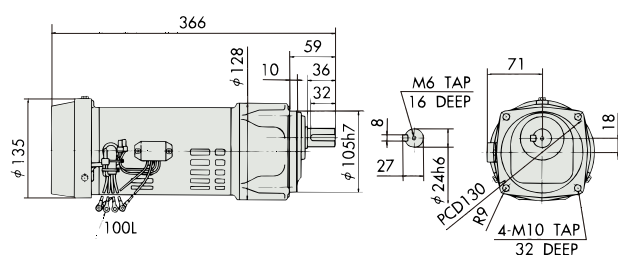
B-78 100W GMTA100-38U600~1200B

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 22.0kg
Reference page : Specification Chart→P25 Options→P58



B-76 100W GMTA100-24U60~200B

Reduction ratio : 60, 75, 100, 120, 165, 200 Approx. weight : 8.6kg
Reference page : Specification Chart→P25 Options→P57



U

B-74
B-75
B-76
B-77
B-78

100

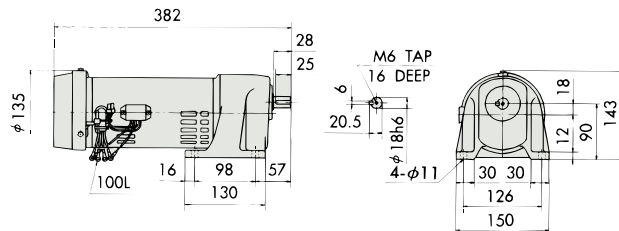
Brake-Type Gear Motor TA Series Outline Dimensions

Single-phase 200 W · L : Foot mount brake type

GEAR MOTOR TA Series

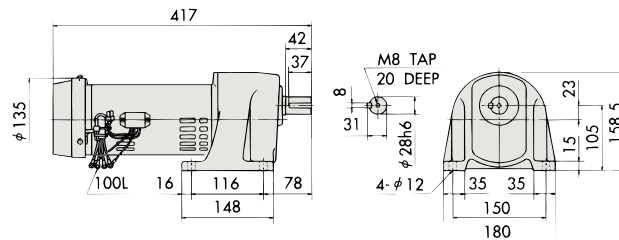
B-79 200W GMTA200-18L5B

Reduction ratio : 5
Approx. weight : 10.5kg
Reference page : Specification Chart→P25



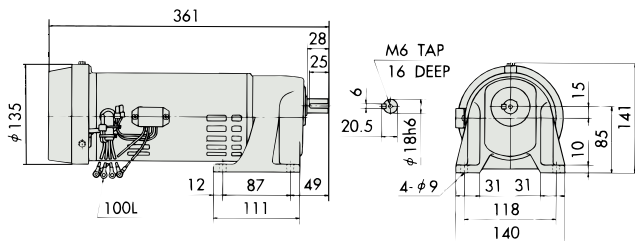
B-82 200W GMTA200-28L100~200B

Reduction ratio : 100, 120, 165, 200
Approx. weight : 13.0kg
Reference page : Specification Chart→P25



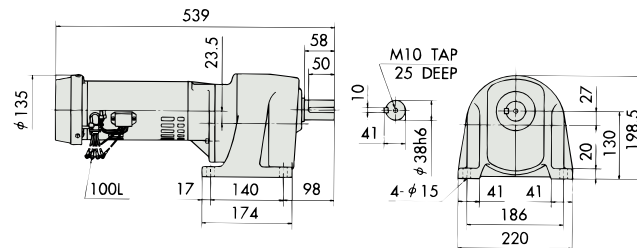
B-80 200W GMTA200-18L10~25B

Reduction ratio : 10, 15, 20, 25
Approx. weight : 9.2kg
Reference page : Specification Chart→P25



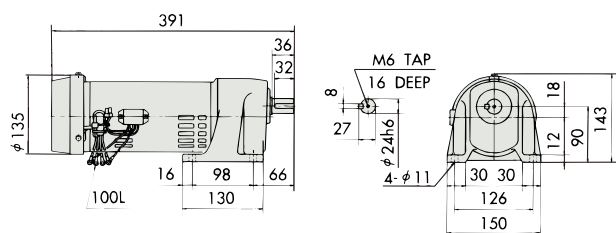
B-83 200W GMTA200-38L300~450B

Reduction ratio : 300, 360, 450
Approx. weight : 19.0kg
Reference page : Specification Chart→P25



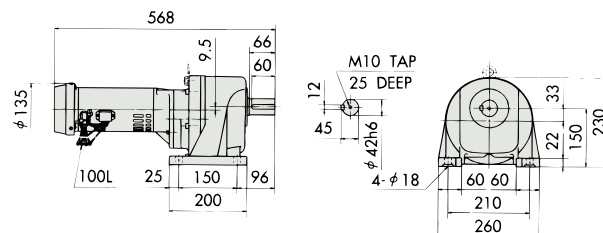
B-81 200W GMTA200-24L30~75B

Reduction ratio : 30, 40, 50, 60, 75
Approx. weight : 10.5kg
Reference page : Specification Chart→P25



B-84 200W GMTA200-42L600~1200B

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 40.8kg
Reference page : Specification Chart→P25



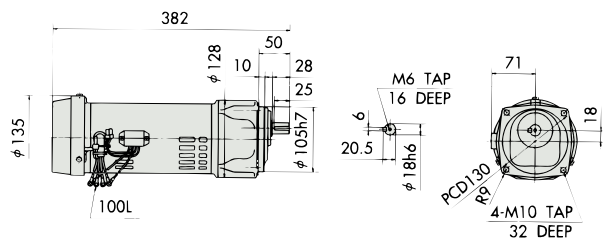
Brake-Type Gear Motor TA Series Outline Dimensions

Single-phase 200 W · U : Face mount type / F : Flange mount brake type

GEAR MOTOR TA Series

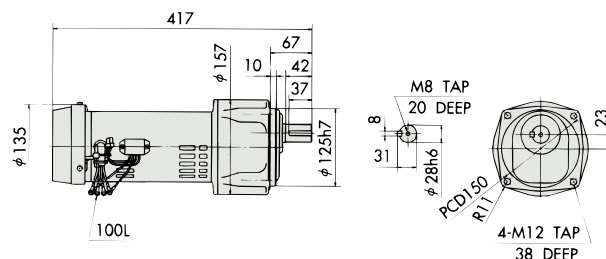
B-85 200W GMTA200-18U5B

Reduction ratio : 5 Approx. weight : 10.5kg
Reference page : Specification Chart→P25 Options→P57



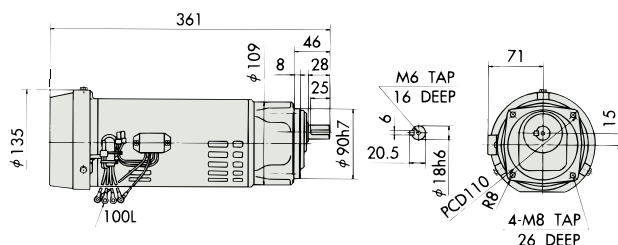
B-88 200W GMTA200-28U100~200B

Reduction ratio : 100, 120, 165, 200 Approx. weight : 13.0kg
Reference page : Specification Chart→P25 Options→P57



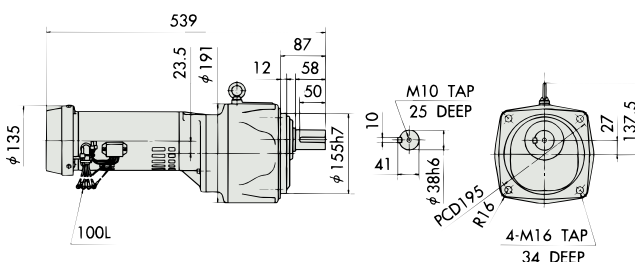
B-86 200W GMTA200-18U10~25B

Reduction ratio : 10, 15, 20, 25 Approx. weight : 9.0kg
Reference page : Specification Chart→P25 Options→P57



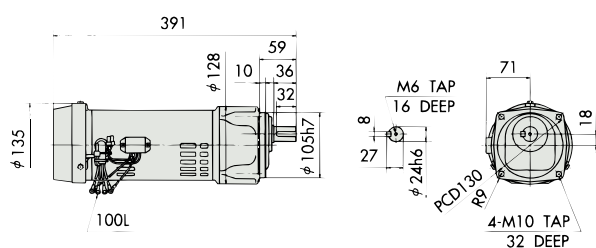
B-89 200W GMTA200-38U300~450B

Reduction ratio : 300, 360, 450 Approx. weight : 24.5kg
Reference page : Specification Chart→P25 Options→P58



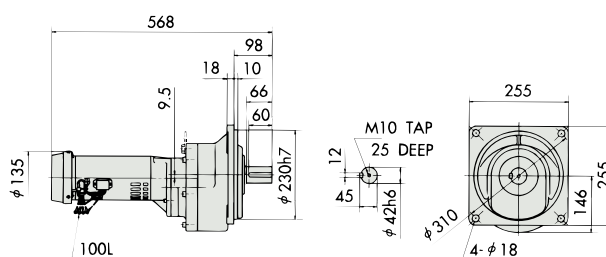
B-87 200W GMTA200-24U30~75B

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 10.5kg
Reference page : Specification Chart→P25 Options→P57



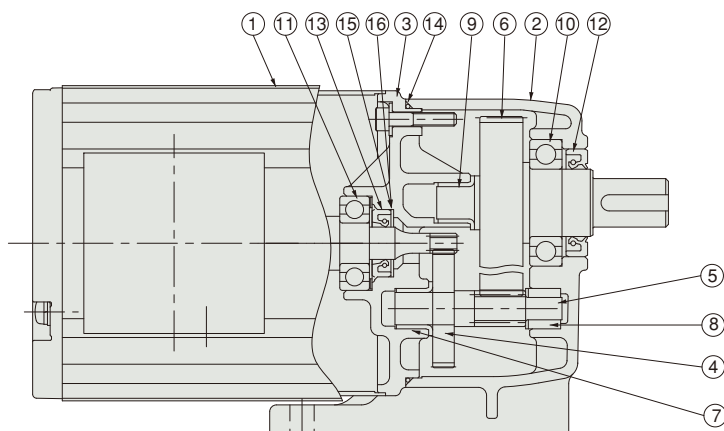
B-90 200W GMTA200-42F600~1200B

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 41.8kg
Reference page : Specification Chart→P25



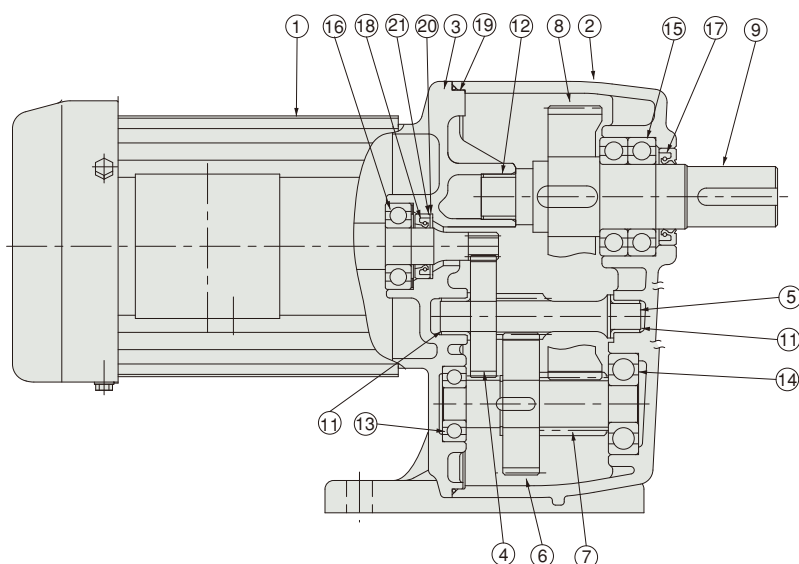
Structure

GMTA010-18L20



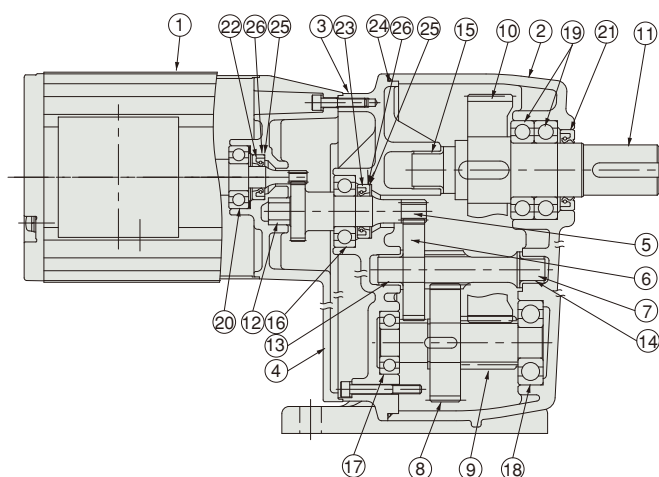
1. Motor
2. L case
3. M bracket
4. 1st stage wheel
5. 2nd shaft with pinion
6. Output shaft with wheel
7. Bearing metal (2nd shaft M bracket side)
8. Bearing metal (2nd shaft L case side)
9. Bearing metal (output shaft M bracket side)
10. Bearing (output shaft L case side)
11. Bearing (motor shaft load side)
12. Oil seal (output side)
13. Oil seal (motor shaft)
14. O-ring
15. Filter
16. Shim

GMTA040-28L50



1. Motor
2. L case
3. M bracket
4. 1st stage wheel
5. 2nd shaft with pinion
6. 2nd stage wheel
7. 3rd shaft with pinion
8. 3rd stage wheel
9. Output shaft
10. Bearing metal (2nd shaft M bracket side)
11. Bearing metal (2nd shaft L case side)
12. Bearing metal (output shaft M bracket side)
13. Bearing (3rd shaft M bracket side)
14. Bearing (3rd shaft L case side)
15. Bearing (output shaft L case side)
16. Bearing (motor shaft load side)
17. Oil seal (output shaft)
18. Oil seal (motor shaft)
19. O-ring
20. Filter
21. Shim

GMTA010-28L450



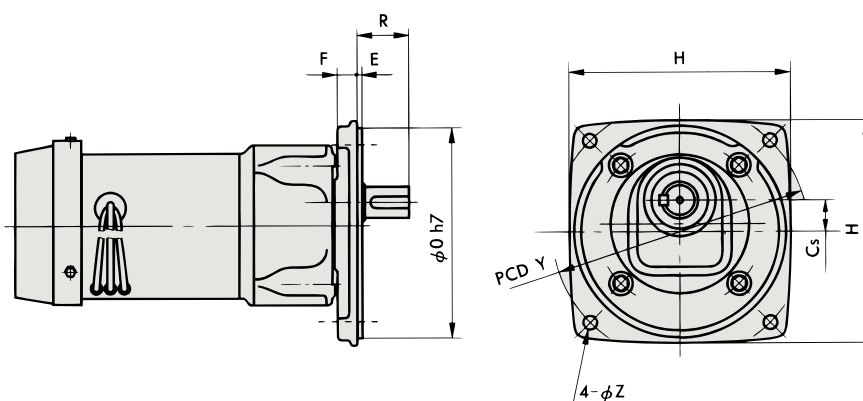
1. Motor
2. L case
3. M bracket
4. H bracket
5. 1st stage wheel with pinion
6. 2nd stage wheel
7. 3rd shaft with pinion
8. 3rd stage wheel
9. 4th shaft with pinion
10. 4th stage wheel
11. Output shaft
12. Bearing metal (2nd shaft H bracket side)
13. Plametal (3rd shaft M bracket side)
14. Plametal (3rd shaft L case side)
15. Plametal (output shaft M bracket side)
16. Bearing (2nd shaft M bracket side)
17. Bearing (4th shaft M bracket side)
18. Bearing (4th shaft L case side)
19. Bearing (output shaft L case side)
20. Bearing (motor shaft load side)
21. Oil seal (output shaft)
22. Oil seal (motor shaft)
23. Oil seal (2nd shaft)
24. O-ring
25. Filter
26. Shim

Flange

- When converting a face mount type (U) to a flange mount type (F), place an order separately for an S flange (eccentric) or an M flange (concentric).
- The S flange (eccentric) and M flange (concentric) are both made of cast iron.

1. S flange (eccentric)

This flange can be installed easily with four bolts. Please utilize it according to your need. (The four bolts are included with the flange.)



(1) Flange number

Reduction ratio	Motor output			
	0.1kW	0.2kW	0.4kW	0.75kW
	100W	200W	400W	—
1/5	UFS27		UFS27	UFS37
1/10	UFS15 (UFS13)	UFS15		
1/15				
1/20		UFS27 (25)		
1/25				
1/30		UFS27	UFS37	
1/40				
1/50				
1/60				
1/75	UFS27 (UFS25)	UFS37		
1/100				
1/120	UFS27	UFS37		
1/165				
1/200				
1/300	UFS37	(Note) Shown in parentheses is the one-frame smaller size. Either can be used by customer's choice.		
1/360				
1/450				

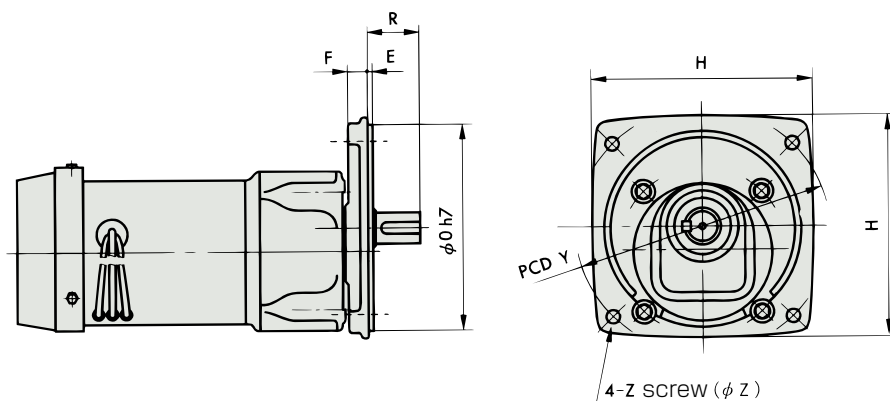
(Note) Shown in parentheses is the one-frame smaller S flange.
Either can be used by customer's choice.

(2) Dimension list

Flange number	Cs	E	F	H	R	O	Y	Z	Weight kg
UFS13	18	4	12	135	32	125	150	9	1.2
UFS15	20	4	12	150	32	140	170	9	1.3
UFS25	20	4	16	150	41	140	170	9	1.4
UFS27	24	4	16	175	41	165	200	11	2.3
UFS37	24	4	18	175	47	165	200	11	2.1

2. M flange (concentric)

This flange can be installed easily with four bolts. Please utilize it according to your need. (The four bolts are included with the flange.)



(1) Flange number

Reduction ratio	Motor output				
	0.1kW	0.2kW	0.4kW	0.75kW	1.5kW
	100W	200W	400W	—	—
1/5	UFM26		UFM26	UFM39	UFM48
1/10	UFM15	UFM15			
1/15					
1/20					
1/25					
1/30	UFM26	UFM39	UFM48		
1/40					
1/50					
1/60					
1/75	UFM26	UFM39	UFM48		
1/100					
1/120					
1/165					
1/200	UFM39	UFM48			
1/300					
1/360					
1/450					
1/600	UFM48				
1/720					
1/1000					
1/1200					

(2) Dimension list

Flange number	E	F	H	R	O	Y	Z	Weight kg
UFM15	3.5	12	155	32	145	170	M10	1.4
UFM26	3.5	16	165	41(32)	148	185	M12	1.7
UFM39	4	18	190	47	180	215	M12	2.5
UFM48	5	26.5	280	60.5	260	290	$\phi 12$	7.5

Note 1) For the UFM48 only, the bolthole used for fixing the flange is a through-hole.

Note 2) The dimension in parentheses is applied when installing the 0.1 kW, 0.2 kW, 100 W and 200 W devices with a reduction ratio of 1/5.

Gear Motor TA Series Installation

Lubrication

1. Grease lubrication

Grease is used for lubrication.

2. Grease injection

The product is delivered with the correct amount of unleaded grease already installed.

3. Grease change

In most cases, it is not necessary to change or replenish the grease, but if the grease is changed after 20,000 hours of operation, the life will be prolonged.

4. Grease specification

Use grease for high-grade gears with a viscosity No. 000 or equivalent.

5. Recommended grease

Nippon Grease Co., Ltd.: Nigtight LMS No. 000 (this is the unleaded grease installed before delivery)

Showa Shell Sekiyu K.K.: Alvania EP Grease R000

Nippon Oil Mitsubishi Co., Ltd.: Pyronoc Universal 000

6. Grease quantity

• Gear motor • Gear motor with brake type • Inline reducer • Adapter-type reducer			CB gear motor		
Motor output	Reduction ratio	Grease quantity kg	Motor output	Reduction ratio	Grease quantity kg
0.1 kW (100W)	1/10~1/50	0.14	0.1 kW (100W)	1/10~1/25	0.14
	1/5 · 1/60~1/200	0.3		1/5 · 1/30~1/75	0.3
	1/300~1/450	0.5 + (0.35)		1/100~1/200	0.5
	1/600~1/1200	1.1 + (0.35)	0.2 kW (200W)	1/10~1/25	0.14
0.2 kW (200W)	1/10~1/25	0.14		1/5 · 1/30~1/75	0.3
	1/5 · 1/30~1/75	0.3		1/100~1/200	0.5
	1/100~1/200	0.5	0.4 kW	1/5~1/25	0.3
	1/300~1/450	1.1 + (0.6)		1/30~1/75	0.5
	1/600~1/1200	1.3 + (0.6)		1/100~1/200	1.1
0.4 kW	1/5~1/25	0.3	0.75 kW	1/5~1/25	0.5
	1/30~1/75	0.5		1/30~1/75	1.1
	1/100~1/200	1.1		1/100~1/200	1.3
	1/300~1/450	1.4 + (0.8)	1.5 kW	1/5~1/30	1.3
	1/600~1/1200	2.8 + (0.8)		1/40~1/75	2.8
0.75 kW	1/5~1/25	0.5		1/100~1/200	4.2
	1/30~1/75	1.1	2.2 kW	1/5~1/30	1.3
	1/100~1/200	1.3		1/40~1/75	2.8
	1/300~1/450	2.8 + (1.0)		1/100~1/200	4.2
1.5 kW	1/5~1/30	1.3	3.7 kW	1/5~1/30	2.8
	1/40~1/75	1.4		1/40 · 1/50	2.8
	1/100~1/200	2.8			
2.2 kW	1/5~1/30	1.3			
	1/40~1/75	2.8			
	1/100~1/200	4.2			
3.7 kW	1/5~1/30	2.8			
	1/40 · 1/50	2.8			
5.5 kW	1/5~1/30	3.3			

(Note) The values in parentheses under "Grease quantity" are for the 1st step speed reduction part of the 4-step speed reduction (1/300 to 1/1200).

7. Oil seal

A contact-type oil seal is used to seal the shaft of the speed reducer housing. In most cases, it is not necessary to replace the oil seal. If the oil seal is replaced after 10,000 hours of operation, though, the life of the reducer will be prolonged. Because the life of the oil seal depends on the use conditions, there may be cases where the oil seal needs to be replaced before 10,000 hours of operation.

If the product is used in equipment for which oil leakage should be particularly avoided, such as food processing machines, install an oil pan or similar device in preparation for unexpected oil leakage due to failure, life expiration or other cause.

Gear Motor TA Series Installation

■ Installation

1. Mounting direction

Because all the models employ grease lubrication, they can be mounted in any position: horizontal, vertical or inclined.

2. Ambient conditions

Installation place	Indoor place not exposed to dust or water
Ambient temperature	−20°C to 40°C (0°C to 40°C for CB gear motors)
Ambient humidity	Less than 85% (non condensing)
Altitude	Elevations below 1000 m
Atmosphere	Free from corrosive gases, explosive gases and steam
Mounting direction	No limitations on mounting angles: horizontal, vertical or inclined

3. Bolt tightening

(1) Foot mount type

- Use a strong flat mounting surface that is not significantly affected by vibration during operation. After cleaning dirt and foreign matter from the mounting face, securely fasten the product with four bolts.
- When a none directly connected drive is employed or the product is started and stopped frequently, we recommend installing a stopper on the foot section.

(2) Face mount type

When installing a face mount type, please note the following in particular.

① Mounting

If the length of engagement of the mounting bolt and the female threads of the main body is short or the tightening torque is too high, the female threads of the main body will be damaged. If the tightening torque is too low, the bolts fastening the reducer may loosen during operation.

② Mounting bolt

A) Use hexagon head bolts (JIS B1051, Strength 4.6) or hexagon socket bolts (JIS B1051, Strength 10.9).

B) Bolt length

Determine the bolt length based on <Thickness of mounting flange + Length of engagement of bolt > (shown in the table below).

Threaded portion of case	Length of engagement of bolt
M8-26mm	18 mm or more
M10-32mm	22 mm or more
M12-38mm	26 mm or more
M16-34mm	24 mm or more

③ Tightening torque

Tighten the bolt to the tightening torque shown in the table below.

Screw size	Hexagon head bolt		Hexagon socket bolt	
	N·m	{kgf·m}	N·m	{kgf·m}
M8	9.8~10.3	{1.0~1.05}	9.8~19.6	{1.0~ 2.0}
M10	19.6~20.6	{2.0~2.1 }	19.6~39.2	{2.0~ 4.0}
M12	34.3~36.6	{3.5~3.7 }	34.3~68.6	{3.5~ 7.0}
M16	84.3~88.2	{8.6~9.0 }	84.3~168.6	{8.6~17.2}

Note) When mounting an optional flange, be sure to use the bolts and washers that are included.

(3) Flange mount type

Securely fasten to the flange mounting plate.

Gear Motor TA Series Installation

Coupling

1. For direct coupling

- When easy removal and safety are required, we recommend the compact and strong Tsubaki Roller Chain Coupling.
- When the product is used in places where lubrication is impossible, we recommend the Tsubaki Nylon Chain Coupling.
- When shaft misalignment or vibration is anticipated, we recommend the Tsubaki Neo-flex Coupling or Tsubaki Jaw-flex Coupling.

2. For parallel coupling

- We recommend a strong and safe roller chain transmission.

3. Notes on coupling

- (1) Accurately aligning the coupling and shaft center will prolong the operating life of the reducer and shaft coupling.
- (2) For roller chain transmissions, make sure that the reducer's shaft and the mating shaft are parallel and adjust the tension of the chain to eliminate slack.

4. Recommended couplings to be used for direct coupling to the output shaft

Motor output kW	Reduction ratio	Output shaft diameter mm	Recommended coupling		
			Roller chain coupling	Neo-flex coupling	Nylon chain coupling
0.1	1/5~1/50	18	CR4012-J	NF 303	CN411
	1/60~1/100	24	CR4014-J	NF 403	CN415
	1/120~1/200		CR4014-J	NF 503	CN611
	1/300	28	CR4014-J	NF 603	CN613
	1/360 · 1/450		CR4014-J	NF 603	CN617
	1/600 · 1/720	38	CR5016-J	NF 703	—
	1/1000 · 1/1200		CR5016-J	NF 804	—
0.2	1/5~1/25	18	CR4012-J	NF 303	CN411
	1/30~1/60	24	CR4014-J	NF 403	CN417
	1/75		CR4014-J	NF 503	CN419
	1/100 · 1/120	28	CR4014-J	NF 603	CN613
	1/165 · 1/200		CR4014-J	NF 603	CN617
	1/300 · 1/360	38	CR5016-J	NF 703	—
	1/450		CR5016-J	NF 804	—
	1/600	42	CR5018-J	NF 904	—
	1/720~1/1200		CR5018-J	NF 1004	—
0.4	1/5~1/25	24	CR4014-J	NF 403	CN416
	1/30~1/50	28	CR4014-J	NF 503	CN612
	1/60 · 1/75		CR4014-J	NF 603	CN615
	1/100 · 1/120	38	CR5016-J	NF 703	—
	1/165 · 1/200		CR5016-J	NF 804	—
	1/300	42	CR5018-J	NF 904	—
	1/360 · 1/450		CR5018-J	NF 1004	—
	1/600~1/1200	50	CR6018-J	—	—

Motor output kW	Reduction ratio	Output shaft diameter mm	Recommended coupling		
			Roller chain coupling	Neo-flex coupling	Nylon chain coupling
0.75	1/5~1/25	28	CR4014-J	NF 503	CN611
	1/30~1/50	38	CR5016-J	NF 603	CN618
	1/60 · 1/75		CR5016-J	NF 703	—
	1/100 · 1/120	42	CR5018-J	NF 804	—
	1/165 · 1/200		CR5018-J	NF 1004	—
	1/300~1/450	50	CR6018-J	—	—
1.5	1/5 · 1/10	38	CR5016-J	NF 503	CN614
	1/15 · 1/20		CR5016-J	NF 603	CN615
	1/25 · 1/30		CR5016-J	NF 703	—
	1/40 · 1/60	42	CR5018-J	NF 804	—
	1/75		CR5018-J	NF 904	—
	1/100	50	CR6018-J	NF 1004	—
	1/120 · 1/200		CR6018-J	—	—
2.2	1/5 · 1/15	42	CR5018-J	NF 603	CN616
	1/20 · 1/25		CR5018-J	NF 703	—
	1/30		CR5018-J	NF 804	—
	1/40 · 1/50	50	CR6018-J	NF 904	—
	1/60 · 1/75		CR6018-J	NF 1004	—
	1/100 · 1/200	63	CR6022-J	—	—
3.7	1/5 · 1/10	50	CR6018-J	NF 603	CN618
	1/15 · 1/20		CR6018-J	NF 804	—
	1/25 · 1/30		CR6018-J	NF 904	—
	1/40		CR6018-J	NF 1004	—
	1/50		CR6018-J	—	—
5.5	1/5 · 1/10	50	CR6018-J	NF 703	—
	1/15 · 1/20		CR6018-J	NF 904	—
	1/25 · 1/30		CR6018-J	NF 1004	—

Gear Motor TA Series Installation

5. Recommended roller chain and sprocket tooth numbers to be used for parallel coupling to output shafts

※Use the following sprocket sizes to prevent the overhang load applied to the output shaft from becoming too high.

Motor output kW	Reduction ratio	Output shaft diameter mm	Recommended roller chain and sprocket tooth numbers
0.1	1/5~1/50	18	RS 35-13T
	1/60~1/200	24	RS 40-14T
	1/300~1/450	28	RS 80-13T
	1/600~1/1200	38	RS100-14T
0.2	1/5~1/25	18	RS 40-13T
	1/30~1/75	24	RS 50-13T
	1/100~1/200	28	RS 60-13T
	1/300~1/450	38	RS100-15T
	1/600~1/1200	42	RS120-15T
0.4	1/5~1/25	24	RS 50-13T
	1/30~1/75	28	RS 60-13T
	1/100~1/200	38	RS 80-13T
	1/300~1/450	42	RS120-16T
	1/600~1/1200	50	RS160-16T
0.75	1/5~1/25	28	RS 60-13T
	1/30~1/75	38	RS 80-13T
	1/100~1/200	42	RS120-13T
	1/300~1/450	50	RS140-15T
1.5	1/5~1/30	38	RS 80-13T
	1/40~1/75	42	RS100-14T
	1/100~1/200	50	RS140-16T
2.2	1/5~1/30	42	RS100-13T
	1/40~1/75	50	RS120-13T
	1/100~1/200	63	RS160-16T
3.7	1/5~1/30	50	RS100-14T
	1/40~1/50		RS140-15T
5.5	1/5~1/30	50	RS120-15T

6. Recommended couplings to be used for direct coupling between input shafts of inline reducers and motors

Motor output kW	Input shaft diameter mm	Recommended coupling		
		Roller chain coupling	Nylon chain coupling	Jaw-flex coupling
0.1	12	CR3812	CN310	LO50-S
0.2	12	CR3812	CN310	LO50-S
0.4	14	CR3812	CN311	LO50-S
0.75	19	CR4012-J	CN315	LO70-S
1.5	22	CR4012-J	CN317	LO75-S
2.2	24	CR4014-J	CN317	LO75-S
3.7	28	CR4014-J	CN415	LO90-S
5.5	32	CR4016-J	CN417	LO99-S

Gear Motor TA Series Installation

■ Wiring

1. Wiring of motors

	Three-phase motor (0.1kW~5.5kW)		Single-phase motor (100W, 200W)	
Connection				
Direction of rotation				

- The direction of rotation shown above is for two-step and 4-step reduction as viewed from the output shaft side.
For three-step reduction, the direction of rotation is reversed.
For the number of reduction steps, refer to the characteristics charts shown on the following pages.
Gear motors: Pages 25 to 27
Gear motors with brakes: Pages 25 to 27
CB gear motors: Page 106 to 107
- For the three-phase motor, interchange any two of U, V and W to reverse the rotation direction.

2. Wiring of gear motors with brakes

- There are various methods for wiring the brake. While referring to the diagram below, select a wiring method suitable for your application.
For further details, refer to the instruction manual included with the product.

■ Wiring diagram

Application		Wiring method			
		Three-phase 200 V 0.1kW~5.5kW	Three-phase 400 V 0.1kW~0.75kW	Three-phase 400 V 1.5kW~3.7kW	Single-phase 100 V 100W~200W
AC internal wiring	• Normal use • Standard shipping specifications				
AC external wiring	• When you want to shorten the stop time • When attaching a phase advancing condenser				
AC external operation	• For use with an inverter (Set the inverter to the MC section) • When operating the brake separately				
DC external wiring	• When stopping accuracy is required (For lift, etc.)				

Ⓜ : Motor, Ⓟ : Brake, MC: Electromagnetic contactor, MCa: Auxiliary relay, OCR: Overcurrent relay, : Protective element (varistor)
DM200D, HD-12MYH, HD100A: DC module (The three-phase 200 V 3.7 kW device is PM90B; the 5.5 kW device is PM180B.)

Notes:

1. Use an auxiliary relay with rated load of 250 V AC, 7A or more.
2. The contact capacity of the contacts marked with an asterisk in the DC external wiring diagram should be 250 V AC, 10A or more.
3. When performing AC external operation on the 0.1 kW-0.75 kW three-phase 400 V level motors, disconnect the N section with a closed end connection binder. Then be sure to insulate the N section. In this case, the necessary input power to the DC module is 200 V for 0.1 kW and 0.2 kW and 230 V for 0.4 kW and 0.75 kW. If a 200 V or 230 V power supply is not available, reduce the voltage to 200 V or 230 V using a transformer. (For the inverter motor type, the input power to the DC module should be 200 V). Use a transformer with the following capacity: (0.1 kW-0.2 kW: 60 VA or more, 0.4 kW-0.75 kW: 150 VA or more).
4. The contact capacity of the contacts marked with an asterisk in the DC external wiring diagram for 1.5 kW to 3.7 kW and 400 V should be 400 to 440 V AC: two (or three) contacts with an inductive load of 1A or more should be connected serially.
5. The DC module (DM200D, HD-12MYH) includes a protective element for absorbing surges.
6. Add a protective element for protecting contacts as necessary.

Gear Motor TA Series Installation

■Precautions for connecting a varistor when using DC external wiring

When DC external wiring is employed, the power supply module for the brake may be damaged depending on the length of the wiring, the method of wiring, the type of relay, etc. Therefore, connect a varistor between the terminals for DC external wiring.

Connecting it near the power supply module for the brake (to the blue lead wire section for the three-phase motor) will be more effective. The model number of the varistor to be used is as shown below.

The varistor voltage should be 470 V for DM100A and DM200D and 910 V for HD-12MYH.

Name of product	Name of maker	Model number	
		For DM100A, DM200D	For HD-12MYH
Surge absorber	Matsushita Electric Industrial Co., Ltd.	ERZV14D471	ERZV14D911
Set-Lap	Fuji Electric Co., Ltd.	ENC471D-14A	ENC911D-14A
Ceramic varistor	Marcon Electronics Co., Ltd.	TNR15G471K	TNR15G102K

■Inverter drive (when a standard motor is continuously inverter-driven)

At present, an inverter and gear motor are usually set up to perform speed control.

Because inverter driving enables soft starting, it is possible to prevent the reducer and transmission system from being damaged due to shock torque caused at the time of starting. To meet such needs, the Gear Motor TA Series is designed and manufactured to perform effectively over a wide frequency range.

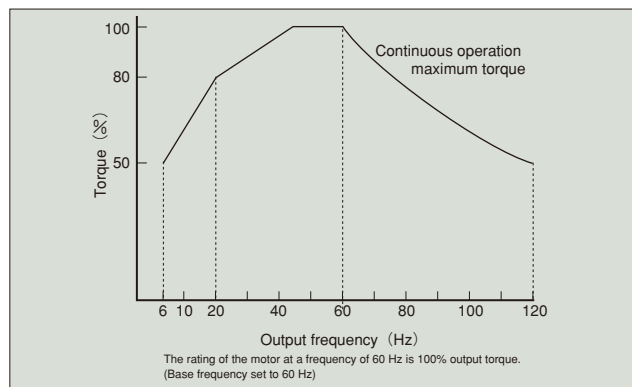
1. Frequency range

The maximum frequency is 120 Hz. At low frequencies (low speed), use within the inverter's allowable range.

2. Torque Specification

For the frequency and torque characteristics, refer to the figure below.

- At high frequencies, the torque decreases in reverse proportion to the revolution because of the constant kW. The motor noise, motor fan noise, reducer noise and vibration increase because the revolution speed is high.
- At medium frequencies, almost constant torque characteristics are shown.
- At low frequencies, the temperature increases largely because the operating efficiency and cooling efficiency of the motor decrease. To prevent this, reduce the required torque as shown in the figure below.



3. Brake type

- Because the brake requires a fixed power supply (frequency, voltage), set up the brake circuit separately by referring to the wiring diagram on page 63. For the standard product, the brake lead wire and motor lead wire are shipped screwed together. Therefore, remove the screw and connect each lead wire separately.
- Perform braking at 60 Hz (1800 r/min) or less.
Braking at high frequencies, above 60 Hz, may cause mechanical damage or excessive wear on the lining of the brake.
- At low frequencies, the heat-resistant life may be shortened due to a reduction in cooling performance. In such cases, minimize the time the brake is powered-on.

Gear Motor TA Series Others

4. For CB gear motors

There may be cases where tripping is caused due to motor torque being generated instantaneously when the clutch is engaged. Therefore, the capacity of the inverter should generally be two to three times the capacity of the motor.

5. For single-phase motors and explosion-proof motors

Because the single-phase motor uses a centrifugal switch and condenser, it cannot be inverter-driven. For the explosion-proof motor, an inverter cannot be used because the explosion-proof verified power supply (frequency, voltage) is not satisfied.

6. Cautions

- Increased temperatures, noise and vibration result when compared with using a commercial power supply.
- In order to prevent the motor from overheating, use an electronic thermal relay adjusted to the general motor characteristics or provide a thermal relay, etc., between the inverter and motor.
- If you will inverter-drive a 400 V level unit, we recommend use of an inverter motor.
There may be cases where high-voltage surges (micro surges) generated from switching of the inverter cause dielectric breakdowns. When the wiring length is long (20 m or more), dielectric breakdowns are likely to occur.
- When the base frequency is set to 50 Hz, the output torque should be 80% of that shown in the table above.

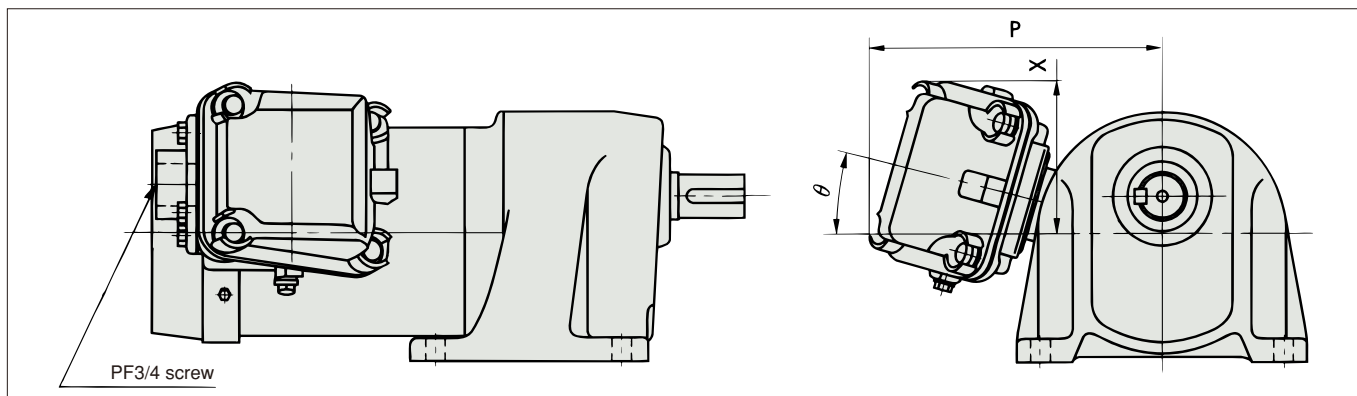
We also manufacture an inverter-motor-type gear motor and hypoid motor to which an inverter-ready motor is coupled directly. Running with 100% constant torque is possible even at low frequencies (6 Hz or more). For the 2.2 kW and 3.7 kW devices, reduction of torque is produced at frequencies of 10 Hz or less. For further details, refer to pages 14 and 67.

Explosion-proof type specifications

(1) Model: Motor capacity...0.1 kW to 0.75 kW

(2) Explosion-proof level: eG3

(3) Dimensions



Motor output	Reduction ratio	P	X	θ°
0.1 kW	1/5~1/200	170	94	15
0.2 kW	1/300~1/1200	163	62	0
0.4 kW	1/5~1/200	179	96	15
	1/300~1/1200		61.5	15
0.75 kW	1/5~1/200	188	99	15
	1/300~1/450		57.5	15

Note 1)

The frame of the 0.1 kW motor is the same as that of the 0.2 kW motor.

Because the frame number of the reducer is also the same as that of the 0.2 kW motor, the 0.1 kW motor has the same appearance and dimensions as the 0.2 kW motor.

Note 2)

For the 0.1 kW and 0.2 kW motors, the orientation of the motors with a reduction ratio of 1/300 or more is turned 15 degrees counterclockwise as compared with that of motors with a reduction ratio of 1/200 or less, and therefore there is a difference in the dimension <P> between the former and the latter.

Note 3)

The dimension <X> represents the distance from the center of the motor.

Gear Motor TA Series Others

Special products

We manufacture special products in addition to our standard series. Please place orders for special products using the option code and the specification code as listed on page 14 and 15.

For example, the following specifications are available. For the meaning of model numbers, refer to pages 14 and 15.

- ①Outdoor motor type ②Special voltage motor type ③Inverter motor type
 ④Ready for CE marking (0.1 kW to 0.75 kW) ⑤One-touch brake manual release type ⑥Position of terminal box
 ⑦Paint color ⑧Encoder type ⑨Shock relay specification (described in the section for hypoid motors)
 ⑩Manual shaft type (0.1 kW-0.75 kW gear motors and hypoid motors)

In addition, steel plate fan covers, steel plate terminal boxes, lead wire lagging, etc. are available for 0.1 kW to 0.75 kW models; special variable voltage, hot-zone-passing processing, class B insulation, class F insulation, cold-resistant, and heat-resistant types, etc. are available for 0.1 kW to 5.5 kW models. Please contact us with any requests.

Special product specifications

■ Ready for CE marking (0.1 kW to 0.75 kW)

Manufacturers are obliged to attach the CE marking to products conforming to the Directive on Product Safety (EU directive) from the European Union (EU), a system that ensures the free distribution and safety of products in the EU. For the Hypoid Motor TA Series and Gear Motor TA Series, brakeless-type and brake-type 200 V level and 400 V level motors conforming to the Directive on Machinery and the Directive on Low Voltage can be incorporated in products with short lead times.

■ Encoder type

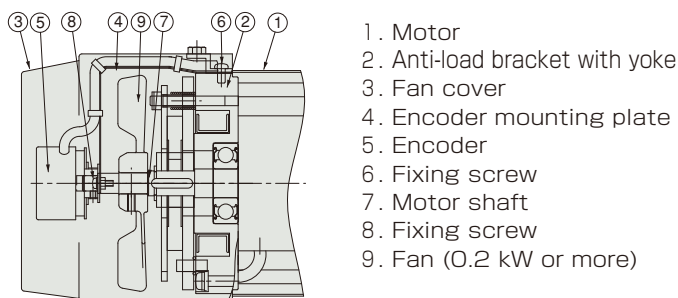
It is possible to set a rotary encoder in the shaft end of the motor (brake-type) to take revolution signals from the reducer.

This is available for the 0.1 kW-2.2 kW gear motors and hypoid motors.

Features

- (1) **Controllability** Because open-collector signals can be taken from the reducer, various types of operation are possible.
- (2) **Compact** It is not necessary to connect the motor shaft and rotary encoder by a coupling.
- (3) **Cost reduction** Unlike the conventional separate component types, couplings, base plates and concerns for a level surface are not necessary.
- (4) **Quick delivery** The rotary encoder type is now a semi-standard product allowing quick delivery.

Construction (encoder mounting section)



Actual reduction ratio of reducer

For the actual reduction ratio of hypoid and gear motors, refer to their specification charts.

Wiring diagram

Color	Connection
Red	Power supply
Black	0 V common
Green or blue	Signal A
White	Signal B
Yellow	Signal Z
Shield	NC

Encoder section specifications

Power supply voltage	DC10.8~26.4V
Pulse count	100 pulses
Output form	Open-collector output (NPN type) 6 pcs
Output circuit	
Electric current consumption	60 mA or less
Output voltage	0.5 V or less (at the time of maximum incoming)
Maximum incoming current	20mA MAX
Signal rise/fall time	1 μ S or less
Maximum response frequency	200kHz
Output circuit resistance	50V MAX
Cable length	0.5m
Vibration	4.9m/s ² {0.5G} or less (20~50Hz)

Dimensions

The connection dimensions are the same as the for the brake-type standard product.

Only the length is increased, as shown in the table below, because the motor fan cover is extended.

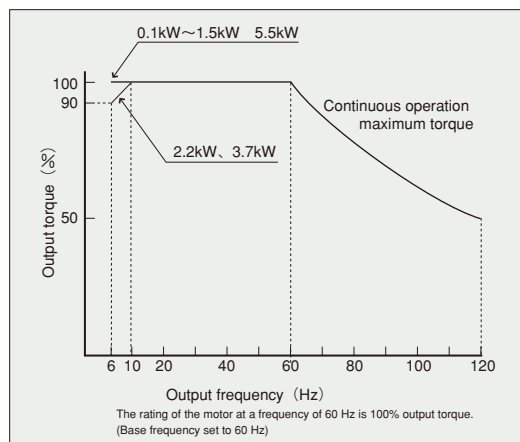
Motor output kw	Fan cover extension mm
0.1	61
0.2, 0.4	45
0.75	43
1.5	37
2.2	37

Gear Motor TA Series Others

Inverter motor type

(Optimum for inverter driving)

Output torque characteristics



Quick-delivery
made-to-order product

- ★Exactly the same size as the standard product
- ★Quick delivery time of one week
- ★Low price

An inverter-ready motor optimum for inverter driving is coupled directly.

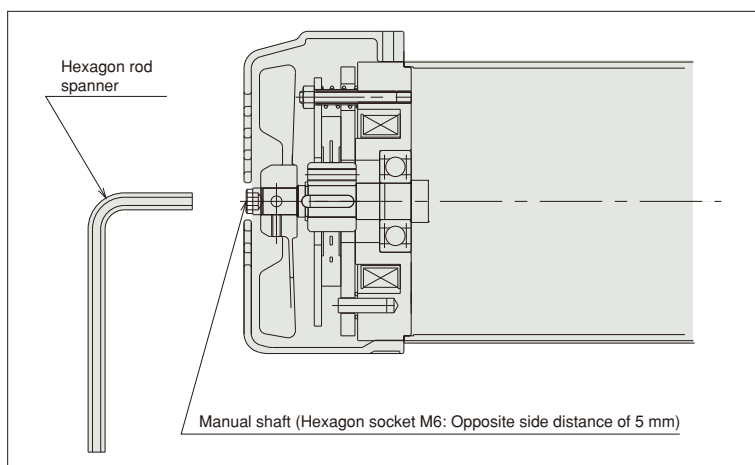
At frequencies of 6 to 60 Hz, constant-torque running at a level equal to that available at 60 Hz is possible.

For the 2.2 kW and 3.7 kW devices, reduction of torque is produced at frequencies of 10 Hz or less. (90% torque at a frequency of 6 Hz.)

- At frequencies of 60 to 120 Hz, as with the standard motor, there is a characteristic zone with constant horsepower and limited output torque. Care should therefore be taken with the load torque.
- Be sure to adjust the output voltage of the inverter so that the input voltage from the inverter to the motor conforms to the voltage and frequency indicated on the nameplate.
- If 100% torque is required at low frequencies, apply a torque boost with the inverter as necessary. Continuous operation for a long time with too much torque boost applied will cause overheating, and should be avoided.
- The motor may resonate depending on the revolution speed and frequency. When operating continuously, avoid the resonance frequency by, for example, changing the carrier frequency setting of the inverter.
- When the load is low, for example, at the time of a trial run, the current may become large at low frequencies. This is due to motor characteristics and does not indicate an abnormal condition. It is possible to decrease the current by changing the setting of the inverter (reducing the torque boost, reducing the V/F ratio and/or adjusting the torque vector).
- In order to prevent the motor from overheating, use an electronic thermal relay adjusted to the general motor characteristics or provide a thermal relay, etc., between the inverter and motor.
- For the brake-types, refer to the wiring diagram on page 63. If braking is performed at high frequencies above 60 Hz, mechanical damage or excessive wear on the lining of the brake may be caused. Therefore, be sure to perform braking at frequencies of 60 Hz or less.

Manual shaft type

This is available for the brake-type 0.1 kW-0.75 kW gear motors and hypoid motors.

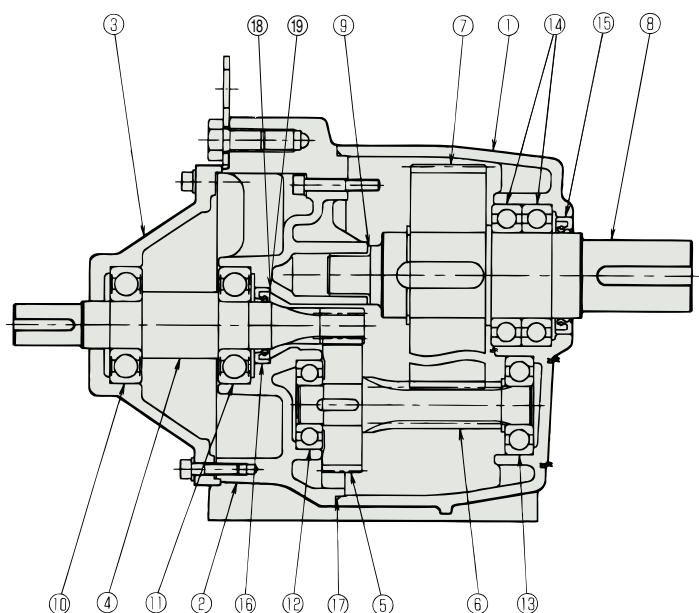


Using a commercially available hexagon rod spanner, turn the hexagon socket (M6, Opposite side distance of 5 mm) located in the center of the fan cover of the motor.
Be sure to do so with the brake released manually. Never manually turn the unit during operation.

Gear Motor TA Series Inline Reducer Type

Structure

■ GRTA150-38L30



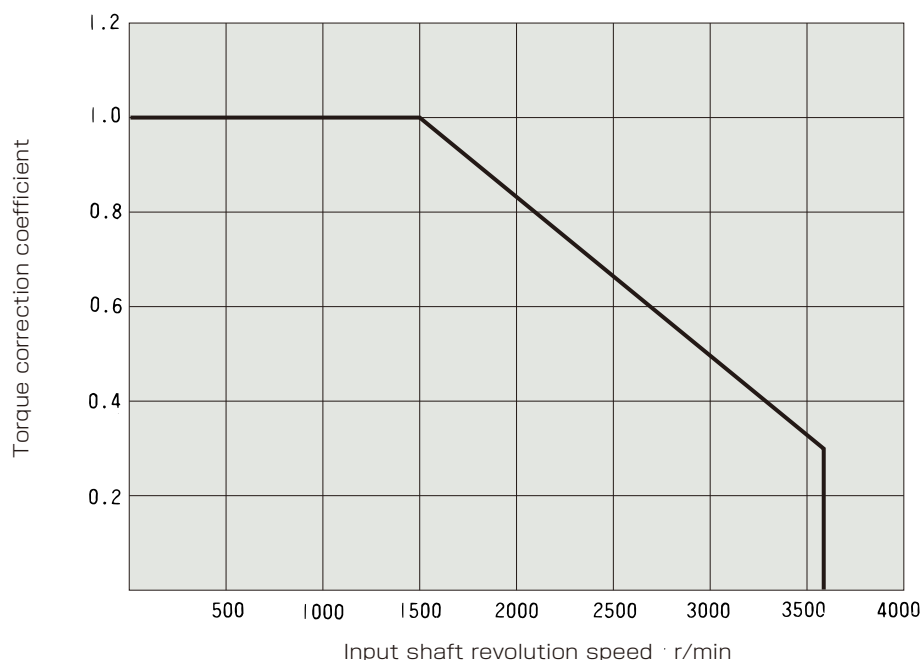
- 1 . L case
- 2 . M bracket
- 3 . R bracket
- 4 . Input shaft with pinion
- 5 . 1st stage wheel
- 6 . 2nd shaft with pinion
- 7 . 2nd stage wheel
- 8 . Output shaft
- 9 . Plametal (output shaft M bracket side)
- 10 . Bearing (input shaft R bracket side)
- 11 . Bearing (input shaft M bracket side)
- 12 . Bearing (2nd shaft M bracket side)
- 13 . Bearing (2nd shaft L case side)
- 14 . Bearing (output shaft L case side)
- 15 . Oil seal (output shaft)
- 16 . Oil seal (input shaft)
- 17 . O-ring
- 18 .Filter
- 19 .Shim

■ Relation between input shaft revolution speed and allowable output shaft torque

The allowable output shaft torque shown in the specification chart is for an input shaft revolution speed of 1500 r/min.

When the input shaft revolution speed is other than 1500 r/min, the values shown in the specification chart should be multiplied by the torque correction coefficient shown in the figure below to obtain the allowable output shaft torque.

Allowable output shaft torque correction coefficient by input shaft revolution speed



(Note 1) The correction coefficient shown in the figure above is also applied to the allowable input/output shaft O.H.L.

(Note 2) For the inertia ratio and allowable starting frequency, refer to Table 3 on page 191.

Inline Reducer Type Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		4P motor capacity equivalence kW	Frame number	Nominal reduction ratio	Actual reduction ratio	Number of reduction steps	Allowable output shaft torque at input shaft revolution speed of 1500 r/min		Allowable O.H.L.				Page and drawing number of outline dimensions			
									Input shaft		Output shaft					
							N·m	{kgf·m}	N	{kgf}	N	{kgf}	Foot mount	Flange mount		
GRTAO10	5	0.1	18	1/5	1/ 4.932(5.031)	2	2.8	{0.29}	96.0	{9.8}	274	{ 28}	P72 Drawing G-11	P73 Drawing G-16		
	10			1/10	1/ 9.953(9.779)		5.7	{0.58}			431	{ 44}	P72 Drawing G-12	P73 Drawing G-17		
	15			1/15	1/ 15.027(14.800)		8.6	{0.88}			568	{ 58}				
	20			1/20	1/ 20.417(19.821)		11.8	{ 1.2}			686	{ 70}				
	25			1/25	1/ 25.461(24.843)		14.7	{ 1.5}			804	{ 82}				
	30			1/30	1/ 29.464		17.6	{ 1.8}			902	{ 92}				
	40			1/40	1/ 40.153		22.5	{ 2.3}			1098	{ 112}				
	50			1/50	1/ 49.817		28.4	{ 2.9}			1264	{ 129}				
	60		24	1/60	1/ 57.829	3	34.3	{ 3.5}			1431	{ 146}	P72 Drawing G-13	P73 Drawing G-18		
	75			1/75	1/ 75.252		43.1	{ 4.4}			1666	{ 170}				
	100			1/100	1/ 99.644		56.8	{ 5.8}			2009	{ 205}				
	120			1/120	1/ 122.160		68.6	{ 7.0}			2274	{ 232}				
	165			1/165	1/ 172.821		94.1	{ 9.6}			2813	{ 287}				
	200			1/200	1/ 197.213		115	{11.7}			3195	{ 326}				
	300			28	1/300		1/ 305.455	4			143	{14.6}	3195	{ 326}	P72 Drawing G-14	P73 Drawing G-19
	360				1/360		1/ 360.000				172	{17.5}	3606	{ 368}		
	450	1/450	1/ 439.481		215	{21.9}	4185				{ 427}	P72 Drawing G-15	P73 Drawing G-20			
	600	38	1/600		1/ 609.265	286	{29.2}				5076			{ 518}		
	720		1/720	1/ 702.677	344	{35.1}	5733	{ 585}								
	1000		1/1000	1/ 964.229	446	{45.5}	6664	{ 680}								
	1200		1/1200	1/1155.363	*459	*{46.8}	6684	{ 682}								
GRTAO20	5	0.2	18	1/5	1/ 5.023(5.031)	2	5.7	{0.58}			147	{15}	431	{ 44}	P74 Drawing G-21	P75 Drawing G-27
	10			1/10	1/ 10.066(9.779)		11.8	{ 1.2}					686	{ 70}	P74 Drawing G-22	P75 Drawing G-28
	15			1/15	1/ 15.079(14.800)		17.6	{ 1.8}					902	{ 92}		
	20			1/20	1/ 20.118(19.821)		22.5	{ 2.3}	1098	{ 112}						
	25			1/25	1/ 25.333(24.843)		28.4	{ 2.9}	1264	{ 129}						
	30			24	1/30		1/ 29.571(29.464)	3	34.3	{ 3.5}			1431	{ 146}	P74 Drawing G-23	P75 Drawing G-29
	40				1/40		1/ 41.400(39.030)		46.1	{ 4.7}			1735	{ 177}		
	50				1/50		1/ 49.407		56.8	{ 5.8}			2009	{ 205}		
	60		1/60		1/ 59.417	68.6	{ 7.0}		2274	{ 232}						
	75		28	1/75	1/ 72.286	4	86.2	{ 8.8}	2636	{ 269}			P74 Drawing G-24	P75 Drawing G-30		
	100			1/100	1/ 97.785		115	{11.7}	3195	{ 326}						
	120			1/120	1/ 120.653		137	{14.0}	3606	{ 368}						
	165			1/165	1/ 160.136		189	{19.3}	4459	{ 455}						
	200		38	1/200	1/ 194.775	4	218	{22.2}	4822	{ 492}			P74 Drawing G-25	P75 Drawing G-31		
	300			1/300	1/ 294.857		286	{29.2}	4861	{ 496}						
	360			1/360	1/ 360.490		343	{35.0}	5488	{ 560}						
	450			1/450	1/ 448.000		430	{43.9}	5792	{ 591}						
	600		42	1/600	1/ 577.684	4	611	{62.3}	7301	{ 745}			P74 Drawing G-26	P75 Drawing G-32		
	720			1/720	1/ 735.000		733	{74.8}	8242	{ 841}						
	1000			1/1000	1/ 964.923		827	{84.4}	9800	{1000}						
	1200			1/1200	1/1187.879		*840	*{85.7}	9800	{1000}						

Note 1) The actual reduction ratios of the three-phase-motor-type gear motors (brake type, non-brake type) and CB gear motors (single-phase motor type, three-phase motor type) are shown in parentheses.

Note 2) The models marked with ※ are ones for which the torque is limited.

Inline Reducer Type Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		4P motor capacity equivalence kW	Frame number	Nominal reduction ratio	Actual reduction ratio	Number of reduction steps	Allowable output shaft torque at input shaft revolution speed of 1500 r/min		Allowable O.H.L.				Page and drawing number of outline dimensions		
									Input shaft		Output shaft				
							N·m	{kgf·m}	N	{kgf}	N	{kgf}	Foot mount	Flange mount	
GRTA040	5	0.4	24	1/5	1/ 4.950	2	12.1	{ 1.23}	235	{24}	686	{ 70}	P76 Drawing G-33	P77 Drawing G-38	
	10			1/10	1/ 10.313		24.5	{ 2.5}			1098	{ 112}			
	15			1/15	1/ 15.125		36.3	{ 3.7}			1431	{ 146}			
	20			1/20	1/ 19.388		48.0	{ 4.9}			1735	{ 177}			
	25			1/25	1/ 24.750		60.8	{ 6.2}			2009	{ 205}			
	30			1/30	1/ 30.875		72.5	{ 7.4}			2274	{ 232}			
	40		28	1/40	1/ 40.519	3	94.1	{ 9.6}			2754	{ 281}	P76 Drawing G-34	P77 Drawing G-39	
	50			1/50	1/ 50.909		118	{ 12.0}			3195	{ 326}			
	60			1/60	1/ 60.000		140	{ 14.3}			3606	{ 368}			
	75			1/75	1/ 73.247		175	{ 17.9}			4185	{ 427}			
	100		38	1/100	1/ 101.544	4	234	{ 23.9}			5076	{ 518}	P76 Drawing G-35	P77 Drawing G-40	
	120			1/120	1/ 117.113		281	{ 28.7}			5733	{ 585}			
	165			1/165	1/ 160.705		364	{ 37.1}			6664	{ 680}			
	200			1/200	1/ 192.560		389	{ 39.7}			6684	{ 682}			
	300		42	1/300	1/ 292.226	5	611	{ 62.3}			7301	{ 745}	P76 Drawing G-36	P77 Drawing G-41	
	360			1/360	1/ 368.952		733	{ 74.8}			8242	{ 841}			
	450			1/450	1/ 437.152		916	{ 93.5}			9565	{ 976}			
	600		50	1/600	1/ 597.694	6	1222	{124.7}			11584	{1182}	P76 Drawing G-37	P77 Drawing G-42	
720	1/720	1/ 748.052		1466	{149.6}		13073	{1334}							
1000	1/1000	1/ 962.850		1654	{168.8}		13230	{1350}							
1200	1/1200	1/1165.714		*1680	*{171.4}		13230	{1350}							
GRTA075	5	0.75	28	1/5	1/ 5.061	2	22.6	{ 2.31}	353	{36}	1049	{ 107}	P78 Drawing G-43	P78 Drawing G-47	
	10			1/10	1/ 10.159		45.1	{ 4.6}			1666	{ 170}			
	15			1/15	1/ 14.694		67.6	{ 6.9}			2176	{ 222}			
	20			1/20	1/ 19.948		91.1	{ 9.3}			2636	{ 269}			
	25			1/25	1/ 25.397		114	{ 11.6}			3058	{ 312}			
	30			1/30	1/ 30.381		136	{ 13.9}			3459	{ 353}			
	40		38	1/40	1/ 40.635	3	175	{ 17.9}			4185	{ 427}	P78 Drawing G-44	P78 Drawing G-48	
	50			1/50	1/ 49.143		220	{ 22.4}			4861	{ 496}			
	60			1/60	1/ 60.082		264	{ 26.9}			5488	{ 560}			
	75			1/75	1/ 74.667		300	{ 30.6}			5792	{ 591}			
	100		42	1/100	1/ 96.280	4	439	{ 44.8}			7301	{ 745}	P78 Drawing G-45	P78 Drawing G-49	
	120			1/120	1/ 122.500		527	{ 53.8}			8242	{ 841}			
	165			1/165	1/ 160.820		724	{ 73.9}			9800	{1000}			
	200			1/200	1/ 197.979		735	{ 75.0}			9800	{1000}			
	300		50	1/300	1/ 298.523	5	1146	{116.9}			9418	{ 961}	P78 Drawing G-46	P78 Drawing G-50	
	360			1/360	1/ 363.462		1289	{131.5}			10633	{1085}			
	450			1/450	1/ 448.907		*1396	*{142.4}			12338	{1259}			
	GRTA150		5	1.5	38	1/5	1/ 5.000	2			45.3	{ 4.62}	568	{58}	1666
10		1/10	1/ 10.000			91.1	{ 9.3}		2548	{ 260}					
15		1/15	1/ 15.000			136	{ 13.9}		3342	{ 341}					
20		1/20	1/ 19.615			181	{ 18.5}		4047	{ 413}					
25		1/25	1/ 24.091			226	{ 23.1}		4694	{ 479}					
30		1/30	1/ 30.000			272	{ 27.8}		5302	{ 541}					
40		42	1/40		1/ 39.253	3	351	{ 35.8}	6292	{ 642}	P79 Drawing G-52	P79 Drawing G-55			
50			1/50		1/ 48.704		439	{ 44.8}	7301	{ 745}					
60			1/60		1/ 61.492		527	{ 53.8}	8242	{ 841}					
75			1/75		1/ 72.859		659	{ 67.2}	9565	{ 976}					
100		50	1/100		1/ 99.616		6	878	{ 89.6}	11584	{1182}	P79 Drawing G-53			P79 Drawing G-56
120			1/120		1/ 124.675			1054	{107.5}	13073	{1334}				
165			1/165		1/ 160.475			1449	{147.9}	13230	{1350}				
200			1/200		1/ 194.286			*1470	*{150.0}	13230	{1350}				

Note 1) The actual reduction ratios of the three-phase-motor-type gear motors (brake type, non-brake type) and CB gear motors (single-phase motor type, three-phase motor type) are shown in parentheses.

Note 2) The models marked with * are ones for which the torque is limited.

Specification Chart

0.4
0.75
1.5

Inline Reducer Type Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		4P motor capacity equivalence kW	Frame number	Nominal reduction ratio	Actual reduction ratio	Number of reduction steps	Allowable output shaft torque at input shaft revolution speed of 1500 r/min		Allowable O.H.L.				Page and drawing number of outline dimensions	
									Input shaft		Output shaft			
							N·m	{kgf·m}	N	{kgf}	N	{kgf}	Foot mount	Flange mount
GRTA220	5	2.2	42	1/5	1/ 5.000	2	66.6	{ 6.8}	735	{75}	2078	{ 212}	P80 Drawing G-57	P80 Drawing G-60
	10			1/10	1/ 9.870		133	{ 13.6}			3293	{ 336}		
	15			1/15	1/ 14.454		200	{ 20.4}			4312	{ 440}		
	20			1/20	1/ 20.659		266	{ 27.1}			5223	{ 533}		
	25			1/25	1/ 25.455		332	{ 33.9}			6066	{ 619}		
	30			1/30	1/ 29.143		399	{ 40.7}			6850	{ 699}		
	40		50	1/40	1/ 38.806	3	515	{ 52.6}			8114	{ 828}	P80 Drawing G-58	P80 Drawing G-61
	50			1/50	1/ 49.754		644	{ 65.7}			9418	{ 961}		
	60			1/60	1/ 60.577		773	{ 78.9}			10633	{1085}		
	75			1/75	1/ 74.818		966	{ 98.6}			12338	{1259}		
	100		63	1/100	1/101.957		1288	{131.4}			14955	{1526}	P80 Drawing G-59	P80 Drawing G-62
	120			1/120	1/118.321		1545	{157.7}			16885	{1723}		
	165			1/165	1/165.073		2126	{216.9}			17640	{1800}		
	200			1/200	1/200.138		*2156	*{220.0}			17640	{1800}		
GRTA370	5	3.7	50	1/5	1/ 4.865	2	112	{ 11.4}	1039	{106}	2930	{ 299}	P81 Drawing G-63	P81 Drawing G-65
	10			1/10	1/ 10.080		223	{ 22.8}			4645	{ 474}		
	15			1/15	1/ 15.158		335	{ 34.2}			6096	{ 622}		
	20			1/20	1/ 20.667		448	{ 45.7}			7389	{ 754}		
	25			1/25	1/ 24.923		560	{ 57.1}			8565	{ 874}		
	30			1/30	1/ 30.545		671	{ 68.5}			9673	{ 987}		
	40			1/40	1/ 40.461	3	866	{ 88.4}			10290	{1050}	P81 Drawing G-64	P81 Drawing G-66
	50			1/50	1/ 49.703		1083	{110.5}			10290	{1050}		
GRTA550	5	5.5	50	1/5	1/ 5.069	2	167	{ 17.0}	1352	{138}	3812	{ 389}	P81 Drawing G-67	P81 Drawing G-68
	10			1/10	1/ 9.990		332	{ 33.9}			6056	{ 618}		
	15			1/15	1/ 15.359		499	{ 50.9}			7938	{ 810}		
	20			1/20	1/ 19.770		665	{ 67.9}			9624	{ 982}		
	25			1/25	1/ 24.370		831	{ 84.8}			10290	{1050}		
	30			1/30	1/ 29.244		*893	*{ 91.1}			10290	{1050}		

Note) The models marked with ※ are ones for which the torque is limited.

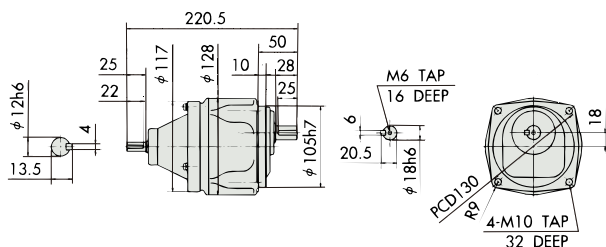
Inline Reducer Type Outline Dimensions

0.1kW · U : Face mount type

GEAR MOTOR TA Series

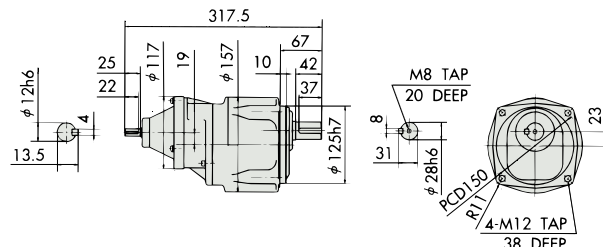
G-16 0.1kW GRTA010-18U5

Reduction ratio : 5	Approx. weight : 3.6kg
Reference page : Specification Chart→P69 Options→P57	



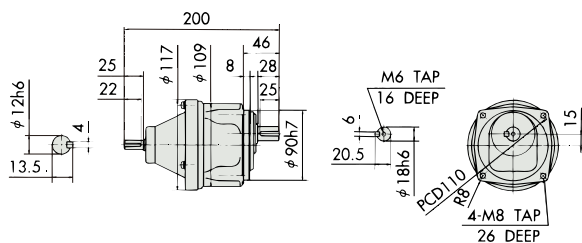
G-19 0.1kW GRTA010-28U300~450

Reduction ratio : 300, 360, 450	Approx. weight : 7.2kg
Reference page : Specification Chart→P69 Options→P57	



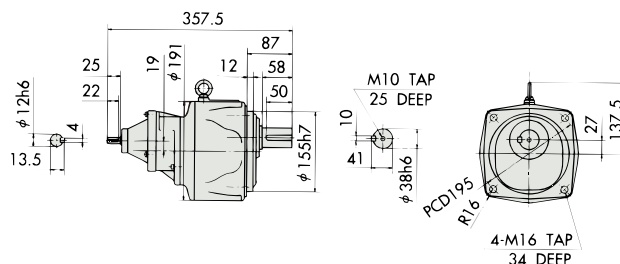
G-17 0.1kW GRTA010-18U10~50

Reduction ratio : 10, 15, 20, 25, 30, 40, 50	Approx. weight : 2.4kg
Reference page : Specification Chart→P69 Options→P57	



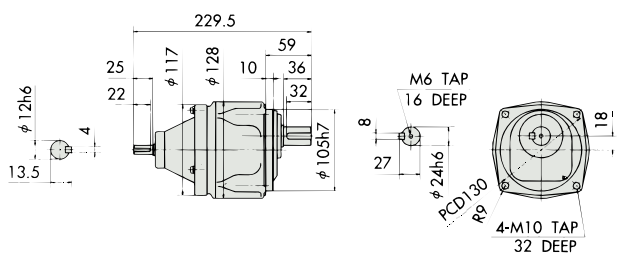
G-20 0.1kW GRTA010-38U600~1200

Reduction ratio : 600, 720, 1000, 1200	Approx. weight : 17.0kg
Reference page : Specification Chart→P69 Options→P58	



G-18 0.1kW GRTA010-24U60~200

Reduction ratio : 60, 75, 100, 120, 165, 200	Approx. weight : 3.8kg
Reference page : Specification Chart→P69 Options→P57	



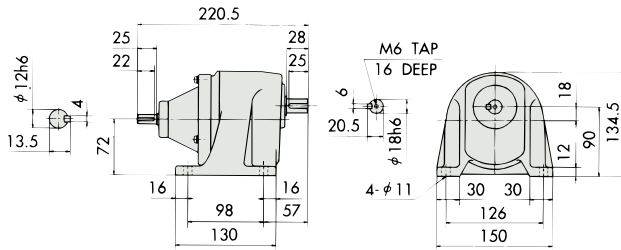
Inline Reducer Type Outline Dimensions

0.2kW · L : Foot mount type

GEAR MOTOR TA Series

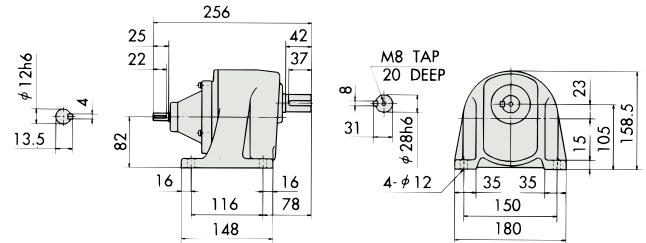
G-21 0.2kW GRTA020-18L5

Reduction ratio : 5	Approx. weight : 3.8kg
Reference page : Specification Chart→P69	



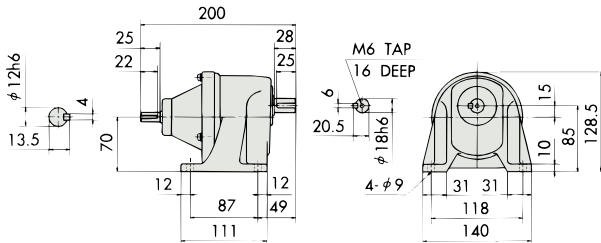
G-24 0.2kW GRTA020-28L100~200

Reduction ratio : 100, 120, 165, 200	Approx. weight : 6.2kg
Reference page : Specification Chart→P69	



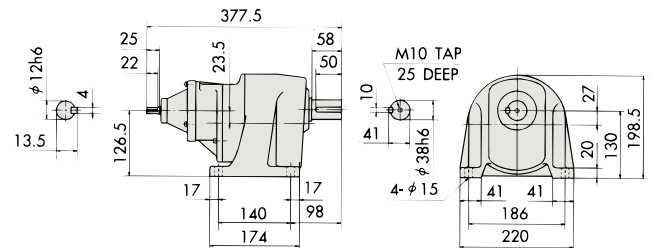
G-22 0.2kW GRTA020-18L10~25

Reduction ratio : 10, 15, 20, 25	Approx. weight : 2.6kg
Reference page : Specification Chart→P69	



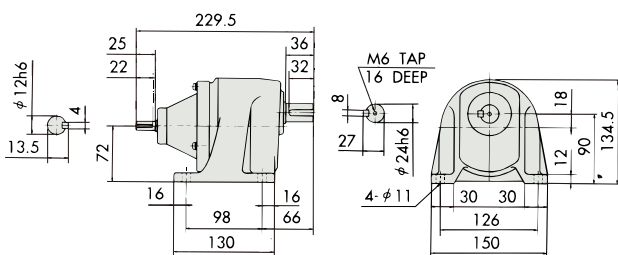
G-25 0.2kW GRTA020-38L300~450

Reduction ratio : 300, 360, 450	Approx. weight : 12.0kg
Reference page : Specification Chart→P69	



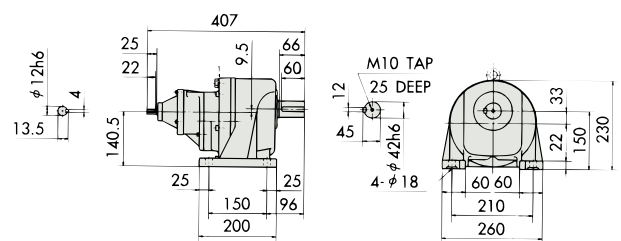
G-23 0.2kW GRTA020-24L30~75

Reduction ratio : 30, 40, 50, 60, 75	Approx. weight : 4.0kg
Reference page : Specification Chart→P69	



G-26 0.2kW GRTA020-42L600~1200

Reduction ratio : 600, 720, 1000, 1200	Approx. weight : 34.3kg
Reference page : Specification Chart→P69	



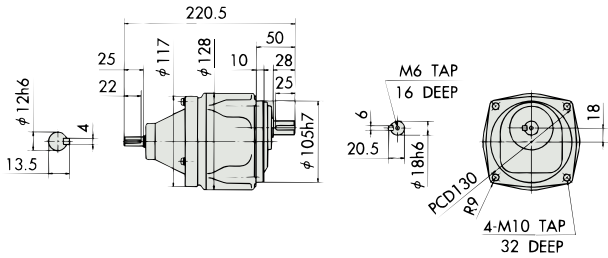
Inline Reducer Type Outline Dimensions

0.2kW · U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

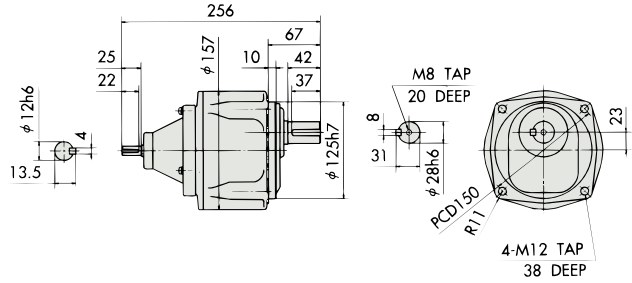
G-27 **0.2kW** **GRTA020-18U5**

Reduction ratio : 5	Approx. weight : 3.6kg
Reference page : Specification Chart→P69 Options→P57	



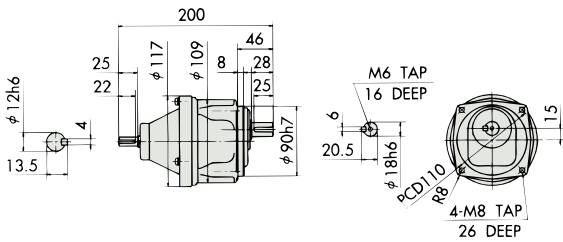
G-30 **0.2kW** **GRTA020-28U100~200**

Reduction ratio : 100, 120, 165, 200	Approx. weight : 6.2kg
Reference page : Specification Chart→P69 Options→P57	



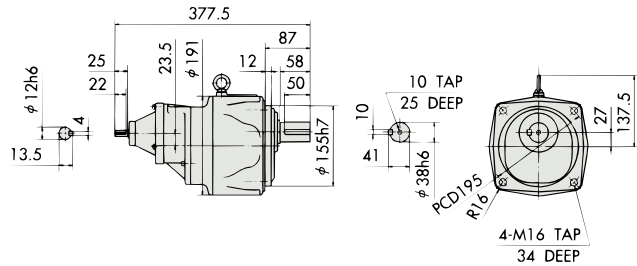
G-28 **0.2kW** **GRTA020-18U10~25**

Reduction ratio : 10, 15, 20, 25	Approx. weight : 2.4kg
Reference page : Specification Chart→P69 Options→P57	



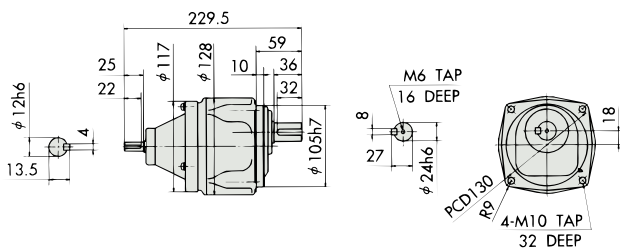
G-31 0.2kW **GRTA020-38U300~450**

Reduction ratio : 300, 360, 450	Approx. weight : 18.0kg
Reference page : Specification Chart→P69 Options→P58	



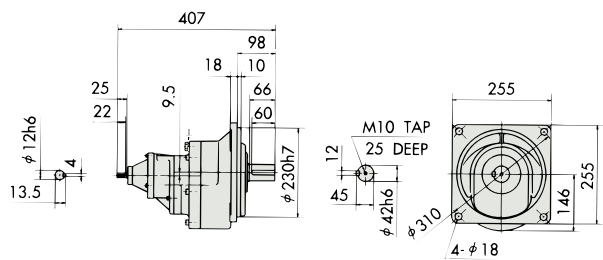
G-29 0.2kW **GRTA020-24U30~75**

Reduction ratio : 30, 40, 50, 60, 75	Approx. weight : 3.8kg
Reference page : Specification Chart→P69 Options→P57	



G-32 0.2kW **GRTA020-42F600~1200**

Reduction ratio : 600, 720, 1000, 1200	Approx. weight : 36.5kg
Reference page : Specification Chart→P69	



Outline Dimensions

U.F

G-27
G-28
G-29
G-30
G-31
G-32

0.2

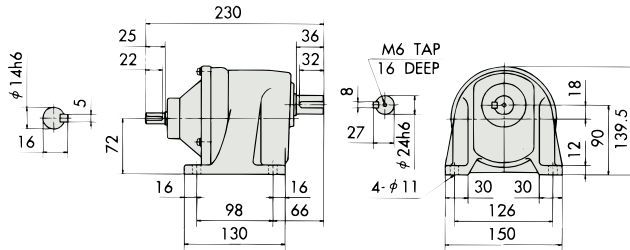
Inline Reducer Type Outline Dimensions

0.4kW · L : Foot mount type

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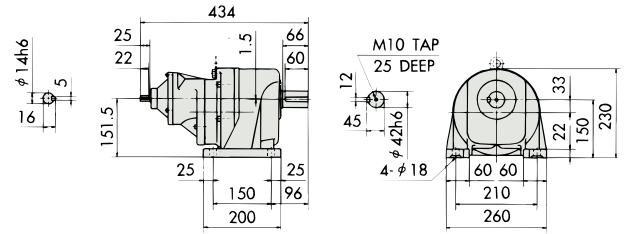
G-33 0.4kW GRTA040-24L5~25

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 4.0kg
Reference page : Specification Chart→P70



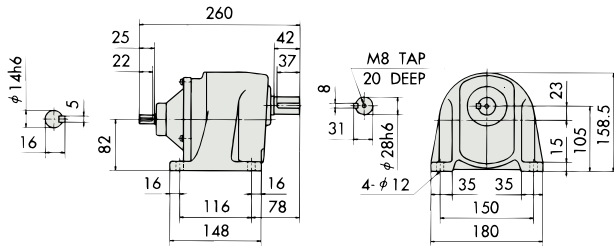
G-36 0.4kW GRTA040-42L300~450

Reduction ratio : 300, 360, 450 Approx. weight : 39.6kg
Reference page : Specification Chart→P70



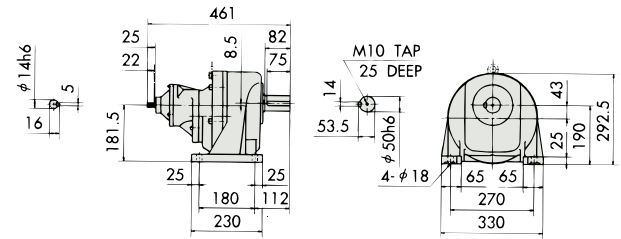
G-34 0.4kW GRTA040-28L30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 6.4kg
Reference page : Specification Chart→P70



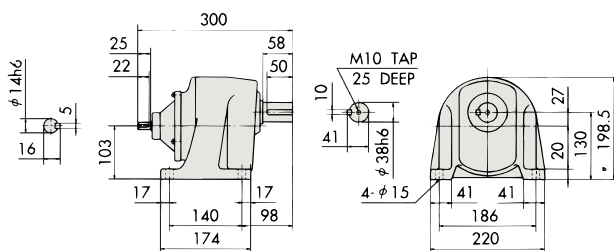
G-37 0.4kW GRTA040-50L600~1200

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 59.6kg
Reference page : Specification Chart→P70



G-35 0.4kW GRTA040-38L100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 10.5kg
Reference page : Specification Chart→P70



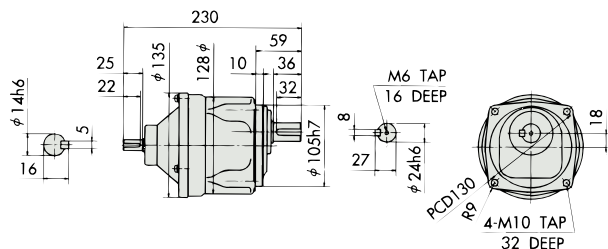
Inline Reducer Type Outline Dimensions

0.4kW · U : Face mount type / F : Flange mount type

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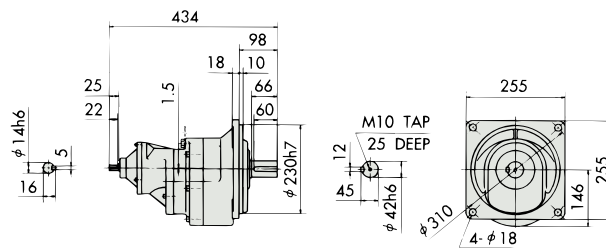
G-38 0.4kW GRTA040-24U5~25

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 3.8kg
Reference page : Specification Chart→P70 Options→P57



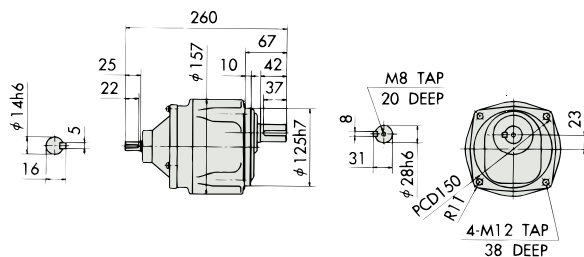
G-41 0.4kW GRTA040-42F300~450

Reduction ratio : 300, 360, 450 Approx. weight : 40.6kg
Reference page : Specification Chart→P70



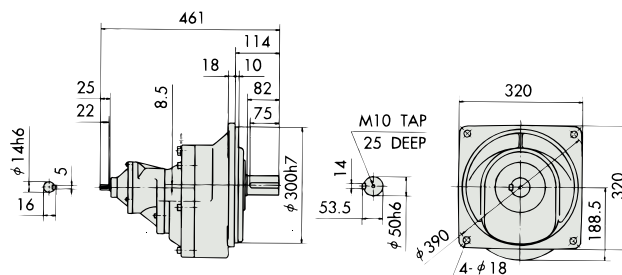
G-39 0.4kW GRTA040-28U30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 6.4kg
Reference page : Specification Chart→P70 Options→P57



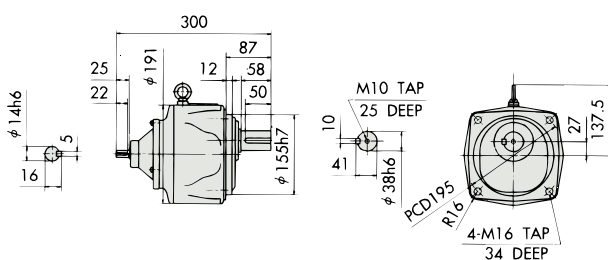
G-42 0.4kW GRTA040-50F600~1200

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 62.9kg
Reference page : Specification Chart→P70



G-40 0.4kW GRTA040-38U100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 16.5kg
Reference page : Specification Chart→P70 Options→P58



