Sumitomo Drive Technologies

Always on the Move

HYPONIC Drive®

No. N2201E-4

HYPONIC Drive

CONTENTS

ISO 14001 CERTIFICATION

JAB
EMS Accreditation
FR006

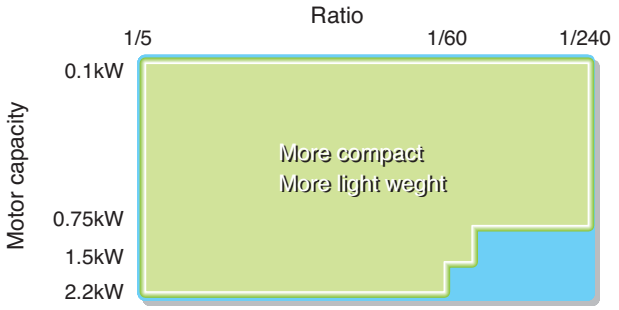
Okayama works has achieved ISO 14001 for environmental control. We are constantly striving to further enhance the quality of our environmental management.

HYPONIC DRIVE

Thinking Is Changing...

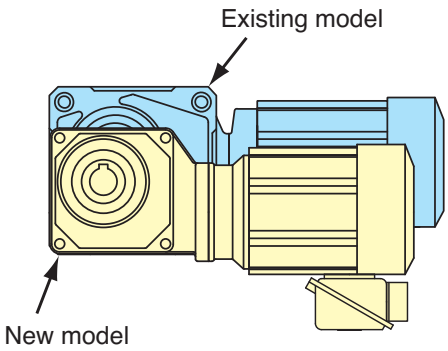
New More compact gearhead for 0.1kW~2.2kW

Hollow shaft type has been changed fully as the New model



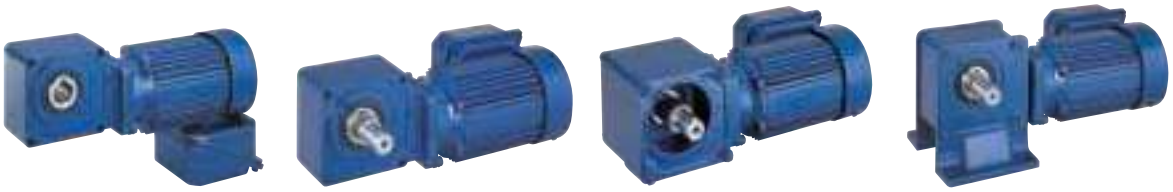
ex) Hollow shaft, 3-phase induction motor type

✻Details are shown on page 3.



New Single Housing Design !

The all New Hyponic provide all three mounting configuration with a single housing design



RNYM Series
Hollow shaft type

RNFM Series
Flange mount type (1)

RNFM Series
Flange mount type (2)

RNHM Series
Foot mount type

New Tripled the available combinations !

(combinations of capacity and reduction ratio)

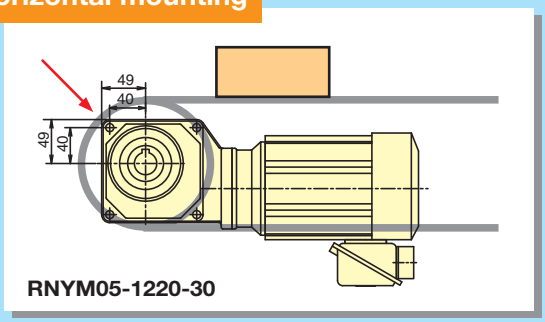
with addition of intermediate capacity motor (0.25,0.55,and 1.1kW) and reduction ratio (1/5,1/7,1/300,1/480,1/560,1/750,1/900,1/1200 and 1/1440), a wider range is made available to meet your requirements.

New Right angle New HYPONIC allows compact designs !

Example 1

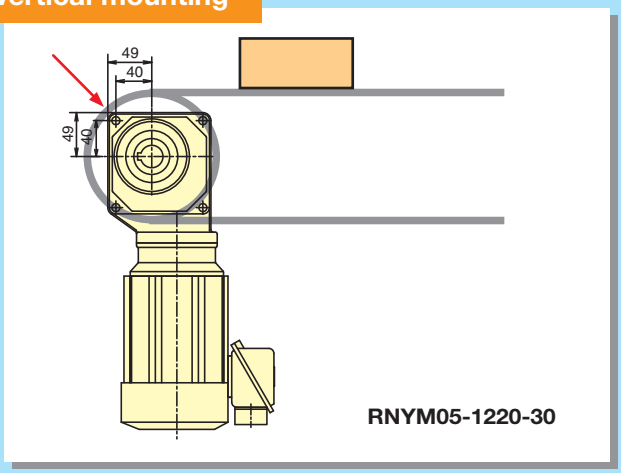
Because the mounting bolts are on square pitch
1.Mounting position can be changed without protrusion from existing envelope space.
2.Mounting position can be changed without changing interface dimensions.

Horizontal mounting



RNYM05-1220-30

Vertical mounting



RNYM05-1220-30

Obtained Japan and US patents

Patent Number 2628983 5,203,231

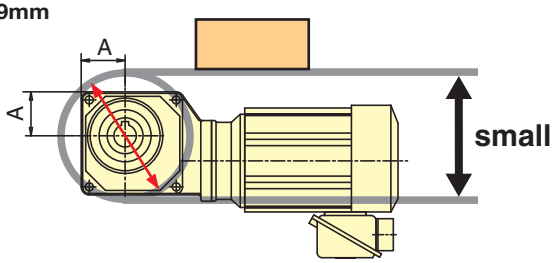
Example 2

The output shaft is located as close to the corner as possible to shorten the distance (A dimensions) between the center of the shaft and the edge of the casing.
This allows the Hyponic to be installed within a very tight space.

New Series

Example 0.4kW Ratio 1/30

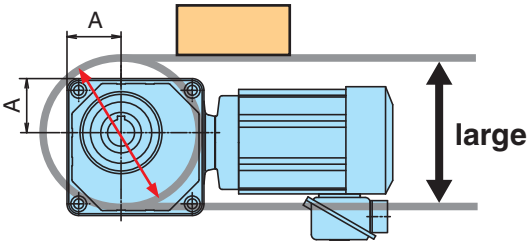
A=49mm



RNYM05-1220-30 Mass 9.5kg

Old Series

A=60mm



RNYM05-33-30 Mass 12kg

1.Small sizes of Hyponic Drive®

■ Water-proof type

IP65 water-proof type Hyponic Drive can be used in various areas, including food processing machines.

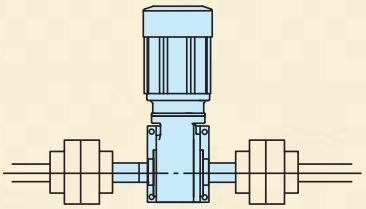
■ Versatile Installation

New style casing of Hyponic Neo allows installations from both sides.

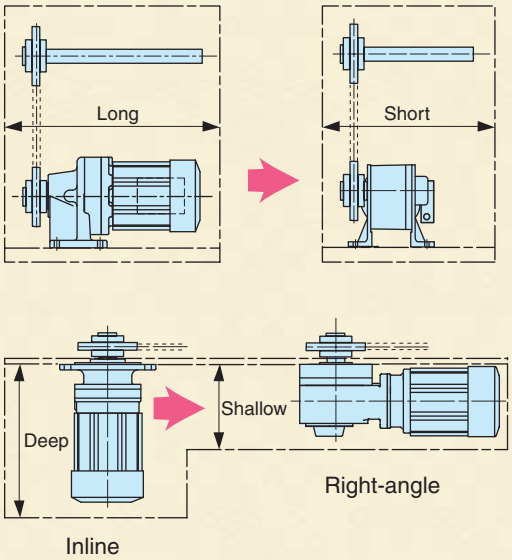
2.Advantages of Hyponic Drive®

Are you sure that your parallel-shaft gear motors are best for your application?
Hyponic Neo right-angle gear motors make motors installations more compact and less costly.

Twin shaft design !

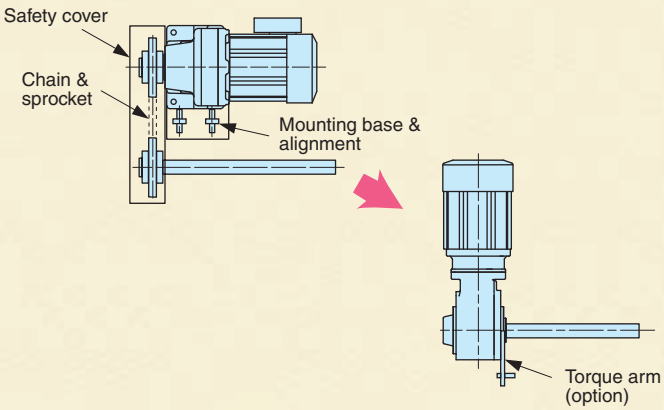


Space-saving design !



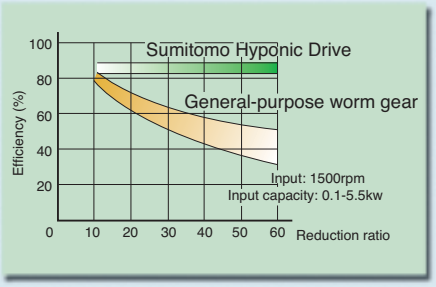
Direct drive !

Substantial reduction in the number of mounting parts, man hours for mounting, and frequency of maintenance.



3.Features of Hyponic Drive®

What if you could have right-angle gear motors with better efficiency and longer service life than general worm gears ? HYPONIC DRIVE® equipped with hypoid gears delivers high performance and high efficiency in a compact package.

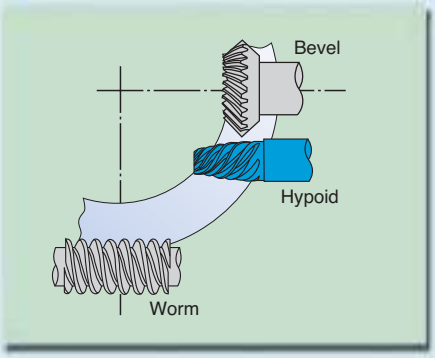


High efficiency

Sumitomo Hyponic Drive provides higher reduction ratio than bevel gears, allowing higher efficiency in all ranges of reduction ratios.

Low noise

With larger contact intervals than bevel gears, Hyponic Drive has a greater transmission capacity, which results in extremely silent and vibrationless operation.

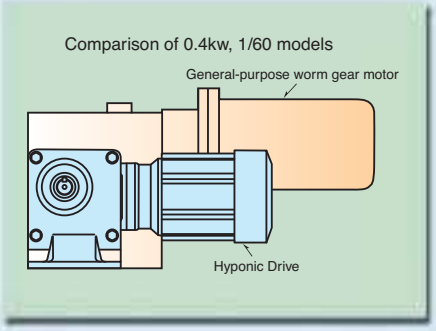


Robust and long-life

Hyponic gears are made of molybdenum steel and case hardened to provide reliable robust operation.

Lightweight and compact

Integration of the motor shaft and hypoid pinion and an aluminum alloy casing (for frame size #1531 or #56 and smaller) minimize weight in a strong compact package.



Maintenance-free

The long-life grease allows operation without changing the grease for a long time and allows installation at any desired angle or incline.

World standard

Brake motors, special voltages, international standards for outdoor use and other specifications are also available.

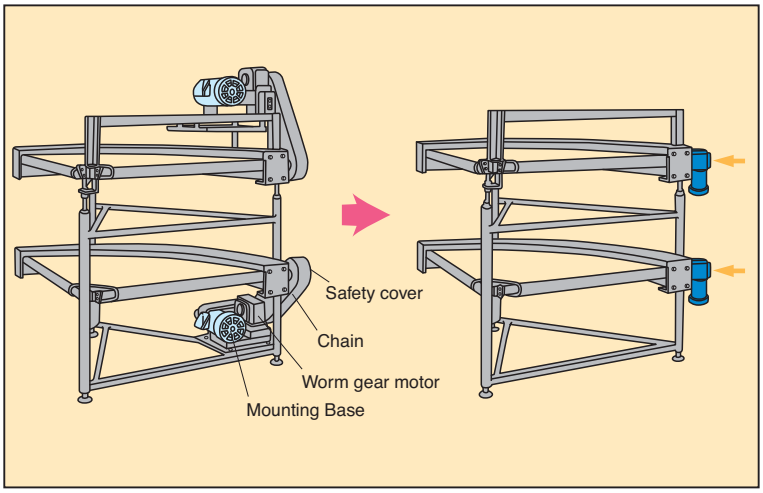
4.Features of Hyponic Drive®

Hollow Shaft (RNYM Series)

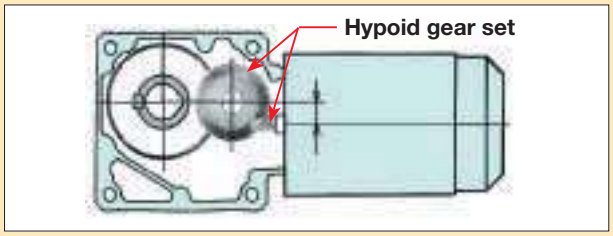
The excellent features of the existing models with hollow shafts reduce Cost by:

❑Fewer mounting parts;
❑Fewer man-hours for mounting; and
❑Eliminating maintenance.

~~Safety Cover~~ ~~Coupling~~ ~~Chain~~
~~Mounting Base~~ ~~Alignment~~ ~~Maintenance~~



Innovative Design

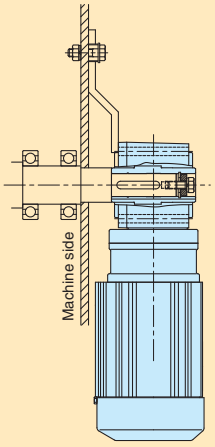
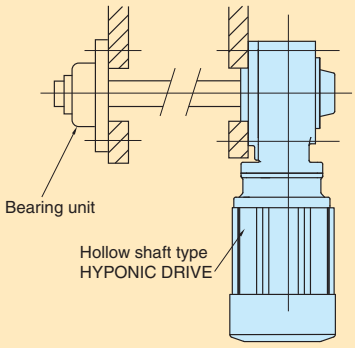
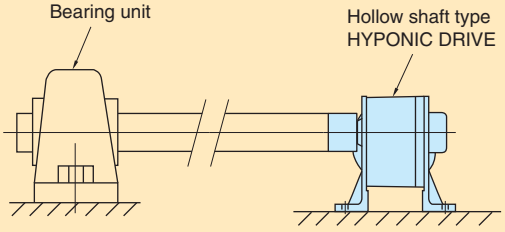


To take full advantage of the features of Hypoid gear set.

The patents include products of hollow shaft, using gear motors with Hypoid gear set.

Obtained Japan and US patents

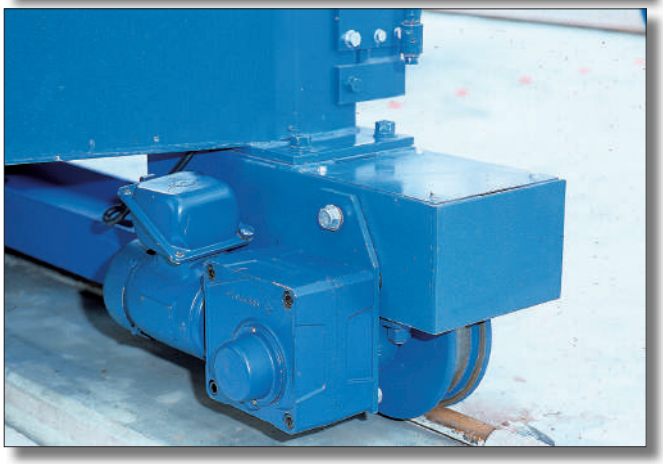
Using Hyponic Neo Hollow Shaft Series
❑Space-saving design
❑Excellent design
❑Greater variety of mounting methods

Shaft mount (The mounting direction opposite to the direction below is possible.)	**Two more mounting methods** (Flange mount and foot mount (option) shown below are possible.)
	●The shaft serves also as a bearing for the driven shaft, so a bearing on one side can be eliminated. ●This model can be used as a bearing unit with a driving section.  **Example of flange mounting**  **Example of foot mount (option)** (A plate should be furnished by the customer.)

5.Right angle HYPONIC Drive® allows compact designs

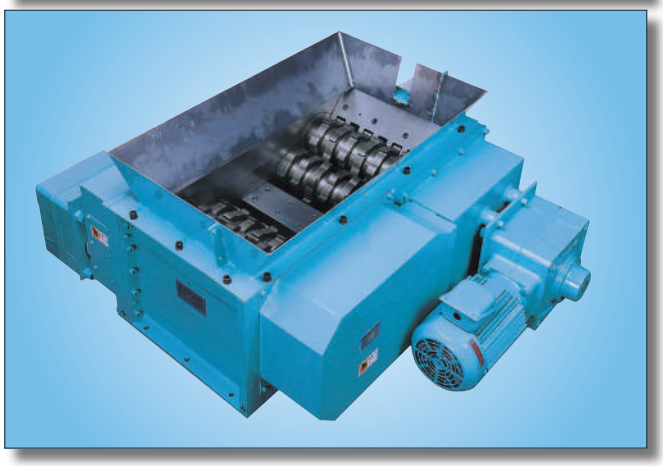
Conveyor lines in breweries

Driving trucks



Direct installation using hollow shaft type (with torque arm).
No requirement for sprockets, chains and other coupling equipment.

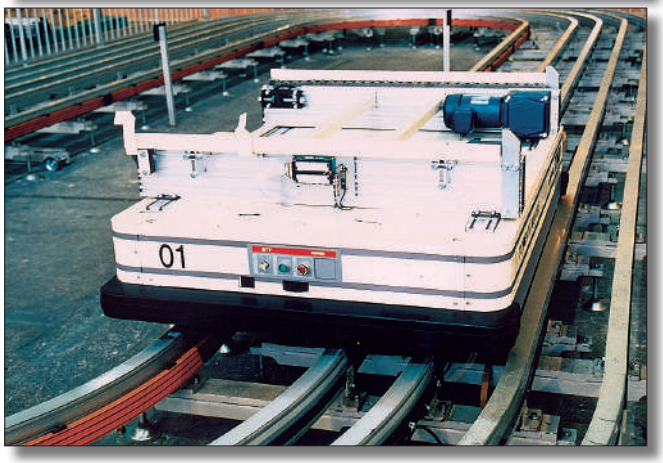
Crushers



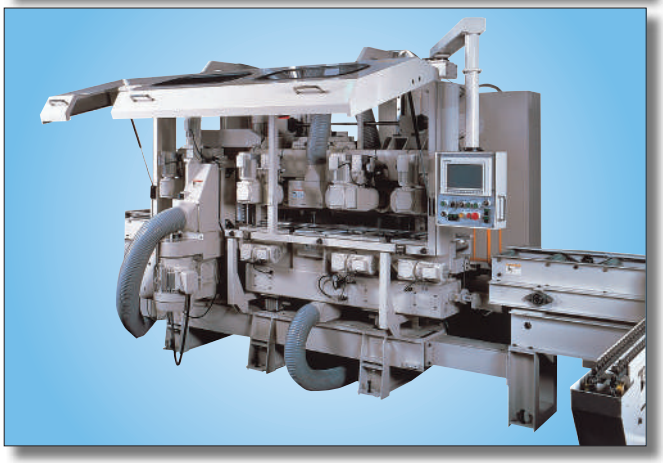
Dehydrator

Easy installation by using through bolts directly into the casing.

Auto-guided vehicle



Wood shaving machine



Direct installation with solid shaft flanges.

Product range

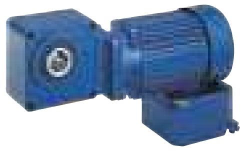
frame size (ϕ bore diameter)

Hollow shaft type

Note 1

Power supply	Motor spec.				Reduction ratio	1/5	1/7	1/10	1/12	1/15	1/20	1/25	1/30	1/40	1/50	1/60
					Output speed (r/min) 50Hz	290	207	145	121	96.7	72.5	58.0	48.3	36.3	29.0	24.2
					Output speed (r/min) 60Hz	350	250	175	146	117	87.5	70.0	58.3	43.8	35.0	29.2
3-Phase	Indoor type			Water proof type	15W	03 (ϕ15)										
					25W	03 (ϕ15)										
					40W	07 (ϕ15)										
					60W	07 (ϕ15)										
					90W	✻ 17 (ϕ15)										
		Outdoor type	Increased safety eG3 (Without brake, 0.25, 0.55, and 1.1kW are excluded from eG3.) Note 4	Water proof type IP65 (Without brake) Note 5	0.1kW	110 (ϕ15)			1120 (ϕ20)					1220 (ϕ25)		
					0.2kW	110 (ϕ20)			1120 (ϕ20)					1220 (ϕ25)		
						1220 (ϕ25)								1320 (ϕ30)		
					0.25kW	1210 (ϕ25)			1220 (ϕ25)					1320 (ϕ30)		
					0.4kW	1210 (ϕ25)			1220 (ϕ25)					1320 (ϕ30)		
						1320 (ϕ30)								1420 (ϕ35)		
					0.55kW	1310 (ϕ30)			1320 (ϕ30)					1420 (ϕ35)		
					0.75kW	1310 (ϕ30)			1320 (ϕ30)					1420 (ϕ35)		
						1420 (ϕ35)								1520 (ϕ45)		
					1.1kW	1410 (ϕ35)			1420 (ϕ35)					1520 (ϕ45)		
					1.5kW	1410 (ϕ35)			1420 (ϕ35)					1520 (ϕ45)		
						1520 (ϕ45)								1531 (ϕ45)		
					2.2kW	1510 (ϕ45)			1520 (ϕ45)					1531 (ϕ45)		
					3.0kW	1521 (ϕ45)							1632 (ϕ55)			
						1522 (ϕ45)					1633 (ϕ55)					
					3.7kW	1521 (ϕ45)							1632 (ϕ55)			
						1522 (ϕ45)					1633 (ϕ55)					
					5.5kW	1522 (ϕ45)					1633 (ϕ55)					
						1634 (ϕ55)										
					7.5kW	1634 (ϕ55)										
					11kW	1634 (ϕ55)										
Single-Phase	Indoor type			Water proof type	15W	03 (ϕ15)										
					25W	03 (ϕ15)										
					40W	07 (ϕ15)										
					60W	✻ 17 (ϕ15)										
					90W	✻ 17 (ϕ15)										
		Outdoor type			0.1kW	1110 (ϕ20)			1120 (ϕ20)					1220 (ϕ25)		
					0.2kW	1210 (ϕ25)			1220 (ϕ25)					1320 (ϕ30)		
					0.4kW	1310 (ϕ30)			1320 (ϕ30)					1420 (ϕ35)		
For inverters		Outdoor type		Water proof type IP65 (Without brake)	0.1kW	1110 (ϕ20)			1120 (ϕ20)							
														1220 (ϕ25)		
					0.2kW	1210 (ϕ25)			1120 (ϕ20)					1220 (ϕ25)		
						1220 (ϕ25)								1320 (ϕ30)		
					0.4kW	1310 (ϕ30)			1320 (ϕ30)					1420 (ϕ35)		
					0.75kW	1410 (ϕ35)			1420 (ϕ35)					1520 (ϕ45)		
					1.5kW	1510 (ϕ45)			1520 (ϕ45)					1531 (ϕ45)		
					2.2kW	1521 (ϕ45)							1632 (ϕ 55)			
					3.7kW	1522 (ϕ45)					1633 (ϕ 55)					
					5.5kW	1634 (ϕ55)										
					7.5kW	1634 (ϕ55)										

Note1 : Reduction ratio for 15W–90W is 1/7.5
Note2 : Frame sizes marked with ✻ have a torque limitation. Refer to the selection table for the details.
Note3 : Reduction ratio for 15W and 25W is 1/160.
Note4 : Increased safety motors conform to eG3 of Japanese Industrial Standards (JIS).
Note5 : Waterproof types of frame size 1120, 1220, 1320, 1420, and 1520 with reduction ratio 1/5 are not available.



Note 3

	1/80	1/100	1/120	1/150	1/200	1/240	1/300	1/360	1/480	1/560	1/720	1/900	1/1200	1/1440
	18.1	14.5	12.1	9.67	7.25	6.04	4.83	4.03	3.02	2.59	1.93	1.61	1.21	1.01
	21.9	17.5	14.6	11.7	8.75	7.29	5.83	4.86	3.65	3.13	2.33	1.94	1.46	1.22
				17 (φ15)			✻ 1240 (φ25)							
	✻ 17 (φ15)						✻ 1240 (φ25)							
							✻ 1240 (φ25)							
	✻ 1230 (φ25)						✻ 1340 (φ30)			✻ 1340 (φ30)				
	✻ 1330 (φ30)						1440 (φ35)			✻ 1440 (φ35)				
	✻ 1330 (φ30)						✻ 1440 (φ35)			✻ 1440 (φ35)				
	✻ 1430 (φ35)						1540 (φ45)			✻ 1540 (φ 45)				
	1430 (φ35)						✻1540 (φ45)							
	✻ 1430 (φ35)						✻1540 (φ45)			✻1540 (φ45)				
	✻ 1530 (φ45)						1640 (φ55)			✻1640 (φ55)				
	✻ 1530 (φ45)						✻1640 (φ55)							
	✻ 1530 (φ45)						✻1640 (φ55)							
	1531 (φ45)	1630 (φ55)		1631 (φ55)										
	1531 (φ45)	1630 (φ55)		1631 (φ55)										
	1531 (φ45)	1630 (φ55)		✻ 1631 (φ55)										
	1630 (φ55)													
	1630 (φ55)			✻ 1631 (φ55)										
				17 (φ15)			✻ 1240 (φ25)							
							✻ 1240 (φ25)							
							✻ 1240 (φ25)							
	1330 (φ30)						✻ 1340 (φ30)			✻ 1340 (φ 30)				
							1440 (φ35)			✻ 1440 (φ35)				
	1430 (φ35)						✻ 1440 (φ35)			✻ 1440 (φ35)				
							1540 (φ45)			✻ 1540 (φ45)				
	1530 (φ45)						✻ 1640 (φ55)							
	✻ 1230 (φ25)						✻ 1340 (φ30)			✻ 1340 (φ30)				
	1330 (φ30)						1440 (φ35)			1440 (φ35)		✻ 1440 (φ35)		
	✻ 1330 (φ30)						✻ 1440 (φ35)			✻ 1440 (φ35)				
	1430 (φ35)						1540 (φ45)			✻ 1540 (φ45)				
	✻ 1530 (φ45)						✻ 1640 (φ55)							
	1531 (φ45)	1630 (φ55)		1631 (φ55)										
	1531 (φ45)	1630 (φ55)		✻ 1631 (φ55)										

frame size (ϕ bore diameter)

Solid shaft flange mount type

Note 1

Reduction ratio			1/5	1/7	1/10	1/12	1/15	1/20	1/25	1/30	1/40	1/50	1/60
Output speed (r/min)		50Hz	290	207	145	121	96.7	72.5	58.0	48.3	36.3	29.0	24.2
Power supply	Motor spec.	60Hz	350	250	175	146	117	87.5	70.0	58.3	43.8	35.0	29.2
3-Phase	Indoor type / Water proof type	15W	01 (ϕ10)										
		25W	01 (ϕ10)										
		40W	05 (ϕ12)										
		60W	07 (ϕ15)										
		90W	15 (ϕ15)										
	Outdoor type / Increased safety eG3 (Without brake, 0.25, 0.55, and 1.1kW are excluded from eG3.) Note 5	0.1kW	1120 (ϕ18)										
											1220 (ϕ22)		
		0.2kW	1120 (ϕ18)								1220 (ϕ22)		
			1220 (ϕ22)								1320 (ϕ28)		
		0.25kW	1220 (ϕ22)								1320 (ϕ28)		
		0.4kW	1220 (ϕ22)								1320 (ϕ28)		
			1320 (ϕ28)								1420 (ϕ32)		
		0.55kW	1320 (ϕ28)								1420 (ϕ32)		
		0.75kW	1320 (ϕ28)								1420 (ϕ32)		
			1420 (ϕ32)								1520 (ϕ40)		
		1.1kW	1420 (ϕ32)								1520 (ϕ40)		
		1.5kW	1420 (ϕ32)								1520 (ϕ40)		
			1520 (ϕ40)								1531 (ϕ40)		
		2.2kW	1520 (ϕ40)								1531 (ϕ40)		
Single-Phase	Indoor type / Water proof type	15W	01 (ϕ10)										
		25W	01 (ϕ10)										
		40W	05 (ϕ12)										
		60W	15 (ϕ15)										
		90W	15 (ϕ15)										
	Outdoor type	0.1kW	1120 (ϕ18)								1220 (ϕ22)		
		0.2kW	1220 (ϕ22)								1320 (ϕ28)		
		0.4kW	1320 (ϕ28)								1420 (ϕ32)		
For inverters	Outdoor type	0.1kW	1120 (ϕ18)								1220 (ϕ22)		
		0.2kW	1220 (ϕ22)								1320 (ϕ28)		
		0.4kW	1320 (ϕ28)								1420 (ϕ32)		
		0.75kW	1420 (ϕ32)								1520 (ϕ40)		
		1.5kW	1520 (ϕ40)								1531 (ϕ40)		

Note1 : Reduction ratio for 15W–90W is 1/7.5
Note2 : Frame sizes marked with ✻ have a torque limitation. Refer to the selection table for the details.
Note3 : Reduction ratio for 15W and 25W is 1/160.
Note4 : Consult us as to selection table and dimension of the ratio 300 or more.
Note5 : Increased safety motors conform to eG3 of Japanese Industrial Standards (JIS).

Note 3

	1/80	1/100	1/120	1/150	1/200	1/240
	18.1	14.5	12.1	9.67	7.25	6.04
	21.9	17.5	14.6	11.7	8.75	7.29
			03 (ϕ15)			
	03 (ϕ15)					
	07 (ϕ15)			17 (ϕ18)		
	✻ 17 (ϕ18)					
	✻ 17 (ϕ18)					
	✻ 1230 (ϕ22)					
	✻ 1330 (ϕ28)					
	✻ 1330 (ϕ28)					
	✻ 1430 (ϕ32)					
	1430 (ϕ32)					
	✻ 1430 (ϕ32)					
	✻ 1530 (ϕ40)					
	✻ 1530 (ϕ40)					
	✻ 1530 (ϕ40)					
	1531 (ϕ40)					
	1531 (ϕ40)					
	1531 (ϕ40)					
			03 (ϕ15)			
	03 (ϕ15)					
	07 (ϕ15)			17 (ϕ18)		
	✻ 17 (ϕ18)					
	✻ 17 (ϕ18)					
	1330 (ϕ28)					
	1430 (ϕ32)					
	1530 (ϕ40)					
	1330 (ϕ28)					
	1430 (ϕ32)					
	1530 (ϕ40)					
	1531 (ϕ40)					

frame size (ϕ bore diameter)

Solid shaft foot mount type

Reduction ratio					1/5	1/7	1/10	1/12	1/15	1/20	1/25	1/30	1/40	1/50	1/60
Output speed (r/min)				50Hz	290	207	145	121	96.7	72.5	58.0	48.3	36.3	29.0	24.2
Power supply	Motor spec.			60Hz	350	250	175	146	117	87.5	70.0	58.3	43.8	35.0	29.2
3-Phase		Outdoor type	Increased safety eG3 (Without brake, 0.25, 0.55, and 1.1kW are excluded from eG3.) Note 3	0.1kW	1120 (ϕ18)								1220 (ϕ22)		
				0.2kW	1120 (ϕ18)								1220 (ϕ22)		
					1220 (ϕ22)								1320 (ϕ28)		
				0.25kW	1220 (ϕ22)								1320 (ϕ28)		
				0.4kW	1220 (ϕ22)								1320 (ϕ28)		
					1320 (ϕ28)								1420 (ϕ32)		
				0.55kW	1320 (ϕ28)								1420 (ϕ32)		
				0.75kW	1320 (ϕ28)								1420 (ϕ32)		
					1420 (ϕ32)								1520 (ϕ40)		
				1.1kW	1420 (ϕ32)								1520 (ϕ40)		
				1.5kW	1420 (ϕ32)								1520 (ϕ40)		
					1520 (ϕ40)								1531 (ϕ40)		
				2.2kW	1520 (ϕ40)								1531 (ϕ40)		
Single-Phase	Indoor type	Outdoor type		0.1kW	1120 (ϕ18)								1220 (ϕ22)		
				0.2kW	1220 (ϕ22)								1320 (ϕ28)		
				0.4kW	1320 (ϕ28)								1420 (ϕ32)		
For inverters		Outdoor type		0.1kW	1120 (ϕ18)								1220 (ϕ22)		
				0.2kW	1220 (ϕ22)								1320 (ϕ28)		
				0.4kW	1320 (ϕ28)								1420 (ϕ32)		
				0.75kW	1420 (ϕ32)								1520 (ϕ40)		
				1.5kW	1520 (ϕ40)								1531 (ϕ40)		

Note1 : Frame sizes marked with ✻ have a torque limitation. Refer to the selection table for the details.
Note2 : Consult us as to selection table and dimension of the ratio 300 or more.
Note3 : Increased safety motors conform to eG3 of Japanese Industrial Standards (JIS).

	1/80	1/100	1/120	1/150	1/200	1/240
	18.1	14.5	12.1	9.67	7.25	6.04
	21.9	17.5	14.6	11.7	8.75	7.29
	✻ 1230 (ϕ22)					
	✻ 1330 (ϕ28)					
	✻ 1330 (ϕ28)					
	✻ 1430 (ϕ32)					
	1430 (ϕ32)					
	✻ 1430 (ϕ32)					
	✻ 1530 (ϕ40)					
	✻ 1530 (ϕ40)					
	✻ 1530 (ϕ40)					
	1531 (ϕ40)					
	1531 (ϕ40)					
	1531 (ϕ40)					
	1330 (ϕ28)					
	1430 (ϕ32)					
	1530 (ϕ40)					
	1330 (ϕ28)					
	1430 (ϕ32)					
	1530 (ϕ40)					
	1531 (ϕ40)					

	Type	Item	Standard Specifications		Specifications for motors with brake
Motor	3-phase	Capacity range	15W-11kW 4-pole		15W-11kW 4-pole SB, FB Brake (Non-asbestos lining)
		Housing structure	15W-90W : IP44 (Indoor) Totally-enclosed non-ventilated type 0.1kW and above : IP55 Totally-enclosed fan-cooled type (0.1kW model : Totally-enclosed non ventilated type)		15W-90W : IP44 (Indoor) Totally-enclosed non-ventilated type 0.1kW and above : IP55 Totally-enclosed fan-cooled type (0.1kW model : Totally-enclosed non ventilated type)
		Power supply	15W-90W : 220V 50Hz, 220V 60Hz, 230V 50Hz 0.1kW-3.7kW : 220V-240V 50Hz△, 220V 60Hz △ 380V-420V 50Hz 人 5.5kW-11kW : 380V-420V 50Hz 人 440V-480V 60Hz 人		15W-90W : 220V 50Hz, 220V 60Hz, 230V 50Hz 0.1kW-3.7kW : 220V-240V 50Hz△, 220V 60Hz△ 380V-420V 50Hz 人 (Brake : 220VAC-240VAC) 5.5kW-11kW : 380V-420V 50Hz 人 440V-480V 60Hz 人 (Brake : 380VAC-480VAC)
		Insulation	15W-90W 4-pole : Class E 0.1kW-11kW 4-pole : Class F		15W-90W 4-pole : Class E (Brake insulation : Class B) 0.1kW-11kW 4-pole : Class F (Brake insulation : Class F)
		Time rating	Continuous		Continuous
		Starting method	15W-3.7kW : Direct 5.5kW-11kW : 人-△ Starting		15W-3.7kW : Direct 5.5kW-11kW : 人-△ Starting
		Lead wire (Lug type)	15-90W : 3-wire 0.1kW-11kW : 6-wire		15-90W : 5-wire 0.1kW-11kW : 8-wire
		Standard	15W-90W : JIS 0.1kW-11kW : IEC		15W-90W : JIS 0.1kW-11kW : IEC
	Single-phase		Induction	Reversible	Induction
		Capacity range	15W-0.4kW 4-pole	15W-90W 4-pole	15W-0.4kW 4-pole, Brake: non-asbestos lining
		Housing structure	IP44 (indoor) Totally-enclosed fan-cooled type (15W, 25W, and 40W for #17: Totally-enclosed non-ventilated type)	IP44 (indoor) Totally-enclosed fan-cooled type (15W, 25W, and 40W for #17: Totally-enclosed non-ventilated type)	IP44 (indoor) Totally-enclosed fan-cooled type (40W for #17: Totally-enclosed non-ventilated type)
		Power supply	230V 50Hz	100V 50/60Hz	230V 50Hz
		Insulation	15W-90W 4-pole: Class E 0.1-0.4kW 4-pole: Class B	15W-90W 4-pole: Class E	15W-90W 4-pole: Class E (Brake insulation: Class B) 0.1-0.4kW 4-pole: Class B (Brake insulation: Class B)
		Time rating	Continuous	30 minutes	Continuous
		Starting method	15W-90W 4-pole: capacitor-run type 0.1-0.4kW 4-pole: capacitor-starting capacitor-run type	capacitor-run type	15W-90W 4-pole: capacitor-run type 0.1-0.4kW 4-pole: capacitor-starting capacitor-run type
		Lead wire (Lug type)	15W-90W 4-pole: 3-wire 0.1-0.4kW 4-pole: 6-wire		15W-90W 4-pole: 5-wire 0.1-0.4kW 4-pole: 8-wire
		Standard	JIS		JIS
	3-phase for inverters	Capacity range	0.1-7.5kW 4-pole		0.1-7.5kW 4-pole FB Brake (Non-asbestos lining)
		Housing structure	IP44 (indoor or outdoor) Totally-enclosed fan-cooled type		IP44 (indoor or outdoor) Totally-enclosed fan-cooled type
		Power supply	380V 60Hz, 400V 60Hz, 415V 60Hz		380V 60Hz, 400V 60Hz, 415V 60Hz
		Insulation	Class F		Class F (Brake insulation: Type F)
		Time rating	Continuous rating (6–60Hz Torque constant)		Continuous rating (6–60Hz Torque constant)
		Lead wire (Lug type)	0.1-7.5kW 4-pole: 6-wire		0.1-7.5kW 4-pole: 8-wire
		Standard	IEC		IEC
Reducer		Lubrication	Grease lubrication: Filled with special high-grade grease prior to shipment		
		Reduction	Combination of hypoid gear and involute gear		
		Material	Casing: Aluminum alloy (#60, #63 and #64: Cast iron), Gear: Chrome-molybdenum steel		
Ambient conditions		Installation	Indoor (Free from dust and water)		
		Temperature	–10-40℃		
		Humidity	85%max. no dewing		
		Altitude	1000m max.		
		Atomosphere	Free from corrosive gas,explosive gas,or steam and well ventilated.		
Installation angle			No limitation		
Painting			Refer to page C58–C59		

Notes : 1. Refer to page C30 for mounting direction of a terminal box. (No terminal box for standard 15-90W models)
2. Refer to page C12–C14 for output shaft rotation.
3. Refer to page C18–C19 and C19–C26 for the motor characteristics, brake specifications.