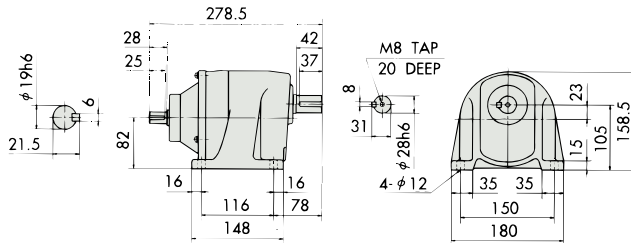
Inline Reducer Type Outline Dimensions

0.75kW · L : Foot mount type / U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

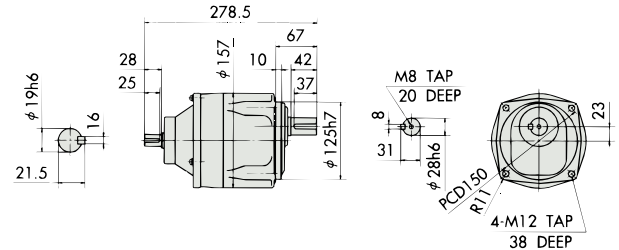
G-43 0.75kW GRTA075-28L5~25

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 7.4kg
Reference page : Specification Chart→P70



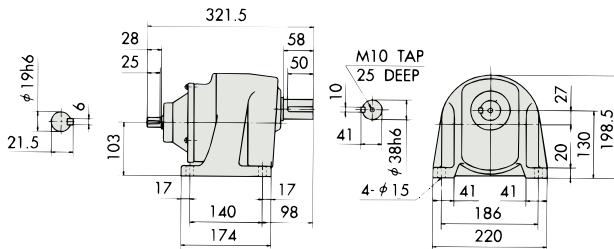
G-47 0.75kW GRTA075-28U5~25

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 7.4kg
Reference page : Specification Chart→P70 Options→P57



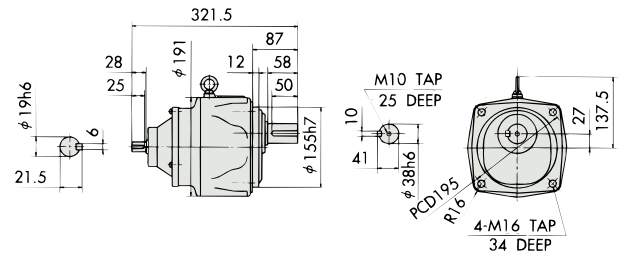
G-44 0.75kW GRTA075-38L30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 11.5kg
Reference page : Specification Chart→P70



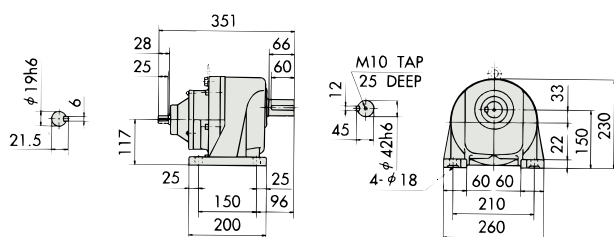
G-48 0.75kW GRTA075-38U30~75

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 17.5kg
Reference page : Specification Chart→P70 Options→P58



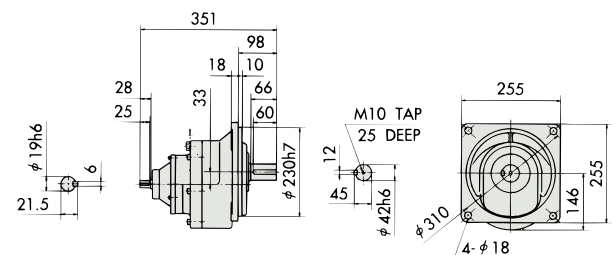
G-45 0.75kW GRTA075-42L100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 32.9kg
Reference page : Specification Chart→P70



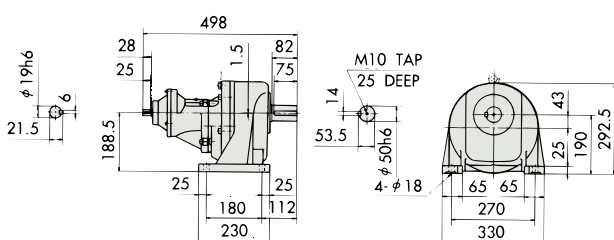
G-49 0.75kW GRTA075-42F100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 36.9kg
Reference page : Specification Chart→P70



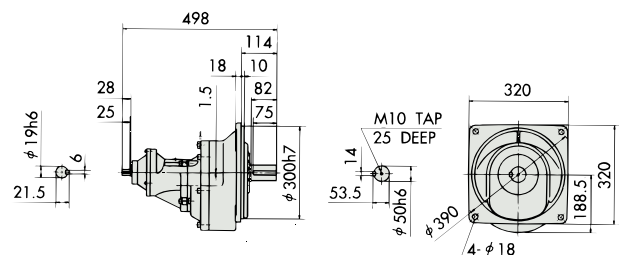
G-46 0.75kW GRTA075-50L300~450

Reduction ratio : 300, 360, 450 Approx. weight : 57.0kg
Reference page : Specification Chart→P70



G-50 0.75kW GRTA075-50F300~450

Reduction ratio : 300, 360, 450 Approx. weight : 61.9kg
Reference page : Specification Chart→P70



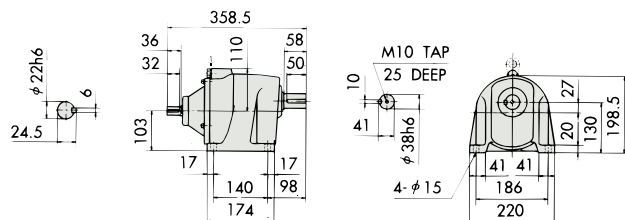
Inline Reducer Type Outline Dimensions

1.5kW · L : Foot mount type / U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

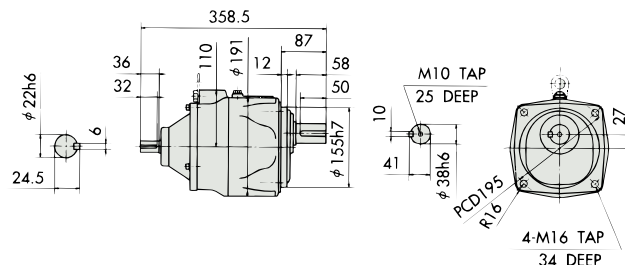
G-51 1.5kW GRTA150-38L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 16.0kg
Reference page : Specification Chart→P70



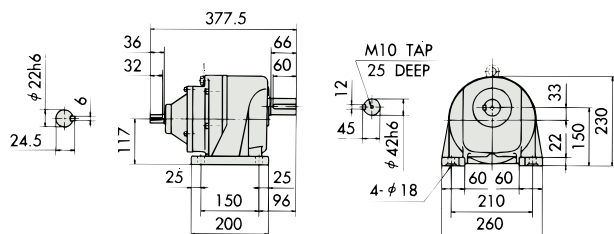
G-54 1.5kW GRTA150-38U5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 23.0kg
Reference page : Specification Chart→P70 Options→P58



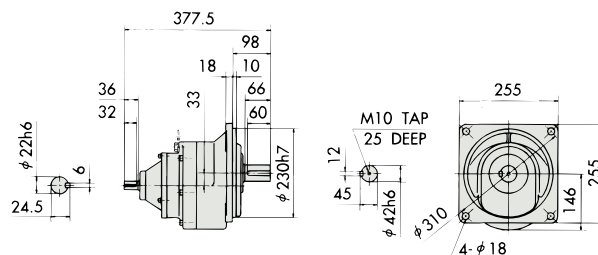
G-52 1.5kW GRTA150-42L40~75

Reduction ratio : 40, 50, 60, 75 Approx. weight : 37.0kg
Reference page : Specification Chart→P70



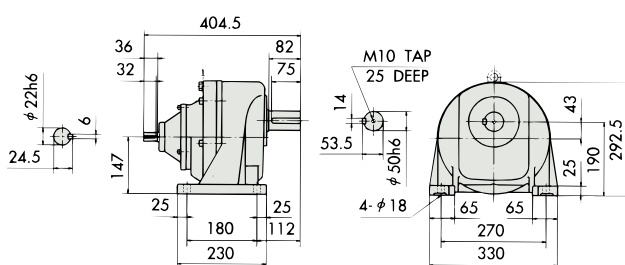
G-55 1.5kW GRTA150-42F40~75

Reduction ratio : 40, 50, 60, 75 Approx. weight : 38.0kg
Reference page : Specification Chart→P70



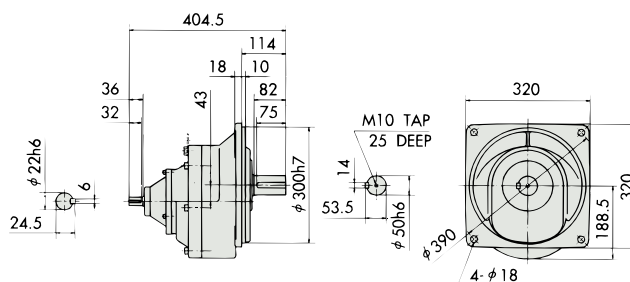
G-53 1.5kW GRTA150-50L100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 57.0kg
Reference page : Specification Chart→P70



G-56 1.5kW GRTA150-50F100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 59.0kg
Reference page : Specification Chart→P70



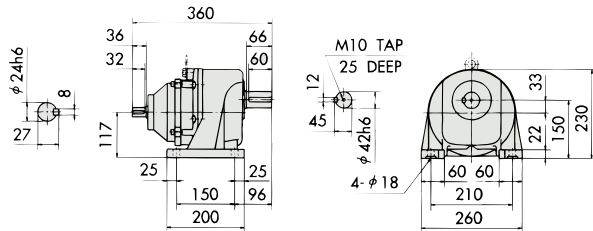
Inline Reducer Type Outline Dimensions

2.2kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

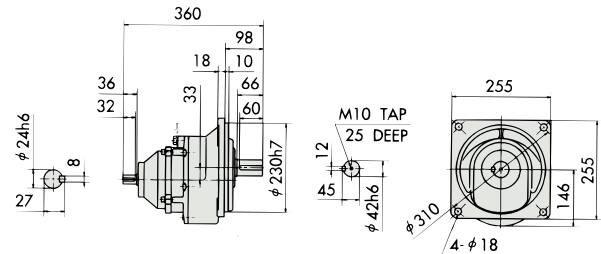
G-57 2.2kW GRTA220-42L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 32.0kg
Reference page : Specification Chart→P71



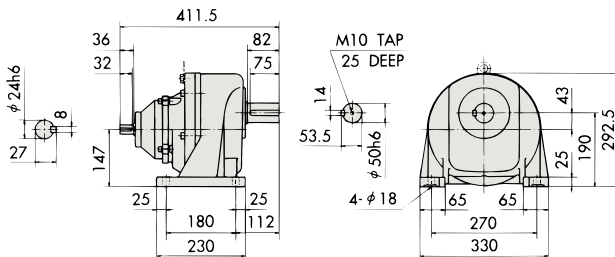
G-60 2.2kW GRTA220-42F5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 34.0kg
Reference page : Specification Chart→P71



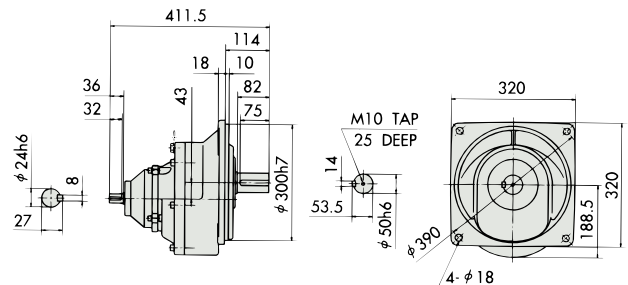
G-58 2.2kW GRTA220-50L40~75

Reduction ratio : 40, 50, 60, 75 Approx. weight : 53.0kg
Reference page : Specification Chart→P71



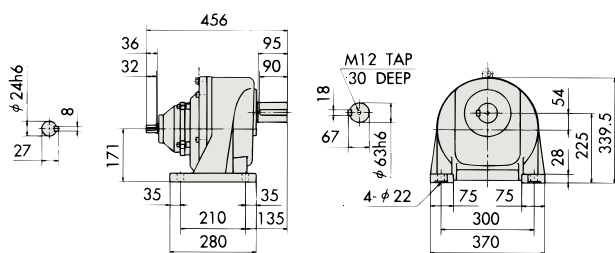
G-61 2.2kW GRTA220-50F40~75

Reduction ratio : 40, 50, 60, 75 Approx. weight : 56.0kg
Reference page : Specification Chart→P71



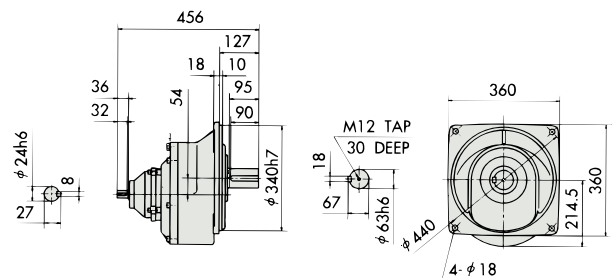
G-59 2.2kW GRTA220-63L100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 84.0kg
Reference page : Specification Chart→P71



G-62 2.2kW GRTA220-63F100~200

Reduction ratio : 100, 120, 165, 200 Approx. weight : 88.0kg
Reference page : Specification Chart→P71



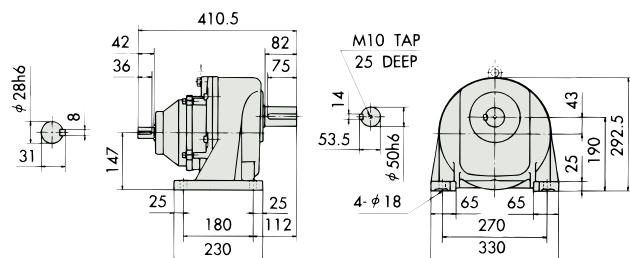
Inline Reducer Type Outline Dimensions

3.7kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

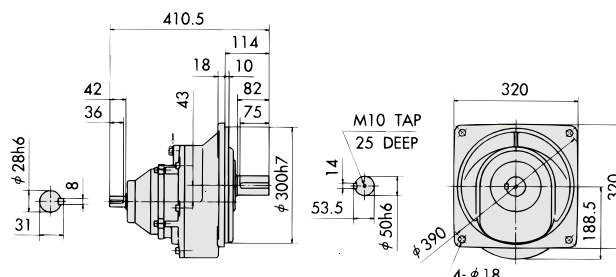
G-63 3.7kW GRTA370-50L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 53.0kg
Reference page : Specification Chart→P71



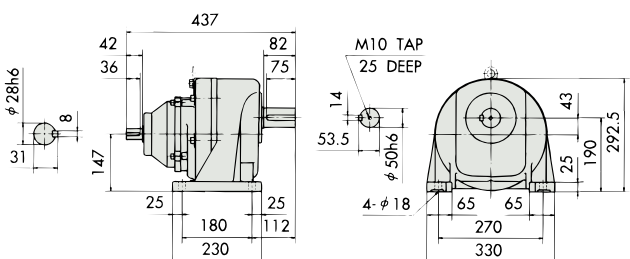
G-65 3.7kW GRTA370-50F5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 55.0kg
Reference page : Specification Chart→P71



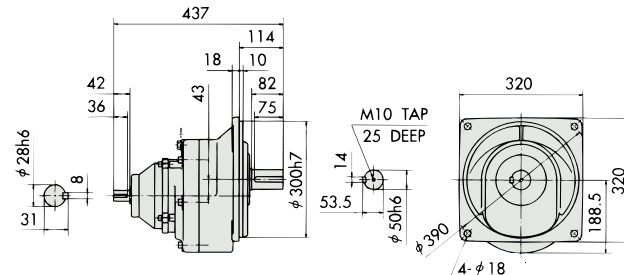
G-64 3.7kW GRTA370-50L40~50

Reduction ratio : 40, 50 Approx. weight : 57.0kg
Reference page : Specification Chart→P71



G-66 3.7kW GRTA370-50F40~50

Reduction ratio : 40, 50 Approx. weight : 59.0kg
Reference page : Specification Chart→P71

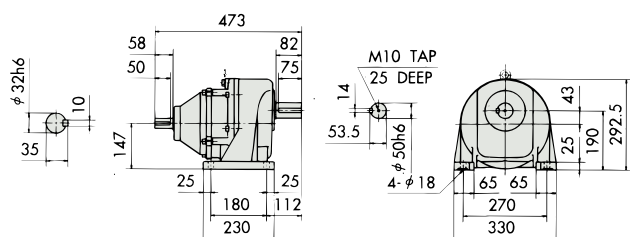


5.5kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

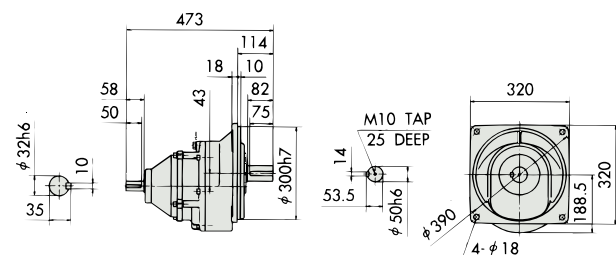
G-67 5.5kW GRTA550-50L5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 62.0kg
Reference page : Specification Chart→P71



G-68 5.5kW GRTA550-50F5~30

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 65.0kg
Reference page : Specification Chart→P71



Gear Motor TA Series Adapter Type

■ Adapter type reducer

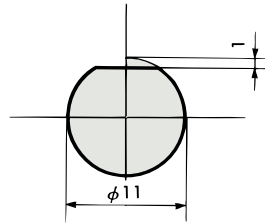
(1) This reducer has an adapter flange to which a motor can be attached.

Special motors other than our standard can be attached to it easily.

- Motors of other makers
- Explosion-proof motors
- Other special motors

(2) This reducer can be matched to motors conforming to the IEC and JEM standards.

- The flange dimensions and shaft dimensions are adjusted accordingly.
- For 0.2 kw or less, this reducer is ready for keyless D-cut shafts.

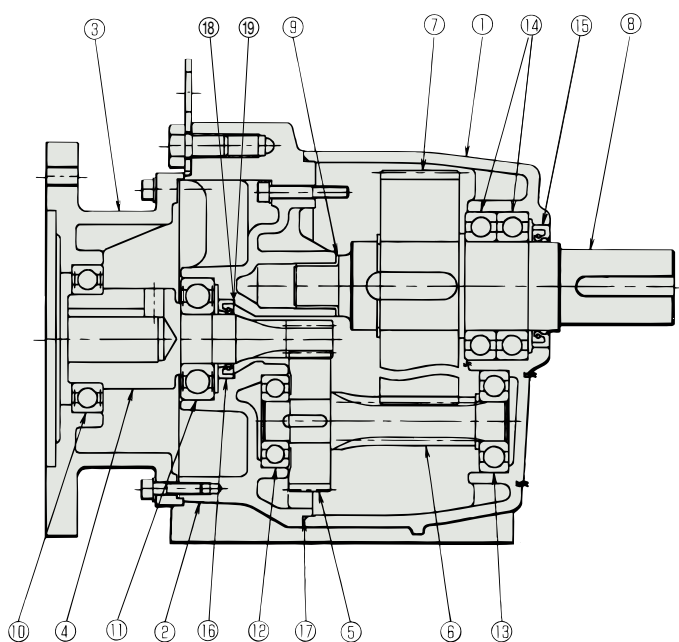


(3) For servomotors, DC motors, etc., that have special shaft dimensions, we manufacture reducers suitable for them as made-to-order products. Please contact us in such cases.

(4) We ask you to attach the motor to the reducer on your own.

■ Structure

■ GRTA150-38L30FI



- 1 . L Case
- 2 . M bracket
- 3 . Motor flange
- 4 . Adapter input shaft with pinion
- 5 . 1st stage wheel
- 6 . 2nd shaft with pinion
- 7 . 2nd stage wheel
- 8 . Output shaft
- 9 . Plametal (output shaft M bracket side)
- 10 . Bearing (input shaft R motor flange side)
- 11 . Bearing (input shaft M bracket side)
- 12 . Bearing (2nd shaft M bracket side)
- 13 . Bearing (2nd shaft L case side)
- 14 . Bearing (output shaft L case side)
- 15 . Oil seal (output shaft)
- 16 . Oil seal (input shaft)
- 17 . O-ring
- 18 . Filter
- 19 . Shim

Adapter Type Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		4P motor capacity equivalence kW	Frame number	Nominal reduction ratio	Actual reduction ratio	Number of reduction steps	Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions			
							N·m		{kgf·m}		N·m		{kgf·m}			
							50Hz		60Hz		N		{kgf}		Foot mount	Flange mount
GRTA010	5FI	0.1	18	1/5	1/ 4.932 (5.031)	2	2.8	{0.29}	2.4	{0.24}	274	{ 28}	P86 Drawing A-11	P87 Drawing A-16		
	10FI			1/10	1/ 9.953 (9.779)		5.7	{0.58}	4.8	{0.49}	431	{ 44}	P86 Drawing A-12	P87 Drawing A-17		
	15FI			1/15	1/ 15.027 (14.800)		8.6	{0.88}	7.2	{0.73}	568	{ 58}				
	20FI			1/20	1/ 20.417 (19.821)		11.8	{ 1.2}	9.5	{0.97}	686	{ 70}				
	25FI			1/25	1/ 25.461 (24.843)		14.7	{ 1.5}	11.8	{ 1.2}	804	{ 82}				
	30FI			1/30	1/ 29.464		17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}				
	40FI			1/40	1/ 40.153		22.5	{ 2.3}	19.6	{ 2.0}	1098	{ 112}				
	50FI			1/50	1/ 49.817		28.4	{ 2.9}	23.5	{ 2.4}	1264	{ 129}				
	60FI		24	1/60	1/ 57.829	3	34.3	{ 3.5}	28.4	{ 2.9}	1431	{ 146}	P86 Drawing A-13	P87 Drawing A-18		
	75FI			1/75	1/ 75.252		43.1	{ 4.4}	36.3	{ 3.7}	1666	{ 170}				
	100FI			1/100	1/ 99.644		56.8	{ 5.8}	48.0	{ 4.9}	2009	{ 205}				
	120FI			1/120	1/ 122.160		68.6	{ 7.0}	56.8	{ 5.8}	2274	{ 232}				
	165FI			1/165	1/ 172.821		94.1	{ 9.6}	78.4	{ 8.0}	2813	{ 287}				
	200FI			1/200	1/ 197.213		115	{11.7}	95.1	{ 9.7}	3195	{ 326}				
	300FI		28	1/300	1/ 305.455	4	143	{14.6}	120	{12.2}	3195	{ 326}	P86 Drawing A-14	P87 Drawing A-19		
	360FI			1/360	1/ 360.000		172	{17.5}	143	{14.6}	3606	{ 368}				
	450FI			1/450	1/ 439.481		215	{21.9}	179	{18.3}	4185	{ 427}				
	600FI			1/600	1/ 609.265		286	{29.2}	239	{24.4}	5076	{ 518}				
	720FI		38	1/720	1/ 702.677		344	{35.1}	286	{29.2}	5733	{ 585}	P86 Drawing A-15	P87 Drawing A-20		
	1000FI			1/1000	1/ 964.229		446	{45.5}	319	{32.5}	6664	{ 680}				
	1200FI			1/1200	1/1155.363		*459	*{46.8}	382	{39.0}	6684	{ 682}				
GRTA020	5FI	0.2	18	1/5	1/ 5.023 (5.031)	2	5.7	{0.58}	4.7	{0.48}	431	{ 44}	P88 Drawing A-21	P89 Drawing A-27		
	10FI			1/10	1/ 10.066 (9.779)		11.8	{ 1.2}	9.5	{0.97}	686	{ 70}	P88 Drawing A-22	P89 Drawing A-28		
	15FI			1/15	1/ 15.079 (14.800)		17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}				
	20FI			1/20	1/ 20.118 (19.821)		22.5	{ 2.3}	19.6	{ 2.0}	1098	{ 112}				
	25FI			1/25	1/ 25.333 (24.843)		28.4	{ 2.9}	23.5	{ 2.4}	1264	{ 129}				
	30FI		24	1/30	1/ 29.571 (29.464)	3	34.3	{ 3.5}	28.4	{ 2.9}	1431	{ 146}	P88 Drawing A-23	P89 Drawing A-29		
	40FI			1/40	1/ 41.400 (39.030)		46.1	{ 4.7}	38.2	{ 3.9}	1735	{ 177}				
	50FI			1/50	1/ 49.407		56.8	{ 5.8}	48.0	{ 4.9}	2009	{ 205}				
	60FI			1/60	1/ 59.417		68.6	{ 7.0}	56.8	{ 5.8}	2274	{ 232}				
	75FI		28	1/75	1/ 72.286		86.2	{ 8.8}	71.5	{ 7.3}	2636	{ 269}	P88 Drawing A-24	P89 Drawing A-30		
	100FI			1/100	1/ 97.785		115	{11.7}	95.1	{ 9.7}	3195	{ 326}				
	120FI			1/120	1/ 120.653		137	{14.0}	115	{11.7}	3606	{ 368}				
	165FI			1/165	1/ 160.136		189	{19.3}	158	{16.1}	4459	{ 455}				
	200FI		38	1/200	1/ 194.775		218	{22.2}	181	{18.5}	4822	{ 492}	P88 Drawing A-25	P89 Drawing A-31		
	300FI			1/300	1/ 294.857	4	286	{29.2}	239	{24.4}	4861	{ 496}				
	360FI			1/360	1/ 360.490		343	{35.0}	286	{29.2}	5488	{ 560}				
	450FI			1/450	1/ 448.000		430	{43.9}	358	{36.5}	5792	{ 591}				
	600FI		42	1/600	1/ 577.684		611	{62.3}	509	{51.9}	7301	{ 745}	P88 Drawing A-26	P89 Drawing A-32		
	720FI			1/720	1/ 735.000		733	{74.8}	611	{62.3}	8242	{ 841}				
	1000FI			1/1000	1/ 964.923		827	{84.4}	689	{70.3}	9800	{1000}				
	1200FI			1/1200	1/1187.879		*840	*{85.7}	700	{71.4}	9800	{1000}				

Note 1) The actual reduction ratios of the three-phase-motor-type gear motors (brake type, non-brake type) and CB gear motors (single-phase motor type, three-phase motor type) are shown in parentheses.

Note 2) The models marked with * are ones for which the torque is limited.

Adapter Type Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		4P motor capacity equivalence kW	Frame number	Nominal reduction ratio	Actual reduction ratio	Number of reduction steps	Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions			
							N·m		{kgf·m}		N·m		{kgf·m}			
							50Hz		60Hz		N		{kgf}		Foot mount	
GRTA040	5FI	0.4	24	1/5	1/ 4.950	2	12.1	{ 1.23}	10.0	{ 1.02}	686	{ 70}	P90 Drawing A-33	P91 Drawing A-38		
	10FI			1/10	1/ 10.313		24.5	{ 2.5}	20.6	{ 2.1}	1098	{ 112}				
	15FI			1/15	1/ 15.125		36.3	{ 3.7}	30.4	{ 3.1}	1431	{ 146}				
	20FI			1/20	1/ 19.388		48.0	{ 4.9}	40.2	{ 4.1}	1735	{ 177}				
	25FI			1/25	1/ 24.750		60.8	{ 6.2}	50.0	{ 5.1}	2009	{ 205}				
	30FI			1/30	1/ 30.875		72.5	{ 7.4}	60.8	{ 6.2}	2274	{ 232}				
	40FI		28	1/40	1/ 40.519	3	94.1	{ 9.6}	78.4	{ 8.0}	2754	{ 281}	P90 Drawing A-34	P91 Drawing A-39		
	50FI			1/50	1/ 50.909		118	{ 12.0}	98.0	{ 10.0}	3195	{ 326}				
	60FI			1/60	1/ 60.000		140	{ 14.3}	118	{ 12.0}	3606	{ 368}				
	75FI			1/75	1/ 73.247		175	{ 17.9}	146	{ 14.9}	4185	{ 427}				
	100FI		38	1/100	1/ 101.544	3	234	{ 23.9}	195	{ 19.9}	5076	{ 518}	P90 Drawing A-35	P91 Drawing A-40		
	120FI			1/120	1/ 117.113		281	{ 28.7}	234	{ 23.9}	5733	{ 585}				
	165FI			1/165	1/ 160.705		364	{ 37.1}	303	{ 30.9}	6664	{ 680}				
	200FI			1/200	1/ 192.560		389	{ 39.7}	324	{ 33.1}	6684	{ 682}				
	300FI		42	1/300	1/ 292.226	4	611	{ 62.3}	509	{ 51.9}	7301	{ 745}	P90 Drawing A-36	P91 Drawing A-41		
	360FI			1/360	1/ 368.952		733	{ 74.8}	611	{ 62.3}	8242	{ 841}				
	450FI			1/450	1/ 437.152		916	{ 93.5}	763	{ 77.9}	9565	{ 976}				
	600FI			1/600	1/ 597.694		1222	{124.7}	1018	{103.9}	11584	{1182}				
	720FI		50	1/720	1/ 748.052	4	1466	{149.6}	1222	{124.7}	13073	{1334}	P90 Drawing A-37	P91 Drawing A-42		
	1000FI			1/1000	1/ 962.850		1654	{168.8}	1379	{140.7}	13230	{1350}				
	1200FI			1/1200	1/1165.714		*1680	*{171.4}	1400	{142.9}	13230	{1350}				
GRTA075	5FI	0.75	28	1/5	1/ 5.061	2	22.6	{ 2.31}	18.8	{ 1.92}	1049	{ 107}	P92 Drawing A-43	P92 Drawing A-47		
	10FI			1/10	1/ 10.159		45.1	{ 4.6}	38.2	{ 3.9}	1666	{ 170}				
	15FI			1/15	1/ 14.694		67.6	{ 6.9}	56.8	{ 5.8}	2176	{ 222}				
	20FI			1/20	1/ 19.948		91.1	{ 9.3}	75.5	{ 7.7}	2636	{ 269}				
	25FI			1/25	1/ 25.397		114	{ 11.6}	94.1	{ 9.6}	3058	{ 312}				
	30FI			1/30	1/ 30.381		136	{ 13.9}	114	{ 11.6}	3459	{ 353}				
	40FI		38	1/40	1/ 40.635	3	175	{ 17.9}	146	{ 14.9}	4185	{ 427}	P92 Drawing A-44	P92 Drawing A-48		
	50FI			1/50	1/ 49.143		220	{ 22.4}	183	{ 18.7}	4861	{ 496}				
	60FI			1/60	1/ 60.082		264	{ 26.9}	220	{ 22.4}	5488	{ 560}				
	75FI			1/75	1/ 74.667		300	{ 30.6}	250	{ 25.5}	5792	{ 591}				
	100FI		42	1/100	1/ 96.280	3	439	{ 44.8}	369	{ 37.7}	7301	{ 745}	P92 Drawing A-45	P92 Drawing A-49		
	120FI			1/120	1/ 122.500		527	{ 53.8}	439	{ 44.8}	8242	{ 841}				
	165FI			1/165	1/ 160.820		724	{ 73.9}	604	{ 61.6}	9800	{1000}				
	200FI			1/200	1/ 197.979		735	{ 75.0}	613	{ 62.5}	9800	{1000}				
	300FI		50	1/300	1/ 298.523	4	1146	{116.9}	955	{ 97.4}	9418	{ 961}	P92 Drawing A-46	P92 Drawing A-50		
	360FI			1/360	1/ 363.462		1289	{131.5}	1074	{109.6}	10633	{1085}				
	450FI			1/450	1/ 448.907		*1396	*{142.4}	1163	{118.7}	12338	{1259}				
GRTA150	5FI	1.5	38	1/5	1/ 5.000	2	45.3	{ 4.62}	37.7	{ 3.85}	1666	{ 170}	P93 Drawing A-51	P93 Drawing A-54		
	10FI			1/10	1/ 10.000		91.1	{ 9.3}	75.5	{ 7.7}	2548	{ 260}				
	15FI			1/15	1/ 15.000		136	{ 13.9}	114	{ 11.6}	3342	{ 341}				
	20FI			1/20	1/ 19.615		181	{ 18.5}	151	{ 15.4}	4047	{ 413}				
	25FI			1/25	1/ 24.091		226	{ 23.1}	189	{ 19.3}	4694	{ 479}				
	30FI			1/30	1/ 30.000		272	{ 27.8}	226	{ 23.1}	5302	{ 541}				
	40FI		42	1/40	1/ 39.253	3	351	{ 35.8}	293	{ 29.9}	6292	{ 642}	P93 Drawing A-52	P93 Drawing A-55		
	50FI			1/50	1/ 48.704		439	{ 44.8}	366	{ 37.3}	7301	{ 745}				
	60FI			1/60	1/ 61.492		527	{ 53.8}	439	{ 44.8}	8242	{ 841}				
	75FI			1/75	1/ 72.859		659	{ 67.2}	549	{ 56.0}	9565	{ 976}				
	100FI		50	1/100	1/ 99.616	3	878	{ 89.6}	732	{ 74.7}	11584	{1182}	P93 Drawing A-53	P93 Drawing A-56		
	120FI			1/120	1/ 124.675		1054	{107.5}	878	{ 89.6}	13073	{1334}				
	165FI			1/165	1/ 160.475		1449	{147.9}	1207	{123.2}	13230	{1350}				
	200FI			1/200	1/ 194.286		*1470	*{150.0}	1225	{125.0}	13230	{1350}				

Note) The models marked with ※ are ones for which the torque is limited.

Specification Chart

0.4
0.75
1.5

Adapter Type Specification Chart

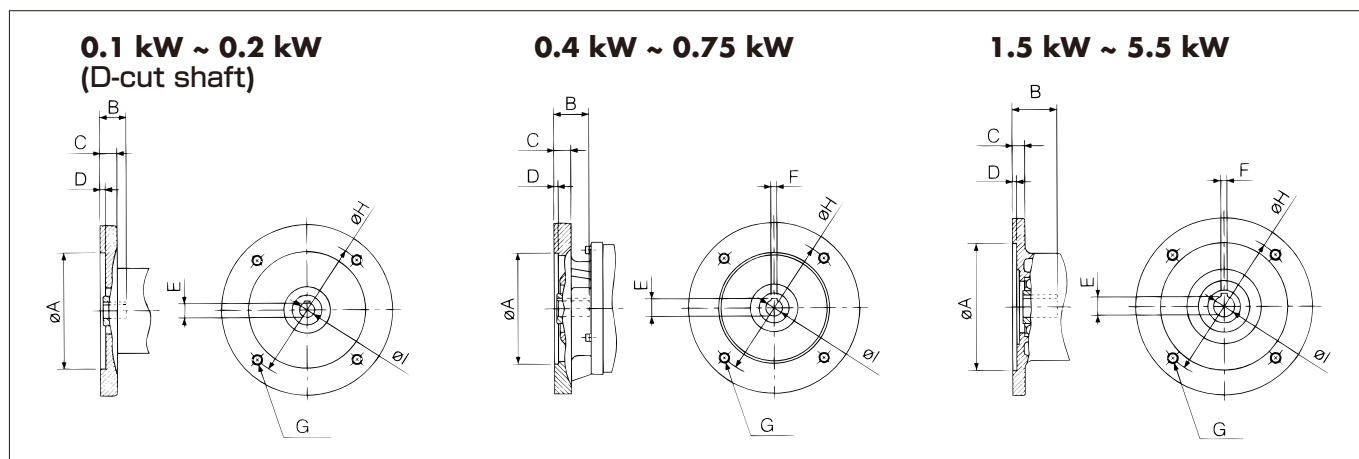
GEAR MOTOR TA Series

Specification Chart

Model number		4P motor capacity equivalence kW	Frame number	Nominal reduction ratio	Actual reduction ratio	Number of reduction steps	Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions			
							N·m		{kgf·m}		N·m	{kgf·m}	N	{kgf}	Foot mount	Flange mount
							50Hz		60Hz							
GRTA220	5FI	2.2	42	1/5	1/ 5.000	2	66.6	{ 6.8}	55.9	{ 5.7}	2078	{ 212}	P94 Drawing A-57	P94 Drawing A-60		
	10FI			1/10	1/ 9.870		133	{ 13.6}	111	{ 11.3}	3293	{ 336}				
	15FI			1/15	1/ 14.454		200	{ 20.4}	167	{ 17.0}	4312	{ 440}				
	20FI			1/20	1/ 20.659		266	{ 27.1}	221	{ 22.6}	5223	{ 533}				
	25FI			1/25	1/ 25.455		332	{ 33.9}	277	{ 28.3}	6066	{ 619}				
	30FI			1/30	1/ 29.143		399	{ 40.7}	332	{ 33.9}	6850	{ 699}				
	40FI		50	1/40	1/ 38.806	3	515	{ 52.6}	429	{ 43.8}	8114	{ 828}	P94 Drawing A-58	P94 Drawing A-61		
	50FI			1/50	1/ 49.754		644	{ 65.7}	537	{ 54.8}	9418	{ 961}				
	60FI			1/60	1/ 60.577		773	{ 78.9}	644	{ 65.7}	10633	{1085}				
	75FI			1/75	1/ 74.818		966	{ 98.6}	805	{ 82.1}	12338	{1259}				
	100FI		63	1/100	1/101.957	3	1288	{131.4}	1076	{109.5}	14955	{1526}	P94 Drawing A-59	P94 Drawing A-62		
	120FI			1/120	1/118.321		1545	{157.7}	1288	{131.4}	16885	{1723}				
	165FI			1/165	1/165.073		2126	{216.9}	1771	{180.7}	17640	{1800}				
	200FI			1/200	1/200.138		*2156	*{220.0}	1796	{183.3}	17640	{1800}				
GRTA370	5FI	3.7	50	1/5	1/ 4.865	2	112	{ 11.4}	93.1	{ 9.5}	2930	{ 299}	P95 Drawing A-63	P95 Drawing A-85		
	10FI			1/10	1/ 10.080		223	{ 22.8}	186	{ 19.0}	4645	{ 474}				
	15FI			1/15	1/ 15.158		335	{ 34.2}	279	{ 28.5}	6096	{ 622}				
	20FI			1/20	1/ 20.667		448	{ 45.7}	372	{ 38.0}	7389	{ 754}				
	25FI			1/25	1/ 24.923		560	{ 57.1}	466	{ 47.6}	8565	{ 874}				
	30FI			1/30	1/ 30.545		671	{ 68.5}	560	{ 57.1}	9673	{ 987}				
	40FI		50	1/40	1/ 40.461	3	866	{ 88.4}	722	{ 73.7}	10290	{1050}	P95 Drawing A-64	P95 Drawing A-65		
	50FI			1/50	1/ 49.703		1083	{110.5}	903	{ 92.1}	10290	{1050}				
	GRTA550		5FI	5.5	50	1/5	1/ 5.069	2	167	{ 17.0}	138	{ 14.1}	3812	{ 389}	P95 Drawing A-67	P95 Drawing A-68
			10FI			1/10	1/ 9.990		332	{ 33.9}	277	{ 28.3}	6056	{ 618}		
15FI		1/15	1/ 15.359			499	{ 50.9}		416	{ 42.4}	7938	{ 810}				
20FI		1/20	1/ 19.770			665	{ 67.9}		554	{ 56.5}	9624	{ 982}				
25FI		1/25	1/ 24.370			831	{ 84.8}		693	{ 70.7}	10290	{1050}				
30FI		1/30	1/ 29.244			*893	*{ 91.1}		744	{ 75.9}	10290	{1050}				

Note) The models marked with ※ are ones for which the torque is limited.

Dimensions of input section



(mm)

Motor output	A	B	C	D	E	F	G	H	I
0.1 kW	110G7	25	14	5	10	—	4-M8	130	11F7
0.2 kW	110G7	25	14	5	10	—	4-M8	130	11F7
0.4 kW	110G7	32	14	5	16.3	5	4-M8	130	14F7
0.75 kW	130G7	42	20	5	21.8	6	4-M10	165	19F7
1.5 kW	130G7	52	16	5	27.3	8	4-M10	165	24F7
2.2 kW	180G7	62	20	5	31.3	8	4-M12	215	28F7
3.7 kW	180G7	62	20	5	31.3	8	4-M12	215	28F7
5.5 kW	230G7	82	20	5	41.3	10	4-M12	265	38F7

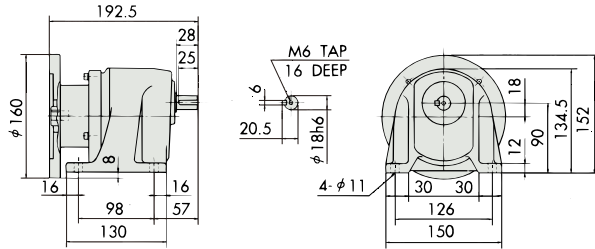
Adapter Type Outline Dimensions

0.1kW · L : Foot mount type

GEAR MOTOR TA Series

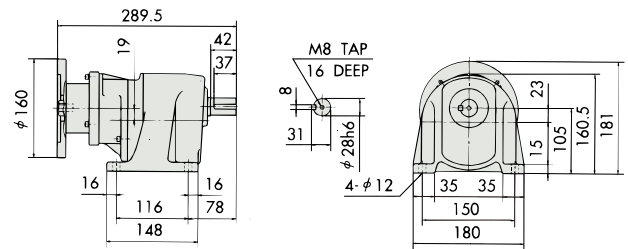
A-11 0.1kW GRTA010-18L5FI

Reduction ratio : 5
Approx. weight : 6.2kg
Reference page : Specification Chart→P83



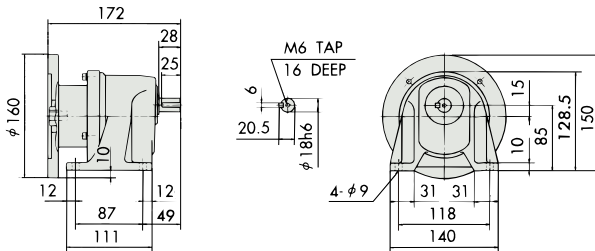
A-14 0.1kW GRTA010-28L300~450FI

Reduction ratio : 300, 360, 450
Approx. weight : 9.6kg
Reference page : Specification Chart→P83



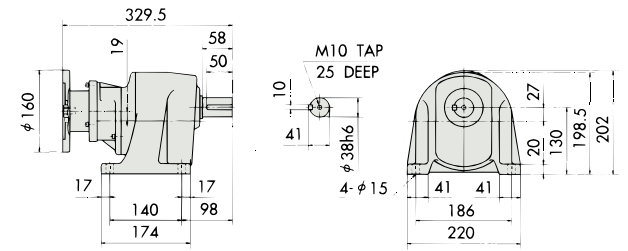
A-12 0.1kW GRTA010-18L10~50FI

Reduction ratio : 10, 15, 20, 25, 30, 40, 50
Approx. weight : 4.8kg
Reference page : Specification Chart→P83



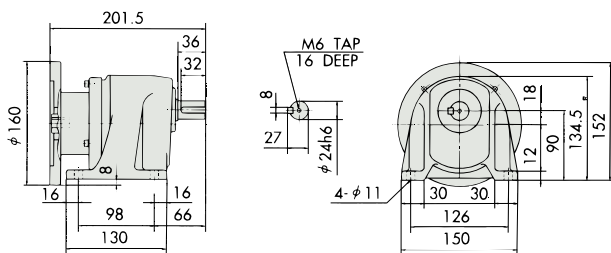
A-15 0.1kW GRTA010-38L600~1200FI

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 14.0kg
Reference page : Specification Chart→P83



A-13 0.1kW GRTA010-24L60~200FI

Reduction ratio : 60, 75, 100, 120, 165, 200
Approx. weight : 6.2kg
Reference page : Specification Chart→P83



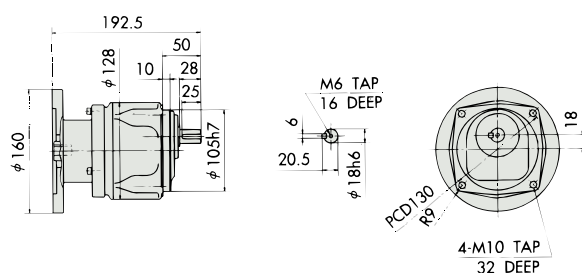
Adapter Type Outline Dimensions

0.1kW · U : Face mount type

GEAR MOTOR TA Series

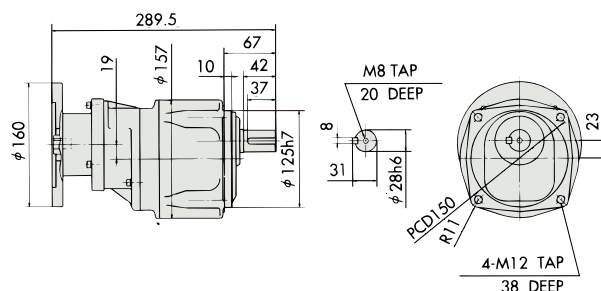
A-16 0.1kW GRTA010-18U5FI

Reduction ratio : 5	Approx. weight : 6.0kg
Reference page : Specification Chart→P83 Options→P57	



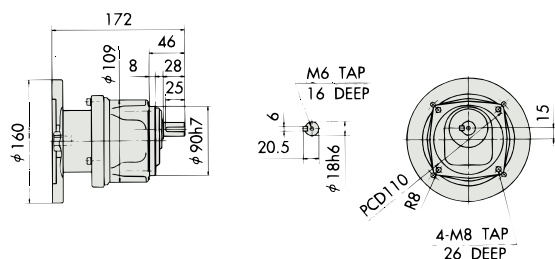
A-19 0.1kW GRTA010-28U300~450FI

Reduction ratio : 300, 360, 450	Approx. weight : 9.6kg
Reference page : Specification Chart→P83 Options→P57	



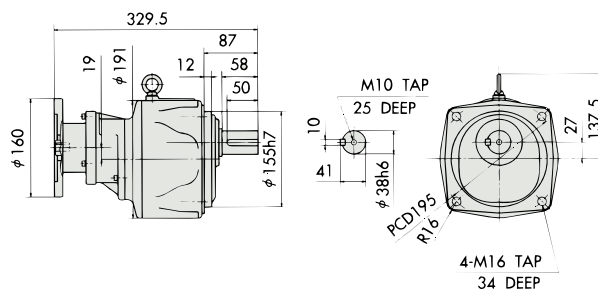
A-17 0.1kW GRTA010-18U10~50FI

Reduction ratio : 10, 15, 20, 25, 30, 40, 50	Approx. weight : 4.6kg
Reference page : Specification Chart→P83 Options→P57	



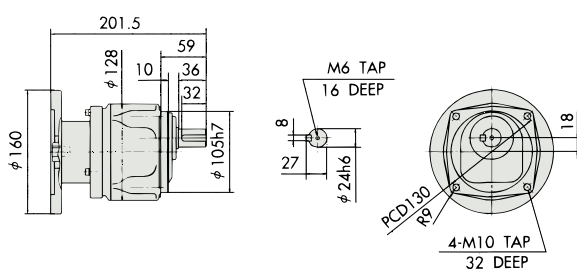
A-20 0.1kW GRTA010-38U600~1200FI

Reduction ratio : 600, 720, 1000, 1200	Approx. weight : 19.5kg
Reference page : Specification Chart→P83 Options→P58	



A-18 0.1kW GRTA010-24U60~200FI

Reduction ratio : 60, 75, 100, 120, 165, 200	Approx. weight : 6.2kg
Reference page : Specification Chart→P83 Options→P57	



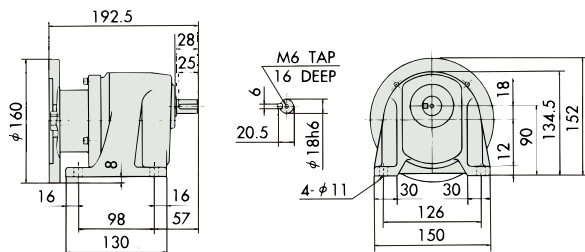
Adapter Type Outline Dimensions

0.2kW · L : Foot mount type

GEAR MOTOR TA Series

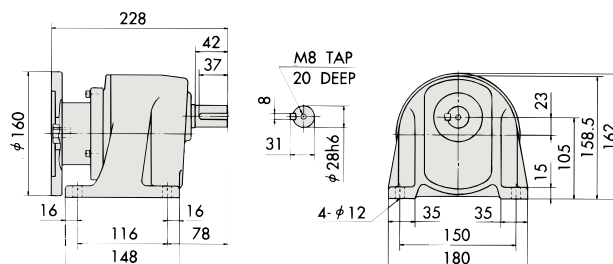
A-21 0.2kW GRTA020-18L5FI

Reduction ratio : 5
Approx. weight : 6.2kg
Reference page : Specification Chart→P83



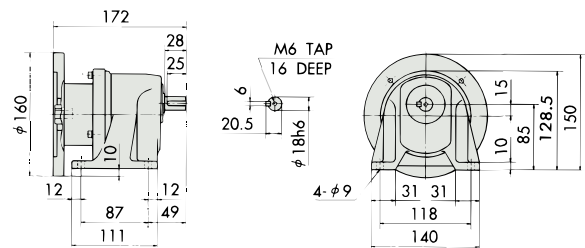
A-24 0.2kW GRTA020-28L100~200FI

Reduction ratio : 100, 120, 165, 200
Approx. weight : 8.6kg
Reference page : Specification Chart→P83



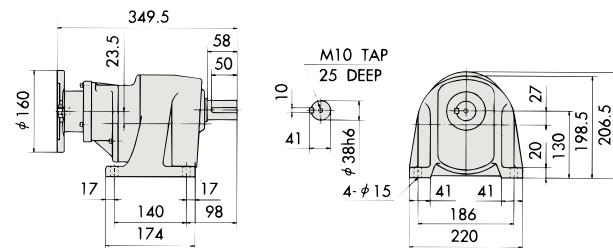
A-22 0.2kW GRTA020-18L10~25FI

Reduction ratio : 10, 15, 20, 25
Approx. weight : 4.8kg
Reference page : Specification Chart→P83



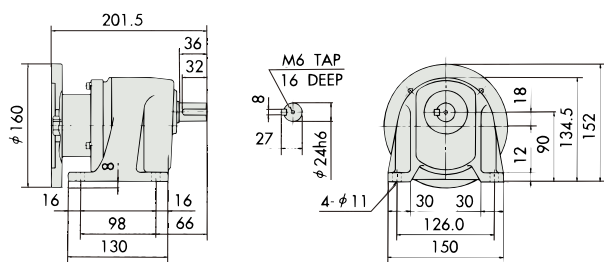
A-25 0.2kW GRTA020-38L300~450FI

Reduction ratio : 300, 360, 450
Approx. weight : 14.5kg
Reference page : Specification Chart→P83



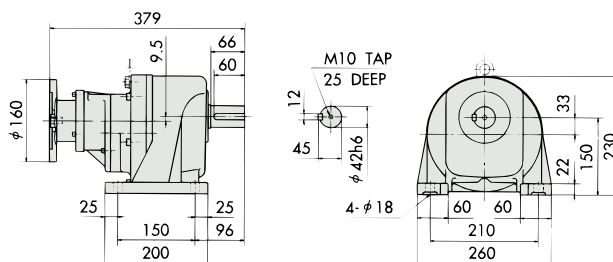
A-23 0.2kW GRTA020-24L30~75FI

Reduction ratio : 30, 40, 50, 60, 75
Approx. weight : 6.2kg
Reference page : Specification Chart→P83



A-26 0.2kW GRTA020-42L600~1200FI

Reduction ratio : 600, 720, 1000, 1200
Approx. weight : 36.9kg
Reference page : Specification Chart→P83



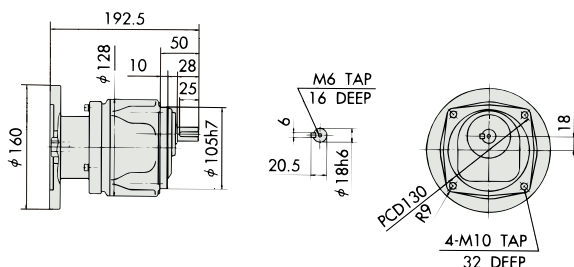
Adapter Type Outline Dimensions

0.2kW · U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

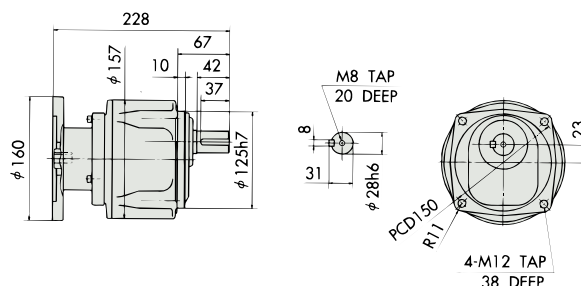
A-27 0.2kW GRTA020-18U5FI

Reduction ratio : 5 Approx. weight : 6.0kg
Reference page : Specification Chart→P83 Options→P57



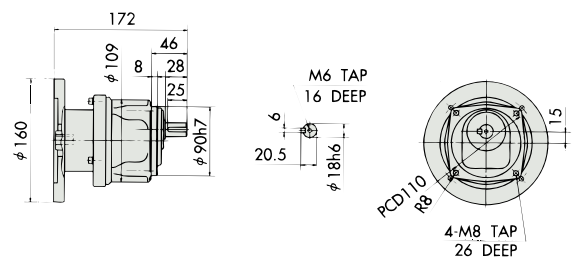
A-30 0.2kW GRTA020-28U100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 8.6kg
Reference page : Specification Chart→P83 Options→P57



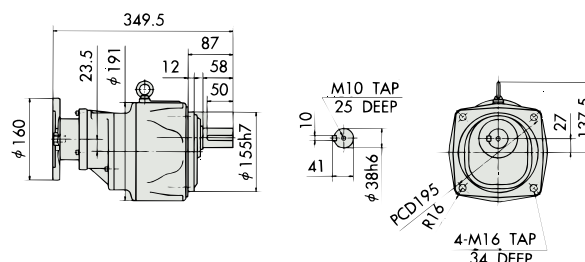
A-28 0.2kW GRTA020-18U10~25FI

Reduction ratio : 10, 15, 20, 25 Approx. weight : 4.6kg
Reference page : Specification Chart→P83 Options→P57



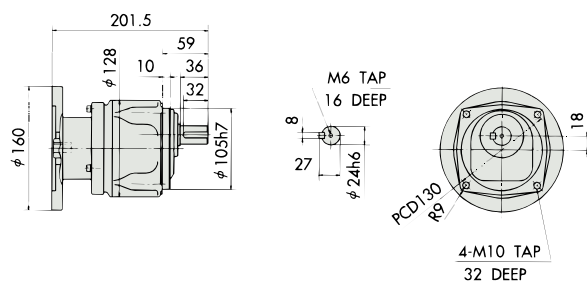
A-31 0.2kW GRTA020-38U300~450FI

Reduction ratio : 300, 360, 450 Approx. weight : 20.5kg
Reference page : Specification Chart→P83 Options→P58



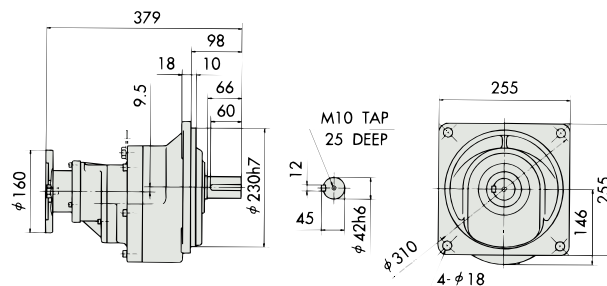
A-29 0.2kW GRTA020-24U30~75FI

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 6.2kg
Reference page : Specification Chart→P83 Options→P57



A-32 0.2kW GRTA020-42F600~1200FI

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 38.2kg
Reference page : Specification Chart→P83



Adapter Type Outline Dimensions

0.4kW · L : Foot mount type

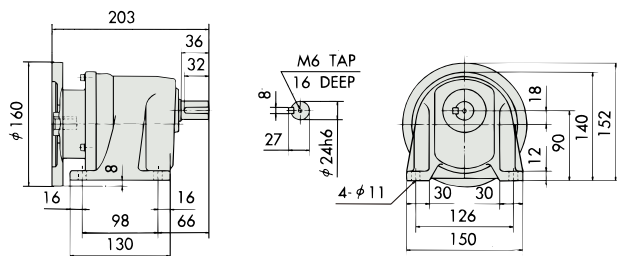
GEAR MOTOR TA Series

A-33 0.4kW GRTA040-24L5~25FI

Reduction ratio : 5, 10, 15, 20, 25

Approx. weight : 6.6kg

Reference page : Specification Chart→P84

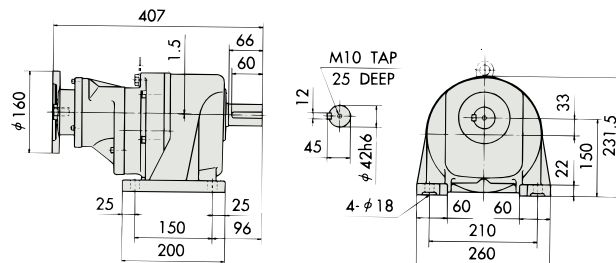


A-36 0.4kW GRTA040-42L300~450FI

Reduction ratio : 300, 360, 450

Approx. weight : 42.2kg

Reference page : Specification Chart→P84

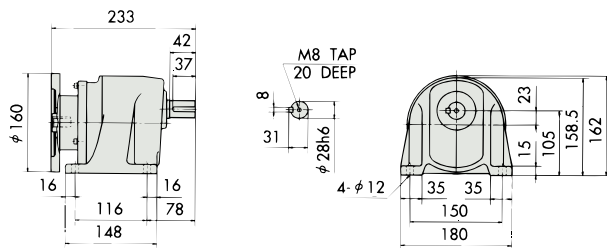


A-34 0.4kW GRTA040-28L30~75FI

Reduction ratio : 30, 40, 50, 60, 75

Approx. weight : 9.0kg

Reference page : Specification Chart→P84

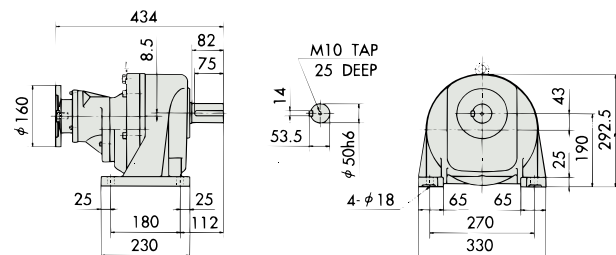


A-37 0.4kW GRTA040-50L600~1200FI

Reduction ratio : 600, 720, 1000, 1200

Approx. weight : 62.2kg

Reference page : Specification Chart→P84

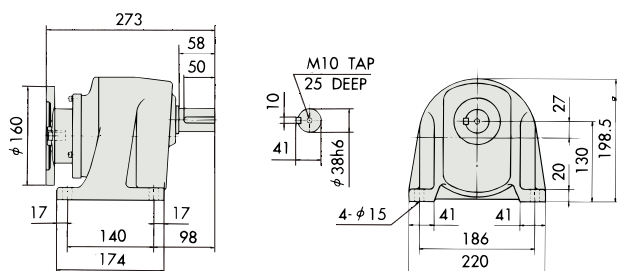


A-35 0.4kW GRTA040-38L100~200FI

Reduction ratio : 100, 120, 165, 200

Approx. weight : 13.0kg

Reference page : Specification Chart→P84



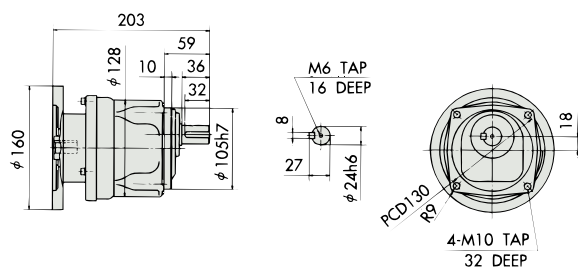
Adapter Type Outline Dimensions

0.4kW · U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

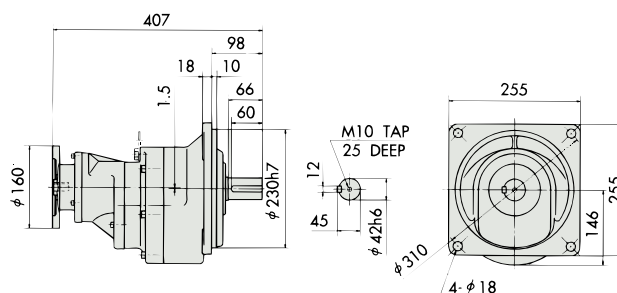
A-38 0.4kW GRTA040-24U5~25FI

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 6.6kg
Reference page : Specification Chart→P84 Options→P57



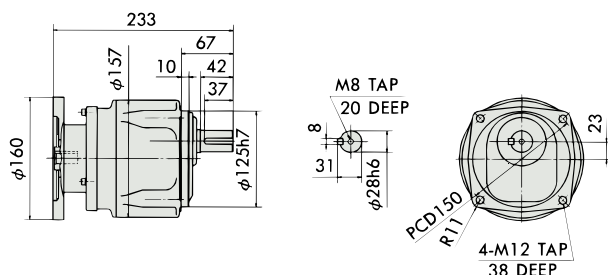
A-41 0.4kW GRTA040-42F300~450FI

Reduction ratio : 300, 360, 450 Approx. weight : 43.2kg
Reference page : Specification Chart→P84



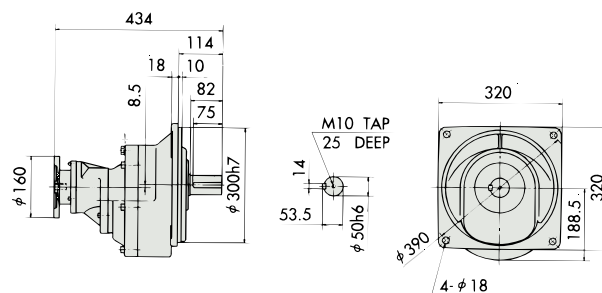
A-39 0.4kW GRTA040-28U30~75FI

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 9.0kg
Reference page : Specification Chart→P84 Options→P57



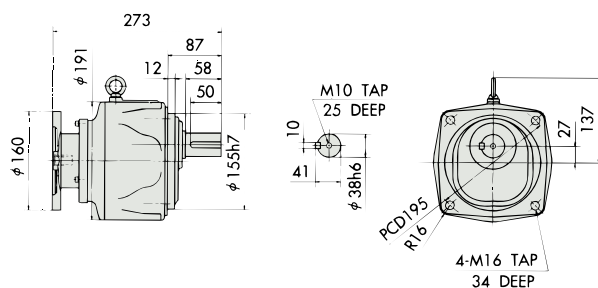
A-42 0.4kW GRTA040-50F600~1200FI

Reduction ratio : 600, 720, 1000, 1200 Approx. weight : 64.2kg
Reference page : Specification Chart→P84



A-40 0.4kW GRTA040-38U100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 19.5kg
Reference page : Specification Chart→P84 Options→P58



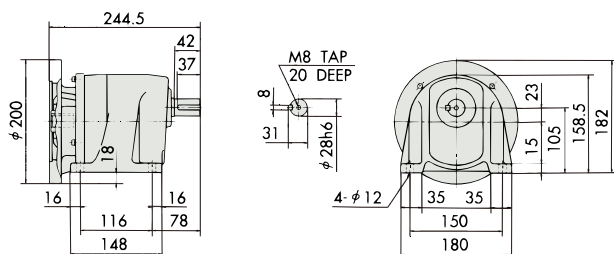
Adapter Type Outline Dimensions

0.75kW · L : Foot mount type / U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

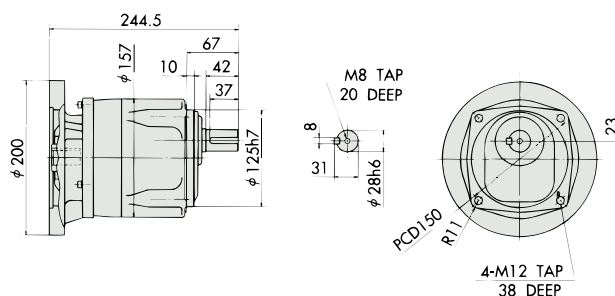
A-43 0.75kW GRTA075-28L5~25FI

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 11.5kg
Reference page : Specification Chart→P84



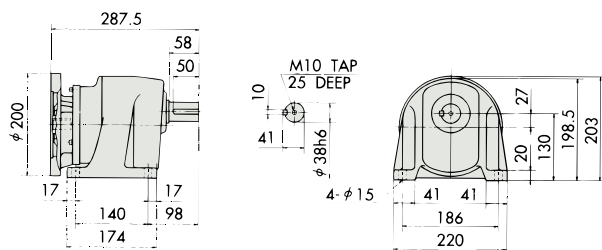
A-47 0.75kW GRTA075-28U5~25FI

Reduction ratio : 5, 10, 15, 20, 25 Approx. weight : 11.5kg
Reference page : Specification Chart→P84 Options→P57



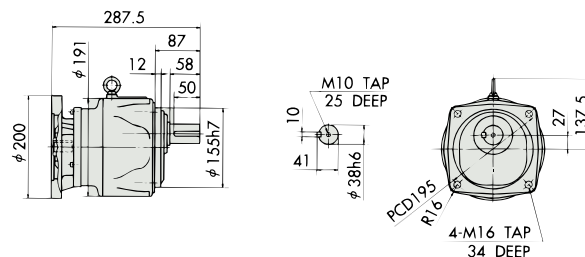
A-44 0.75kW GRTA075-38L30~75FI

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 15.5kg
Reference page : Specification Chart→P84



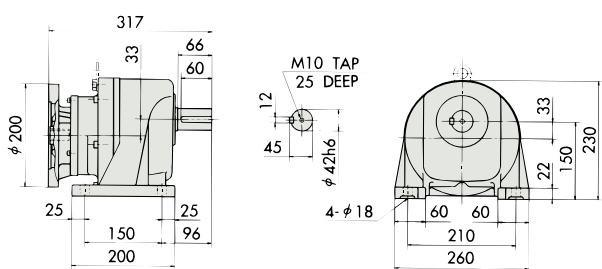
A-48 0.75kW GRTA075-38U30~75FI

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 21.5kg
Reference page : Specification Chart→P84 Options→P58



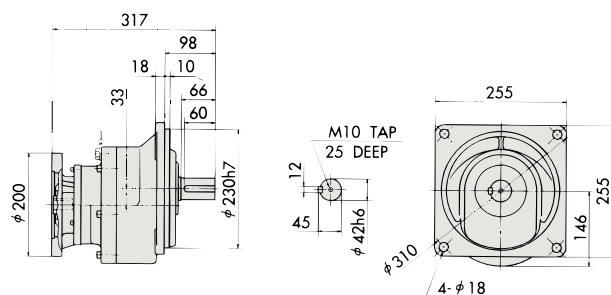
A-45 0.75kW GRTA075-42L100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 37.0kg
Reference page : Specification Chart→P84



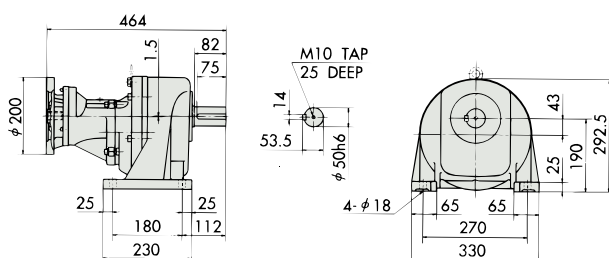
A-49 0.75kW GRTA075-42F100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 39.0kg
Reference page : Specification Chart→P84



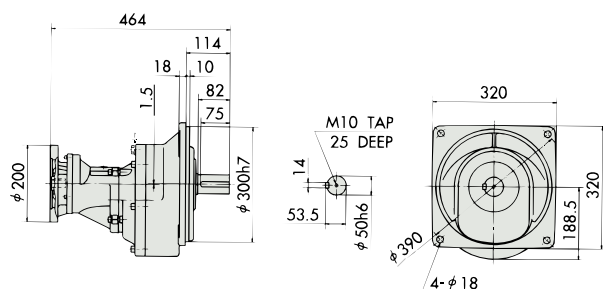
A-46 0.75kW GRTA075-50L300~450FI

Reduction ratio : 300, 360, 450 Approx. weight : 61.1kg
Reference page : Specification Chart→P84



A-50 0.75kW GRTA075-50F300~450FI

Reduction ratio : 300, 360, 450 Approx. weight : 63.1kg
Reference page : Specification Chart→P84



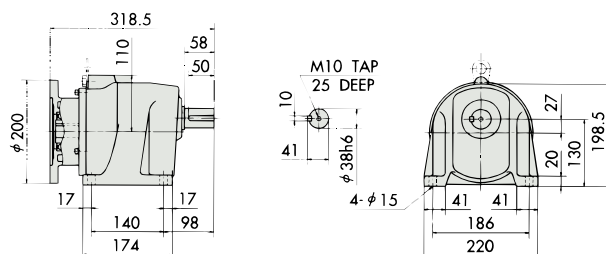
Adapter Type Outline Dimensions

1.5kW · L : Foot mount type / U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

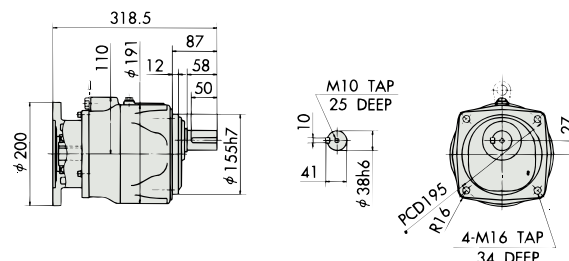
A-51 1.5kW GRTA150-38L5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 19.0kg
Reference page : Specification Chart→P84



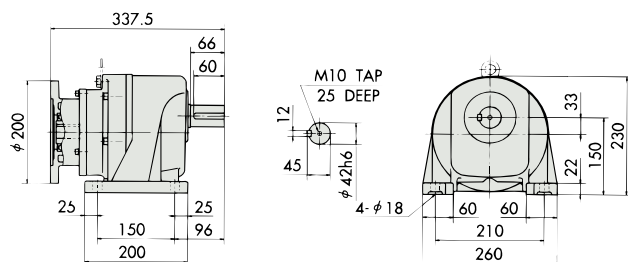
A-54 1.5kW GRTA150-38U5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 26.0kg
Reference page : Specification Chart→P84 Options→P58



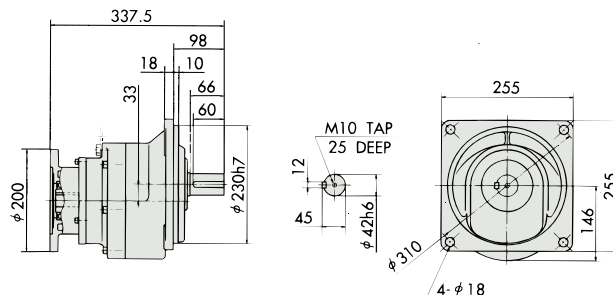
A-52 1.5kW GRTA150-42L40~75FI

Reduction ratio : 40, 50, 60, 75 Approx. weight : 40.0kg
Reference page : Specification Chart→P84



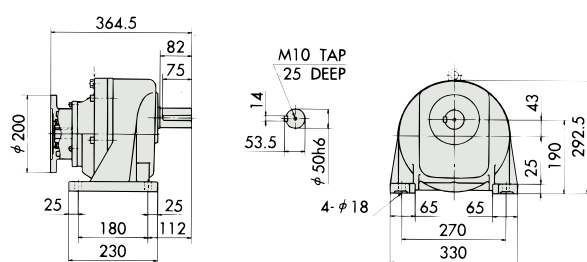
A-55 1.5kW GRTA150-42F40~75FI

Reduction ratio : 40, 50, 60, 75 Approx. weight : 41.0kg
Reference page : Specification Chart→P84



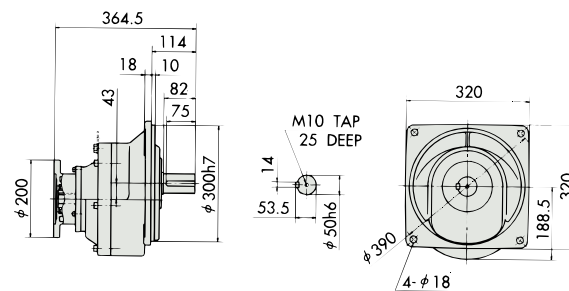
A-53 1.5kW GRTA150-50L100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 60.0kg
Reference page : Specification Chart→P84



A-56 1.5kW GRTA150-50F100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 62.0kg
Reference page : Specification Chart→P84



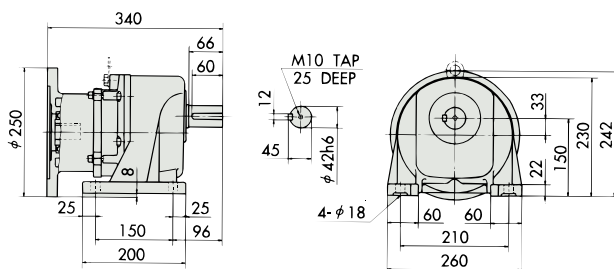
Adapter Type Outline Dimensions

2.2kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

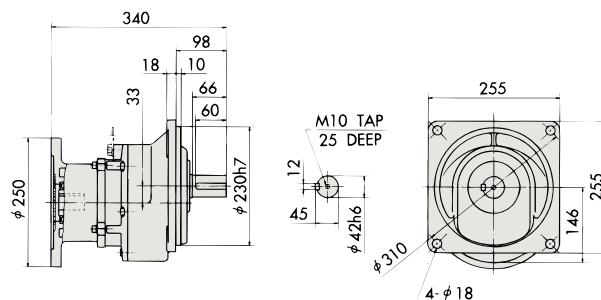
A-57 2.2kW GRTA220-42L5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 40.0kg
Reference page : Specification Chart→P85



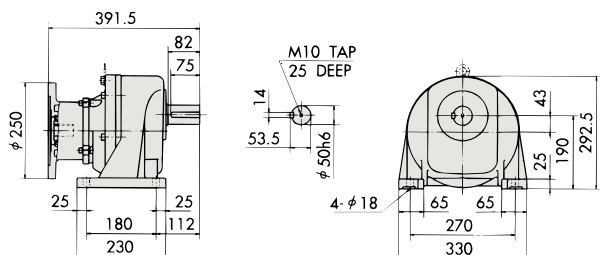
A-60 2.2kW GRTA220-42F5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 42.0kg
Reference page : Specification Chart→P85



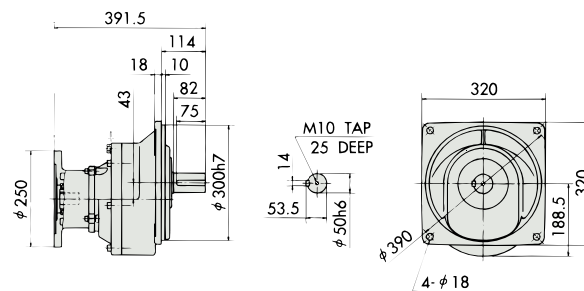
A-58 2.2kW GRTA220-50L40~75FI

Reduction ratio : 40, 50, 60, 75 Approx. weight : 61.0kg
Reference page : Specification Chart→P85



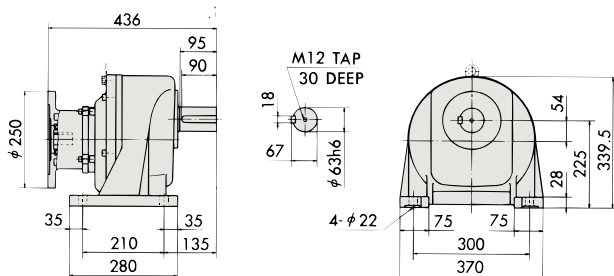
A-61 2.2kW GRTA220-50F40~75FI

Reduction ratio : 40, 50, 60, 75 Approx. weight : 64.0kg
Reference page : Specification Chart→P85



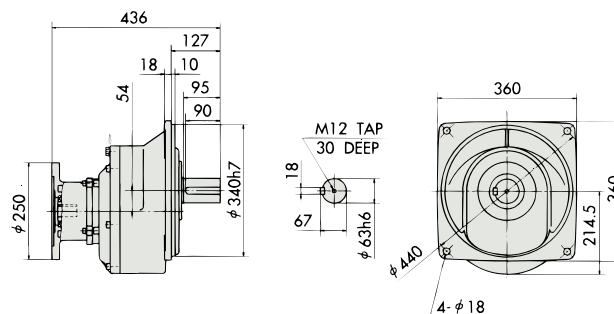
A-59 2.2kW GRTA220-63L100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 92.0kg
Reference page : Specification Chart→P85



A-62 2.2kW GRTA220-63F100~200FI

Reduction ratio : 100, 120, 165, 200 Approx. weight : 96.0kg
Reference page : Specification Chart→P85



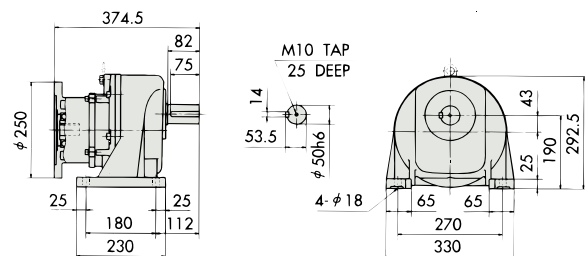
Adapter Type Outline Dimensions

3.7kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

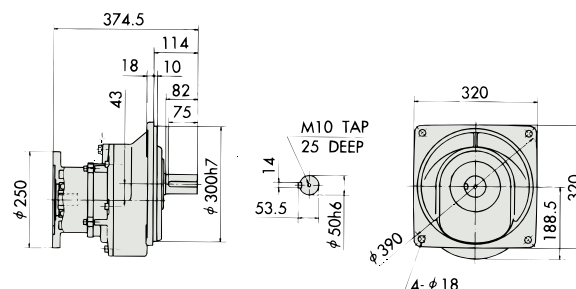
A-63 3.7kW GRTA370-50L5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 58.0kg
Reference page : Specification Chart→P85



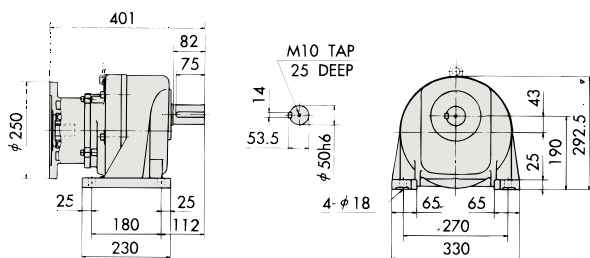
A-65 3.7kW GRTA370-50F5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 60.0kg
Reference page : Specification Chart→P85



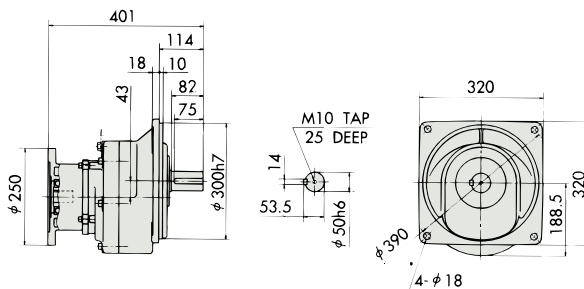
A-64 3.7kW GRTA370-50L40~50FI

Reduction ratio : 40, 50 Approx. weight : 62.0kg
Reference page : Specification Chart→P85



A-66 3.7kW GRTA370-50F40~50FI

Reduction ratio : 40, 50 Approx. weight : 64.0kg
Reference page : Specification Chart→P85

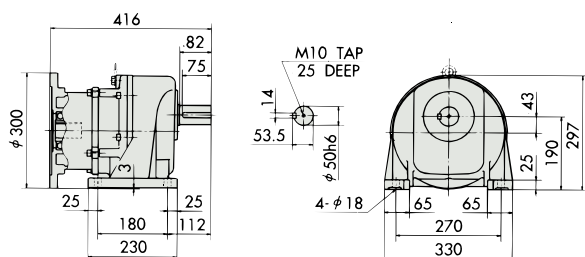


5.5kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR MINI Outsize Figure ● Non-brake/Hollow axis 0.4kw

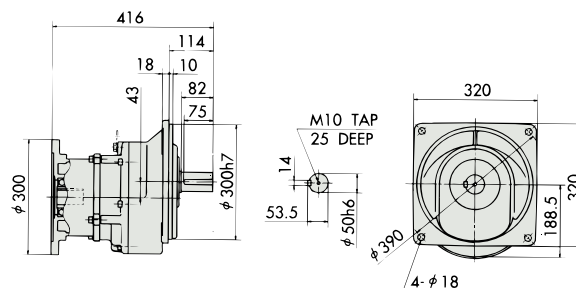
A-67 5.5kW GRTA550-50L5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 69.0kg
Reference page : Specification Chart→P85



A-68 5.5kW GRTA550-50F5~30FI

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 72.0kg
Reference page : Specification Chart→P85



Best suited for high-frequency operation— A rank above others

- Compact, lightweight and low-noise TA series reducer
- Easy-to-use long-life clutch/brake types

Features

C

OMPACT

The clutch/brake is directly connected between the motor and the reducer as an assembly and requires only a small installation space. In addition, the time for installation and centering is reduced compared to combining units.

B

ALANCE

The torque of the clutch/brake is optimally adjusted in consideration of the motor capacity and load conditions. The clutch/brake and reducer operate in balance offering greater durability.

G

RADE UP

Because of the unique design of the clutch/brake and the reducer housing construction, heat is quickly dissipated, which enables frequent on-off switching. Because the TA series has a reputation for low noise and durability, high reliability is ensured. A wide range of types are available (0.1 kW-3.7 kW, reduction ratios of 1/5-1/200), providing a perfect match for any application.

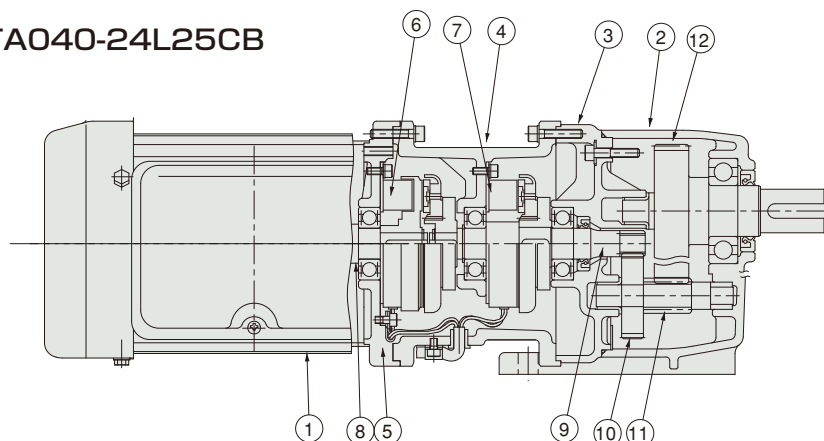
M

AINTENANCE EASY

The clutch/brake includes an automatic gap control system that eliminates the need for performing troublesome gap adjustment as the friction plate wears, ensuring reliable operation for a long time. Since the reducer uses an enclosed grease bath and changing grease is often not necessary, maintenance is not necessary for a long time.

Structure

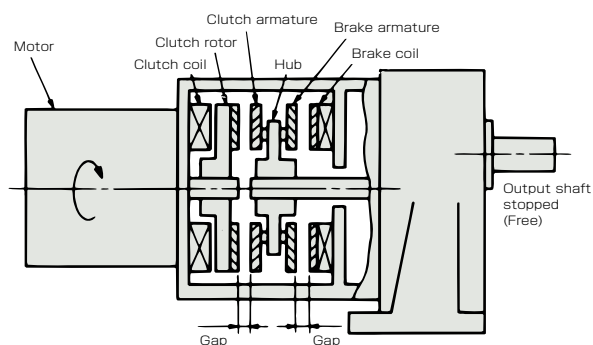
GMTA040-24L25CB



- 1 . Motor
- 2 . L case
- 3 . M bracket
- 4 . Housing
- 5 . Motor flange
- 6 . Clutch
- 7 . Brake
- 8 . Motor shaft
- 9 . Input shaft with pinion
- 10 . 1st stage wheel
- 11 . 2nd shaft with pinion
- 12 . Output shaft with wheel

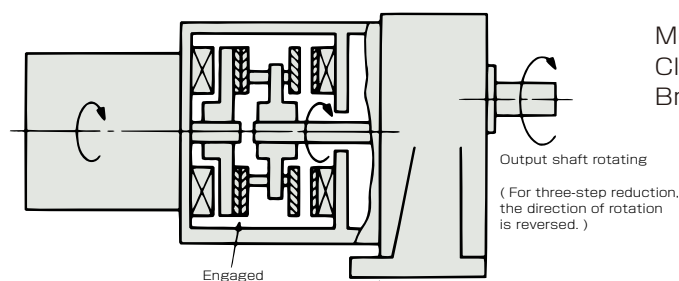
Operating principle

1. Stopping



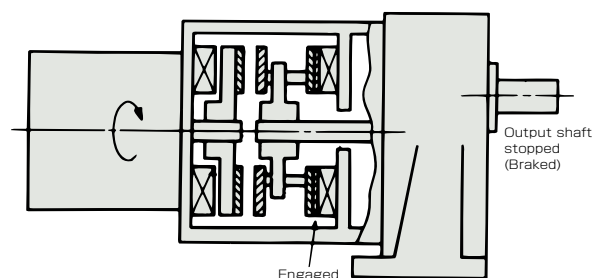
Motor: ON or OFF
Clutch: OFF
Brake: OFF

2. Clutching



Motor: ON
Clutch: ON
Brake: OFF

3. Braking



Motor: ON
Clutch: OFF
Brake: ON



CB Gear Motor Specifications

GEAR MOTOR TA Series

1. Specifications

Motor	Output	Three-phase :0.1, 0.2, 0.4, 0.75, 1.5, 2.2, 3.7kW	Single-phase :100W, 200W
	Power supply	200/200/220V 50/60/60Hz	100V 50/60Hz
	Number of poles	4	4
	Protection type	0.1 kW - Totally-enclosed type (IP44), 0.2-3.7 kW - Totally-enclosed external fan type (IP44)	Drip-proof protection type (IP22)
	Cooling method	0.1 kW - Self-cooling type (IC410), 0.2-3.7 kW - Self-managed type (IC411)	Draft type (IC01)
	Starting method	—	Split-phase starting type
	Rating	Continuous	Continuous
	Insulation	Class E	Class E
Reducer	Reduction ratio	1/5 to 1/200	
	Speed reducing method	External gear system (helical gear, spur wheel)	
	Lubricating method	Grease lubrication	
	Shaft end key way	New JIS key (JIS B 1301-1976): Output shaft key attached	
	Output shaft end	Tapped	
Ambient conditions	Installation place	Indoor not exposed to dust or water	
	Ambient temperature	0°C to 40°C	
	Ambient humidity	Less than 85% (non condensing)	
	Altitude	At elevations below 1000 m	
	Atmosphere	Free from corrosive gases, explosive gases and steam	
	Mounting direction	No limitations on mounting angles: horizontal, vertical or inclined	
Paint color		Munsell 2.5G 6/3	

Note) The protective construction for the CB gear motor is IP12.

2. Clutch/Brake

Type	Dry single-plate friction type
Actuation method	Excitation
Rated voltage	24 V DC
Insulation class	Class B
Protection type	Open
Gap adjustment	Automatic gap control system
Lining	No asbestos



For lubrication, installation and coupling, refer to pages 59 to 62.