R	N	Y	M	01	–	1010			–		–	B	–	5

Product	
R	Hyponic

Output shaft direction	
N	Universal

Mounting	
Y	Hollow
F	Flange
H	Foot

Input Connection	
M	Integral motor

Shaft Spec.	Symbol
Metric Size	Blank
Inch Size	Y
AGMA Ⅰ	YA
AGMA Ⅱ	YB
AGMA Ⅲ	YC

Reduction ratio

Brake	
Blank	Without brake
B	With brake

Input Power	
0015	15W
0025	25W
004	40W
006	60W
009	90W
01	0.1kW
02	0.2kW
03	0.25kW
05	0.4kW
08	0.55kW
1	0.75kW
1H	1.1kW
2	1.5kW
3	2.2kW
4	3.0kW
5	3.7kW
8	5.5kW
10	7.5kW
15	11kW

Hyponic frame size			
01	03		
05	07		
15	17		
1010	1110		
1120	1210		
1220	1230	1240	
1310	1320		
1330	1340	1410	
1420	1430	1440	
1510	1520	1521	1522
1530	1531	1540	
1630	1631		
1632	1633		
1640	1634		

Suffix			
Solid shaft options		Motor spec.	
X1	Plug-in shaft 	Blank	With 3-phase motor
P1	Extended flange, Left (Viewed from motor) 	CA	With Single-Phase Capacitor Start Motor
		CB	With Single-Phase Capacitor Start Capacitor-Run
Q1	Extended flange, Right (Viewed from motor) 	CC	With single-phase reversible motor
J1	Bolt on feet 	AV	Motor for inverter

Shaft direction		
Code	Viewed from motor	Viewed from above
Blank	–	
L	Left	
R	Right	
T	Both	

Y

RNYM Series
Hollow shaft type

F

RNFM Series
Flange mount type(1)

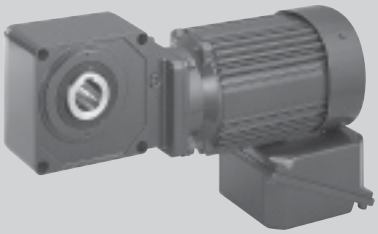
RNFM Series
Flange mount type(2)

H

RNHM Series
Foot mount type

HyPonic Drive®

Hollow Shaft



15W 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

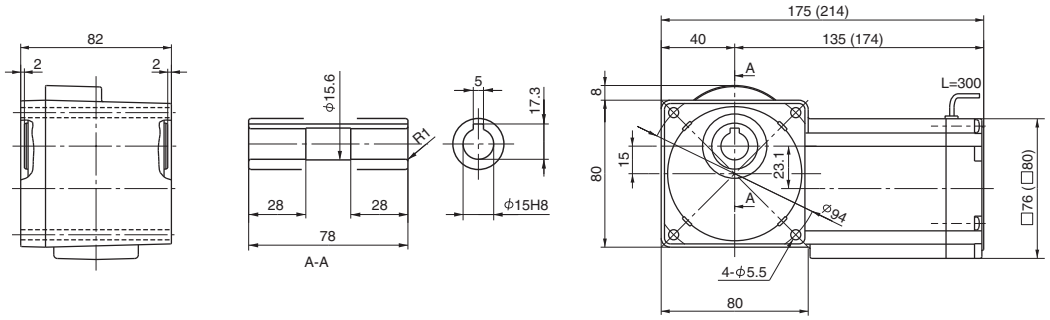
Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.371	0.307	0.038	0.031	4.00	539	490	55	50	0015 — 03 — 5	
193	233	0.556	0.461	0.057	0.047	4.00	588	539	60	55	0015 — 03 — 7.5	
145	175	0.742	0.615	0.076	0.063	4.00	637	588	65	60	0015 — 03 — 10	
121	146	0.890	0.738	0.091	0.075	4.00	686	637	70	65	0015 — 03 — 12	
96.7	117	1.11	0.922	0.113	0.094	4.00	735	686	75	70	0015 — 03 — 15	
72.5	87.5	1.48	1.23	0.151	0.125	4.00	785	735	80	75	0015 — 03 — 20	
58.0	70.0	1.85	1.54	0.189	0.157	4.00	834	785	85	80	0015 — 03 — 25	
48.3	58.3	2.23	1.84	0.227	0.188	4.00	883	834	90	85	0015 — 03 — 30	
36.3	43.8	2.97	2.46	0.303	0.251	4.00	981	932	100	95	0015 — 03 — 40	1
29.0	35.0	3.71	3.07	0.378	0.313	4.00	1080	1030	110	105	0015 — 03 — 50	
24.2	29.2	4.45	3.69	0.454	0.376	4.00	1080	1080	110	110	0015 — 03 — 60	
18.1	21.9	5.93	4.92	0.605	0.501	4.00	1080	1080	110	110	0015 — 03 — 80	
14.5	17.5	7.42	6.15	0.756	0.627	4.00	1080	1080	110	110	0015 — 03 — 100	
12.1	14.6	8.90	7.38	0.908	0.752	3.34	1080	1080	110	110	0015 — 03 — 120	
9.06	10.9	11.9	9.83	1.21	1.00	2.50	1080	1080	110	110	0015 — 03 — 160	
7.25	8.75	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0015 — 03 — 200	
6.04	7.29	17.8	14.8	1.82	1.50	1.67	1080	1080	110	110	0015 — 03 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.

2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM0015–03–5~240 (RNYM0015–03–B–5~240) Mass 2.6kg (Mass 3.2kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".

2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).

3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

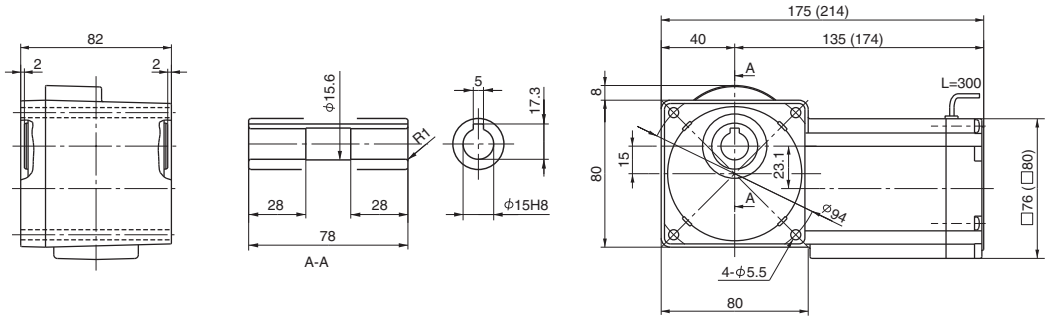
Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.618	0.512	0.063	0.052	2.40	539	490	55	50	0025 — 03 — 5	
193	233	0.927	0.768	0.095	0.078	2.40	588	539	60	55	0025 — 03 — 7.5	
145	175	1.24	1.02	0.126	0.104	2.40	637	588	65	60	0025 — 03 — 10	
121	146	1.48	1.23	0.151	0.125	2.40	686	637	70	65	0025 — 03 — 12	
96.7	117	1.85	1.54	0.189	0.157	2.40	735	686	75	70	0025 — 03 — 15	
72.5	87.5	2.47	2.05	0.252	0.209	2.40	785	735	80	75	0025 — 03 — 20	
58.0	70.0	3.09	2.56	0.315	0.261	2.40	834	785	85	80	0025 — 03 — 25	
48.3	58.3	3.71	3.07	0.378	0.313	2.40	883	834	90	85	0025 — 03 — 30	
36.3	43.8	4.95	4.10	0.504	0.418	2.40	981	932	100	95	0025 — 03 — 40	2
29.0	35.0	6.18	5.12	0.630	0.522	2.40	1080	1030	110	105	0025 — 03 — 50	
24.2	29.2	7.42	6.15	0.756	0.627	2.40	1080	1080	110	110	0025 — 03 — 60	
18.1	21.9	9.89	8.20	1.01	0.836	2.40	1080	1080	110	110	0025 — 03 — 80	
14.5	17.5	12.4	10.2	1.26	1.04	2.40	1080	1080	110	110	0025 — 03 — 100	
12.1	14.6	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0025 — 03 — 120	
9.06	10.9	19.8	16.4	2.02	1.67	1.50	1080	1080	110	110	0025 — 03 — 160	
7.25	8.75	24.7	20.5	2.52	2.09	1.20	1080	1080	110	110	0025 — 03 — 200	
6.04	7.29	29.7	24.6	3.03	2.51	1.00	1080	1080	110	110	0025 — 03 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.

2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 2 RNYM0025–03–5~240 Mass 2.7kg
(RNYM0025–03–B–5~240) (Mass 3.3kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".

2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).

3. Dimensions and Masses in the drawings are subject to change without notice.

40W 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.12	0.929	0.114	0.095	1.50	539	490	55	50	004 — 07 — 5	1
193	233	1.68	1.39	0.171	0.142	1.50	588	539	60	55	004 — 07 — 7.5	
145	175	2.24	1.86	0.229	0.189	1.50	637	588	65	60	004 — 07 — 10	
121	146	2.69	2.23	0.274	0.227	1.50	686	637	70	65	004 — 07 — 12	
96.7	117	3.36	2.79	0.343	0.284	1.50	735	686	75	70	004 — 07 — 15	
72.5	87.5	4.48	3.72	0.457	0.379	1.50	785	735	80	75	004 — 07 — 20	
58.0	70.0	5.61	4.64	0.572	0.474	1.50	834	785	85	80	004 — 07 — 25	
48.3	58.3	6.73	5.57	0.686	0.568	1.50	883	834	90	85	004 — 07 — 30	
36.3	43.8	8.97	7.43	0.914	0.758	1.50	981	932	100	95	004 — 07 — 40	
29.0	35.0	11.2	9.29	1.14	0.947	1.50	1080	1030	110	105	004 — 07 — 50	
24.2	29.2	13.5	11.1	1.37	1.14	1.50	1080	1080	110	110	004 — 07 — 60	
18.1	21.9	17.9	14.9	1.83	1.52	1.50	1080	1080	110	110	004 — 07 — 80	
14.5	17.5	22.4	18.6	2.29	1.89	1.20	1080	1080	110	110	004 — 07 — 100	
12.1	14.6	26.9	22.3	2.74	2.27	1.00	1080	1080	110	110	004 — 07 — 120	
9.67	11.7	33.6	27.9	3.43	2.84	1.60	1420	1420	145	145	004 — 17 — 150	2
7.25	8.75	44.8	37.2	4.57	3.79	1.20	1420	1420	145	145	004 — 17 — 200	
6.04	7.29	53.8	44.6	5.49	4.55	1.00	1420	1420	145	145	004 — 17 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.

2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM004–07–5~120 (RNYM004–07–B–5~120) Mass 2.9kg (Mass 3.5kg)

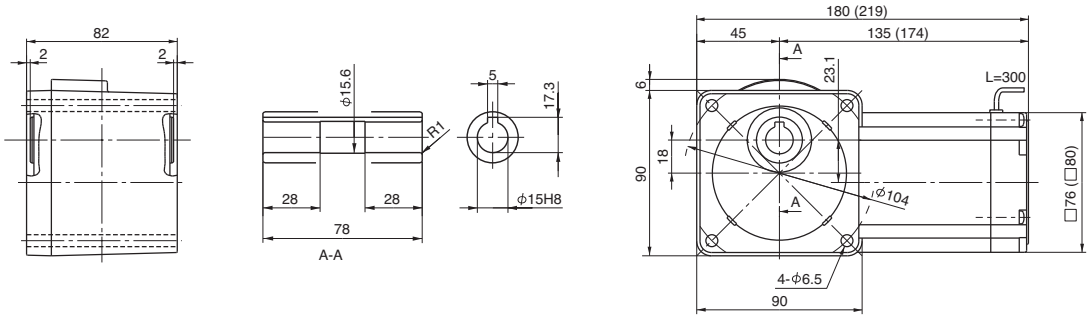
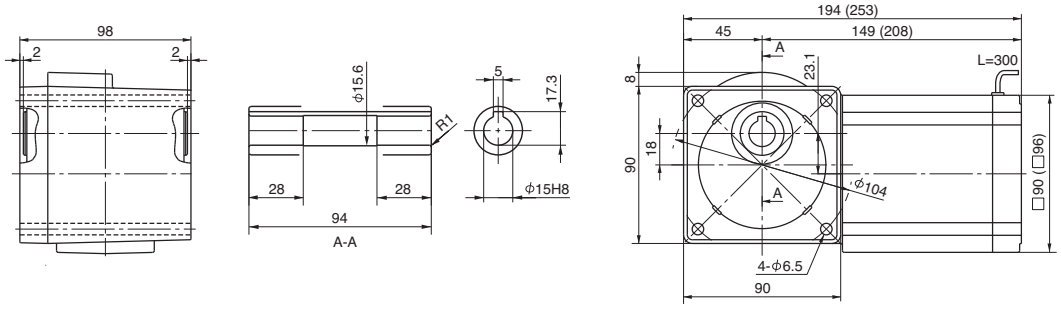


Fig. 2 RNYM004–17–150~240 (RNYM004–17–B–150~240) Mass 3.7kg (Mass 4.1kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".

2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).

3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

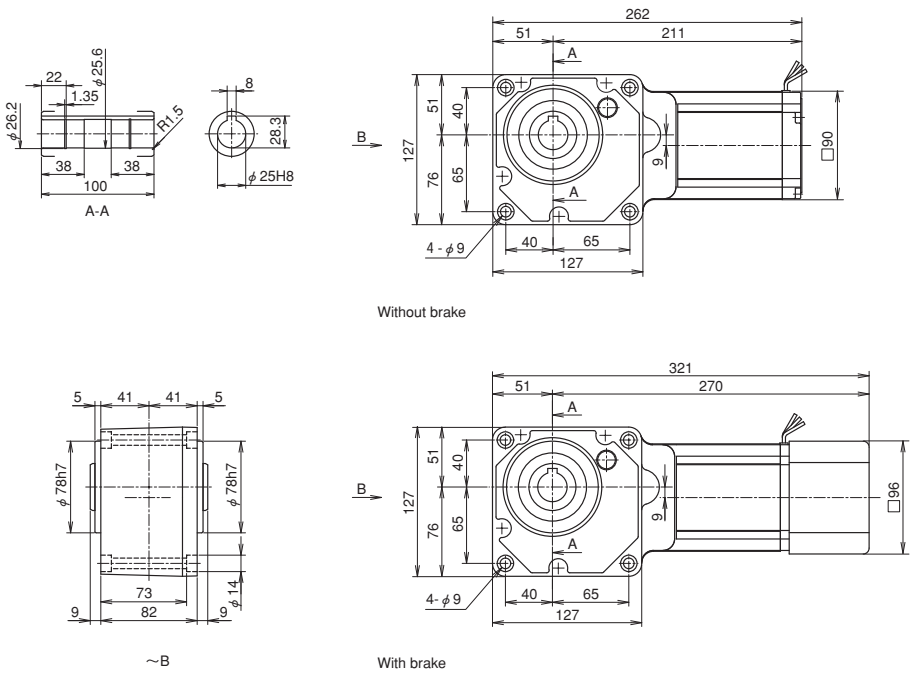
Motor Speed n_1	50Hz 1450r/min 60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
4.83	5.83	63.3	52.5	6.46	5.35	1.55	1810	1810	185	185	004	—1240	— 300	3
4.03	4.86	76.0	62.9	7.75	6.42	1.29	1810	1810	185	185	004	—1240	— 360	
3.02	3.65	98.1	83.9	10.0	8.56	✻	1810	1810	185	185	004	—1240	— 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004	—1240	— 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004	—1240	— 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004	—1240	— 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004	—1240	— 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004	—1240	— 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model, voltage, and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM004–1240–300~1440 (RNYM004–1240–B–300~1440) Mass 6.5kg (Mass 6.9kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

60W 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout kgf m				SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio					Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz						
290	350	1.68	1.39	0.171	0.142	1.00	539	490	55	50	006	—	07	—	5	
193	233	2.52	2.09	0.257	0.213	1.00	588	539	60	55	006	—	07	—	7.5	
145	175	3.36	2.79	0.343	0.284	1.00	637	588	65	60	006	—	07	—	10	
121	146	4.04	3.34	0.412	0.341	1.00	686	637	70	65	006	—	07	—	12	
96.7	117	5.04	4.18	0.514	0.426	1.00	735	686	75	70	006	—	07	—	15	
72.5	87.5	6.73	5.57	0.686	0.568	1.00	785	735	80	75	006	—	07	—	20	1
58.0	70.0	8.41	6.97	0.857	0.710	1.00	834	785	85	80	006	—	07	—	25	
48.3	58.3	10.1	8.36	1.03	0.852	1.00	883	834	90	85	006	—	07	—	30	
36.3	43.8	13.5	11.1	1.37	1.14	1.00	981	932	100	95	006	—	07	—	40	
29.0	35.0	16.8	13.9	1.71	1.42	1.00	1080	1030	110	105	006	—	07	—	50	
24.2	29.2	20.2	16.7	2.06	1.70	1.00	1080	1080	110	110	006	—	07	—	60	
18.1	21.9	26.9	22.3	2.74	2.27	1.50	1420	1370	145	140	006	—	17	—	80	
14.5	17.5	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	006	—	17	—	100	
12.1	14.6	40.4	33.4	4.12	3.41	1.34	1420	1420	145	145	006	—	17	—	120	2
9.67	11.7	50.4	41.8	5.14	4.26	1.07	1420	1420	145	145	006	—	17	—	150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006	—	17	—	200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006	—	17	—	240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM006–07–5~60 (RNYM006–07–B–5~60) Mass 2.9kg (Mass 3.5kg)

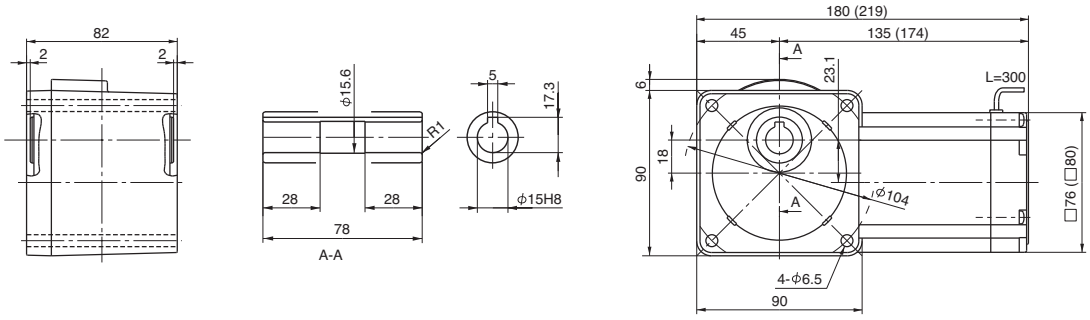
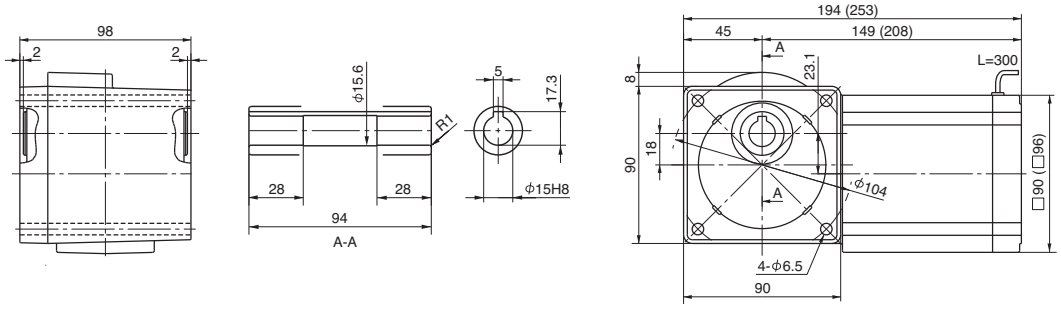


Fig. 2 RNYM006–17–80~240 (RNYM006–17–B–80~240) Mass 3.9kg (Mass 4.3kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

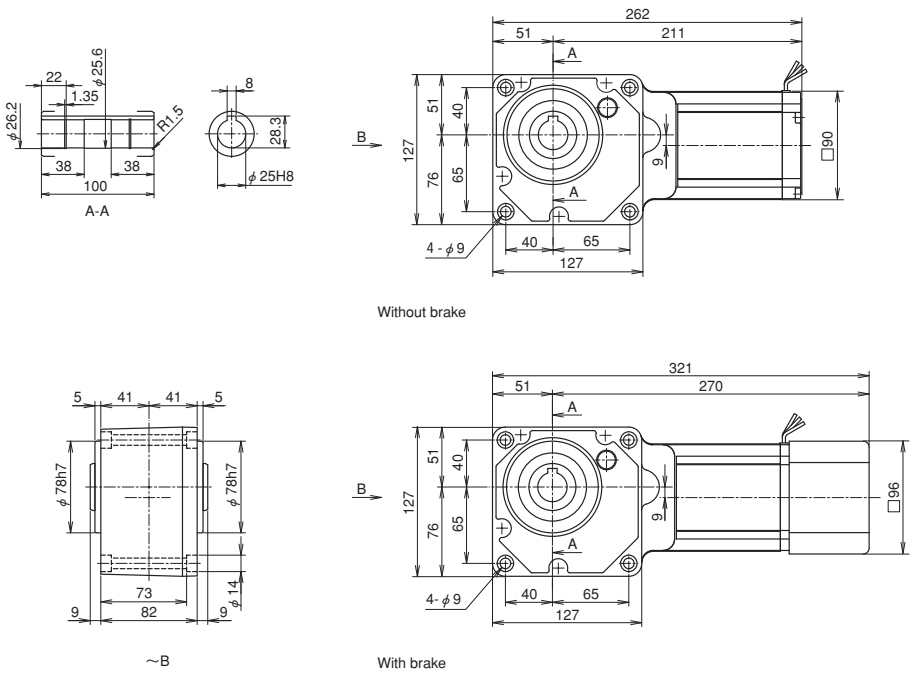
Motor Speed n_1	50Hz 1450r/min 60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
4.83	5.83	95.0	78.7	9.68	8.02	1.03	1810	1810	185	185	006	—1240	— 300	3
4.03	4.86	98.1	94.4	10.0	9.63	✻	1810	1810	185	185	006	—1240	— 360	
3.02	3.65	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006	—1240	— 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006	—1240	— 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006	—1240	— 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006	—1240	— 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006	—1240	— 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006	—1240	— 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model, voltage, and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM006–1240–300~1440 (RNYM006–1240–B–300~1440) Mass 6.7kg (Mass 7.1kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

90W 3-phase Motor

RNYM Series Hollow Shaft Type

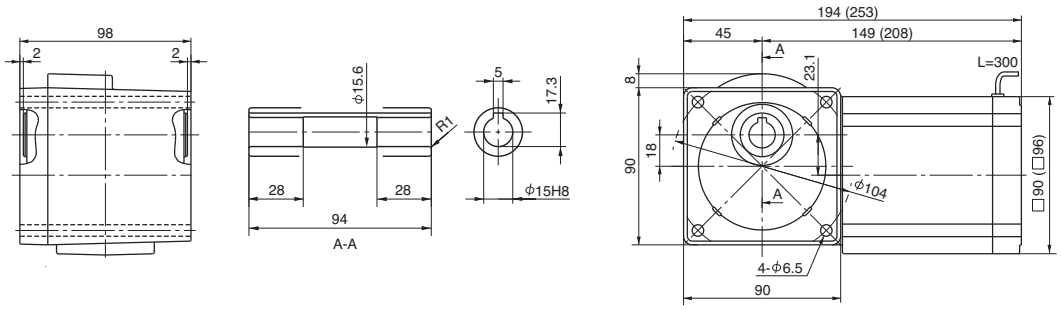
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.52	2.09	0.257	0.213	1.00	637	588	65	60	009 — 17 — 5	
193	233	3.78	3.13	0.386	0.320	1.00	686	637	70	65	009 — 17 — 7.5	
145	175	5.04	4.18	0.514	0.426	1.00	785	735	80	75	009 — 17 — 10	
121	146	6.05	5.02	0.617	0.511	1.00	834	785	85	80	009 — 17 — 12	
96.7	117	7.57	6.27	0.772	0.639	1.00	883	834	90	85	009 — 17 — 15	
72.5	87.5	10.1	8.36	1.03	0.852	1.00	981	932	100	95	009 — 17 — 20	
58.0	70.0	12.6	10.4	1.29	1.07	1.00	1030	981	105	100	009 — 17 — 25	
48.3	58.3	15.1	12.5	1.54	1.28	1.00	1080	1030	110	105	009 — 17 — 30	
36.3	43.8	20.2	16.7	2.06	1.70	1.00	1180	1130	120	115	009 — 17 — 40	1
29.0	35.0	25.2	20.9	2.57	2.13	1.00	1270	1230	130	125	009 — 17 — 50	
24.2	29.2	30.3	25.1	3.09	2.56	1.00	1320	1270	135	130	009 — 17 — 60	
18.1	21.9	40.4	33.4	4.12	3.41	1.00	1420	1370	145	140	009 — 17 — 80	
14.5	17.5	50.4	41.8	5.14	4.26	1.00	1420	1420	145	145	009 — 17 — 100	
12.1	14.6	53.9	50.2	5.50	5.11	✻	1420	1420	145	145	009 — 17 — 120	
9.67	11.7	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 — 17 — 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 — 17 — 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 — 17 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM009–17–5~240 (RNYM009–17–B–5~240) Mass 4.2kg (Mass 4.6kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

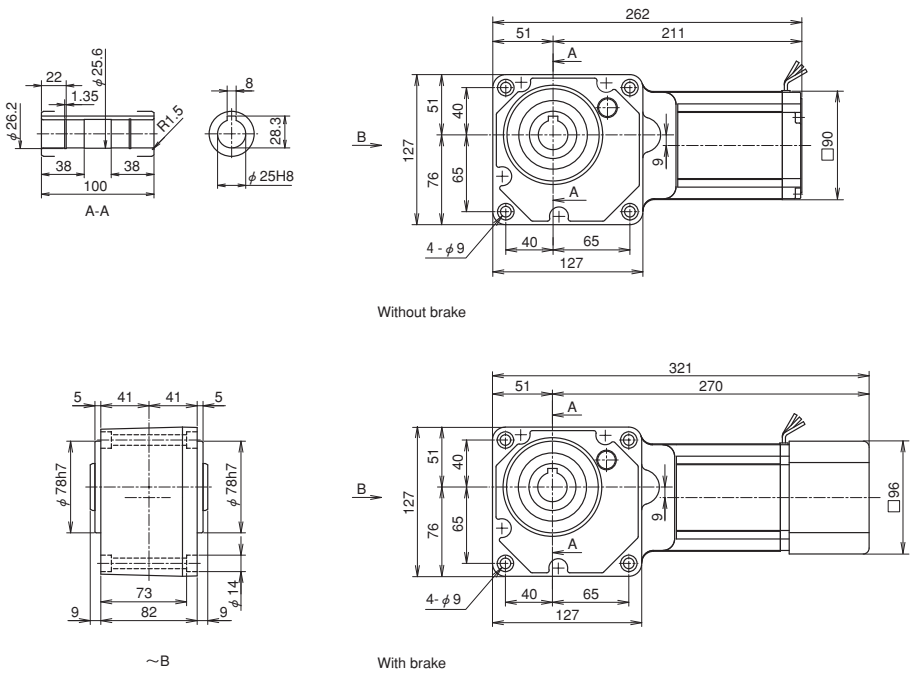
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 300	2
4.03	4.86	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 360	
3.02	3.65	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 — 1240 — 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 2 RNYM009–1240–300~1440 (RNYM009–1240–B–300~1440) Mass 7.0kg (Mass 7.4kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

0.1kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.80	2.32	0.286	0.237	2.00	539	490	55	50	01 — 1010 — 5	1
						2.00	637	588	65	60	01 — 1120 — 5	2
207	250	3.92	3.25	0.400	0.332	2.00	588	539	60	55	01 — 1010 — 7	1
						2.00	686	637	70	65	01 — 1120 — 7	2
145	175	5.61	4.64	0.572	0.474	1.00	637	588	65	60	01 — 1010 — 10	1
						2.00	785	735	80	75	01 — 1120 — 10	2
121	146	6.73	5.57	0.686	0.568	2.00	834	785	85	80	01 — 1120 — 12	2
96.7	117	8.41	6.97	0.857	0.710	2.00	883	834	90	85	01 — 1120 — 15	
72.5	87.5	11.2	9.29	1.14	0.947	2.00	981	932	100	95	01 — 1120 — 20	
58.0	70.0	14.0	11.6	1.43	1.18	2.00	1030	981	105	100	01 — 1120 — 25	
48.3	58.3	16.8	13.9	1.71	1.42	2.00	1080	1030	110	105	01 — 1120 — 30	
36.3	43.8	22.4	18.6	2.29	1.89	1.00	1180	1130	120	115	01 — 1120 — 40	
						2.00	1620	1570	165	160	01 — 1220 — 40	3
29.0	35.0	28.0	23.2	2.86	2.37	1.00	1270	1230	130	125	01 — 1120 — 50	2
						2.00	1720	1670	175	170	01 — 1220 — 50	3
24.2	29.2	33.6	27.9	3.43	2.84	1.00	1320	1270	135	130	01 — 1120 — 60	2
						2.00	1770	1720	180	175	01 — 1220 — 60	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM01–1010–5~10 (RNYM01–1010–B–5~10) Mass 5.0kg (Mass 6.5kg)

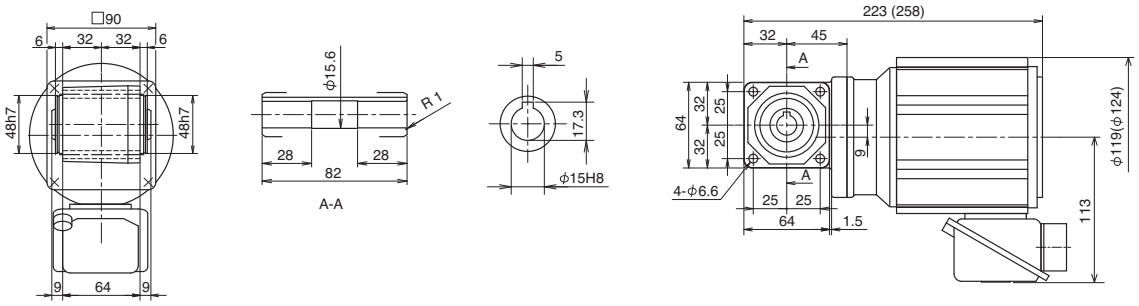


Fig. 2 RNYM01–1120–5~60 (RNYM01–1120–B–5~60) Mass 6.0kg (Mass 7.5kg)

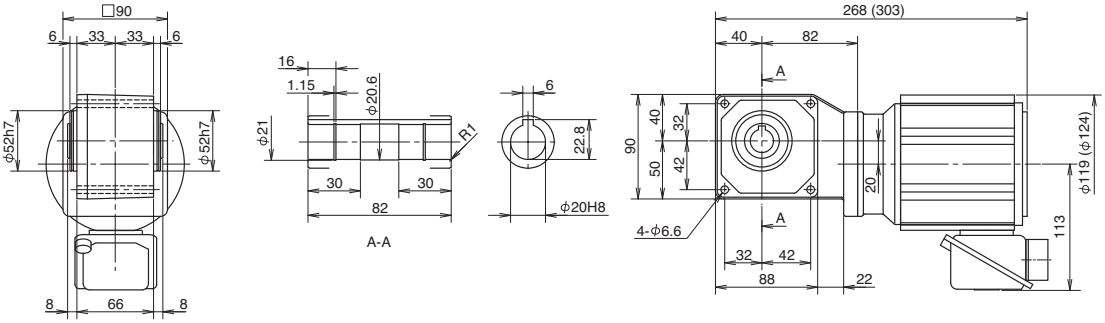
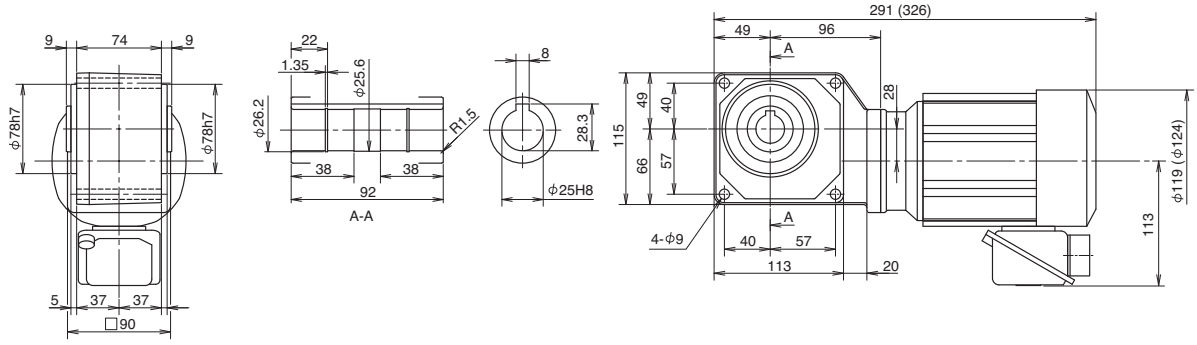


Fig. 3 RNYM01–1220–40~60 (RNYM01–1220–B–40~60) Mass 7.0kg (Mass 8.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	44.8	37.2	4.57	3.79	1.00	1770	1770	180	180	01 — 1230 — 80	4
						2.00	3040	2940	310	300	01 — 1330 — 80	5
14.5	17.5	56.1	46.4	5.72	4.74	1.00	1810	1770	185	180	01 — 1230 — 100	4
						2.00	3090	3040	315	310	01 — 1330 — 100	5
12.1	14.6	67.3	55.7	6.86	5.68	1.00	1810	1810	185	185	01 — 1230 — 120	4
						2.00	3090	3090	315	315	01 — 1330 — 120	5
9.67	11.7	84.1	69.7	8.57	7.10	1.00	1810	1810	185	185	01 — 1230 — 150	4
						2.00	3090	3090	315	315	01 — 1330 — 150	5
7.25	8.75	98.1	92.9	10.0	9.47	✻	1810	1810	185	185	01 — 1230 — 200	4
		112	92.9	11.4	9.47	1.74	3090	3090	315	315	01 — 1330 — 200	5
6.04	7.29	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	01 — 1230 — 240	4
		135	111	13.7	11.4	1.45	3090	3090	315	315	01 — 1330 — 240	5

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM01–1230–80~240 (RNYM01–1230–B–80~840) Mass 7.5kg (Mass 9.0kg)

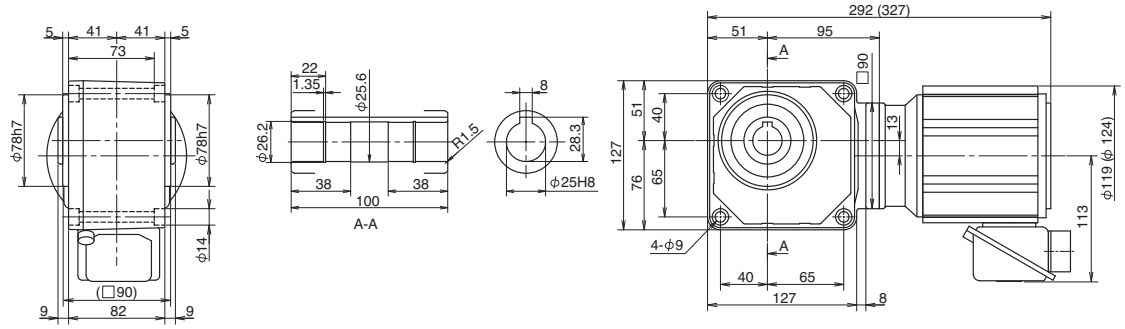
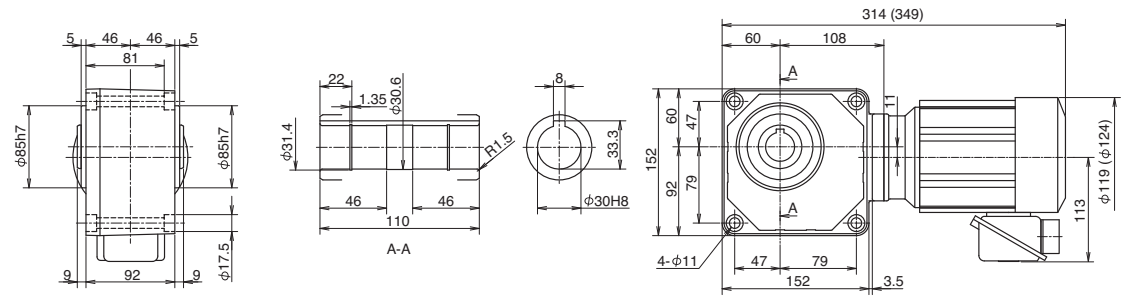
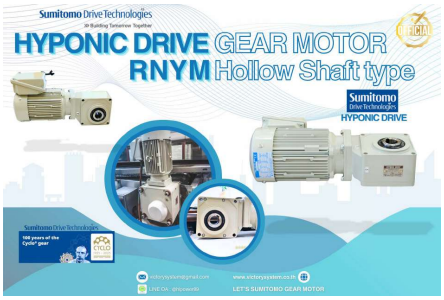


Fig. 5 RNYM01–1330–80~240 (RNYM01–1330–B–80~840) Mass 9.0kg (Mass 10kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.