Power supply box

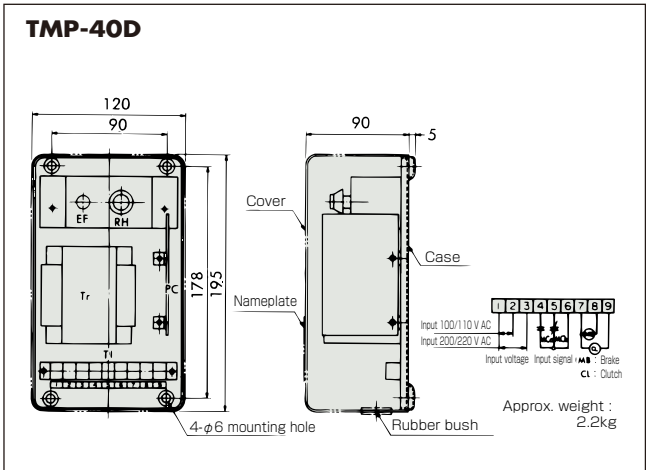
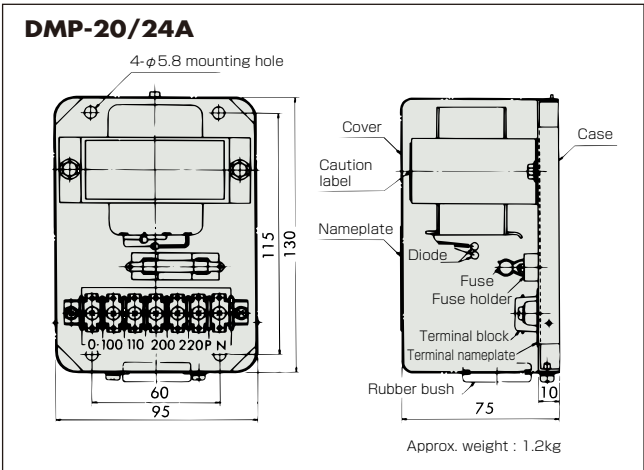
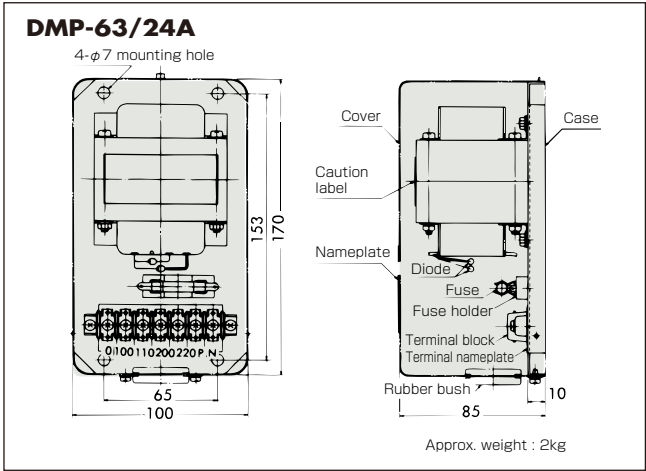
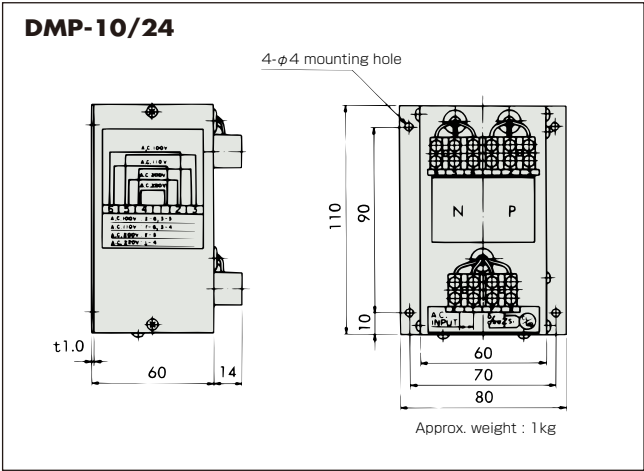
The following power supply boxes and control unit for the clutch/brake are available. Make the selection according to your operating conditions. The control unit is of the non-contact type, making it suitable for high frequency on-off switching.



Power supply box list

Model	Model number	Capacity W	Recommended CB gear motor	Varistor for discharge circuit	Function	Specifications
DMP-type power supply box	DMP-10/24	10	GMTA010 GMTA100 GMTA020 GMTA200 GMTA040	Z15D151	Rectifying only	Input voltage: 100/100/110 V AC 200/200/220 V AC Output voltage: 24 V DC Rating: Continuous Paint color: Munsell 7.5BG6/1.5
	DMP-20/24A	20	GMTA075 GMTA150 GMTA220	Z15D151		
	DMP-63/24A	63	GMTA370	Z15D151		
TMP-type control unit	TMP-40D	40	All models	Unnecessary	Rectifying and brake torque adjusting	

(The varistor accompanies the CB gear motor.)



DMP-20/24A

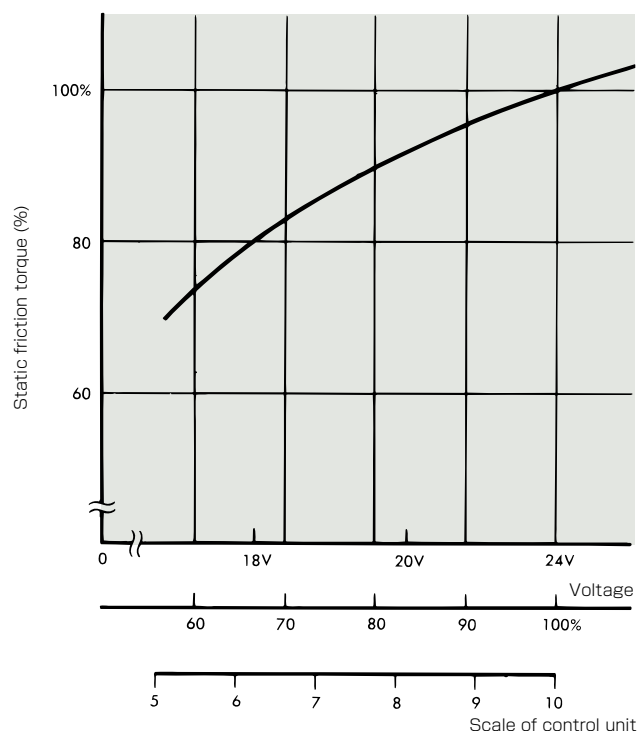
TMP-40D

5. Brake torque adjusting function

For the TMP-type control unit, a brake torque adjusting resistor is set in the circuit. The brake torque can be adjusted as shown in the figure to the right by reducing the voltage with this resistor. The lower limit of voltage adjustment is about 70%. If the voltage is reduced too much, insufficient pull-in of the armature will result. The scale of the control unit should be regarded as a guideline. To determine the precise value, measure the terminal voltage.

6. Special control circuit

If fast actuation of the clutch/brake is required, increase the voltage applied to the clutch/brake above the rated voltage, which will shorten the armature pull-in time and the torque rise time. Using this method will cause heating of the clutch/brake body. In addition, if the GD^2 of the load is 0.5 or more as compared with that of the motor, the shock on starting will be increased. Care should therefore be taken when using this method.



Selection

1. Selection procedure

- When making a selection based on the torque and revolution, select a model number according to the gear motor. The allowable inertia ratio, clutch/brake clutching work and life span are described here.

- Conditions**
 - (1) Output shaft revolution speed n_L and frequency Hz
 - (2) Load torque on motor shaft T_L
 - (3) Load on motor shaft GD_L^2 (moment of inertia)
 - (4) GD_M^2 of motor
 - (5) Starting frequency per minute N (Maximum frequency: 60 times/min)
 - (6) Method of coupling to load

- Selection of model** (1) Calculate the corrected inertia ratio (U).

$$U = \frac{GD_L^2 \times U_F}{GD_M^2}$$

Correction coefficient according to coupling method : (U_F)

Method of coupling to load	U_F
Direct coupling, etc., that causes no shake	1.0
Chain transmission, etc., that causes shake	1.5

- (2) Make sure that the corrected inertia ratio (U) of the motor to be used does not exceed the allowable inertia ratio (U_{max}).

※If it exceeds the allowable inertia ratio, please contact our company.

- (3) While referring to the clutch/brake selection diagram on page 103, select a suitable motor capacity to allow for the load torque on the motor shaft and GD^2 on motor shaft.

(For N=25, refer to the diagram for N=30.)

When a precise selection is necessary, determine it using the basic formula on page 104.

- Determination of life span** Calculate the clutching work per time E_c using the formula shown in Section 3 on page 104.

From this E_c and the total work (E_T shown on page 105), calculate the total clutching count (Z) as shown below.

$$Z = \frac{E_T}{E_c}$$

To calculate the life span in units of days, use the following formula.

$$Z_d = \frac{Z}{N \times 60 \times N_h}$$

Z_d : Life span in units of days

N : Starting count per minute

N_h : Average operating time per day

Allowable inertia ratio : (U_{max})

Reduction ratio	U_{max}
Under 1/30	1.0
1/40~1/50	0.5
1/100~1/200	0.2

2. Example of selection

SI units

1. Conditions

- (1) Output shaft revolution speed $n_L = 50 \text{ r/min (50Hz)}$
- (2) Load torque on motor shaft $T_L = 1.764 \text{ N} \cdot \text{m}$
- (3) Moment of inertia on motor shaft
 $I_L = 0.001 \text{ kg} \cdot \text{m}^2$ (Load being coupled directly)
- (4) Moment of inertia of load of motor $I_M = 0.00119 \text{ kg} \cdot \text{m}^2$
- (5) Starting frequency N=15 times/min

2. Selection of model

$$U = \frac{I_L \times U_F}{I_M} = \frac{0.001 \times 1.0}{0.00119} = 0.84$$

- Because the output shaft revolution speed is 50 r/min, the reduction ratio is 1/30 according to the specification chart (page 106) and therefore the allowable inertia ratio is 1.0, which means there is no problem with the corrected inertia ratio U.

- Because the starting frequency per minute is 15 times/min, refer to the diagram for N = 20 times/min. The point of intersection of the above-shown T_L and I_L in this diagram indicates that the proper motor capacity is 0.4 kW. As a result, the model number that should be selected is GMT040-L30CB.

3. Determination of life span

(Perform the following calculation while referring to page 104.)

$$E_c = \frac{\Sigma I \times n^2}{182} \times \frac{T_d}{(T_d - T_L)}$$

$$= \frac{1.216 \times 10^{-3} \times 1500^2}{182} \times \frac{3.53}{(3.53 - 1.76)}$$

$$= 29.9 \text{ J}$$

$$\Sigma I = 2.16 \times 10^{-4} + 1.0 \times 10^{-3}$$

$$= 1.216 \times 10^{-3} \text{ kg} \cdot \text{m}^2$$

$$n = 1500 \text{ r/min}$$

$$T_d = 3.53 \text{ N} \cdot \text{m}$$

$$T_L = 1.76 \text{ N} \cdot \text{m}$$

$$E_T = 3.92 \times 10^8 \text{ J}$$

$$Z = \frac{3.92 \times 10^8}{29.9} = 13.1 \times 10^6 \text{ times}$$

Gravitational units

1. Conditions

- (1) Output shaft revolution speed $n_L = 50 \text{ r/min (50Hz)}$
- (2) Load torque on motor shaft $T_L = 0.18 \text{ kgf} \cdot \text{m}$
- (3) Load on motor shaft $GD_L^2 = 0.004 \text{ kgf} \cdot \text{m}^2$
(Load being coupled directly)
- (4) GD_M^2 of motor = 0.00476 $\text{kgf} \cdot \text{m}^2$
- (5) Starting frequency N=15 times/min

2. Selection of model

$$U = \frac{GD_L^2 \times U_F}{GD_M^2} = \frac{0.004 \times 1.0}{0.00476} = 0.84$$

- Because the output shaft revolution speed is 50 r/min, the reduction ratio is 1/30 according to the specification chart (page 106) and therefore the allowable inertia ratio is 1.0, which means there is no problem with the corrected inertia ratio U.

- Because the starting frequency per minute is 15 times/min, refer to the diagram for N = 20 times/min. The point of intersection of the above-shown T_L and GD_L^2 in this diagram indicates that the proper motor capacity is 0.4 kW. As a result, the model number that should be selected is GMT040-L30CB.

3. Determination of life span

(Perform the following calculation while referring to page 104.)

$$E_c = \frac{\Sigma GD^2 \times n^2}{7160} \times \frac{T_d}{(T_d - T_L)}$$

$$= \frac{4.86 \times 10^{-3} \times 1500^2}{7160} \times \frac{0.36}{(0.36 - 0.18)}$$

$$= 3.05 \text{ kgf} \cdot \text{m}$$

$$\Sigma GD^2 = 8.63 \times 10^{-4} + 4.0 \times 10^{-3}$$

$$= 4.86 \times 10^{-3} \text{ kgf} \cdot \text{m}^2$$

$$n = 1500 \text{ r/min}$$

$$T_d = 0.36 \text{ kgf} \cdot \text{m}$$

$$T_L = 0.18 \text{ kgf} \cdot \text{m}$$

$$E_T = 4.0 \times 10^7 \text{ kgf} \cdot \text{m}$$

$$Z = \frac{4.0 \times 10^7}{3.05} = 13.1 \times 10^6 \text{ times}$$

3. Clutch/Brake selection diagram

SI units

$$T_e = \frac{T_L}{R} \quad I_e = \frac{I_L}{R^2}$$

T_e : Load torque on motor shaft (N·m)

T_L : Load torque on output shaft (N·m)

I_e : Moment of inertia on motor shaft (kg·m²)

I_L : Moment of inertia of load on output shaft (kg·m²)

R : Reduction ratio

Gravitational units

$$T_e = \frac{T_L}{R} \quad GD_e^2 = \frac{GD_L^2}{R^2}$$

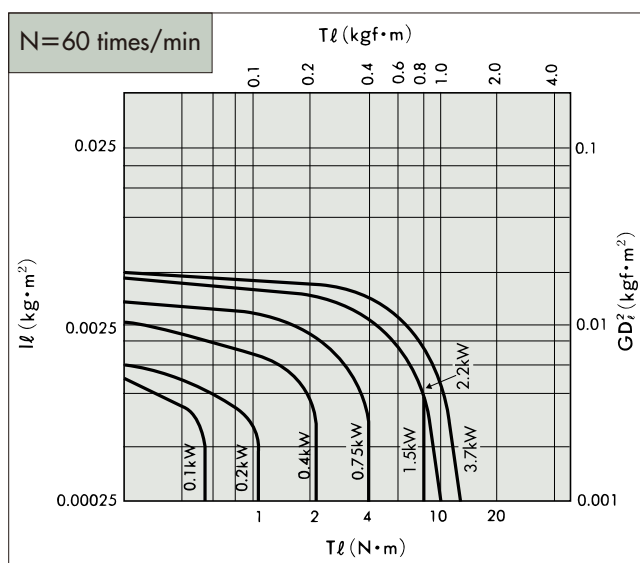
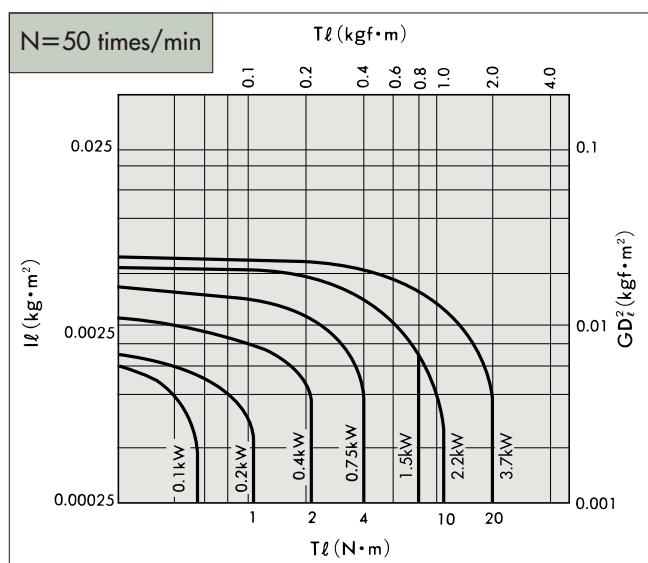
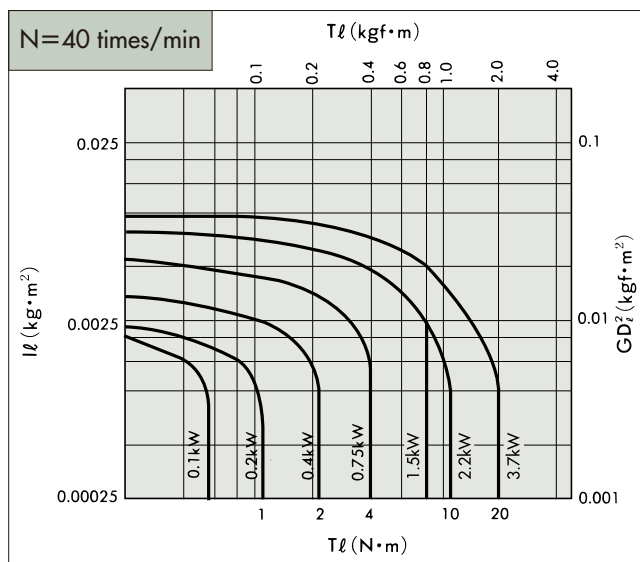
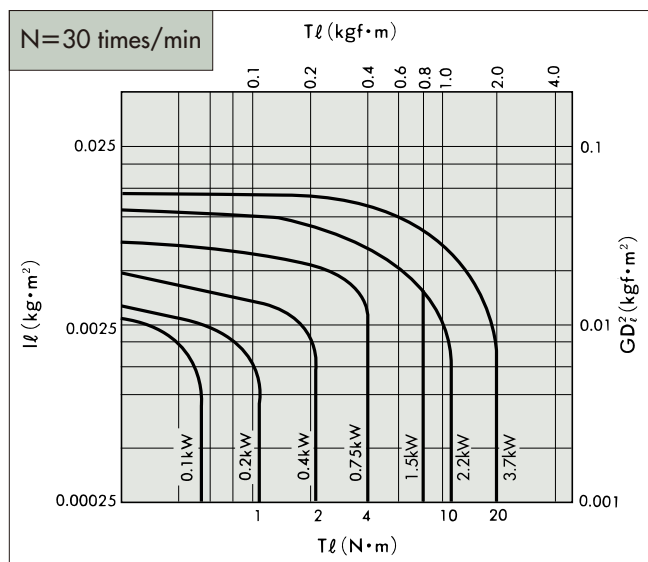
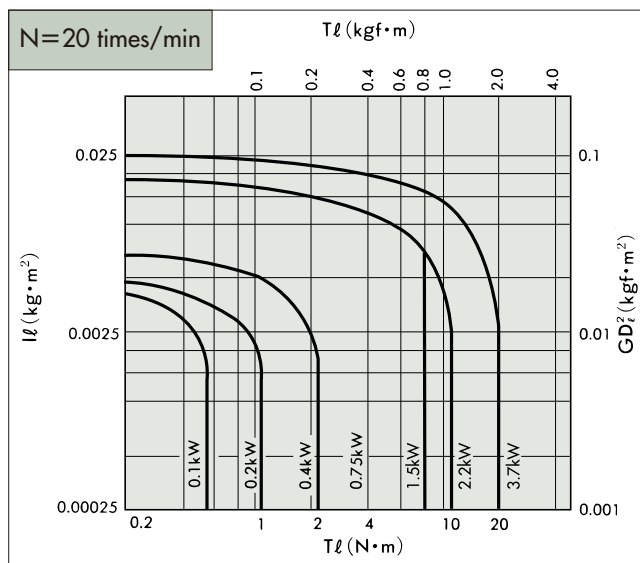
T_e : Load torque on motor shaft (kgf·m)

T_L : Load torque on output shaft (kgf·m)

GD_e^2 : Moment of inertia on motor shaft GD^2 (kgf·m²)

GD_L^2 : Moment of inertia of load on output shaft GD^2 (kgf·m²)

R : Reduction ratio



4. Basic formula for selection

SI units

1. Torque, revolution speed and power

$$T_L = 9550 \frac{P}{n_L} \quad \begin{array}{l} T_L : \text{Torque on output shaft} \quad \text{N} \cdot \text{m} \\ P : \text{Power} \quad \text{kW} \\ n_L : \text{Output shaft revolution speed} \quad \text{r/min} \end{array}$$

2. Conversion to motor shaft

(1) T_e : Load torque on motor shaft $\text{N} \cdot \text{m}$

$$T_e = \frac{T_L}{i} \quad \begin{array}{l} T_L : \text{Torque on output shaft} \quad \text{N} \cdot \text{m} \\ i : \text{Reduction ratio} \end{array}$$

(2) I_e : Moment of inertia on motor shaft $\text{kg} \cdot \text{m}^2$

$$I_e = \frac{I_L}{i^2}$$

I_L : Moment of inertia on output shaft $\text{kg} \cdot \text{m}^2$

3. Clutching (braking) work

(1) E_e : Clutching (braking) work per time J

$$E_e = \frac{\Sigma I \times n_e^2}{182.5} \times \frac{T_d}{(T_d \pm T_e)}$$

$$\Sigma I = I_c + I_e$$

I_c : Moment of inertia on motor shaft
 I_e : Moment of inertia of clutch/brake
 (Table 1 on page 105)

n_e : Motor shaft revolution speed r/min

T_d : Dynamic friction torque of clutch/brake $\text{N} \cdot \text{m}$
 (Table 3 on page 105)

+ : Positive torque at the time of braking

− : Negative torque at the time of clutching and braking

(2) E_N : Clutching (braking) work per minute J

$$E_N = E_e \times N$$

N : Starting frequency (times/min)

$$E_N \leq E_o$$

E_o : Allowable work J/min (Table 3 on page 105)

4. Clutching (braking) time

t_b : Clutching (braking) time s

$$t_b = \frac{\Sigma I}{9.55} \times \frac{n_e}{(T_d \pm T_e)}$$

+ : Positive torque at the time of braking

− : Negative torque at the time of clutching and braking

5. Response time

t_a : Armature pull-in time s (Table 2 on page 105)

6. Calculation of braking distance

$$S = (t_a + \frac{1}{2} t_b) \times V$$

S : Braking distance mm

V : Speed (conveyor speed, etc.) mm/s

7. Stopping accuracy

Precise determination of the stopping accuracy is difficult because it is affected by voltage, temperature, alteration through use, operating time, etc. However, if the following variations are assumed:

a. Load torque variation: $\pm 20\%$

b. Braking torque variation: $\pm 20\%$

c. Time lag variation: $\pm 0.01 \text{ s}$

The variation from the calculated braking distance is about $\pm 30\%$.

Stopping accuracy $\delta = S \times 0.6$ or $S \times \pm 0.3$
 For example, when the calculated braking distance S is 10 mm, the stopping accuracy is 6 mm ($10 \pm 3 \text{ mm}$).

Gravitational units

1. Torque, revolution speed and power

$$T_L = 974 \frac{P}{n_L} \quad \begin{array}{l} T_L : \text{Torque on output shaft} \quad \text{kgf} \cdot \text{m} \\ P : \text{Power} \quad \text{kW} \\ n_L : \text{Output shaft revolution speed} \quad \text{r/min} \end{array}$$

2. Conversion to motor shaft

(1) T_e : Load torque on motor shaft $\text{kgf} \cdot \text{m}$

$$T_e = \frac{T_L}{i} \quad \begin{array}{l} T_L : \text{Torque on output shaft} \quad \text{kgf} \cdot \text{m} \\ i : \text{Reduction ratio} \end{array}$$

(2) GD_e^2 : Load on motor shaft $GD^2 \quad \text{kgf} \cdot \text{m}^2$

$$GD_e^2 = \frac{GD_L^2}{i^2}$$

GD_L^2 : Load on output shaft $GD^2 \quad \text{kgf} \cdot \text{m}^2$

3. Clutching (braking) work

(1) E_e : Clutching (braking) work per time $\text{kgf} \cdot \text{m}$

$$E_e = \frac{\Sigma GD^2 \times n_e^2}{7160} \times \frac{T_d}{(T_d \pm T_e)}$$

$$\Sigma GD^2 = GD_c^2 + GD_e^2$$

GD_c^2 : Load on motor shaft GD^2
 GD_e^2 : GD^2 of clutch/brake
 (Table 1 on page 105)

n_e : Motor shaft revolution speed r/min

T_d : Dynamic friction torque of clutch/brake $\text{kgf} \cdot \text{m}$
 (Table 3 on page 105)

+ : Positive torque at the time of braking

− : Negative torque at the time of clutching and braking

(2) E_N : Clutching (braking) work per minute $\text{kgf} \cdot \text{m/min}$

$$E_N = E_e \times N$$

N : Starting frequency (times/min)

$$E_N \leq E_o$$

E_o : Allowable work $\text{kgf} \cdot \text{m/min}$ (Table 3 on page 105)

4. Clutching (braking) time

t_b : Clutching (braking) time s

$$t_b = \frac{\Sigma GD^2}{375} \times \frac{n_e}{(T_d \pm T_e)}$$

+ : Positive torque at the time of braking

− : Negative torque at the time of clutching and braking

5. Response time

t_a : Armature pull-in time s (Table 2 on page 105)

6. Calculation of braking distance

$$S = (t_a + \frac{1}{2} t_b) \times V$$

S : Braking distance mm

V : Speed (conveyor speed, etc.) mm/s

7. Stopping accuracy

Precise determination of the stopping accuracy is difficult because it is affected by voltage, temperature, alteration through use, operating time, etc. However, if the following variations are assumed:

a. Load torque variation: $\pm 20\%$

b. Braking torque variation: $\pm 20\%$

c. Time lag variation: $\pm 0.01 \text{ s}$

The variation from the calculated braking distance is about $\pm 30\%$.

Stopping accuracy $\delta = S \times 0.6$ or $S \times \pm 0.3$
 For example, when the calculated braking distance S is 10 mm, the stopping accuracy is 6 mm ($10 \pm 3 \text{ mm}$).

CB Gear Motor Specification Chart

GEAR MOTOR TA Series

Specifications of motor and clutch/brake

Table 1. Moment of inertia of motor and clutch/brake

Motor output	Moment of inertia of motor		Model number of clutch/brake		Moment of inertia of clutch/brake	
	I_M	GD_M^2			I_c	GD_c^2
	kg·m ²	{kgf·m ² }	Clutch	Brake	kg·m ²	{kgf·m ² }
0.1kW	0.64×10^{-3}	2.54×10^{-3}	NC/NB-0.15/0.1-AG-001		1.21×10^{-4}	{ 4.83×10^{-4} }
100W	0.60×10^{-3}	2.40×10^{-3}				
0.2kW	0.74×10^{-3}	2.96×10^{-3}	NC/NB-0.3/0.2-AG-001		1.21×10^{-4}	{ 4.83×10^{-4} }
200W	0.88×10^{-3}	3.50×10^{-3}				
0.4kW	0.90×10^{-3}	3.59×10^{-3}	NC-0.6AG-033	NB-0.4AG-001	2.16×10^{-4}	{ 8.63×10^{-4} }
0.75kW	1.37×10^{-3}	5.48×10^{-3}	NC-1.2AG-034	NB-0.75AG-001	0.62×10^{-3}	{ 2.46×10^{-3} }
1.5kW	3.41×10^{-3}	13.6×10^{-3}	NC-2.5AG-033	NB-1.5AG-001	1.94×10^{-3}	{ 7.74×10^{-3} }
2.2kW	4.79×10^{-3}	19.2×10^{-3}	NC-2.5AG-033	NB-2.2AG-001	1.94×10^{-3}	{ 7.74×10^{-3} }
3.7kW	7.60×10^{-3}	30.4×10^{-3}	NC-5AG-024	NB-3.7AG-001	0.49×10^{-2}	{ 1.94×10^{-2} }

Table 2. Armature pull-in time

	Armature pull-in time (S)	Model number of power supply box
NC/NB-0.15/0.1	0.010	DMP
	0.015	TMP
	0.005	EMP
NC/NB-0.3/0.2	0.010	DMP
	0.015	TMP
	0.005	EMP
NC/NB-0.6/0.4	0.015	DMP
	0.023	TMP
	0.008	EMP
NC/NB-1.2/0.75	0.020	DMP
	0.030	TMP
	0.010	EMP

	Armature pull-in time (S)	Model number of power supply box
NC/NB-2.5/1.5	0.030	DMP
	0.045	TMP
	0.015	EMP
NC/NB-2.5/2.2	0.035	DMP
	0.053	TMP
	0.018	EMP
NC/NB-5/3.7	0.040	DMP
	0.060	TMP
	0.020	EMP

EMP has special specifications for double excitation.

Table 3. Specifications of clutch/brake

Motor output	Classification	Model number of clutch/brake	Static friction torque		Dynamic friction torque		Power consumption (W)	Allowable work E_o		Total work E_r	
			N·m	{kgf·m}	N·m	{kgf·m}		J/min	{kgf·m/min}	J	{kgf·m}
0.1kW/100W	Clutch	NC/NB-0.15/0.1-AG-001	1.47	{0.15}	0.88	{0.09}	4	1960	{200}	25.5×10^7	{ 2.6×10^7 }
	Brake		0.98	{0.1}	0.59	{0.06}	3	1764	{180}		
0.2kW/200W	Clutch	NC/NB-0.3/0.2-AG-001	2.94	{0.3}	1.76	{0.18}	5	1960	{200}	25.5×10^7	{ 2.6×10^7 }
	Brake		1.96	{0.2}	1.18	{0.12}	4	1764	{180}		
0.4kW	Clutch	NC-0.6AG-033	5.88	{0.6}	3.53	{0.36}	8	2744	{280}	39.2×10^7	{ 4.0×10^7 }
	Brake	NB-0.4AG-001	3.92	{0.4}	2.35	{0.24}	7	2450	{250}		
0.75kW	Clutch	NC-1.2AG-034	11.8	{1.2}	6.86	{0.70}	11	4410	{450}	61.7×10^7	{ 6.3×10^7 }
	Brake	NB-0.75AG-001	7.35	{0.75}	4.41	{0.45}	8	3969	{405}		
1.5kW	Clutch	NC-2.5AG-033	24.5	{2.5}	14.7	{1.5}	17	6860	{700}	90.2×10^7	{ 9.2×10^7 }
	Brake	NB-1.5AG-001	14.7	{1.5}	8.82	{0.9}	12	6174	{630}		
2.2kW	Clutch	NC-2.5AG-033	24.5	{2.5}	14.7	{1.5}	17	6860	{700}	90.2×10^7	{ 9.2×10^7 }
	Brake	NB-2.2AG-001	21.6	{2.2}	12.7	{1.3}	16	6174	{630}		
3.7kW	Clutch	NC-5AG-024	49.0	{5.0}	29.4	{3.0}	25	10290	{1050}	16.7×10^8	{ 1.7×10^8 }
	Brake	NB-3.7AG-001	36.3	{3.7}	22.5	{2.3}	17	9310	{950}		

Precautions for use

●Use with constantly held loads

Because the brake of the CB gear motor exerts a braking effect through excitation, it is unsuitable for use in equipment, such as hoisting machines, that always holds loads.

●Provision of totally-enclosed types

The standard product cannot be used in an outdoor place where it will be exposed to water or an indoor place where there is lots of dust or oil mist, because the clutch/brake part is of open type. For such uses, a totally-enclosed type clutch/brake is required. For more information, contact our company.

●Handling variable voltage and double voltage

For a motor, it is possible to cope with variable voltage and double voltage at time of purchase or through rewinding. For the power supply box for a clutch/brake, because it is for 100/200 V AC, a 100 V instrumentation power supply should be used.

●Explosion-proof type

No explosion-proof-type clutch/brake is available.

CB Gear Motor Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		Motor output kW	Frame number	Nominal reduction ratio	Number of reduction steps	Output shaft revolution speed r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions			
								N·m		{kgf·m}				N·m		{kgf·m}	
						50Hz	60Hz	50Hz		60Hz		N	{kgf}	Foot mount	Flange mount	Foot mount	Flange mount
GMTAO10	5CB	0.1	18	1/5	2	300	360	2.8	{0.29}	2.4	{0.24}	274	{ 28}	P108 Drawing C11	P108 Drawing C15	P115 Drawing C55	P115 Drawing C59
	10CB			1/10		150	180	5.7	{0.58}	4.8	{0.49}	431	{ 44}	P108 Drawing C-12	P108 Drawing C-16	P115 Drawing C-56	P115 Drawing C-60
	15CB			1/15		100	120	8.6	{0.88}	7.2	{0.73}	568	{ 58}				
	20CB			1/20		75	90	11.8	{ 1.2}	9.5	{0.97}	686	{ 70}				
	25CB			1/25		60	72	14.7	{ 1.5}	11.8	{ 1.2}	804	{ 82}				
	30CB			1/30		50	60	17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}				
	40CB		24	1/40		37.5	45	22.5	{ 2.3}	19.6	{ 2.0}	1098	{112}	P108	P108	P115	P115
	50CB			1/50	3	30	36	28.4	{ 2.9}	23.5	{ 2.4}	1264	{129}	Drawing C-13	Drawing C-17	Drawing C-57	Drawing C-61
	60CB			1/60		25	30	34.3	{ 3.5}	28.4	{ 2.9}	1431	{146}	P108 Drawing C-14	P108 Drawing C-18	P115 Drawing C-58	P115 Drawing C-62
	75CB			1/75		20	24	43.1	{ 4.4}	36.3	{ 3.7}	1666	{170}				
	100CB			1/100		15	18	56.8	{ 5.8}	48.0	{ 4.9}	2009	{205}				
	120CB			1/120		12.5	15	68.6	{ 7.0}	56.8	{ 5.8}	2274	{232}				
	165CB		1/165	9.1		10.9	94.1	{ 9.6}	78.4	{ 8.0}	2813	{287}					
	200CB		1/200	7.5		9	115	{11.7}	95.1	{ 9.7}	3195	{326}					
GMTAO20	5CB	0.2	18	1/5	2	300	360	5.7	{0.58}	4.7	{0.48}	431	{ 44}	P109 Drawing C19	P109 Drawing C23	P116 Drawing C63	P116 Drawing C67
	10CB			1/10		150	180	11.8	{ 1.2}	9.5	{0.97}	686	{ 70}	P109 Drawing C-20	P109 Drawing C-24	P116 Drawing C-64	P116 Drawing C-68
	15CB			1/15		100	120	17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}				
	20CB			1/20		75	90	22.5	{ 2.3}	19.6	{ 2.0}	1098	{112}				
	25CB			1/25		60	72	28.4	{ 2.9}	23.5	{ 2.4}	1264	{129}				
	30CB			1/30		50	60	34.3	{ 3.5}	28.4	{ 2.9}	1431	{146}				
	40CB		24	1/40		37.5	45	46.1	{ 4.7}	38.2	{ 3.9}	1735	{177}	P109	P109	P116	P116
	50CB			1/50	3	30	36	56.8	{ 5.8}	48.0	{ 4.9}	2009	{205}	Drawing C-21	Drawing C-25	Drawing C-65	Drawing C-69
	60CB			1/60		25	30	68.6	{ 7.0}	56.8	{ 5.8}	2274	{232}	P109 Drawing C-22	P109 Drawing C-26	P116 Drawing C-66	P116 Drawing C-70
	75CB			1/75		20	24	86.2	{ 8.8}	71.5	{ 7.3}	2636	{269}				
	100CB			1/100		15	18	115	{11.7}	95.1	{ 9.7}	3195	{326}				
	120CB			1/120		12.5	15	137	{14.0}	115	{11.7}	3606	{368}				
	165CB		1/165	9.1		10.9	189	{19.3}	158	{16.1}	4459	{455}					
	200CB		1/200	7.5		9	218	{22.2}	181	{18.5}	4822	{492}					
GMTAO40	5CB	0.4	24	1/5	2	300	360	12.1	{1.23}	10.0	{1.02}	686	{ 70}	P110 Drawing C-27	P110 Drawing C-30		
	10CB			1/10		150	180	24.5	{ 2.5}	20.6	{ 2.1}	1098	{112}				
	15CB			1/15		100	120	36.3	{ 3.7}	30.4	{ 3.1}	1431	{146}				
	20CB			1/20		75	90	48.0	{ 4.9}	40.2	{ 4.1}	1735	{177}				
	25CB			1/25		60	72	60.8	{ 6.2}	50.0	{ 5.1}	2009	{205}				
	30CB			1/30		50	60	72.5	{ 7.4}	60.8	{ 6.2}	2274	{232}				
	40CB		28	1/40	3	37.5	45	94.1	{ 9.6}	78.4	{ 8.0}	2754	{281}	P110	P110		
	50CB			1/50		30	36	118	{12.0}	98.0	{10.0}	3195	{326}	Drawing C-28	Drawing C-31		
	60CB			1/60		25	30	140	{14.3}	118	{12.0}	3606	{368}	P110 Drawing C-29	P110 Drawing C-32		
	75CB			1/75		20	24	175	{17.9}	146	{14.9}	4185	{427}				
	100CB			1/100		15	18	234	{23.9}	195	{19.9}	5076	{518}				
	120CB			1/120		12.5	15	281	{28.7}	234	{23.9}	5733	{585}				
	165CB		1/165	9.1		10.9	364	{37.1}	303	{30.9}	6664	{680}					
	200CB		1/200	7.5		9	389	{39.7}	324	{33.1}	6684	{682}					

(Note 1) The nominal reduction ratio is shown as the reduction ratio.

(Note 2) The output shaft revolution speed is calculated by dividing the synchronous motor revolutions by the nominal reduction ratio.

For the actual reduction ratio, refer to the specification chart for the inline reducer on pages 69 to 71.

For the 0.1 kW devices, because the 0.2 kW reducer is used, refer to the actual reduction ratio for 0.2 kW.

Specification Chart

0.1
100
0.2
200
0.4

CB Gear Motor Specification Chart

GEAR MOTOR TA Series

Specification Chart

Model number		Motor output kW	Frame number	Nominal reduction ratio	Number of reduction steps	Output shaft revolution speed r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions	
								N·m		{kgf·m}					
						50Hz	60Hz	50Hz		60Hz		N	{kgf}	Foot mount	Flange mount
GMTA075	5CB	0.75	28	1/5	2	300	360	22.6	{ 2.31 }	18.8	{ 1.92 }	1049	{ 107 }	P111 Drawing C-33	P111 Drawing C-36
	10CB			1/10		150	180	45.1	{ 4.6 }	38.2	{ 3.9 }	1666	{ 170 }		
	15CB			1/15		100	120	67.6	{ 6.9 }	56.8	{ 5.8 }	2176	{ 222 }		
	20CB			1/20		75	90	91.1	{ 9.3 }	75.5	{ 7.7 }	2636	{ 269 }		
	25CB			1/25		60	72	114	{ 11.6 }	94.1	{ 9.6 }	3058	{ 312 }		
	30CB			1/30		50	60	136	{ 13.9 }	114	{ 11.6 }	3459	{ 353 }		
	40CB		38	3	1/40	37.5	45	175	{ 17.9 }	146	{ 14.9 }	4185	{ 427 }	P111 Drawing C-34	P111 Drawing C-37
	50CB				1/50	30	36	220	{ 22.4 }	183	{ 18.7 }	4861	{ 496 }		
	60CB				1/60	25	30	264	{ 26.9 }	220	{ 22.4 }	5488	{ 560 }		
	75CB				1/75	20	24	300	{ 30.6 }	250	{ 25.5 }	5792	{ 591 }		
	100CB				1/100	15	18	439	{ 44.8 }	369	{ 37.7 }	7301	{ 745 }		
	120CB				1/120	12.5	15	527	{ 53.8 }	439	{ 44.8 }	8242	{ 841 }		
	165CB		42	3	1/165	9.1	10.9	724	{ 73.9 }	604	{ 61.6 }	9800	{1000}	P111 Drawing C-35	P111 Drawing C-38
	200CB				1/200	7.5	9	735	{ 75.0 }	613	{ 62.5 }	9800	{1000}		
GMTA150	5CB	1.5	42	1/5	2	300	360	45.3	{ 4.62 }	37.7	{ 3.85 }	1666	{ 170 }	P112 Drawing C-39	P112 Drawing C-42
	10CB			1/10		150	180	91.1	{ 9.3 }	75.5	{ 7.7 }	2548	{ 260 }		
	15CB			1/15		100	120	136	{ 13.9 }	114	{ 11.6 }	3342	{ 341 }		
	20CB			1/20		75	90	181	{ 18.5 }	151	{ 15.4 }	4047	{ 413 }		
	25CB			1/25		60	72	226	{ 23.1 }	189	{ 19.3 }	4694	{ 479 }		
	30CB			1/30		50	60	272	{ 27.8 }	226	{ 23.1 }	5302	{ 541 }		
	40CB		50	3	1/40	37.5	45	351	{ 35.8 }	293	{ 29.9 }	6292	{ 642 }	P112 Drawing C-40	P112 Drawing C-43
	50CB				1/50	30	36	439	{ 44.8 }	366	{ 37.3 }	7301	{ 745 }		
	60CB				1/60	25	30	527	{ 53.8 }	439	{ 44.8 }	8242	{ 841 }		
	75CB				1/75	20	24	659	{ 67.2 }	549	{ 56.0 }	9565	{ 976 }		
	100CB				1/100	15	18	878	{ 89.6 }	732	{ 74.7 }	11584	{1182}		
	120CB				1/120	12.5	15	1054	{107.5}	878	{ 89.6 }	13073	{1334}		
	165CB		63	3	1/165	9.1	10.9	1449	{147.9}	1207	{123.2}	13230	{1350}	P112 Drawing C-41	P112 Drawing C-44
	200CB				1/200	7.5	9	*1470	*{150.0}	*1225	*{125.0}	13230	{1350}		
GMTA220	5CB	2.2	42	1/5	2	300	360	66.6	{ 6.8 }	55.9	{ 5.7 }	2078	{ 212 }	P113 Drawing C-45	P113 Drawing C-48
	10CB			1/10		150	180	133	{ 13.6 }	111	{ 11.3 }	3293	{ 336 }		
	15CB			1/15		100	120	200	{ 20.4 }	167	{ 17.0 }	4312	{ 440 }		
	20CB			1/20		75	90	266	{ 27.1 }	221	{ 22.6 }	5223	{ 533 }		
	25CB			1/25		60	72	332	{ 33.9 }	277	{ 28.3 }	6066	{ 619 }		
	30CB			1/30		50	60	399	{ 40.7 }	332	{ 33.9 }	6850	{ 699 }		
	40CB		50	3	1/40	37.5	45	515	{ 52.6 }	429	{ 43.8 }	8114	{ 828 }	P113 Drawing C-46	P113 Drawing C-49
	50CB				1/50	30	36	644	{ 65.7 }	537	{ 54.8 }	9418	{ 961 }		
	60CB				1/60	25	30	773	{ 78.9 }	644	{ 65.7 }	10633	{1085}		
	75CB				1/75	20	24	966	{ 98.6 }	805	{ 82.1 }	12338	{1259}		
	100CB				1/100	15	18	1288	{131.4}	1073	{109.5}	14955	{1526}		
	120CB				1/120	12.5	15	1545	{157.7}	1288	{131.4}	16885	{1723}		
	165CB		63	3	1/165	9.1	10.9	2126	{216.9}	1771	{180.7}	17640	{1800}	P113 Drawing C-47	P113 Drawing C-50
	200CB				1/200	7.5	9	*2156	*{220.0}	*1796	*{183.3}	17640	{1800}		
GMTA370	5CB	3.7	50	1/5	2	300	360	112	{ 11.4 }	93.1	{ 9.5 }	2930	{ 299 }	P114 Drawing C-51	P114 Drawing C-53
	10CB			1/10		150	180	223	{ 22.8 }	186	{ 19.0 }	4645	{ 474 }		
	15CB			1/15		100	120	335	{ 34.2 }	279	{ 28.5 }	6096	{ 622 }		
	20CB			1/20		75	90	448	{ 45.7 }	372	{ 38.0 }	7389	{ 754 }		
	25CB			1/25		60	72	560	{ 57.1 }	466	{ 47.6 }	8565	{ 874 }		
	30CB			1/30		50	60	671	{ 68.5 }	560	{ 57.1 }	9673	{ 987 }		
	40CB			1/40	3	37.5	45	866	{ 88.4 }	722	{ 73.7 }	10290	{1050}	P114 Drawing C-52	P114 Drawing C-54
	50CB			1/50		30	36	1083	{110.5}	903	{ 92.1 }	10290	{1050}		

(Note 1) The nominal reduction ratio is shown as the reduction ratio.

(Note 2) The output shaft revolution speed is calculated by dividing the synchronous motor revolutions by the nominal reduction ratio.

For the actual reduction ratio, refer to the specification chart for the double-shaft-type reducer on pages 69 to 71.

For the 1.5 kW devices, because the 2.2 kW reducer is used, refer to the actual reduction ratio for 2.2 kW.

(Note 3) The models marked with ※ are ones for which the torque is limited.

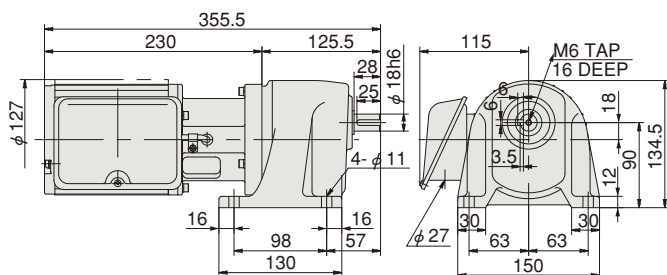
CB Gear Motor Outline Dimensions

Three-phase 0.1 kW · L : Foot mount type / U : Face mount type

GEAR MOTOR TA Series

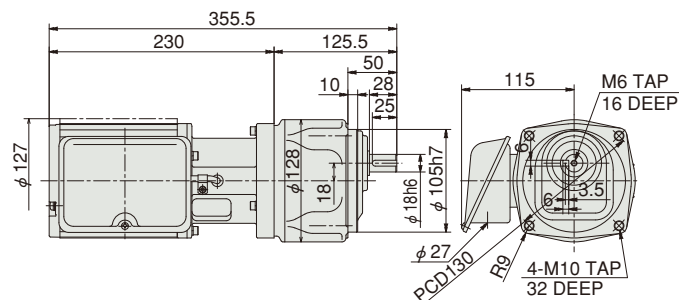
C-11 0.1kW GMTA010-18L5CB

Reduction ratio : 5 Approx. weight : 9.1kg
Reference page : Specification Chart→P106



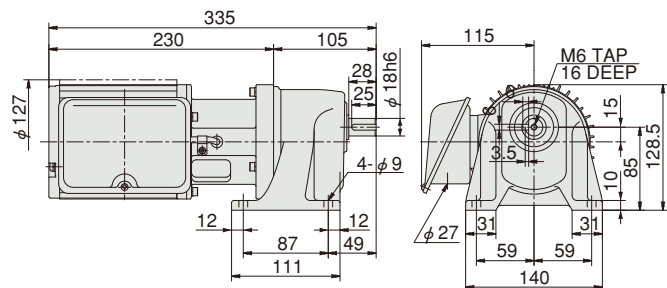
C-15 0.1kW GMTA010-18U5CB

Reduction ratio : 5 Approx. weight : 9.1kg
Reference page : Specification Chart→P106 Options→P57



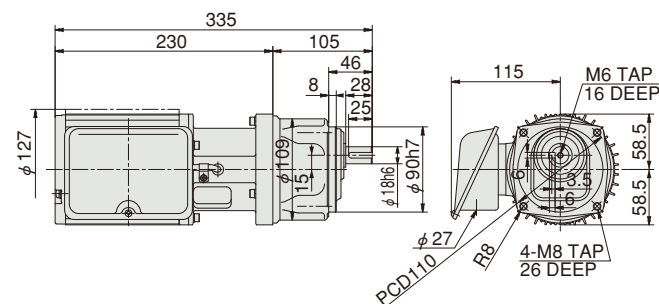
C-12 0.1kW GMTA010-18L10~25CB

Reduction ratio : 10, 15, 20, 25 Approx. weight : 7.9kg
Reference page : Specification Chart→P106



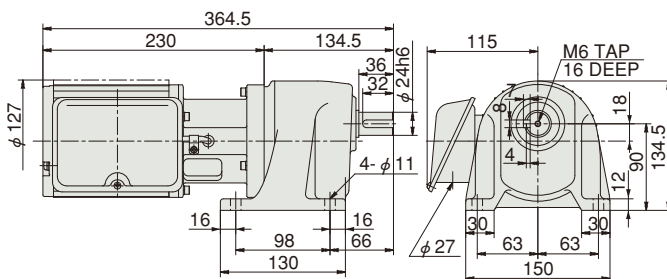
C-16 0.1kW GMTA010-18U10~25CB

Reduction ratio : 10, 15, 20, 25 Approx. weight : 7.7kg
Reference page : Specification Chart→P106 Options→P57



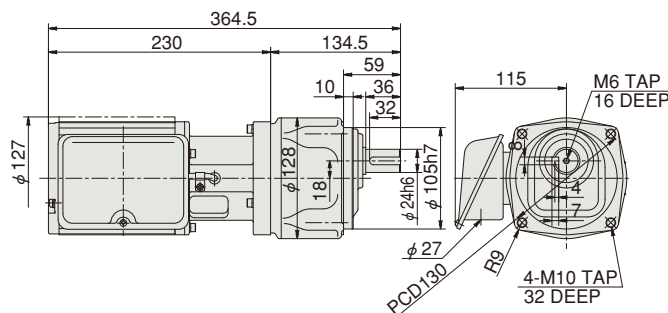
C-13 0.1kW GMTA010-24L30~75CB

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 9.3kg
Reference page : Specification Chart→P106



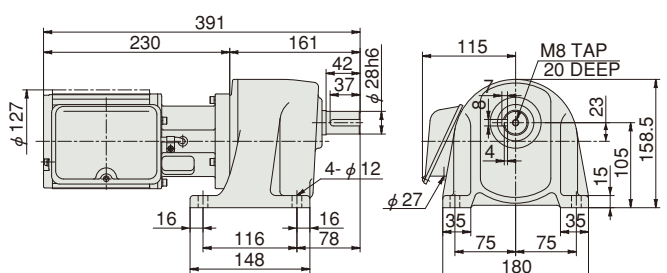
C-17 0.1kW GMTA010-24U30~75CB

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 9.10kg
Reference page : Specification Chart→P106 Options→P57



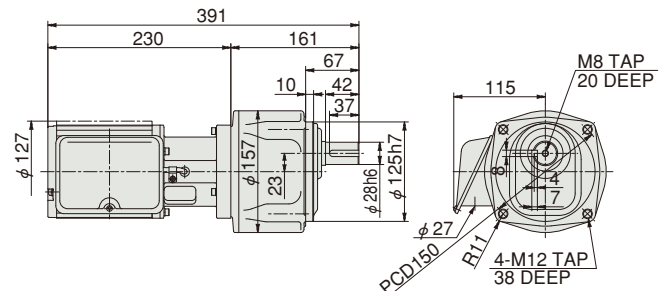
C-14 0.1kW GMTA010-28L100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 11.7kg
Reference page : Specification Chart→P106



C-18 0.1kW GMTA010-28U100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 11.5kg
Reference page : Specification Chart→P106 Options→P57



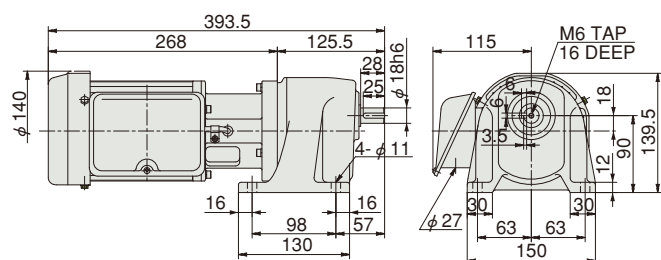
CB Gear Motor Outline Dimensions

Three-phase 0.2 kW · L : Foot mount type / U : Face mount type

GEAR MOTOR TA Series

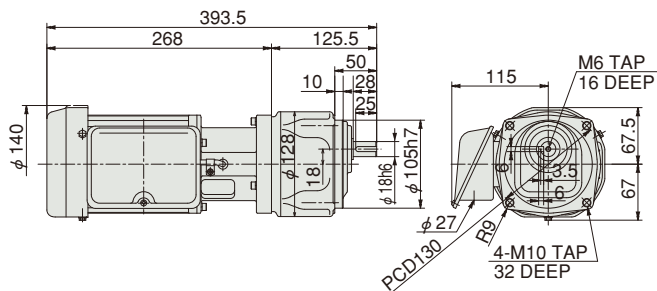
C-19 0.2kW GMTA020-18L5CB

Reduction ratio : 5	Approx. weight : 9.0kg
Reference page : Specification Chart→P106	



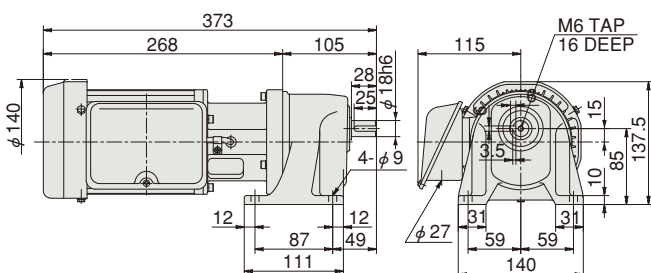
C-23 0.2kW GMTA020-18U5CB

Reduction ratio : 5	Approx. weight : 9.0kg
Reference page : Specification Chart→P106 Options→P57	



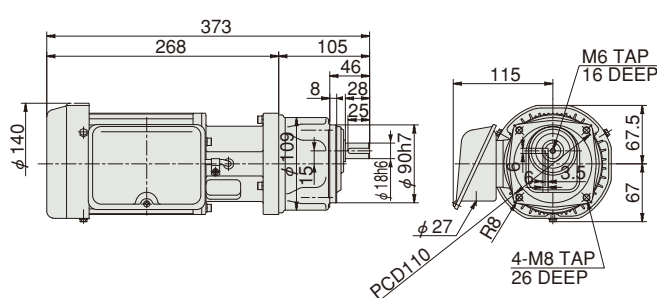
C-20 0.2kW GMTA020-18L10~25CB

Reduction ratio : 10, 15, 20, 25	Approx. weight : 7.8kg
Reference page : Specification Chart→P106	



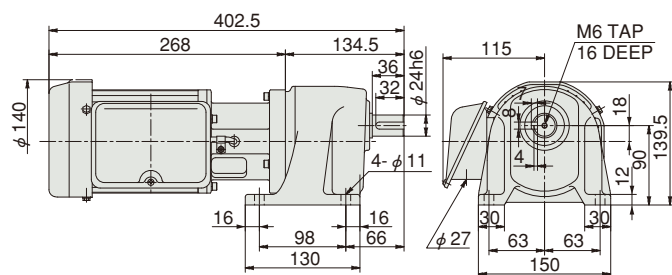
C-24 0.2kW GMTA020-18U10~25CB

Reduction ratio : 10, 15, 20, 25	Approx. weight : 7.6kg
Reference page : Specification Chart→P106 Options→P57	



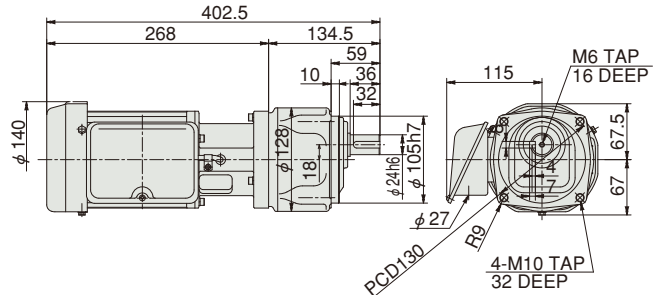
C-21 0.2kW GMTA020-24L30~75CB

Reduction ratio : 30, 40, 50, 60, 75	Approx. weight : 9.2kg
Reference page : Specification Chart→P106	



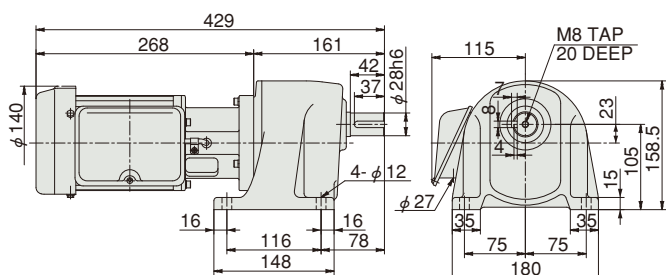
C-25 0.2kW GMTA020-24U30~75CB

Reduction ratio : 30, 40, 50, 60, 75	Approx. weight : 9.0kg
Reference page : Specification Chart→P106 Options→P57	



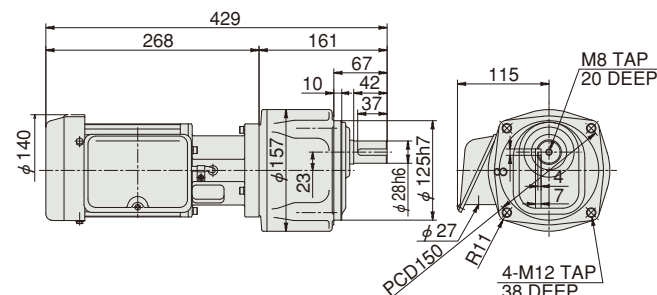
C-22 0.2kW GMTA020-28L100~200CB

Reduction ratio 100, 120, 165, 200	Approx. weight : 11.6kg
Reference page : Specification Chart→P106	



C-26 0.2kW GMTA020-28U100~200CB

Reduction ratio : 100, 120, 165, 200	Approx. weight : 11.4kg
Reference page : Specification Chart→P106 Options→P57	



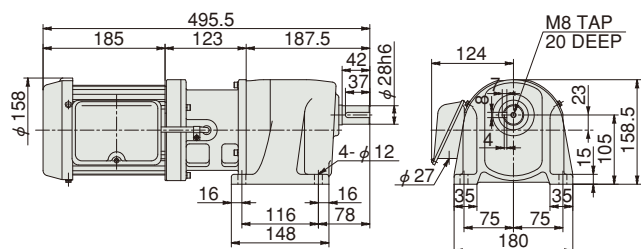
CB Gear Motor Outline Dimensions

Three-phase 0.75 kW · L : Foot mount type / U : Face mount type / F : Flange mount type

GEAR MOTOR TA Series

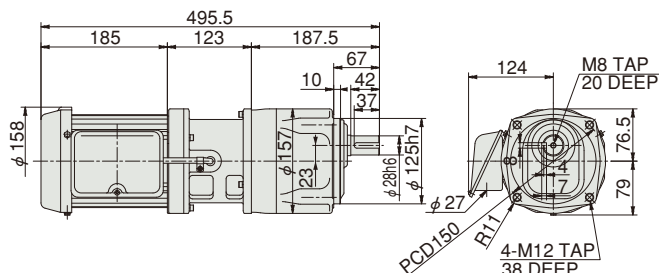
C-33 0.75kW GMTA075-28L5~25CB

Reduction ratio : 5, 10, 15, 20, 25	Approx. weight : 16.8kg
Reference page : Specification Chart→P107	



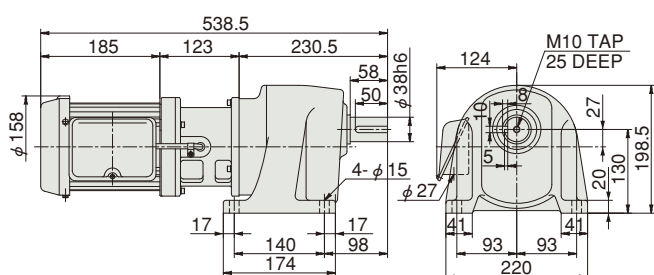
C-36 0.75kW GMTA075-28U5~25CB

Reduction ratio : 5, 10, 15, 20, 25	Approx. weight : 16.8kg
Reference page : Specification Chart→P107 Options→P57	



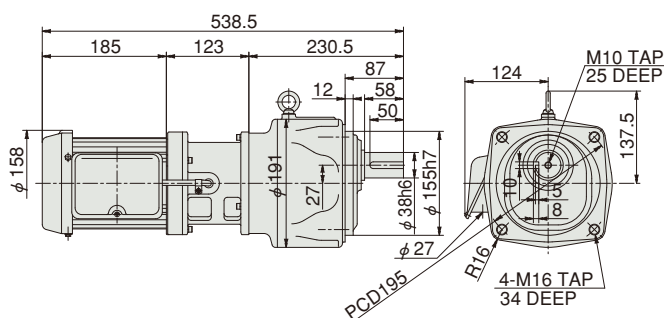
C-34 0.75kW GMTA075-38L30~75CB

Reduction ratio : 30, 40, 50, 60, 75	Approx. weight : 20.8kg
Reference page : Specification Chart→P107	



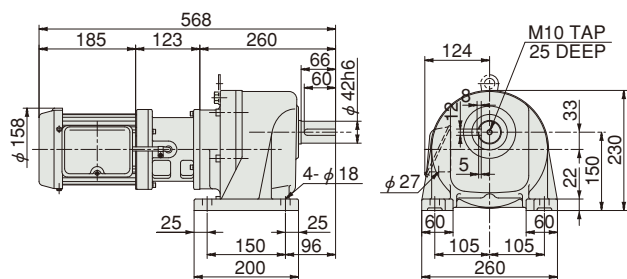
C-37 0.75kW GMTA075-38U30~75CB

Reduction ratio : 30, 40, 50, 60, 75	Approx. weight : 26.8kg
Reference page : Specification Chart→P107 Options→P58	



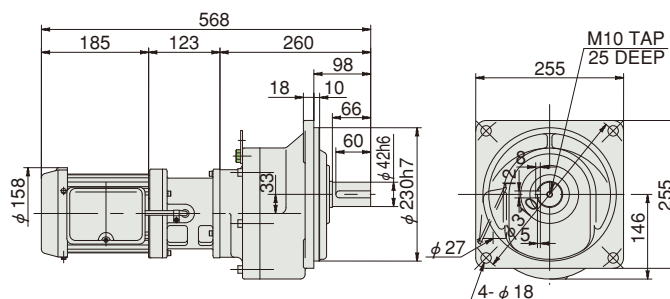
C-35 0.75kW GMTA075-42L100~200CB

Reduction ratio : 100, 120, 165, 200	Approx. weight : 42.3kg
Reference page : Specification Chart→P107	



C-38 0.75kW GMTA075-42F100~200CB

Reduction ratio : 100, 120, 165, 200	Approx. weight : 44.3kg
Reference page : Specification Chart→P107	



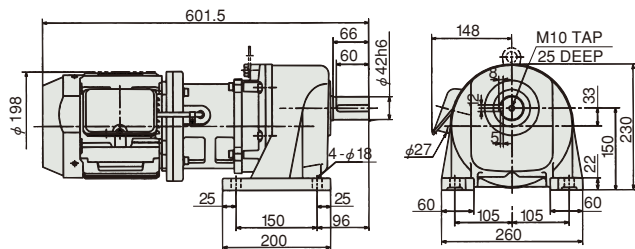
CB Gear Motor Outline Dimensions

Three-phase 1.5 kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

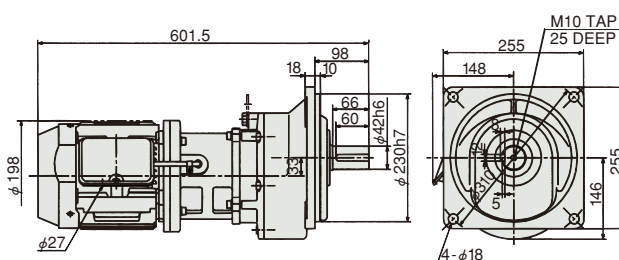
C-39 1.5kW GMTA150-42L5~30CB

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 56.0kg
Reference page : Specification Chart→P107



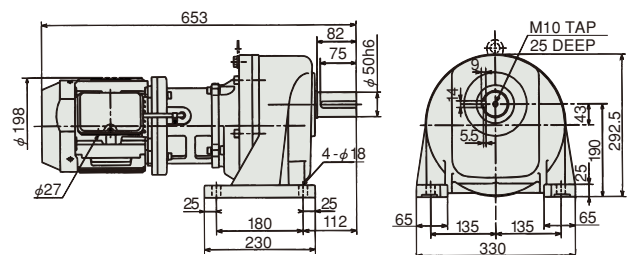
C-42 1.5kW GMTA150-42F5~30CB

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 63.0kg
Reference page : Specification Chart→P107



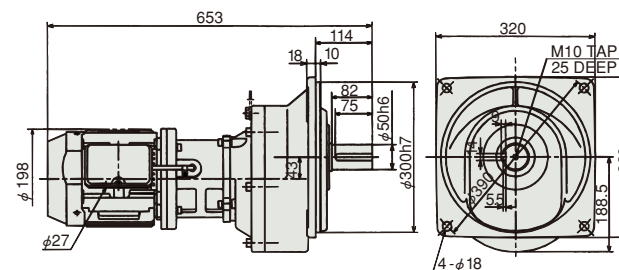
C-40 1.5kW GMTA150-50L40~75CB

Reduction ratio : 40, 50, 60, 75 Approx. weight : 77.0kg
Reference page : Specification Chart→P107



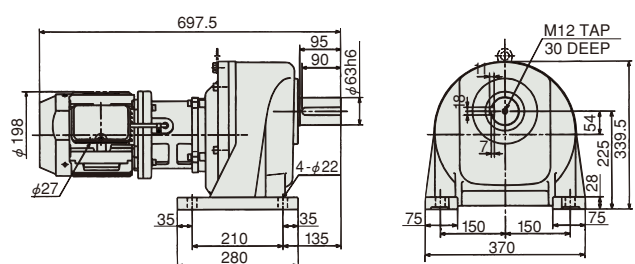
C-43 1.5kW GMTA150-50F40~75CB

Reduction ratio : 40, 50, 60, 75 Approx. weight : 78.0kg
Reference page : Specification Chart→P107



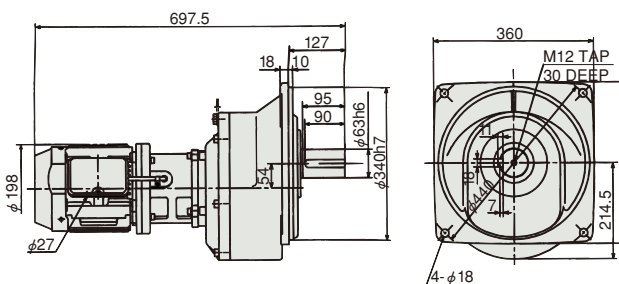
C-41 1.5kW GMTA150-63L100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 108.0kg
Reference page : Specification Chart→P107



C-44 1.5kW GMTA150-63F100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 112.0kg
Reference page : Specification Chart→P107



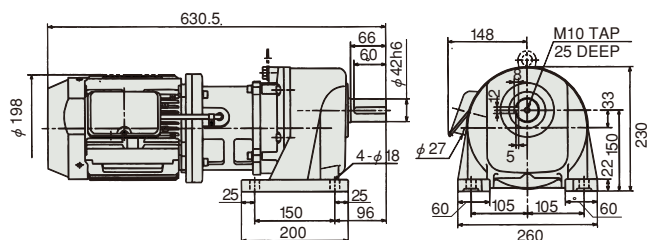
CB Gear Motor Outline Dimensions

Three-phase 2.2 kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

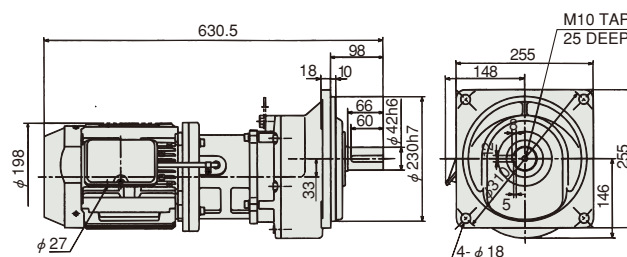
C-45 2.2kW GMTA220-42L5~30CB

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 59.0kg
Reference page : Specification Chart→P107



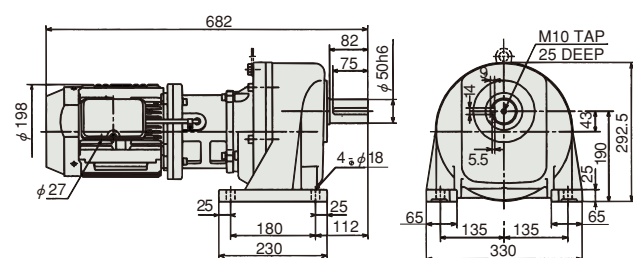
C-48 2.2kW GMTA220-42F5~30CB

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 61.0kg
Reference page : Specification Chart→P107



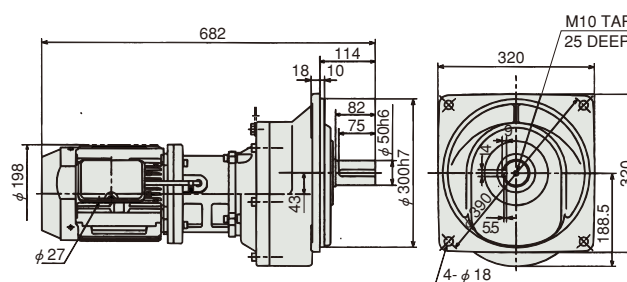
C-46 2.2kW GMTA220-50L40~75CB

Reduction ratio : 40, 50, 60, 75 Approx. weight : 80.0kg
Reference page : Specification Chart→P107



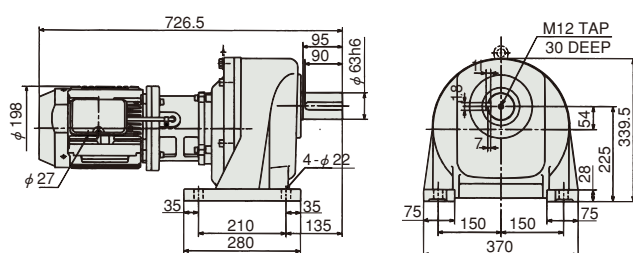
C-49 2.2kW GMTA220-50F40~75CB

Reduction ratio : 40, 50, 60, 75 Approx. weight : 83.0kg
Reference page : Specification Chart→P107



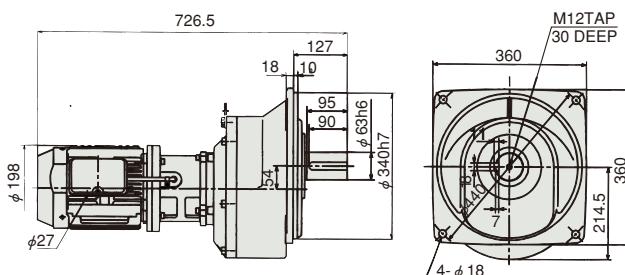
C-47 2.2kW GMTA220-63L100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 111.0kg
Reference page : Specification Chart→P107



C-50 2.2kW GMTA220-63F100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 115.0kg
Reference page : Specification Chart→P107



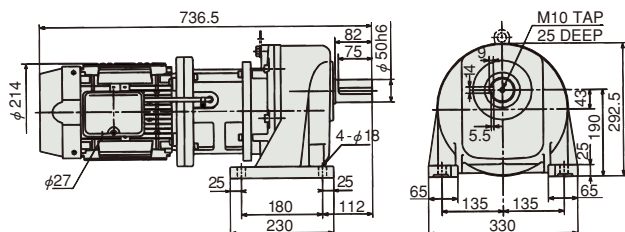
CB Gear Motor Outline Dimensions

Three-phase 3.7 kW · L : Foot mount type / F : Flange mount type

GEAR MOTOR TA Series

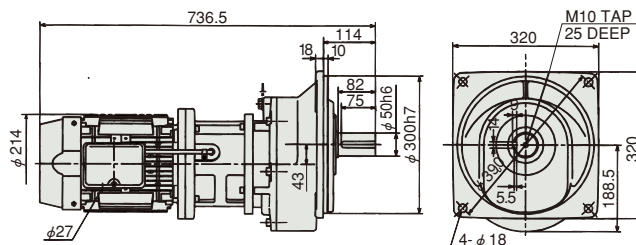
C-51 3.7kW GMTA370-50L5~30CB

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 92.0kg
Reference page : Specification Chart→P107



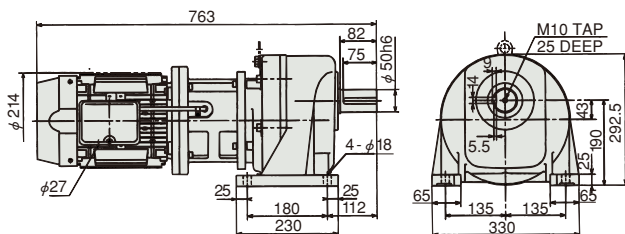
C-53 3.7kW GMTA370-50F5~30CB

Reduction ratio : 5, 10, 15, 20, 25, 30 Approx. weight : 94.0kg
Reference page : Specification Chart→P107



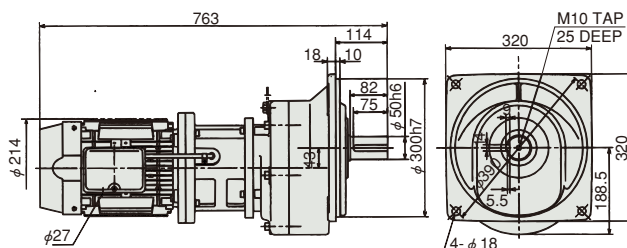
C-52 3.7kW GMTA370-50L40~50CB

Reduction ratio : 40, 50 Approx. weight : 96.0kg
Reference page : Specification Chart→P107



C-54 3.7kW GMTA370-50F40~50CB

Reduction ratio : 40, 50 Approx. weight : 98.0kg
Reference page : Specification Chart→P107



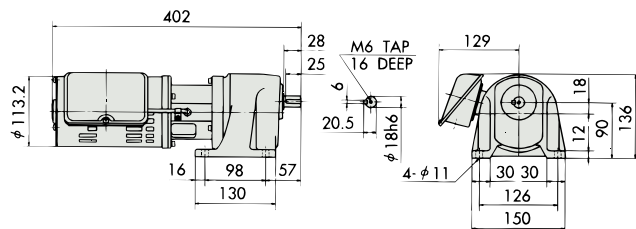
CB Gear Motor Outline Dimensions

Single-phase 100 W · L : Foot mount type / U : Face mount type

GEAR MOTOR TA Series

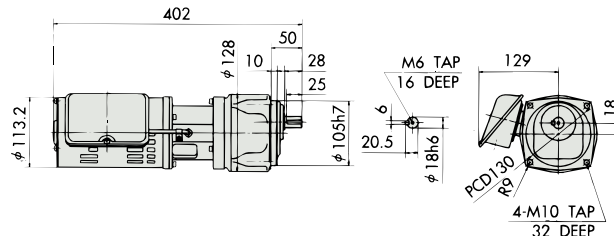
C-55 100W GMTA100-18L5CB

Reduction ratio : 5 Approx. weight : 9.9kg
Reference page : Specification Chart→P106



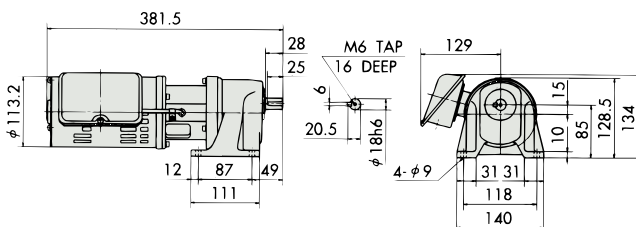
C-59 100W GMTA100-18U5CB

Reduction ratio : 5 Approx. weight : 9.9kg
Reference page : Specification Chart→P106 Options→P57



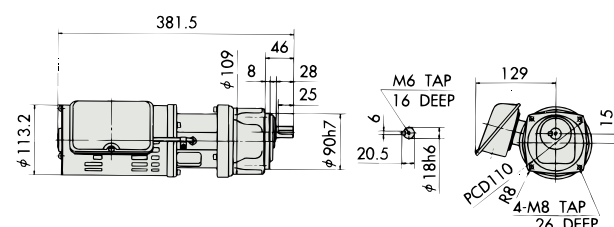
C-56 100W GMTA100-18L10~25CB

Reduction ratio : 10, 15, 20, 25 Approx. weight : 8.7kg
Reference page : Specification Chart→P106



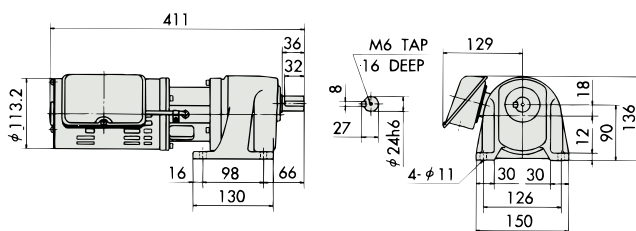
C-60 100W GMTA100-18U10~25CB

Reduction ratio : 10, 15, 20, 25 Approx. weight : 8.5kg
Reference page : Specification Chart→P106 Options→P57



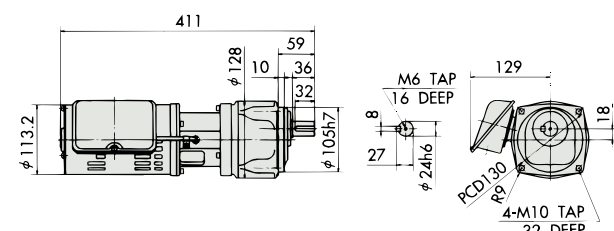
C-57 100W GMTA100-24L30~75CB

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 10.1kg
Reference page : Specification Chart→P106



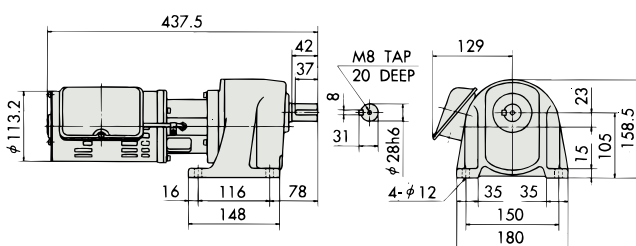
C-61 100W GMTA100-24U30~75CB

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 9.9kg
Reference page : Specification Chart→P106 Options→P57



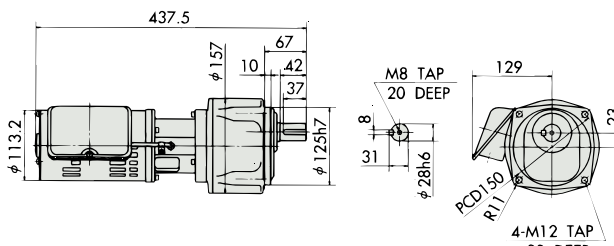
C-58 100W GMTA100-28L100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 12.5kg
Reference page : Specification Chart→P106



C-62 100W GMTA100-28U100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 12.3kg
Reference page : Specification Chart→P106 Options→P57



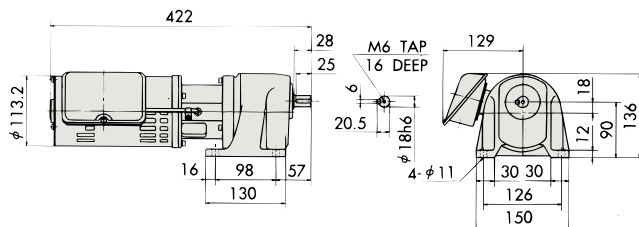
CB Gear Motor Outline Dimensions

Single-phase 200 W · L : Foot mount type / U : Face mount type

GEAR MOTOR TA Series

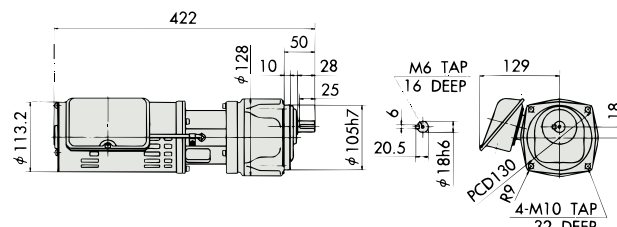
C-63 200W GMTA200-18L5CB

Reduction ratio : 5 Approx. weight : 11.3kg
Reference page : Specification Chart→P106



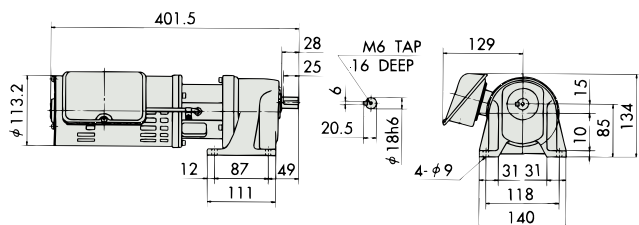
C-67 200W GMTA200-18U5CB

Reduction ratio : 5 Approx. weight : 11.3kg
Reference page : Specification Chart→P106 Options→P57



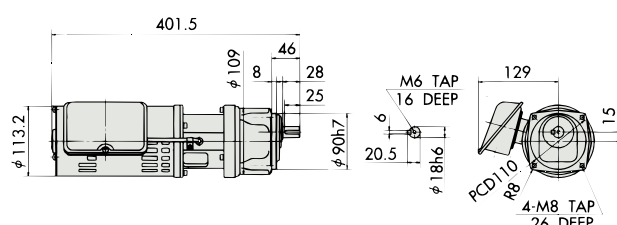
C-64 200W GMTA200-18L10~25CB

Reduction ratio : 10, 15, 20, 25 Approx. weight : 10.1kg
Reference page : Specification Chart→P106



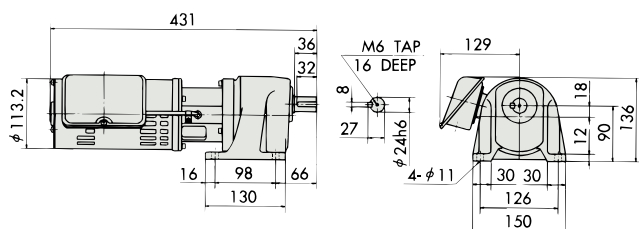
C-68 200W GMTA200-18U10~25CB

Reduction ratio : 10, 15, 20, 25 Approx. weight : 9.9kg
Reference page : Specification Chart→P106 Options→P57



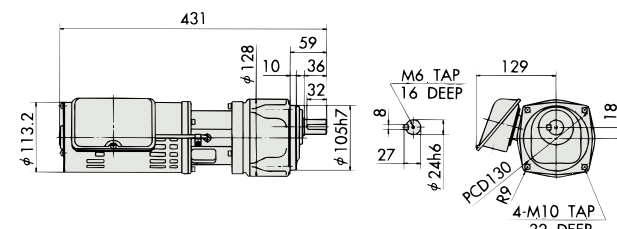
C-65 200W GMTA200-24L30~75CB

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 11.5kg
Reference page : Specification Chart→P106



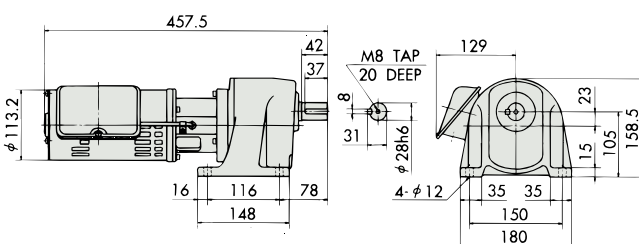
C-69 200W GMTA200-24U30~75CB

Reduction ratio : 30, 40, 50, 60, 75 Approx. weight : 11.3kg
Reference page : Specification Chart→P106 Options→P57



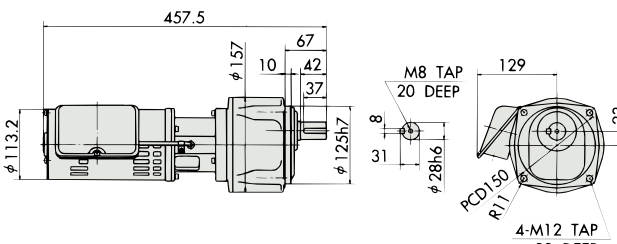
C-66 200W GMTA200-28L100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 13.9kg
Reference page : Specification Chart→P106



C-70 200W GMTA200-28U100~200CB

Reduction ratio : 100, 120, 165, 200 Approx. weight : 13.7kg
Reference page : Specification Chart→P106 Options→P57



■ Motorized type

Features • Nomenclature

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Specification Chart

P131

Outline Dimensions Non-brake/Hollow shaft/Foot mount/Face mount

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Outline Dimensions Brake type/Hollow shaft/Foot mount/Face mount

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Structure • Options • Installation • Selection • Others

P183

■ Adapter type

Structure • Specification Chart

P200

Outline Dimensions Foot mount/Face mount/Hollow shaft

P203

■ Inline Reducer type

Structure • Specification Chart

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Outline Dimensions Foot mount/Face mount/Hollow shaft

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Outdoor type specifications 24

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Outline dimensions (non-brake type)

0.1 kW hollow shaft 135

0.2 kW hollow shaft 136

0.4 kW hollow shaft 137

0.75 kW hollow shaft 138

1.5/2.2 kW hollow shaft 139

2.2/3.7/5.5 kW hollow shaft 140

100 W hollow shaft 141

200 W hollow shaft 142

0.1 kW foot mount 143

0.2 kW foot mount 144

0.4 kW foot mount 145

0.75 kW foot mount 146

1.5/2.2 kW foot mount 147

2.2/3.7/5.5 kW foot mount 148

100 W foot mount 149

200 W foot mount 150

0.1 kW face mount 151

0.2 kW face mount 152

0.4 kW face mount 153

0.75 kW face mount 154

1.5/2.2 kW face mount 155

2.2/3.7/5.5 kW face mount 156

100 W face mount 157

200 W face mount 158

Outline dimensions (brake type)

0.1 kW hollow shaft 159

0.2 kW hollow shaft 160

0.4 kW hollow shaft 161

0.75 kW hollow shaft 162

1.5/2.2 kW hollow shaft 163

2.2/3.7/5.5 kW hollow shaft 164

100 W hollow shaft 165

200 W hollow shaft 166

0.1 kW foot mount 167

0.2 kW foot mount 168

0.4 kW foot mount 169

0.75 kW foot mount 170

1.5/2.2 kW foot mount 171

2.2/3.7/5.5 kW foot mount 172

100 W foot mount 173

200 W foot mount 174

0.1 kW face mount 175

0.2 kW face mount 176

0.4 kW face mount 177

0.75 kW face mount 178

1.5/2.2 kW face mount 179

2.2/3.7/5.5 kW face mount 180

100 W face mount 181

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Outline dimensions

0.1 kW foot mount · face mount · hollow shaft 203

0.2 kW foot mount · face mount · hollow shaft 204

0.4 kW foot mount · face mount · hollow shaft 205

0.75 kW foot mount · face mount · hollow shaft 207

1.5 kW foot mount · face mount · hollow shaft 209

Inline Reducer type

Structure · Specification chart 210

0.1 kW foot mount · face mount · hollow shaft 213

0.2 kW foot mount · face mount · hollow shaft 214

0.4 kW foot mount · face mount · hollow shaft 215

0.75 kW foot mount · face mount · hollow shaft 217

1.5 kW foot mount · face mount · hollow shaft 219

Hypoid Motor TA Series Lineup

Motorized type

HYPOID MOTOR TA ● Lineup

Motor capacity	Mounting type	Brake	Actual reduction ratio Shaft arrangement	5	10	15	20	25	30	40	50	60
Output 0.1kW Model number HMTA010 ● Specification chart → P131 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	—	—	—	—	—	—	—	—	—
		Provided	—	—	—	—	—	—	—	—	—	—
	Foot mount L	Not provided	L.R T	—	—	—	—	—	—	—	—	—
		Provided	L.R T	—	—	—	—	—	—	—	—	—
	Face mount U	Not provided	S.T	—	—	—	—	—	—	—	—	—
		Provided	S.T	—	—	—	—	—	—	—	—	—
Output 0.2kW Model number HMTA020 ● Specification chart → P131 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	—	—	—	—	—	—	—	—	—
		Provided	—	—	—	—	—	—	—	—	—	—
	Foot mount L	Not provided	L.R T	—	—	—	—	—	—	—	—	—
		Provided	L.R T	—	—	—	—	—	—	—	—	—
	Face mount U	Not provided	S.T	—	—	—	—	—	—	—	—	—
		Provided	S.T	—	—	—	—	—	—	—	—	—
Output 0.4kW Model number HMTA040 ● Specification chart → P132 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	—	—	—	—	—	—	—	—	—
		Provided	—	—	—	—	—	—	—	—	—	—
	Foot mount L	Not provided	L.R T	—	—	—	—	—	—	—	—	—
		Provided	L.R T	—	—	—	—	—	—	—	—	—
	Face mount U	Not provided	S.T	—	—	—	—	—	—	—	—	—
		Provided	S.T	—	—	—	—	—	—	—	—	—
Output 0.75kW Model number HMTA075 ● Specification chart → P132 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	—	—	—	—	—	—	—	—	—
		Provided	—	—	—	—	—	—	—	—	—	—
	Foot mount L	Not provided	L.R T	—	—	—	—	—	—	—	—	—
		Provided	L.R T	—	—	—	—	—	—	—	—	—
	Face mount U	Not provided	S.T	—	—	—	—	—	—	—	—	—
		Provided	S.T	—	—	—	—	—	—	—	—	—
Output 1.5kW Model number HMTA150 ● Specification chart → P133 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	—	—	—	—	—	—	—	—	—
		Provided	—	—	—	—	—	—	—	—	—	—
	Foot mount L	Not provided	L.R T	—	—	—	—	—	—	—	—	—
		Provided	L.R T	—	—	—	—	—	—	—	—	—
	Face mount U	Not provided	S.T	—	—	—	—	—	—	—	—	—
		Provided	S.T	—	—	—	—	—	—	—	—	—

※Page number for outline dimensions, Drawing number **P135 M-1**

※Under "Shaft arrangement," "L" means the output shaft is located to the left as viewed from the motor side, "R" means it is located to the right, and "T" means it is located on both sides. For the face mount type, "S" means the output shaft is located on one side and "T" means it is located on both sides.

 indicates stock products.  indicates quick delivery products.