0.1kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
4.83	5.83	158	131	16.1	13.4	1.00	3090	3090	315	315	01	—1340 —	300	1
						2.00	4360	4360	445	445	01	—1440 —	300	2
4.03	4.86	190	157	19.4	16.0	1.00	3090	3090	315	315	01	—1340 —	360	1
						2.00	4360	4360	445	445	01	—1440 —	360	2
3.02	3.65	195	195	19.9	19.9	✻	3090	3090	315	315	01	—1340 —	480	1
		253	210	25.8	21.4	1.54	4360	4360	445	445	01	—1440 —	480	2
2.42	2.92	195	195	19.9	19.9	✻	3090	3090	315	315	01	—1340 —	600	1
		317	262	32.3	26.7	1.23	4360	4360	445	445	01	—1440 —	600	2
2.01	2.43	195	195	19.9	19.9	✻	3090	3090	315	315	01	—1340 —	720	1
		380	315	38.7	32.1	1.03	4360	4360	445	445	01	—1440 —	720	2
1.61	1.94	195	195	19.9	19.9	✻	3090	3090	315	315	01	—1340 —	900	1
		390	390	39.8	39.8	✻	4360	4360	445	445	01	—1440 —	900	2
1.21	1.46	195	195	19.9	19.9	✻	3090	3090	315	315	01	—1340 —	1200	1
		390	390	39.8	39.8	✻	4360	4360	445	445	01	—1440 —	1200	2
1.01	1.22	195	195	19.9	19.9	✻	3090	3090	315	315	01	—1340 —	1440	1
		390	390	39.8	39.8	✻	4360	4360	445	445	01	—1440 —	1440	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM01–1340–300~1440 (RNYM01–1340–B–300~1440) Mass 10kg (Mass 11kg)

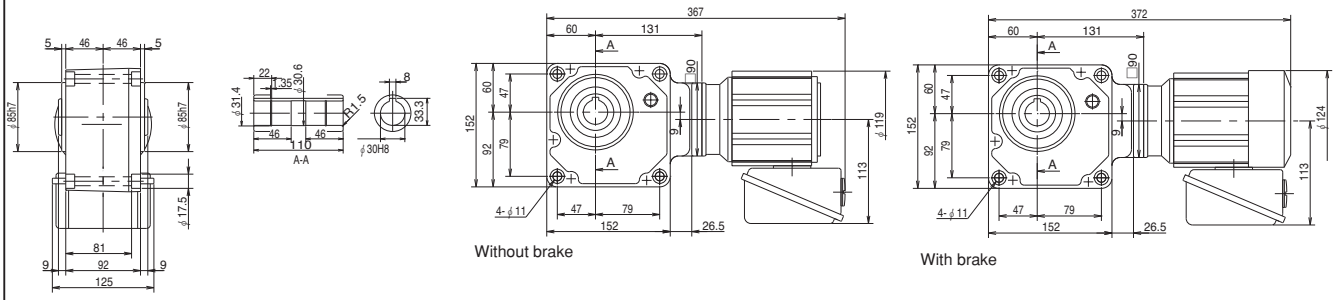
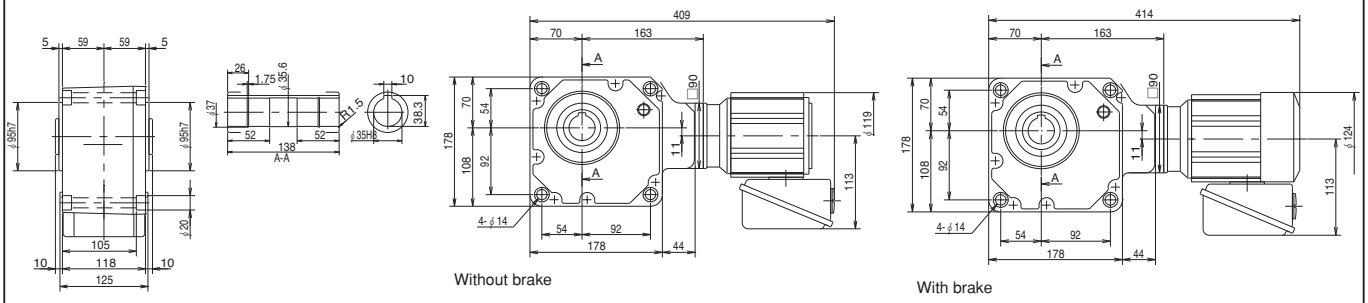


Fig. 2 RNYM01–1440–300~1440 (RNYM01–1440–B–300~1440) Mass 14.5kg (Mass 16kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

0.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		kgf m		SF	Allowable Pro N		kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	5.61	4.64	0.572	0.474	2.00	637	588	65	60	02 — 1110 — 5	3
						1.00	637	588	65	60	02 — 1120 — 5	4
						2.00	883	834	90	85	02 — 1220 — 5	5
207	250	7.85	6.50	0.800	0.663	2.00	686	637	70	65	02 — 1110 — 7	3
						1.00	686	637	70	65	02 — 1120 — 7	4
						2.00	981	932	100	95	02 — 1220 — 7	5
145	175	11.2	9.29	1.14	0.947	1.00	785	735	80	75	02 — 1110 — 10	3
						1.00	785	735	80	75	02 — 1120 — 10	4
						2.00	1080	1030	110	105	02 — 1220 — 10	5

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM02–1110–5~10 (RNYM02–1110–B–5~10) Mass 6.0kg (Mass 7.5kg)

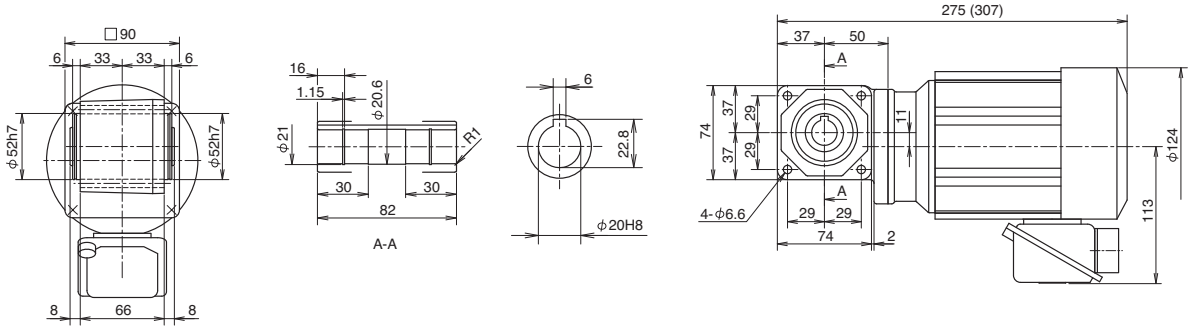


Fig. 4 RNYM02–1120–5~10 (RNYM02–1120–B–5~10) Mass 7.0kg (Mass 8.5kg)

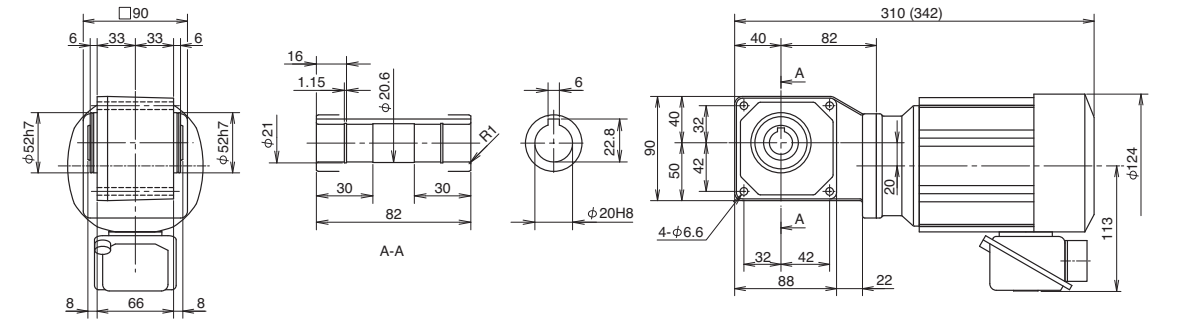
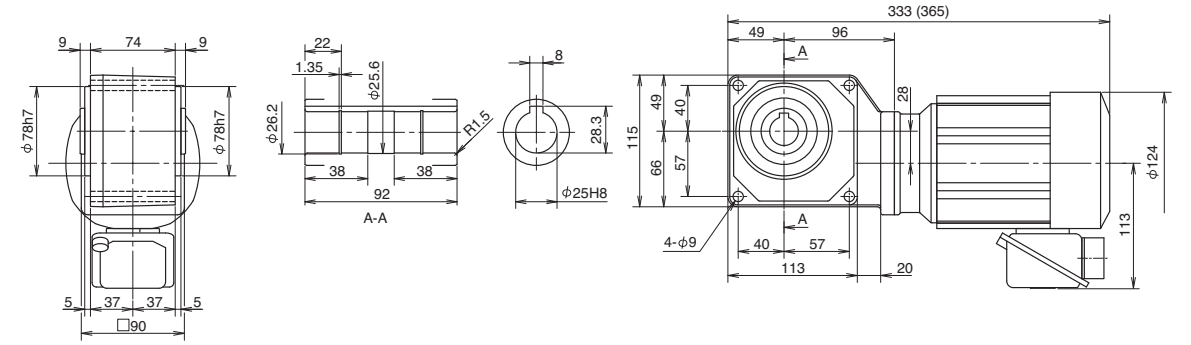


Fig. 5 RNYM02–1220–5~10 (RNYM02–1220–B–5~10) Mass 8.5kg (Mass 10kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
121	146	13.5	11.1	1.37	1.14	1.00	834	785	85	80	02 — 1120 — 12	1
						2.00	1130	1080	115	110	02 — 1220 — 12	2
96.7	117	16.8	13.9	1.71	1.42	1.00	883	834	90	85	02 — 1120 — 15	1
						2.00	1230	1180	125	120	02 — 1220 — 15	2
72.5	87.5	22.4	18.6	2.29	1.89	1.00	981	932	100	95	02 — 1120 — 20	1
						2.00	1370	1320	140	135	02 — 1220 — 20	2
58.0	70.0	28.0	23.2	2.86	2.37	1.00	1030	981	105	100	02 — 1120 — 25	1
						2.00	1470	1370	150	140	02 — 1220 — 25	2
48.3	58.3	33.6	27.9	3.43	2.84	1.00	1080	1030	110	105	02 — 1120 — 30	1
						2.00	1520	1470	155	150	02 — 1220 — 30	2
36.3	43.8	44.8	37.2	4.57	3.79	1.00	1620	1570	165	160	02 — 1220 — 40	2
						2.00	2650	2550	270	260	02 — 1320 — 40	3
29.0	35.0	56.1	46.4	5.72	4.74	1.00	1720	1670	175	170	02 — 1220 — 50	2
						2.00	2840	2750	290	280	02 — 1320 — 50	3
24.2	29.2	67.3	55.7	6.86	5.68	1.00	1770	1720	180	175	02 — 1220 — 60	2
						2.00	2940	2840	300	290	02 — 1320 — 60	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1120–12~30 (RNYM02–1120–B–12~30) Mass 7.0kg (Mass 8.5kg)

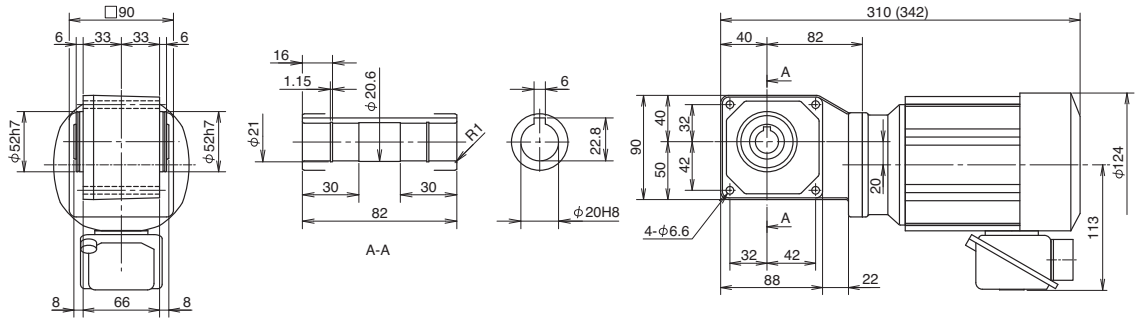


Fig. 2 RNYM02–1220–12~60 (RNYM02–1220–B–12~60) Mass 8.5kg (Mass 10kg)

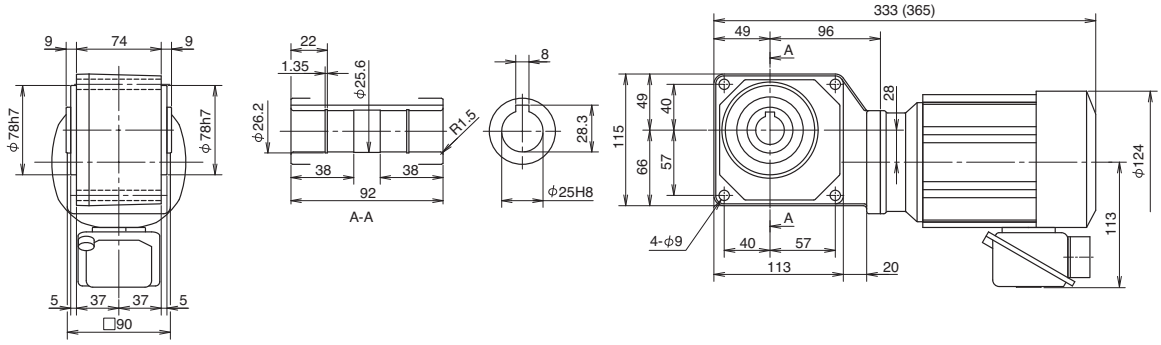
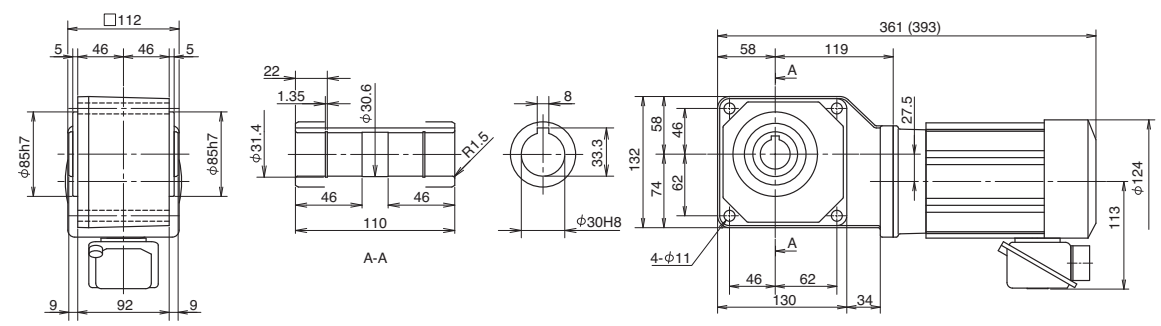


Fig. 3 RNYM02–1320–40~60 (RNYM02–1320–B–40~60) Mass 10kg (Mass 11kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		kgf m		SF	Allowable Pro N		kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	89.7	74.3	9.14	7.58	1.00	3040	2940	310	300	02 — 1330 — 80	4
						2.00	4360	4270	445	435	02 — 1430 — 80	5
14.5	17.5	112	92.9	11.4	9.47	1.00	3090	3040	315	310	02 — 1330 — 100	4
						2.00	4360	4360	445	445	02 — 1430 — 100	5
12.1	14.6	135	111	13.7	11.4	1.00	3090	3090	315	315	02 — 1330 — 120	4
						2.00	4360	4360	445	445	02 — 1430 — 120	5
9.67	11.7	168	139	17.1	14.2	1.00	3090	3090	315	315	02 — 1330 — 150	4
						2.00	4360	4360	445	445	02 — 1430 — 150	5
7.25	8.75	195	186	19.9	18.9	✻	3090	3090	315	315	02 — 1330 — 200	4
		224	186	22.9	18.9	1.74	4360	4360	445	445	02 — 1430 — 200	5
6.04	7.29	195	195	19.9	19.9	✻	3090	3090	315	315	02 — 1330 — 240	4
		269	223	27.4	22.7	1.45	4360	4360	445	445	02 — 1430 — 240	5

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM02–1330–80~240 (RNYM02–1330–B–80~240) Mass 10kg (Mass 11kg)

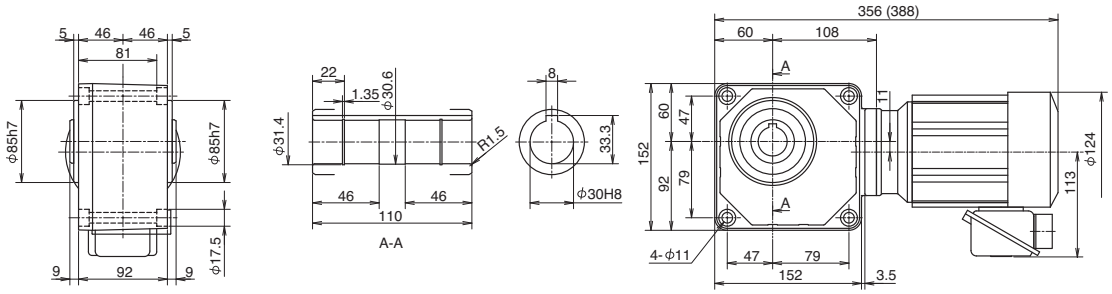
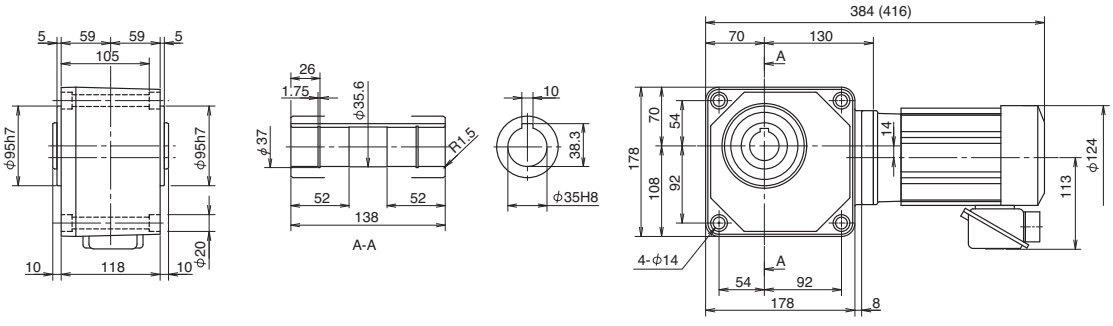
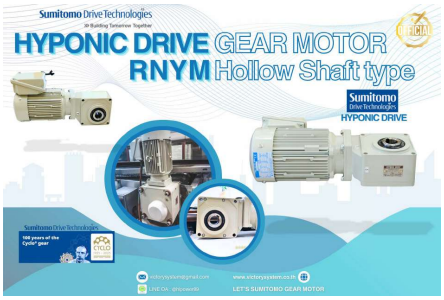


Fig. 5 RNYM02–1430–80~240 (RNYM02–1430–B–80~240) Mass 15kg (Mass 16kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.