	80	100	120	160	200	300	360	480	600	720	960	1200	
						P135 M-2		P135 M-3					
						P159 B-2		P159 B-3					
	P143 M-27					P143 M-28		P143 M-29					
	P167 B-27					P167 B-28		P167 B-29					
						P151 M-56		P151 M-57					
						P175 B-56		P175 B-57					
						P136 M-5		P136 M-6					
						P160 B-5		P160 B-6					
	P144 M-31					P144 M-32		P144 M-33					
	P168 B-31					P168 B-32		P168 B-33					
						P152 M-59		P152 M-60					
						P176 B-59		P176 B-60					
	P137 M-8					P137 M-9		P137 M-10					
	P161 B-8					P161 B-9		P161 B-10					
	P145 M-35					P145 M-36		P145 M-37					
	P169 B-35					P169 B-36		P169 B-37					
	P153 M-62					P153 M-63		P153 M-64					
	P177 B-62					P177 B-63		P177 B-64					
	P138 M-12					P138 M-13							
	P162 B-12					P162 B-13							
	P146 M-39					P146 M-40							
	P170 B-39					P170 B-40							
	P154 M-66					P154 M-67							
	P178 B-66					P178 B-67							
			P139 M-15										
			P163 B-15										
			P147 M-42										
			P171 B-42										
			P155 M-68										
			P179 B-68										

Hypoid Motor TA Series Lineup

Motorized type

HYPOID MOTOR TA ● Lineup

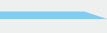
Motor capacity	Mounting type	Brake	Actual reduction ratio Shaft arrangement	5	10	15	20	25	30	40	50	60
Output 2.2kW Model number HMTA220 ● Specification chart → P133 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	P139 M-16								
		Provided	—	P163 B-16								
	Foot mount L	Not provided	L.R T	P147 M-43								
		Provided	L.R T	P171 B-43								
	Face mount U	Not provided	S.T	P155 M-70								
		Provided	S.T	P180 B-70								
Output 3.7kW Model number HMTA370 ● Specification chart → P133 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	P140 M-18								
		Provided	—	P164 B-18								
	Foot mount L	Not provided	L.R T	P148 M-45								
		Provided	L.R T	P172 B-45								
	Face mount U	Not provided	S.T	P156 M-72								
		Provided	S.T	P180 B-72								
Output 5.5kW Model number HMTA550 ● Specification chart → P133 ● Price lists → P297, 298, 299	Hollow shaft H	Not provided	—	P140 M-19								
		Provided	—	P164 B-19								
	Foot mount L	Not provided	L.R T	P148 M-46								
		Provided	L.R T	P172 B-46								
	Face mount U	Not provided	S.T	P156 M-73								
		Provided	S.T	P180 B-73								
Output 100w Model number HMTA100 ● Specification chart → P134 ● Price lists → P300, 301	Hollow shaft H	Not provided	—	P141 M-20								
		Provided	—	P165 B-20								
	Foot mount L	Not provided	L.R T	P149 M-47								
		Provided	L.R T	P173 B-47								
	Face mount U	Not provided	S.T	P157 M-74								
		Provided	S.T	P181 B-74								
Output 200w Model number HMTA200 ● Specification chart → P134 ● Price lists → P300, 301	Hollow shaft H	Not provided	—	P142 M-23								
		Provided	—	P166 B-23								
	Foot mount L	Not provided	L.R T	P150 M-51								
		Provided	L.R T	P174 B-51								
	Face mount U	Not provided	S.T	P158 M-77								
		Provided	S.T	P182 M-77								

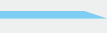
※Page number for outline dimensions, Drawing number **P139 M-16**

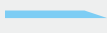
※Under "Shaft arrangement," "L" means the output shaft is located to the left as viewed from the motor side, "R" means it is located to the right, and "T" means it is located on both sides. For the face mount type, "S" means the output shaft is located on one side and "T" means it is located on both sides.

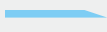
 indicates quick delivery products.

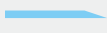
80 100 120 160 200 300 360 480 600 720 960 1200

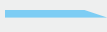
 **P140 M-17** 

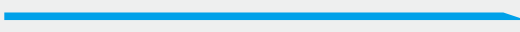
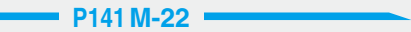
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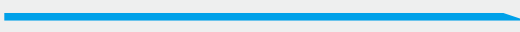
 **P148 M-44** 

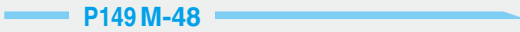
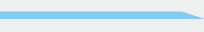
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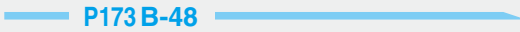
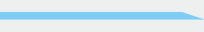
 **P156 M-71** 

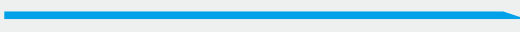
 **P181 B-71** 

 **P141 M-21**  **P141 M-22** 

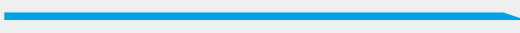
 **P165 B-21**  **P165 B-22** 

 **P149 M-48**  **P149 M-49**  **P149 M-50** 

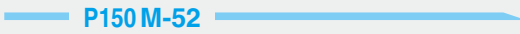
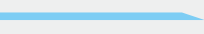
 **P173 B-48**  **P173 B-49**  **P173 B-50** 

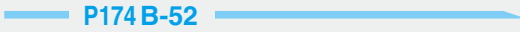
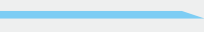
 **P157 M-75**  **P157 M-76** 

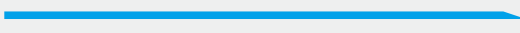
 **P171 B-75**  **P171 B-76** 

 **P142 M-24**  **P142 M-25** 

 **P166 B-24**  **P166 B-25** 

 **P150 M-52**  **P150 M-53**  **P150 M-54** 

 **P174 B-52**  **P174 B-53**  **P174 B-54** 

 **P158 M-78**  **P158 M-79** 

 **P182 B-78**  **P182 B-79** 

Hypoid Motor TA Series Lineup

Adapter type

HYPOID MOTOR TA ● Lineup

Motor capacity	Mounting type	Actual reduction ratio	5	10	15	20	25	30	40	50	60	80	100	120	160	200
Output 0.1 kW Model number HRTA010 ● Specification chart → P201	Hollow shaft H	—								P203 4						
	Foot mount L	L/R T		P203 1									P203 2			
	Face mount U	S.T								P203 3						
Output 0.2 kW Model number HRTA020 ● Specification chart → P201	Hollow shaft H	—								P204 8						
	Foot mount L	L/R T		P204 5									P204 6			
	Face mount U	S.T								P204 7						
Output 0.4 kW Model number HRTA040 ● Specification chart → P201	Hollow shaft H	—		P206 13									P206 14			
	Foot mount L	L/R T		P205 9									P205 10			
	Face mount U	S.T		P205 11									P205 12			
Output 0.75 kW Model number HRTA075 ● Specification chart → P202	Hollow shaft H	—		P208 19									P208 20			
	Foot mount L	L/R T		P207 15									P207 16			
	Face mount U	S.T		P207 17									P207 18			
Output 1.5 kW Model number HRTA150 ● Specification chart → P202	Hollow shaft H	—		P209 23												
	Foot mount L	L/R T		P209 21												
	Face mount U	S.T		P209 22												

※ Page number for outline dimensions, Drawing number — P203 Drawing 4 —

※ Under "Shaft arrangement," "L" means the output shaft is located to the left as viewed from the motor side, "R" means it is located to the right, and "T" means it is located on both sides. For the face mount type, "S" means the output shaft is located on one side and "T" means it is located on both sides.

□ indicates quick delivery products.

Hypoid Motor TA Series Lineup

Inline reducer type

HYPOID MOTOR TA Outline Dimensions ● Lineup

Motor capacity	Mounting type	Actual reduction ratio Shaft arrangement	5	10	15	20	25	30	40	50	60	80	100	120	160	200
Output 0.1kW Model number HRTA010 ● Specification chart → P211	Hollow shaft H	—								P213 27						
	Foot mount L	L.R T			P213 24								P213 25			
	Face mount U	S.T							P213 26							
Output 0.2kW Model number HRTA020 ● Specification chart → P211	Hollow shaft H	—								P214 31						
	Foot mount L	L.R T			P214 28								P214 29			
	Face mount U	S.T							P214 30							
Output 0.4kW Model number HRTA040 ● Specification chart → P211	Hollow shaft H	—			P216 36								P216 37			
	Foot mount L	L.R T			P215 32								P215 33			
	Face mount U	S.T			P215 34								P215 35			
Output 0.75kW Model number HRTA075 ● Specification chart → P212	Hollow shaft H	—			P218 42								P218 43			
	Foot mount L	L.R T			P217 38								P217 39			
	Face mount U	S.T			P217 40								P217 41			
Output 1.5kW Model number HRTA150 ● Specification chart → P212	Hollow shaft H	—			P219 46											
	Foot mount L	L.R T			P219 44											
	Face mount U	S.T			P219 45											

※Page number for outline dimensions, Drawing number — P213 Drawing 27

※Under "Shaft arrangement," "L" means the output shaft is located to the left as viewed from the motor side, "R" means it is located to the right, and "T" means it is located on both sides. For the face mount type, "S" means the output shaft is located on one side and "T" means it is located on both sides.

□ indicates quick delivery products.

Hypoid Motor TA Series Features

Hypoid Motor TA Series Features

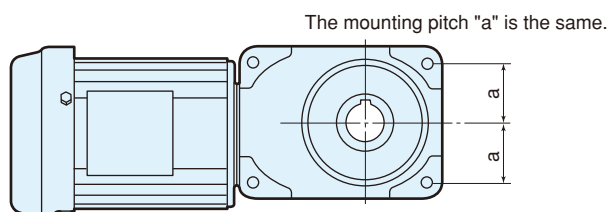
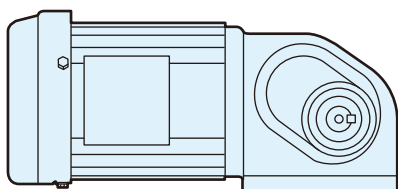
Space savings realized with hypoid gear and orthogonal-axis-type reducer that is ready for multiple applications

Unlike parallel-axis-type gear motors, the shaft of the hypoid motor does not protrude in the longitudinal direction, allowing the hypoid motor to be mounted on the inside of machinery. Even when mounted on the outside of machinery, a compact layout can be realized because it does not extend outward much, leading to space savings. The face mount type and hollow shaft type using Tsubaki's unique multi-fit system are ready for various installation modes, making it possible to simplify the layout of the whole equipment.

1

Compact

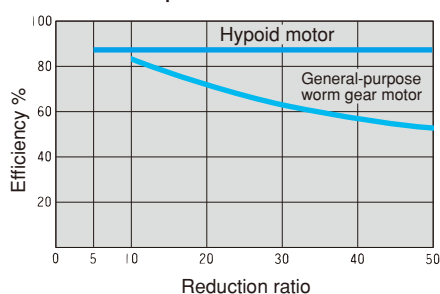
Special emphasis is placed on the height of Tsubaki's hypoid motor - a compact reducer with as low a height as has ever been realized.



2

High efficiency

The hypoid motor has less slippage than worm gear motors, thus providing higher efficiency. This means that the hypoid motor uses less power for the same output, which results in economical operation.



3

Low noise

The hypoid motor employs the new processing technology incorporated in our T series gear motor providing low noise and high reliability.

4

Usability

Because the product is delivered with grease injected, it can be used immediately. There is no limitation on the mounting direction. A tapped (screw) hole is included in the end of the output shaft to aid installation. For the hollow shaft type, a torque arm and a safety cap are available as options.

5

Inverter motor type

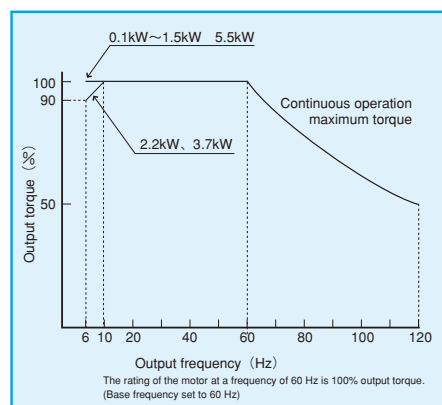
(Quick-delivery make-to-order product)

An inverter-ready motor is connected directly. Continuous operation with 100% constant torque is possible even at low frequencies (6 Hz or more). (For the 2.2 kW and 3.7 kW devices, reduction of torque is produced at frequencies of 10 Hz or less.)

In addition... ① **Quick delivery**
Available on short delivery

② **Compact**
Exactly the same size as the standard product

③ **Low price**
A slight increase over the standard product of about 20%

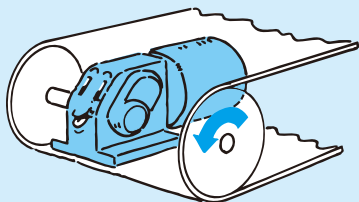


Hypoid Motor TA Series Features

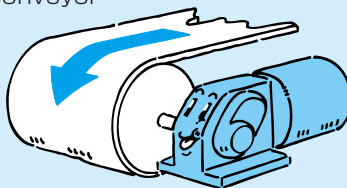
HYPOID MOTOR TA

Space saving

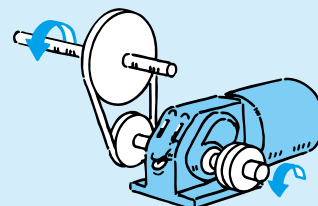
Mounted on inside of conveyor



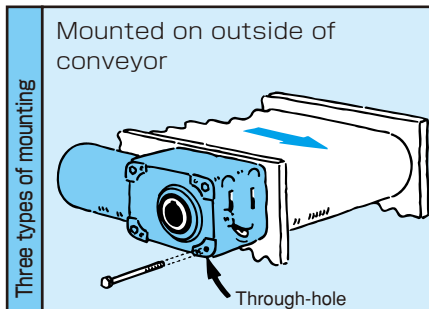
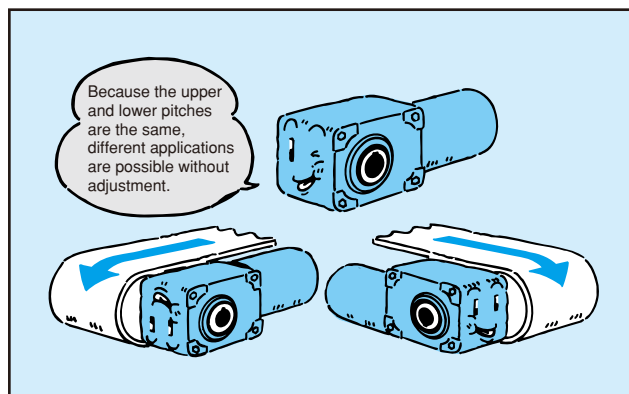
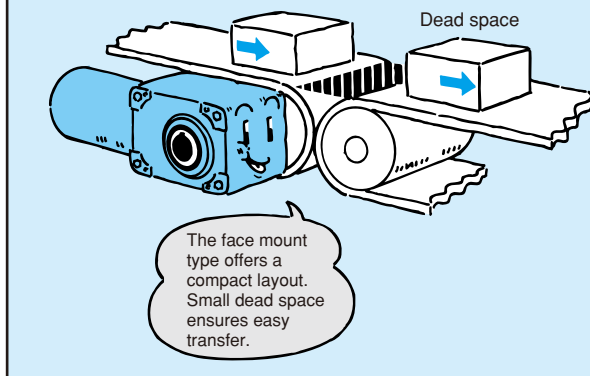
Mounted on outside of conveyor



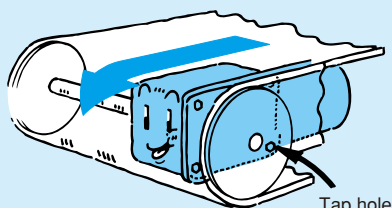
Multiple drive



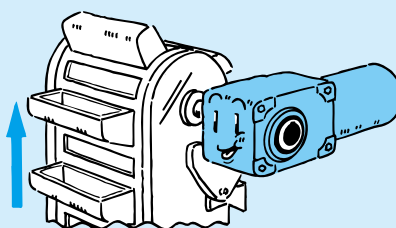
Multi-fit system



Mounted on inside of conveyor

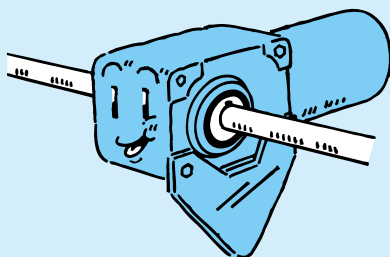


Mounted on shaft

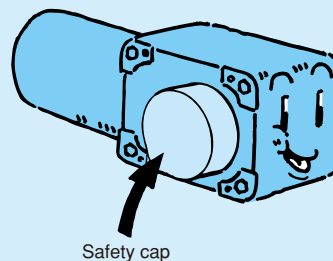


Options

Mounted on shaft with torque arm



Safety cap for added safety



Nomenclature

■ Model number 1 (0.1kW~0.75kW)

HMTA010-38L1200L

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Product and Series name	HMTA	Motorized type
	HRTA	Inline reducer type and adapter type
② Motor capacity (example)	010	Three-phase 0.1 kW
	100	Single-phase 100 W
③ Frame number (example)	38	Frame number 38 (Note 1)
④ Mounting type	L	Foot mount
	U	Face mount type
	H	Hollow shaft type
⑤ Reduction ratio (example)	1200	1/1200
⑥ Shaft arrangement	L	Output shaft located to the left as viewed from the motor side
	T	Output shaft located on both sides
	R	Output shaft located to the right as viewed from the motor side
	S	Output shaft located on one side (face side) (For face mount type only)
	No code	Hollow shaft type
⑦ Specification code	No code	Without B, K or BE
	B	Brake type
	FI	Adapter type
	K	Power lock type (For hollow shaft type with standard shaft hole diameter only)
	BE	Encoder type
	SR	Shock relay type for 0.1 and 0.2 kW only
⑧ Option code Order of priority	1. Z	Inverter motor type
	2. W	Outdoor type
	3. J	Water proof type
	4. V	400 V class (400/400/440V 50/60/60Hz)
	5. V1	380V50Hz
	6. V2	380V60Hz
	7. V3	415V50Hz
	8. V4	460V60Hz
	9. N	Ready for CE (Note2)
	10. N2	Ready for UL (Note2)
	11. N3	Ready for CCC (Note2)
	12. H	Hard terminal box type
	13. Q	One-touch manual release type
	14. M	Manual shaft type

Supplementary codes (indicated on the second line of the model number)
Supplementary codes may be combined arbitrarily.

Position of terminal box	Hollow shaft hole diameter
P 1 : 90° swing	S 1 : ϕ 20
P 2 : 180° swing	S 2 : ϕ 25
P 3 : 270° swing	S 3 : ϕ 30
Note) P1 and P3 are for the face mount and hollow shaft types only.	S 4 : ϕ 35
	S 5 : ϕ 40
	S 6 : ϕ 45
	S 7 : ϕ 50
	Note) Please refer to page 199 for special hollow shaft hole diameter.

Position of lead outlet of hard terminal box of outdoor type
D 1 : 90° swing
D 2 : 180° swing
D 3 : 270° swing
Note) The standard position is opposite the load side.
For the resin terminal box, the position of the lead outlet can be changed by changing the top cover mounting direction.

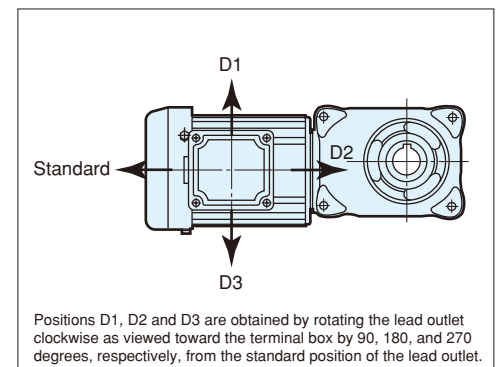
Paint color (The standard color : Munsell 2.5G6/3)
C 1 : Light silver metallic
C 2 : Ivory white (Munsell 7.5Y9/1)
C 3 : Dark silver metallic

■ Combination of specification and option codes

No brake type			Brake type			Power lock type		
Z	ZW	ZWV	Z	ZV	ZVH	Z	ZW	ZWV
	ZJ	ZJV			ZVQ	W	WV	
	ZV	ZVH			ZVM		WV1	
					ZH		WV2	
					ZHQ		WV3	
W	WV				ZHM		WV4	
	WV1				ZQM			
	WV2				ZM	J	JV	
	WV3		V	VN			JV1	
	WV4			VH	VHQ		JV2	
	WN	WVN			VHM		JV3	
	WN3	WVN3			VQM		JV4	
J	JV				VM	V	VN	
	JV1				V1H		VH	
	JV2		V1	V1H		V1	V1H	
	JV3		V2	V2H		V2	V2H	
	JV4		V3	V3H		V3	V3H	
V	VN		V4	V4H		V4	V4H	
	VN2		N					
	VN3		H	HQ	HQM			
	VH				HM			
V1	V1H		Q	QM				
V2	V2H		M					
V3	V3H							
V4	V4H							
N								
N2								
N3								
H								

Note) A combination of "brake type" and "outdoor use type" are made-to-order product.

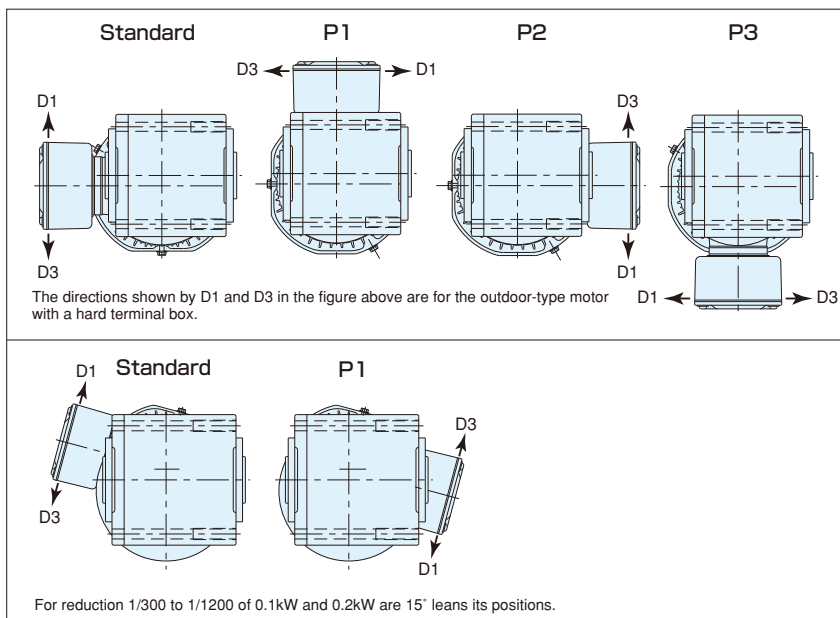
■ Codes for positions of the lead outlet of a hard terminal box of an outdoor type



Note 1) For the frame number, refer to the specification chart and outline dimensional drawing.
Note 2) Please consult us for voltage.

■ Codes for position of terminal box

For the standard motor, change the position of the lead outlet by changing the terminal box top cover mounting direction.



Nomenclature

■Model number 2 (1.5kW~5.5kW)

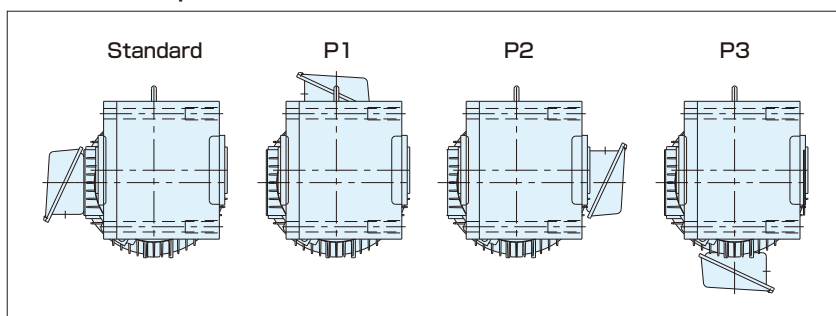
HMTA150-50L200L

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

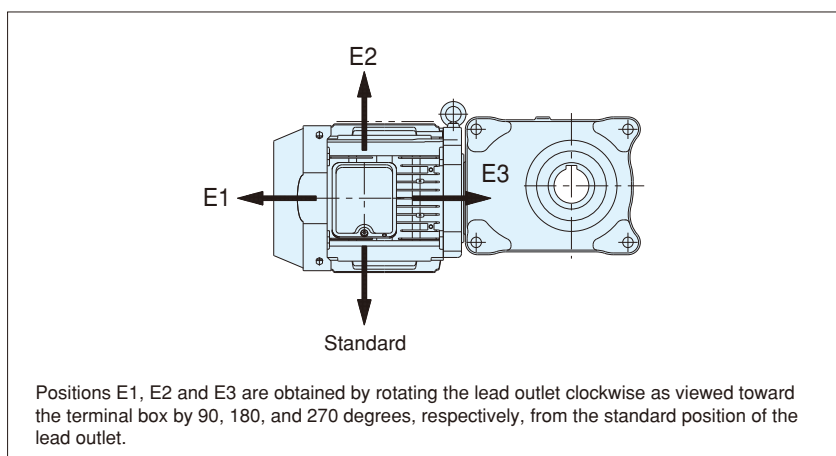
① Product and Series name	HMTA HRTA	Motorized type Inline reducer type and adapter type
② Motor capacity (example)	150	Three-phase 1.5 kW
③ Frame number (example)	50	Frame number 50 (Note 1)
④ Mounting type	L U H	Foot mount Face mount type Hollow shaft type
⑤ Reduction ratio (example)	200	1/200
⑥ Shaft arrangement	L T R S No code	Output shaft located to the left as viewed from the motor side Output shaft located on both sides Output shaft located to the right as viewed from the motor side Output shaft located on one side (face side) (For face mount type only) Hollow shaft type
⑦ Specification code	No code B FI K BE	Without B, K or BE Brake type Adapter type Power lock type (For hollow shaft type with standard shaft hole diameter only) Encoder type for 1.5 and 2.2 kW only
⑧ Option code Order of priority	1. Z 2. W 3. V 4. V1 5. V2 6. V3 7. V4 8. N 9. Q	Inverter motor type Outdoor type 400 V class (400/400/440V 50/60/60Hz) 380V50Hz 380V60Hz (Only the 5.5 kW option is handled as a made-to-order product.) 415V50Hz 460V60Hz Ready for CE One-touch manual release type

Note 1) For the frame number, refer to the specification chart and outline dimensional drawing.

■Codes for position of terminal box



■Codes for positions of the lead outlet of a terminal box of the outdoor type and standard products



Supplementary codes (indicated on the second line of the model number)
Supplementary codes may be combined arbitrarily.

Position of terminal box
P 1 : 90° swing
P 2 : 180° swing
P 3 : 270° swing
Note) P1 and P3 are for the face mount and hollow shaft types only.

Hollow shaft hole diameter
S 3 : ϕ 30
S 4 : ϕ 35
S 5 : ϕ 40
S 6 : ϕ 45
S 7 : ϕ 50
Note) Please refer to page 191 for special hollow shaft hole diameter.

Position of the lead outlet of a terminal box of the outdoor type and standard products
E 1 : 90° swing
E 2 : 180° swing
E 3 : 270° swing
Note) The standard position is downward.

Paint color (The standard color : Munsell 2.5G6/3)
C 1 : Light silver metallic
C 2 : Ivory white (Munsell 7.5Y9/1)
C 3 : Dark silver metallic

■Combination of specification and option codes

No brake type			Brake type			Power lock type		
Z	ZW	ZWV	Z	ZV	ZVQ	Z	ZW	ZWV
	ZV			ZQ		W	WV	
W	WV		V	VQ			WV1	
	WV1						WV2	
	WV2						WV3	
	WV3						WV4	
	WV4							
V			V			V		
V1			Q			V1		
V2						V2		
V3						V3		
V4						V4		
	VN							
N								

Encoder type

Z	ZV
V	

Note) A combination of "brake type" and "outdoor type" is a made-to-order product. Note that its motor specifications differ from those of the standard product.

Hypoid Motor TA Series Specifications

HYPOID MOTOR TA

Specifications

Motor	Output	Three-phase : 0.1, 0.2, 0.4, 0.75, 1.5, 2.2, 3.7, 5.5kW	Single-phase : 100, 200W
		Non-brake type · Brake type	Non-brake type · Brake type
	Power supply	200/200/220V 50/60/60Hz	100V 50/60Hz
	Number of poles	4	4
	Protection type	0.1 kW - Totally-enclosed type (IP44), 0.2-5.5 kW - Totally-enclosed external fan type (IP44)	Drip-proof protection type (IP22)
	Cooling method	0.1 kW - Self-cooled type (IC410), 0.2-5.5 kW - Self-managed type (IC411)	Draft type (IC01)
	Starting method	—	Split-phase starting type
	Rating	Continuous	Continuous
	Insulation	0.1 kW-3.7 kW - Class E, 5.5 kW - Class B	Class E
	Brake	Non-excitation type · DC electromagnetic brake	
Reducer	Reduction ratio	1/5 to 1/1200	
	Lubricating method	Grease	
	Shaft end key way	New JIS key (JIS B 1301-1976): Output shaft key attached (Ordinary-class key way)	
	Output shaft end	Tapped	
Ambient conditions	Installation place	Indoor not exposed to dust or water	
	Ambient temperature	-20°C to 40°C	
	Ambient humidity	Less than 85% (non condensing)	
	Altitude	Elevations below 1000 m	
	Atmosphere	Free from corrosive gases, explosive gases and steam	
	Mounting direction	No limitations on mounting angles: horizontal, vertical or inclined	
Paint color		Munsell 2.5G6/3	

Note) The protective construction for the brake type is IP20.

Motor specifications

Number of phases	Output	Number of poles	Frequency Hz	Voltage V	Rated current A	Rated revolution rate r/min	AC-side brake current Reference value at 20°C
Three-phase	0.1kW	4	50/60/60	200/200/220 (400/400/440)	0.63/0.57/0.58 (0.32/0.29/0.29)	1420/1680/1710 (1440/1740/1740)	0.12 A
	0.2kW				1.2/1.1/1.1 (0.59/0.55/0.55)	1420/1700/1720 (1410/1690/1720)	0.12 A
	0.4kW				2.3/2.0/2.0 (1.2/1.0/1.0)	1380/1650/1680 (1390/1670/1700)	0.16 A
	0.75kW				3.8/3.4/3.4 (2.0/1.7/1.7)	1410/1690/1710 (1410/1690/1710)	0.17 A
	1.5kW				7.0/6.2/6.0 (3.5/3.1/3.0)	1420/1710/1730 (1420/1710/1730)	0.10 A
	2.2kW				9.8/8.9/8.5 (4.9/4.5/4.3)	1420/1710/1730 (1420/1710/1730)	0.10 A
	3.7kW				16.0/14.8/14.0 (8.0/7.4/7.0)	1420/1710/1730 (1420/1710/1730)	0.08 A
	5.5kW				23.8/21.0/20.0 (11.9/10.5/10.0)	1430/1730/1740 (1430/1730/1740)	0.10 A
Single-phase	100W	4	50/60	100	3.2/2.8	1440/1730	0.21 A
	200W				5.2/4.6	1430/1710	0.21 A

Note 1) The values in parentheses under "Rated current" and "Rated revolution rate" are for 400/400/440 V.

Note 2) For the brake type, the brake current shown above is added for the phase where the brake lead wire is connected to the motor lead wire. The AC-side brake current is for 200 V AC 60 Hz and 100 V AC 60 Hz.

Hypoid Motor TA Series Specifications

HYPOID MOTOR TA

Special motor type (Applied to hypoid motor and hypoid motor with brake)

○ Quick delivery product
△ Made-to-order product

Motor specifications			Three-phase motor type															
			0.1kW		0.2kW		0.4kW		0.75kW		1.5kW		2.2kW		3.7kW		5.5kW	
			Brake		Brake		Brake		Brake		Brake		Brake		Brake		Brake	
			Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided	Not provided	Provided
Voltage	Double voltage	400/400/440V 50/60/60Hz	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage (Note 1)	200 V · 400 V level	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage	Special voltage	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Terminal box type	Standard voltage		Standard model															
	Double voltage	400/400/440V 50/60/60Hz	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage (Note 1)	200 V level	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage (Note 1)	400 V level	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△
	Other voltage	Special voltage	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Outdoor type	Standard voltage		○	△	○	△	○	△	○	△	○	△	○	△	○	△	○	△
	Double voltage	400/400/440V 50/60/60Hz	○	△	○	△	○	△	○	△	○	△	○	△	○	△	○	△
	Other voltage (Note 1)	200 V · 400 V level	○	△	○	△	○	△	○	△	○	△	○	△	○	△	○	△
	Other voltage	Special voltage	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Explosion-proof type	Standard voltage		△	—	△	—	△	—	△	—	△	—	△	—	△	—	△	—
	Double voltage	400/400/440V 50/60/60Hz	△	—	△	—	△	—	△	—	△	—	△	—	△	—	△	—
	Other voltage	Special voltage	△	—	△	—	△	—	△	—	△	—	△	—	△	—	△	—

(Note 1) The other voltage 200 V level and 400 V level are applied to those indicated by "○" in the table below.

(1) 0.1kW · 0.2kW · 0.4kW · 0.75kW · 1.5kW · 2.2kW · 3.7kW

	Three-phase 200 V level				Three-phase 400 V level							
	Frequency of 50 Hz		Frequency of 60 Hz		Frequency of 50 Hz				Frequency of 60 Hz			
	Voltage (V)		Voltage (V)		Voltage (V)				Voltage (V)			
	210	220	210	230	380	415	420		380	415	420	460
Non-Brake type	○	○	○	○	○	○	○		○	○	○	○
Brake type	○	○	○	○	○	○	○		○	○	○	○

(2) 5.5 kW

	Three-phase 200 V level				Three-phase 400 V level							
	Frequency of 50 Hz		Frequency of 60 Hz		Frequency of 50 Hz				Frequency of 60 Hz			
	Voltage (V)		Voltage (V)		Voltage (V)				Voltage (V)			
	210	220	210	230	380	415	420		380	415	420	460
Non-Brake type	△	△	○	○	○	○	△		△	○	○	○
Brake type	△	△	○	○	○	○	△		△	○	○	○

0.1 0.2
0.4 0.75
1.5 2.2
3.7 5.5

One-touch manual release brake type

○ Quick delivery product
△ Made-to-order product

	Three-phase brake motor type									Single-phase brake motor type	
	0.1kW	0.2kW	0.4kW	0.75kW	1.5kW	2.2kW	3.7kW	5.5kW		100W	200W
One-touch manual release brake type	○	○	○	○	○	○	○	△		○	○

Hypoid Motor TA Series Specification Chart

HYPOID MOTOR TA

Specification Chart

[] The values in parentheses are for the brake type.

Model number	Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
			L	U	50Hz	60Hz	N·m		{kgf·m}		N		Hollow shaft type	Foot mount	Face mount
							50Hz	60Hz	50Hz	60Hz	N	{kgf}			
HMTA 010	5	1/5	2	2	300	360	2.7	{0.28}	2.4	{0.24}	588	{60}	P.135 Drawing M-1 (P.159) Drawing B-1 Frame number 30	P.143 Drawing M-26 (P.167) Drawing B-26 Frame number 19	P.151 Drawing M-55 (P.175) Drawing B-55 Frame number 24
	10	1/10			150	180	5.6	{0.57}	4.6	{0.47}	980	{100}			
	15	1/15			100	120	8.3	{0.85}	7.0	{0.71}	1078	{110}			
	20	1/20			75	90	10.8	{1.1}	9.3	{0.95}	1176	{120}			
	25	1/25			60	72	13.7	{1.4}	11.8	{1.2}	1274	{130}			
	30	1/30			50	60	16.7	{1.7}	13.7	{1.4}	1421	{145}			
	40	1/40			37.5	45	22.5	{2.3}	18.6	{1.9}	1617	{165}			
	50	1/50			30	36	27.4	{2.8}	23.5	{2.4}	1862	{190}			
	60	1/60			25	30	31.4	{3.2}	26.5	{2.7}	2009	{205}			
	80	1/80	3	3	18.8	22.5	42.1	{4.3}	35.3	{3.6}	2254	{230}	P.135 Drawing M-2 (P.159) Drawing B-2 Frame number 30	P.143 Drawing M-28 (P.167) Drawing B-28 Frame number 28	P.151 Drawing M-56 (P.175) Drawing B-56 Frame number 28
	100	1/100			15	18	52.9	{5.4}	44.1	{4.5}	2548	{260}			
	120	1/120			12.5	15	63.7	{6.5}	52.9	{5.4}	2793	{285}			
	160	1/160			9.4	11.3	84.3	{8.6}	70.6	{7.2}	3332	{340}			
	200	1/200			7.5	9	106	{10.8}	88.2	{9.0}	3332	{340}			
	300	1/300			5	6	129	{13.2}	108	{11.0}	3332	{340}			
	360	1/360			4.2	5	156	{15.9}	129	{13.2}	3332	{340}			
	480	1/480			3.1	3.8	*169	{*17.2}	*169	{*17.2}	3332	{340}			
	600	1/600			2.5	3	260	{26.5}	217	{22.1}	4410	{450}			
	720	1/720			2.1	2.5	312	{31.8}	260	{26.5}	4410	{450}			
	960	1/960			1.6	1.9	*374	{*38.2}	346	{35.3}	4410	{450}			
	1200	1/1200			1.3	1.5	*374	{*38.2}	*374	{*38.2}	4410	{450}			
HMTA 020	5	1/5	2	2	300	360	5.6	{0.57}	4.6	{0.47}	588	{60}	P.136 Drawing M-4 (P.160) Drawing B-4 Frame number 30	P.144 Drawing M-30 (P.168) Drawing B-30 Frame number 19	P.152 Drawing M-58 (P.176) Drawing B-58 Frame number 28
	10	1/10			150	180	10.8	{1.1}	9.3	{0.95}	980	{100}			
	15	1/15			100	120	16.7	{1.7}	13.7	{1.4}	1078	{110}			
	20	1/20			75	90	22.5	{2.3}	18.6	{1.9}	1176	{120}			
	25	1/25			60	72	27.4	{2.8}	23.5	{2.4}	1274	{130}			
	30	1/30			50	60	33.3	{3.4}	27.4	{2.8}	1421	{145}			
	40	1/40			37.5	45	44.1	{4.5}	37.2	{3.8}	1617	{165}			
	50	1/50			30	36	55.9	{5.7}	46.1	{4.7}	1862	{190}			
	60	1/60	3	3	25	30	66.6	{6.8}	54.9	{5.6}	2009	{205}	P.136 Drawing M-5 (P.160) Drawing B-5 Frame number 35	P.144 Drawing M-31 (P.168) Drawing B-31 Frame number 28	P.152 Drawing M-59 (P.176) Drawing B-59 Frame number 38
	80	1/80			18.8	22.5	84.3	{8.6}	70.6	{7.2}	2254	{230}			
	100	1/100			15	18	106	{10.8}	88.2	{9.0}	2548	{260}			
	120	1/120			12.5	15	126	{12.9}	106	{10.8}	2793	{285}			
	160	1/160			9.4	11.3	169	{17.2}	140	{14.3}	3332	{340}			
	200	1/200			7.5	9	*169	{*17.2}	*169	{*17.2}	3332	{340}			
	300	1/300			5	6	260	{26.5}	217	{22.1}	4410	{450}			
	360	1/360			4.2	5	312	{31.8}	260	{26.5}	4410	{450}			
	480	1/480			3.1	3.8	*374	{*38.2}	*312	{*31.8}	4410	{450}			
	600	1/600	4	4	2.5	3	506	{51.6}	432	{44.1}	6272	{640}	P.136 Drawing M-6 (P.160) Drawing B-6 Frame number 45	P.144 Drawing M-33 (P.168) Drawing B-33 Frame number 42	P.152 Drawing M-60 (P.176) Drawing B-60 Frame number 42
	720	1/720			2.1	2.5	607	{61.9}	519	{53.0}	6272	{640}			
	960	1/960			1.6	1.9	*621	{*63.4}	*621	{*63.4}	6272	{640}			
	1200	1/1200			1.3	1.5	*621	{*63.4}	*621	{*63.4}	6272	{640}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The models marked with * are ones for which the torque is limited.

Hypoid Motor TA Series Specification Chart

HYPOID MOTOR TA

Specification Chart

[] The values in parentheses are for the brake type.

Model number		Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
								N·m		kgf·m		N·m				
				L	U	50Hz	60Hz	50Hz		60Hz		N	kgf	Hollow shaft type	Foot mount	Face mount
HMTA 040	5	0.4	1/5	2	2	300	360	10.8	{1.1}	9.3	{0.95}	931	{95}	P.137 Drawing M-7 (P.161 Drawing B-7) Frame number 30	P.145 Drawing M-34 (P.169 Drawing B-34) Frame number 24	P.153 Drawing M-61 (P.177 Drawing B-61) Frame number 28
	10		1/10			150	180	22.5	{2.3}	18.6	{1.9}	1568	{160}			
	15		1/15			100	120	33.3	{3.4}	27.4	{2.8}	1715	{175}			
	20		1/20			75	90	44.1	{4.5}	37.2	{3.8}	1862	{190}			
	25		1/25			60	72	55.9	{5.7}	46.1	{4.7}	2009	{205}			
	30		1/30			50	60	66.6	{6.8}	55.9	{5.7}	2205	{225}			
	40		1/40	3	3	37.5	45	89.2	{9.1}	74.5	{7.6}	2450	{250}	P.137 Drawing M-8 (P.161 Drawing B-8) Frame number 35	P.145 Drawing M-35 (P.169 Drawing B-35) Frame number 38	P.153 Drawing M-62 (P.177 Drawing B-62) Frame number 38
	50		1/50			30	36	112	{11.4}	93.1	{9.5}	2793	{285}			
	60		1/60			25	30	126	{12.9}	106	{10.8}	3038	{310}			
	80		1/80			18.8	22.5	169	{17.2}	141	{14.4}	3479	{355}			
	100		1/100			15	18	212	{21.6}	176	{18.0}	3920	{400}			
	120		1/120			12.5	15	254	{25.9}	212	{21.6}	4410	{450}			
	160		1/160	4	4	9.4	11.3	338	{34.5}	281	{28.7}	4410	{450}	P.137 Drawing M-9 (P.161 Drawing B-9) Frame number 45	P.145 Drawing M-36 (P.169 Drawing B-36) Frame number 42	P.153 Drawing M-63 (P.177 Drawing B-63) Frame number 42
	200		1/200			7.5	9	374	{38.2}	312	{31.8}	4410	{450}			
	300		1/300			5	6	519	{53.0}	432	{44.1}	6272	{640}			
	360		1/360			4.2	5	621	{63.4}	519	{53.0}	6272	{640}			
	480		1/480			3.1	3.8	621	{63.4}	621	{63.4}	6272	{640}			
	600		1/600			2.5	3	1029	{105}	869	{88.7}	9800	{1000}			
	720		1/720	4	4	2.1	2.5	1176	{120}	1029	{105}	9800	{1000}	P.137 Drawing M-10 (P.161 Drawing B-10) Frame number 55	P.145 Drawing M-37 (P.169 Drawing B-37) Frame number 50	P.153 Drawing M-64 (P.177 Drawing B-64) Frame number 50
	960		1/960			1.6	1.9	1176	{120}	1176	{120}	9800	{1000}			
1200	1/1200	1.3	1.5			1176	{120}	1176	{120}	9800	{1000}					
HMTA 075	5	0.75	1/5	2	2	300	360	20.6	{2.1}	17.6	{1.8}	1519	{155}	P.138 Drawing M-11 (P.162 Drawing B-11) Frame number 35	P.146 Drawing M-38 (P.170 Drawing B-38) Frame number 30	P.154 Drawing M-65 (P.178 Drawing B-65) Frame number 38
	10		1/10			150	180	42.1	{4.3}	34.3	{3.5}	2205	{225}			
	15		1/15			100	120	62.7	{6.4}	51.9	{5.3}	2401	{245}			
	20		1/20			75	90	83.3	{8.5}	69.6	{7.1}	2646	{270}			
	25		1/25			60	72	104	{10.6}	87.2	{8.9}	2891	{295}			
	30		1/30			50	60	125	{12.8}	104	{10.6}	3136	{320}			
	40		1/40	3	3	37.5	45	167	{17.0}	139	{14.2}	3626	{370}	P.138 Drawing M-12 (P.162 Drawing B-12) Frame number 45	P.146 Drawing M-39 (P.170 Drawing B-39) Frame number 42	P.154 Drawing M-66 (P.178 Drawing B-66) Frame number 42
	50		1/50			30	36	209	{21.3}	173	{17.7}	4116	{420}			
	60		1/60			25	30	238	{24.3}	198	{20.2}	4508	{460}			
	80		1/80			18.8	22.5	317	{32.3}	264	{26.9}	5390	{550}			
	100		1/100			15	18	396	{40.4}	330	{33.7}	6272	{640}			
	120		1/120			12.5	15	475	{48.5}	396	{40.4}	6272	{640}			
	160		1/160	4	4	9.4	11.3	621	{63.4}	517	{52.8}	6272	{640}	P.138 Drawing M-13 (P.162 Drawing B-13) Frame number 55	P.146 Drawing M-40 (P.170 Drawing B-40) Frame number 50	P.154 Drawing M-67 (P.178 Drawing B-67) Frame number 50
	200		1/200			7.5	9	621	{63.4}	621	{63.4}	6272	{640}			
	300		1/300			5	6	973	{99.3}	807	{82.3}	9800	{1000}			
	360		1/360			4.2	5	1166	{119}	973	{99.3}	9800	{1000}			
	480		1/480			3.1	3.8	1176	{120}	1176	{120}	9800	{1000}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The values marked with "©" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown to the right apply.

(Note 5) The models marked with * are ones for which the torque is limited.

0.4	1/40	3	37.5	45	84.3	{ 8.6}	70.6	{ 7.2}
	1/50		30	36	106	{10.8}	88.2	{ 9.0}
0.75	1/40	3	37.5	45	159	{16.2}	132	{13.5}
	1/50		30	36	198	{20.2}	165	{16.8}

Hypoid Motor TA Series Specification Chart

HYPOID MOTOR TA

Specification Chart

[] The values in parentheses are for the brake type.

Model number		Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
								N·m		{kgf·m}						
				L	U	50Hz	60Hz	50Hz		60Hz		N	{kgf}	Hollow shaft type	Foot mount	Face mount
HMTA 150	5	1.5	1/5	2	2	300	360	41.2	{4.2}	34.3	{3.5}	2058	{210}	P.139 Drawing M-14 (P.163 Drawing B-14)	P.147 Drawing M-41 (P.171 Drawing B-41)	P.155 Drawing M-68 (P.179 Drawing B-68)
	10		1/10			150	180	83.3	{8.5}	69.6	{7.1}	2842	{290}			
	15		1/15			100	120	124	{12.7}	104	{10.6}	3234	{330}			
	20		1/20			75	90	166	{16.9}	138	{14.1}	3626	{370}			
	25		1/25			60	72	208	{21.2}	173	{17.7}	4018	{410}			
	30		1/30			50	60	249	{25.4}	208	{21.2}	4508	{460}			
	40		1/40	3	3	37.5	45	317	{32.3}	264	{26.9}	5292	{540}	Frame number 45	Frame number 42	Frame number 42
	50		1/50			30	36	396	{40.4}	330	{33.7}	6076	{620}			
	60		1/60			25	30	475	{48.5}	396	{40.4}	6272	{640}			
	80		1/80			18.8	22.5	634	{64.7}	528	{53.9}	6272	{640}			
	100		1/100			15	18	792	{80.8}	661	{67.4}	9800	{1000}			
	120		1/120			12.5	15	951	{97.0}	792	{80.8}	9800	{1000}			
	160		1/160			9.4	11.3	*1176	*{120}	1058	{108}	9800	{1000}			
	200		1/200			7.5	9	*1176	*{120}	*1176	*{120}	9800	{1000}			
HMTA 220	5	2.2	1/5	2	2	300	360	60.8	{6.2}	51.0	{5.2}	3038	{310}	P.139 Drawing M-16 (P.163 Drawing B-16)	P.147 Drawing M-43 (P.171 Drawing B-43)	P.155 Drawing M-70 (P.179 Drawing B-70)
	10		1/10			150	180	122	{12.4}	102	{10.4}	3822	{390}			
	15		1/15			100	120	182	{18.6}	152	{15.5}	4214	{430}			
	20		1/20			75	90	244	{24.9}	203	{20.7}	4606	{470}			
	25		1/25	3	3	60	72	290	{29.6}	242	{24.7}	4998	{510}	Frame number 45	Frame number 42	Frame number 42
	30		1/30			50	60	349	{35.6}	290	{29.6}	5390	{550}			
	40		1/40			37.5	45	465	{47.4}	387	{39.5}	5782	{590}			
	★50		★1/50			30	36	581	{59.3}	484	{49.4}	6076	{620}			
	60		1/60			25	30	697	{71.1}	581	{59.3}	6272	{640}			
	80		1/80			18.8	22.5	930	{94.9}	774	{79.0}	9800	{1000}			
	100		1/100			15	18	*1068	*{109}	968	{98.8}	9800	{1000}			
	120		1/120			12.5	15	*1176	*{120}	1166	{119}	9800	{1000}			
HMTA 370	5	3.7	1/5	2	2	300	360	103	{10.5}	85.3	{8.7}	4900	{500}	P.140 Drawing M-18 (P.164 Drawing B-18)	P.148 Drawing M-45 (P.172 Drawing B-45)	P.156 Drawing M-72 (P.180 Drawing B-72)
	10		1/10			150	180	205	{20.9}	171	{17.4}	5880	{600}			
	15		1/15			100	120	308	{31.4}	256	{26.1}	6860	{700}			
	20		1/20			75	90	410	{41.8}	341	{34.8}	7742	{790}			
	25		1/25	3	3	60	72	489	{49.9}	407	{41.5}	8134	{830}	Frame number 55	Frame number 50	Frame number 50
	30		1/30			50	60	586	{59.8}	489	{49.9}	8428	{860}			
	40		1/40			37.5	45	782	{79.8}	652	{66.5}	8820	{900}			
	50		1/50			30	36	977	{99.7}	814	{83.1}	9114	{930}			
	60		1/60			25	30	1176	{120}	977	{99.7}	9408	{960}			
HMTA 550	5	5.5	1/5	2	2	300	360	152	{15.5}	126	{12.9}	4900	{500}	P.140 Drawing M-19 (P.164 Drawing B-19)	P.148 Drawing M-46 (P.172 Drawing B-46)	P.156 Drawing M-73 (P.180 Drawing B-73)
	10		1/10			150	180	305	{31.1}	254	{25.9}	5880	{600}			
	15		1/15			100	120	457	{46.6}	380	{38.8}	6860	{700}			
	20		1/20			75	90	609	{62.1}	508	{51.8}	7742	{790}			
	25		1/25	3	3	60	72	726	{74.1}	606	{61.8}	8134	{830}	Frame number 55	Frame number 50	Frame number 50
	30		1/30			50	60	871	{88.9}	726	{74.1}	8428	{860}			
	40		1/40			37.5	45	1166	{119}	968	{98.8}	8820	{900}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. In the case of 1/50 for 2.2 kW, marked with ★, however, the actual reduction ratio is 1/49.286.

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The models marked with * are ones for which the torque is limited.

Hypoid Motor TA Series Specification Chart

HYPOID MOTOR TA

Specification Chart

[] The values in parentheses are for the brake type.

Model number	Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
			L	U	50Hz	60Hz	N·m		{kgf·m}		N	{kgf}	Hollow shaft type	Foot mount	Face mount
							50Hz	60Hz	50Hz	60Hz					
HMTA 100	5	1/5	2	2	300	360	2.7	{0.28}	2.4	{0.24}	588	{60}	P.141 Drawing M-20 (P.165 Drawing B-20) Frame number 30	P.149 Drawing M-47 (P.173 Drawing B-47) Frame number 19	P.157 Drawing M-74 (P.181 Drawing B-74) Frame number 24
	10	1/10			150	180	5.6	{0.57}	4.6	{0.47}	980	{100}			
	15	1/15			100	120	8.3	{0.85}	7.0	{0.71}	1078	{110}			
	20	1/20			75	90	10.8	{1.1}	9.3	{0.95}	1176	{120}			
	25	1/25			60	72	13.7	{1.4}	11.8	{1.2}	1274	{130}			
	30	1/30			50	60	16.7	{1.7}	13.7	{1.4}	1421	{145}			
	40	1/40			37.5	45	22.5	{2.3}	18.6	{1.9}	1617	{165}			
	50	1/50			30	36	27.4	{2.8}	23.5	{2.4}	1862	{190}			
	60	1/60			25	30	31.4	{3.2}	26.5	{2.7}	2009	{205}			
	80	1/80	3	3	18.8	22.5	42.1	{4.3}	35.3	{3.6}	2254	{230}	P.141 Drawing M-21 (P.165 Drawing B-21) Frame number 30	P.149 Drawing M-49 (P.173 Drawing B-49) Frame number 28	P.157 Drawing M-75 (P.181 Drawing B-75) Frame number 28
	100	1/100			15	18	52.9	{5.4}	44.1	{4.5}	2548	{260}			
	120	1/120			12.5	15	63.7	{6.5}	52.9	{5.4}	2793	{285}			
	160	1/160			9.4	11.3	84.3	{8.6}	70.6	{7.2}	3332	{340}			
	200	1/200			7.5	9	106	{10.8}	88.2	{9.0}	3332	{340}			
	300	1/300			5	6	129	{13.2}	108	{11.0}	3332	{340}			
	360	1/360			4.2	5	156	{15.9}	129	{13.2}	3332	{340}			
	480	1/480			3.1	3.8	*169	{17.2}	*169	{17.2}	3332	{340}			
	600	1/600			2.5	3	260	{26.5}	217	{22.1}	4410	{450}			
	720	1/720			2.1	2.5	312	{31.8}	260	{26.5}	4410	{450}			
	960	1/960			1.6	1.9	*374	{38.2}	346	{35.3}	4410	{450}			
	1200	1/1200			1.3	1.5	*374	{38.2}	*374	{38.2}	4410	{450}			
HMTA 200	5	1/5	2	2	300	360	5.6	{0.57}	4.6	{0.47}	588	{60}	P.142 Drawing M-23 (P.166 Drawing B-23) Frame number 30	P.150 Drawing M-51 (P.174 Drawing B-51) Frame number 19	P.158 Drawing M-77 (P.182 Drawing B-77) Frame number 28
	10	1/10			150	180	10.8	{1.1}	9.3	{0.95}	980	{100}			
	15	1/15			100	120	16.7	{1.7}	13.7	{1.4}	1078	{110}			
	20	1/20			75	90	22.5	{2.3}	18.6	{1.9}	1176	{120}			
	25	1/25			60	72	27.4	{2.8}	23.5	{2.4}	1274	{130}			
	30	1/30			50	60	33.3	{3.4}	27.4	{2.8}	1421	{145}			
	40	1/40			37.5	45	44.1	{4.5}	37.2	{3.8}	1617	{165}			
	50	1/50			30	36	55.9	{5.7}	46.1	{4.7}	1862	{190}			
	60	1/60			25	30	66.6	{6.8}	54.9	{5.6}	2009	{205}			
	80	1/80	3	3	18.8	22.5	84.3	{8.6}	70.6	{7.2}	2254	{230}	P.142 Drawing M-24 (P.166 Drawing B-24) Frame number 35	P.150 Drawing M-52 (P.174 Drawing B-52) Frame number 28	P.158 Drawing M-78 (P.182 Drawing B-78) Frame number 38
	100	1/100			15	18	106	{10.8}	88.2	{9.0}	2548	{260}			
	120	1/120			12.5	15	126	{12.9}	106	{10.8}	2793	{285}			
	160	1/160			9.4	11.3	169	{17.2}	140	{14.3}	3332	{340}			
	200	1/200			7.5	9	*169	{17.2}	*169	{17.2}	3332	{340}			
	300	1/300			5	6	260	{26.5}	217	{22.1}	4410	{450}			
	360	1/360			4.2	5	312	{31.8}	260	{26.5}	4410	{450}			
	480	1/480			3.1	3.8	*374	{38.2}	*312	{31.8}	4410	{450}			
	600	1/600			2.5	3	506	{51.6}	432	{44.1}	6272	{640}			
	720	1/720			2.1	2.5	607	{61.9}	519	{53.0}	6272	{640}			
	960	1/960			1.6	1.9	*621	{63.4}	*621	{63.4}	6272	{640}			
	1200	1/1200			1.3	1.5	*621	{63.4}	*621	{63.4}	6272	{640}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The models marked with * are ones for which the torque is limited.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.1 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-1 0.1kW HMTA010-30H5~200

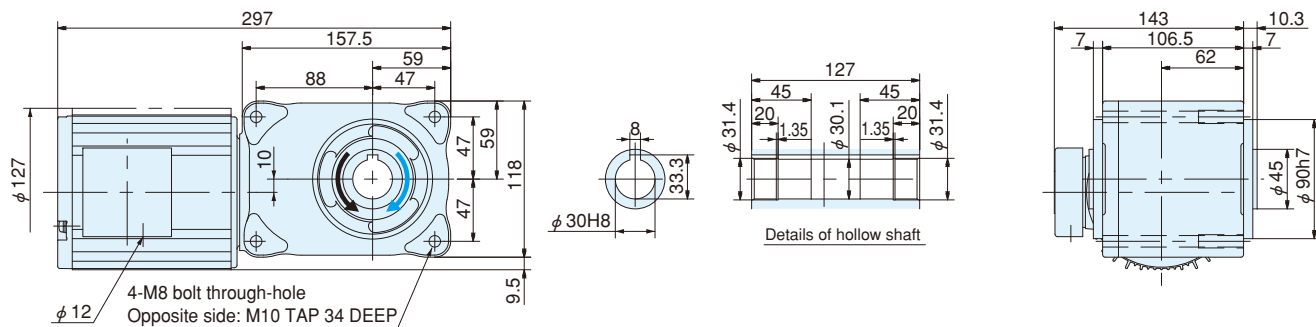
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 9.0kg

Reference page : Specification Chart→P131 Options→P184



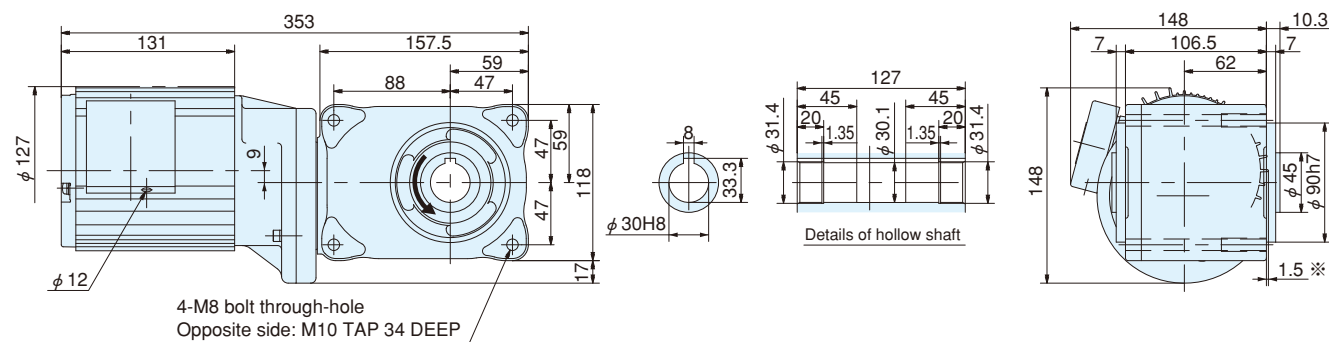
M-2 0.1kW HMTA010-30H300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 11.1kg

Reference page : Specification Chart→P131 Options→P184



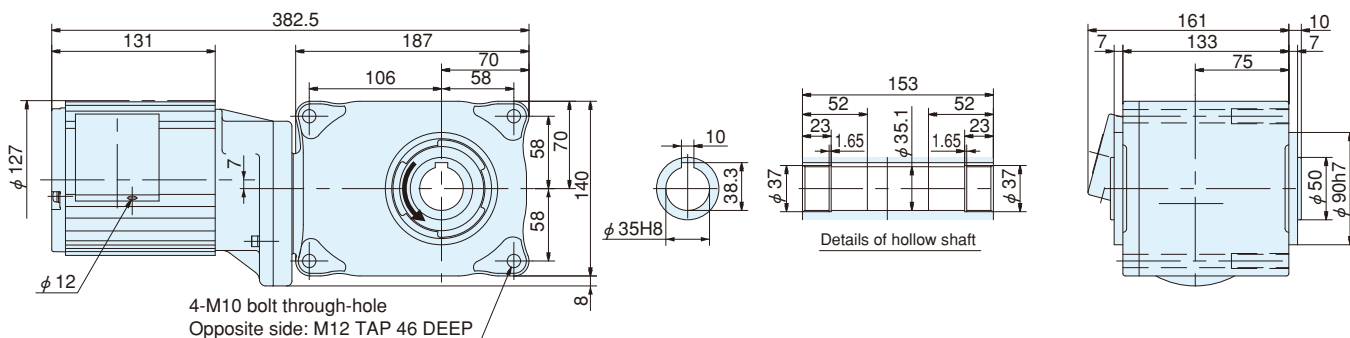
M-3 0.1kW HMTA010-35H600~1200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 14.0kg

Reference page : Specification Chart→P131 Options→P184



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.2 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-4 0.2kW HMTA020-30H5~200

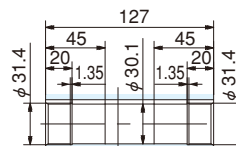
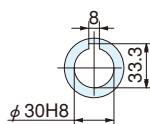
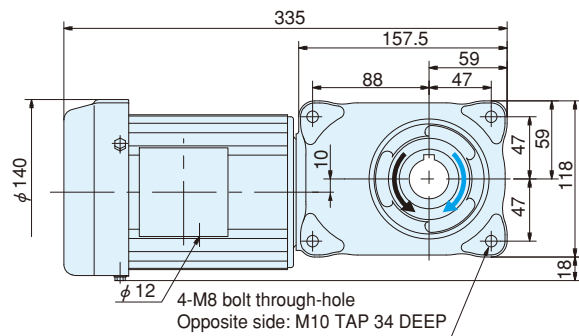
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

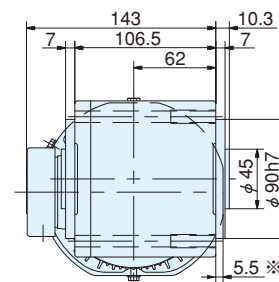
Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 8.8kg

Reference page : Specification Chart→P131 Options→P184



Details of hollow shaft



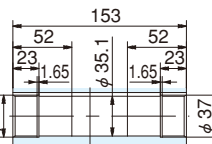
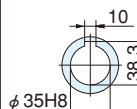
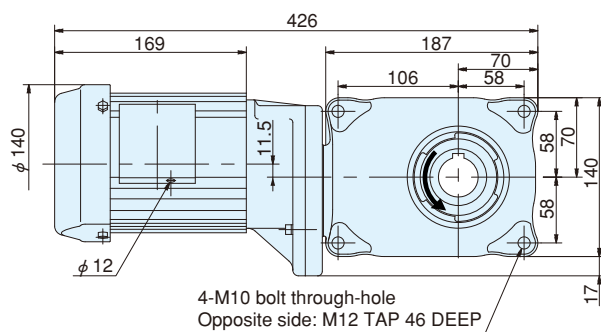
M-5 0.2kW HMTA020-35H300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

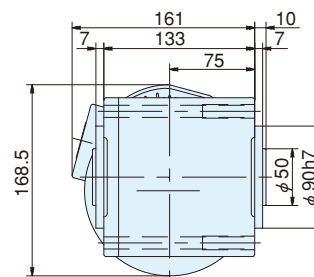
Reduction ratio : 300, 360, 480

Approx. weight : 14.0kg

Reference page : Specification Chart→P131 Options→P184



Details of hollow shaft



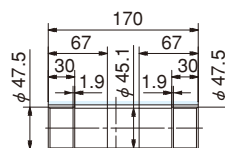
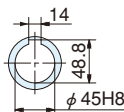
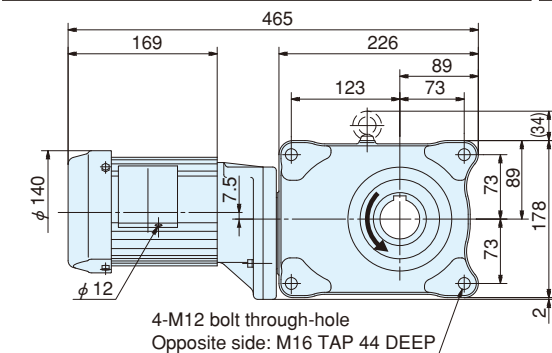
M-6 0.2kW HMTA020-45H600~1200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

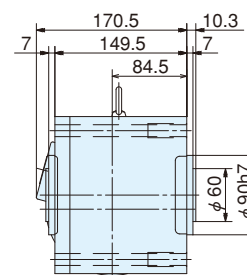
Reduction ratio : 600, 720, 960, 1200

Approx. weight : 21.3kg

Reference page : Specification Chart→P131 Options→P184



Details of hollow shaft



Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.4 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-7 0.4kW HMTA040-30H5~50

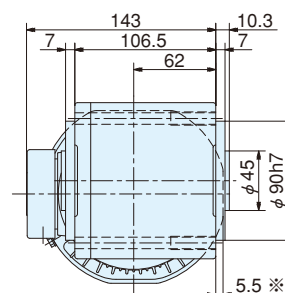
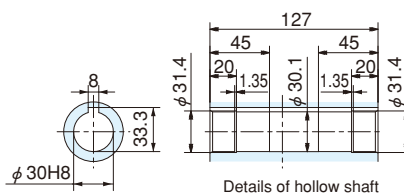
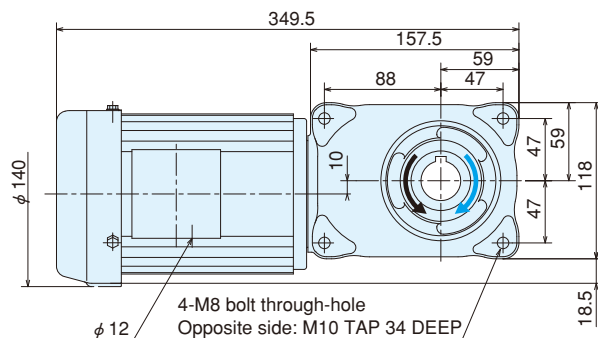
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 9.4kg

Reference page : Specification Chart→P132 Options→P184



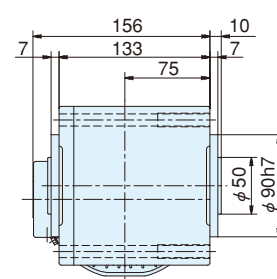
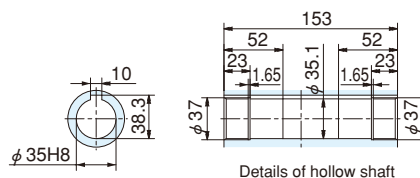
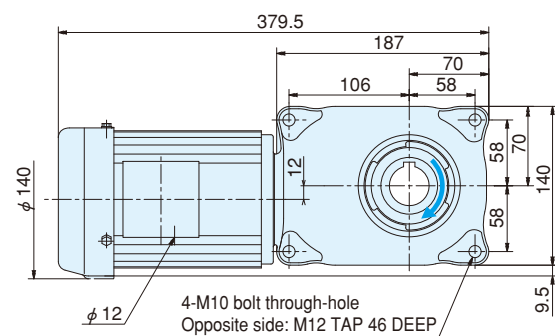
M-8 0.4kW HMTA040-35H60~200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 14.2kg

Reference page : Specification Chart→P132 Options→P184



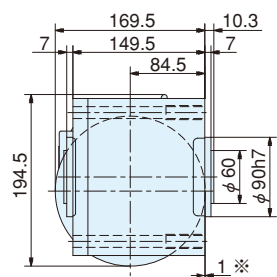
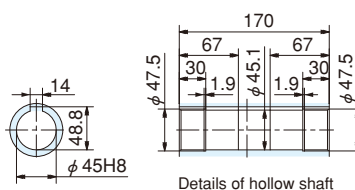
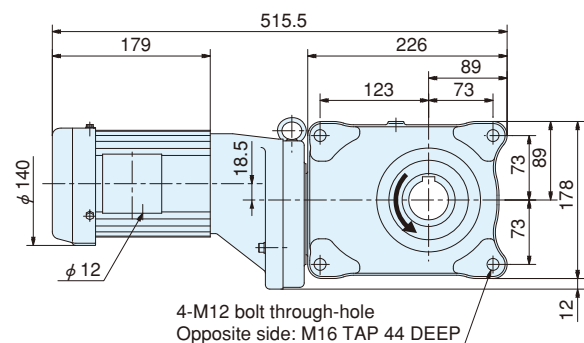
M-9 0.4kW HMTA040-45H300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 26.2kg

Reference page : Specification Chart→P132 Options→P184



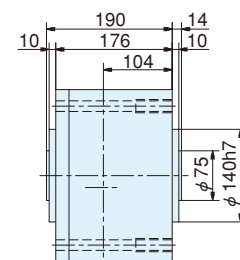
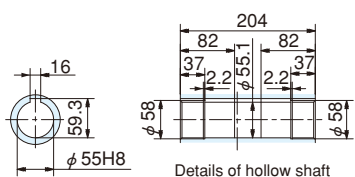
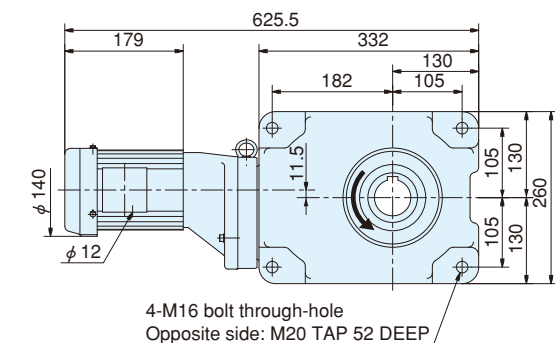
M-10 0.4kW HMTA040-55H600~1200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 52.8kg

Reference page : Specification Chart→P132 Options→P184



Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.75 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-11 0.75kW HMTA075-35H5~50

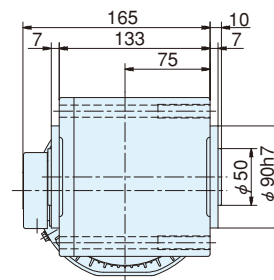
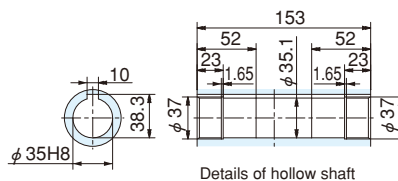
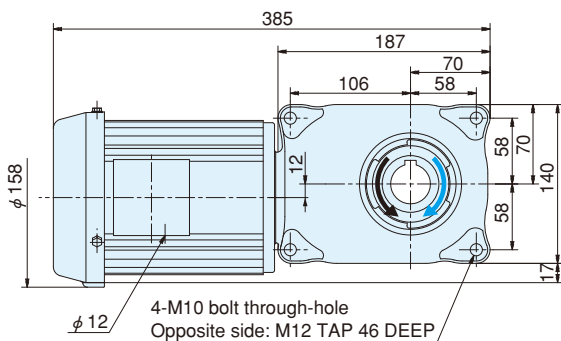
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/240 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 19.0kg

Reference page : Specification Chart→P132 Options→P184



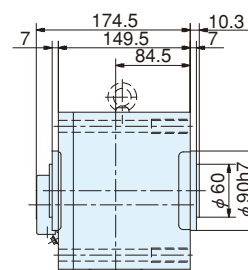
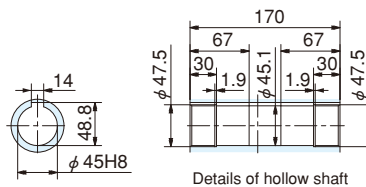
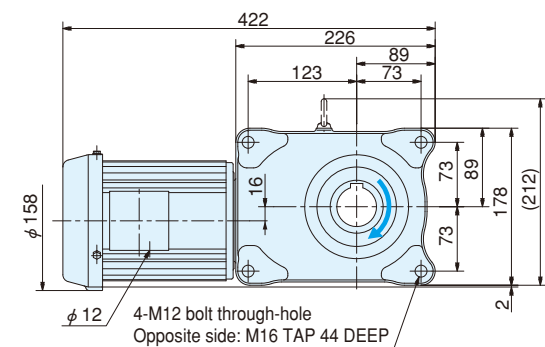
M-12 0.75kW HMTA075-45H60~200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 23.0kg

Reference page : Specification Chart→P132 Options→P184



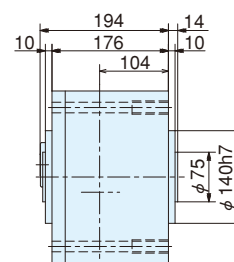
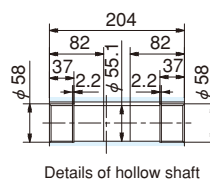
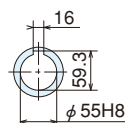
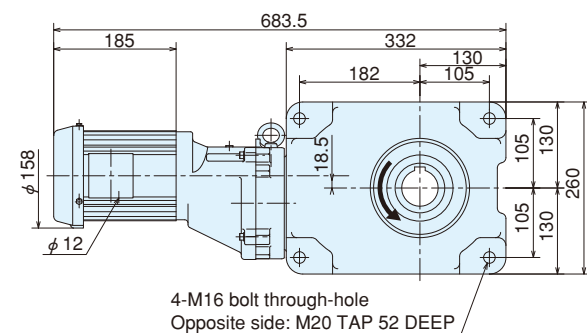
M-13 0.75kW HMTA075-55H300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 61.5kg

Reference page : Specification Chart→P132 Options→P184



Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 1.5 · 2.2 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-14 1.5kW HMTA150-45H5~80

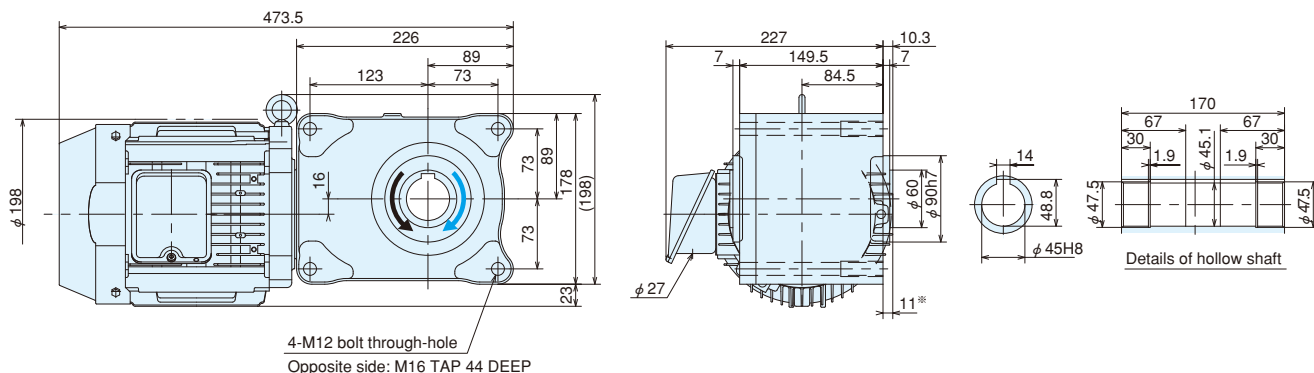
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80

Approx. weight : 29.0kg

Reference page : Specification Chart→P133 Options→P184



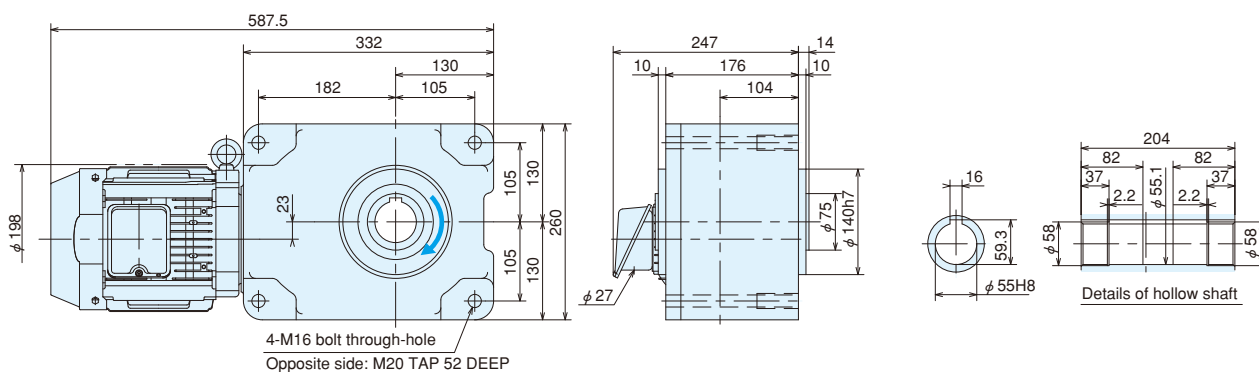
M-15 1.5kW HMTA150-55H100~200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 100, 120, 160, 200

Approx. weight : 57.0kg

Reference page : Specification Chart→P133 Options→P184



M-16 2.2kW HMTA220-45H5~60

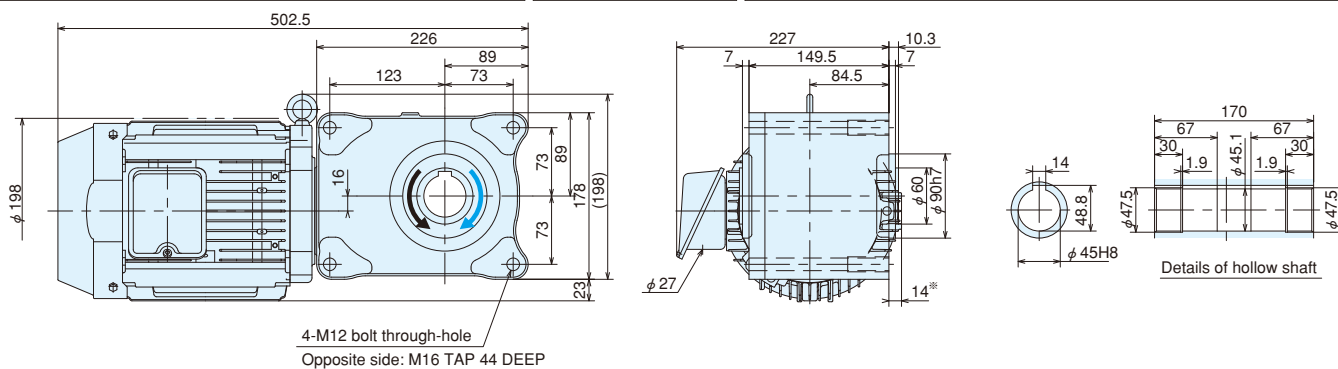
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺、1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 34.0kg

Reference page : Specification Chart→P133 Options→P184



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

H

M-14

M-15

M-16

1.5

2.2

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 2.2 · 3.7 · 5.5 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

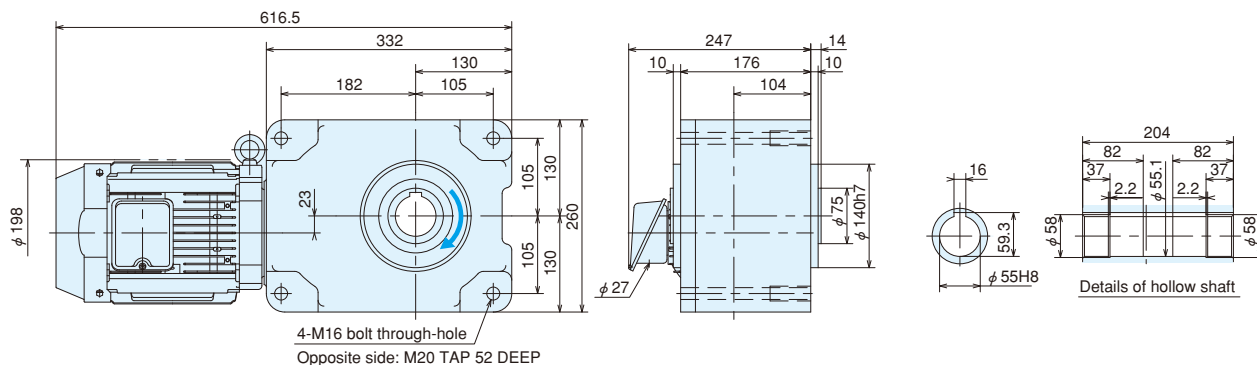
M-17 2.2kW HMTA220-55H80~120

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 80, 100, 120

Approx. weight : 61.0kg

Reference page : Specification Chart→P133 Options→P184



M-18 3.7kW HMTA370-55H5~60

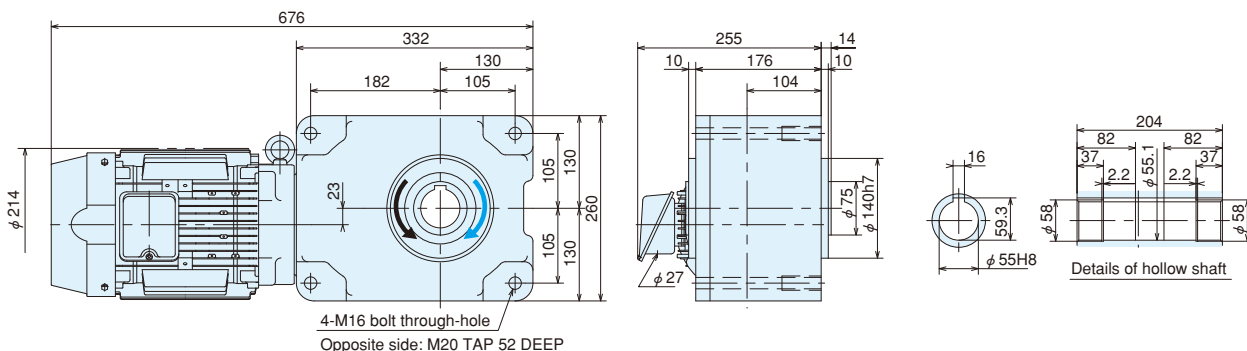
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺, 1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 70.0kg

Reference page : Specification Chart→P133 Options→P184



M-19 5.5kW HMTA550-55H5~40

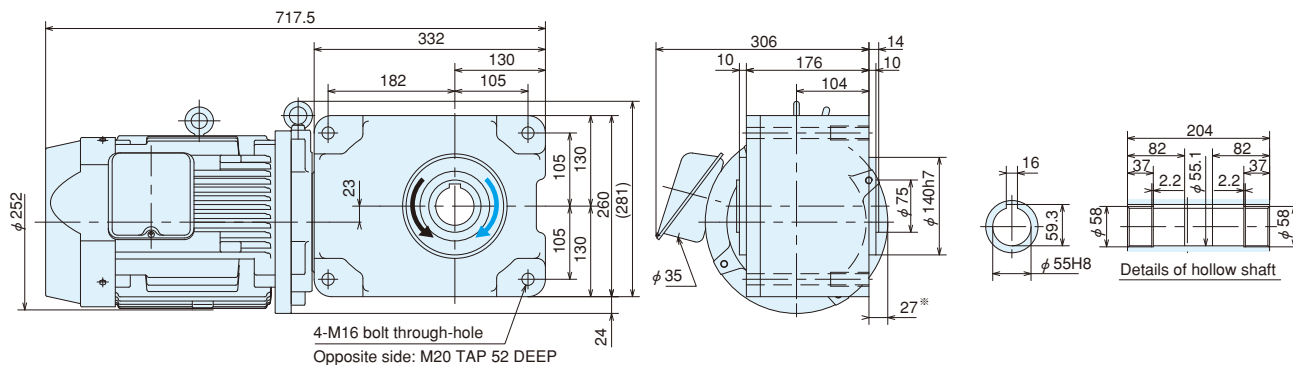
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺, 1/25~1/40 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40

Approx. weight : 91.0g

Reference page : Specification Chart→P133 Options→P184



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 100 W · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-20 100W HMTA100-30H5~200

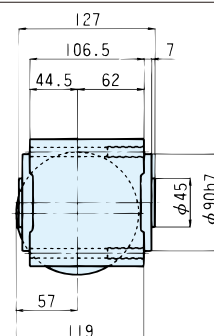
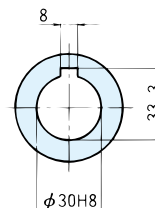
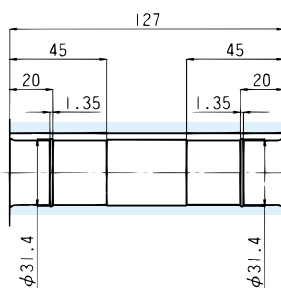
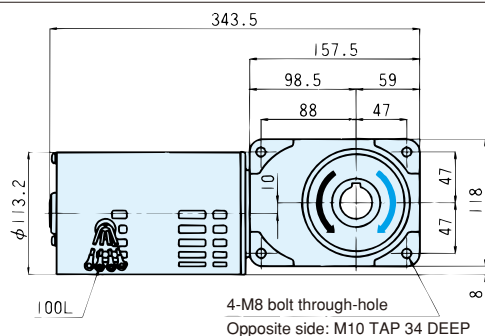
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 9.8kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft

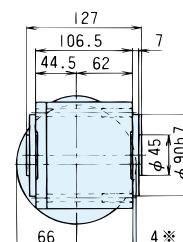
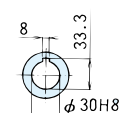
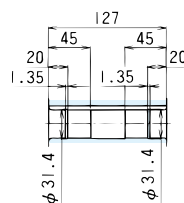
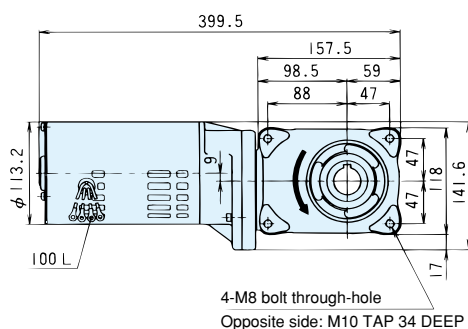
M-21 100W HMTA100-30H300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 11.9kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft

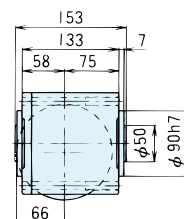
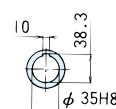
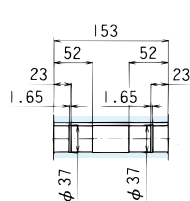
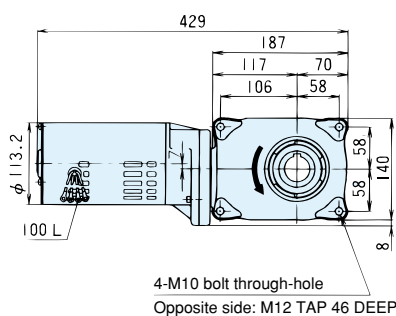
M-22 100W HMTA100-35H600~1200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 14.8kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft

Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

H

M-20

M-21

M-22

100

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 200 W · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Hollow

M-23 200W HMTA200-30H5~200

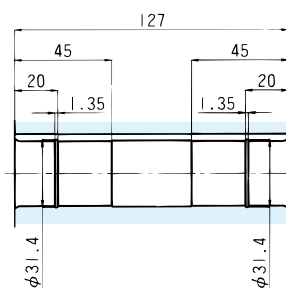
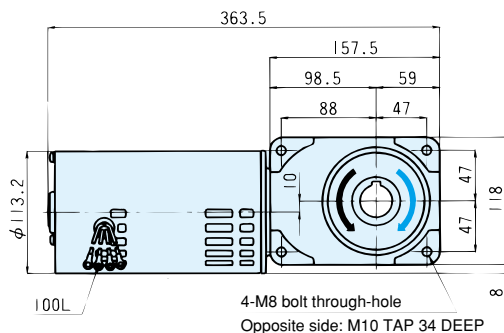
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

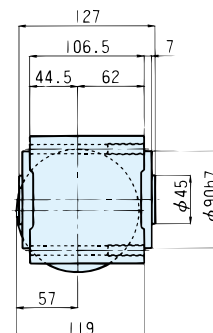
Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 11.4kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft



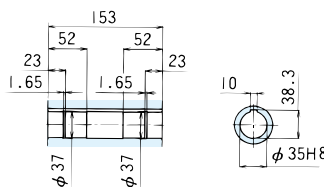
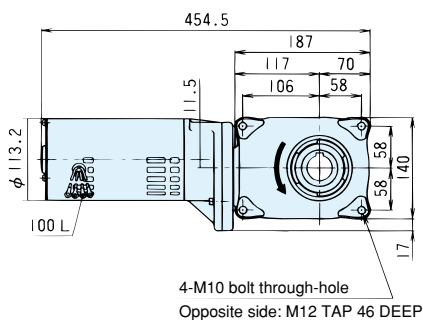
M-24 200W HMTA200-35H300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

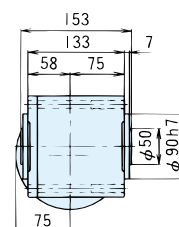
Reduction ratio : 300, 360, 480

Approx. weight : 16.6kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft



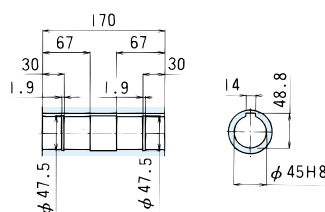
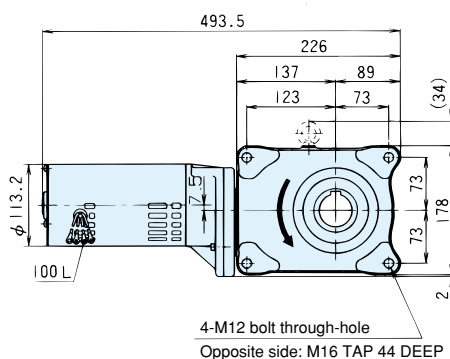
M-25 200W HMTA200-45H600~1200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

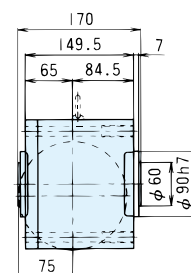
Reduction ratio : 600, 720, 960, 1200

Approx. weight : 23.9kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft



Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.1 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

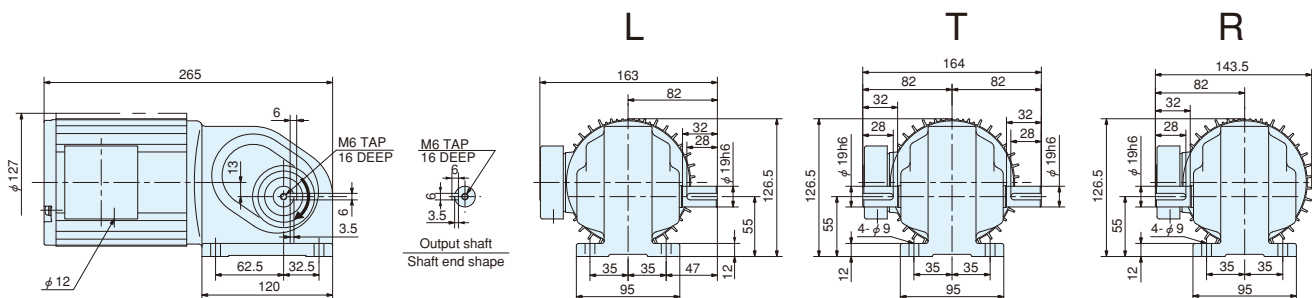
M-26 0.1kW HMTA010-19L5~50 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 6.0kg

Reference page : Specification Chart→P131



M-27 0.1kW HMTA010-24L60~200 $\frac{L}{R}$

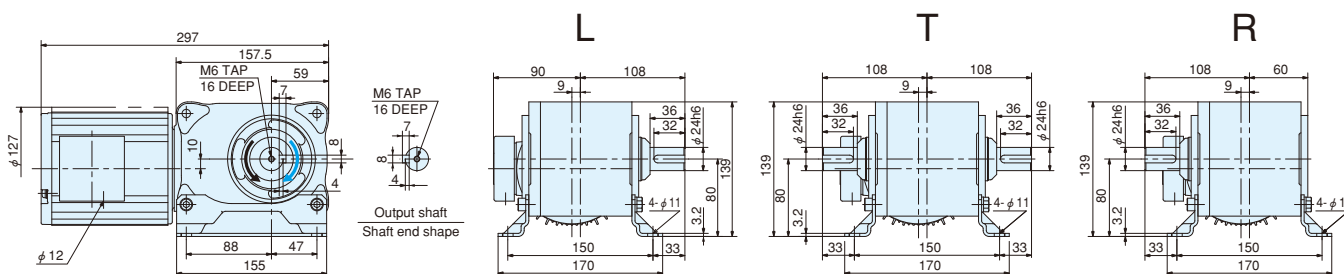
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 10.8kg

Reference page : Specification Chart→P131



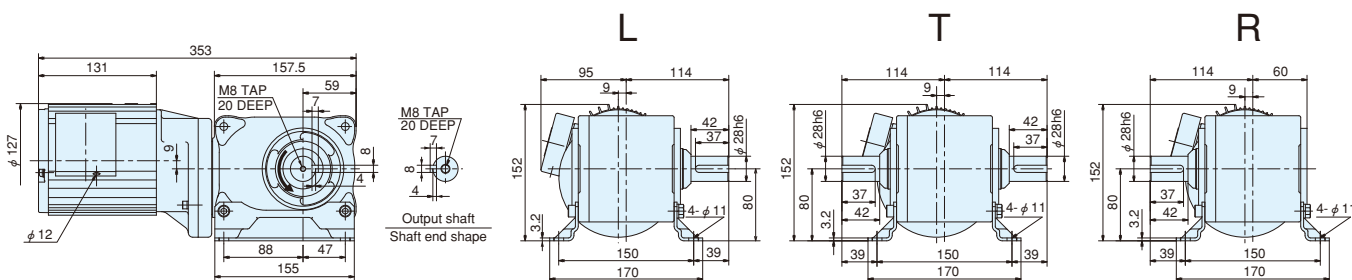
M-28 0.1kW HMTA010-28L300~480 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 13.0kg

Reference page : Specification Chart→P131



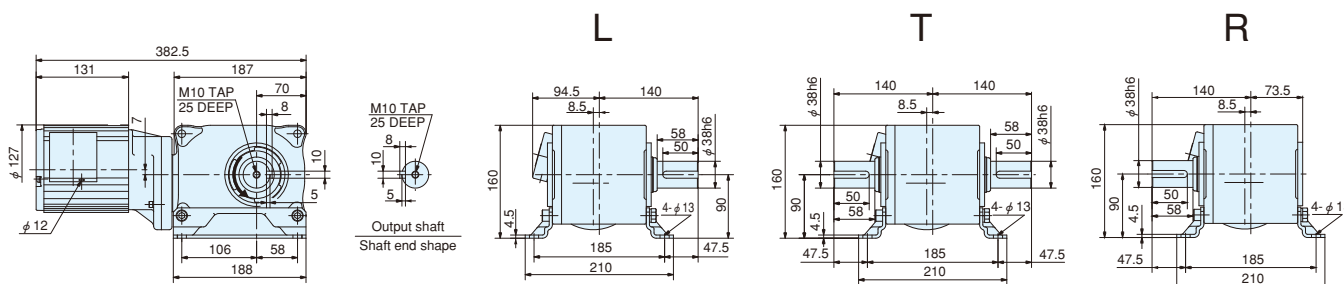
M-29 0.1kW HMTA010-38L600~1200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 16.8kg

Reference page : Specification Chart→P131



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.2 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

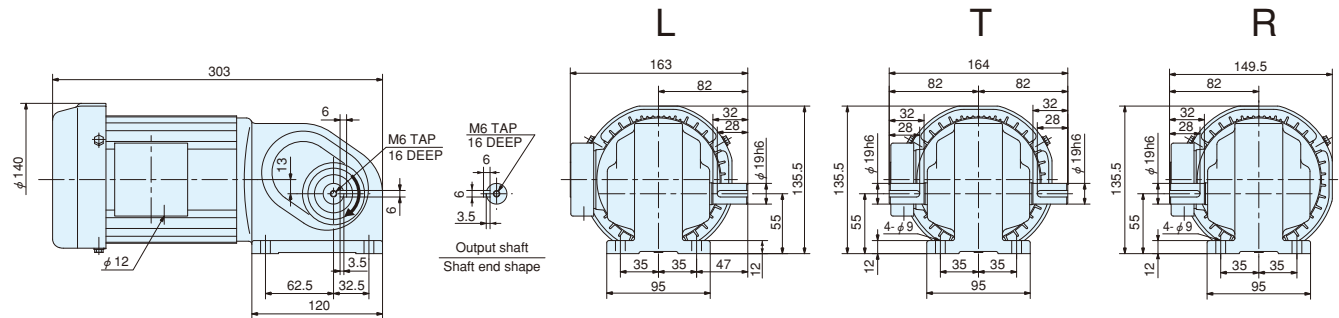
M-30 0.2kW HMTA020-19L5~50 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 6.0kg

Reference page : Specification Chart→P131



M-31 0.2kW HMTA020-28L60~200 $\frac{L}{R}$

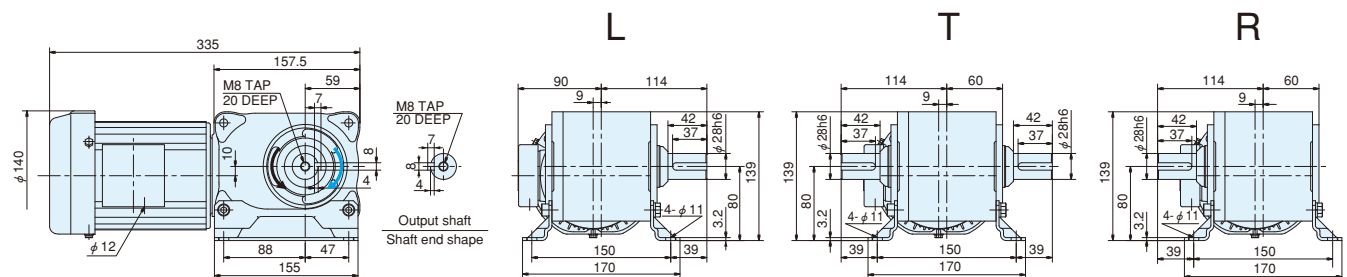
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 10.4kg

Reference page : Specification Chart→P131



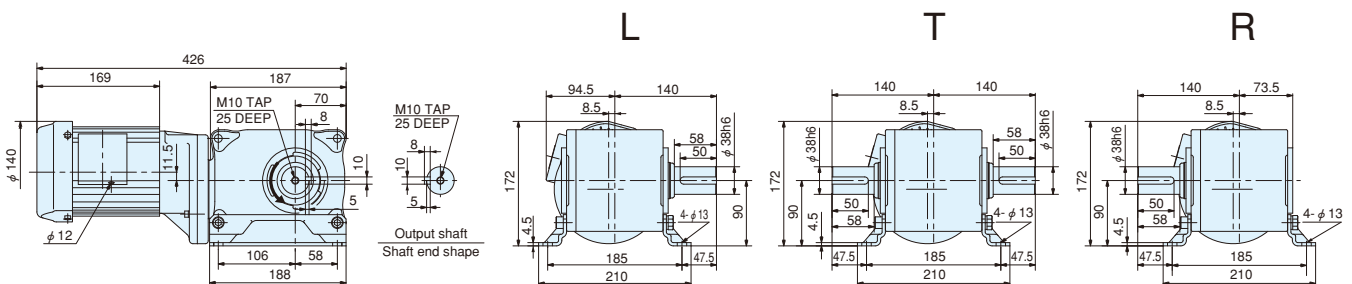
M-32 0.2kW HMTA020-38L300~480 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 16.8kg

Reference page : Specification Chart→P131



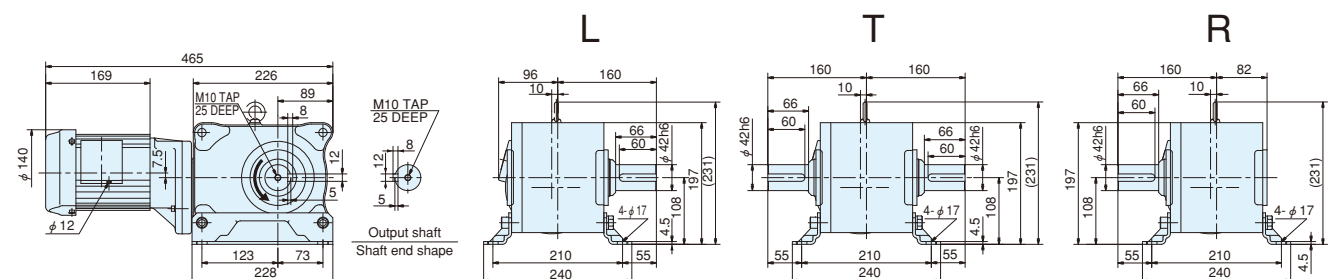
M-33 0.2kW HMTA020-42L600~1200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 26.3kg

Reference page : Specification Chart→P131



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.4 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

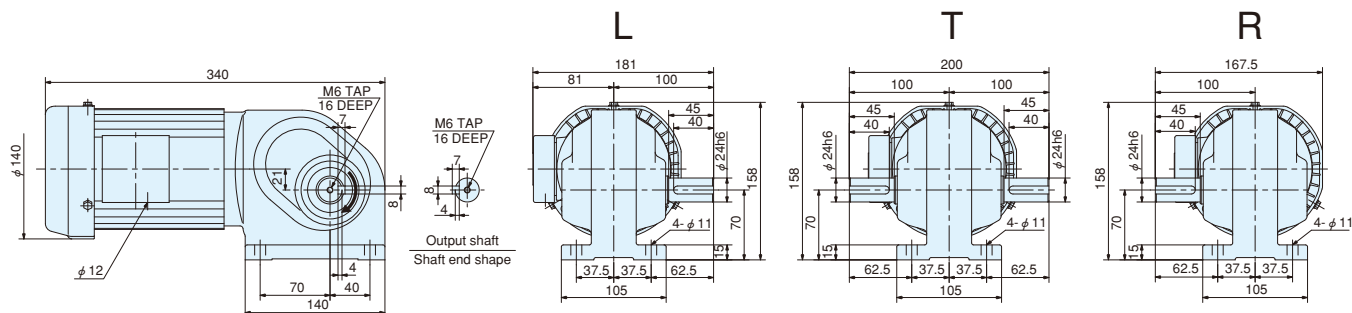
M-34 0.4kW HMTA040-24L5~50 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 8.2kg

Reference page : Specification Chart→P132



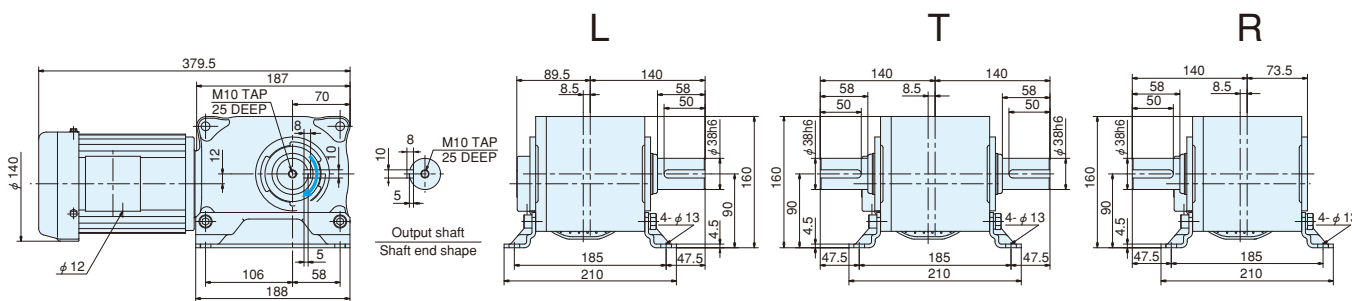
M-35 0.4kW HMTA040-38L60~200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 16.8kg

Reference page : Specification Chart→P132



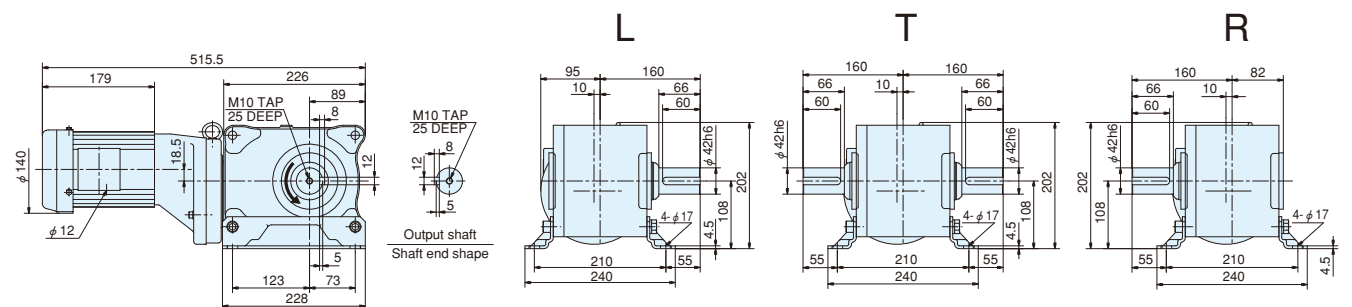
M-36 0.4kW HMTA040-42L300~480 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 31.7kg

Reference page : Specification Chart→P132



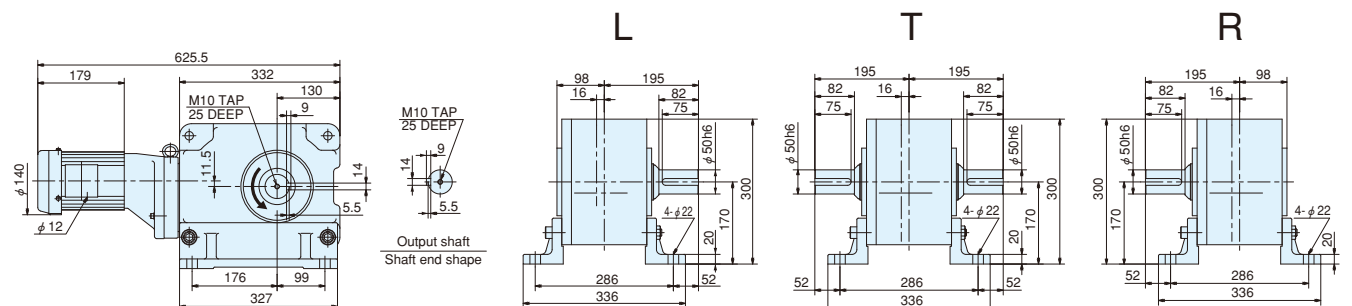
M-37 0.4kW HMTA040-50L600~1200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 75.8kg

Reference page : Specification Chart→P132



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.75 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

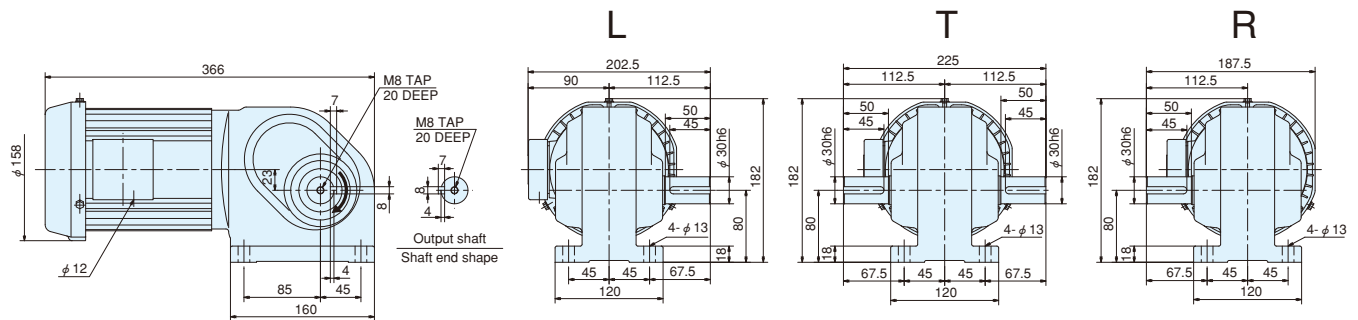
M-38 0.75kW HMTA075-30L5~50 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 16.0kg

Reference page : Specification Chart→P132



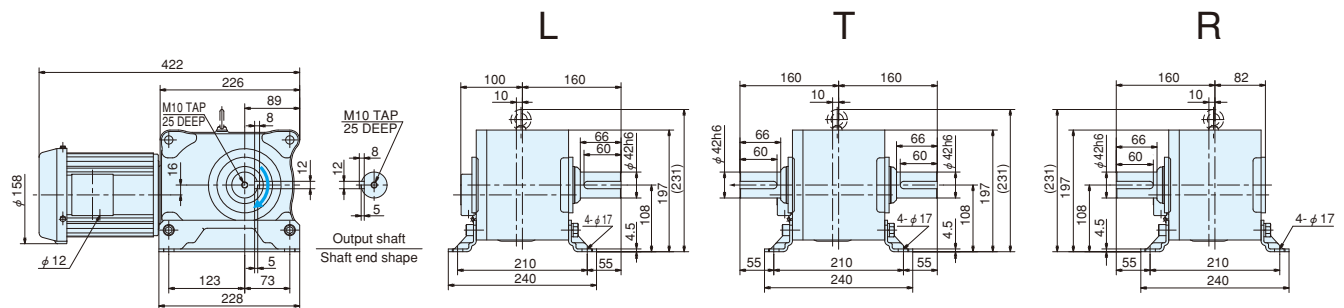
M-39 0.75kW HMTA075-42L60~200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 28.5kg

Reference page : Specification Chart→P132



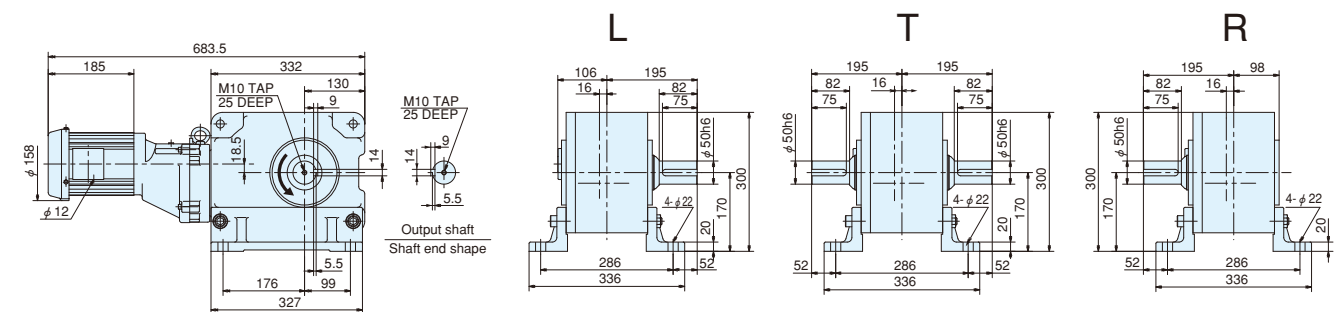
M-40 0.75kW HMTA075-50L300~480 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 84.5kg

Reference page : Specification Chart→P132



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 1.5 · 2.2 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

M-41 1.5kW HMTA150-42L5~80 $\frac{L}{R}$

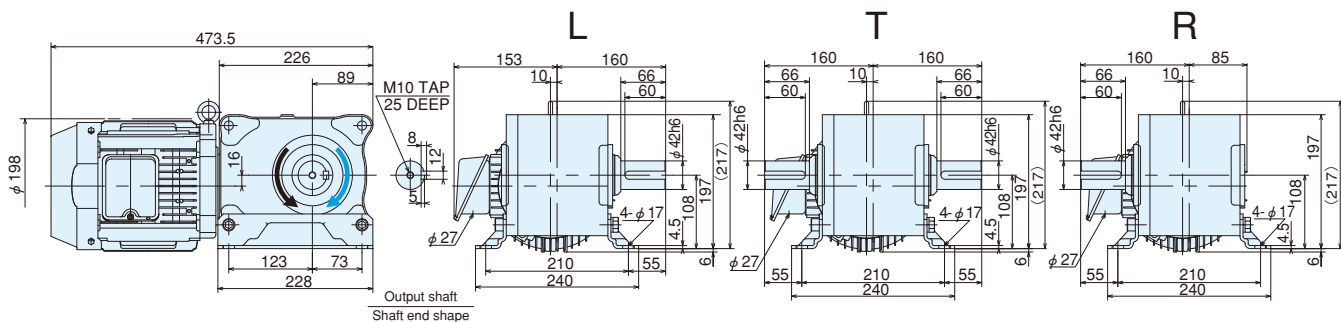
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/80 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80

Approx. weight : 35.0kg

Reference page : Specification Chart→P133



Part of the motor protrudes from the foot undersurface.

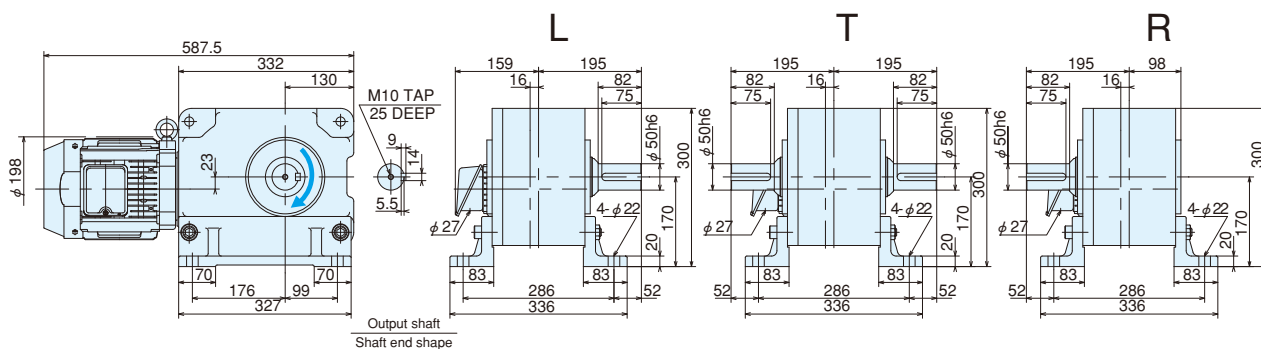
M-42 1.5kW HMTA150-50L100~200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 100, 120, 160, 200

Approx. weight : 81.0kg

Reference page : Specification Chart→P133



M-43 2.2kW HMTA220-42L5~60 $\frac{L}{R}$

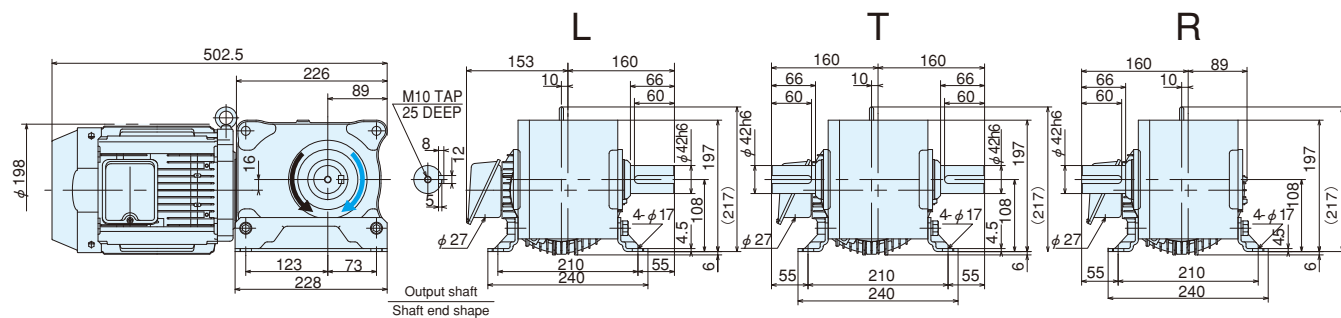
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺、1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 39.0kg

Reference page : Specification Chart→P133



Part of the motor protrudes from the foot undersurface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.
Note) Part of the motor protrudes from the foot undersurface in drawings M-41 and M-43. It is possible to manufacture a motor without protrusion, in which case some dimensions such as the height changes. Please contact us for more information.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 2.2 · 3.7 · 5.5 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

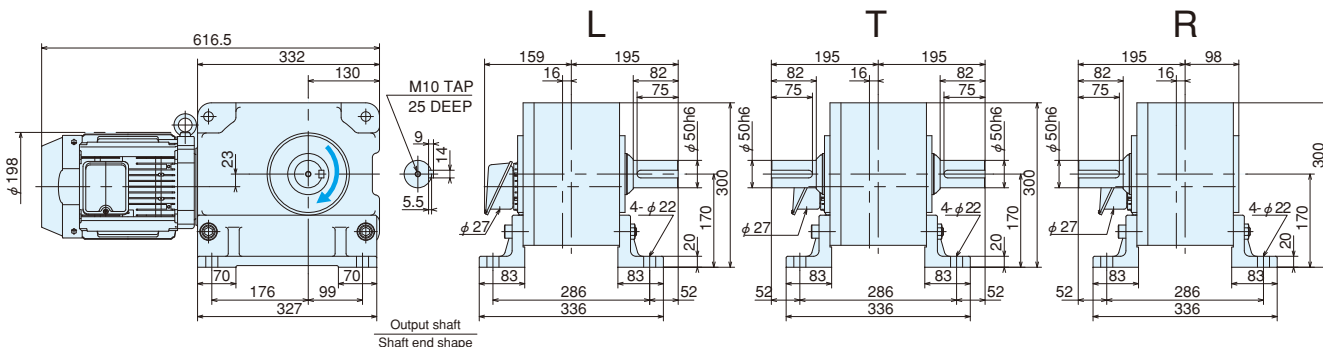
M-44 2.2kW HMTA220-50L80~120 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 80, 100, 120

Approx. weight : 84.0kg

Reference page : Specification Chart→P133



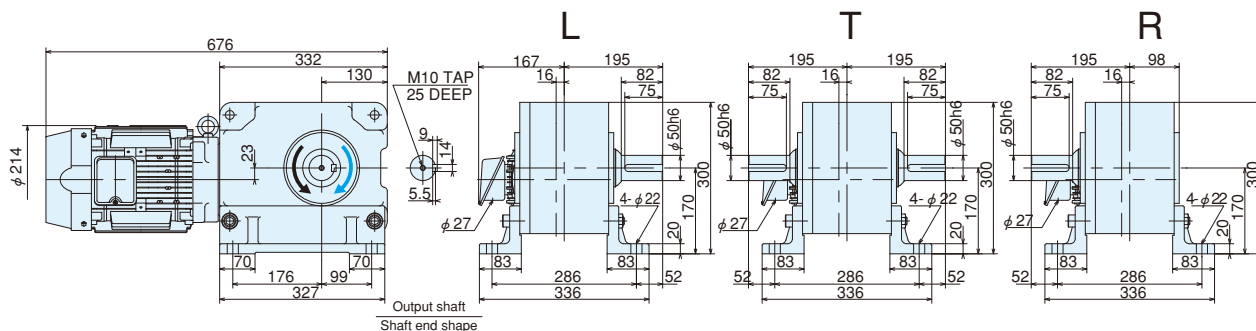
M-45 3.7kW HMTA370-50L5~60 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. $1/5 \sim 1/20$ ↺, $1/25 \sim 1/60$ ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 93.0kg

Reference page : Specification Chart→P133



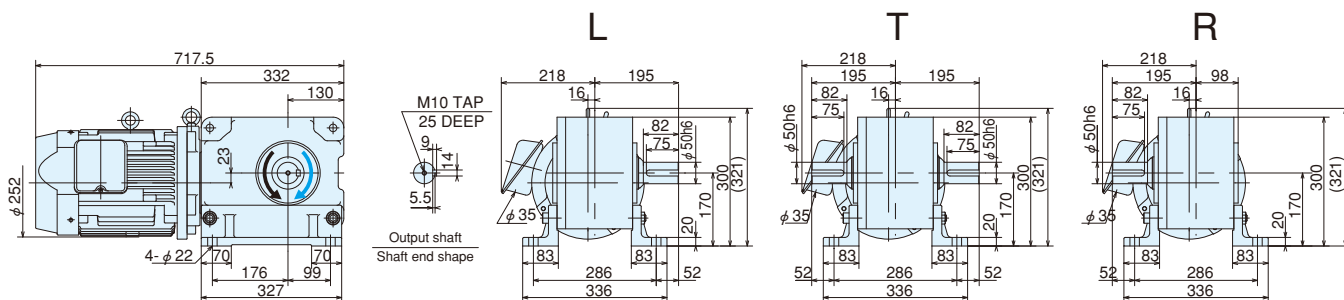
M-46 5.5kW HMTA550-50L5~40 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. $1/5 \sim 1/20$ ↺, $1/25 \sim 1/40$ ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40

Approx. weight : 114.0kg

Reference page : Specification Chart→P133



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Outline Dimensions

L

M-44

M-45

M-46

2.2

3.7

5.5

Hypoid Motor TA Series Outline Dimensions

Foot mount type 100 W · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

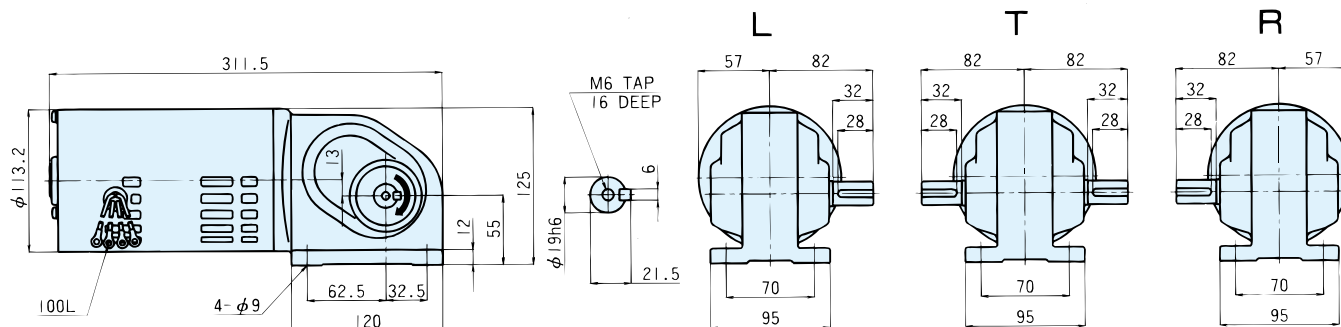
M-47 100W HMTA100-19L5~50 $\frac{L}{T}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 6.6kg

Reference page : Specification Chart→P134



M-48 100W HMTA100-24L60~200 $\frac{L}{T}$

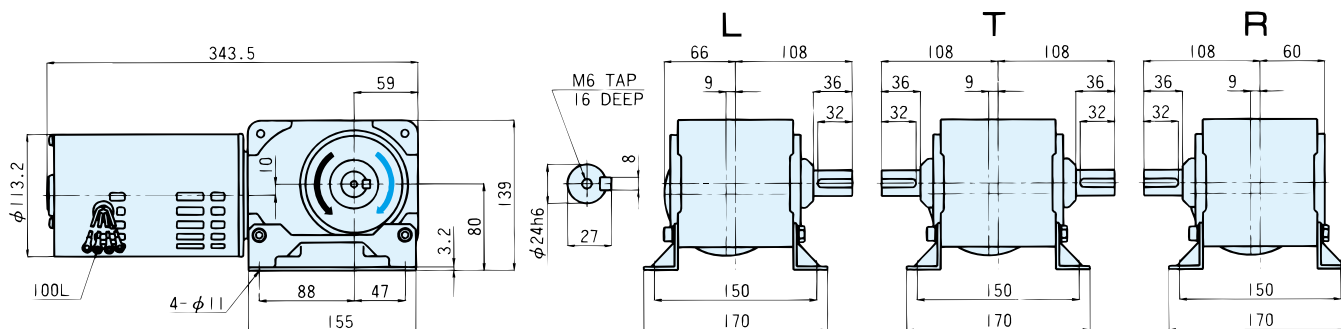
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 11.4kg

Reference page : Specification Chart→P134



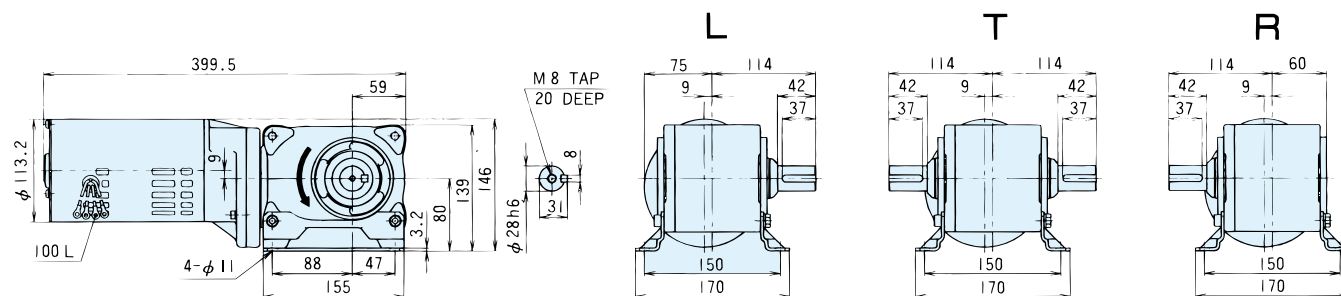
M-49 100W HMTA100-28L300~480 $\frac{L}{T}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 13.8kg

Reference page : Specification Chart→P134



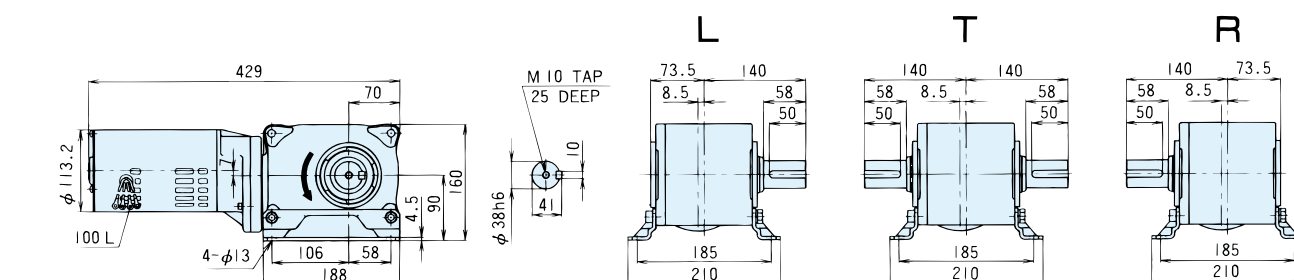
M-50 100W HMTA100-38L600~1200 $\frac{L}{T}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 17.6kg

Reference page : Specification Chart→P134



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 200 W · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Foot mount

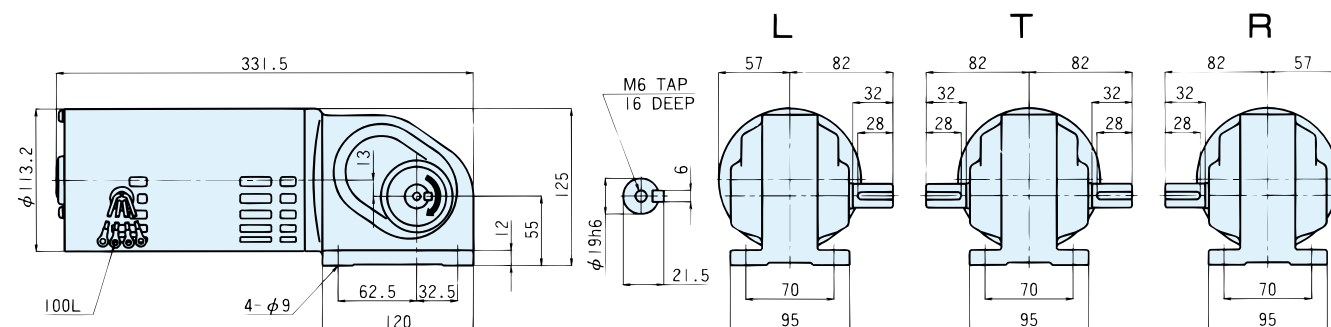
M-51 200W HMTA200-19L5~50 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 8.6kg

Reference page : Specification Chart→P134



M-52 200W HMTA200-28L60~200 $\frac{L}{R}$

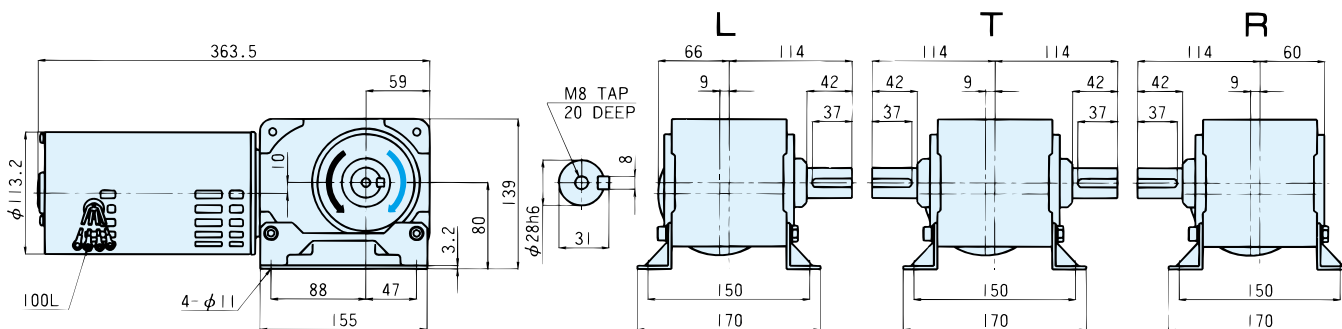
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 $\curvearrowright$, 1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 13.0kg

Reference page : Specification Chart→P134



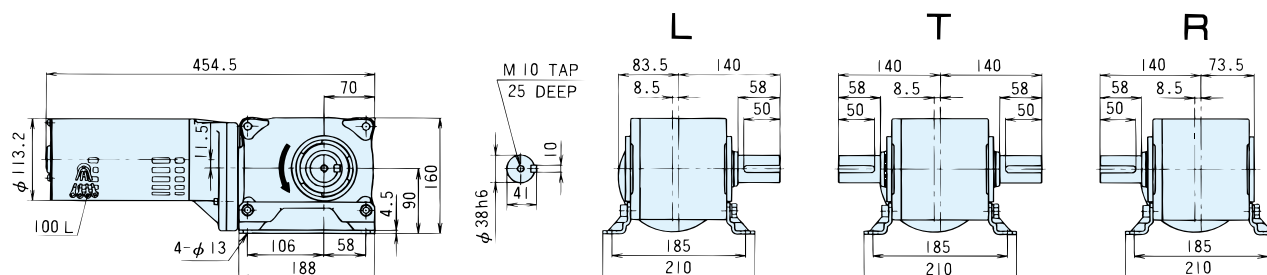
M-53 200W HMTA200-38L300~480 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 19.4kg

Reference page : Specification Chart→P134



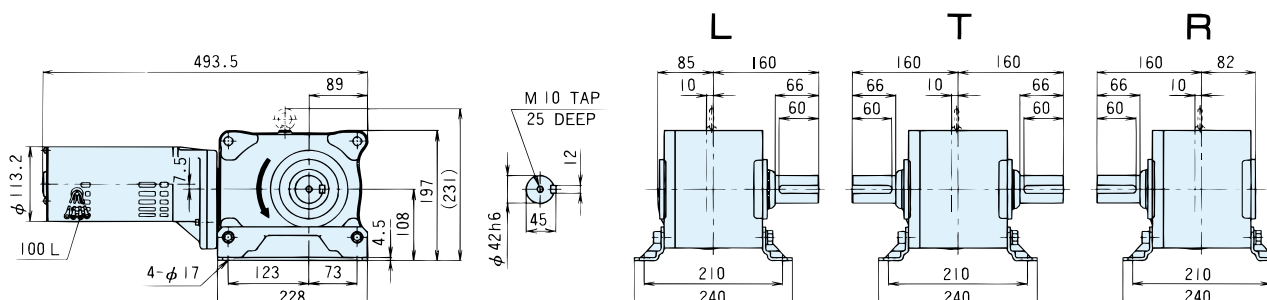
M-54 200W HMTA200-42L600~1200 $\frac{L}{R}$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 29.4kg

Reference page : Specification Chart→P134



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 0.1 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

M-55 0.1kW HMTA010-24U5~200

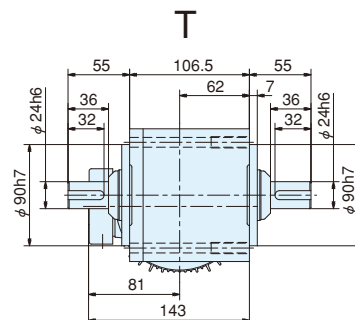
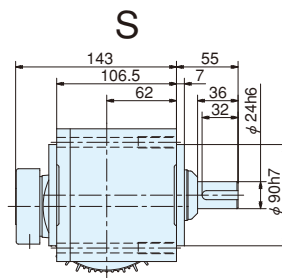
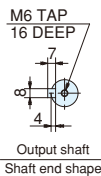
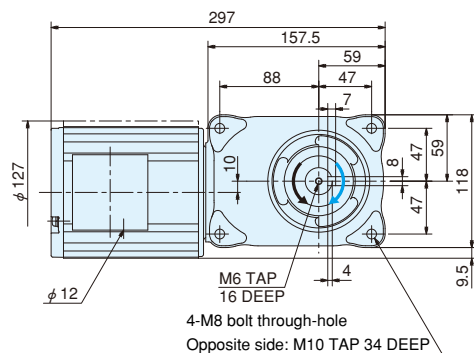
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 10.0kg

Reference page : Specification Chart→P131



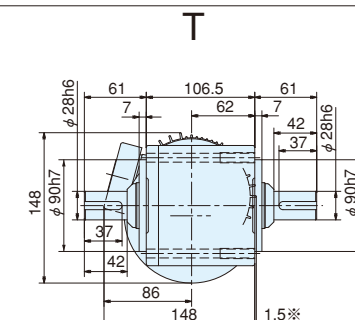
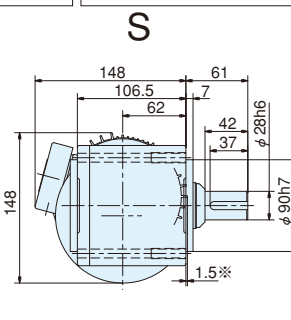
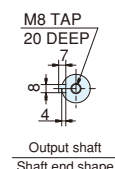
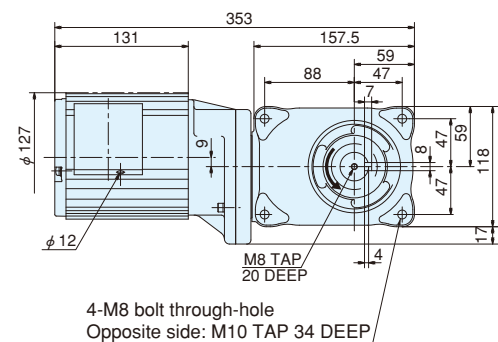
M-56 0.1kW HMTA010-28U300~480

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 12.1kg

Reference page : Specification Chart→P131



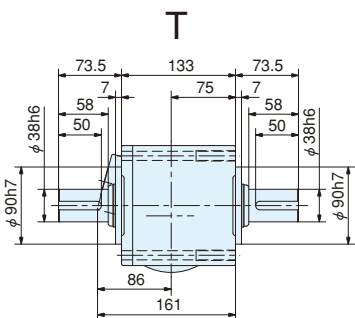
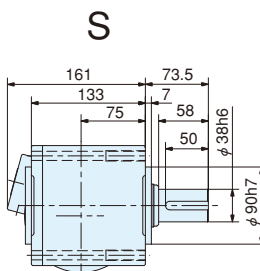
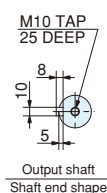
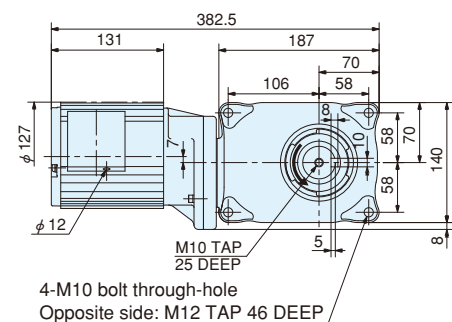
M-57 0.1kW HMTA010-38U600~1200

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 15.8kg

Reference page : Specification Chart→P131



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 0.2 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

M-58 0.2kW HMTA020-28U5~200 ₮

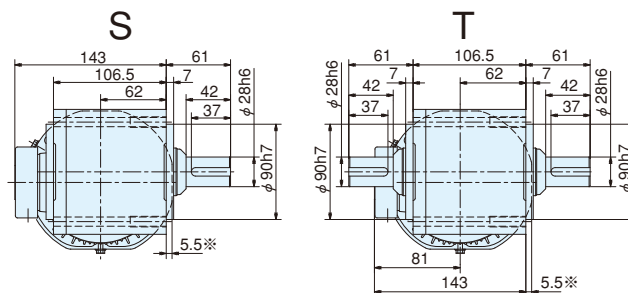
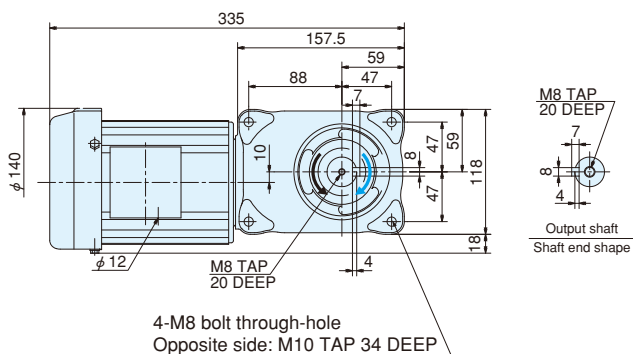
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 9.6kg

Reference page : Specification Chart→P131



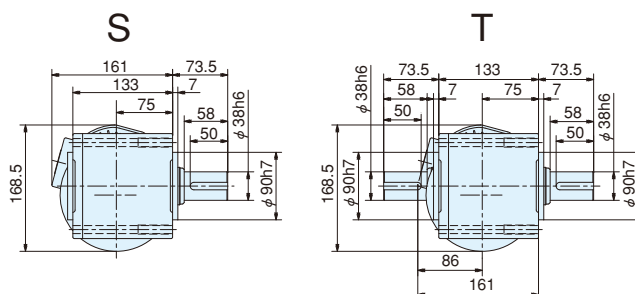
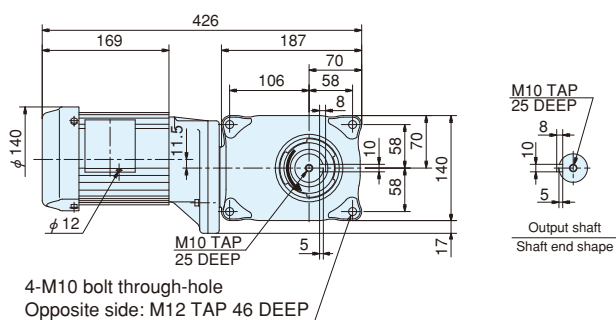
M-59 0.2kW HMTA020-38U300~480 ₮

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 15.8kg

Reference page : Specification Chart→P131



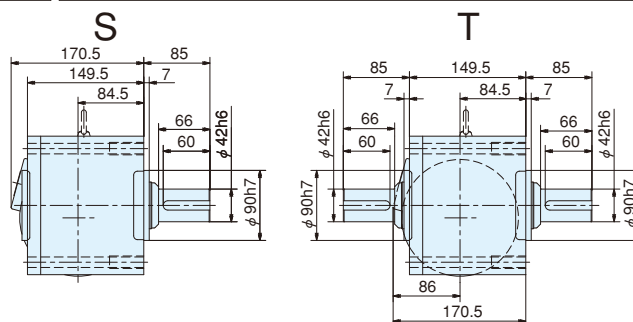
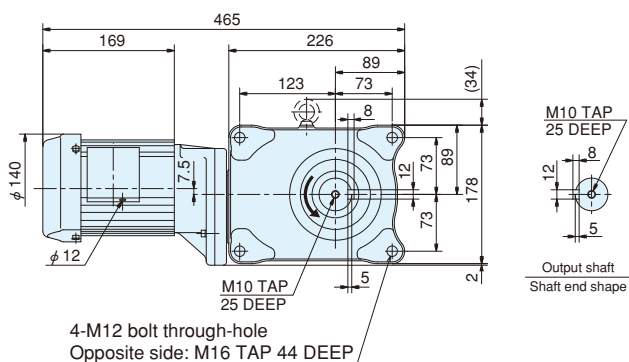
M-60 0.2kW HMTA020-42U600~1200 ₮

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 25.3kg

Reference page : Specification Chart→P131

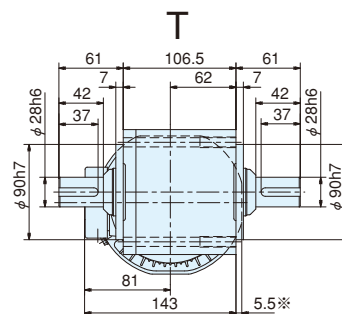


Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

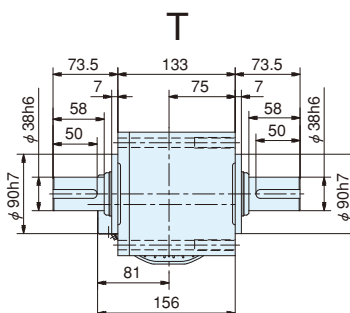
Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

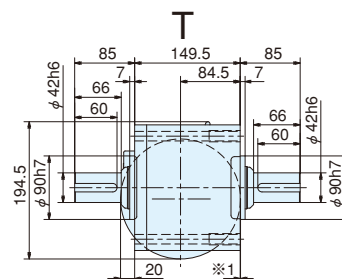
Reference page : Specification Chart→P132



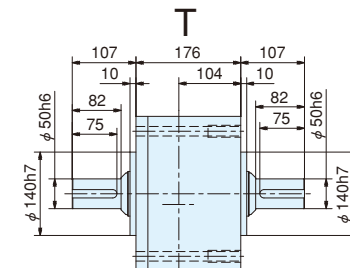
Reference page : Specification Chart→P132



Reference page : Specification Chart→P132



Reference page : Specification Chart→P132



Hypoid Motor TA Series Outline Dimensions

Face mount type 0.75 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

M-65 0.75kW HMTA075-38U5~50^S

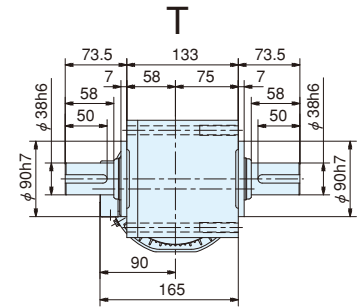
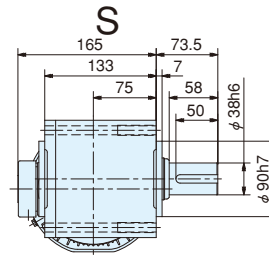
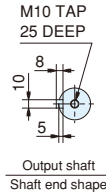
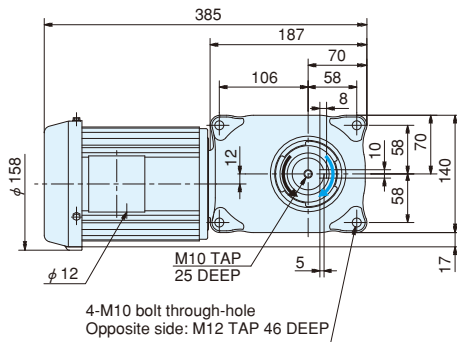
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 21.0kg

Reference page : Specification Chart→P132



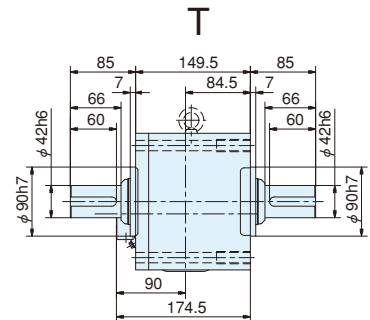
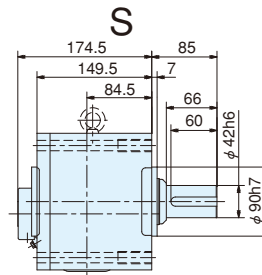
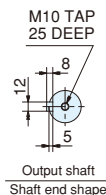
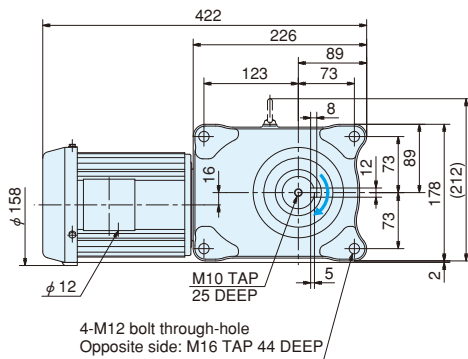
M-66 0.75kW HMTA075-42U60~200^S

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 27.0g

Reference page : Specification Chart→P132



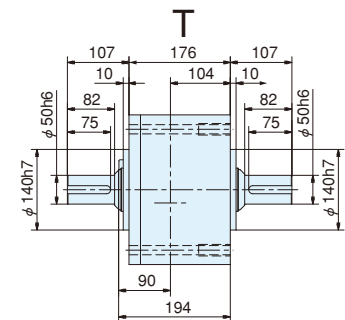
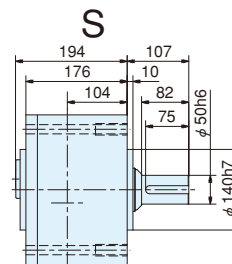
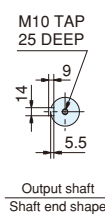
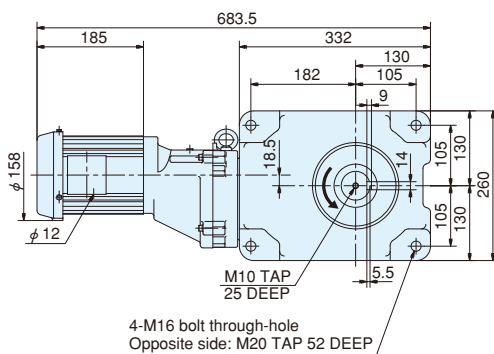
M-67 0.75kW HMTA075-50U300~480^S

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 67.5kg

Reference page : Specification Chart→P132



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 1.5 · 2.2 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

M-68 1.5kW HMTA150-42U5~80 S T

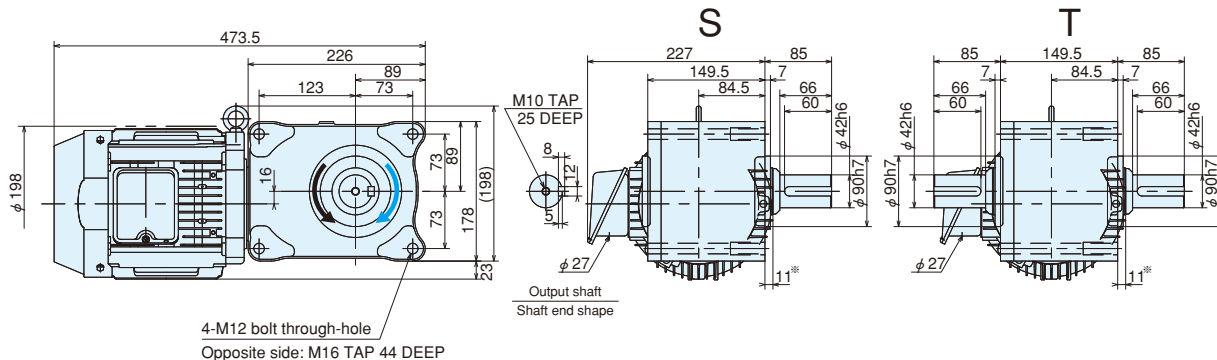
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺, 1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80

Approx. weight : 33.0kg

Reference page : Specification Chart→P133



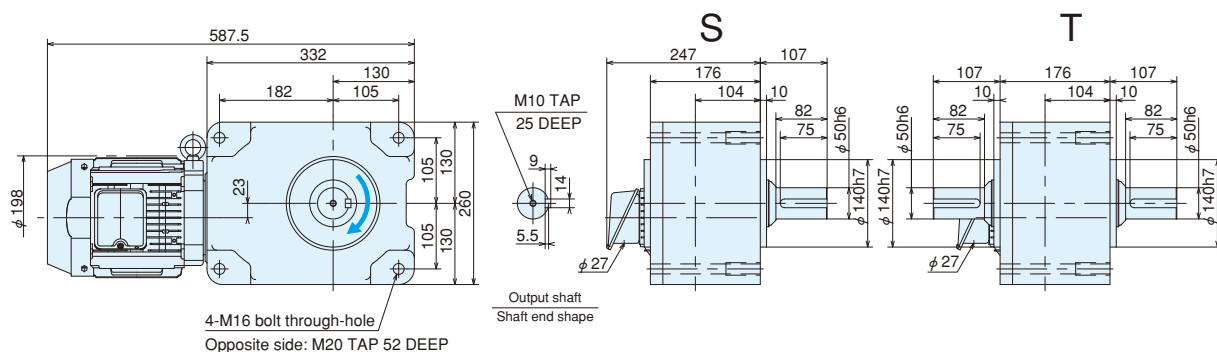
M-69 1.5kW HMTA150-50U100~200 S T

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 100, 120, 160, 200

Approx. weight : 63.0kg

Reference page : Specification Chart→P133



M-70 2.2kW HMTA220-42U5~60 S T

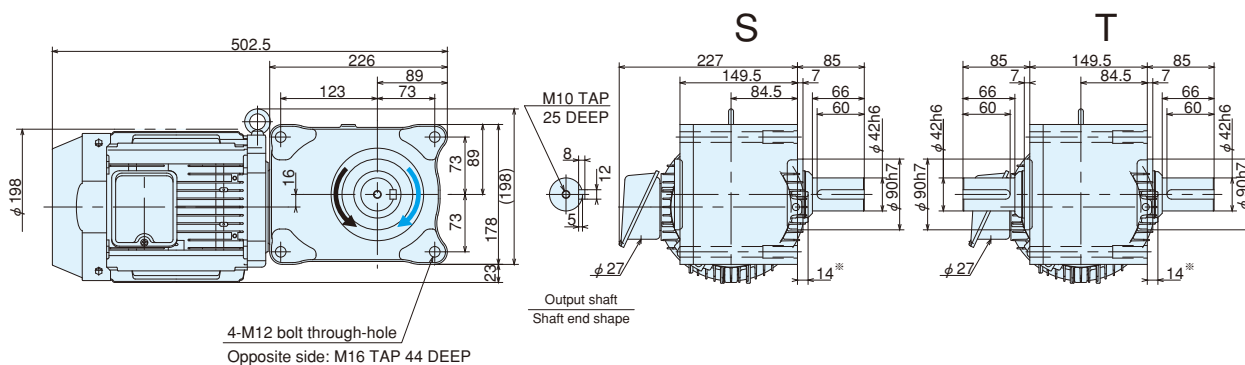
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺, 1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 38.0kg

Reference page : Specification Chart→P133



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

U

M-68

M-69

M-70

1.5

2.2

Hypoid Motor TA Series Outline Dimensions

Face mount type 2.2 · 3.7 · 5.5 kW · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

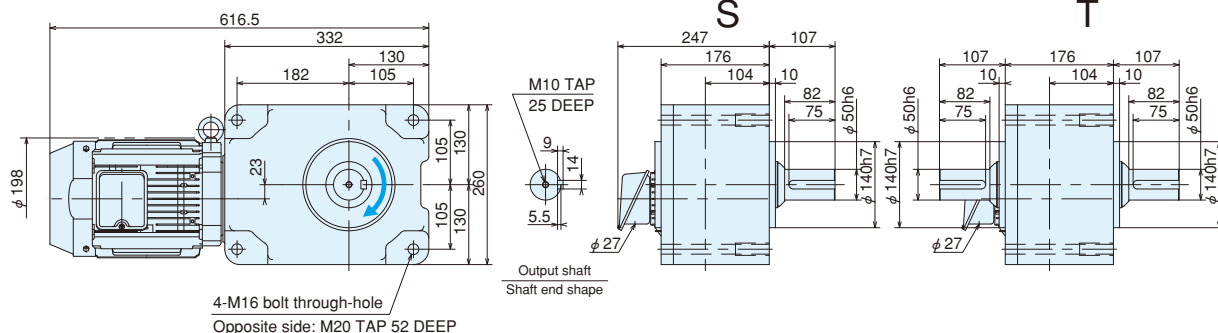
M-71 2.2kW HMTA220-50U80~120[§]

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 80, 100, 120

Approx. weight : 67.0kg

Reference page : Specification Chart→P133



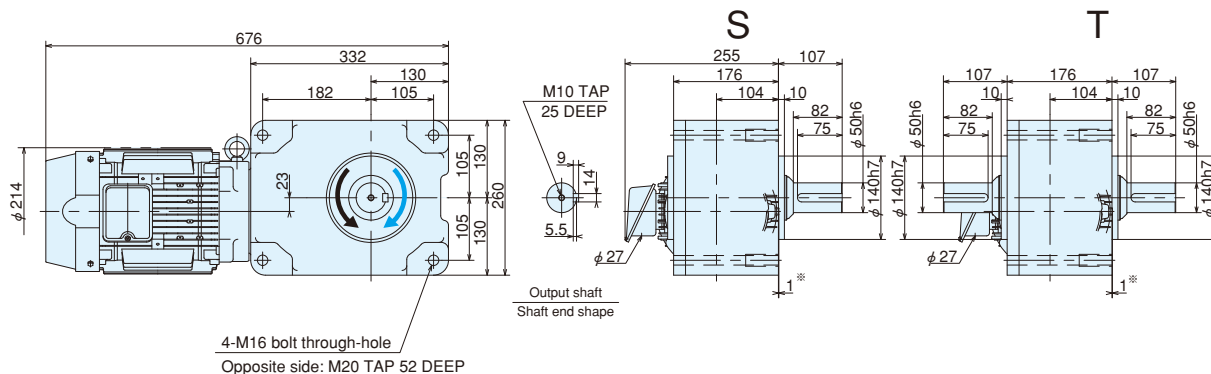
M-72 3.7kW HMTA370-50U5~60[§]

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. 1/5~1/20 ↺, 1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 76.0kg

Reference page : Specification Chart→P133



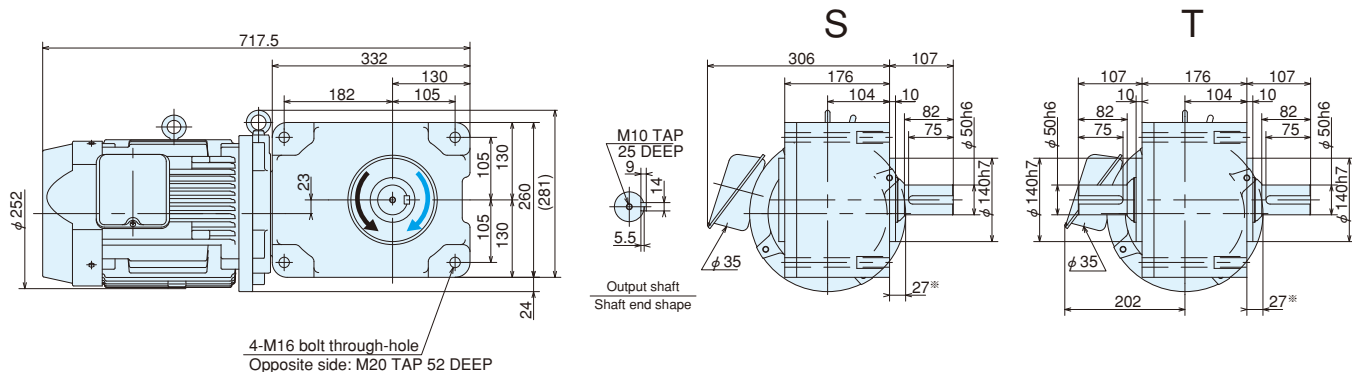
M-73 5.5kW HMTA550-50U5~40[§]

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. 1/5~1/20 ↺, 1/25~1/40 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40

Approx. weight : 97.0kg

Reference page : Specification Chart→P133



Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 100 W · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

M-74 100W HMTA100-24U5~200⁵

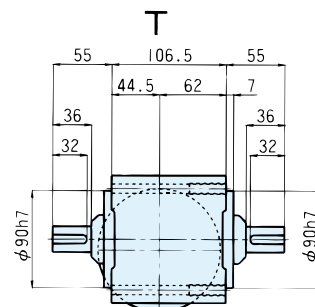
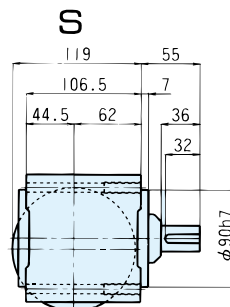
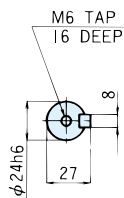
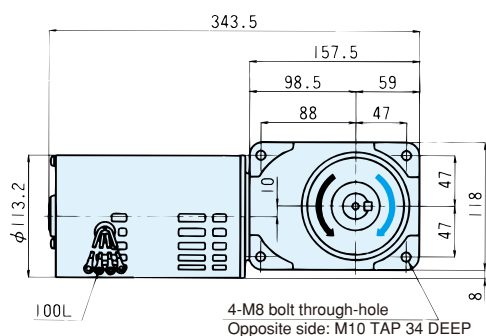
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 10.7kg

Reference page : Specification Chart→P134



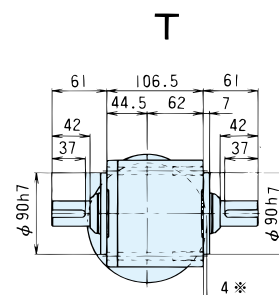
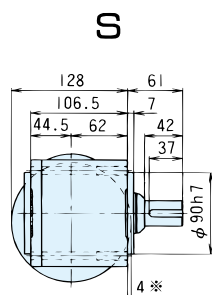
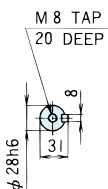
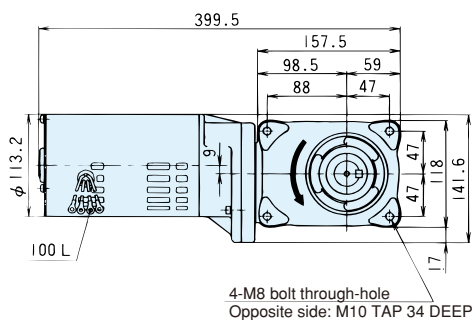
M-75 100W HMTA100-28U300~480⁵

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 12.9kg

Reference page : Specification Chart→P134



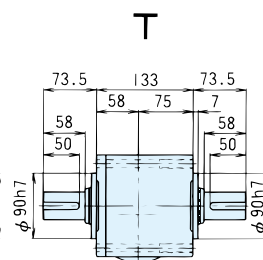
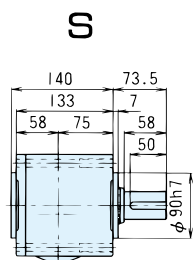
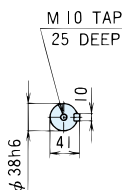
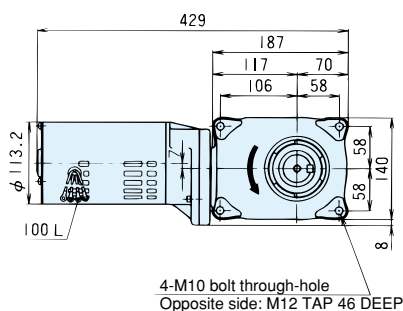
M-76 100W HMTA100-38U600~1200⁵

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 16.6kg

Reference page : Specification Chart→P134



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

U

M-74

M-75

M-76

100

Hypoid Motor TA Series Outline Dimensions

Face mount type 200 W · Non-brake type

HYPOID MOTOR TA Outline Dimensions ● Non-brake/Face mount

M-77 200W HMTA200-28U5~200^S

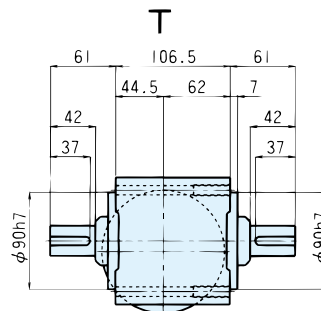
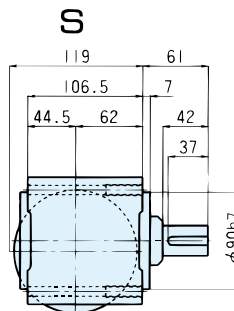
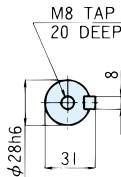
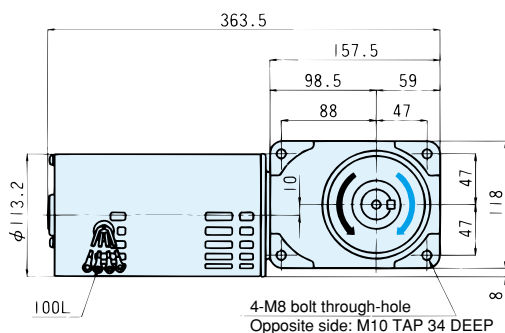
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 12.3kg

Reference page : Specification Chart→P134



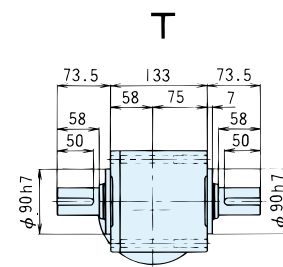
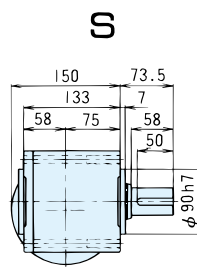
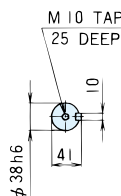
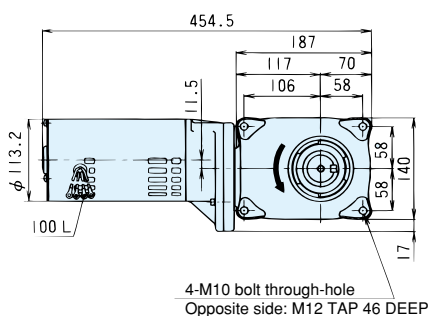
M-78 200W HMTA200-38U300~480^S

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 18.4kg

Reference page : Specification Chart→P134



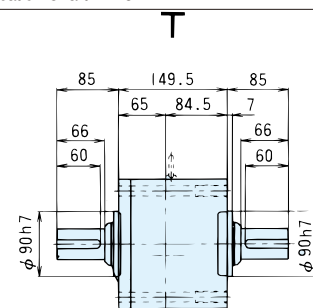
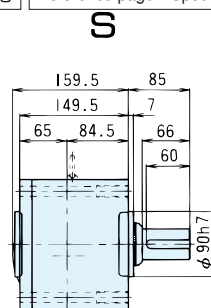
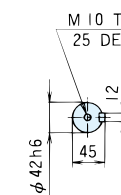
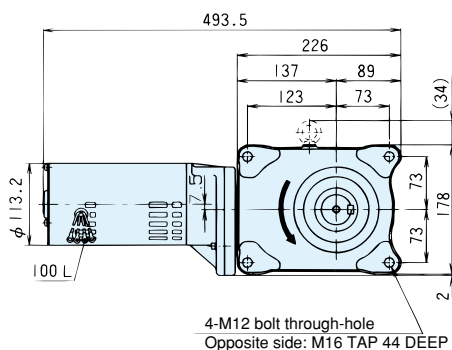
M-79 200W HMTA200-42U600~1200^S

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 27.9kg

Reference page : Specification Chart→P134



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.1 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

B-1 0.1kW HMTA010-30H5~200B

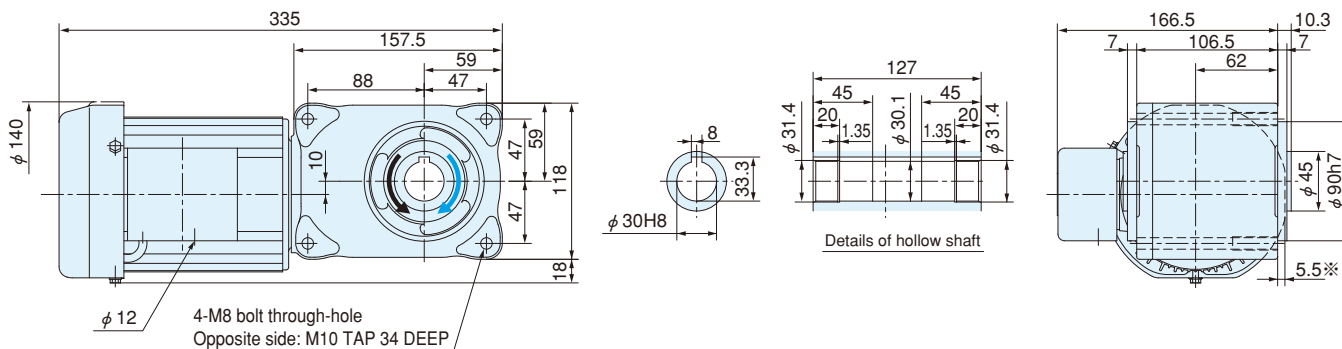
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 10.6kg

Reference page : Specification Chart→P131 Options→P184



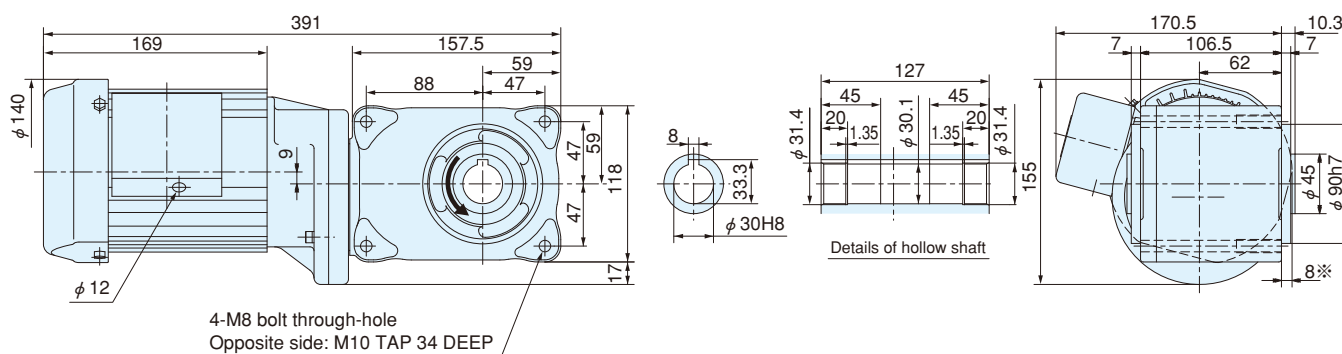
B-2 0.1kW HMTA010-30H300~480B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 12.7kg

Reference page : Specification Chart→P131 Options→P184



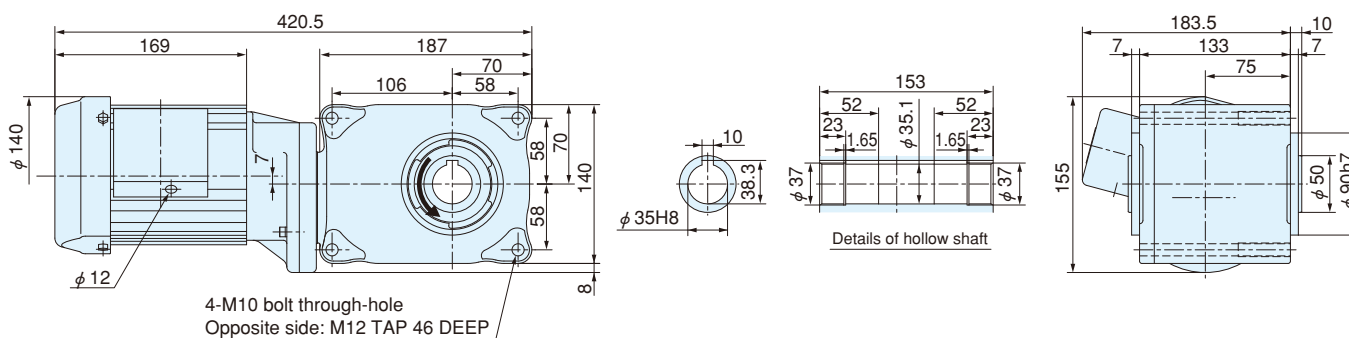
B-3 0.1kW HMTA010-35H600~1200B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 15.6kg

Reference page : Specification Chart→P131 Options→P184



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.2 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

B-4 0.2kW HMTA020-30H5~200B

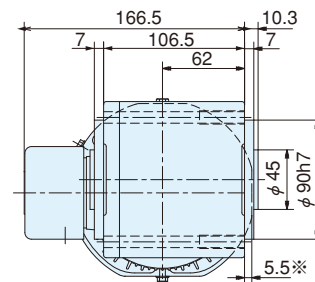
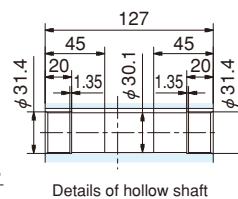
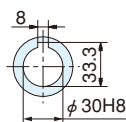
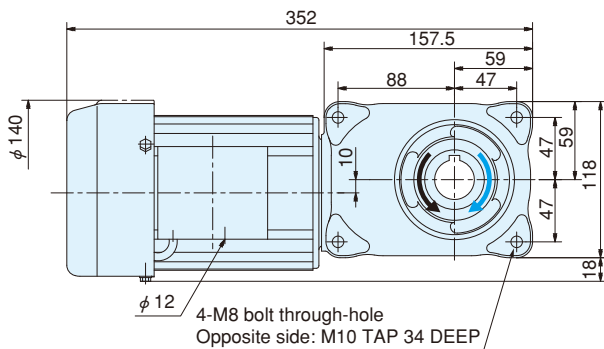
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 10.9kg

Reference page : Specification Chart→P131 Options→P184



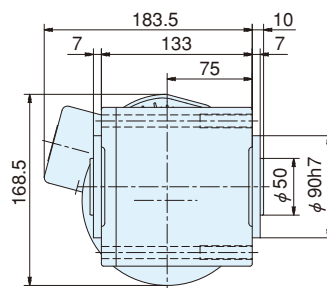
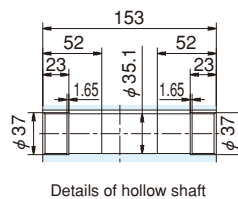
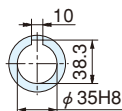
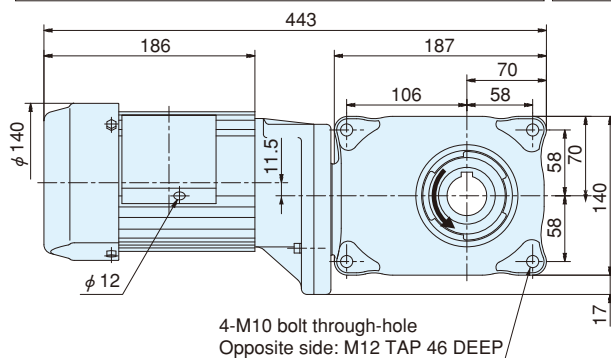
B-5 0.2kW HMTA020-35H300~480B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 16.1kg

Reference page : Specification Chart→P131 Options→P184



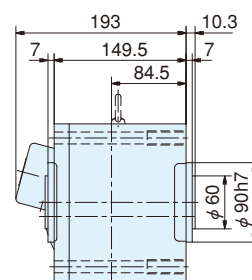
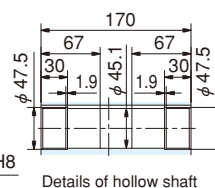
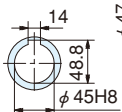
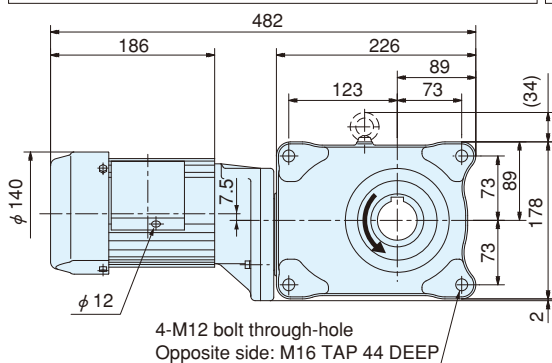
B-6 0.2kW HMTA020-45H600~1200B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 23.4kg

Reference page : Specification Chart→P131 Options→P184

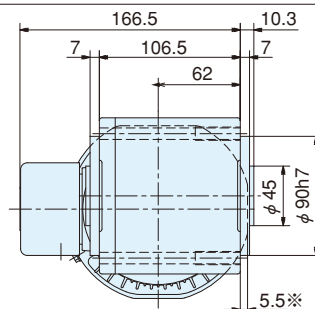


Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

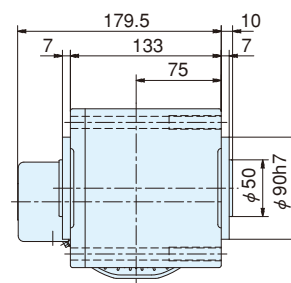
HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

1/5~1/30 (、 1/40~1/50)

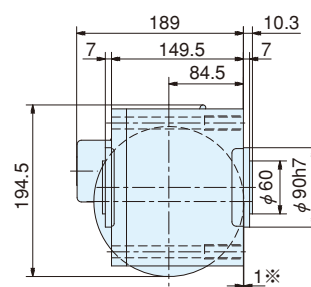
Reference page : Specification Chart→P132 Options→P184



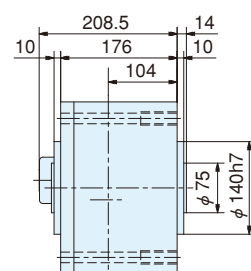
Reference page : Specification Chart→P132 Options→P184



Reference page : Specification Chart→P132 Options→P184



Reference page : Specification Chart→P132 Options→P184



Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 0.75 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

B-11 0.75kW HMTA075-35H5~50B

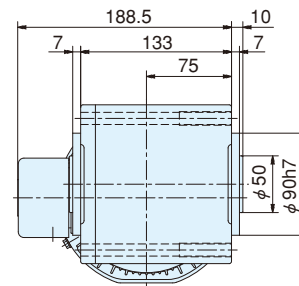
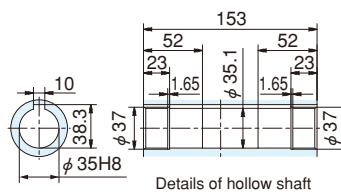
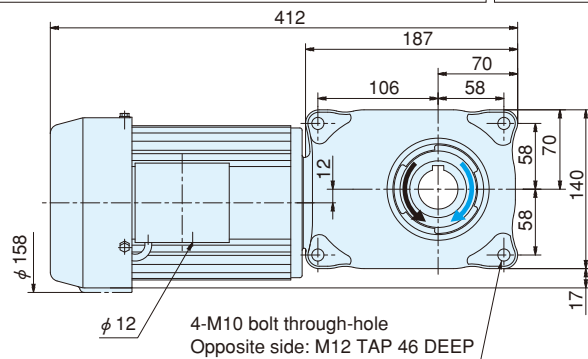
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 21.0kg

Reference page : Specification Chart→P132 Options→P184



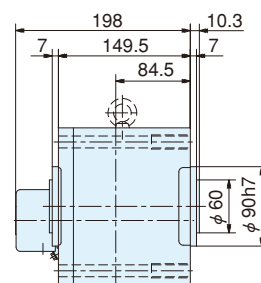
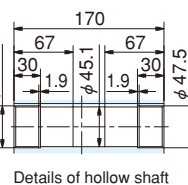
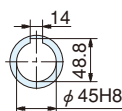
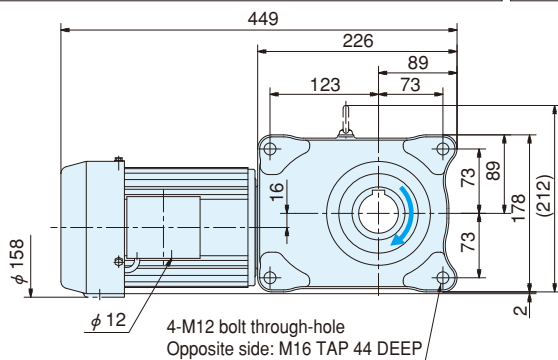
B-12 0.75kW HMTA075-45H60~200B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 25.5kg

Reference page : Specification Chart→P132 Options→P184



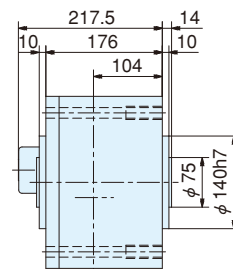
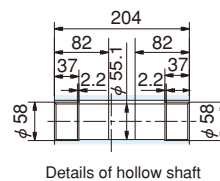
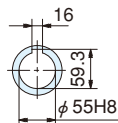
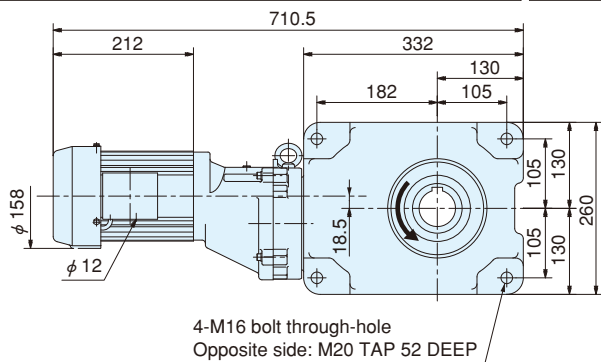
B-13 0.75kW HMTA075-55H300~480B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 63.5kg

Reference page : Specification Chart→P132 Options→P184



Outline Dimensions

H

B-11

B-12

B-13

0.75

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 1.5 · 2.2 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

B-14 1.5kW HMTA150-45H5~80B

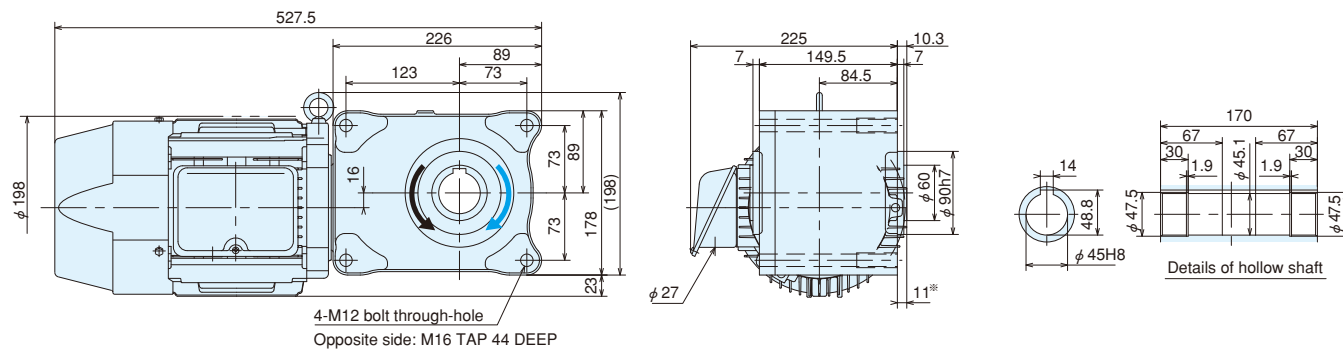
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/80 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80

Approx. weight : 34.0kg

Reference page : Specification Chart→P133 Options→P184



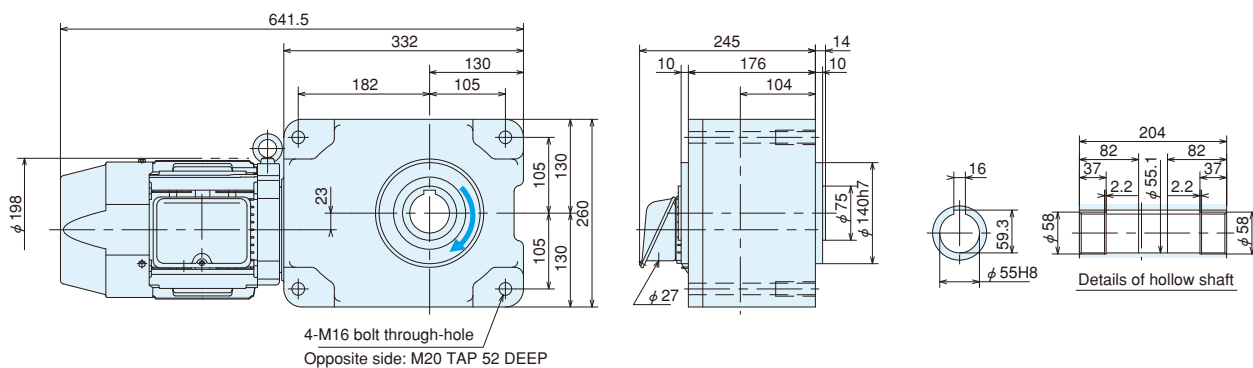
B-15 1.5kW HMTA150-55H100~200B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 100, 120, 160, 200

Approx. weight : 62.0kg

Reference page : Specification Chart→P133 Options→P184



B-16 2.2kW HMTA220-45H5~60B

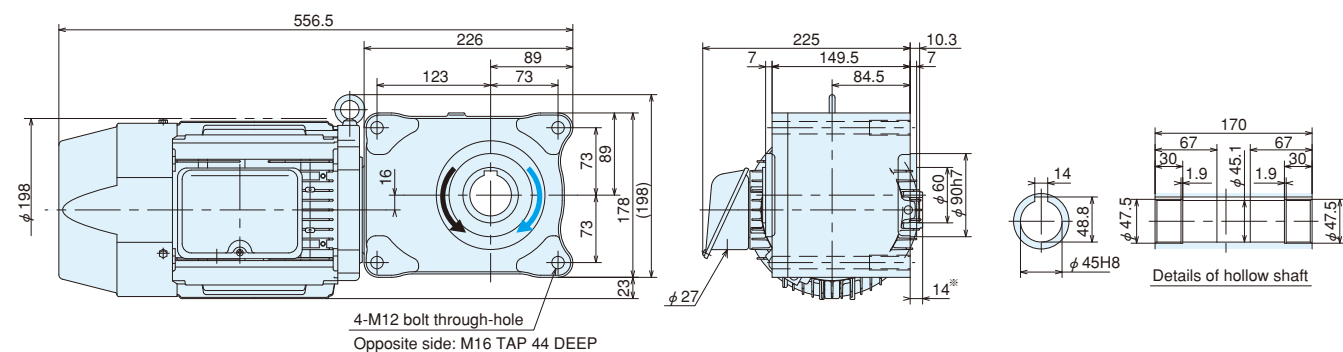
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺、1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 39.0kg

Reference page : Specification Chart→P133 Options→P184



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

H

B-14

B-15

B-16

1.5

2.2

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 2.2 · 3.7 · 5.5 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

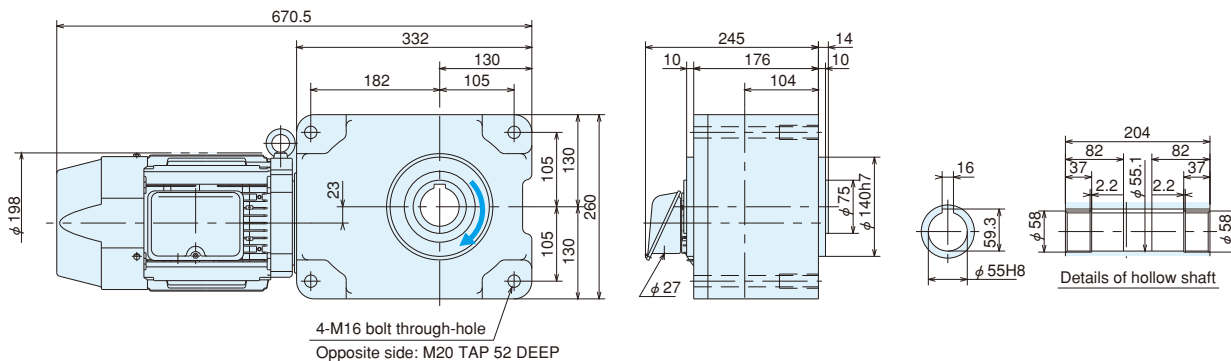
B-17 2.2kW HMTA220-55H80~120B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 80, 100, 120

Approx. weight : 66.0kg

Reference page : Specification Chart→P133 Options→P184



B-18 3.7kW HMTA370-55H5~60B

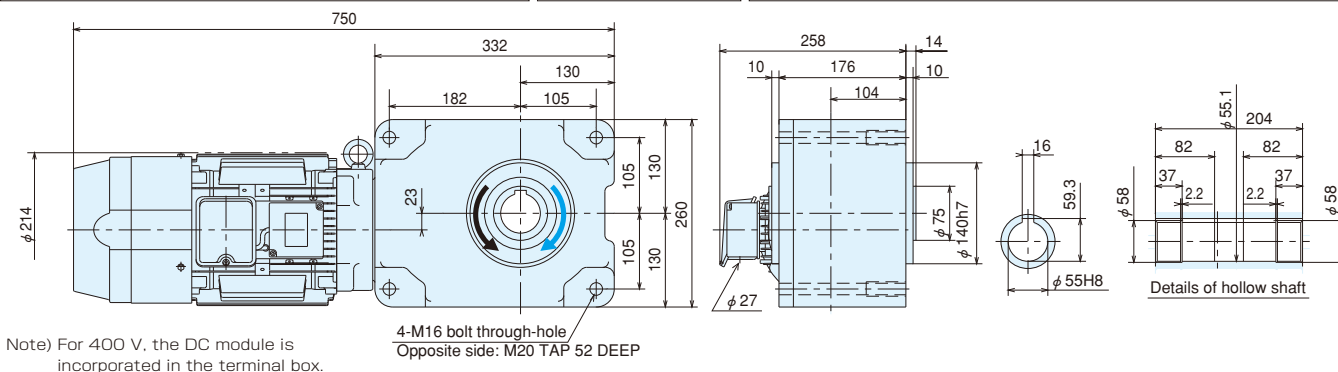
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺, 1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 78.0kg

Reference page : Specification Chart→P133 Options→P184



B-19 5.5kW HMTA550-55H5~40B

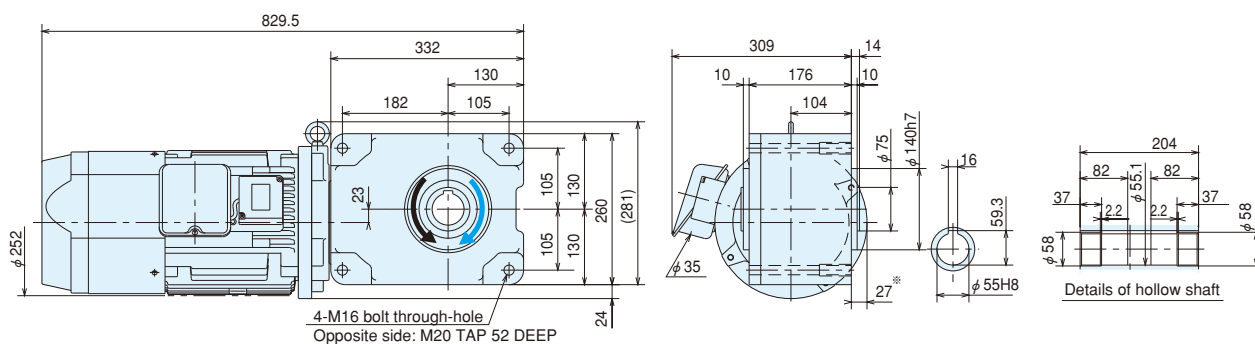
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺, 1/25~1/40 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40

Approx. weight : 103.0kg

Reference page : Specification Chart→P133 Options→P184



※We can make it to order on short lead times.

Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 100 W · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

B-20 100W HMTA100-30H5~200B

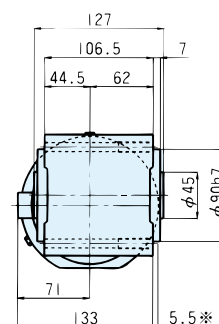
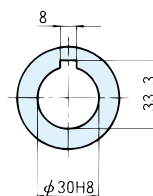
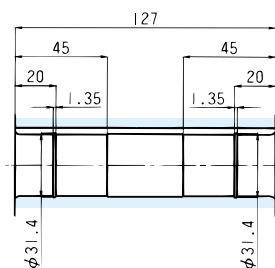
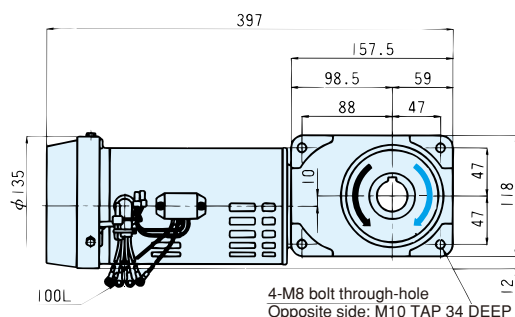
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 10.8kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft

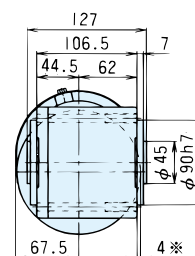
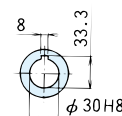
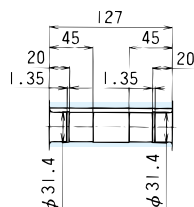
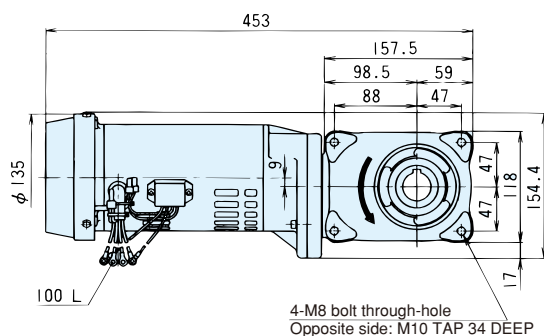
B-21 100W HMTA100-30H300~480B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 13.5kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft

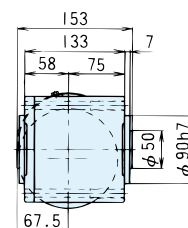
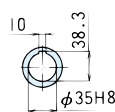
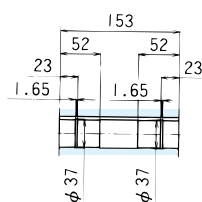
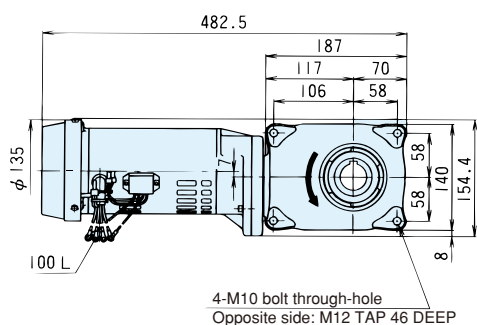
B-22 100W HMTA100-35H600~1200B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 16.4kg

Reference page : Specification Chart→P134 Options→P184



Details of hollow output shaft

Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

H

B-20

B-21

B-22

100

Hypoid Motor TA Series Outline Dimensions

Hollow shaft type 200 W · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Hollow

B-23 200W HMTA200-30H5~200B

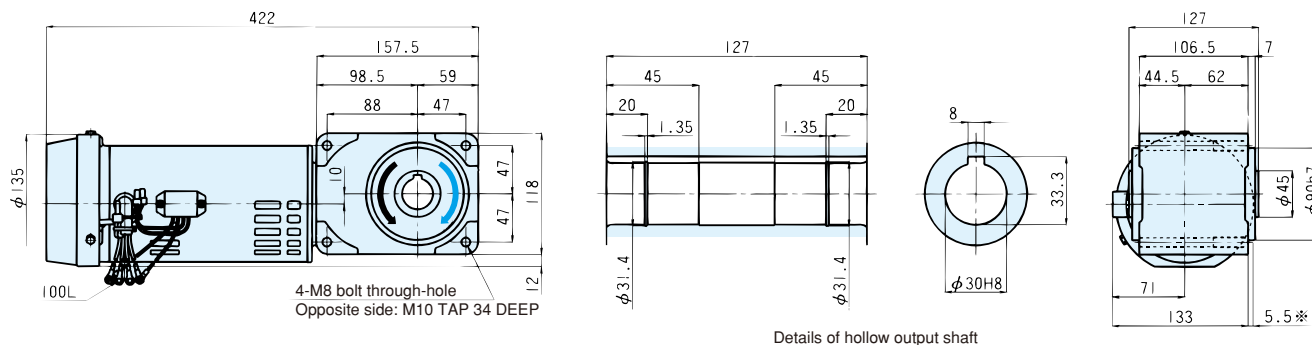
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺, 1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 12.4kg

Reference page : Specification Chart→P134 Options→P184



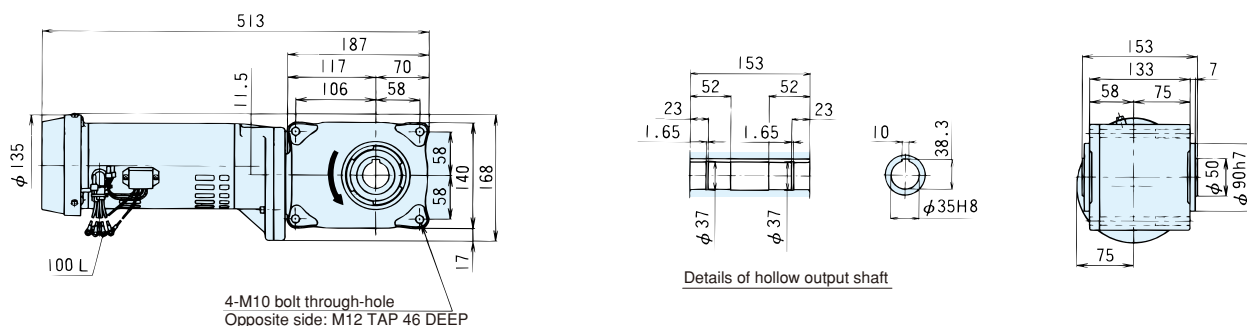
B-24 200W HMTA200-35H300~480B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 18.2kg

Reference page : Specification Chart→P134 Options→P184



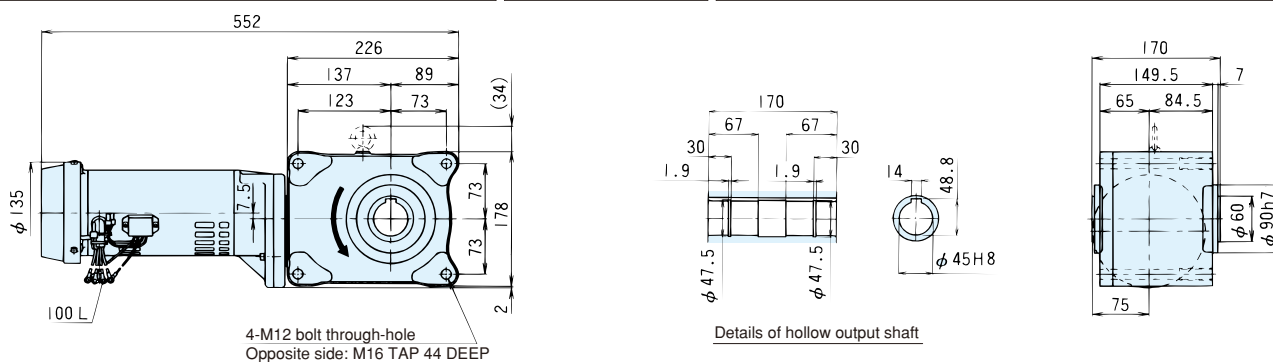
B-25 200W HMTA200-45H600~1200B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 25.5kg

Reference page : Specification Chart→P134 Options→P184



Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.1 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

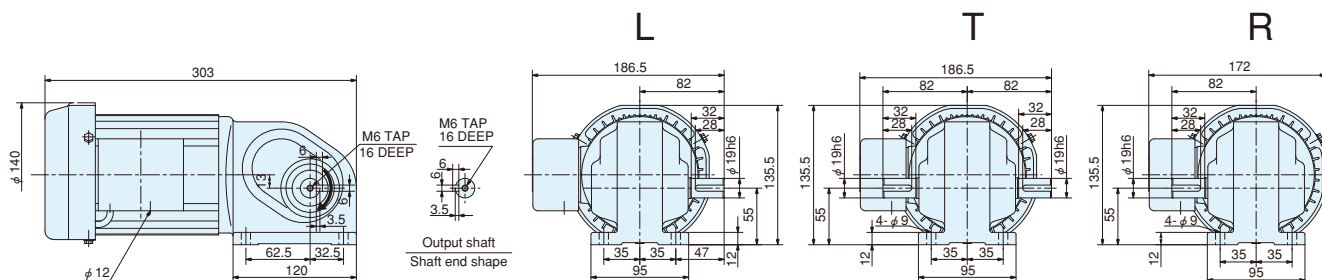
B-26 0.1kW HMTA010-19L5~50 $\frac{1}{16}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 7.0kg

Reference page : Specification Chart→P131



B-27 0.1kW HMTA010-24L60~200 $\frac{1}{16}$ B

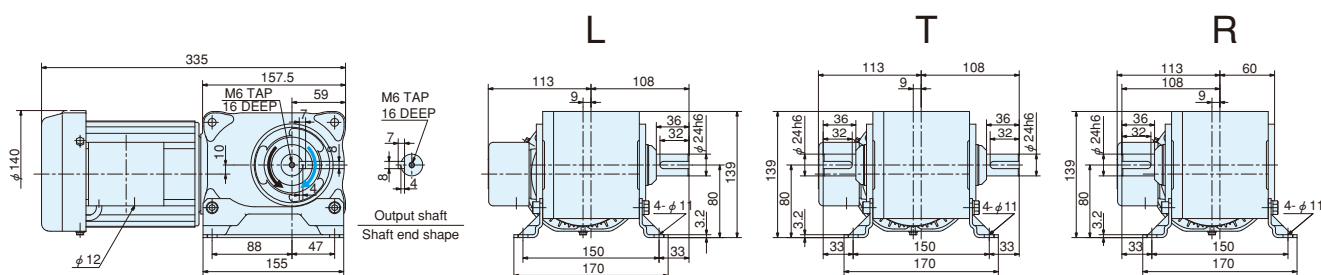
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 12.4kg

Reference page : Specification Chart→P131



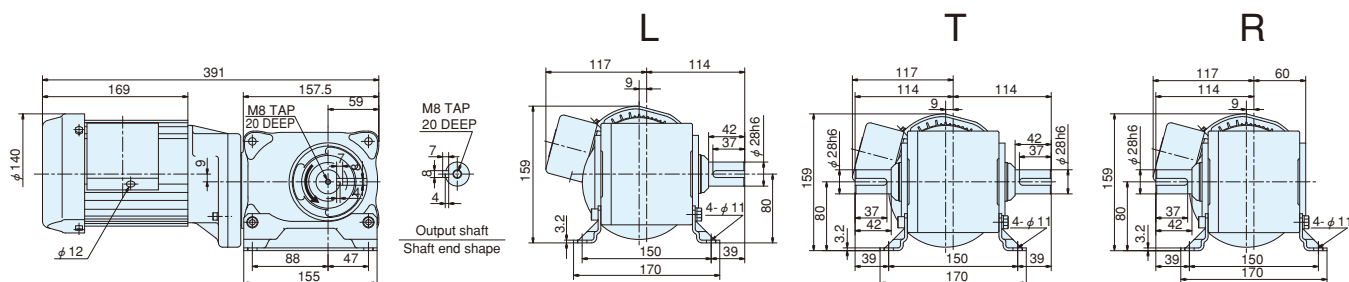
B-28 0.1kW HMTA010-28L300~480 $\frac{1}{16}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 14.6kg

Reference page : Specification Chart→P131



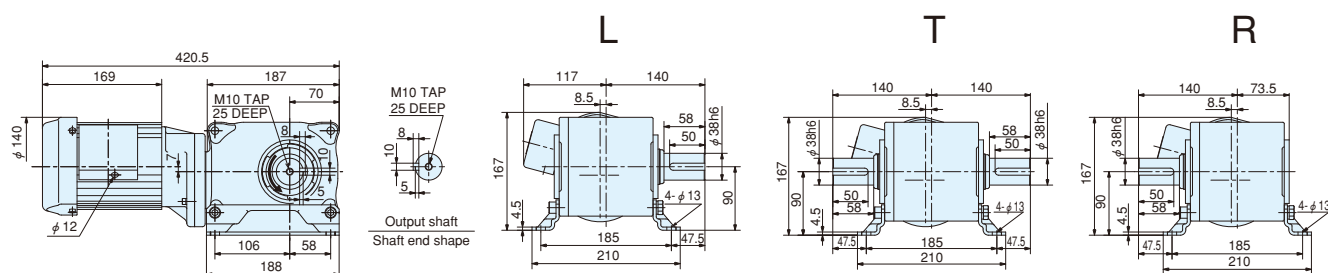
B-29 0.1kW HMTA010-38L600~1200 $\frac{1}{16}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 18.4kg

Reference page : Specification Chart→P131



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.2 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

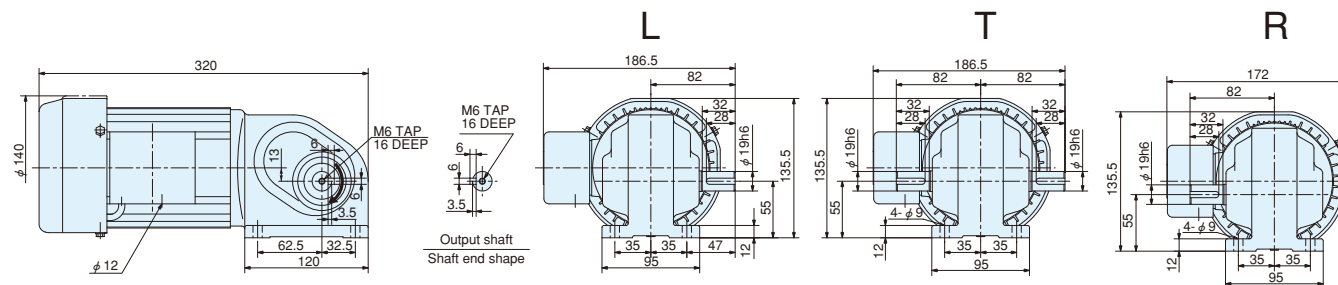
B-30 0.2kW HMTA020-19L5~50 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 7.5kg

Reference page : Specification Chart→P131



B-31 0.2kW HMTA020-28L60~200 $\frac{L}{R}$ B

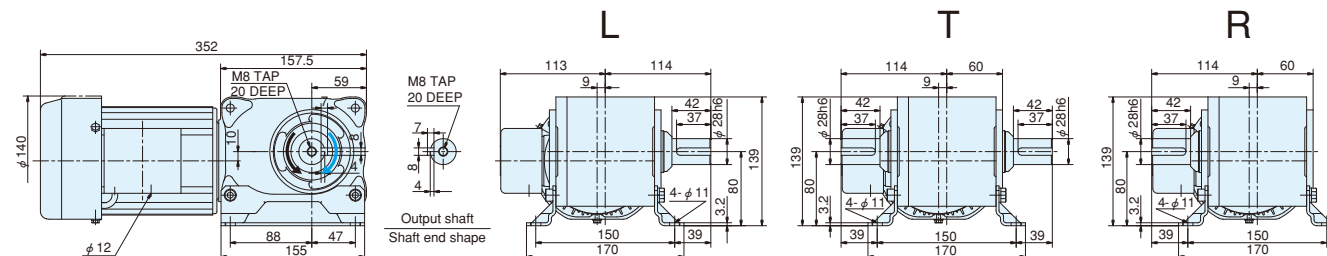
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 ↺, 1/80~1/200 ↻

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 12.5kg

Reference page : Specification Chart→P131



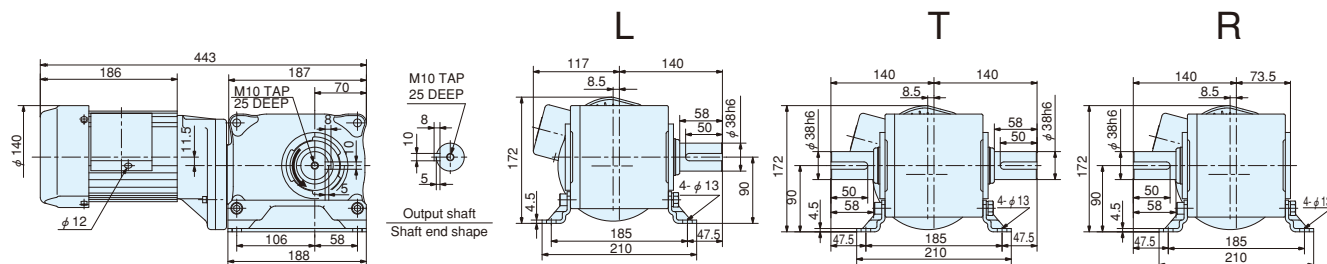
B-32 0.2kW HMTA020-38L300~480 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 18.9kg

Reference page : Specification Chart→P131



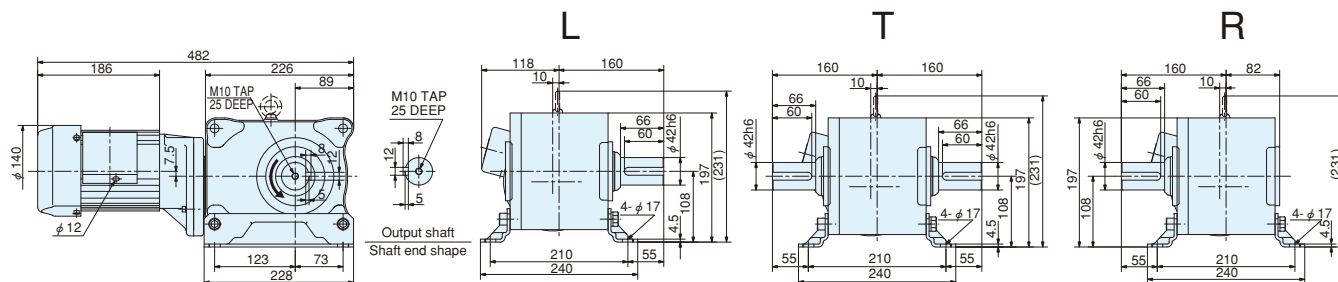
B-33 0.2kW HMTA020-42L600~1200 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 28.4kg

Reference page : Specification Chart→P131



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.4 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

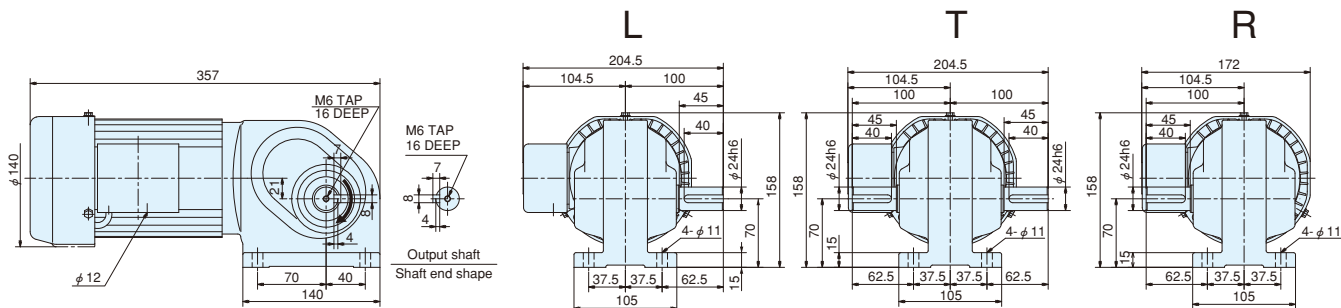
B-34 0.4kW HMTA040-24L5~50 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 10.2kg

Reference page : Specification Chart→P132



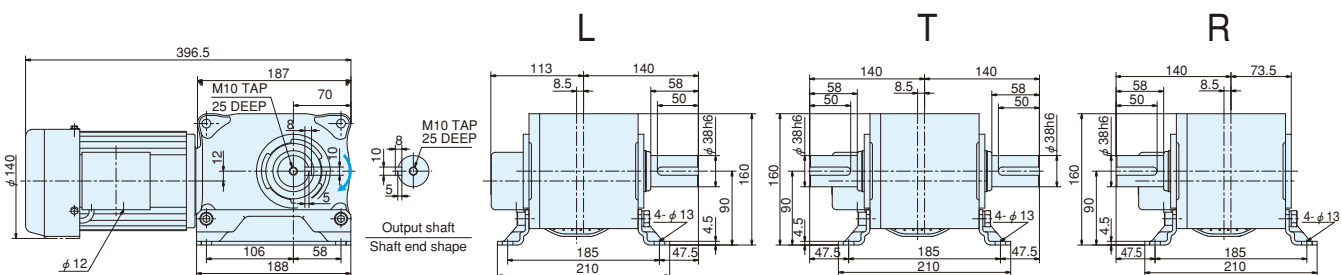
B-35 0.4kW HMTA040-38L60~200 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 19.3kg

Reference page : Specification Chart→P132



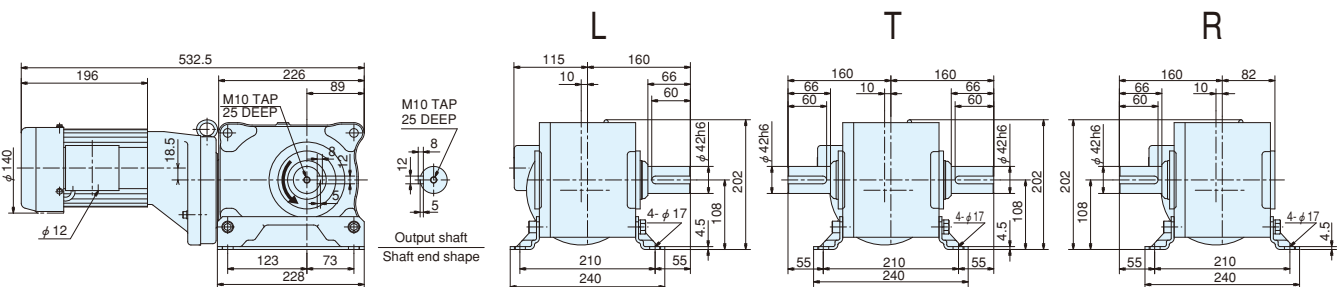
B-36 0.4kW HMTA040-42L300~480 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 34.2kg

Reference page : Specification Chart→P132



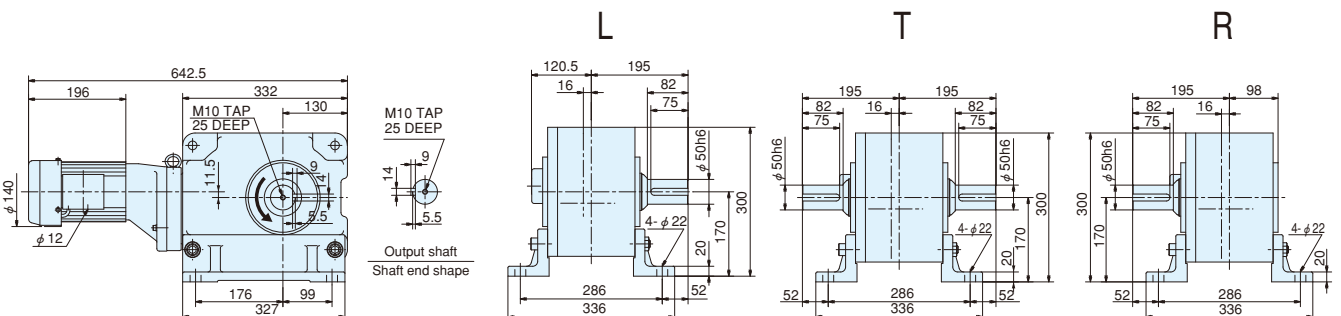
B-37 0.4kW HMTA040-50L600~1200 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 78.3kg

Reference page : Specification Chart→P132



Hypoid Motor TA Series Outline Dimensions

Foot mount type 0.75 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

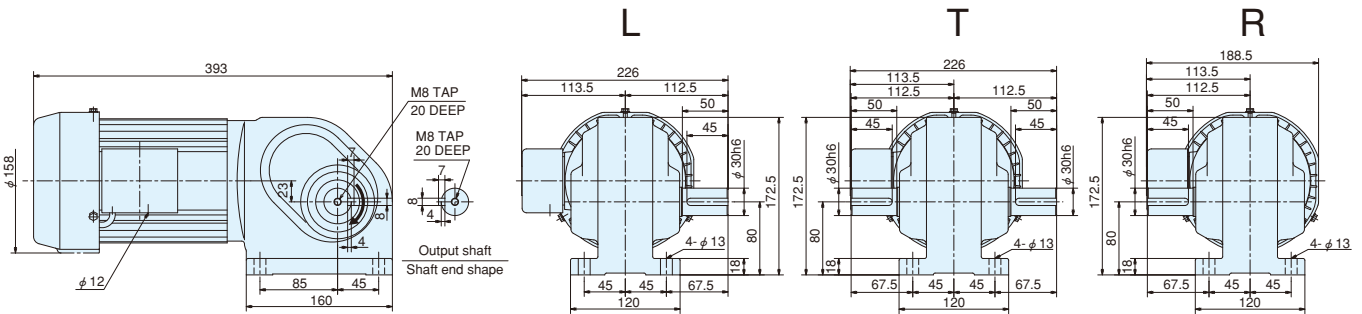
B-38 0.75kW HMTA075-30L5~50 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 17.5kg

Reference page : Specification Chart→P132



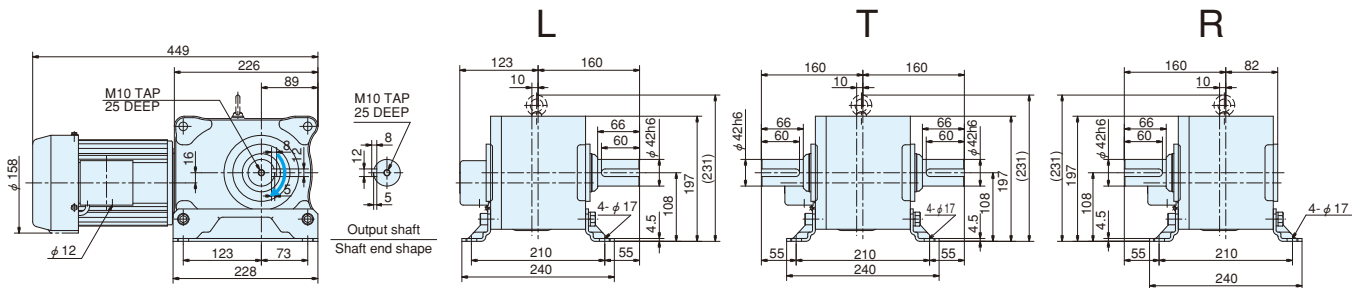
B-39 0.75kW HMTA075-42L60~200 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 31.0kg

Reference page : Specification Chart→P132



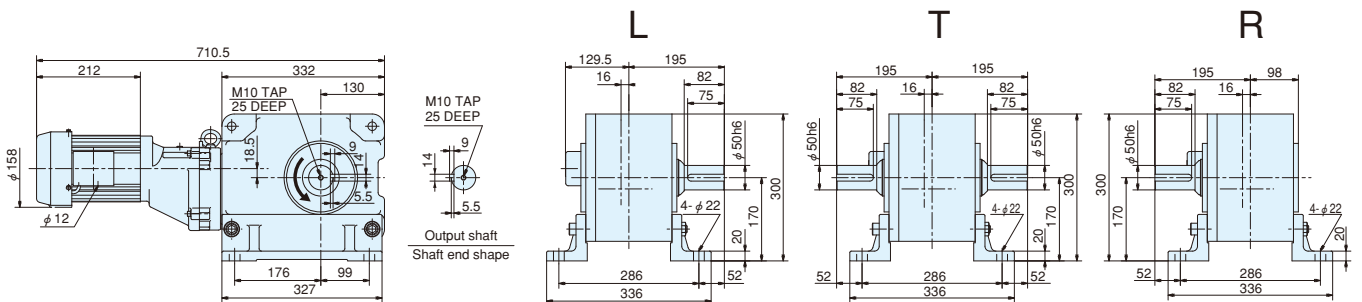
B-40 0.75kW HMTA075-50L300~480 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 86.5kg

Reference page : Specification Chart→P132



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 1.5 · 2.2 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

B-41 1.5kW HMTA150-42L5~80 $\frac{1}{2}$ B

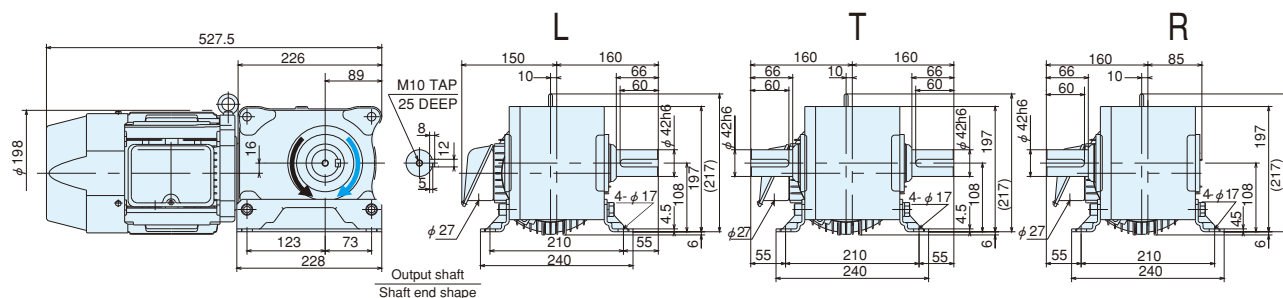
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80

Approx. weight : 40.0kg

Reference page : Specification Chart→P133



Part of the motor protrudes from the foot undersurface.

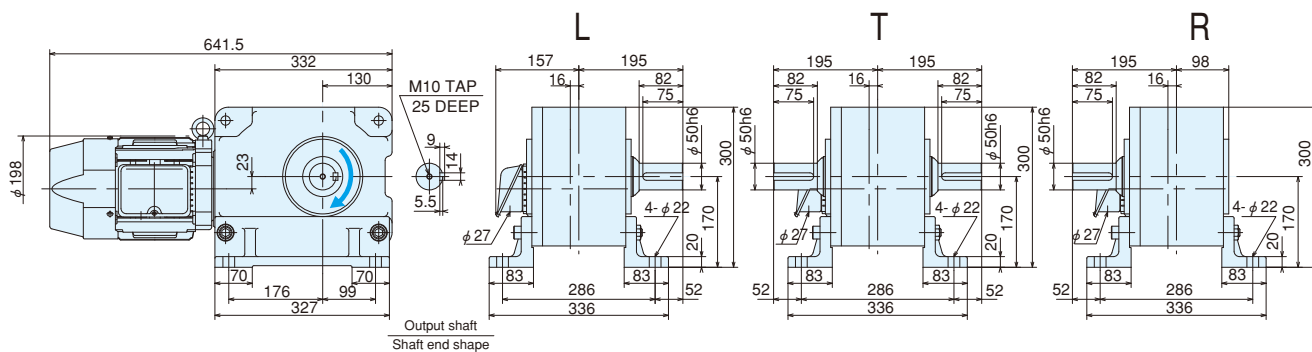
B-42 1.5kW HMTA150-50L100~200 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 100, 120, 160, 200

Approx. weight : 86.0kg

Reference page : Specification Chart→P133



B-43 2.2kW HMTA220-42L5~60 $\frac{1}{2}$ B

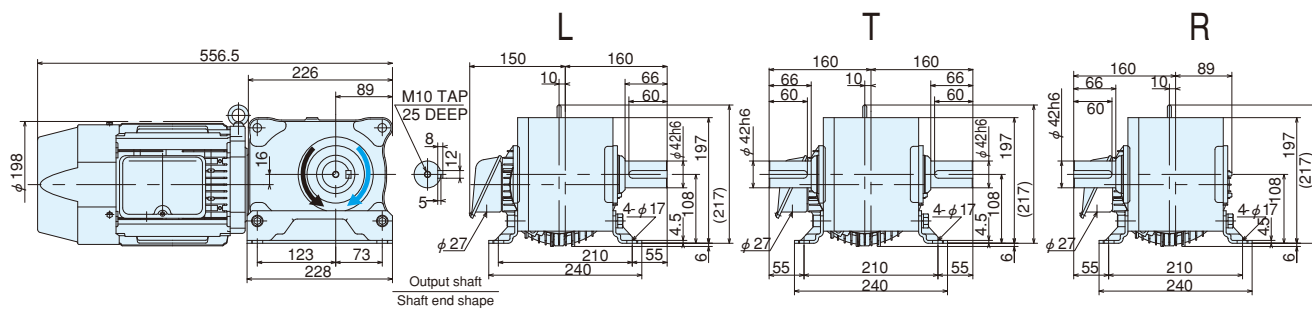
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺、1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 44.0kg

Reference page : Specification Chart→P133



Part of the motor protrudes from the foot undersurface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Note) Part of the motor protrudes from the foot undersurface in drawings B-41 and B-43. It is possible to manufacture a motor without protrusion, in which case some dimensions such as the height changes. Please contact us for more information.

L

B-41

B-42

B-43

1.5

2.2

Hypoid Motor TA Series Outline Dimensions

Foot mount type 2.2 · 3.7 · 5.5 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

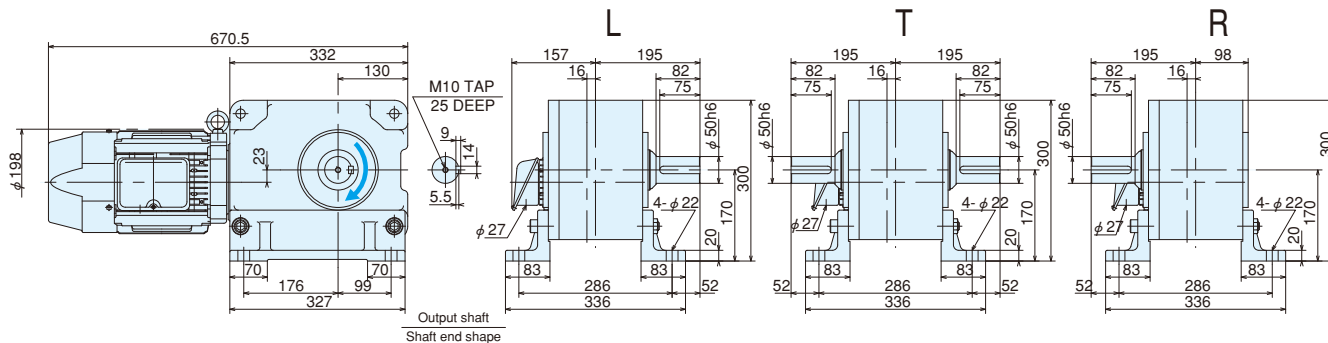
B-44 2.2kW HMTA220-50L80~120 $\frac{1}{R}B$

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 80, 100, 120

Approx. weight : 89.0kg

Reference page : Specification Chart→P133



B-45 3.7kW HMTA370-50L5~60 $\frac{1}{R}B$

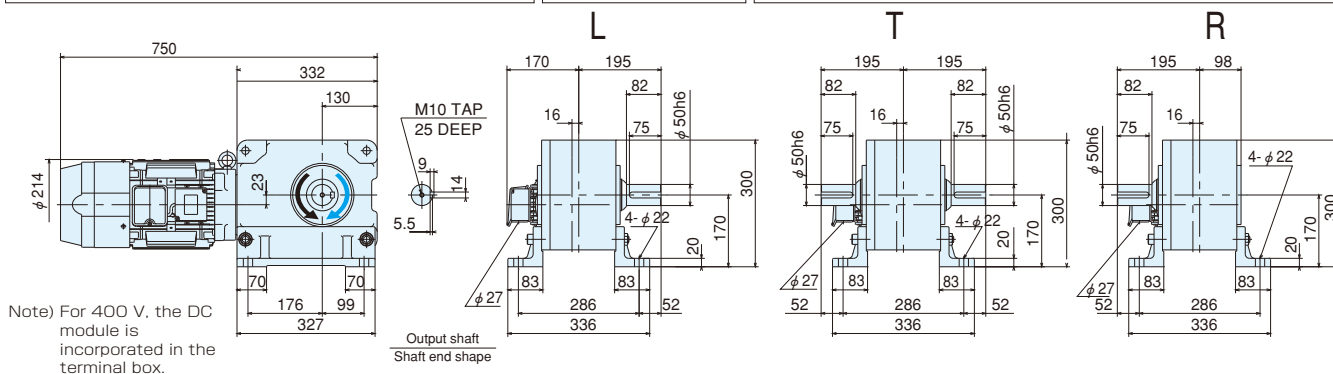
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

$\frac{1}{5} \sim \frac{1}{20}$ ↺, $\frac{1}{25} \sim \frac{1}{60}$ ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 101.0kg

Reference page : Specification Chart→P133



B-46 5.5kW HMTA550-50L5~40 $\frac{1}{R}B$

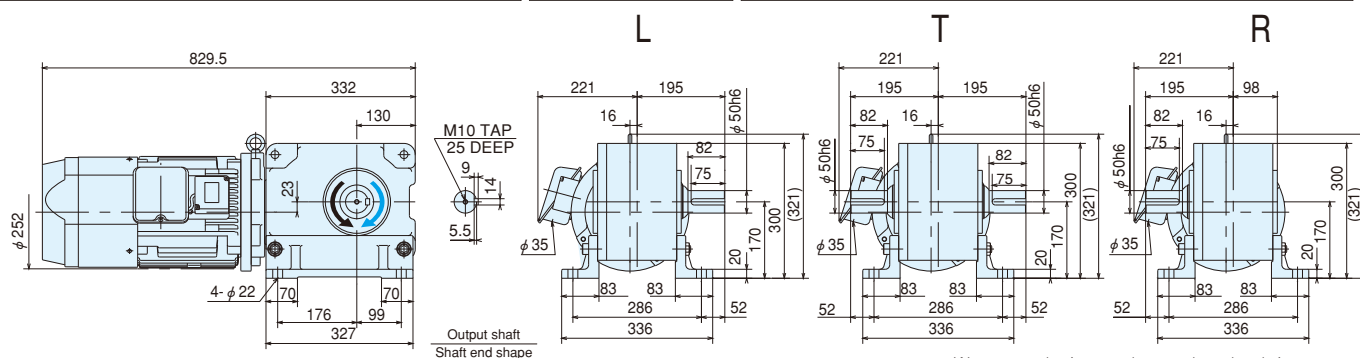
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

$\frac{1}{5} \sim \frac{1}{20}$ ↺, $\frac{1}{25} \sim \frac{1}{40}$ ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40

Approx. weight : 126.0kg

Reference page : Specification Chart→P133



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 100 W · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

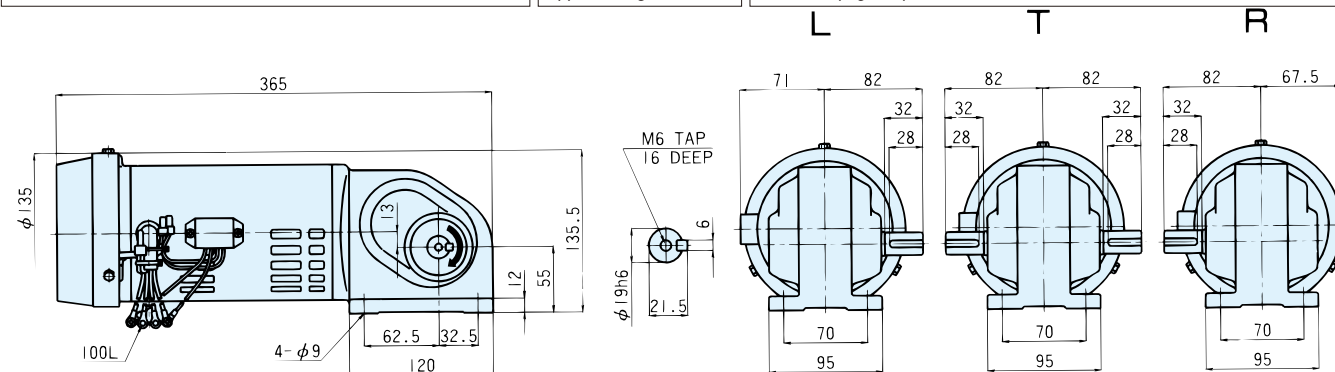
B-47 100W HMTA100-19L5~50 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 7.6kg

Reference page : Specification Chart→P134



B-48 100W HMTA100-24L60~200 $\frac{L}{R}$ B

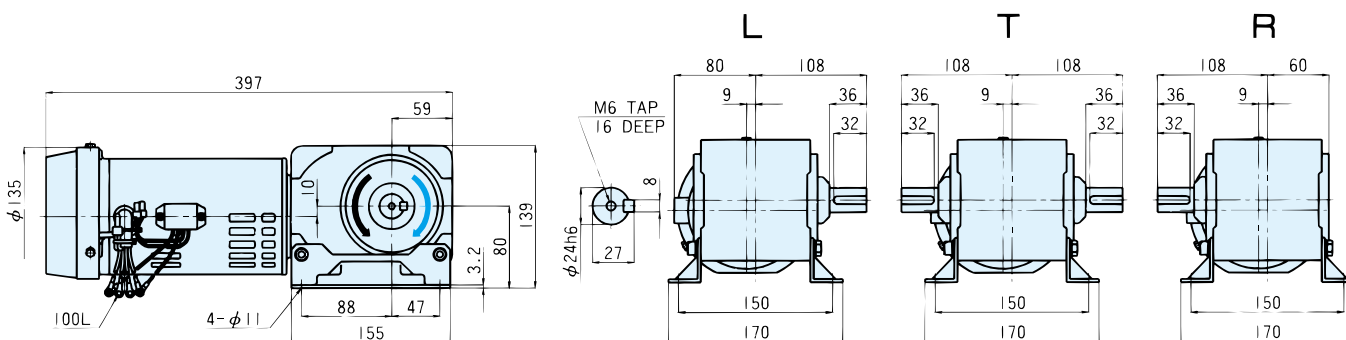
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 12.4kg

Reference page : Specification Chart→P134



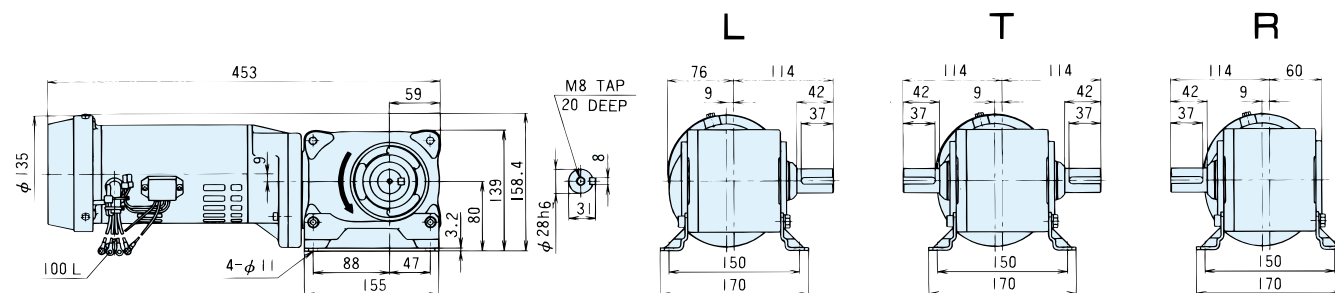
B-49 100W HMTA100-28L300~480 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 14.8kg

Reference page : Specification Chart→P134



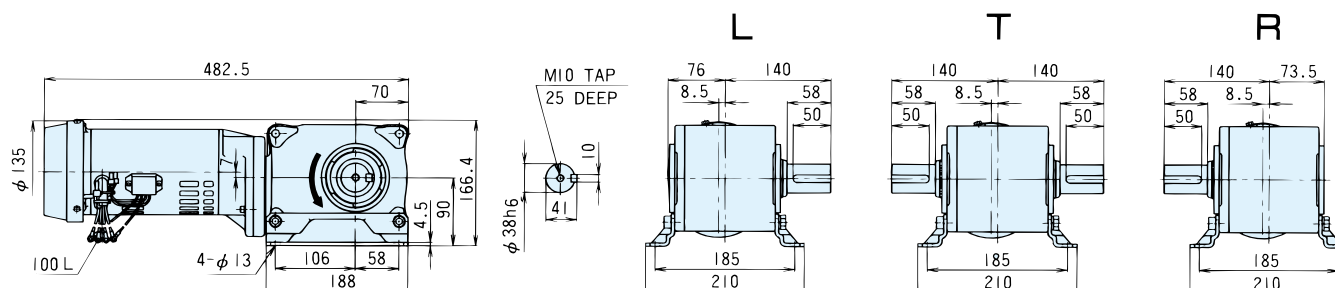
B-50 100W HMTA100-38L600~1200 $\frac{L}{R}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 18.6kg

Reference page : Specification Chart→P134



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Foot mount type 200 W · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Foot mount

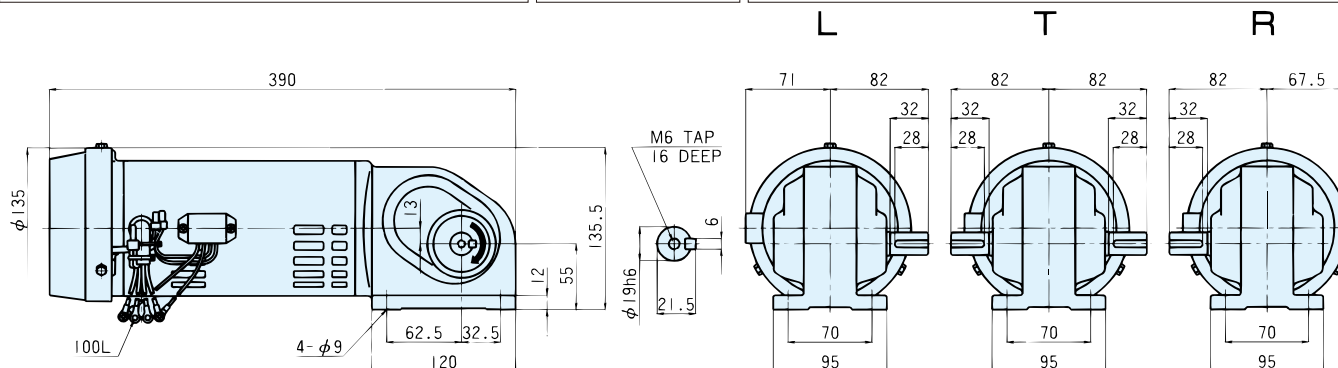
B-51 200W HMTA200-19L5~50 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 9.6kg

Reference page : Specification Chart→P134



B-52 200W HMTA200-28L60~200 $\frac{1}{2}$ B

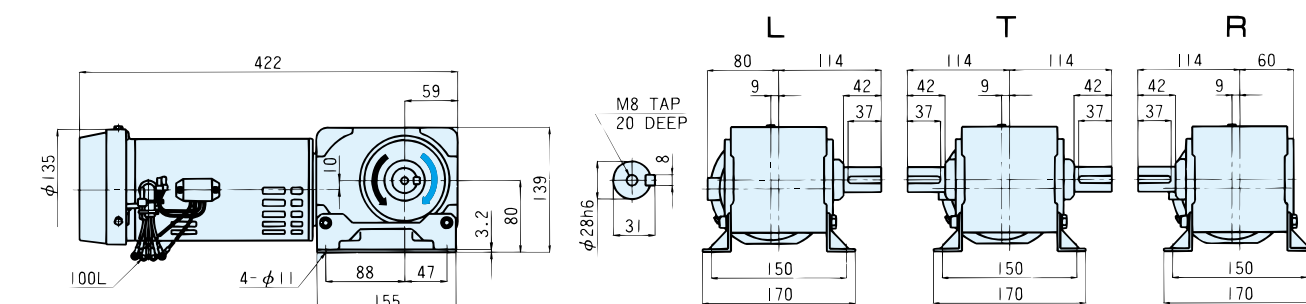
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/60, 1/80~1/200

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 14.0kg

Reference page : Specification Chart→P134



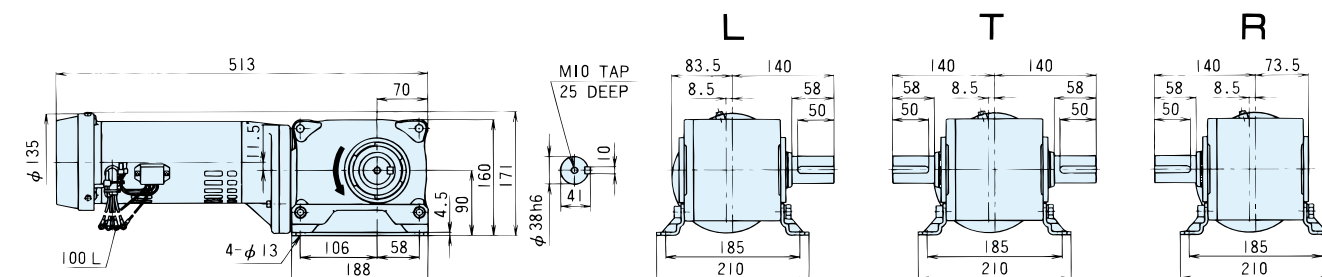
B-53 200W HMTA200-38L300~480 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 21.0kg

Reference page : Specification Chart→P134



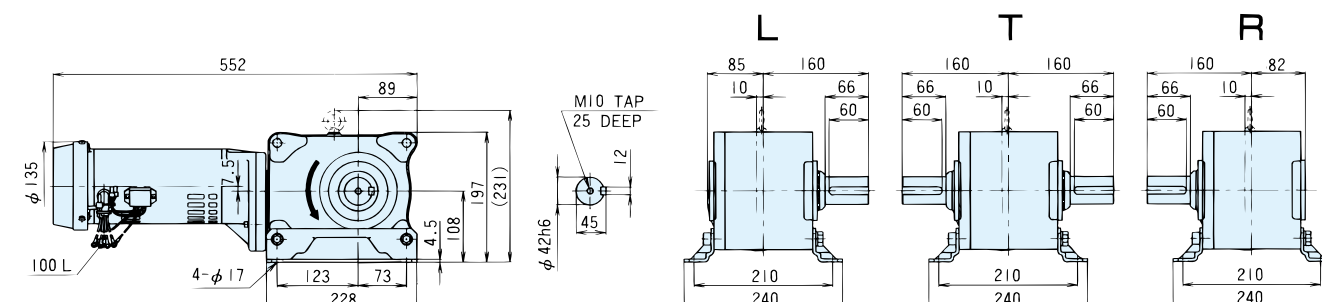
B-54 200W HMTA200-42L600~1200 $\frac{1}{2}$ B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 31.0kg

Reference page : Specification Chart→P134



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Outline Dimensions

L
B-51
B-52
B-53
B-54
200

Hypoid Motor TA Series Outline Dimensions

Face mount type 0.1 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

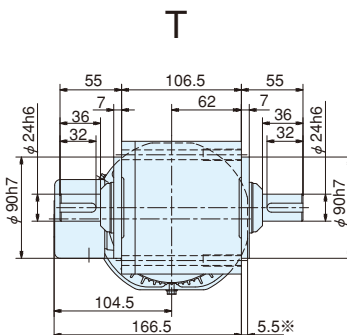
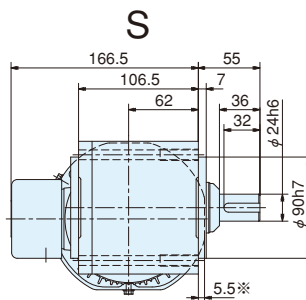
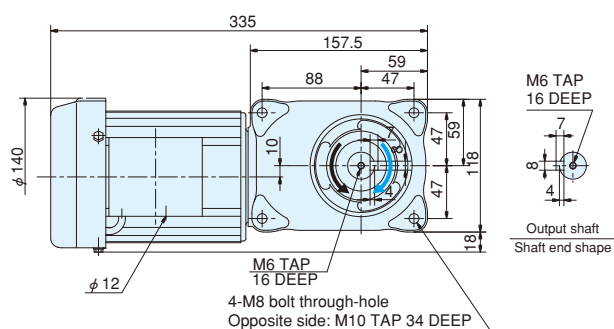
B-55 0.1kW HMTA010-24U5~200[⊕]B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. 1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 11.7kg

Reference page : Specification Chart→P131



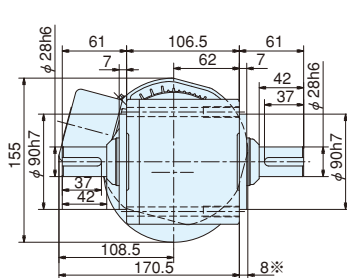
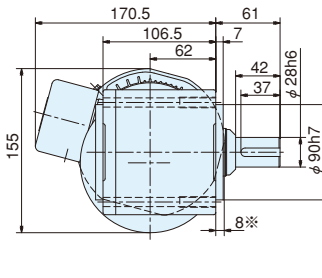
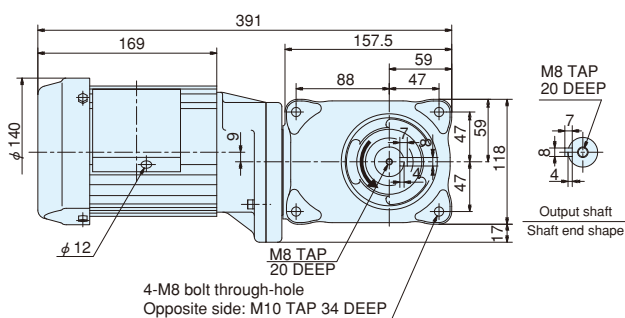
B-56 0.1kW HMTA010-28U300~480[⊕]B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 13.7kg

Reference page : Specification Chart→P131



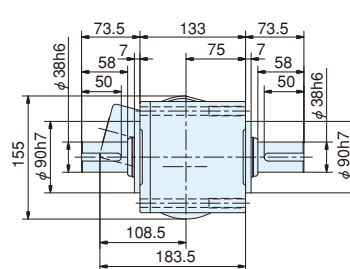
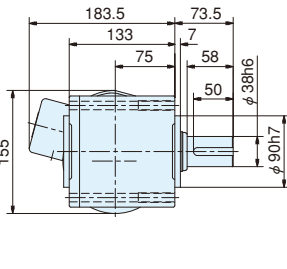
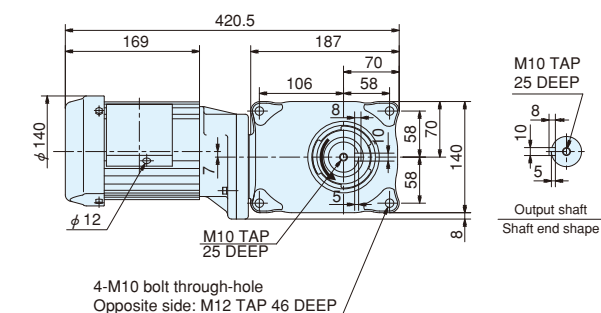
B-57 0.1kW HMTA010-38U600~1200[⊕]B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 17.4kg

Reference page : Specification Chart→P131



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

Hypoid Motor TA Series Outline Dimensions

Face mount type 0.4 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

B-61 0.4kW HMTA040-28U5~50 ㊦B

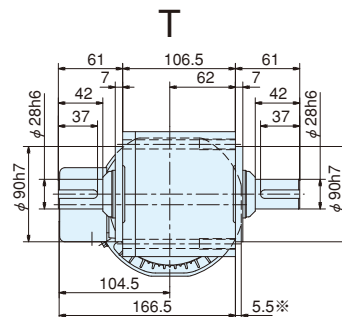
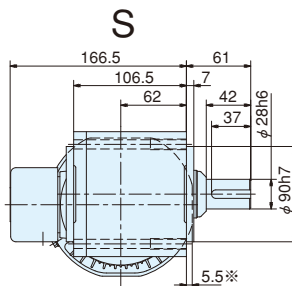
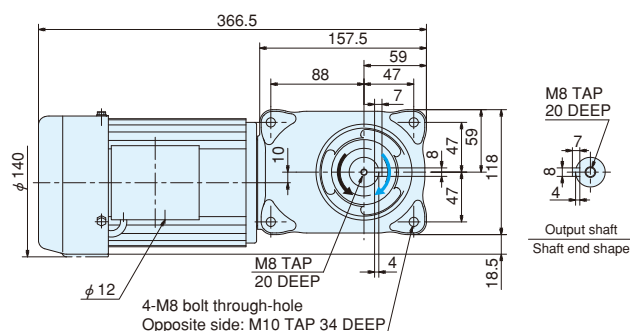
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ㊦、1/80~1/200 ㊦

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 12.7kg

Reference page : Specification Chart→P132



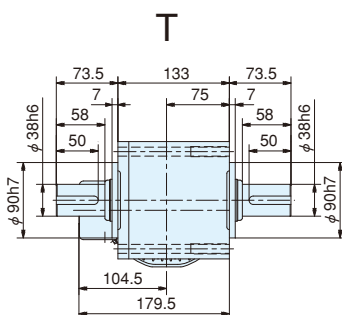
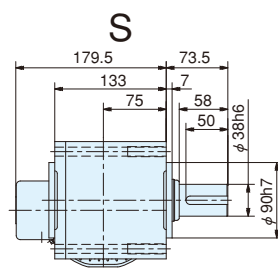
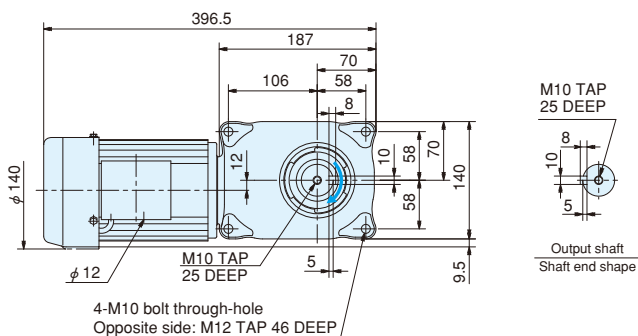
B-62 0.4kW HMTA040-38U60~200 ㊦B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 18.5kg

Reference page : Specification Chart→P132



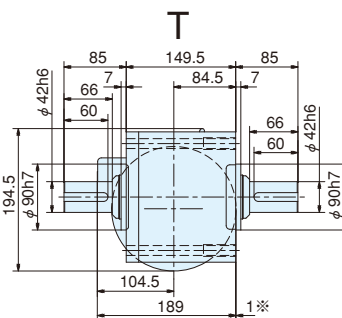
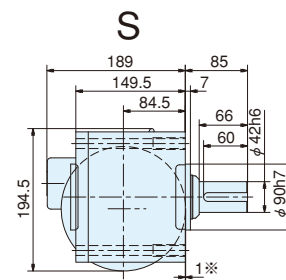
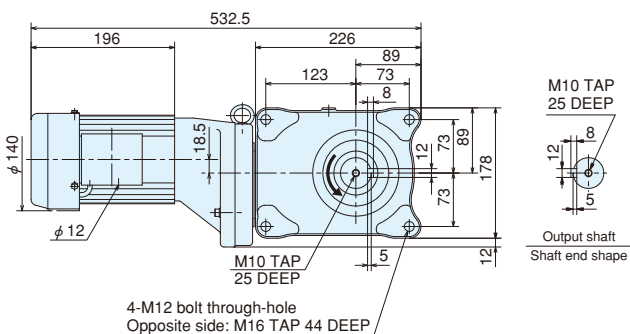
B-63 0.4kW HMTA040-42U300~480 ㊦B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 32.7kg

Reference page : Specification Chart→P132



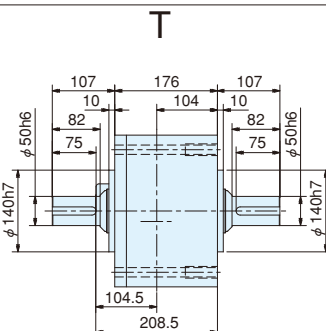
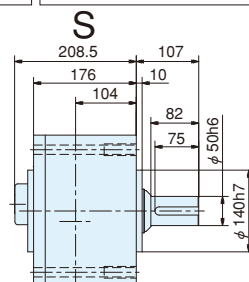
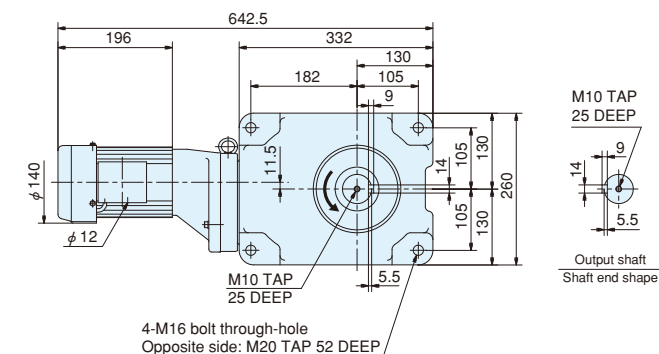
B-64 0.4kW HMTA040-50U600~1200 ㊦B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 61.3kg

Reference page : Specification Chart→P132



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 0.75 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

B-65 0.75kW HMTA075-38U5~50 ½B

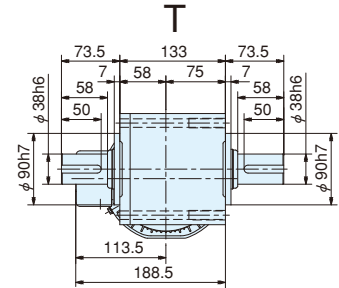
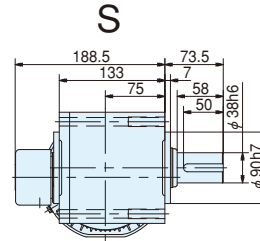
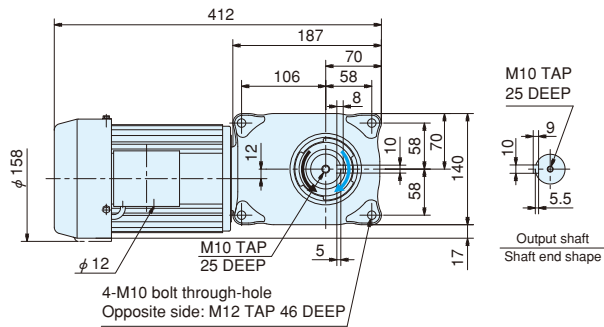
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 23.0kg

Reference page : Specification Chart→P132



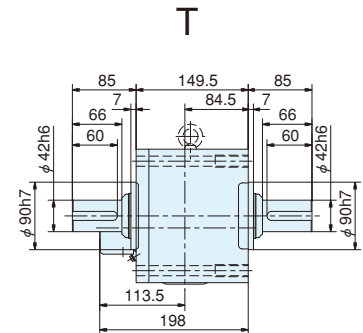
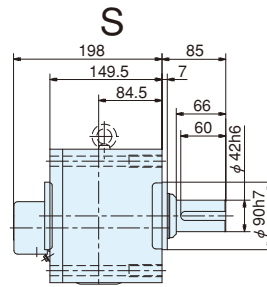
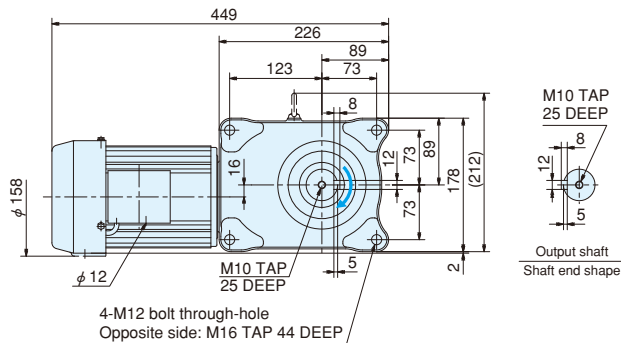
B-66 0.75kW HMTA075-42U60~200 ¾B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 29.5kg

Reference page : Specification Chart→P132



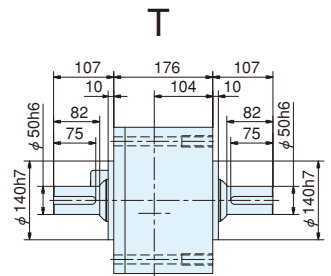
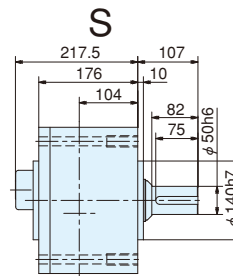
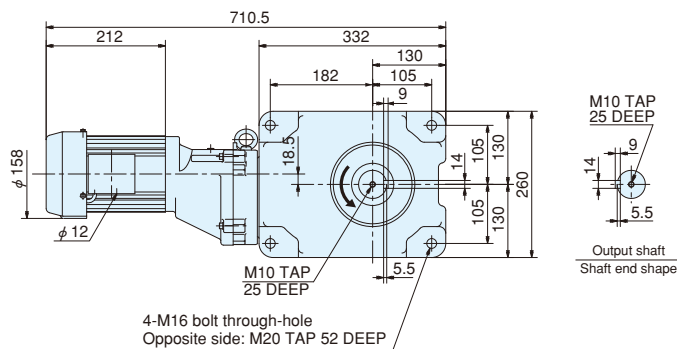
B-67 0.75kW HMTA075-50U300~480 1B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 69.5kg

Reference page : Specification Chart→P132



Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 1.5 · 2.2 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

B-68 1.5kW HMTA150-42U5~80 1/5B

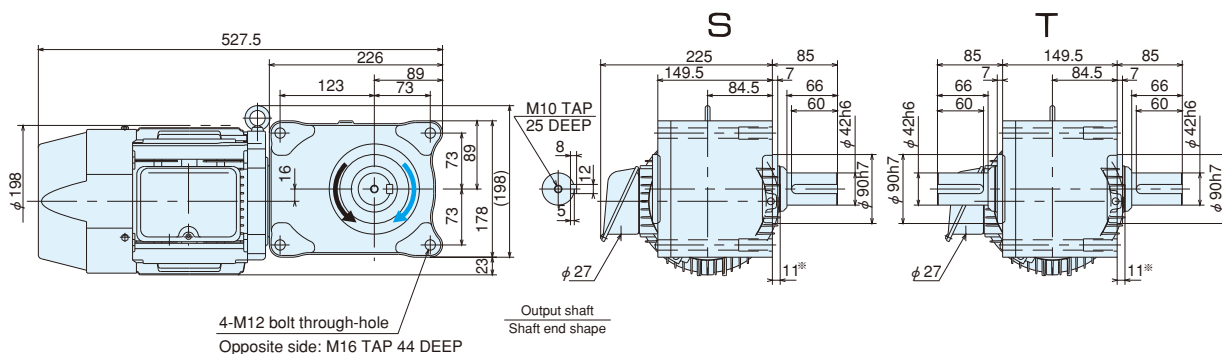
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80

Approx. weight : 38.0kg

Reference page : Specification Chart→P133



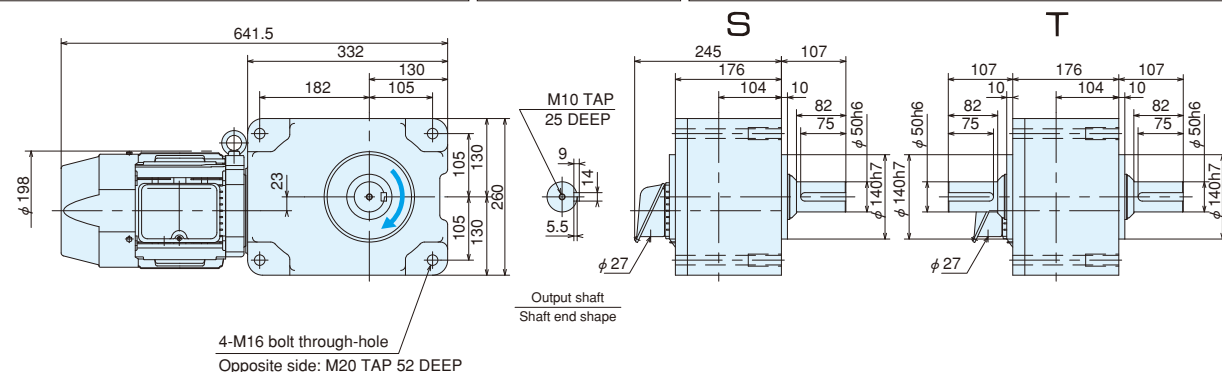
B-69 1.5kW HMTA150-50U100~200 1/5B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 100, 120, 160, 200

Approx. weight : 68.0kg

Reference page : Specification Chart→P133



B-70 2.2kW HMTA220-42U5~60 1/5B

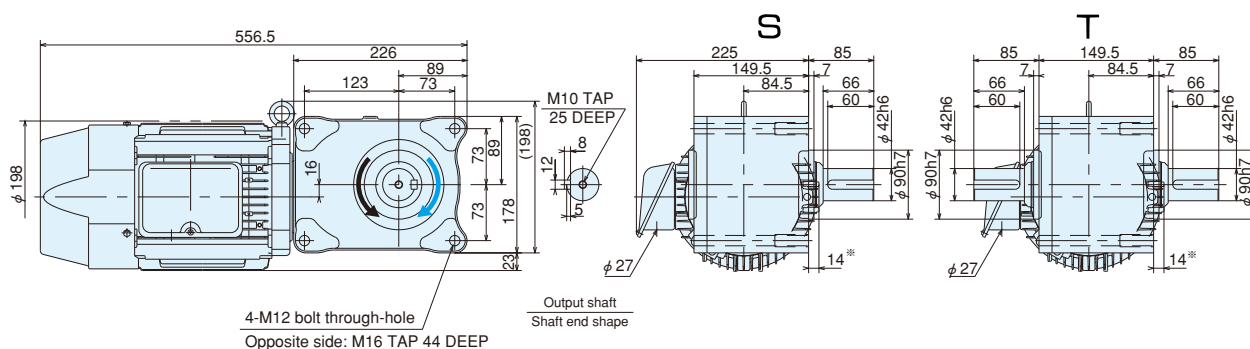
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/20 ↺、1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 43.0kg

Reference page : Specification Chart→P133



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 2.2 · 3.7 · 5.5 kW · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

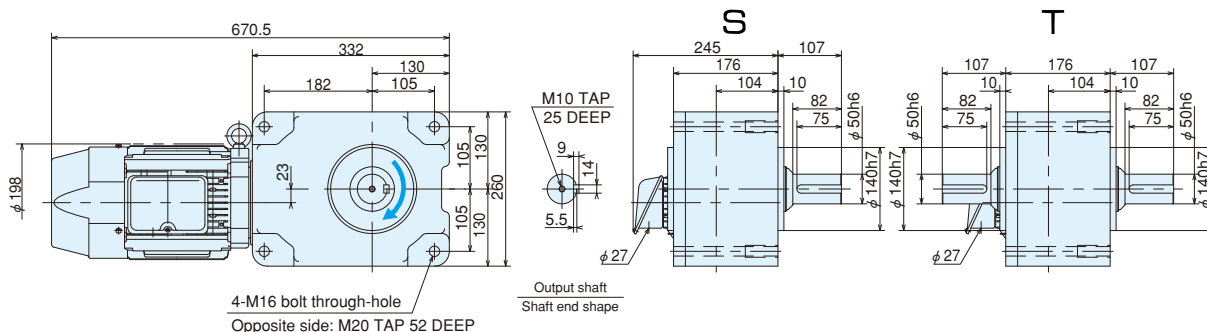
B-71 2.2kW HMTA220-50U80~120[Ⓐ]B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 80, 100, 120

Approx. weight : 72.0kg

Reference page : Specification Chart→P133



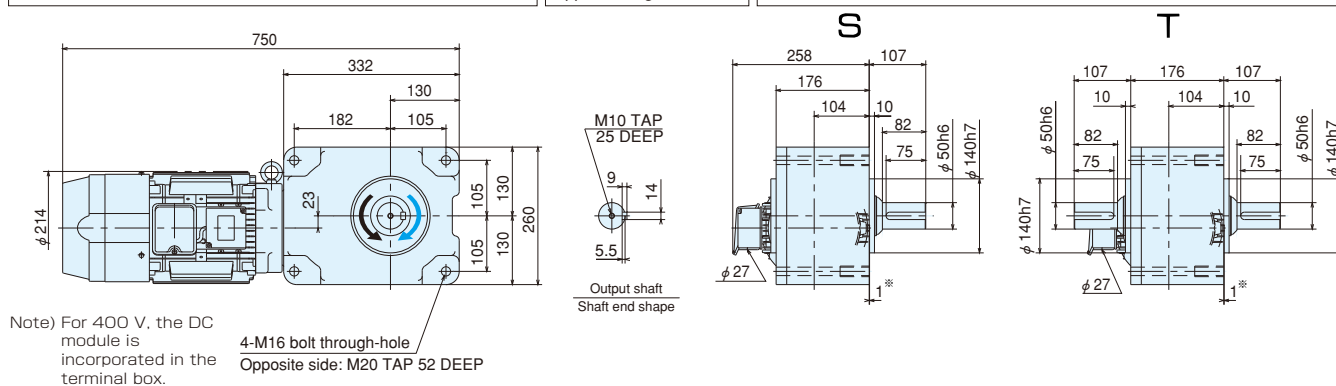
B-72 3.7kW HMTA370-50U5~60[Ⓐ]B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. 1/5~1/20 ↺, 1/25~1/60 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60

Approx. weight : 84.0kg

Reference page : Specification Chart→P133



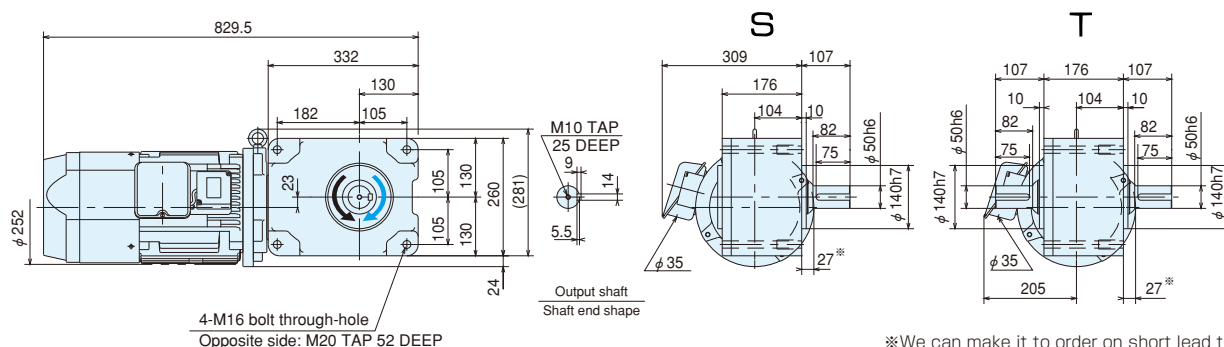
B-73 5.5kW HMTA550-50U5~40[Ⓐ]B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189. 1/5~1/20 ↺, 1/25~1/40 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40

Approx. weight : 109.0kg

Reference page : Specification Chart→P133



*We can make it to order on short lead times.

Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Outline Dimensions

U

B-71

B-72

B-73

2.2

3.7

5.5

Hypoid Motor TA Series Outline Dimensions

Face mount type 100 W · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

B-74 100W HMTA100-24U5~200⁵B

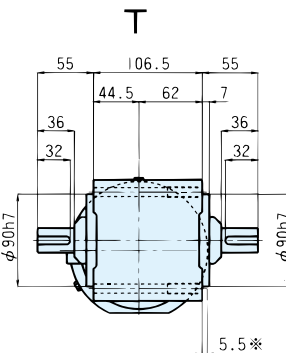
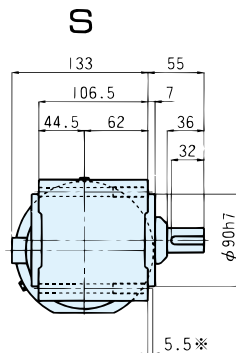
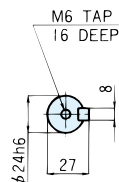
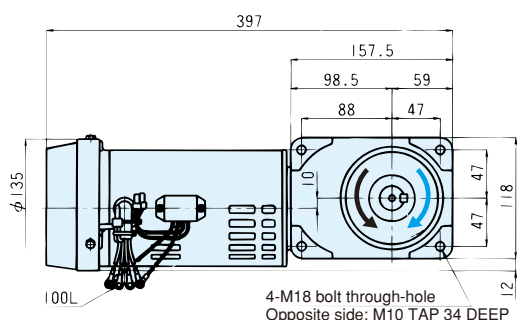
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 11.7kg

Reference page : Specification Chart→P134



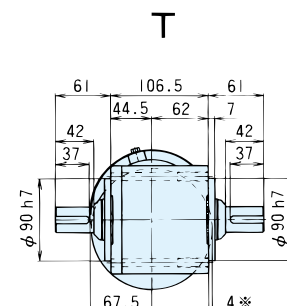
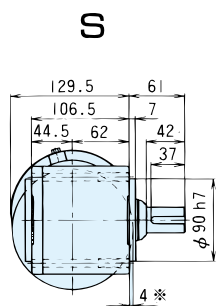
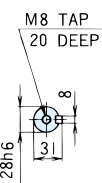
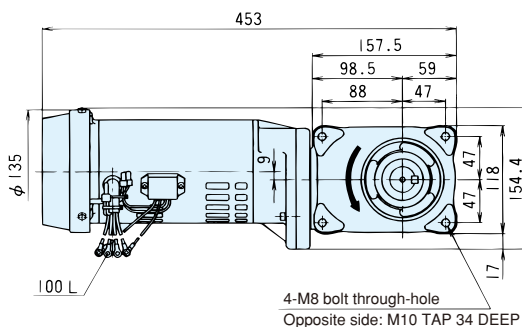
B-75 100W HMTA100-28U300~480⁵B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 14.5kg

Reference page : Specification Chart→P134



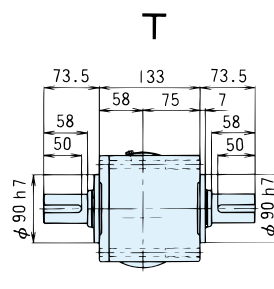
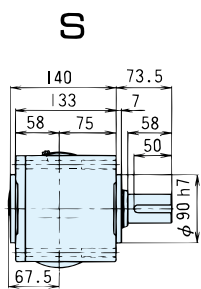
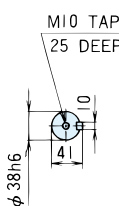
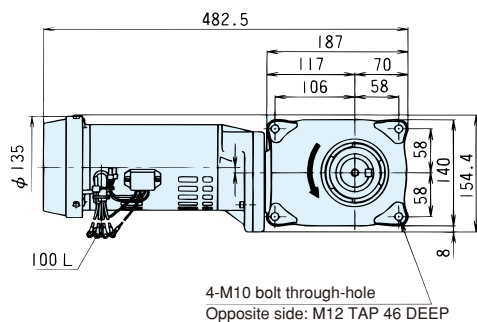
B-76 100W HMTA100-38U600~1200⁵B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 18.2kg

Reference page : Specification Chart→P134



Note) The dimension marked with * indicates that part of the motor protrudes from the mounting surface.

Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Face mount type 200 W · Brake type

HYPOID MOTOR TA Outline Dimensions ● brake type/Face mount

B-77 200W HMTA200-28U5~200 ㊦B

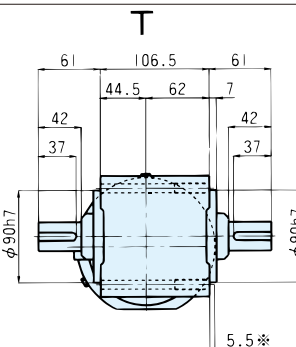
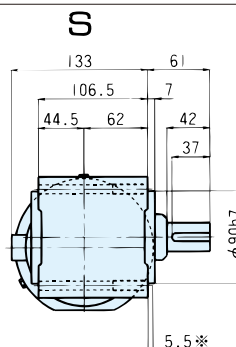
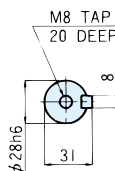
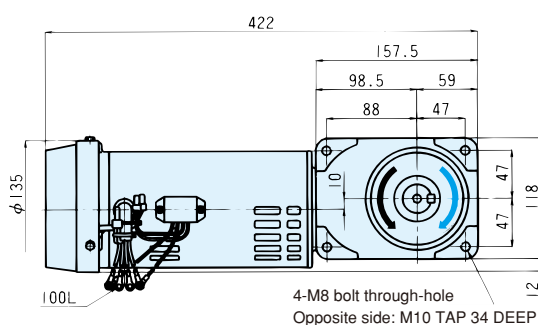
The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

1/5~1/60 ↺、1/80~1/200 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 13.3kg

Reference page : Specification Chart→P134



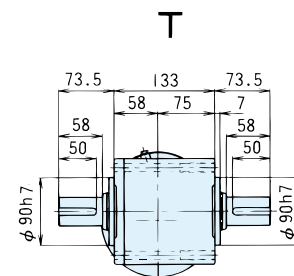
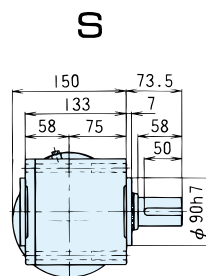
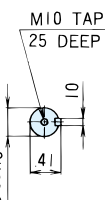
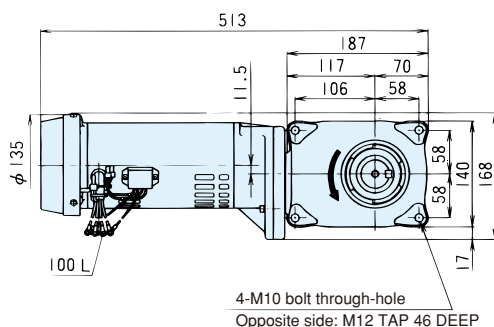
B-78 200W HMTA200-38U300~480 ㊦B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 300, 360, 480

Approx. weight : 20.0kg

Reference page : Specification Chart→P134



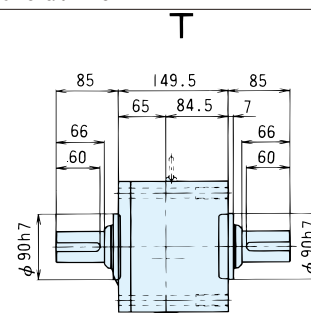
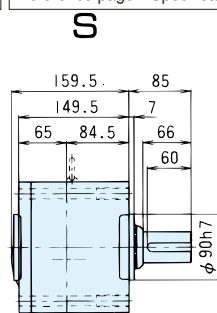
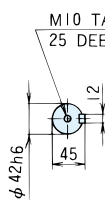
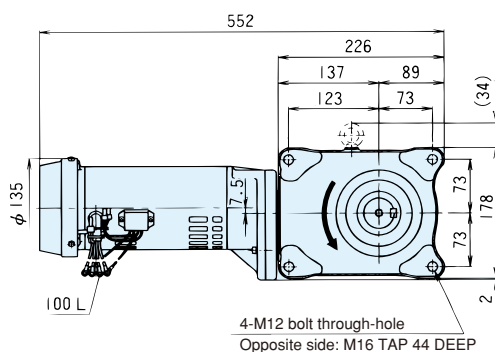
B-79 200W HMTA200-42U600~1200 ㊦B

The direction of rotation of the output shaft is based on direction of rotation A shown on page 189.

Reduction ratio : 600, 720, 960, 1200

Approx. weight : 29.5kg

Reference page : Specification Chart→P134

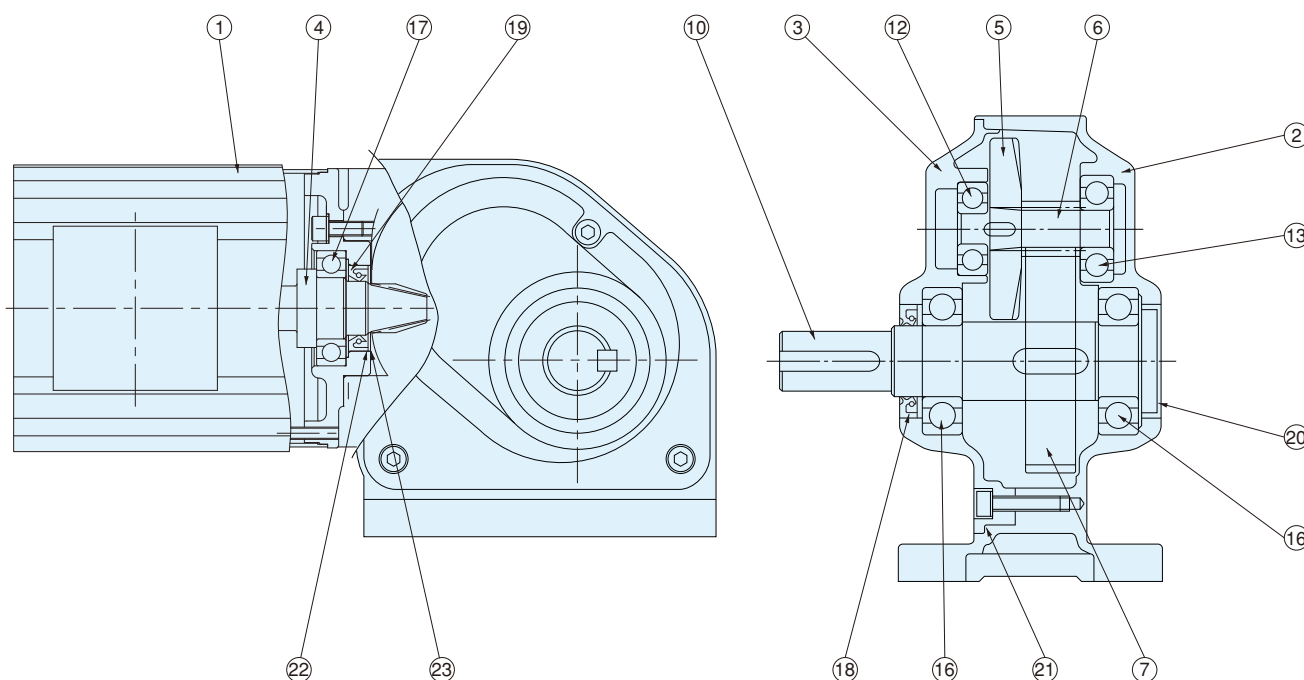


Note) The dimension marked with ※ indicates that part of the motor protrudes from the mounting surface.

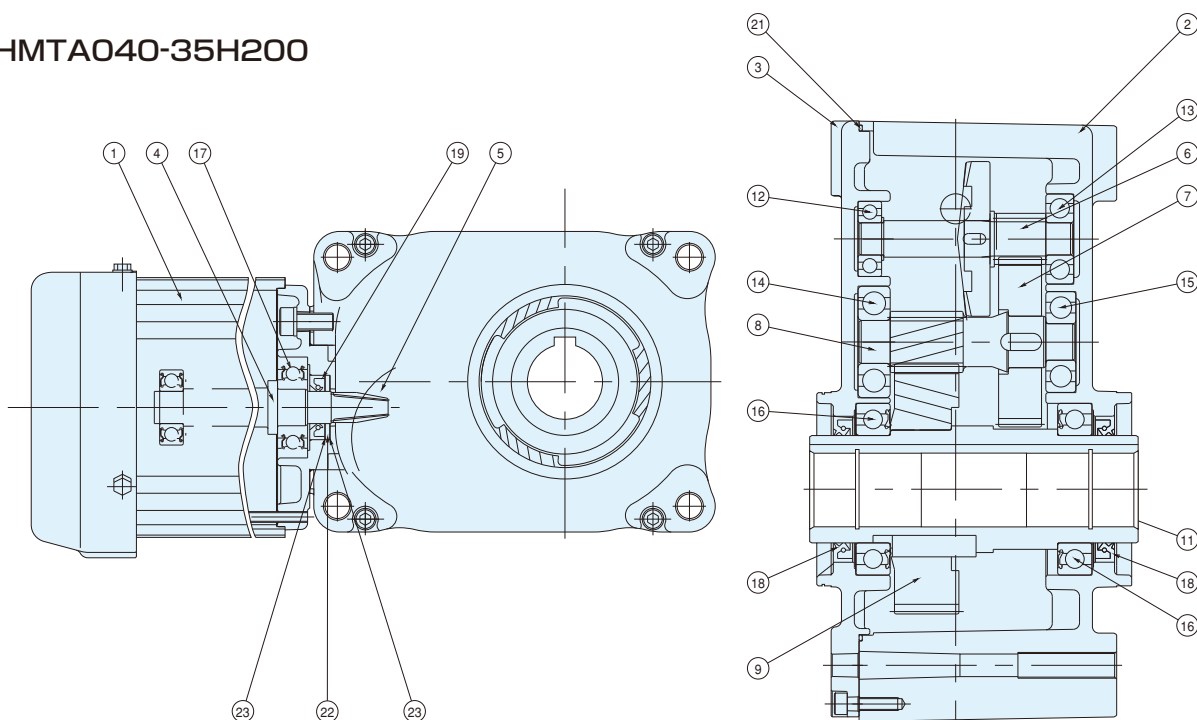
Note) For output shaft arrangement "T," the phases of the right and left output shaft key ways are not necessarily aligned precisely.

Structure of reducer

• HMTA040-24L50R



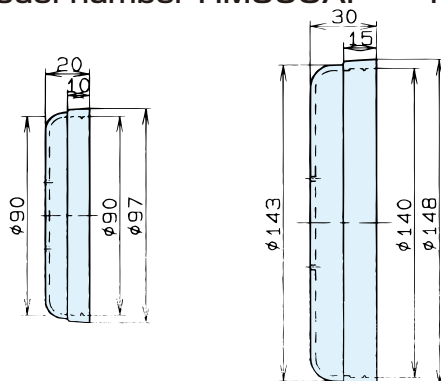
• HMTA040-35H200



- | | | |
|----------------------------------|------------------------------------|-------------------------------------|
| 1. Motor | 9. 3rd stage wheel | 17. Bearing (motor shaft load side) |
| 2. Case | 10. Output shaft | 18. Oil seal (output shaft) |
| 3. Cover | 11. Hollow output shaft | 19. Oil seal (motor shaft) |
| 4. Motor pinion (hypoid pinion) | 12. Bearing (2nd shaft cover side) | 20. Seal cap |
| 5. 1st stage wheel (hypoid gear) | 13. Bearing (2nd shaft case side) | 21. O-ring |
| 6. 2nd shaft with pinion | 14. Bearing (3rd shaft cover side) | 22. Filter |
| 7. 2nd stage wheel | 15. Bearing (3rd shaft case side) | 23. Shim |
| 8. 3rd shaft with pinion | 16. Bearing (output shaft) | |

Safety cap

- Model number HM90CAP
- Model number HM140CAP

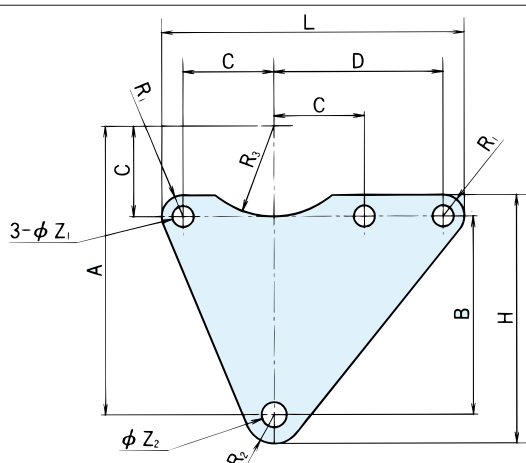


- For the hollow shaft type, the safety cap can be attached to the hollow shaft end opposite to the mounting side.
- Because the safety cap is made of PP resin (polypropylene), it will not rust and stays clean. The safety cap is colored green.

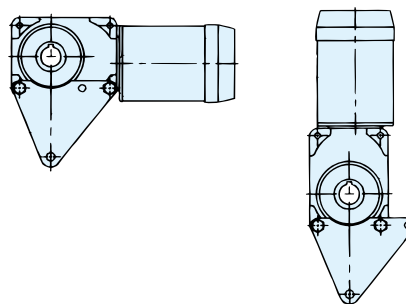
Also applies to adapter and inline reducer types.

Model number	Recommended model	
HM90CAP	HMTA010-30H5~35H1200	HMTA150-45H5~80
	HMTA020-30H5~45H1200	HMTA220-45H5~60
	HMTA040-30H5~55H1200	HMTA100-30H5~35H1200
	HMTA075-35H5~45H200	HMTA200-30H5~45H1200
HM140CAP	HMTA040-55H600~1200	HMTA220-55H80~120
	HMTA075-55H300~480	HMTA370-55H5~60
	HMTA150-55H100~200	HMTA550-55H5~40

Torque arm



- The torque arm can be attached to either the short pitch or the long pitch side according to the mounting condition of the reducer.



Also applies to adapter and inline reducer types.

Model number	Recommended model	A	B	C	D	H	L	R1	R2	R3	ϕZ_1	ϕZ_2	Bolt	Plate thickness t
HM150TA	HMTA010-30H5~480	150	103	47	88	129	157	11	15	47	11	13	M12 recommended	6
	HMTA020-30H5~200													
	HMTA040-30H5~50													
	HMTA100-30H5~480													
	HMTA200-30H5~200													
HM200TA	HMTA010-35H600~1200	200	142	58	106	171	188	12	17	47	13	17	M16 recommended	6
	HMTA020-35H300~480													
	HMTA040-35H60~200													
	HMTA075-35H5~50													
	HMTA100-35H600~1200													
HM250TA	HMTA020-45H600~1200	250	177	73	123	214	228	16	21	—	17	21	M20 recommended	9
	HMTA040-45H300~480													
	HMTA075-45H60~200													
	HMTA150-45H5~80													
	HMTA220-45H5~60													
HM350TA	HMTA200-45H600~1200	350	245	105	182	293	331	22	26	—	22	22	M20 recommended	9
	HMTA040-55H600~1200													
	HMTA075-55H300~480													
	HMTA150-55H100~200													
	HMTA220-55H80~120													
	HMTA370-55H5~60													
	HMTA550-55H5~40													

Hypoid Motor TA Series Installation

HYPOID MOTOR TA

Lubrication

1. Grease lubrication

Grease is used for lubrication.

2. Grease injection

The product is delivered with the correct amount of unleaded grease already installed.

3. Grease change

In most cases, it is not necessary to change or replenish the grease, but if the grease is changed after 20,000 hours of operation, the life will be prolonged.

4. Grease specification

Use grease for high-grade gears with a viscosity No. 000 or equivalent.

5. Recommended grease

Nippon Grease Co., Ltd.: Nigtight LMS No. 000 (this is the unleaded grease installed before delivery)

Showa Shell Sekiyu K.K.: Alvania EP Grease R000

Nippon Oil Co., Ltd.: Pyronoc Universal 000

6. Grease quantity

●Foot mount type

Motor capacity	Reduction ratio	Grease quantity kg
100W 0.1 kW	1/5~1/50	0.17
	1/60	0.40
	1/80~1/200	0.33
	1/300~1/480	0.33+(0.15)
	1/600~1/1200	0.53+(0.15)
200W 0.2 kW	1/5~1/50	0.17
	1/60	0.40
	1/80~1/200	0.33
	1/300~1/480	0.53+(0.2)
	1/600~1/1200	1.15+(0.2)
0.4 kW	1/5~1/50	0.28
	1/60~1/200	0.53
	1/300~1/480	1.15+(0.4)
	1/600~1/1200	3.80+(0.4)
0.75 kW	1/5~1/50	0.47
	1/60~1/200	1.15
	1/300~1/480	3.70+(0.7)
1.5 kW	1/5~1/30	1.40
	1/40~1/80	1.15
	1/100~1/200	3.80
2.2 kW	1/5~1/20	1.40
	1/25~1/60	1.15
	1/80~1/120	3.80
3.7 kW	1/5~1/20	3.70
	1/25~1/60	3.40
5.5 kW	1/5~1/20	3.70
	1/25~1/40	3.40

Note) The values in parentheses are for the high-reduction speed 1st speed reduction stage.

●Face mount type • Hollow shaft type

Motor capacity	Reduction ratio	Grease quantity kg
100W 0.1 kW	1/5~1/60	0.33
	1/80~1/200	0.33
	1/300~1/480	0.33+(0.15)
	1/600~1/1200	0.53+(0.15)
200W 0.2 kW	1/5~1/60	0.33
	1/80~1/200	0.33
	1/300~1/480	0.53+(0.2)
	1/600~1/1200	1.15+(0.2)
0.4 kW	1/5~1/50	0.33
	1/60~1/200	0.53
	1/300~1/480	1.15+(0.4)
0.75 kW	1/600~1/1200	3.80+(0.4)
	1/5~1/30	0.67
	1/40~1/50	0.53
	1/60~1/200	1.15
1.5 kW	1/300~1/480	3.70+(0.7)
	1/5~1/30	1.40
	1/40~1/80	1.15
2.2 kW	1/100~1/200	3.80
	1/5~1/20	1.40
	1/25~1/60	1.15
3.7 kW	1/80~1/120	3.80
	1/5~1/20	3.70
	1/25~1/60	3.40
5.5 kW	1/5~1/20	3.70
	1/25~1/40	3.40

Note) The values in parentheses are for the high-reduction speed 1st speed reduction stage.

7. Oil seal

A contact-type oil seal is used to seal the shaft of the speed reducer housing. In most cases, it is not necessary to replace the oil seal. If the oil seal is replaced after 10,000 hours of operation, though, the life of the reducer will be prolonged. Because the life of the oil seal depends on the use conditions, there may be cases where the oil seal needs to be replaced before 10,000 hours of operation.

If the product is used in equipment for which oil leakage should be particularly avoided, such as food processing machines, install an oil pan or similar device in preparation for unexpected oil leakage due to failure, life expiration or other cause.

Installation

1. Mounting direction

Because all the models employ grease lubrication, they can be mounted in any direction: horizontal, vertical or inclined.

2. Ambient conditions

Installation place	Indoor not exposed to dust or water
Ambient temperature	−20℃ to 40℃
Ambient humidity	Less than 85% (non condensing)
Altitude	At elevations below 1000 m
Atmosphere	Free from corrosive gases, explosive gases and steam
Mounting direction	No limitations on mounting angles: horizontal, vertical or inclined

3. Bolt tightening

(1) Foot mount type

- Use a strong flat mounting surface that is not significantly affected by vibration during operation. After cleaning dirt and foreign matter from the mounting face, securely fasten the product with four bolts.
- When a none directly connected drive is employed or the product is started and stopped frequently, we recommend installing a stopper on the foot section.

(2) Face mount type and hollow shaft type

When installing a face mount type or hollow shaft type, please pay close attention to the following.

① Mounting

If the length of engagement of the mounting bolt and the female threads of the main body is short or the tightening torque is too high, the female threads of the main body may be damaged. If the tightening torque is too low, the bolts attaching the main body may loosen due to impacts caused when starting and stopping.

Use a conical spring washer or a spring washer and a flat washer when mounting the mounting bolt.

② Mounting bolt

a) Type

When the tapped (screw) hole is used for mounting	When the through-hole is used for mounting
Hexagon head bolts (JIS B1051, Strength 4.6)	Hexagon head bolts (JIS B1051, Strength 8.8)
Hexagon socket bolt (JIS B1051, Strength 10.9)	Hexagon socket bolt (JIS B1051, Strength 10.9)

B) Bolt length

When the tapped (screw) hole is used for mounting		When the through-hole is used for mounting	
Threaded portion of case	Length of engagement of bolt	Through-hole size	Bolt length
M10-34mm	31 mm or more	For M 8	120 mm or more
M12-46mm	43 mm or more	For M10	150 mm or more
M16-44mm	40 mm or more	For M12	170 mm or more
M20-55mm	50 mm or more	For M16	210 mm or more

Determine the bolt length based on <Thickness of mounting flange + Length of engagement of bolt shown in the table above>.

Though some bolt lengths exceed the JIS standard range, they are commercially available from bolt makers.

③ Tightening torque

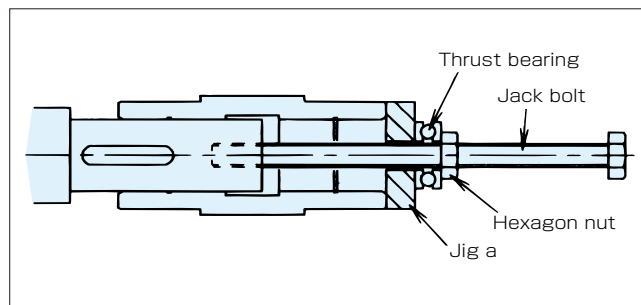
Tighten the bolt to the tightening torque shown in the table below.

Screw size	Hexagon head bolt		Hexagon socket bolt	
	N·m	{kgf·cm}	N·m	{kgf·cm}
M 8	9.8~10.3	{100~105}	9.8~19.6	{100~200}
M10	19.6~20.6	{200~210}	19.6~39.2	{200~400}
M12	34.3~36.6	{350~370}	34.3~68.6	{350~700}
M16	84.3~88.2	{860~900}	84.3~168.6	{860~1720}
M20	84.3~88.2	{860~900}	84.3~168.6	{860~1720}

Attaching and removing the hollow shaft

(1) Attaching to the drive shaft

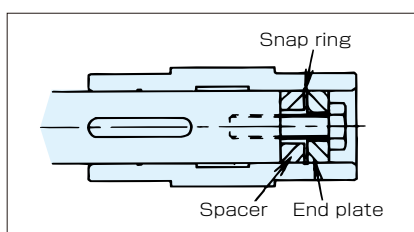
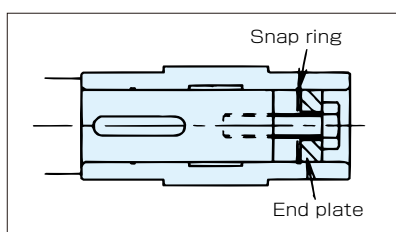
- The tolerance of the inside diameter of the hollow shaft is based on JIS H8. Under normal conditions, the finish of the drive shaft should be h7. When significant shocks or radial loads are caused, it should be js6 or K6 to tighten the fit slightly.
- When connecting the hollow shaft to the drive shaft, apply molybdenum disulfide grease to the surface of the drive shaft and the bore of the hollow output shaft.
- Making and using a jig as shown to the right will enable smooth insertion.



(2) Fastening to the drive shaft

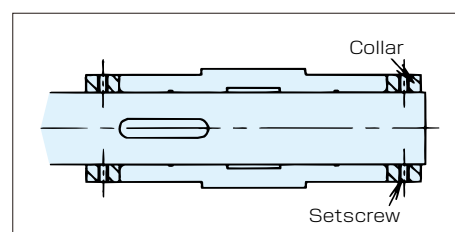
A. When the drive shaft has steps

- As shown in the figure below, make an end plate and fasten the hollow output shaft to the drive shaft.



B. When the drive shaft has no steps

- The following two fastening methods are available.

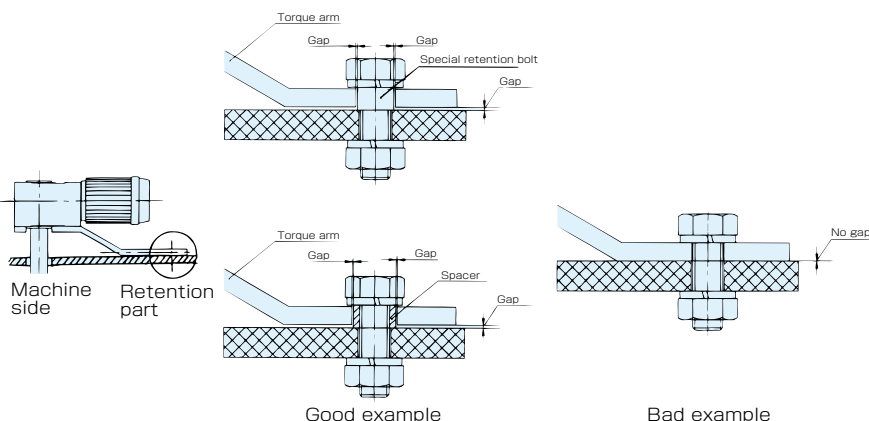


(3) Retention of torque arm

- Using hexagon socket bolts, attach the torque arm to the driven machine side of the hypoid motor.

At the retention point of the torque arm, provide flexibility between the hypoid motor and the drive shaft and never clamp down the torque arm with the retention bolt. If no flexibility is provided, the bearing in the reducer will be damaged.

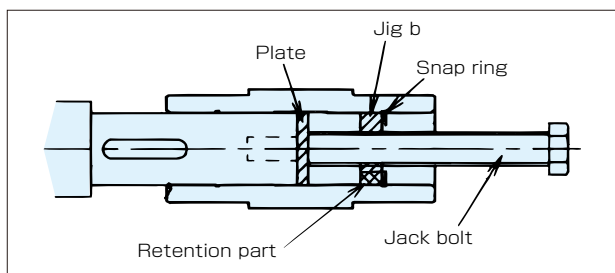
If the starting frequency is high or the rotation is reversed repeatedly, use a rubber bush between the torque arm and the retention bolt (or spacer) to cushion the shock.



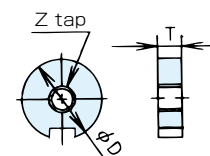
Retention part examples

(4) Removing from drive shaft

- Pull out the drive shaft from the hollow output shaft, while taking care not to apply undue force between the casing and the hollow output shaft.
- Making and using a jig as shown to the right will enable smooth removal.



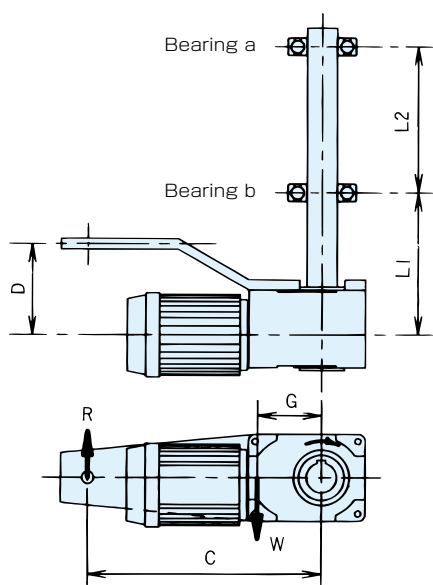
Reference dimensions of jig b and length of drive shaft			
Recommended model	ϕD	T	Z
HMTA010-30H5~480	29.5	9	M10
HMTA020-30H5~200			
HMTA040-30H5~50			
HMTA100-30H5~480			
HMTA200-30H5~200			
HMTA010-35H600~1200	34.5	12	M12
HMTA020-35H300~480			
HMTA040-35H60~200			
HMTA075-35H5~50			
HMTA100-35H600~1200			
HMTA200-35H300~480	44.5	15	M16
HMTA020-45H600~1200			
HMTA040-45H300~480			
HMTA075-45H60~200			
HMTA150-45H5~80			
HMTA220-45H5~60	54.5	18	M18
HMTA200-45H600~1200			
HMTA040-55H600~1200			
HMTA075-55H300~480			
HMTA150-55H100~200			
HMTA220-55H80~120	54.5	18	M18
HMTA370-55H5~60			
HMTA550-55H5~40			



Also applies to the adapter and inline reducer types.

Design of torque arm

Whether a standard torque arm is used or you design and make the torque arm, check the strength of each element in the following manner.



1. Check the torque arm and fixing bolt

Check according to the torque arm reaction force R.

$$R = \frac{T + W \times G}{C}$$

2. Selection of bearing

Check according to the bearing reaction forces A and B.

$$A(\text{Bearing a}) = \frac{L1 \times (R - W) - D \times R}{L2}$$

$$B(\text{Bearing b}) = \frac{(L1 + L2) \times (R - W) - D \times R}{L2}$$

T : Output torque

(N · m) {kgf · m}

W : Weight of reducer (kg) {kgf}

R : Torque arm reaction force (kg) {kgf}

G : Distance between center of drive shaft and center of gravity of reducer (m)

C : Distance between center of drive shaft and retention part (m)

D : Distance between center of reducer and retention part (m)

L 1 : Distance between center of reducer and bearing b (m)

L 2 : Distance between bearing a and bearing b (m)

For the direction of rotation shown in the figure to the left, the output torque is positive. When it is reversed, the output torque is negative.

Dimensions for optional torque arm (approximate value)

Also applies to adapter and inline reducer types.

Model number	HMTA010-30H5~35H1200 HMTA020-30H5~200 HMTA020-45H600~1200 HMTA040-55H600~1200 HMTA100-30H5~35H1200 HMTA200-30H5~200 HMTA200-45H600~1200	HMTA020-35H300~480 HMTA040-30H5~35H200 HMTA220-45H5~55H120 HMTA200-35H300~480	HMTA075-35H5~55H480 HMTA150-55H100~200	HMTA040-45H300~480 HMTA150-45H5~80 HMTA370-55H5~60	HMTA550-55H5~40
G	0.10m	0.12m	0.13m	0.15m	0.26m

Coupling (solid shaft)

1. For direct coupling

- When easy removal and safety are required, we recommend the compact and strong Tsubaki Roller Chain Coupling.
- When the product is used in places where lubrication is impossible, we recommend the Tsubaki Nylon Chain Coupling.
- When shaft misalignment or vibration is anticipated, we recommend the Tsubaki Jaw-flex Coupling.

2. For parallel coupling

- We recommend a strong and safe Tsubaki Roller Chain transmission.

3. Notes on coupling

- (1) Accurately aligning the coupling and shaft center will prolong the operating life of the reducer and shaft coupling.
- (2) For roller chain transmissions, make sure that the reducer's shaft and the mating shaft are parallel and adjust the tension of the chain to eliminate excessive slack.

4. Recommended coupling and roller chain

Motor output kW	Reduction ratio	Output shaft diameter mm	Recommended coupling		
			Roller chain coupling	Nylon chain coupling	Jaw-flex coupling
0.1	1/5~1/50	19	CR4012-J	CN411	L090-H
	1/60~1/200	24	CR4014-J	CN611	L100-H
	1/300~1/480	28	CR4014-J	CN617	L110-H
	1/600~1/1200	38	CR5016-J	—	L190-H
0.2	1/5~1/50	19	CR4012-J	CN415	L095-H
	1/60~1/200	28	CR4014-J	CN617	L110-H
	1/300~1/480	38	CR5016-J	—	L190-H
	1/600~1/1200	42	CR5018-J	—	—
0.4	1/5~1/50	24	CR4014-J	CN611	L100-H
	1/60~1/200	38	CR5016-J	—	L190-H
	1/300~1/480	42	CR5018-J	—	—
	1/600~1/1200	50	CR6018-J	—	—
0.75	1/5~1/50	30	CR4016-J	CN617	L110-H
	1/60~1/200	42	CR5018-J	—	—
	1/300~1/480	50	CR6018-J	—	—
1.5	1/5~1/80	42	CR5018-J	—	L190-H
	1/100~1/200	50	CR6018-J	—	—
2.2	1/5~1/60	42	CR5018-J	—	—
	1/80~1/120	50	CR6018-J	—	—
3.7	1/5~1/60	50	CR6018-J	—	—
5.5	1/5~1/40	50	CR6018-J	—	—

Motor output kW	Reduction ratio	Output shaft diameter mm	Recommended roller chain and number of sprocket teeth
0.1	1/5~1/50	19	RS40-13T
	1/60~1/200	24	RS50-15T
	1/300~1/480	28	RS60-17T
	1/600~1/1200	38	RS80-15T
0.2	1/5~1/50	19	RS50-13T
	1/60~1/200	28	RS60-13T
	1/300~1/480	38	RS80-15T
	1/600~1/1200	42	RS100-16T
0.4	1/5~1/50	24	RS60-13T
	1/60~1/200	38	RS80-15T
	1/300~1/480	42	RS100-16T
	1/600~1/1200	50	RS140-16T
0.75	1/5~1/50	30	RS80-13T
	1/60~1/200	42	RS120-13T
	1/300~1/480	50	RS140-16T
1.5	1/5~1/80	42	RS100-14T
	1/100~1/200	50	RS140-16T
2.2	1/5~1/60	42	RS100-16T
	1/80~1/120	50	RS140-16T
3.7	1/5~1/60	50	RS140-16T
5.5	1/5~1/40	50	RS140-16T

Note) The above should be used for reference purposes only. The O.H.L. value, etc., of the actual layout should be checked.

Wiring

1. Wiring of motor

	Three-phase motor (0.1kW~5.5kW)				Single-phase motor (100W~200W)							
Connection	U V W ○ ○ ○ RST			U V W ○ ○ ○ TSR			U Black X Blue ○		Y Brown V Red ○		U Black X Blue Y Brown V Red ○ ○	
Direction of rotation	A	↻	B	↻	A	↻	B	↻				

- Shown above is the direction of rotation of the motor shaft as viewed from the motor fan cover side.

2. Direction of rotation of output shaft

- The direction of rotation of the output shaft shown in the outline dimensional drawing is the one affected when the shaft arrangement is "R" and the direction of rotation of the motor is "A" above.
- The direction of rotation of the output shaft differs depending on the number of reduction steps. Since there may be 2-step reduction and 3-step reduction in the same outline dimensional drawing, both directions of rotation are shown in such cases.
- For the three-phase motor, interchange any two of U, V and W to reverse the rotation direction.

3. Wiring of brake-type gear motor

- There are various methods for wiring the brake. While referring to the diagram below, select a wiring method suitable to your application.
- For further details, refer to the instruction manual included with the product.

■Wiring diagram

Application		Wiring method			
		Three-phase 200 V 0.1kW~5.5kW	Three-phase 400 V 0.1kW~0.75kW	Three-phase 400 V 1.5kW~3.7kW	Single-phase 100 V 100W~200W
AC internal wiring	- Normal use - Standard shipping specifications				
	- When you want to shorten the stop time - When attaching a phase advancing condenser				
AC external operation	- For use with an inverter (Set the inverter to the MC section) - When operating the brake separately		0.1, 0.2kW 200V 0.4, 0.75kW 230V		
	When stopping accuracy is required (For lift, etc.)				
DC external wiring					

(M) : Motor, (B) : Brake, MC: Electromagnetic contactor, MCa: Auxiliary relay, OCR: Overcurrent relay, : Protective element (varistor)
 DM200D, DM400D, HD100A: DC module (The three-phase 200 V 3.7 kW device is PM90B; the 5.5 kW device is PM180B.)

Notes:

- Use an auxiliary relay with rated load of 250 V AC, 7A or more.
- The contact capacity of the contacts marked with an asterisk in the DC external wiring diagram should be 250 V AC, 10A or more.
- When performing AC external operation on the 0.1 kW-0.75 kW three-phase 400 V level motors, disconnect the N section with a closed end connection binder. Then be sure to insulate the N section. In this case, the necessary input power to the DC module is 200 V for 0.1 kW and 0.2 kW and 230 V for 0.4 kW and 0.75 kW. If a 200 V or 230 V power supply is not available, reduce the voltage to 200 V or 230 V using a transformer. (For the inverter motor type, the input power to the DC module should be 200 V). Use a transformer with the following capacity: (0.1 kW-0.2 kW: 60 VA or more, 0.4 kW-0.75 kW: 150 VA or more).
- The contact capacity of the contacts marked with an asterisk in the DC external wiring diagram for 1.5 kW to 3.7 kW and 400 V should be 400 to 440 V AC: two (or three) contacts with an inductive load of 1A or more should be connected serially.
- The DC module (DM200D, DM400D) includes a protective element for absorbing surges.
- Add a protective element for protecting contacts as necessary.

■Precautions for connecting a varistor when using DC external wiring

When DC external wiring is employed, the power supply module for the brake may be damaged depending on the length of the wiring, the method of wiring, the type of relay, etc. Therefore, connect a varistor between the terminals for DC external wiring.

Connecting it near the power supply module for the brake (to the blue lead wire section for the three-phase motor) will be more effective. The model number of the varistor to be used is as shown below.

The varistor voltage should be 470 V for DM100A and DM200D and 910 V for DM400D.

Name of product	Name of maker	Model number	
		For DM100A, DM200D	For DM400D
Surge absorber	Matsushita Electric Industrial Co., Ltd.	ERZV14D471	ERZV14D911
Set-Lap	Fuji Electric Co., Ltd.	ENC471D-14A	ENC911D-14A
Ceramic varistor	Marcon Electronics Co., Ltd.	TNR15G471K	TNR15G102K

Hypoid Motor TA Series Selection (in common with Gear Motor TA Series Selection)

HYPOID MOTOR TA

Selection coefficient table (in common with Gear Motor TA Series)

Table 1. Service factors : (C_F)

Load condition	Operating hours	
	Less than 10 hours / day	10 hours or more / day
Operation condition	Intermittent · Continuous	
	Intermittent · Continuous	Intermittent · Continuous
Uniform load without shocks	1	1
Load with light shocks	1	1.2

Note) For loads with medium or large shocks, please contact our company.

Table 2. Moment of inertia of motor shaft of hypoid motor and gear motor

(· SI units: Moment of inertia · Gravitational units:GD² The value is the same for both the hypoid motor and the gear motor.)

Motor output kW	Motor specifications	Three-phase motor · Non-brake type		Three-phase motor · Brake type		Single-phase motor · Non-brake type		Single-phase motor · Brake type	
		Moment of inertia		Moment of inertia		Moment of inertia		Moment of inertia	
		kg·m ²	{kgf·m ² }	kg·m ²	{kgf·m ² }	kg·m ²	{kgf·m ² }	kg·m ²	{kgf·m ² }
0.1	Standard · Inverter motor	0.64×10 ⁻³	{2.54×10 ⁻³ }	0.66×10 ⁻³	{2.64×10 ⁻³ }	0.60×10 ⁻³	{2.40×10 ⁻³ }	0.85×10 ⁻³	{3.40×10 ⁻³ }
0.2	Standard · Inverter motor	0.74×10 ⁻³	{2.96×10 ⁻³ }	0.78×10 ⁻³	{3.12×10 ⁻³ }	0.88×10 ⁻³	{3.50×10 ⁻³ }	1.30×10 ⁻³	{5.20×10 ⁻³ }
0.4	Standard · Inverter motor	0.90×10 ⁻³	{3.59×10 ⁻³ }	0.94×10 ⁻³	{3.74×10 ⁻³ }				
0.75	Standard · Inverter motor	1.37×10 ⁻³	{5.48×10 ⁻³ }	1.47×10 ⁻³	{5.89×10 ⁻³ }				
1.5	Standard	3.41×10 ⁻³	{13.6×10 ⁻³ }	3.62×10 ⁻³	{14.5×10 ⁻³ }				
	Inverter motor	3.91×10 ⁻³	{15.6×10 ⁻³ }	4.12×10 ⁻³	{16.5×10 ⁻³ }				
2.2	Standard	4.79×10 ⁻³	{19.2×10 ⁻³ }	5.00×10 ⁻³	{20.0×10 ⁻³ }				
	Inverter motor	5.23×10 ⁻³	{20.9×10 ⁻³ }	5.44×10 ⁻³	{21.7×10 ⁻³ }				
3.7	Standard	7.60×10 ⁻³	{30.4×10 ⁻³ }	8.10×10 ⁻³	{32.4×10 ⁻³ }				
	Inverter motor	8.24×10 ⁻³	{32.9×10 ⁻³ }	8.75×10 ⁻³	{35.0×10 ⁻³ }				
5.5	Standard	19.6×10 ⁻³	{78.6×10 ⁻³ }	21.3×10 ⁻³	{85.2×10 ⁻³ }				
	Inverter motor	21.4×10 ⁻³	{85.2×10 ⁻³ }	23.0×10 ⁻³	{92.0×10 ⁻³ }				

(Note) No inverter-type single-phase motor is available.
The 5.5 kW brake type is a quasi-standard product.

Table 3. Inertia ratio and allowable starting frequency

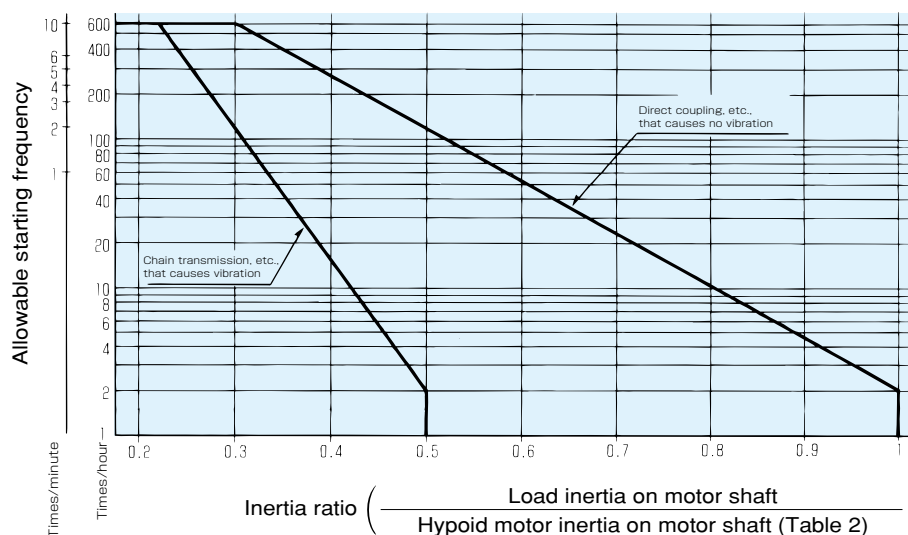


Table 4. Transmission factor coefficient : (f)

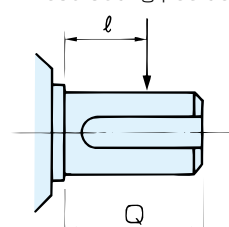
Chain	Gear · Toothed belt
1	1.25

Note) When using a high-strength toothed belt, do not use the transmission coefficient shown in Table 4, but take into account the mounting tension in calculating the O.H.L.

Table 5. Load acting position coefficient : (Lf)

ℓ / Q	0.25	0.38	0.50	0.75	1
Lf	0.8	0.9	1	1.5	2

Load acting position



Example of selection (in common with Gear Motor TA Series Selection)

A : Foot mount

Material total molarity (Material total weight) : $M=150\text{kg}$ ($W=150\text{kgf}$)

Material velocity : $V=14\text{m/min}$

Friction coefficient of guide rail : $\mu=0.15$

Efficiency of chain transmission : $\eta=0.95$

Operation hours : 8 hours/day

Starting frequency : 10 times/hour

Stopping : Immediate stopping (brake)

Power supply : Three-phase 200 V, 60 Hz

Shaft arrangement : Right

B : Hollow shaft mount

"A" and "B" in the example of selection means the mounting types shown in the figure to the left.

A: Foot mount

B: Hollow shaft mount

For the gear motor, conform to "A" in the example.

Selection of model (SI units)

1. Determination of reduction ratio

- Determine the reduction ratio based on the necessary output shaft revolution speed.
- Refer to the reduction ratios shown in the specification chart.

A : (1) Calculate the conveyor shaft revolution speed (n_c).

$$n_c = \frac{V \times 1000}{D \times \pi} = \frac{14 \times 1000}{200 \times \pi} = 22.3 \text{ r/min}$$

(2) Calculate the hypoid motor output shaft revolution speed (n_L).

$$n_L = n_c \times \frac{2}{1} = 44.6 \text{ r/min}$$

(3) Determine the reduction ratio.

According to the specification chart on page 131, an output shaft revolution speed of 45 r/min is closest to "60 Hz, 44.6 r/min" and therefore the suitable reduction ratio is 1/40.

B : (1) Calculate the conveyor shaft revolution speed (n_c).

$$n_c = \frac{V \times 1000}{D \times \pi} = \frac{14 \times 1000}{200 \times \pi} = 22.3 \text{ r/min}$$

(2) Calculate the hypoid motor output shaft revolution speed (n_L).

$$n_L = n_c = 22.3 \text{ r/min}$$

(3) Determine the reduction ratio.

According to the specification chart on page 131, an output shaft revolution speed of 22.5 r/min is closest to "60 Hz, 22.3 r/min" and therefore the suitable reduction ratio is 1/80.

2. Calculation of output shaft torque

- Calculate the necessary output shaft torque based on the load torque.
- According to the operating conditions, use the appropriate service factor shown in Table 1 on page 191 to calculate the corrected output shaft torque.

A : (1) Calculate the necessary conveyor shaft torque (T_c).

$$T_c = 9.8 \mu M \frac{D}{2} \times \frac{1}{1000} \times \frac{1}{\eta}$$

$$= 9.8 \times 0.15 \times 150 \times \frac{200}{2000} \times \frac{1}{0.95} = 23.2 \text{ N} \cdot \text{m}$$

Selection of model (gravitational units)

1. Determination of reduction ratio

- Determine the reduction ratio based on the necessary output shaft revolution speed.
- Refer to the reduction ratios shown in the specification chart.

A : (1) Calculate the conveyor shaft revolution speed (n_c).

$$n_c = \frac{V \times 1000}{D \times \pi} = \frac{14 \times 1000}{200 \times \pi} = 22.3 \text{ r/min}$$

(2) Calculate the hypoid motor output shaft revolution speed (n_L).

$$n_L = n_c \times \frac{2}{1} = 44.6 \text{ r/min}$$

(3) Determine the reduction ratio.

According to the specification chart on page 131, an output shaft revolution speed of 45 r/min is closest to "60 Hz, 44.6 r/min" and therefore the suitable reduction ratio is 1/40.

B : (1) Calculate the conveyor shaft revolution speed (n_c).

$$n_c = \frac{V \times 1000}{D \times \pi} = \frac{14 \times 1000}{200 \times \pi} = 22.3 \text{ r/min}$$

(2) Calculate the hypoid motor output shaft revolution speed (n_L).

$$n_L = n_c = 22.3 \text{ r/min}$$

(3) Determine the reduction ratio.

According to the specification chart on page 131, an output shaft revolution speed of 22.5 r/min is closest to "60 Hz, 22.3 r/min" and therefore the suitable reduction ratio is 1/80.

2. Calculation of output shaft torque

- Calculate the necessary output shaft torque based on the load torque.
- According to the operating conditions, use the appropriate service factor shown in Table 1 on page 191 to calculate the corrected output shaft torque.

A : (1) Calculate the necessary conveyor shaft torque (T_c).

$$T_c = \mu W \frac{D}{2} \times \frac{1}{1000} \times \frac{1}{\eta}$$

$$= 0.15 \times 150 \times \frac{200}{2000} \times \frac{1}{0.95} = 2.37 \text{ kgf} \cdot \text{m}$$

SI units continued

- (2) Calculate the hypoid motor output shaft torque (T_L) based on the conveyor shaft torque.

$$T_L = T_C \times \frac{1}{2} \times \frac{1}{\eta}$$

$$= 23.2 \times \frac{1}{2} \times \frac{1}{0.95} = 12.2 \text{ N} \cdot \text{m}$$

- (3) Calculate the corrected output shaft torque (T_F).
According to Table 1 on page 191,
Service factor $C_F = 1$

$$T_F = T_L \times 1 = 12.2 \text{ N} \cdot \text{m}$$

- (4) Determine the motor capacity.

According to the specification charts on pages 131 to 134, the motor capacity suitable for "Reduction ratio: 1/40, 60 Hz, Torque: 12.2 N · m" is 0.1 kW.

- B : (1) Calculate the necessary conveyor shaft torque (T_C).

$$T_C = 9.8 \mu M \frac{D}{2} \times \frac{1}{1000}$$

$$T_C = 9.8 \times 0.15 \times 150 \times \frac{200}{2000} = 22.1 \text{ N} \cdot \text{m}$$

- (2) Because the hypoid motor output shaft torque (T_L) is equal to the conveyor shaft torque,

$$T_L = T_C = 22.1 \text{ N} \cdot \text{m}$$

- (3) Calculate the corrected output shaft torque (T_F).
According to Table 1 on page 191,
Service factor $C_F = 1$

$$T_F = T_L \times 1 = 22.1 \text{ N} \cdot \text{m}$$

- (4) Determine the motor capacity.

According to the specification charts on pages 131 to 134, the motor capacity suitable for "Reduction ratio: 1/80, 60 Hz, Torque: 22.1 N · m" is 0.1 kW.

3. Tentative determination of model number

In consideration of the reduction ratio, torque and immediate stopping requirements,

A : Tentatively select Brake-type Hypoid Motor HMTA010-19L40RB and confirm the conditions.

B : Tentatively select Brake-type Hypoid Motor HMTA010-30H80B and confirm the conditions.

4. Confirmation of moment of inertia of load and starting frequency

- When the motor starts to drive a load that has a large moment of inertia (or when the brake-type motor stops such a load), a large torque will occur instantaneously and may cause an unexpected accident. To avoid this, check the load coupling method and the moment of inertia of the load.

- A : (1) Calculate the moment of inertia of the load on the conveyor shaft (I_C).

$$I_C = MR^2 = 150 \times 0.1^2 = 1.5 \text{ kg} \cdot \text{m}^2$$

- (2) Calculate the moment of inertia on the motor shaft (I_M).

$$I_M = I_C \times \frac{1}{i_C^2} \times \frac{1}{i_L^2}$$

$$= 1.5 \times \left(\frac{1}{2}\right)^2 \times \left(\frac{1}{40}\right)^2$$

$$= 0.23 \times 10^{-3} \text{ kg} \cdot \text{m}^2$$

- (3) Calculate the inertia ratio (U) for the hypoid motor.

$$U = \frac{I_M}{I_M}$$

According to Table 2 on page 191, the moment of inertia on the motor shaft (I_M) is

$$0.66 \times 10^{-3} \text{ kg} \cdot \text{m}^2.$$

$$U = \frac{0.23 \times 10^{-3}}{0.66 \times 10^{-3}} \approx 0.35$$

Gravitational units

- (2) Calculate the hypoid motor output shaft torque (T_L) based on the conveyor shaft torque.

$$T_L = T_C \times \frac{1}{2} \times \frac{1}{\eta}$$

$$= 2.37 \times \frac{1}{2} \times \frac{1}{0.95} = 1.25 \text{ kgf} \cdot \text{m}$$

- (3) Calculate the corrected output shaft torque (T_F).
According to Table 1 on page 191,
Service factor $C_F = 1$

$$T_F = T_L \times 1 = 1.25 \text{ kgf} \cdot \text{m}$$

- (4) Determine the motor capacity.

According to the specification charts on pages 131 to 134, the motor capacity suitable for "Reduction ratio: 1/40, 60 Hz, Torque: 1.25 kgf · m" is 0.1 kW.

- B : (1) Calculate the necessary conveyor shaft torque (T_C).

$$T_C = \mu M \frac{D}{2} \times \frac{1}{1000}$$

$$T_C = 0.15 \times 150 \times \frac{200}{2000} = 2.25 \text{ kgf} \cdot \text{m}$$

- (2) Because the hypoid motor output shaft torque (T_L) is equal to the conveyor shaft torque,

$$T_L = T_C = 2.25 \text{ kgf} \cdot \text{m}$$

- (3) Calculate the corrected output shaft torque (T_F).
According to Table 1 on page 191,
Service factor $C_F = 1$

$$T_F = T_L \times 1 = 2.25 \text{ kgf} \cdot \text{m}$$

- (4) Determine the motor capacity.

According to the specification charts on pages 131 to 134, the motor capacity suitable for "Reduction ratio: 1/80, 60 Hz, Torque: 2.25 kgf · m" is 0.1 kW.

3. Tentative determination of model number

In consideration of the reduction ratio, torque and immediate stopping specifications, tentatively select the following brake-type hypoid motors and check the conditions.

A : HMTA010-19L40RB,

B : HMTA010-30H80B and confirm the conditions.

4. Confirmation of the load inertia (GD^2) and starting frequency

- When a motor starts to drive a load that has a large inertia (GD^2) (or when a brake-type motor stops such a load), a large torque will occur instantaneously and this may cause an unexpected accident. To avoid this, check the load coupling method and the load inertia (GD^2).

- A : (1) Calculate the load inertia (GD_C^2) on the conveyor shaft (GD_C^2).

$$GD_C^2 = WD^2 = 150 \times 0.2^2 = 6 \text{ kgf} \cdot \text{m}^2$$

- (2) Calculate the load inertia (GD^2) on the motor shaft (GD_M^2).

$$GD_M^2 = GD_C^2 \times \frac{1}{i_C^2} \times \frac{1}{i_L^2}$$

$$= 6 \times \left(\frac{1}{2}\right)^2 \times \left(\frac{1}{40}\right)^2$$

$$= 0.94 \times 10^{-3} \text{ kgf} \cdot \text{m}^2$$

- (3) Calculate the inertia ratio (U) for the hypoid motor.

$$U = \frac{GD_M^2}{GD_M^2}$$

According to Table 2 on page 191, GD_M^2 is

$$2.64 \times 10^{-3} \text{ kgf} \cdot \text{m}^2.$$

$$U = \frac{0.94 \times 10^{-3}}{2.64 \times 10^{-3}} \approx 0.36$$

SI units continued

- (4) Confirmation of the starting frequency
According to Table 3 on page 191, the allowable starting frequency is 30 times/min, which is satisfactory.

B : (1) Calculate the moment of inertia of the load on the conveyor shaft (I_C).

$$I_C = MR^2 = 150 \times 0.1^2 = 1.5 \text{ kg} \cdot \text{m}^2$$

- (2) Calculate the moment of inertia on the motor shaft (I_E).

$$\begin{aligned} I_E &= I_C \times \frac{1}{i^2 L} \\ &= 1.5 \times \left(\frac{1}{80}\right)^2 \\ &= 0.23 \times 10^{-3} \text{ kg} \cdot \text{m}^2 \end{aligned}$$

- (3) Calculate the inertia ratio (U) for the hypoid motor.

$$U = \frac{I_E}{I_M}$$

According to Table 2 on page 191, the moment of inertia on the motor shaft (I_M) is

$$\begin{aligned} 0.66 \times 10^{-3} \text{ kg} \cdot \text{m}^2 \\ U = \frac{0.23 \times 10^{-3}}{0.66 \times 10^{-3}} \approx 0.35 \end{aligned}$$

- (4) Confirmation of the starting frequency
According to Table 3 on page 191, the allowable starting frequency is 6 times/min, which is satisfactory.

- ※ If the allowable starting frequency is not satisfactory, the reducer may be damaged and its life expectancy shortened. In such cases, redo model selection and check the conditions again, or use the selected motor with the starting frequency lowered.
- If you cannot lower the starting frequency, the usage life will be reduced, so please contact our company.
- If the inertia ratio is large, we recommend that you perform soft starting, using an inverter, etc.

5. Confirmation of overhang load (O.H.L.)

- When attaching a sprocket, gear or belt to the output shaft or input shaft, check that the overhang load acting on the shaft is less than the allowable overhang load (shown in the specification chart) for the hypoid motor used. Calculate the O.H.L.

$$\text{O.H.L.} = \frac{2000 T_F \times f \times L_f}{D_s}$$

A : Assuming that the load acts on the midpoint of the length of the shaft, the following is obtained from Table 4 and Table 5 on page 191.

$$\begin{aligned} f &= 1 \quad L_f = 1 \\ \text{P.C.D. of RS60-13T} &= 79.6 \text{ mm} \\ \text{O.H.L.} &= \frac{2000 \times 12.2 \times 1 \times 1}{79.6} \\ &= 307 \text{ N} \end{aligned}$$

Check that the calculated O.H.L. is less than the allowable O.H.L.

Since the allowable O.H.L. shown in the characteristics chart is 1617 N, the calculated O.H.L. is within the limit.

B : Assuming that the load acts on a position located away from the hollow output shaft end by $\varnothing$ as shown in the figure below, the following is obtained.

$$\begin{aligned} f &= 1 \quad L_f = 1 \\ \text{O.H.L.} &= \frac{2000 \times 22.1 \times 1 \times 1}{200} \\ &= 221 \text{ N} \end{aligned}$$

Check that the calculated O.H.L. is less than the allowable O.H.L.

Because the allowable O.H.L. shown in the specification chart is 2254 N, the calculated O.H.L. is within the limit.

- ※ If the calculated O.H.L. exceeds the allowable O.H.L., shift the load acting position toward the base of the output shaft, use a sprocket with longer P.C.D., or select a larger hypoid motor.

Gravitational units

- (4) Confirmation of the starting frequency
According to Table 3 on page 191, the allowable starting frequency is 30 times/min, which is satisfactory.

B : (1) Calculate the load inertia (GD_C^2) on the conveyor shaft (GD_C^2).

$$GD_C^2 = WD^2 = 150 \times 0.2^2 = 6 \text{ kgf} \cdot \text{m}^2$$

- (2) Calculate the load inertia (GD^2) on the motor shaft (GD_M^2).

$$\begin{aligned} GD_M^2 &= GD_C^2 \times \frac{1}{i^2 L} \\ &= 6 \times \left(\frac{1}{80}\right)^2 \\ &= 0.94 \times 10^{-3} \text{ kgf} \cdot \text{m}^2 \end{aligned}$$

- (3) Calculate the inertia ratio (U) for the hypoid motor.

$$U = \frac{GD_M^2}{GD_M^2}$$

According to Table 2 on page 191, GD_M^2 is

$$\begin{aligned} 2.64 \times 10^{-3} \text{ kgf} \cdot \text{m}^2 \\ U = \frac{0.94 \times 10^{-3}}{2.64 \times 10^{-3}} \approx 0.36 \end{aligned}$$

- (4) Confirmation of the starting frequency
According to Table 3 on page 191, the allowable starting frequency is 6 times/min, which is satisfactory.

- ※ If the allowable starting frequency is not satisfactory, the reducer may be damaged and its life expectancy shortened. In such cases, redo model selection and check the conditions again, or use the selected motor with the starting frequency lowered.
- If you cannot lower the starting frequency, the usage life will be reduced, so please contact our company.
- If the inertia ratio is large, we recommend that you perform soft starting, using an inverter, etc.

5. Confirmation of overhang load (O.H.L.)

- When attaching a sprocket, gear or belt to the output shaft or input shaft, check that the overhang load acting on the shaft is less than the allowable overhang load (shown in the specification chart) for the hypoid motor used. Calculate the O.H.L.

$$\text{O.H.L.} = \frac{2000 T_F \times f \times L_f}{D_s}$$

A : Assuming that the load acts on the midpoint of the length of the shaft, the following is obtained from Table 4 and Table 5 on page 191.

$$\begin{aligned} f &= 1 \quad L_f = 1 \\ \text{P.C.D. of RS60-13T} &= 79.6 \text{ mm} \\ \text{O.H.L.} &= \frac{2000 \times 1.25 \times 1 \times 1}{79.6} \\ &= 31.4 \text{ kgf} \end{aligned}$$

Check that the calculated O.H.L. is less than the allowable O.H.L.

Since the allowable O.H.L. shown in the characteristics chart is 165kgf, the calculated O.H.L. is within the limit.

B : Assuming that the load acts on a position located away from the hollow output shaft end by $\varnothing$ as shown in the figure below, the following is obtained.

$$\begin{aligned} f &= 1 \quad L_f = 1 \\ \text{O.H.L.} &= \frac{2000 \times 2.25 \times 1 \times 1}{200} \\ &= 22.5 \text{ kgf} \end{aligned}$$

Check that the calculated O.H.L. is less than the allowable O.H.L.

Because the allowable O.H.L. shown in the specification chart is 230kgf, the calculated O.H.L. is within the limit.

- ※ If the calculated O.H.L. exceeds the allowable O.H.L., shift the load acting position toward the base of the output shaft, use a sprocket with longer P.C.D., or select a larger hypoid motor.

Hypoid Motor TA Series Selection

HYPOID MOTOR TA

SI units continued

6. Determination of model number

The models that satisfy the above-mentioned mounting method, power supply, immediate stopping requirements, torque, reduction ratio, starting frequency and O.H.L. are as follows:

Brake-type hypoid motors

A : HMTA010-19L40RB

B : HMTA010-30H80B

Gravitational units

6. Determination of model number

The models that satisfy the above-mentioned mounting method, power supply, immediate stopping requirements, torque, reduction ratio, starting frequency and O.H.L. are as follows:

Brake-type hypoid motors

A : HMTA010-19L40RB

B : HMTA010-30H80B

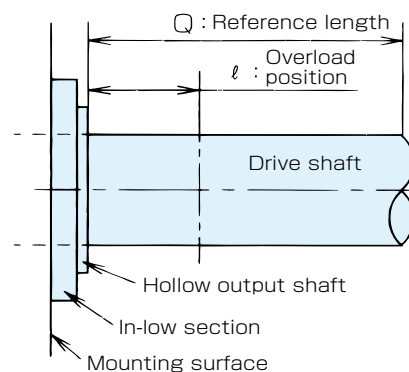
Cautions for selection of a hollow shaft type Overhang load (O.H.L.)

O.H.L. overload position

The allowable O.H.L. values for the following dimensions are shown in the specification charts (pages 131 to 134).

HMTA010-30H5~200	ℓ	9	13.7	18	27	36
HMTA100-30H5~200	Q	36				
HMTA010-30H300~480	ℓ	10.5	16	21	31.5	42
HMTA020-30H5~200	Q	42				
HMTA040-30H5~50						
HMTA100-30H300~480	Q	58				
HMTA200-30H5~200						
HMTA010-35H600~1200	ℓ	14.5	22	29	43.5	58
HMTA020-35H300~480	Q	66				
HMTA040-35H60~200						
HMTA075-35H5~50	Q	82				
HMTA100-35H600~1200						
HMTA200-35H300~480	Q	1				
HMTA020-45H600~1200						
HMTA040-45H300~480	ℓ	16.5	25.1	33	49.5	66
HMTA075-45H60~200	Q	1.5				
HMTA150-45H5~80						
HMTA220-45H5~60	Q	2				
HMTA200-45H600~1200						
HMTA040-55H600~1200	ℓ	20.1	31.1	41	61.5	82
HMTA075-55H300~480	Q	0.25				
HMTA150-55H100~200						
HMTA220-55H80~120	Q	0.38				
HMTA370-55H5~60						
HMTA550-55H5~40	Q	0.5				
ℓ/Q		0.25	0.38	0.5	0.75	1
Lf		0.8	0.9	1	1.5	2

Also applies to adapter and inline reducer types.



Special products

We manufacture special products in addition to our standard products. Please place orders for special products, using option and specification codes.

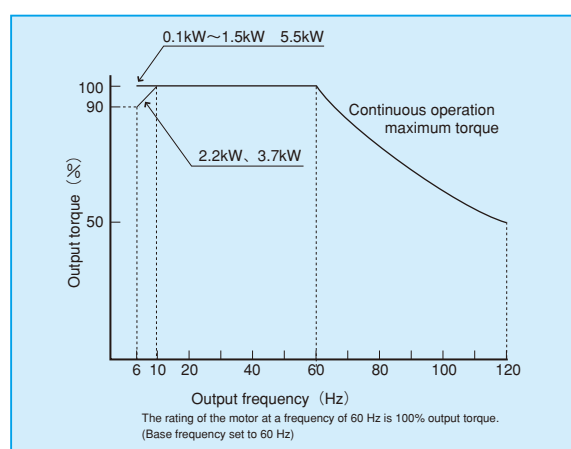
For instance, the following specifications are available. For an explanation of model numbers, refer to pages 127 and 128.

- | | | |
|---|--|----------------------|
| ①Outdoor motor type | ②Special voltage motor type | ③Inverter motor type |
| ④Ready for CE, UL, CCC (Consult us for details) | ⑤One-touch brake manual release type | ⑦Paint color |
| ⑥Specification of terminal box position | ⑧Encoder type (described in the section for gear motors) | ⑨POWER-LOCK type |
| ⑩Shock Relay specification (hypoid motor, gear motor) | ⑪Special hollow shaft hole diameter | |
| ⑪Manual shaft type (0.1 kW to 0.75 kW) (described in the section for gear motors) | | |

In addition, steel plate fan covers, steel plate terminal boxes, lead wire lagging, etc., are available for 0.1 kW to 0.75 kW models; special variable voltage, hot-zone-passing processing, class B insulation, class F insulation, cold-resistant types, heat-resistant types, etc., are available for 0.1 kW to 5.5 kW models.

Inverter motor type

(Optimum for inverter driving)



**Quick-delivery
made-to-order product**

- ★Exactly the same size as the standard product
- ★Quick delivery time of one week
- ★Low price

An inverter-ready motor optimum for inverter driving is coupled directly.

At frequencies of 6 to 60 Hz, constant-torque running can be performed with the torque at a frequency of 60 Hz being used as the continuous running torque.

For the 2.2 kW and 3.7 kW devices, reduction of torque is produced at frequencies of 10 Hz or less. (90% torque at a frequency of 6 Hz.)

- At frequencies of 60 to 120 Hz, as with the standard motor, there is a characteristic zone with constant horsepower and the output torque is limited. Care should therefore be taken with the load torque.
- Be sure to adjust the output voltage of the inverter so that the input voltage from the inverter to the motor conforms to the voltage and frequency indicated on the nameplate.
- If 100% torque is required at low frequencies, apply a torque boost with the inverter as necessary. Continuous operation for a long time with too much torque boost applied will cause overheating, which should be avoided.
- The motor may resonate depending on the revolution speed and frequency. When operating continuously, avoid the resonance frequency by, for example, changing the carrier frequency setting of the inverter.
- When the load is low, at the time of a trial run, for example, the current may become large at low frequencies. This is due to motor characteristics and does not indicate an abnormal condition. It is possible to decrease the current by changing the setting of the inverter (reducing the torque boost, reducing the V/F ratio and adjusting the torque vector).
- In order to prevent the motor from overheating, use an electronic thermal relay adjusted to the general motor characteristics or provide a thermal relay, etc., between the inverter and motor.
- For the brake-types, refer to the wiring diagram on page 190. If braking is performed at high frequencies above 60 Hz, mechanical damage or excessive wear on the lining of the brake will be caused. Therefore, be sure to perform braking at frequencies of 60 Hz or less.

POWER-LOCK type (made-to-order products for other than the standard shaft hole diameter)

Attaching the POWER-LOCK of external tightening type to the hollow shaft will realize keyless coupling easily.

Features

(1) Keyway not necessary

A keyway in the drive shaft is not necessary.

(2) Easy coupling and decoupling

Since no key is used, installation and removal can be performed easily.

(3) Connection remains tight and secure

Strong frictional coupling makes it unnecessary to take troublesome measures against becoming detached or loose.

(4) No backlash and no fretting corrosion

Because of keyless coupling, the drive shaft and hollow shaft are free of backlash.

Recommended models

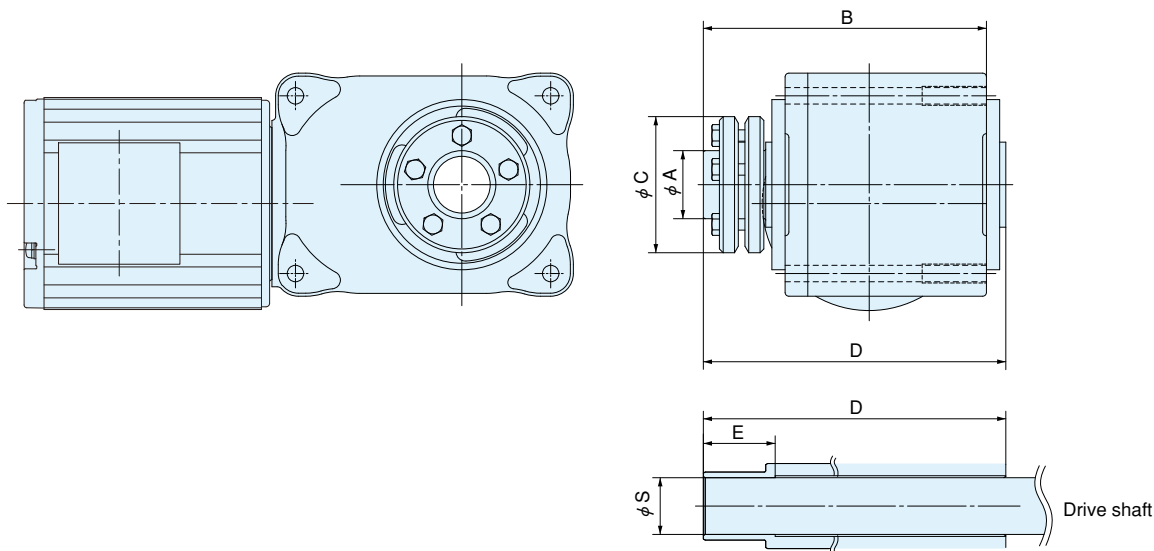
0.1kW~0.75kW 1/5~1/200

1.5kW 1/5~1/80

Specifications

- Because the characteristics (allowable output shaft torque, allowable output shaft O.H.L., dimensions, etc.) of the hypoid motor are the same as those of the standard hollow-shaft-type hypoid motor, refer to the values shown on those pages.
- For selection of a hypoid motor model and the notes on handling of the hypoid motor and POWER-LOCK, refer to the descriptions and the instruction manual for the standard product.

Mounting list



Unit:mm

Capacity kW	Reduction ratio	ϕS H7	ϕA	ϕC	E	D	B	Power lock model number	Bolt size	Tightening torque MA N·m {kgf·m}
0.1	1/5~1/200	30	36	72	38	160	150	PL036×072SL	M6×20	11.8 {1.2}
0.2	1/5~1/200									
0.4	1/5~1/50	35	44	80	40	188	178	PL044×080SL	M6×20	11.8 {1.2}
	1/60~1/200									
0.75	1/5~1/50	45	55	100	45	210	200	PL055×100SL	M6×25	11.8 {1.2}
	1/60~1/200									
1.5	1/5~1/80									

Note 1) The drive shaft to be coupled to the hypoid motor hollow shaft should have a dimensional tolerance of ϕS h6, a finish length of dimension E or longer and a surface roughness of 12 S or less. The finished surface of the drive shaft should be located within the range indicated by E.

Note 2) For 0.1 to 0.4 kW and 1/5 to 1/50 of 0.75 kW, a special safety cap is available.

Hypoid Motor TA Series Others

HYPOID MOTOR TA

Shock Relay specification (hypoid motor, gear motor)

If the motor current exceeds the set value due to an overload, the shock relay functions after a given time to stop the motor directly, thus protecting the machinery.

Features

- The dedicated Shock Relay is included in the terminal box: only wiring of the motor power supply is required.
- The Shock Relay detects the motor current and functions instantaneously to protect the reducer and machinery.
- The load current and shock time can be set, enabling appropriate protection.

Note 1) Shock Relays ready for 400 V level and CE marking are not available.
Note 2) The shock relay cannot be used for inverter driving.



Ambient conditions

Ambient temperature	0~40℃
Ambient humidity	Less than 85% (non condensing)
Mounting direction	No limitations on mounting angles: horizontal, vertical or inclined
Vibration	4.9m/s ² {0.5G} or less (20~50Hz)

Hypoid motor model list

Reduction ratio / Capacity	0.1kW	0.2kW	0.4kW
1/5	●	●	●
1/10	●	●	●
1/15	●	●	●
1/20	●	●	●
1/25	●	●	●
1/30	●	●	●
1/40	●	●	●
1/50	●	●	●
1/60	●	●	●
1/80	●	●	●
1/100	●	●	●
1/120	●	●	●
1/160	●	●	●
1/200	●	●	●
1/300	●	●	●
1/360	●	●	●
1/480	●	●	●
1/600	●	●	●
1/720	●	●	●
1/960	●	●	●
1/1200	●	●	●

Example of model number : HMTA010-30H50SR
Indoor, non-brake, standard shaft arrangement and mounting type.

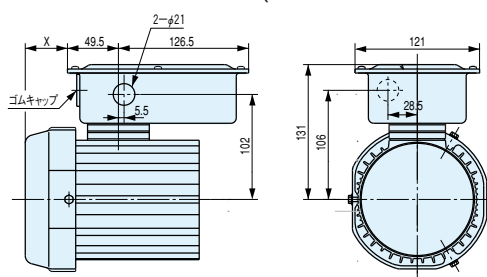
Gear motor model list

Reduction ratio / Capacity	0.1kW	0.2kW	0.4kW
1/5	●	●	●
1/10	●	●	●
1/15	●	●	●
1/20	●	●	●
1/25	●	●	●
1/30	●	●	●
1/40	●	●	●
1/50	●	●	●
1/60	●	●	●
1/75	●	●	●
1/100	●	●	●
1/120	●	●	●
1/165	●	●	●
1/200	●	●	●
1/300	●	●	●
1/360	●	●	●
1/450	●	●	●
1/600	●	●	●
1/720	●	●	●
1/1000	●	●	●
1/1200	●	●	●

Example of model number : GMTA010-18L50SR
Indoor, non-brake, standard shaft arrangement and mounting type.



Terminal box dimension list (All other dimensions are the standard except for the terminal box)



Dimension X (mm)			
Motor capacity	0.1 kW	0.2kW	0.4kW
X	3.0	41.0	41.0

※The 0.1 kW motor has no fan or fan cover.

Hypoid Motor TA Series Others

HYPOID MOTOR TA

Shaft diameter available for hollow shaft type

(The power lock type for other than the standard shaft hole diameter is a made-to-order product.)

Model number	Motor capacity	Reduction ratio	Shaft diameter (H8) tolerance							
			S1 φ 20	S2 φ 25	S3 φ 30	S4 φ 35	S5 φ 40	S6 φ 45	S7 φ 50	S8 φ 55
HMTA010-30H5 (B)~480 (B)	0.1 kW	1/5~1/480								
HMTA020-30H5 (B)~200 (B)	0.2 kW	1/5~1/200								
HMTA040-30H5 (B)~50 (B)	0.4 kW	1/5~1/50	○	○	●					
HMTA100-30H5 (B)~480 (B)	100W	1/5~1/480								
HMTA200-30H5 (B)~200 (B)	200W	1/5~1/200								
HMTA010-35H600 (B)~1200 (B)	0.1 kW	1/600~1/1200								
HMTA020-35H300 (B)~480 (B)	0.2 kW	1/300~1/480								
HMTA040-35H60 (B)~200 (B)	0.4 kW	1/60~1/200								
HMTA075-35H5 (B)~50 (B)	0.75kW	1/5~1/50		○	○	●				
HMTA100-35H600 (B)~1200 (B)	100W	1/60~1/1200								
HMTA200-35H300 (B)~480 (B)	200W	1/300~1/480								
HMTA020-45H600 (B)~1200 (B)	0.2 kW	1/600~1/1200								
HMTA040-45H300 (B)~480 (B)	0.4 kW	1/300~1/480								
HMTA075-45H60 (B)~200 (B)	0.75kW	1/60~1/200								
HMTA150-45H5 (B)~80 (B)	1.5 kW	1/5~1/80			○	○	○	●		
HMTA220-45H5 (B)~60 (B)	2.2 kW	1/5~1/60								
HMTA200-45H600 (B)~1200 (B)	200W	1/600~1/1200								
HMTA040-55H600 (B)~1200 (B)	0.4 kW	1/600~1/1200								
HMTA075-55H300 (B)~480 (B)	0.75kW	1/300~1/480								
HMTA150-55H100 (B)~200 (B)	1.5 kW	1/100~1/200								
HMTA220-55H80 (B)~120 (B)	2.2 kW	1/80~1/120					○	○	○	●
HMTA370-55H5 (B)~60 (B)	3.7 kW	1/5~1/60								
HMTA550-55H5 (B)~40 (B)	5.5 kW	1/5~1/40								

Also applies to the adapter and inline reducer types.

●Standard product ○Quick delivery product

The key size corresponding to each hole diameter is as shown below.

{The key used is JIS B1301-1976 (New JIS key).}

Shaft diameter	Key
φ 20	6×6
φ 25	8×7
φ 30	8×7
φ 35	10×8
φ 40	12×8
φ 45	14×9
φ 50	14×9
φ 55	16×10

For hole diameters other than those shown here, please consult with us.

Hypoid Motor TA Series

Adapter type

HYPOID MOTOR TA

Adapter-type reducer

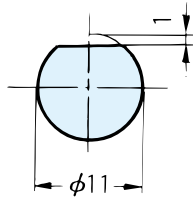
(1) This reducer has an adapter flange to which a motor can be attached.

Special motors other than our standard motors can be attached to it easily.

- Motors of other makers
- Explosion-proof motors
- Other special motors

(2) This reducer can be matched to motors conforming to the IEC standard and JEM standard.

- The flange dimensions and shaft dimensions are adjusted accordingly.
- This reducer is ready for keyless D-cut shafts for 0.2 kW or less.



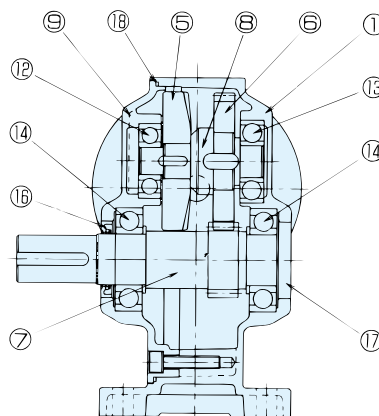
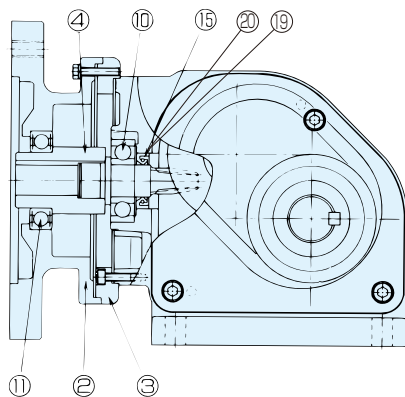
(3) For servomotors, DC motors, etc., that have special flange dimensions and shaft dimensions, we can manufacture reducers suitable for them as made-to-order products. Please contact us in such cases.

(4) We ask you to attach the motor to the reducer on your part. The motor mounting bolt and spring washer are included with the product.

(5) If you want us to attach the motor before shipment, please contact our company.

Structure

■ HRTA075-30L5RFI



- 1 . L Case
- 2 . Motor flange
- 3 . Flange
- 4 . Adapter input shaft with pinion
- 5 . 1st stage wheel
- 6 . 2nd stage pinion
- 7 . Output shaft with wheel
- 8 . 2nd shaft
- 9 . Cover
- 10 . Bearing (input shaft case side)
- 11 . Bearing (input shaft motor flange side)
- 12 . Bearing (2nd shaft cover side)
- 13 . Bearing (2nd shaft case side)
- 14 . Bearing (output shaft)
- 15 . Oil seal (input shaft)
- 16 . Oil seal (output shaft)
- 17 . Seal cap
- 18 . O-ring
- 19 . Filter
- 20 . Shim

Cautions in attaching the motor

(1) Wipe rust, dust, rust preventive oil, etc., off the motor shaft.

(2) When attaching the motor, do not hit the motor or reducer and do not force by the use of a bolt. If undue force is applied, the key may move, causing damage to the bearing, abnormal noise, etc.

(3) Since the adapter-type reducer does not come with a key for the input shaft, use the key supplied with the motor. However, the 0.1 kW and 0.2 kW Hypoid motor come with a key.