0.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	317	262	32.3	26.7	1.00	4360	4360	445	445	02 — 1440 — 300	1
						2.00	6230	6230	635	635	02 — 1540 — 300	2
4.03	4.86	380	315	38.7	32.1	1.00	4360	4360	445	445	02 — 1440 — 360	1
						1.93	6230	6230	635	635	02 — 1540 — 360	2
3.02	3.65	390	390	39.8	39.8	✻	4360	4360	445	445	02 — 1440 — 480	1
		506	420	51.6	42.8	1.44	6230	6230	635	635	02 — 1540 — 480	2
2.42	2.92	390	390	39.8	39.8	✻	4360	4360	445	445	02 — 1440 — 600	1
		633	525	64.6	53.5	1.16	6230	6230	635	635	02 — 1540 — 600	2
2.01	2.43	390	390	39.8	39.8	✻	4360	4360	445	445	02 — 1440 — 720	1
		732	629	74.6	64.2	✻	6230	6230	635	635	02 — 1540 — 720	2
1.61	1.94	390	390	39.8	39.8	✻	4360	4360	445	445	02 — 1440 — 900	1
		732	732	74.6	74.6	✻	6230	6230	635	635	02 — 1540 — 900	2
1.21	1.46	390	390	39.8	39.8	✻	4360	4360	445	445	02 — 1440 — 1200	1
		732	732	74.6	74.6	✻	6230	6230	635	635	02 — 1540 — 1200	2
1.01	1.22	390	390	39.8	39.8	✻	4360	4360	445	445	02 — 1440 — 1440	1
		732	732	74.6	74.6	✻	6230	6230	635	635	02 — 1540 — 1440	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1440–300~1440 (RNYM02–1440–B–300~1440) Mass 15.5kg (Mass 17kg)

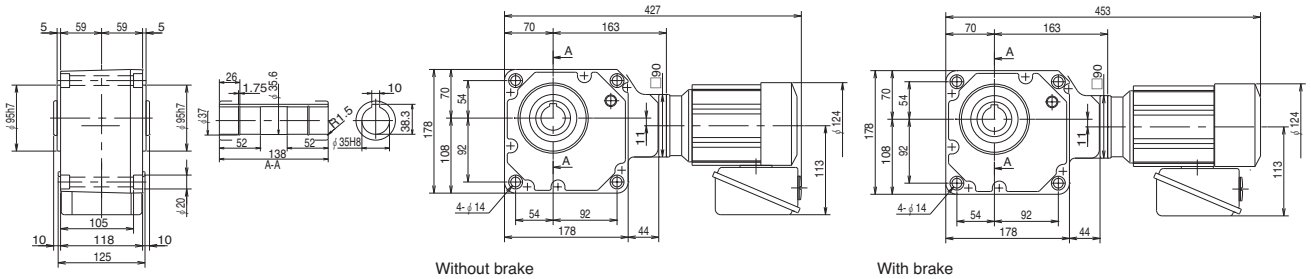
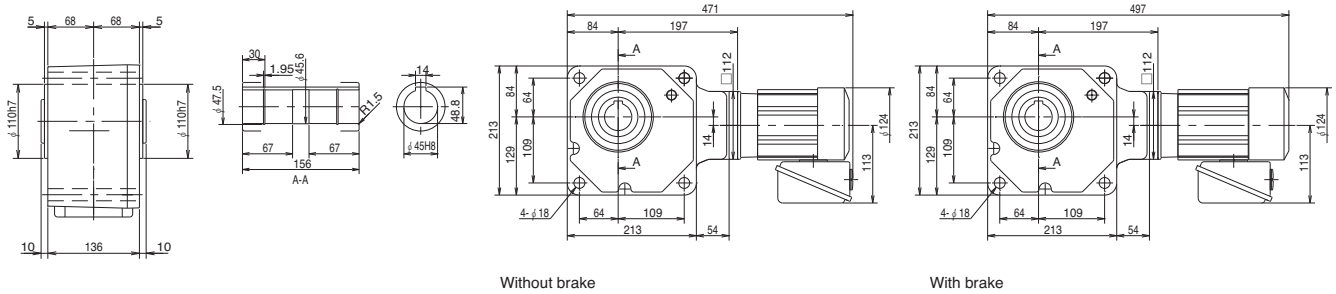


Fig.2 RNYM02–1540–300~1440 (RNYM02–1540–B–300~1440) Mass 24.5kg (Mass 25.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	7.01	5.81	0.714	0.592	3.20	883	834	90	85	03 — 1210 — 5	3
						1.60					03 — 1220 — 5	4
207	250	9.81	8.13	1.00	0.829	3.20	981	932	100	95	03 — 1210 — 7	3
						1.60					03 — 1220 — 7	4
145	175	14.0	11.6	1.43	1.18	1.60	1080	1030	110	105	03 — 1210 — 10	3
						1.60					03 — 1220 — 10	4
121	146	16.8	13.9	1.71	1.42	1.60	1130	1080	115	110	03 — 1220 — 12	
96.7	117	21.0	17.4	2.14	1.78	1.60	1230	1180	125	120	03 — 1220 — 15	
72.5	87.5	28.0	23.2	2.86	2.37	1.60	1370	1320	140	135	03 — 1220 — 20	4
58.0	70.0	35.0	29.0	3.57	2.96	1.60	1470	1370	150	140	03 — 1220 — 25	
48.3	58.3	42.0	34.8	4.29	3.55	1.60	1520	1470	155	150	03 — 1220 — 30	
36.3	43.8	56.1	46.4	5.72	4.74	1.60	2650	2550	270	260	03 — 1320 — 40	
29.0	35.0	70.1	58.1	7.14	5.92	1.60	2840	2750	290	280	03 — 1320 — 50	5
24.2	29.2	84.1	69.7	8.57	7.10	1.60	2940	2840	300	290	03 — 1320 — 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM03–1210–5~10 (RNYM03–1210–B–5~10) Mass 9.0kg (Mass 10kg)

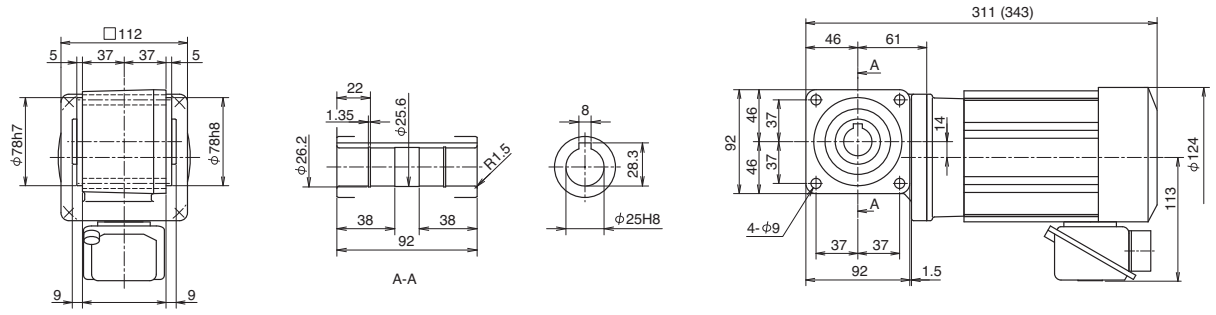


Fig. 4 RNYM03–1220–5~30 (RNYM03–1220–B–5~30) Mass 9.5kg (Mass 11kg)

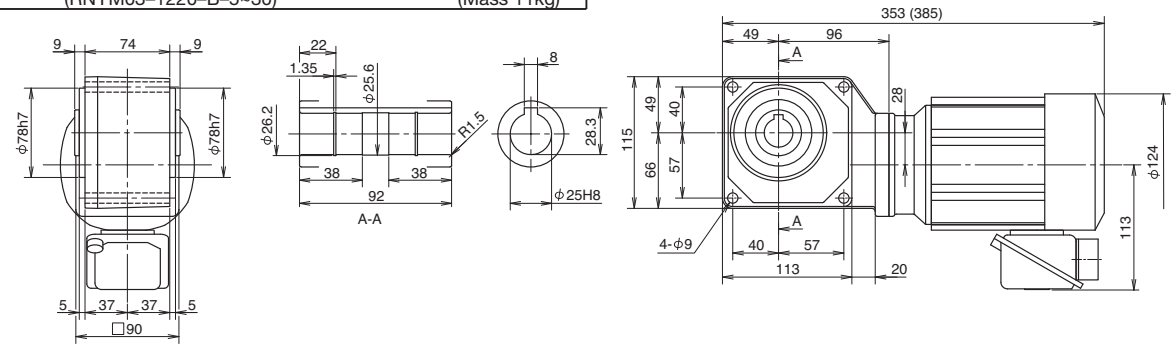
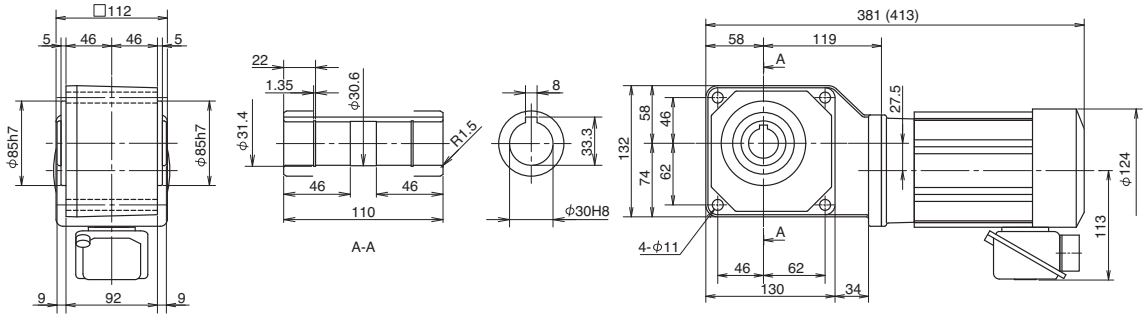


Fig. 5 RNYM03–1320–40~60 (RNYM03–1320–B–40~60) Mass 11kg (Mass 13kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.25kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	112	92.9	11.4	9.47	1.60	4360	4270	445	435	03 — 1430 — 80	1
14.5	17.5	140	116	14.3	11.8	1.60	4360	4360	445	445	03 — 1430 — 100	
12.1	14.6	168	139	17.1	14.2	1.60	4360	4360	445	445	03 — 1430 — 120	
9.67	11.7	210	174	21.4	17.8	1.60	4360	4360	445	445	03 — 1430 — 150	
7.25	8.75	280	232	28.6	23.7	1.39	4360	4360	445	445	03 — 1430 — 200	
6.04	7.29	336	279	34.3	28.4	1.16	4360	4360	445	445	03 — 1430 — 240	
4.83	5.83	396	328	40.3	33.4	1.60	6230	6230	635	635	03 — 1540 — 300	2
4.03	4.86	475	393	48.4	40.1	1.54	6230	6230	635	635	03 — 1540 — 360	
3.02	3.65	633	525	64.6	53.5	1.16	6230	6230	635	635	03 — 1540 — 480	
2.42	2.92	732	656	74.6	66.9	✻	6230	6230	635	635	03 — 1540 — 600	
2.01	2.43	732	732	74.6	74.6	✻	6230	6230	635	635	03 — 1540 — 720	
1.61	1.94	732	732	74.6	74.6	✻	6230	6230	635	635	03 — 1540 — 900	
1.21	1.46	732	732	74.6	74.6	✻	6230	6230	635	635	03 — 1540 — 1200	
1.01	1.22	732	732	74.6	74.6	✻	6230	6230	635	635	03 — 1540 — 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM03–1430–80~240 (RNYM03–1430–B–80~240) Mass 16kg (Mass 17kg)

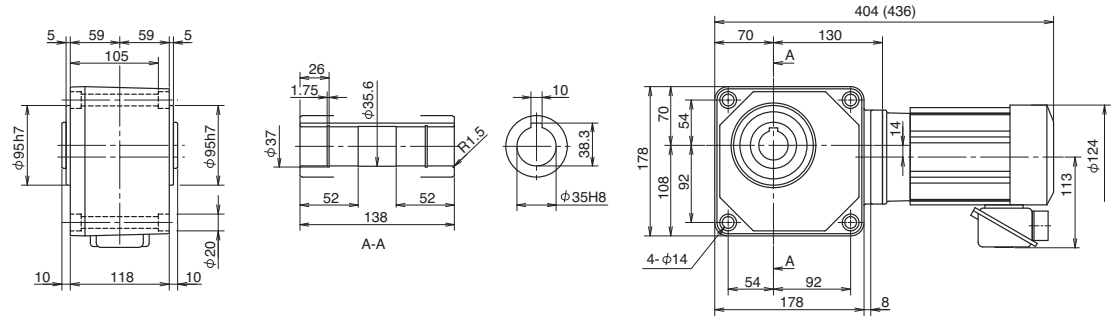
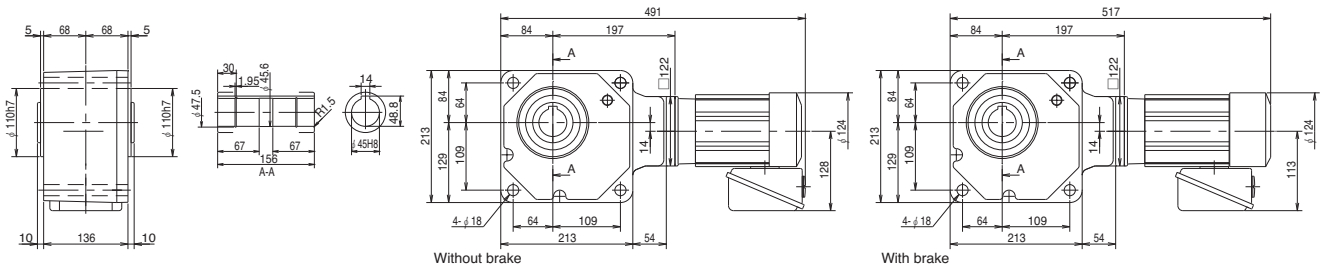


Fig. 2 RNYM03–1540–300~1440 (RNYM03–1540–B–300~1440) Mass 26kg (Mass 27.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		kgf m		SF	Allowable Pro N		kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	11.2	9.29	1.14	0.947	2.00	883	834	90	85	05 — 1210 — 5	3
						1.00	883	834	90	85	05 — 1220 — 5	4
						2.00	1470	1370	150	140	05 — 1320 — 5	5
207	250	15.7	13.0	1.60	1.33	2.00	981	932	100	95	05 — 1210 — 7	3
						1.00	981	932	100	95	05 — 1220 — 7	4
						2.00	1670	1570	170	160	05 — 1320 — 7	5
145	175	22.4	18.6	2.29	1.89	1.00	1080	1030	110	105	05 — 1210 — 10	3
						1.00	1080	1030	110	105	05 — 1220 — 10	4
						2.00	1810	1720	185	175	05 — 1320 — 10	5

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM05–1210–5~10 (RNYM05–1210–B–5~10) Mass 9kg (Mass 10kg)

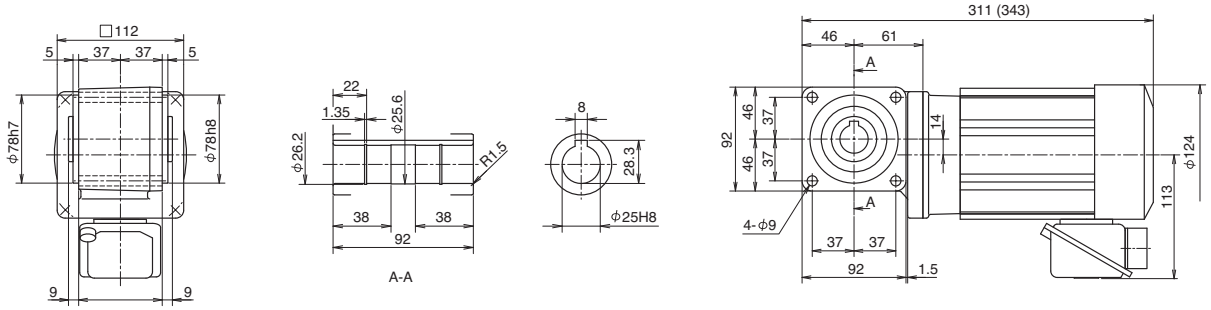


Fig. 4 RNYM05–1220–5~10 (RNYM05–1220–B–5~10) Mass 9.5kg (Mass 11kg)

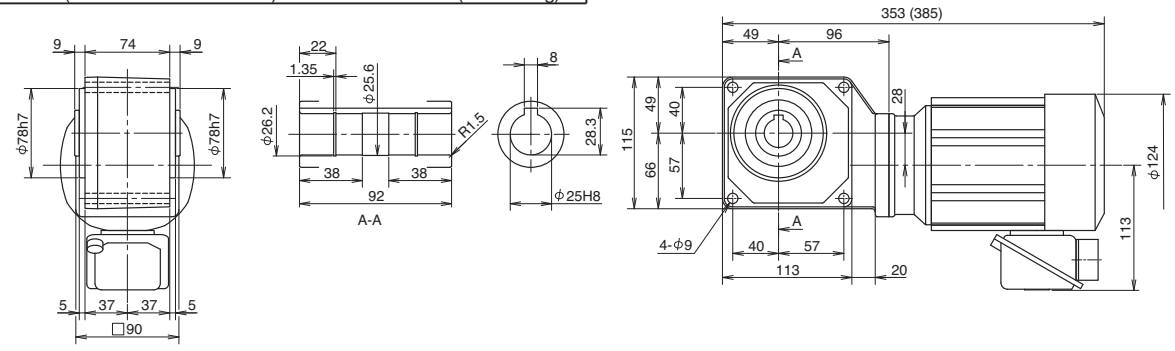
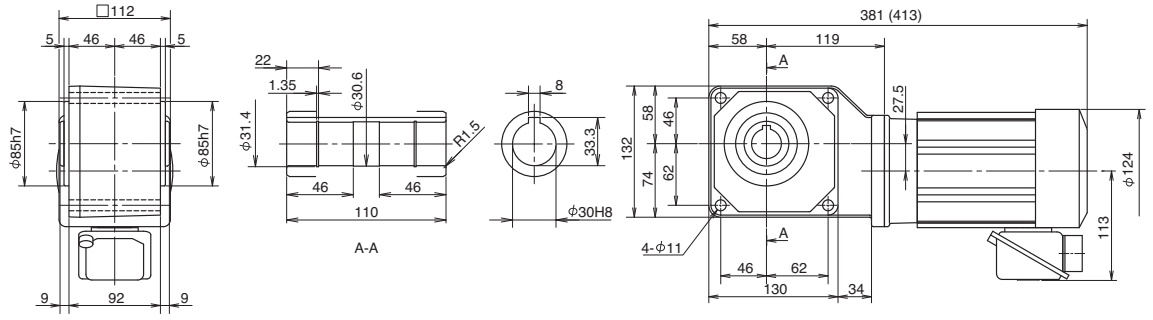


Fig. 5 RNYM05–1320–5~10 (RNYM05–1320–B–5~10) Mass 11kg (Mass 13kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
121	146	26.9	22.3	2.74	2.27	1.00	1130	1080	115	110	05 — 1220 — 12	1
						2.00	1910	1810	195	185	05 — 1320 — 12	2
96.7	117	33.6	27.9	3.43	2.84	1.00	1230	1180	125	120	05 — 1220 — 15	1
						2.00	2060	1960	210	200	05 — 1320 — 15	2
72.5	87.5	44.8	37.2	4.57	3.79	1.00	1370	1320	140	135	05 — 1220 — 20	1
						2.00	2260	2160	230	220	05 — 1320 — 20	2
58.0	70.0	56.1	46.4	5.72	4.74	1.00	1470	1370	150	140	05 — 1220 — 25	1
						2.00	2350	2260	240	230	05 — 1320 — 25	2
48.3	58.3	67.3	55.7	6.86	5.68	1.00	1520	1470	155	150	05 — 1220 — 30	1
						2.00	2450	2350	250	240	05 — 1320 — 30	2
36.3	43.8	89.7	74.3	9.14	7.58	1.00	2650	2550	270	260	05 — 1320 — 40	2
						2.00	3970	3820	405	390	05 — 1420 — 40	3
29.0	35.0	112	92.9	11.4	9.47	1.00	2840	2750	290	280	05 — 1320 — 50	2
						2.00	4170	4020	425	410	05 — 1420 — 50	3
24.2	29.2	135	111	13.7	11.4	1.00	2940	2840	300	290	05 — 1320 — 60	2
						2.00	4310	4170	440	425	05 — 1420 — 60	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM05–1220–12~30 (RNYM05–1220–B–12~30) Mass 9.5kg (Mass 11kg)

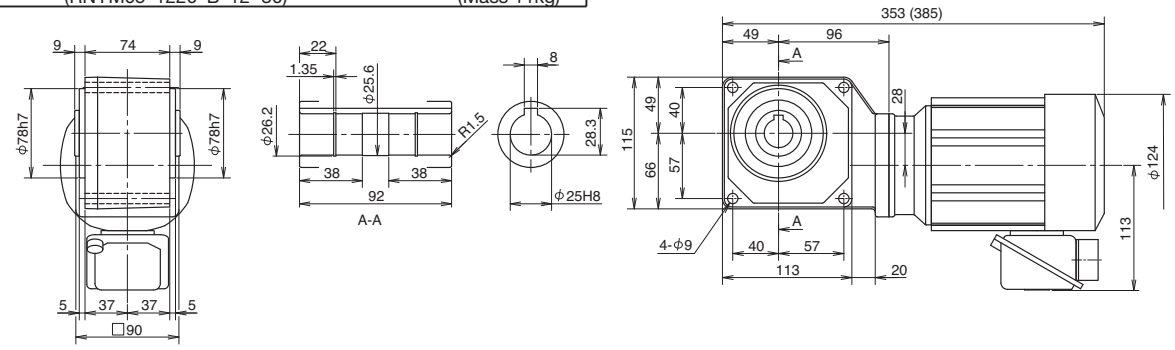


Fig. 2 RNYM05–1320–12~60 (RNYM05–1320–B–12~60) Mass 11kg (Mass 13kg)

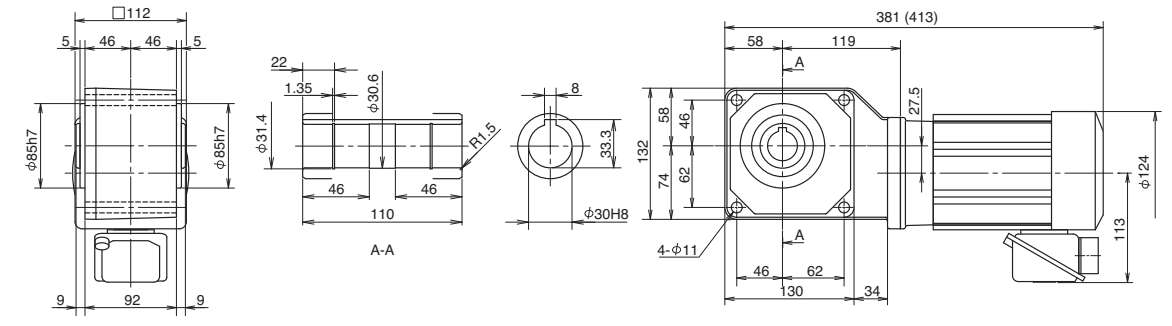
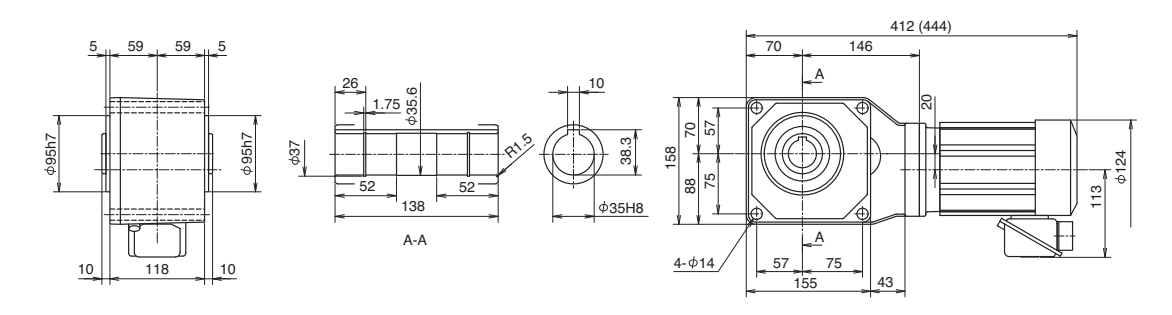


Fig. 3 RNYM05–1420–40~60 (RNYM05–1420–B–40~60) Mass 15kg (Mass 16kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	179	149	18.3	15.2	1.00	4360	4270	445	435	05 — 1430 — 80	4
						2.00	6230	6130	635	625	05 — 1530 — 80	5
14.5	17.5	224	186	22.9	18.9	1.00	4360	4360	445	445	05 — 1430 — 100	4
						2.00	6230	6230	635	635	05 — 1530 — 100	5
12.1	14.6	269	223	27.4	22.7	1.00	4360	4360	445	445	05 — 1430 — 120	4
						2.00	6230	6230	635	635	05 — 1530 — 120	5
9.67	11.7	336	279	34.3	28.4	1.00	4360	4360	445	445	05 — 1430 — 150	4
						2.00	6230	6230	635	635	05 — 1530 — 150	5
7.25	8.75	390	372	39.8	37.9	✻	4360	4360	445	445	05 — 1430 — 200	4
		448	372	45.7	37.9	1.63	6230	6230	635	635	05 — 1530 — 200	5
6.04	7.29	390	390	39.8	39.8	✻	4360	4360	445	445	05 — 1430 — 240	4
		538	446	54.9	45.5	1.36	6230	6230	635	635	05 — 1530 — 240	5

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM05–1430–80~240 (RNYM05–1430–B–80~240) Mass 16kg (Mass 17kg)

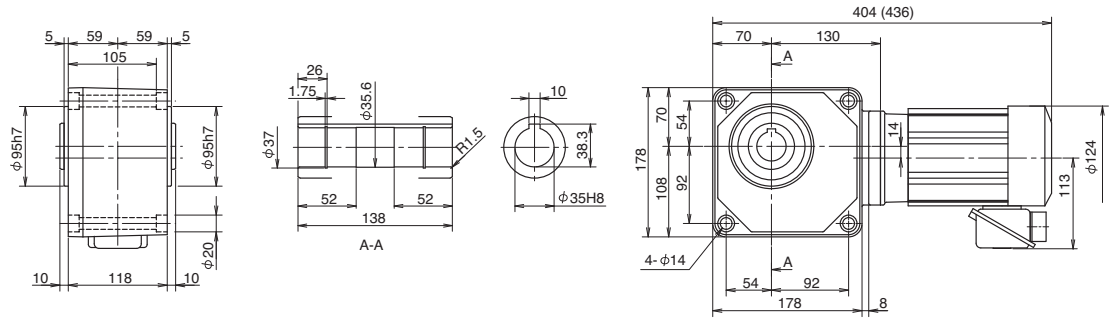
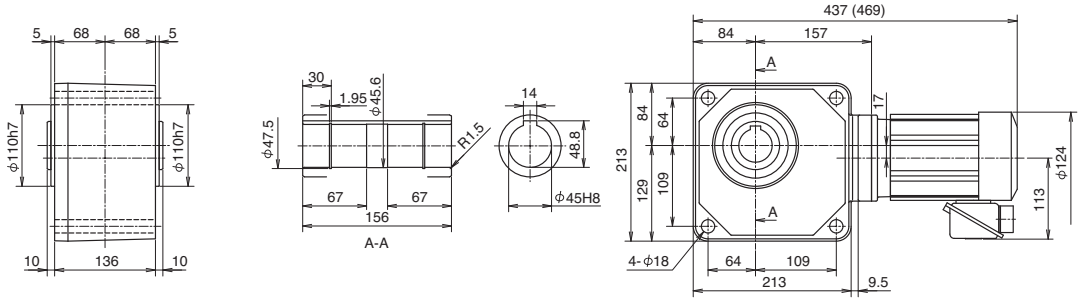


Fig. 5 RNYM05–1530–80~240 (RNYM05–1530–B–80~240) Mass 23kg (Mass 24kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW 3-phase Motor

3-phase Motor Indoor Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	633	525	64.6	53.5	1.00	6230	6230	635	635	05 — 1540 — 300	1
						2.00	9810	9810	1000	1000	05 — 1640 — 300	2
4.03	4.86	732	629	74.6	64.2	✻	6230	6230	635	635	05 — 1540 — 360	1
						1.95	9810	9810	1000	1000	05 — 1640 — 360	2
3.02	3.65	732	732	74.6	74.6	✻	6230	6230	635	635	05 — 1540 — 480	1
						1.46	9810	9810	1000	1000	05 — 1640 — 480	2
2.42	2.92	732	732	74.6	74.6	✻	6230	6230	635	635	05 — 1540 — 600	1
						1.17	9810	9810	1000	1000	05 — 1640 — 600	2
2.01	2.43	732	732	74.6	74.6	✻	6230	6230	635	635	05 — 1540 — 720	1
						✻	9810	9810	1000	1000	05 — 1640 — 720	2
1.61	1.94	732	732	74.6	74.6	✻	6230	6230	635	635	05 — 1540 — 900	1
						✻	9810	9810	1000	1000	05 — 1640 — 900	2
1.21	1.46	732	732	74.6	74.6	✻	6230	6230	635	635	05 — 1540 — 1200	1
						✻	9810	9810	1000	1000	05 — 1640 — 1200	2
1.01	1.22	732	732	74.6	74.6	✻	6230	6230	635	635	05 — 1540 — 1440	1
						✻	9810	9810	1000	1000	05 — 1640 — 1440	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM05–1540–300~1440 (RNYM05–1540–B–300~1440) Mass 26kg (Mass 27.5kg)

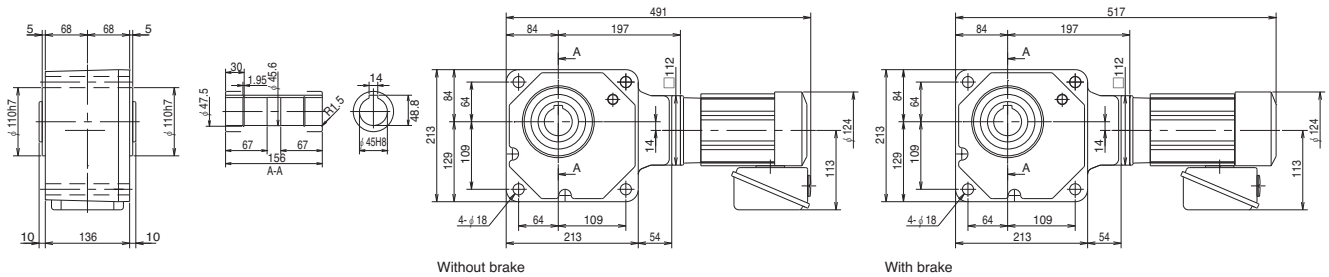
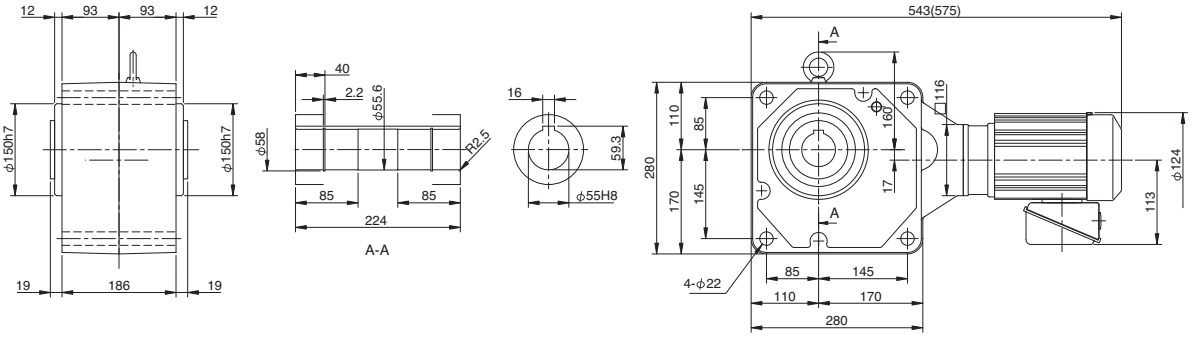


Fig. 2 RNYM05–1640–300~1440 (RNYM05–1640–B–300~1440) Mass 63kg (Mass 64kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.55kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	15.4	12.8	1.57	1.30	2.80	1470	1370	150	140	08 — 1310 — 5	3
						1.45					08 — 1320 — 5	4
207	250	21.6	17.9	2.20	1.82	2.80	1670	1570	170	160	08 — 1310 — 7	3
						1.45					08 — 1320 — 7	4
145	175	30.8	25.5	3.14	2.60	1.45	1810	1720	185	175	08 — 1310 — 10	3
						1.45					08 — 1320 — 10	4
121	146	37.0	30.7	3.77	3.13	1.45	1910	1810	195	185	08 — 1320 — 12	
96.7	117	46.2	38.3	4.72	3.91	1.45	2060	1960	210	200	08 — 1320 — 15	
72.5	87.5	61.7	51.1	6.29	5.21	1.45	2260	2160	230	220	08 — 1320 — 20	4
58.0	70.0	77.1	63.9	7.86	6.51	1.45	2350	2260	240	230	08 — 1320 — 25	
48.3	58.3	92.5	76.6	9.43	7.81	1.45	2450	2350	250	240	08 — 1320 — 30	
36.3	43.8	123	102	12.6	10.4	1.45	3970	3820	405	390	08 — 1420 — 40	
29.0	35.0	154	128	15.7	13.0	1.45	4170	4020	425	410	08 — 1420 — 50	5
24.2	29.2	185	153	18.9	15.6	1.45	4310	4170	440	425	08 — 1420 — 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM08–1310–5~10 (RNYM08–1310–B–5~10) Mass 12kg (Mass 14kg)

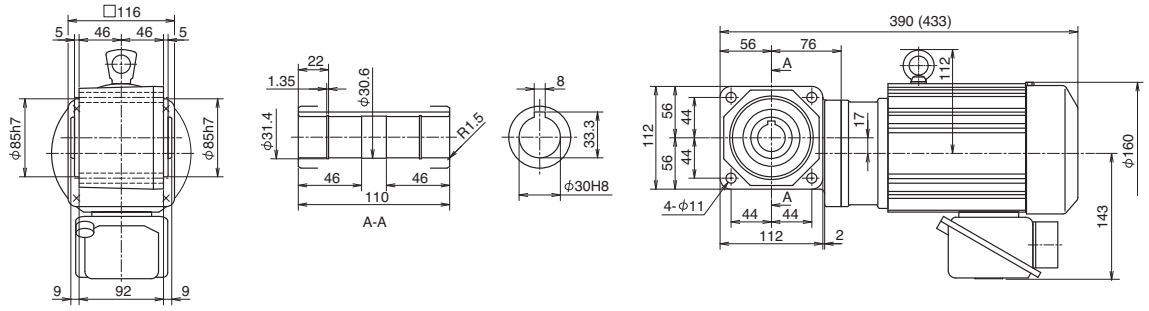


Fig. 4 RNYM08–1320–5~30 (RNYM08–1320–B–5~30) Mass 13kg (Mass 16kg)