Hypoid Motor TA Series

Adapter type

HYPOID MOTOR TA

Specification Chart

Model number		4P motor capacity equivalence	Actual reduction ratio	Number of reduction steps		Output shaft revolution speed r/min		Allowable output shaft torque				Allowable O.H.L.		Outline dimension		
								N·m		{kgf·m}						
				L	U·H	50Hz	60Hz	50Hz		60Hz		N	{kgf}	Foot mount type	Face mount type	Hollow shaft type
HRTA 010	5FI	0.1	1/5	2	2	300	360	2.7	{0.28}	2.4	{0.24}	588	{60}	Drawing 1 Frame number 19	Drawing 3 Frame number 24	Drawing 4 Frame number 30
	10FI		1/10			150	180	5.6	{0.57}	4.6	{0.47}	980	{100}			
	15FI		1/15			100	120	8.3	{0.85}	7.0	{0.71}	1078	{110}			
	20FI		1/20			75	90	10.8	{1.1}	9.3	{0.95}	1176	{120}			
	25FI		1/25			60	72	13.7	{1.4}	11.8	{1.2}	1274	{130}			
	30FI		1/30			50	60	16.7	{1.7}	13.7	{1.4}	1421	{145}			
	40FI		1/40	3	3	37.5	45	22.5	{2.3}	18.6	{1.9}	1617	{165}	Drawing 2 Frame number 24		
	50FI		1/50			30	36	27.4	{2.8}	23.5	{2.4}	1862	{190}			
	60FI		1/60			25	30	31.4	{3.2}	26.5	{2.7}	2009	{205}			
	80FI		1/80			18.8	22.5	42.1	{4.3}	35.3	{3.6}	2254	{230}			
	100FI		1/100			15	18	52.9	{5.4}	44.1	{4.5}	2548	{260}			
	120FI		1/120			12.5	15	63.7	{6.5}	52.9	{5.4}	2793	{285}			
	160FI		1/160			9.4	11.3	84.3	{8.6}	70.6	{7.2}	3332	{340}			
	200FI		1/200			7.5	9	106	{10.8}	88.2	{9.0}	3332	{340}			
HRTA 020	5FI	0.2	1/5	2	2	300	360	5.6	{0.57}	4.6	{0.47}	588	{60}	Drawing 5 Frame number 19	Drawing 7 Frame number 28	Drawing 8 Frame number 30
	10FI		1/10			150	180	10.8	{1.1}	9.3	{0.95}	980	{100}			
	15FI		1/15			100	120	16.7	{1.7}	13.7	{1.4}	1078	{110}			
	20FI		1/20			75	90	22.5	{2.3}	18.6	{1.9}	1176	{120}			
	25FI		1/25			60	72	27.4	{2.8}	23.5	{2.4}	1274	{130}			
	30FI		1/30			50	60	33.3	{3.4}	27.4	{2.8}	1421	{145}			
	40FI		1/40	3	3	37.5	45	44.1	{4.5}	37.2	{3.8}	1617	{165}	Drawing 6 Frame number 28		
	50FI		1/50			30	36	55.9	{5.7}	46.1	{4.7}	1862	{190}			
	60FI		1/60			25	30	66.6	{6.8}	54.9	{5.6}	2009	{205}			
	80FI		1/80			18.8	22.5	84.3	{8.6}	70.6	{7.2}	2254	{230}			
	100FI		1/100			15	18	106	{10.8}	88.2	{9.0}	2548	{260}			
	120FI		1/120			12.5	15	126	{12.9}	106	{10.8}	2793	{285}			
	160FI		1/160			9.4	11.3	169	{17.2}	140	{14.3}	3332	{340}			
	200FI		1/200			7.5	9	* 169	* {17.2}	* 169	* {17.2}	3332	{340}			
HRTA 040	5FI	0.4	1/5	2	2	300	360	10.8	{1.1}	9.3	{0.95}	931	{95}	Drawing 9 Frame number 24	Drawing 11 Frame number 28	Drawing 13 Frame number 30
	10FI		1/10			150	180	22.5	{2.3}	18.6	{1.9}	1568	{160}			
	15FI		1/15			100	120	33.3	{3.4}	27.4	{2.8}	1715	{175}			
	20FI		1/20			75	90	44.1	{4.5}	37.2	{3.8}	1862	{190}			
	25FI		1/25			60	72	55.9	{5.7}	46.1	{4.7}	2009	{205}			
	30FI		1/30			50	60	66.6	{6.8}	55.9	{5.7}	2205	{225}			
	40FI		1/40	3	3	37.5	45	° 89.2	° {9.1}	° 74.5	° {7.6}	2450	{250}	Drawing 10 Frame number 38	Drawing 12 Frame number 38	Drawing 14 Frame number 35
	50FI		1/50			30	36	° 112	° {11.4}	° 93.1	° {9.5}	2793	{285}			
	60FI		1/60			25	30	126	{12.9}	106	{10.8}	3038	{310}			
	80FI		1/80			18.8	22.5	169	{17.2}	141	{14.4}	3479	{355}			
	100FI		1/100			15	18	212	{21.6}	176	{18.0}	3920	{400}			
	120FI		1/120			12.5	15	254	{25.9}	212	{21.6}	4410	{450}			
	160FI		1/160			9.4	11.3	338	{34.5}	281	{28.7}	4410	{450}			
	200FI		1/200			7.5	9	* 374	* {38.2}	312	{31.8}	4410	{450}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution is calculated by dividing the synchronous motor revolution rate by the reduction ratio.

(Note 3) For "T" output shaft arrangements where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. of one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The values marked with "◎" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown below are applied.

0.4	1/40	2	3	37.5	45	84.3	{8.6}	70.6	{7.2}
	1/50			30	36	106	{10.8}	88.2	{9.0}

(Note 5) For "T" output shaft arrangements, the phases of the key ways of the right and left output shafts are not necessarily aligned precisely.

(Note 6) The models marked with * are ones for which the torque is limited.

Hypoid Motor TA Series

Adapter type

HYPOID MOTOR TA

Specification Chart

Model number	4P motor capacity equivalence	Actual reduction ratio	Number of reduction steps	Output shaft revolution speed r/min		Allowable output shaft torque				Allowable O.H.L.		Outline dimension		
						N·m		{kgf·m}				Foot mount type	Face mount type	Hollow shaft type
				L	UH	50Hz	60Hz	50Hz	60Hz	N	{kgf}			
HRTA 075	5FI	0.75	1/5	2	2	300	360	20.6	{ 2.1}	17.6	{ 1.8}	Drawing 15 Frame number 30	Drawing 17 Frame number 38	Drawing 19 Frame number 35
	10FI		1/10			150	180	42.1	{ 4.3}	34.3	{ 3.5}			
	15FI		1/15			100	120	62.7	{ 6.4}	51.9	{ 5.3}			
	20FI		1/20			75	90	83.3	{ 8.5}	69.6	{ 7.1}			
	25FI		1/25			60	72	104	{10.6}	87.2	{ 8.9}			
	30FI		1/30			50	60	125	{12.8}	104	{10.6}			
	40FI		1/40			37.5	45	167	{17.0}	139	{14.2}			
	50FI		1/50			30	36	209	{21.3}	173	{17.7}			
	60FI		1/60	3	3	25	30	238	{24.3}	198	{20.2}	Drawing 16 Frame number 42	Drawing 18 Frame number 42	Drawing 20 Frame number 45
	80FI		1/80			18.8	22.5	317	{32.3}	264	{26.9}			
	100FI		1/100			15	18	396	{40.4}	330	{33.7}			
	120FI		1/120			12.5	15	475	{48.5}	396	{40.4}			
	160FI		1/160			9.4	11.3	621	{63.4}	517	{52.8}			
	200FI		1/200			7.5	9	* 621	* {63.4}	* 621	* {63.4}			
HRTA 150	5FI	1.5	1/5	2	2	300	360	41.2	{ 4.2}	34.3	{ 3.5}	Drawing 21 Frame number 42	Drawing 22 Frame number 42	Drawing 23 Frame number 45
	10FI		1/10			150	180	83.3	{ 8.5}	69.6	{ 7.1}			
	15FI		1/15			100	120	124	{12.7}	104	{10.6}			
	20FI		1/20			75	90	166	{16.9}	138	{14.1}			
	25FI		1/25			60	72	208	{21.2}	173	{17.7}			
	30FI		1/30			50	60	249	{25.4}	208	{21.2}			
	40FI		1/40	3	3	37.5	45	317	{32.3}	264	{26.9}			
	50FI		1/50			30	36	396	{40.4}	330	{33.7}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution is calculated by dividing the synchronous motor revolution rate by the reduction ratio.

(Note 3) For "T" output shaft arrangements where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. of one shaft should be equal to or less than 1/2 of the value shown in the table above.

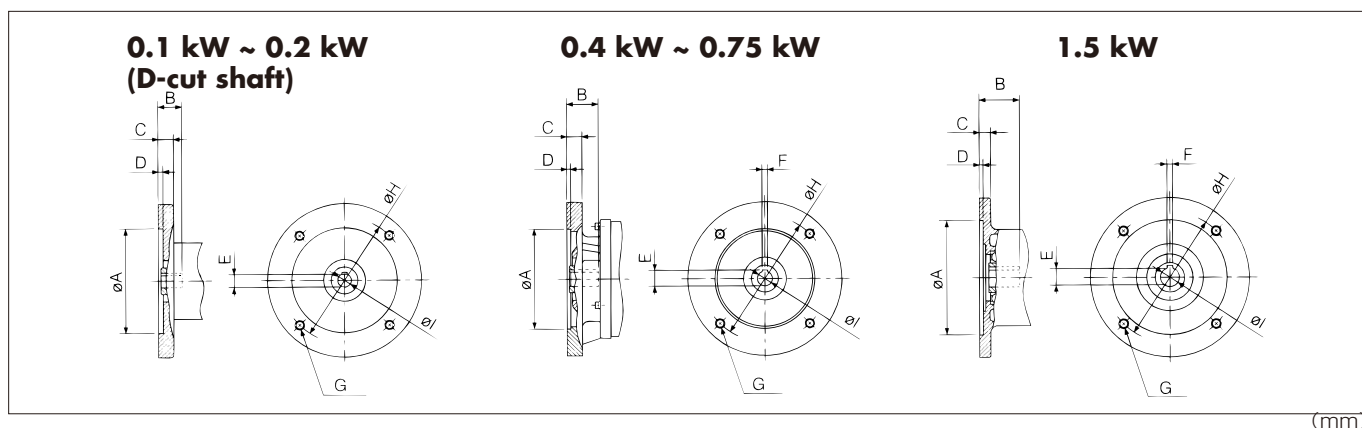
(Note 4) The values marked with "*" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown below are applied.

0.75	1/40	2	3	37.5	45	159	{16.2}	132	{13.5}
	1/50			30	36	198	{20.2}	165	{16.8}

(Note 5) For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

(Note 6) The models marked with * are ones for which the torque is limited.

Dimensions of input section



Motor output	A	B	C	D	E	F	G	H	I
0.1 kW	110G7	25	14	5	10	—	4-M8	130	11F7
0.2 kW	110G7	25	14	5	10	—	4-M8	130	11F7
0.4 kW	110G7	32	14	5	16.3	5	4-M8	130	14F7
0.75 kW	130G7	42	20	5	21.8	6	4-M10	165	19F7
1.5 kW	130G7	52	16	5	27.3	8	4-M10	165	24F7

Specification Chart

0.75
1.5

Adapter type	HYPOID MOTOR TA Outline Dimensions
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Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50	Approx. weight : 6.0kg	Reference page : Specification Chart→P201
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Hypoid Motor TA Series Outline Dimensions

Adapter type

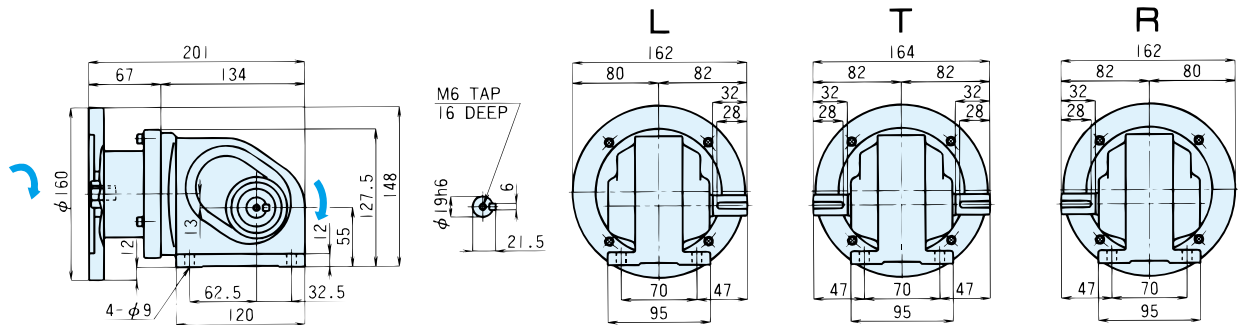
HYPOID MOTOR TA Outline Dimensions

5 0.2kW HRTA020-19L5~50 $\frac{L}{R}$ FI

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 6.0kg

Reference page : Specification Chart→P201



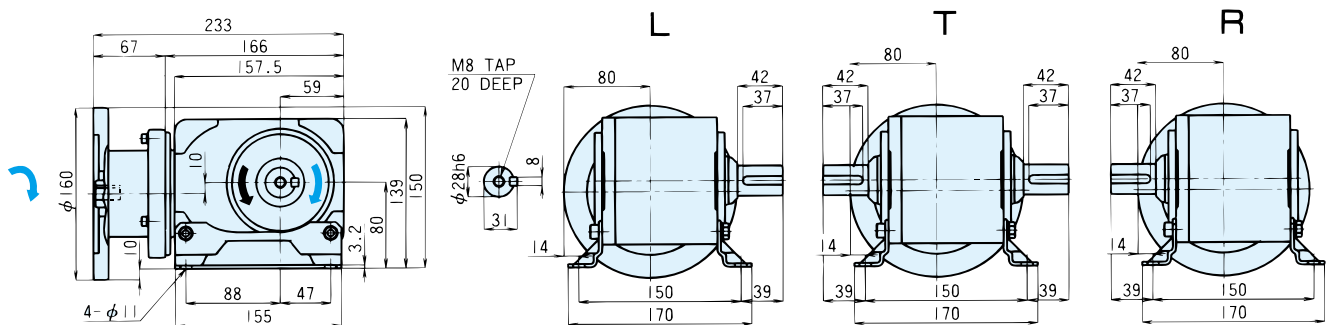
6 0.2kW HRTA020-28L60~200 $\frac{L}{R}$ FI

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 11.5kg

Reference page : Specification Chart→P201



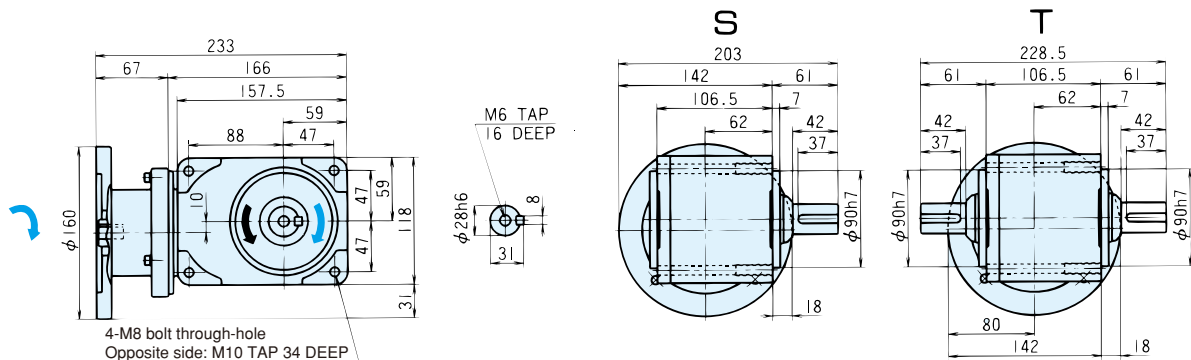
7 0.2kW HRTA020-28U5~200 $\frac{S}{T}$ FI

1/5~1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 10.5kg

Reference page : Specification Chart→P201



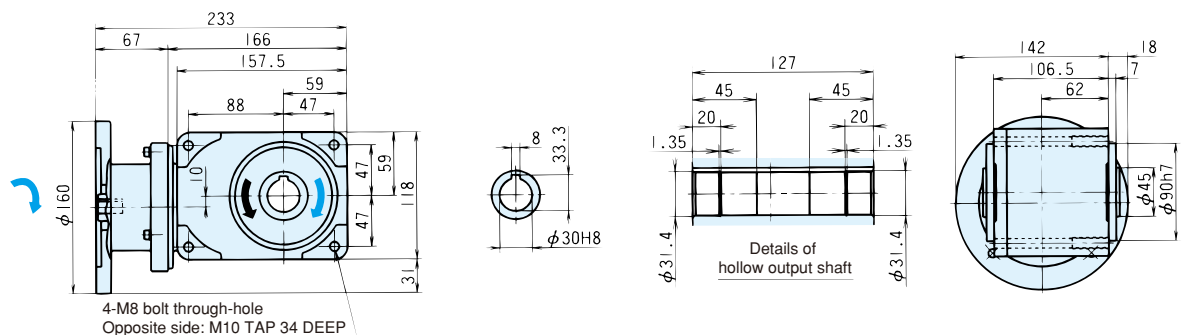
8 0.2kW HRTA020-30H5~200FI

1/5~1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 9.5kg

Reference page : Specification Chart→P201 Options→P184



Note) For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

Outline Dimensions

L.U.H

5
6
7
8

0.2

Hypoid Motor TA Series Outline Dimensions

Adapter type

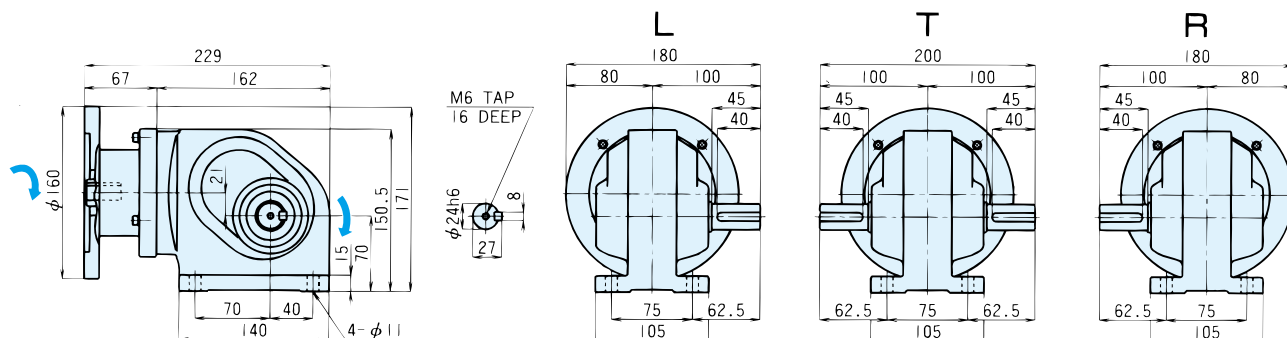
HYPOID MOTOR TA Outline Dimensions

9 0.4kW HRTA040-24L5~50 $\frac{1}{8}$ FI

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 7.5kg

Reference page : Specification Chart→P201

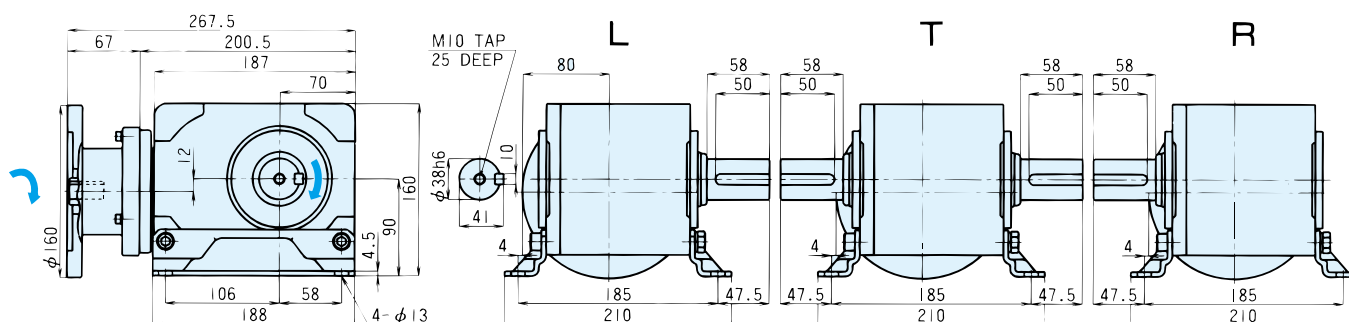


10 0.4kW HRTA040-38L60~200 $\frac{1}{8}$ FI

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 16.0kg

Reference page : Specification Chart→P201



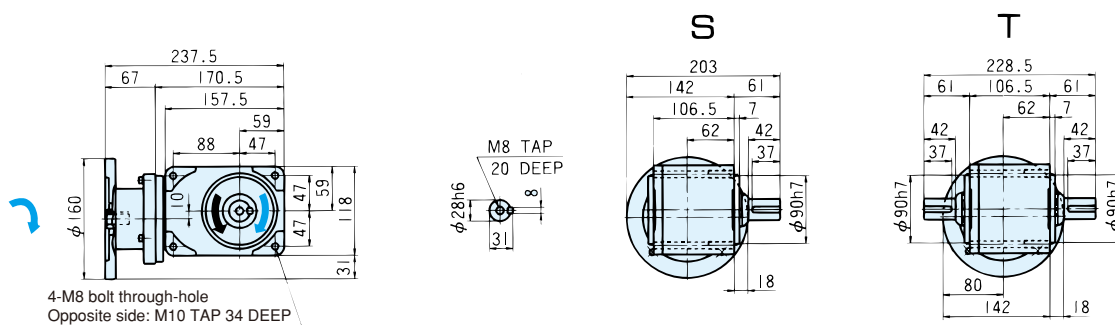
11 0.4kW HRTA040-28U5~50 $\frac{1}{5}$ FI

1/5~1/30 $\curvearrowright$ 、1/40~1/50 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 10.5kg

Reference page : Specification Chart→P201

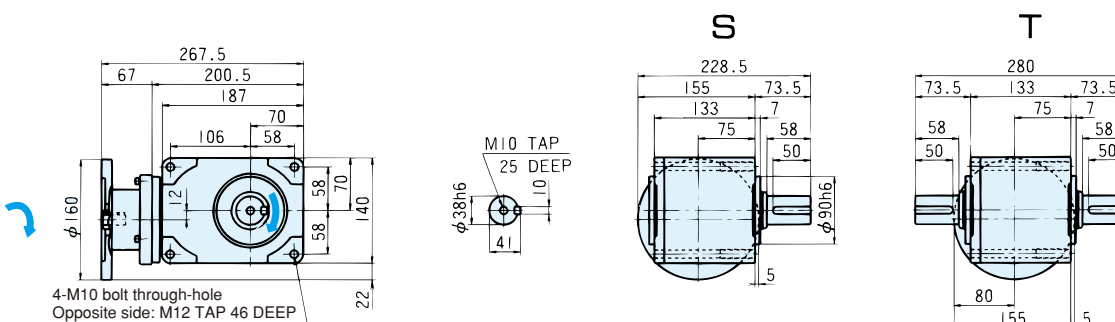


12 0.4kW HRTA040-38U60~200 $\frac{1}{5}$ FI

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 15.5kg

Reference page : Specification Chart→P201



Hypoid Motor TA Series Outline Dimensions

Adapter type

HYPOID MOTOR TA Outline Dimensions

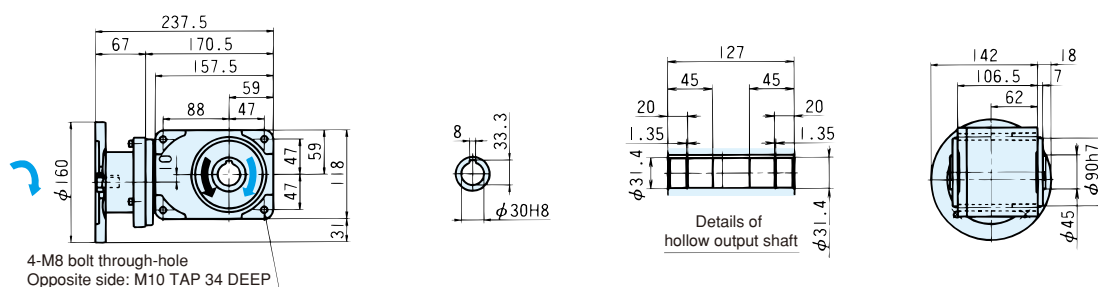
13 0.4kW HRTA040-30H5~50FI

1/5~1/30 ↺、1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 9.5kg

Reference page : Specification Chart→P201 Options→P184

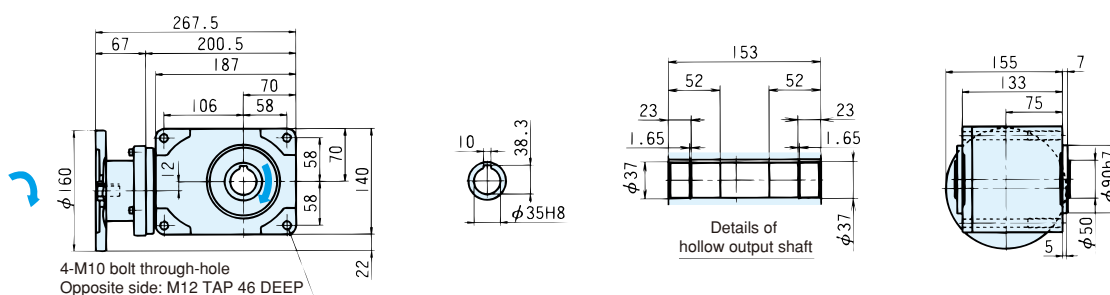


14 0.4kW HRTA040-35H60~200FI

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 13.5kg

Reference page : Specification Chart→P201 Options→P184



Outline Dimensions

H

13
14

0.4

Hypoid Motor TA Series Outline Dimensions

Adapter type

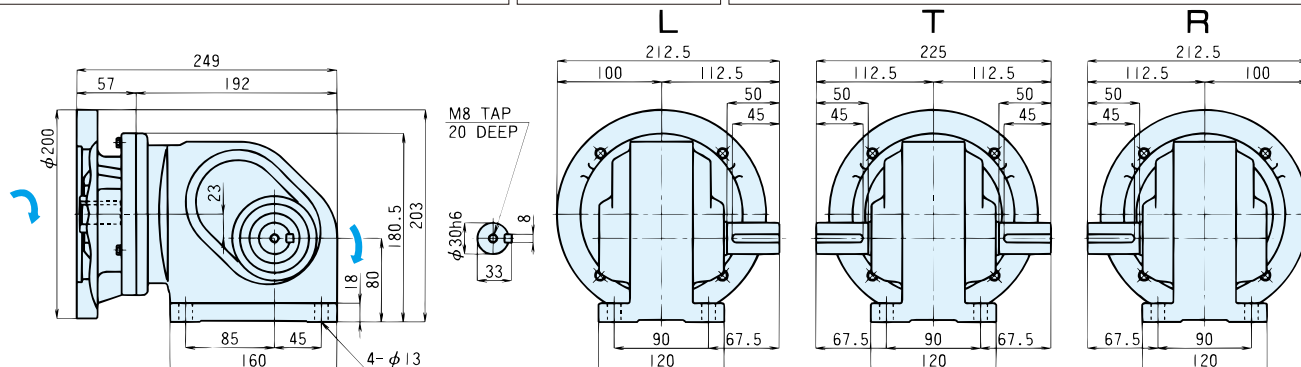
HYPOID MOTOR TA Outline Dimensions

15 0.75kW HRTA075-30L5~50 $\frac{1}{2}$ FI

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 13.5kg

Reference page : Specification Chart→P202

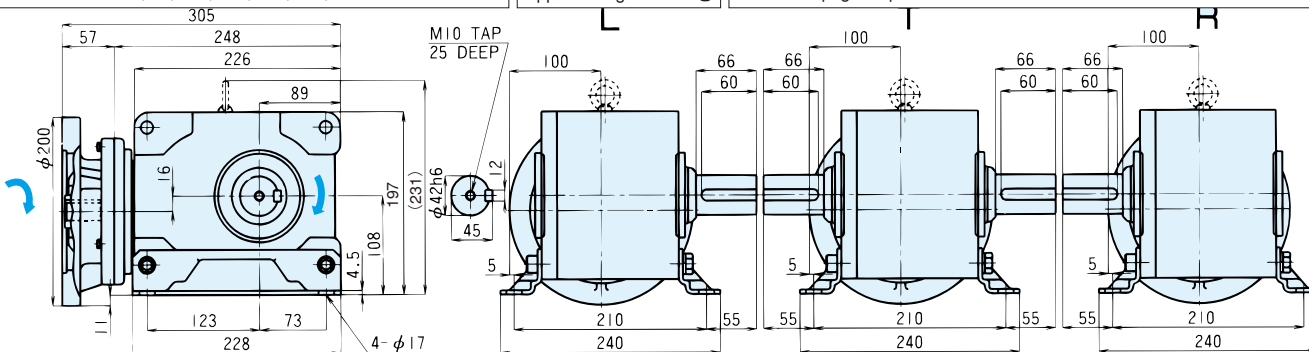


16 0.75kW HRTA075-42L60~200 $\frac{1}{2}$ FI

Reduction ratio : 60, 80, 100, 120, 160, 180, 200

Approx. weight : 28.5kg

Reference page : Specification Chart→P202



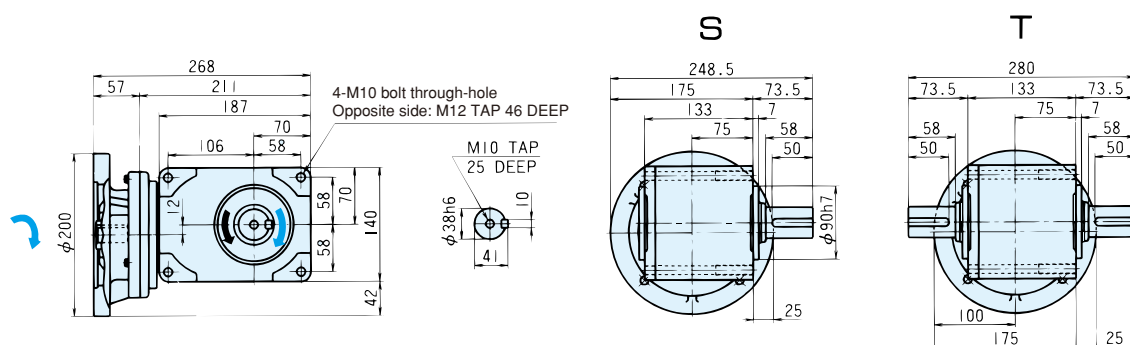
17 0.75kW HRTA075-38U5~50 $\frac{1}{2}$ FI

1/5~1/30 $\curvearrowright$ 、1/40~1/50 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 18.5kg

Reference page : Specification Chart→P202

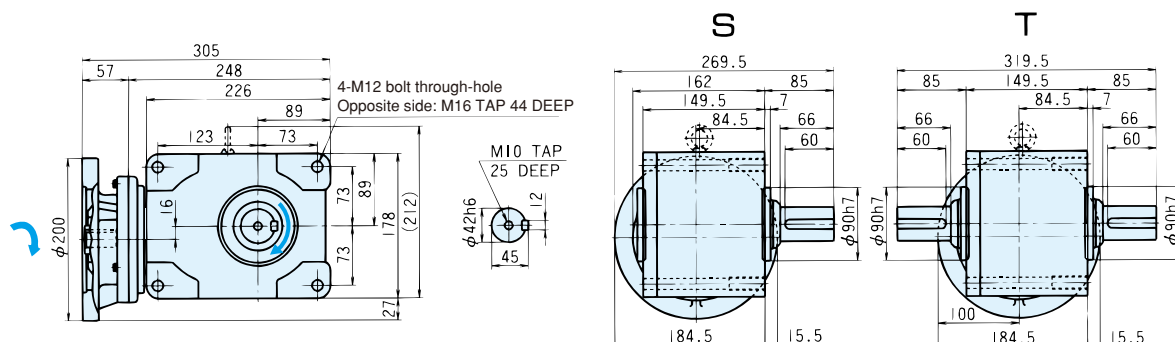


18 0.75kW HRTA075-42U60~200 $\frac{1}{2}$ FI

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 27.0kg

Reference page : Specification Chart→P202



Hypoid Motor TA Series Outline Dimensions

Adapter type

HYPOID MOTOR TA Outline Dimensions

19

0.75kW

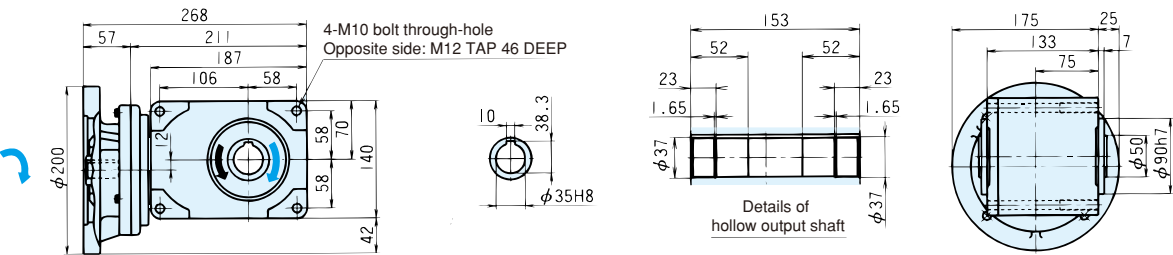
HRTA075-35H5~50FI

1/5~1/30 ↺、140~1/50 ↻

Reduction ratio : 5,10, 15, 20, 25, 30, 40, 50

Approx. weight : 16.5kg

Reference page : Specification Chart→P202 Options→P184



20

0.75kW

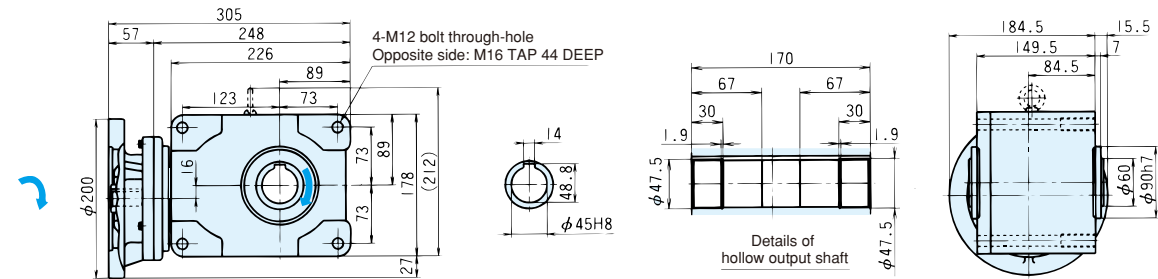
HRTA075-45H60~200FI

1/5~1/30 ↺、140~1/50 ↻

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 23.0kg

Reference page : Specification Chart→P202 Options→P184



Outline Dimensions

H
19
20
0.75

Hypoid Motor TA Series Outline Dimensions

Adapter type

HYPOID MOTOR TA Outline Dimensions

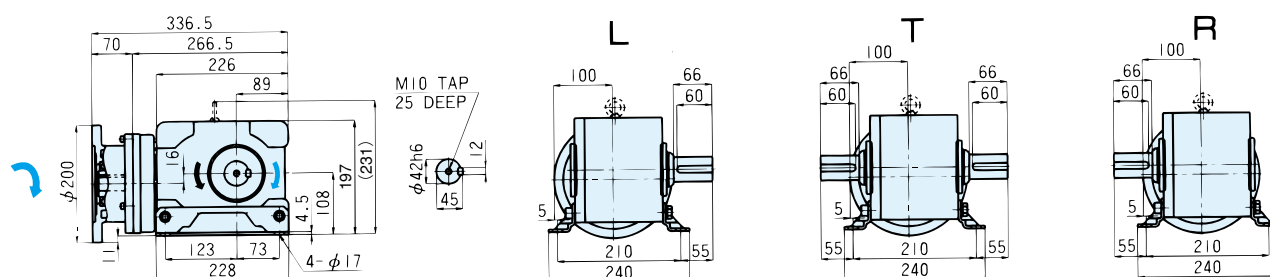
21 1.5kW HRTA150-42L5~50 $\frac{L}{R}$ FI

1/5~1/30 $\curvearrowright$ 、1/40~1/50 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 30.0kg

Reference page : Specification Chart→P202



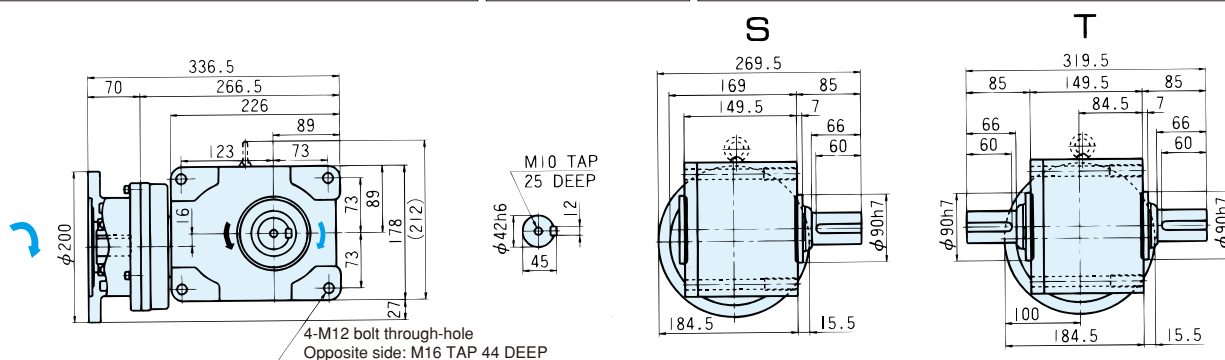
22 1.5kW HRTA150-42U5~50 $\frac{S}{T}$ FI

1/5~1/30 $\curvearrowright$ 、1/40~1/50 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 28.5kg

Reference page : Specification Chart→P202



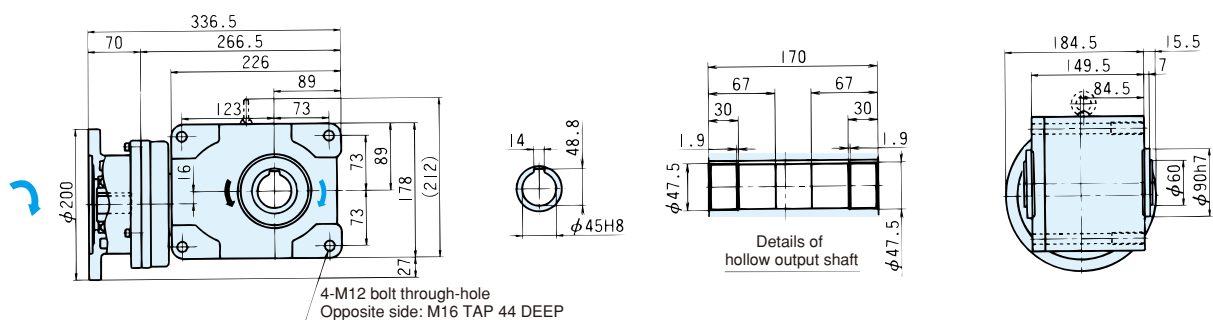
23 1.5kW HRTA150-45H5~50FI

1/5~1/30 $\curvearrowright$ 、1/40~1/50 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 24.5kg

Reference page : Specification Chart→P202 Options→P184



Note) The phases of the key ways of the output and input shafts are not necessarily aligned precisely. For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

Hypoid Motor TA Series

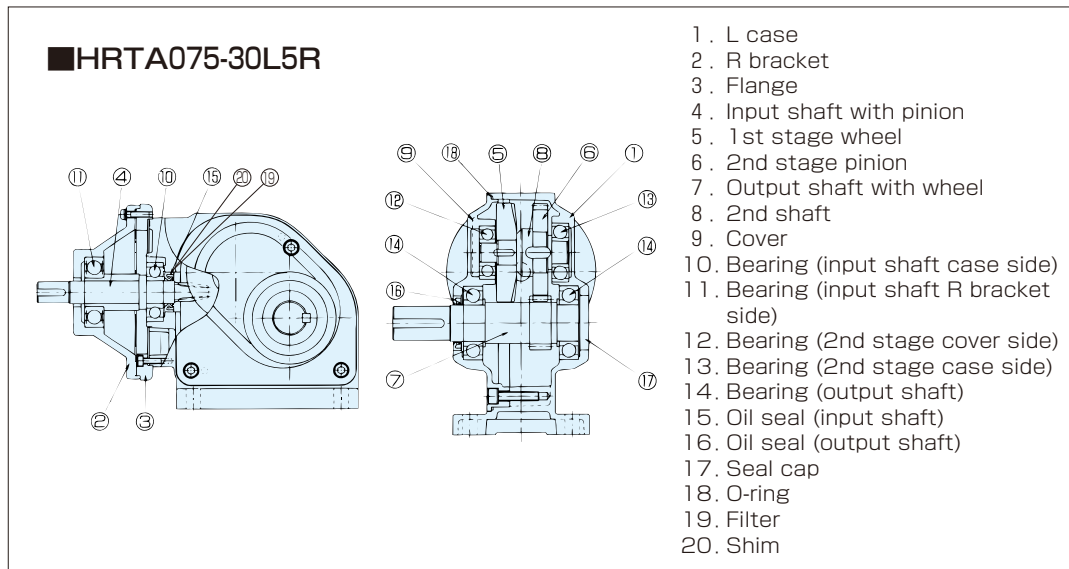
Inline reducer type

HYPOID MOTOR TA

The double shaft type is an independent reducer corresponding to the reducer section of the hypoid motor. Use it in the following cases.

- ① When only a reducer is necessary
- ② When the reducer is driven by a device other than special motors and electric motors
- ③ When the input revolution speed is different from the motor revolution speed.

Structure



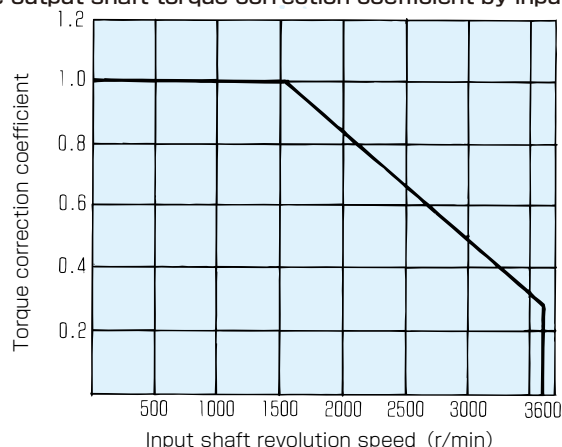
Structure

Relation between input shaft revolution speed and allowable output shaft torque

The allowable output shaft torque shown in the specification chart is for an input shaft revolution speed of 1500 r/min.

When the input shaft revolution speed is other than 1500 r/min, the values shown in the specification chart should be multiplied by the torque correction coefficient shown in the figure below to obtain the allowable output shaft torque.

Allowable output shaft torque correction coefficient by input shaft revolution speed



(Note 1) The correction coefficient shown in the figure above is also applied to the allowable input/output shaft O.H.L.

(Note 2) If the device is to be used as a step-up gear, please contact our company.

(Example)

When the HRTA010-19L50L is used at an input shaft revolution speed of 2500 r/min, the allowable output shaft torque and allowable input/output shaft O.H.L. of this model are as shown below.

According to the figure above, the correction coefficient for an input shaft revolution speed of 2500 r/min is 0.65.

$$\begin{aligned} \text{Allowable output shaft torque} &= 24.7 \times 0.65 = 17.81 \text{ N} \\ &\quad \{2.8 \times 0.65 = 1.82 \text{ kgf} \cdot \text{m}\} \end{aligned}$$

$$\begin{aligned} \text{Allowable input shaft O.H.L.} &= 96.0 \times 0.65 = 62.4 \text{ N} \\ &\quad \{9.8 \times 0.65 = 6.37 \text{ kgf}\} \end{aligned}$$

$$\begin{aligned} \text{Allowable output shaft O.H.L.} &= 1862 \times 0.65 = 1210.3 \text{ N} \\ &\quad \{190 \times 0.65 = 123.5 \text{ kgf}\} \end{aligned}$$

Hypoid Motor TA Series

Inline reducer type

HYPOID MOTOR TA

Specification Chart

Model number		4P motor capacity equivalence kW	Actual reduction ratio	Number of reduction steps		Allowable output shaft torque at input shaft revolution speed of 1500 r/min		Allowable input/output shaft O.H.L.				Outline dimension		
								Input shaft		Output shaft		Foot mount type	Face mount type	Hollow shaft type
				L	U·H	N·m	{kgf·m}	N	{kgf}	N	{kgf}			
HRTA 010	5	0.1	1/5	2	2	2.7	{0.28}	96.0	{9.8}	588	{ 60}	Drawing 24 Frame number 19	Drawing 26 Frame number 24	Drawing 27 Frame number 30
	10		1/10			5.6	{0.57}			980	{100}			
	15		1/15			8.3	{0.85}			1078	{110}			
	20		1/20			10.8	{ 1.1}			1176	{120}			
	25		1/25			13.7	{ 1.4}			1274	{130}			
	30		1/30			16.7	{ 1.7}			1421	{145}			
	40		1/40			22.5	{ 2.3}			1617	{165}			
	50		1/50			27.4	{ 2.8}			1862	{190}			
	60		1/60	3	3	31.4	{ 3.2}			2009	{205}	Drawing 25 Frame number 24		
	80		1/80			42.1	{ 4.3}			2254	{230}			
	100		1/100			52.9	{ 5.4}			2548	{260}			
	120		1/120			63.7	{ 6.5}			2793	{285}			
	160		1/160			84.3	{ 8.6}			3332	{340}			
	200		1/200			106	{10.8}			3332	{340}			
HRTA 020	5	0.2	1/5	2	2	5.6	{0.57}	147	{15}	588	{ 60}	Drawing 28 Frame number 19	Drawing 30 Frame number 28	Drawing 31 Frame number 30
	10		1/10			10.8	{ 1.1}			980	{100}			
	15		1/15			16.7	{ 1.7}			1078	{110}			
	20		1/20			22.5	{ 2.3}			1176	{120}			
	25		1/25			27.4	{ 2.8}			1274	{130}			
	30		1/30			33.3	{ 3.4}			1421	{145}			
	40		1/40			44.1	{ 4.5}			1617	{165}			
	50		1/50			55.9	{ 5.7}			1862	{190}			
	60		1/60	3	3	66.6	{ 6.8}			2009	{205}	Drawing 29 Frame number 28		
	80		1/80			84.3	{ 8.6}			2254	{230}			
	100		1/100			106	{10.8}			2548	{260}			
	120		1/120			126	{12.9}			2793	{285}			
	160		1/160			169	{17.2}			3332	{340}			
	200		1/200			* 169	* {17.2}			3332	{340}			
HRTA 040	5	0.4	1/5	2	2	10.8	{ 1.1}	235	{24}	931	{ 95}	Drawing 32 Frame number 24	Drawing 34 Frame number 28	Drawing 36 Frame number 30
	10		1/10			22.5	{ 2.3}			1568	{160}			
	15		1/15			33.3	{ 3.4}			1715	{175}			
	20		1/20			44.1	{ 4.5}			1862	{190}			
	25		1/25			55.9	{ 5.7}			2009	{205}			
	30		1/30			66.6	{ 6.8}			2205	{225}			
	40		1/40			◎ 89.2	◎ { 9.1}			2450	{250}			
	50		1/50			◎ 112	◎ {11.4}			2793	{285}			
	60		1/60	3	3	126	{12.9}			3038	{310}	Drawing 33 Frame number 38	Drawing 35 Frame number 38	Drawing 37 Frame number 35
	80		1/80			169	{17.2}			3479	{355}			
	100		1/100			212	{21.6}			3920	{400}			
	120		1/120			254	{25.9}			4410	{450}			
	160		1/160			338	{34.5}			4410	{450}			
	200		1/200			* 374	* {38.2}			4410	{450}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) For "T" output shaft arrangements where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above.

Furthermore, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 3) The values marked with "◎" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown below are applied.

0.4	1/40	2	3	84.3	{ 8.6}
	1/50			106	{10.8}

(Note 4) The phases of the key ways of the output and input shafts are not necessarily aligned precisely. For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

(Note 5) The models marked with * are ones for which the torque is limited.

Hypoid Motor TA Series

Inline reducer type

HYPOID MOTOR TA

Specification Chart

Model number		4P motor capacity equivalence kW	Actual reduction ratio	Number of reduction steps		Allowable output shaft torque at input shaft revolution speed of 1500 r/min		Allowable input/output shaft O.H.L.				Outline dimension		
								Input shaft		Output shaft		Foot mount type	Face mount type	Hollow shaft type
				L	U·H	N·m	{kgf·m}	N	{kgf}	N	{kgf}			
HRTA 075	5	0.75	1/5	2	2	20.6	{ 2.1}	353	{36}	1519	{155}	Drawing 38 Frame number	Drawing 40 Frame number	Drawing 42 Frame number
	10		1/10			42.1	{ 4.3}			2205	{225}			
	15		1/15			62.7	{ 6.4}			2401	{245}			
	20		1/20			83.3	{ 8.5}			2646	{270}			
	25		1/25			104	{10.6}			2891	{295}			
	30		1/30			125	{12.8}			3136	{320}			
	40		1/40	3	3	⊙ 167	⊙ {17.0}			3626	{370}	Drawing 39 Frame number 42 Frame number	Drawing 41 Frame number 42 Frame number	Drawing 43 Frame number 45 Frame number
	50		1/50			⊙ 209	⊙ {21.3}			4116	{420}			
	60		1/60			238	{24.3}			4508	{460}			
	80		1/80			317	{32.3}			5390	{550}			
	100		1/100			396	{40.4}			6272	{640}			
	120		1/120			475	{48.5}			6272	{640}			
	160		1/160			621	{63.4}			6272	{640}			
	200		1/200			* 621	* {63.4}			6272	{640}			
HRTA 150	5	1.5	1/5	2	2	41.2	{ 4.2}	568	{58}	2058	{210}	Drawing 44 Frame number	Drawing 45 Frame number	Drawing 46 Frame number
	10		1/10			83.3	{ 8.5}			2842	{290}			
	15		1/15			124	{12.7}			3234	{330}			
	20		1/20			166	{16.9}			3626	{370}			
	25		1/25			208	{21.2}			4018	{410}			
	30		1/30			249	{25.4}			4508	{460}			
	40		1/40	3	3	317	{32.3}			5292	{540}	42	42	45
	50		1/50			396	{40.4}			6076	{620}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) For "T" output shaft arrangements where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above.

Furthermore, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 3) The values marked with "⊙" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown below are applied.

0.75	1/40	2	3	159	{16.2}
	1/50			198	{20.2}

(Note 4) The phases of the key ways of the output and input shafts are not necessarily aligned precisely. For "T" output shaft arrangements, the phases of the key ways of the right and left output shafts are not necessarily aligned precisely.

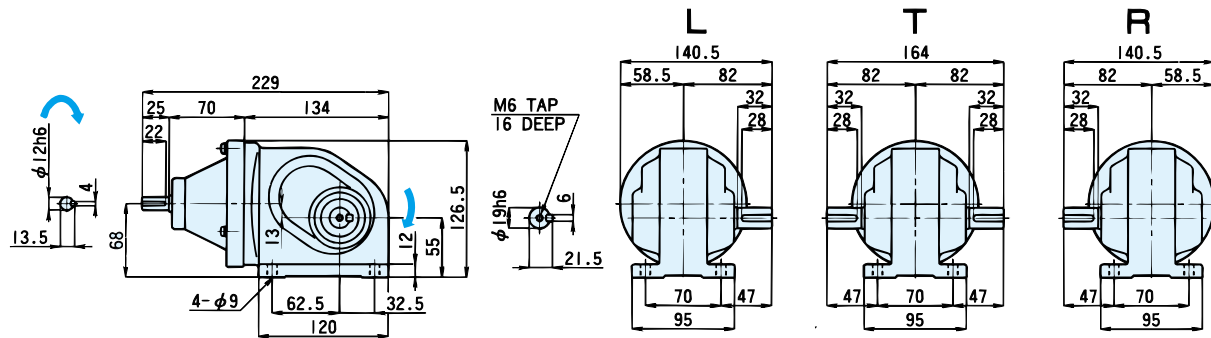
(Note 5) The models marked with * are ones for which the torque is limited.

Specification Chart

0.75
1.5

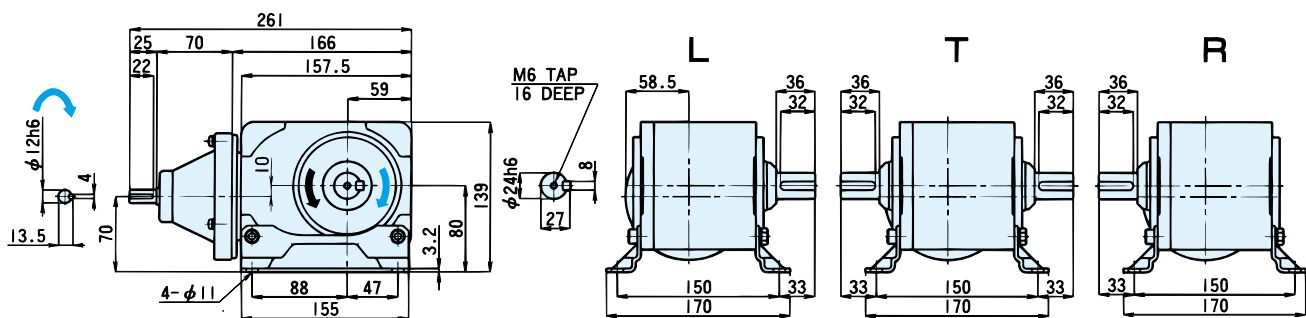
HYPOID MOTOR TA Outline Dimensions

Reference page : Specification Chart→P211



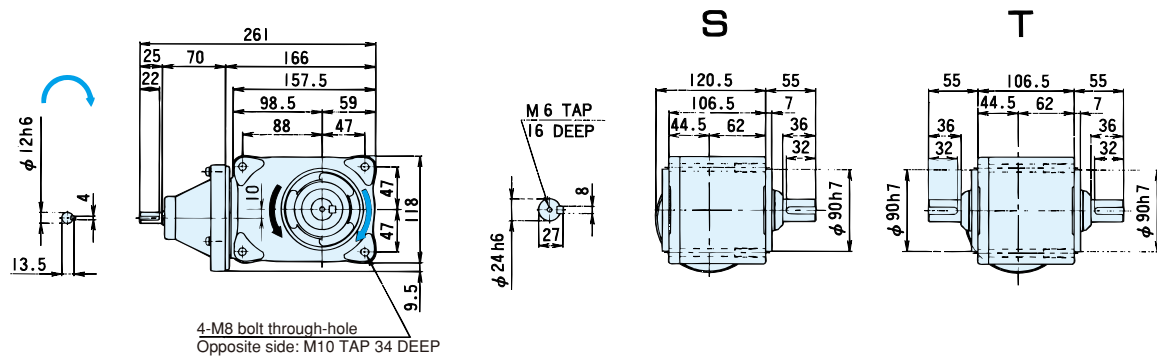
1/60 ↺、1/80~1/200 ↻

Reference page : Specification Chart→P211



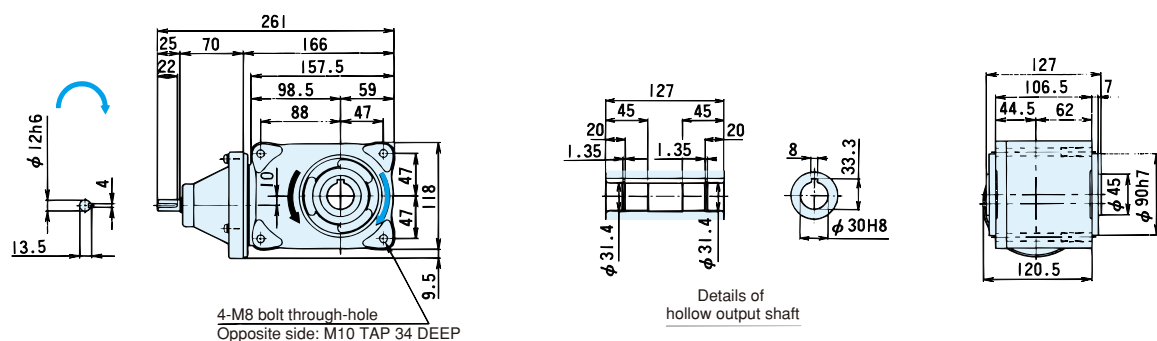
$1/5 \sim 1/60$ (↙)、 $1/80 \sim 1/200$ (↘)

Reference page : Specification Chart→P211



$1/5 \sim 1/60$ ↙、 $1/80 \sim 1/200$ ↘

Reference page : Specification Chart→P211 Options→P184



Hypoid Motor TA Series Outline Dimensions

Inline reducer type

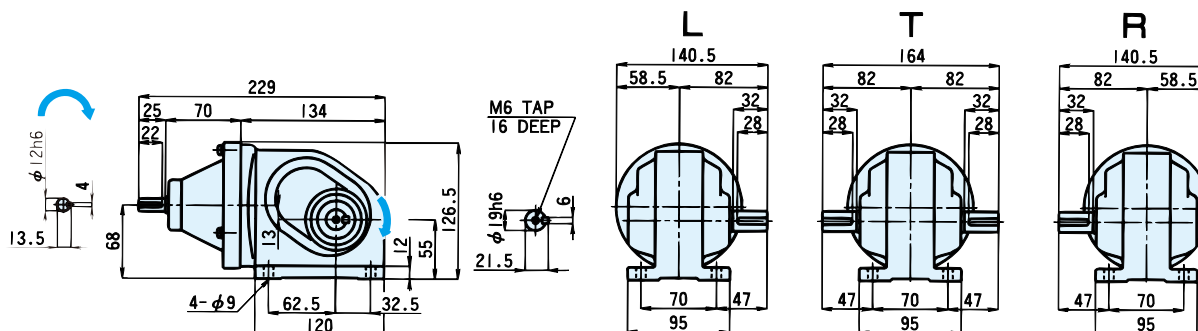
HYPOID MOTOR TA Outline Dimensions

28 0.2kW HRTA020-19L5~50 $\frac{L}{R}$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 3.5kg

Reference page : Specification Chart→P211



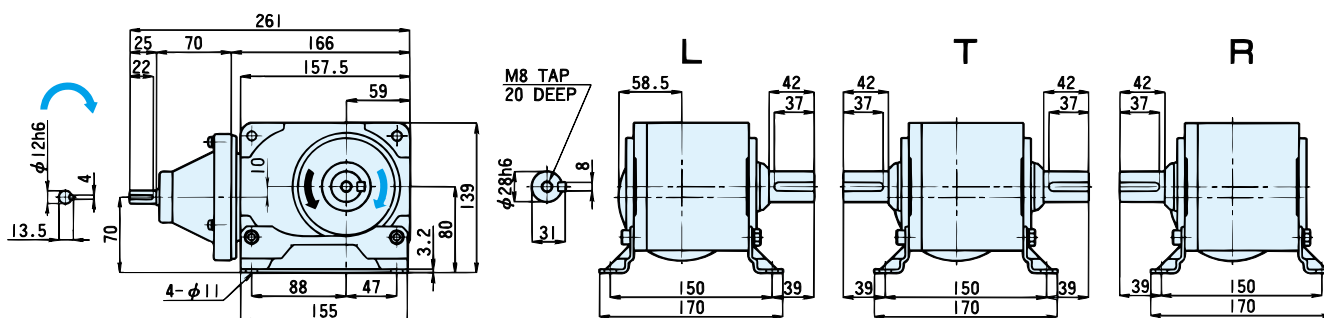
29 0.2kW HRTA020-28L60~200 $\frac{L}{R}$

1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 9.0kg

Reference page : Specification Chart→P211



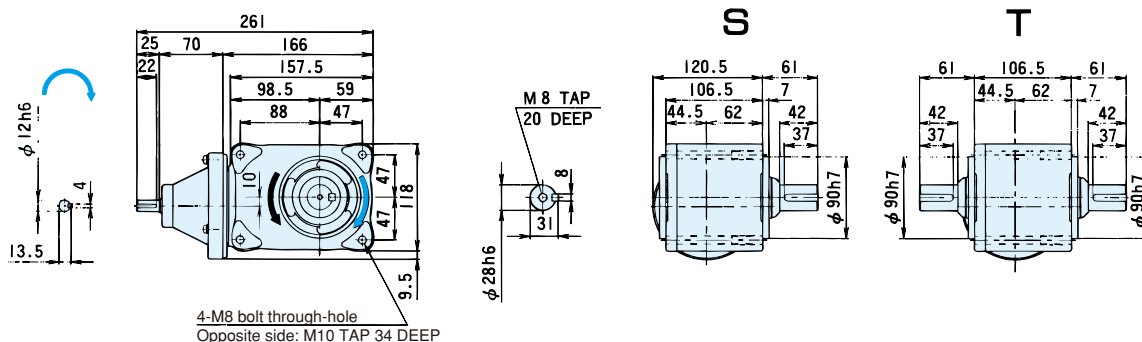
30 0.2kW HRTA020-28U5~200 $\frac{S}{T}$

1/5~1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 8.0kg

Reference page : Specification Chart→P211



4-M8 bolt through-hole
Opposite side: M10 TAP 34 DEEP

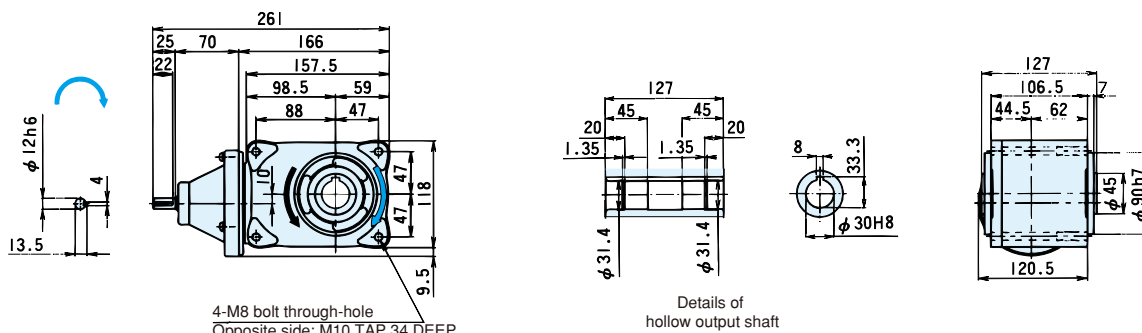
31 0.2kW HRTA020-30H5~200

1/5~1/60 $\curvearrowright$ 、1/80~1/200 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200

Approx. weight : 7.0kg

Reference page : Specification Chart→P211 Options→P184



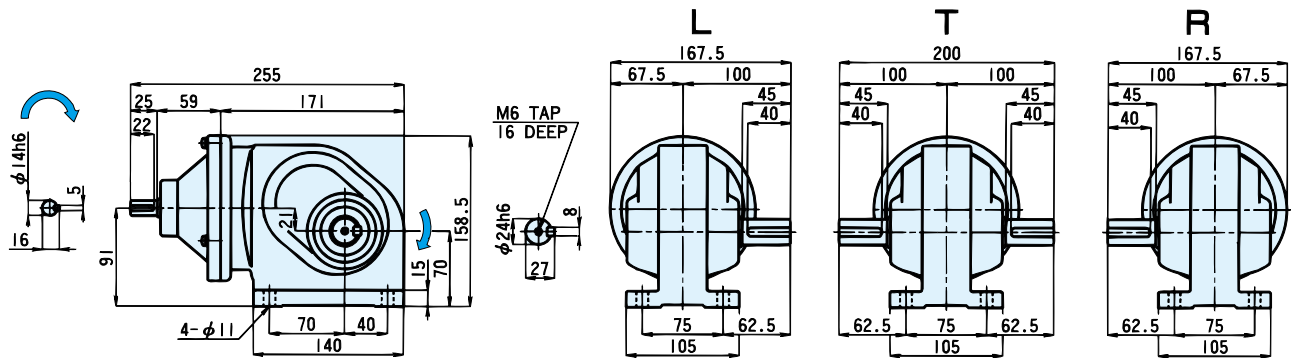
4-M8 bolt through-hole
Opposite side: M10 TAP 34 DEEP

Details of
hollow output shaft

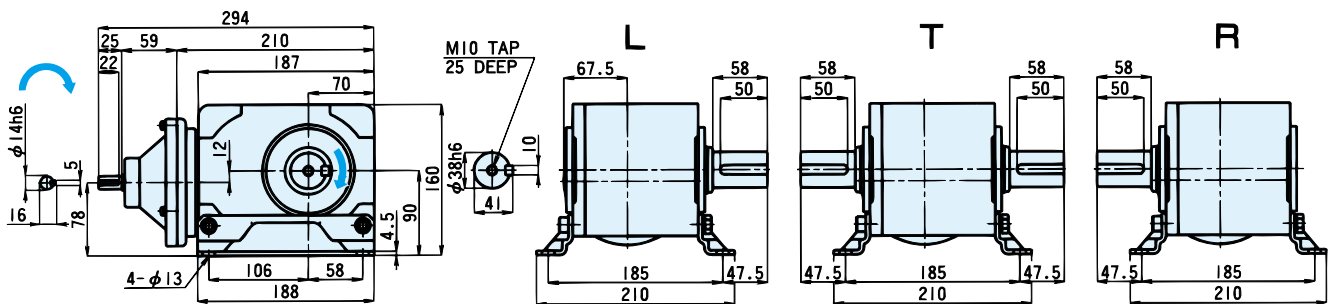
Note) For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

HYPOID MOTOR TA Outline Dimensions

Reference page : Specification Chart→P211

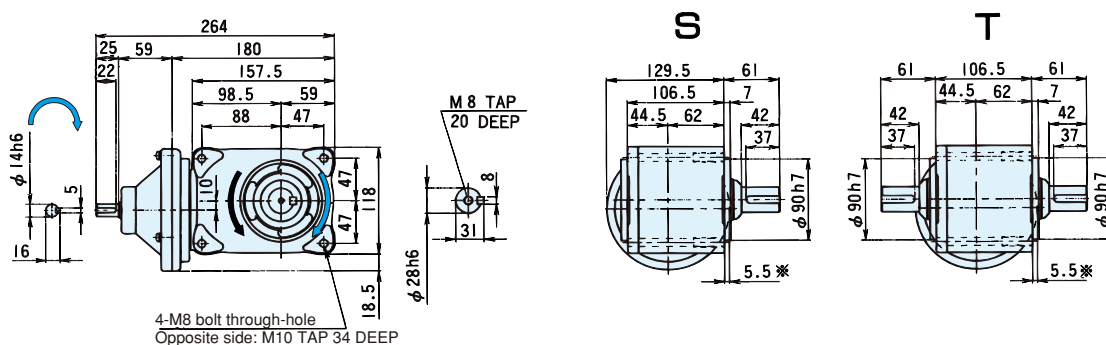


Reference page : Specification Chart→P211

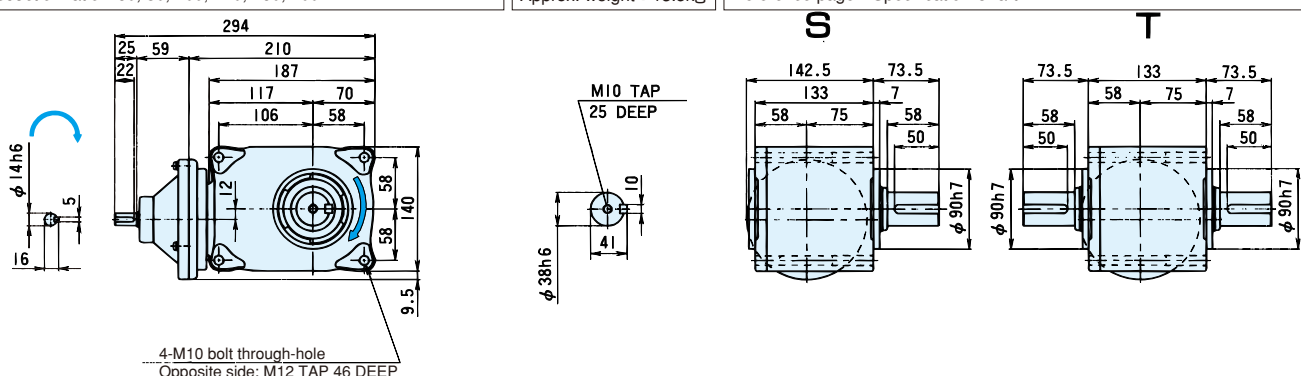


1/5~1/30 ↙、 1/40~1/50 ↘

Reference page : Specification Chart→P211



Reference page : Specification Chart→P211



Hypoid Motor TA Series Outline Dimensions

Inline reducer type

HYPOID MOTOR TA Outline Dimensions

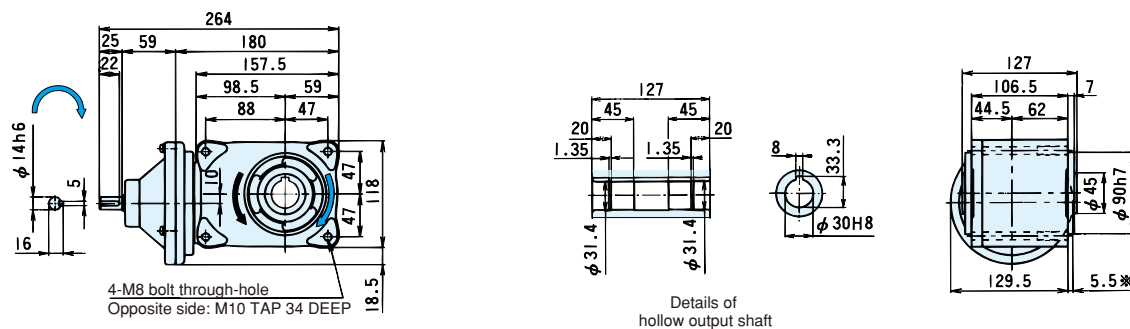
36 0.4kW HRTA040-30H5~50

1/5~1/30 ↺, 1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 8.0kg

Reference page : Specification Chart→P211 Options→P184

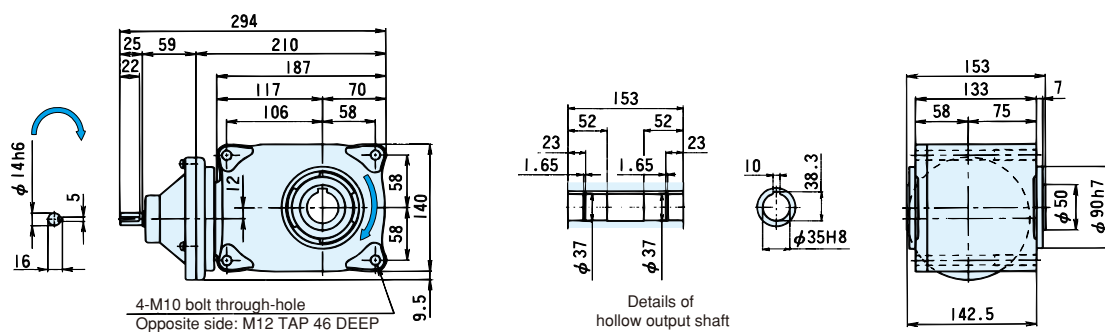


37 0.4kW HRTA040-35H60~200

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 12.0kg

Reference page : Specification Chart→P211 Options→P184



Note) The dimension marked with ※ indicates that part of the input shaft bracket protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Inline reducer type

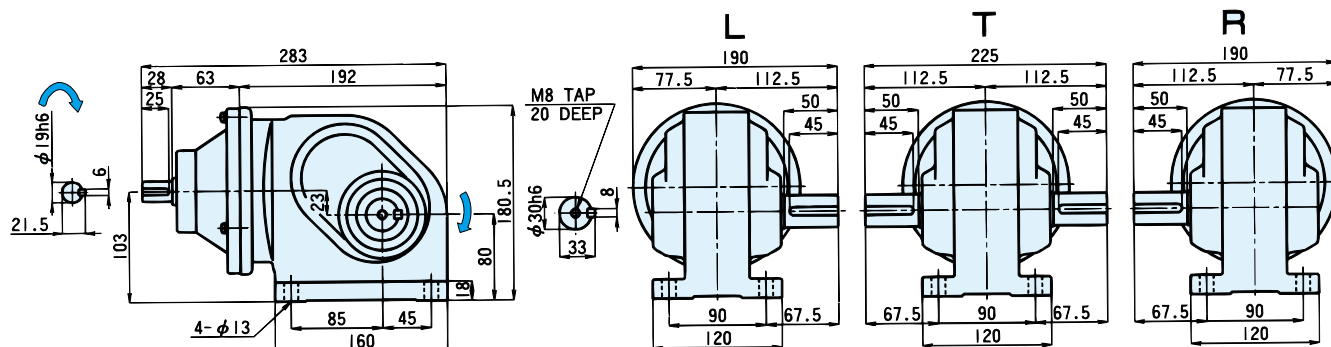
HYPOID MOTOR TA Outline Dimensions

38 0.75kW HRTA075-30L5~50 $\frac{L}{R}$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 9.0kg

Reference page : Specification Chart→P212

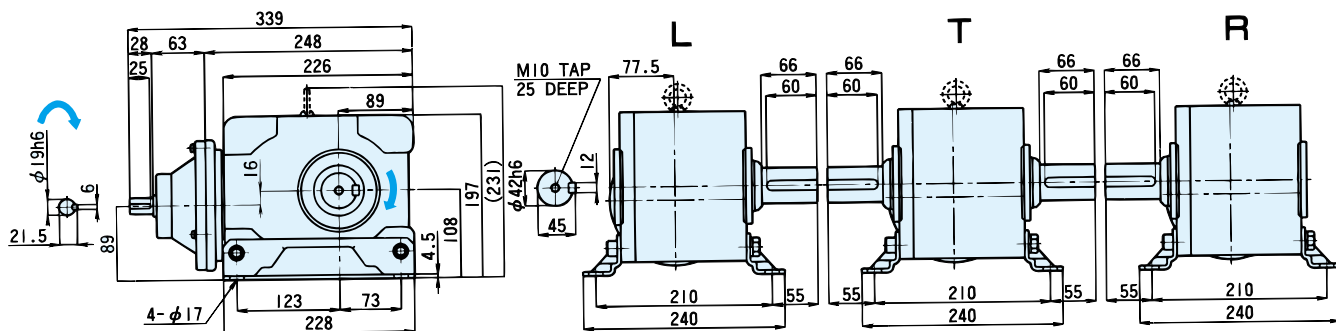


39 0.75kW HRTA075-42L60~200 $\frac{L}{R}$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 26.0kg

Reference page : Specification Chart→P212



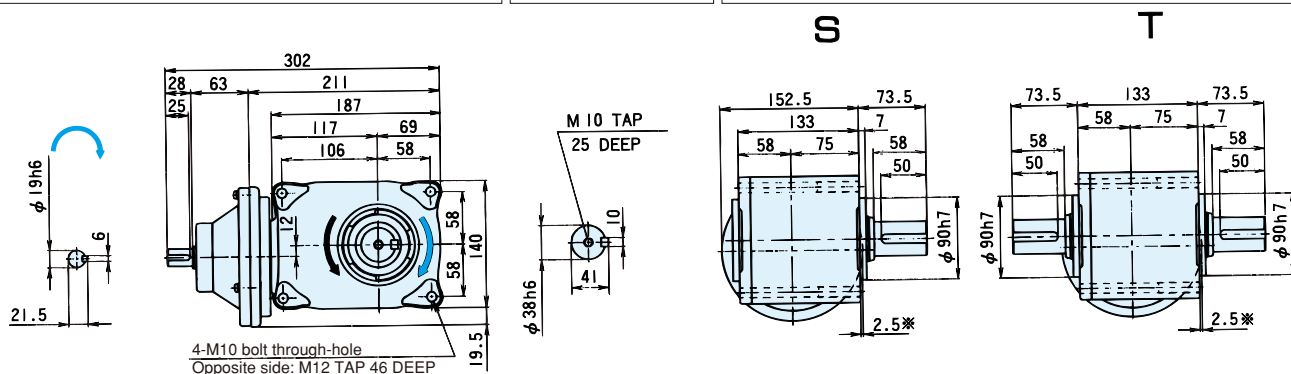
40 0.75kW HRTA075-38U5~50 $\frac{S}{T}$

1/5~1/30 $\curvearrowright$ 、1/40~1/50 $\curvearrowright$

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 13.5kg

Reference page : Specification Chart→P212

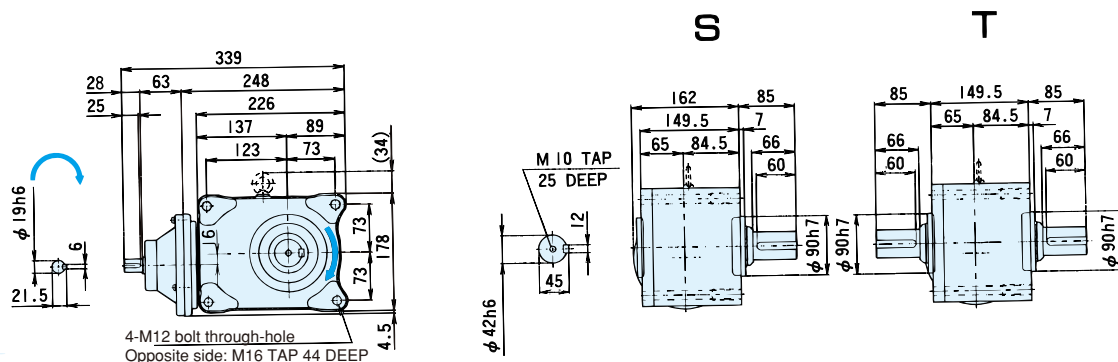


41 0.75kW HRTA075-42U60~200 $\frac{S}{T}$

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 24.5kg

Reference page : Specification Chart→P212



Note) The dimension marked with * indicates that part of the input shaft bracket protrudes from the mounting surface.
Note) The phases of the key ways of the output and input shafts are not necessarily aligned precisely. For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

Hypoid Motor TA Series Outline Dimensions

Inline reducer type

HYPOID MOTOR TA Outline Dimensions

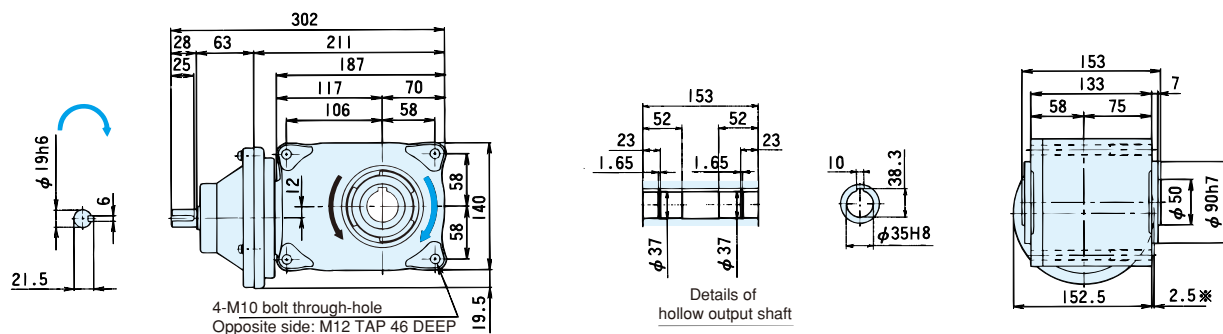
42 0.75kW HRTA075-35H5~50

1/5~1/30 ↺, 1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 12.0kg

Reference page : Specification Chart→P212 Options→P184

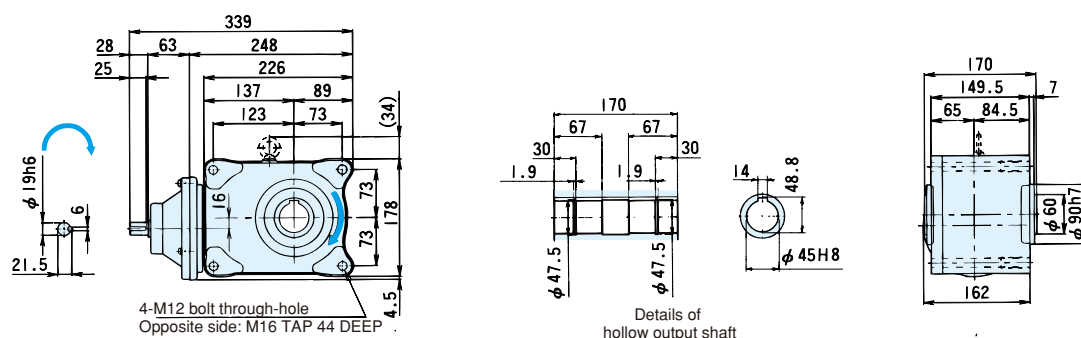


43 0.75kW HRTA075-45H60~200

Reduction ratio : 60, 80, 100, 120, 160, 200

Approx. weight : 20.5kg

Reference page : Specification Chart→P212 Options→P184



Note) The dimension marked with ※ indicates that part of the input shaft bracket protrudes from the mounting surface.

Hypoid Motor TA Series Outline Dimensions

Inline reducer type

HYPOID MOTOR TA Outline Dimensions

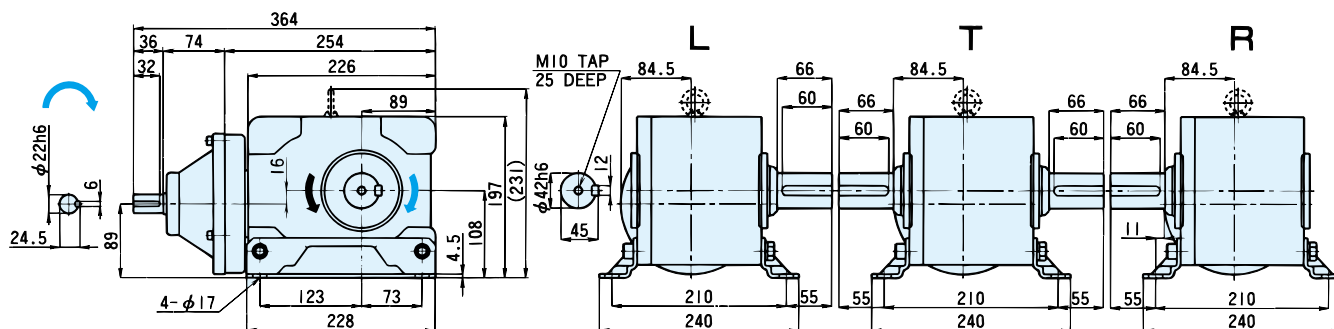
44 1.5kW HRTA150-42L5~50^L

1/5~1/30 ↺, 1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 39.0kg

Reference page : Specification Chart→P212



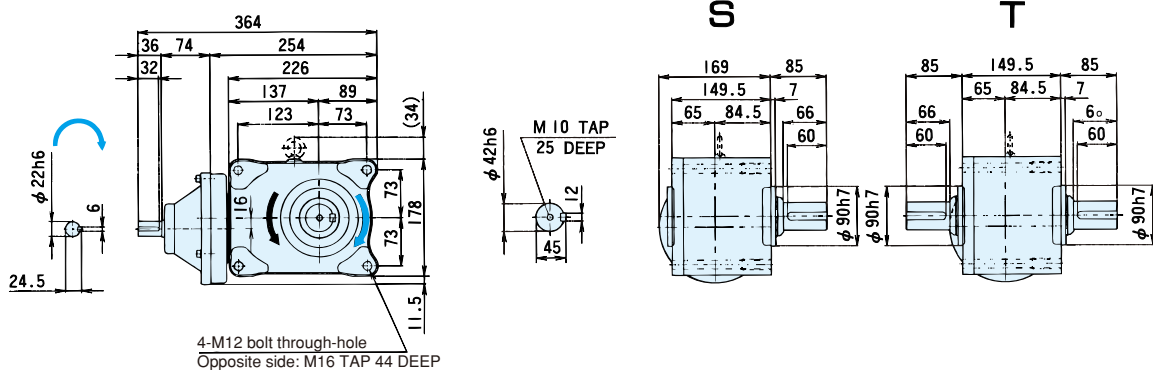
45 1.5kW HRTA150-42U5~50^S

1/5~1/30 ↺, 1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 26.0kg

Reference page : Specification Chart→P212



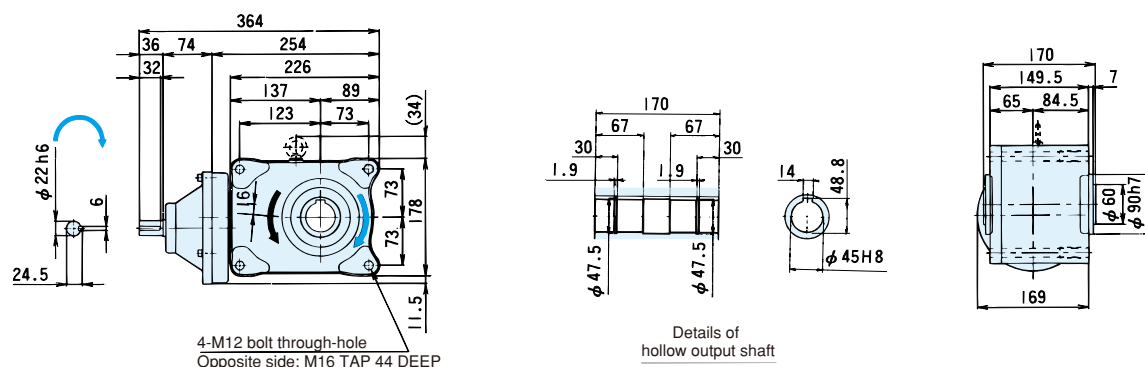
46 1.5kW HRTA150-45H5~50

1/5~1/30 ↺, 1/40~1/50 ↻

Reduction ratio : 5, 10, 15, 20, 25, 30, 40, 50

Approx. weight : 22.0kg

Reference page : Specification Chart→P212 Options→P184



Note) The phases of the key ways of the output shaft and input shafts are not necessarily aligned precisely. For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

Notes

HYPOID MOTOR TA

Notes

HYPOID MOTOR TA

Handwriting practice area with horizontal dotted lines.

Notes

HYPOID MOTOR TA

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HYPOID MOTOR TA

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HYPOLID MOTOR TA

HYPOID MOTOR TA

Safety Precautions

(General)

- Strictly observe the relevant safety regulations related to installation location and the equipment to be used. (Occupational safety and health regulations, electrical equipment technical standards, electrical machinery standards, industrial anti-explosion directives, architectural standards laws, etc.)
- Read the product Instruction Manual thoroughly first, and then follow it to use the equipment correctly. If you do not have a copy of the Instruction Manual, please request one from the retailer where the product was purchased or from our Sales Department. Make certain that the Instruction Manual is provided to the customer who will use the product.

(Selection)

- Choose a product that is suitable for both the intended use and the operation environment.
- When using a product in equipment for the transport of people or in elevator equipment, install the necessary protective equipment to maintain safety.
- In explosive environments, use explosion resistant motor models. Furthermore, use an explosion resistant motor model with specifications that are suitable to the dangerous place.
- When operating an explosion resistant motor with an inverter, a 1:1 motor and inverter combination is permitted. Always operate with the dedicated inverter as indicated. Furthermore, the inverter itself is not explosion resistant, so always operate it in a place that is free of explosive gas.
- When operating a motor with a 400 V class inverter, install a control filter or a reactor with the inverter, or else use something with strengthened insulation for the motor.
- For food product and similar machinery, especially for equipment where oiliness is undesirable, prepare for the chance of oil leakage, due to malfunction, age or other causes, by installing an oil trap or other equipment to prevent damage.

Caution

The product information in this catalog is primarily for model selection. Before actually using a product, thoroughly read its Instruction Manual and follow the instructions to use it correctly.



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