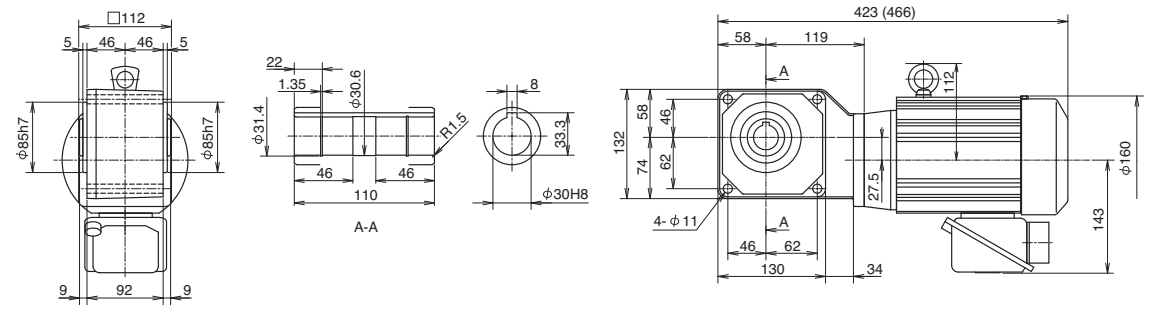
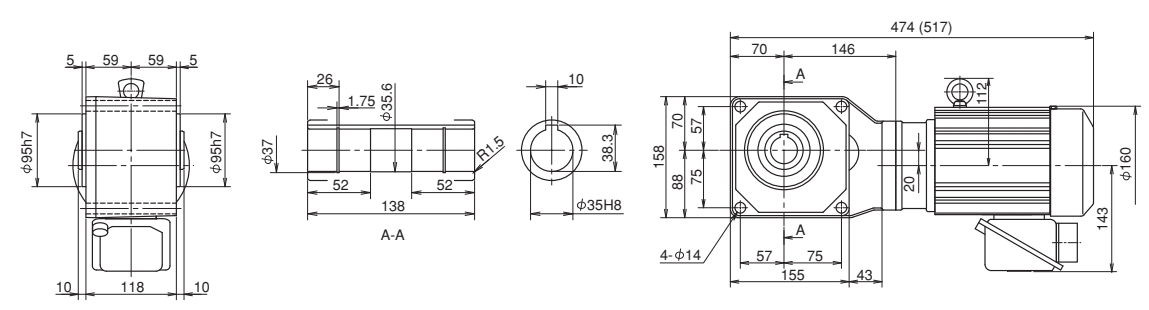


Fig. 5 RNYM08–1420–40~60 (RNYM08–1420–B–40~60) Mass 17kg (Mass 19kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.55kW 3-phase Motor

3-phase Motor Indoor Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
		Nm		kgf m			N		kgf					
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
18.1	21.9	247	204	25.1	20.8	1.45	6230	6130	635	625	08	— 1530 —	80	1
14.5	17.5	308	255	31.4	26.0	1.45	6230	6230	635	635	08	— 1530 —	100	
12.1	14.6	370	307	37.7	31.3	1.45	6230	6230	635	635	08	— 1530 —	120	
9.67	11.7	462	383	47.2	39.1	1.45	6230	6230	635	635	08	— 1530 —	150	
7.25	8.75	617	511	62.9	52.1	1.19	6230	6230	635	635	08	— 1530 —	200	
6.04	7.29	732	613	74.6	62.5	✻	6230	6230	635	635	08	— 1530 —	240	
4.83	5.83	870	721	88.8	73.5	1.45	9810	9810	1000	1000	08	— 1640 —	300	2
4.03	4.86	1040	870	107	88.3	1.42	9810	9810	1000	1000	08	— 1640 —	360	
3.02	3.65	1390	1150	142	118	1.06	9810	9810	1000	1000	08	— 1640 —	480	
2.42	2.92	1480	1440	151	147	✻	9810	9810	1000	1000	08	— 1640 —	600	
2.01	2.43	1480	1480	151	151	✻	9810	9810	1000	1000	08	— 1640 —	720	
1.61	1.94	1480	1480	151	151	✻	9810	9810	1000	1000	08	— 1640 —	900	
1.21	1.46	1480	1480	151	151	✻	9810	9810	1000	1000	08	— 1640 —	1200	
1.01	1.22	1480	1480	151	151	✻	9810	9810	1000	1000	08	— 1640 —	1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM08–1530–80~240 (RNYM08–1530–B–80~240) Mass 24kg (Mass 26kg)

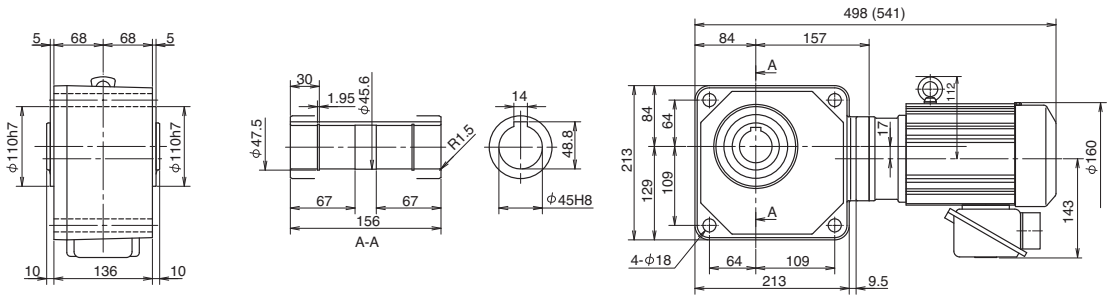
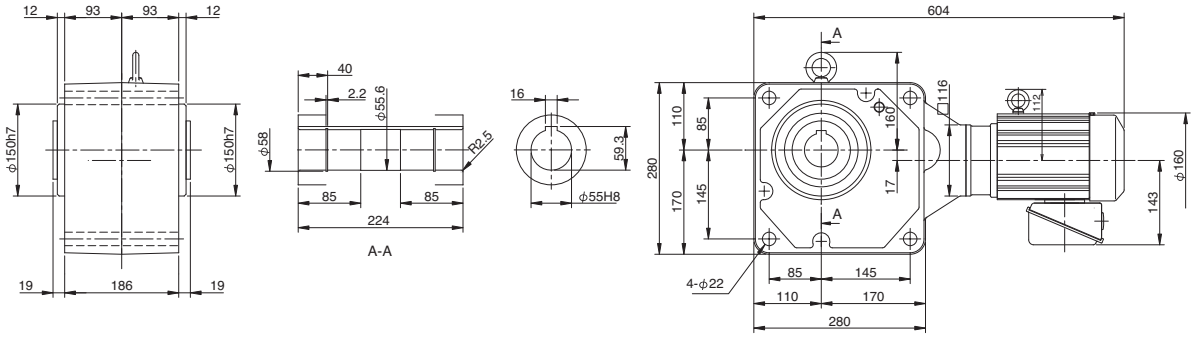


Fig. 2 RNYM08–1640–300~1440 (RNYM08–1640–B–300~1440) Mass 68kg (Mass 70kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.75kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		kgf m		SF	Allowable Pro N		kgf		Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
290	350	21.0	17.4	2.14	1.78	2.05	1470	1370	150	140	1 — 1310 — 5			3
						1.07	1470	1370	150	140	1 — 1320 — 5			4
						2.05	2160	2060	220	210	1 — 1420 — 5			5
207	250	29.4	24.4	3.00	2.49	2.05	1670	1570	170	160	1 — 1310 — 7			3
						1.07	1670	1570	170	160	1 — 1320 — 7			4
						2.05	2450	2300	250	235	1 — 1420 — 7			5
145	175	42.0	34.8	4.29	3.55	1.07	1810	1720	185	175	1 — 1310 — 10			3
						1.07	1810	1720	185	175	1 — 1320 — 10			4
						2.05	2750	2600	280	265	1 — 1420 — 10			5

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM1–1310–5~10 (RNYM1–1310–B–5~10) Mass 13kg (Mass 16kg)

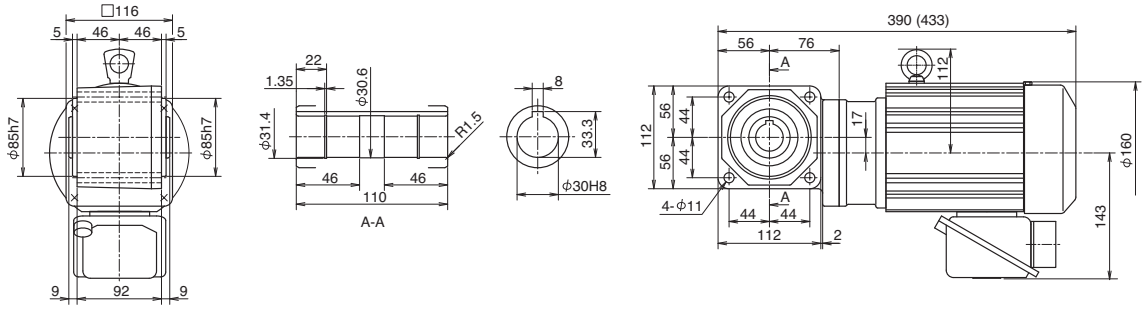


Fig. 4 RNYM1–1320–5~10 (RNYM1–1320–B–5~10) Mass 15kg (Mass 17kg)

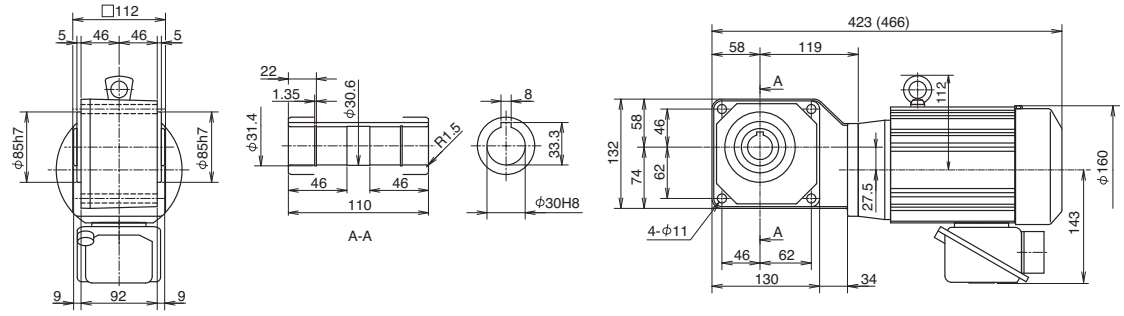
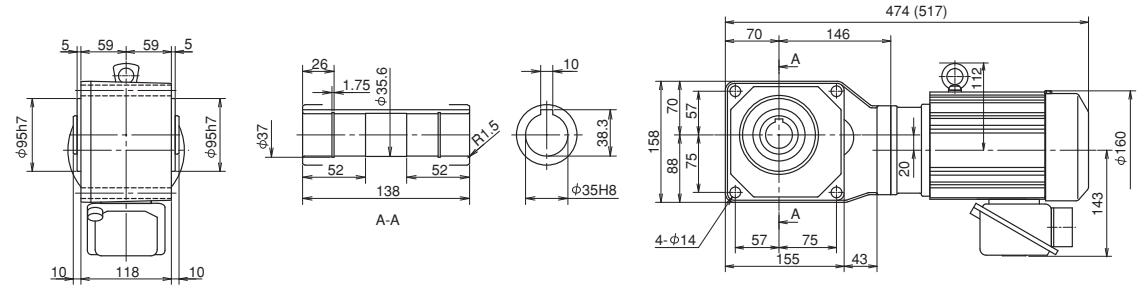


Fig. 5 RNYM1–1420–5~10 (RNYM1–1420–B–5~10) Mass 18kg (Mass 20kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.75kW 3-phase Motor

3-phase Motor Indoor Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
121	146	50.4	41.8	5.14	4.26	1.07	1910	1810	195	185	1 — 1320 — 12	1
						2.05	2840	2750	290	280	1 — 1420 — 12	2
96.7	117	63.1	52.2	6.43	5.33	1.07	2060	1960	210	200	1 — 1320 — 15	1
						2.05	3090	2940	315	300	1 — 1420 — 15	2
72.5	87.5	84.1	69.7	8.57	7.10	1.07	2260	2160	230	220	1 — 1320 — 20	1
						2.05	3330	3190	340	325	1 — 1420 — 20	2
58.0	70.0	105	87.1	10.7	8.88	1.07	2350	2260	240	230	1 — 1320 — 25	1
						2.05	3530	3380	360	345	1 — 1420 — 25	2
48.3	58.3	126	104	12.9	10.7	1.07	2450	2350	250	240	1 — 1320 — 30	1
						2.05	3730	3580	380	365	1 — 1420 — 30	2
36.3	43.8	168	139	17.1	14.2	1.07	3970	3820	405	390	1 — 1420 — 40	2
						2.05	5740	5540	585	565	1 — 1520 — 40	3
29.0	35.0	210	174	21.4	17.8	1.07	4170	4020	425	410	1 — 1420 — 50	2
						2.05	6030	5830	615	595	1 — 1520 — 50	3
24.2	29.2	252	209	25.7	21.3	1.07	4310	4170	440	425	1 — 1420 — 60	2
						2.05	6230	6030	635	615	1 — 1520 — 60	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM1–1320–12~30 (RNYM1–1320–B–12~30) Mass 15kg (Mass 17kg)

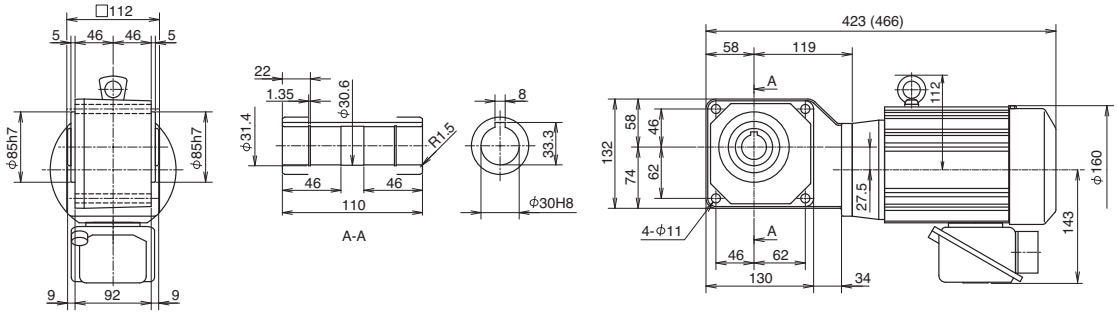


Fig. 2 RNYM1–1420–12~60 (RNYM1–1420–B–12~60) Mass 18kg (Mass 20kg)

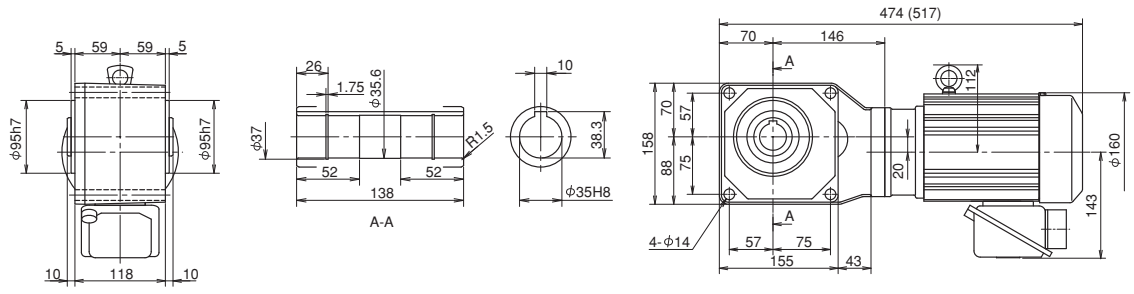
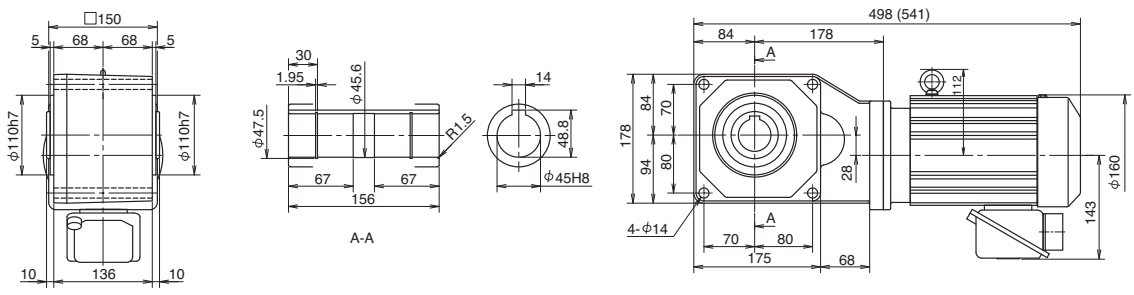


Fig. 3 RNYM1–1520–40~60 (RNYM1–1520–B–40~60) Mass 26kg (Mass 28kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.75kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	336	279	34.3	28.4	1.07	6230	6130	635	625	1 — 1530 — 80	4
						2.05	6230	6130	635	625	1 — 1531 — 80	5
14.5	17.5	420	348	42.9	35.5	1.07	6230	6230	635	635	1 — 1530 — 100	4
						2.93	9810	9810	1000	1000	1 — 1630 — 100	6
12.1	14.6	504	418	51.4	42.6	1.07	6230	6230	635	635	1 — 1530 — 120	4
						2.93	9810	9810	1000	1000	1 — 1630 — 120	6

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM1–1530–80~240 (RNYM1–1530–B–80~240) Mass 25kg (Mass 28kg)

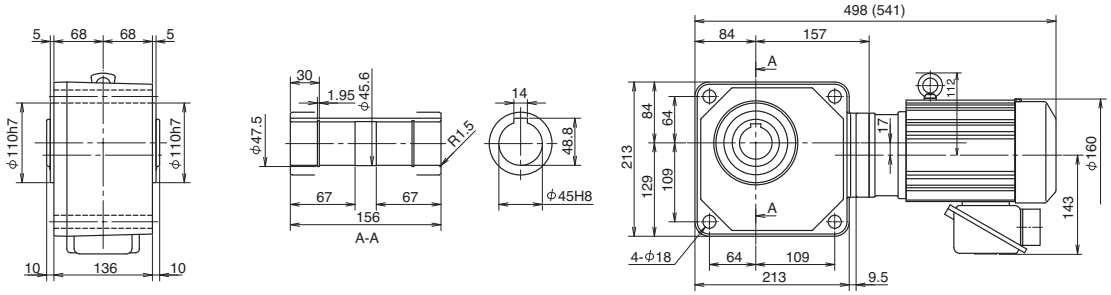


Fig. 5 RNYM1–1531–80 (RNYM1–1531–B–80) Mass 26kg (Mass 28kg)

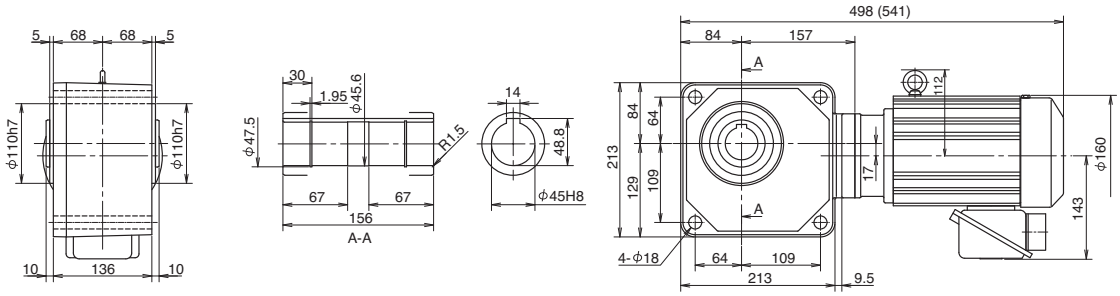
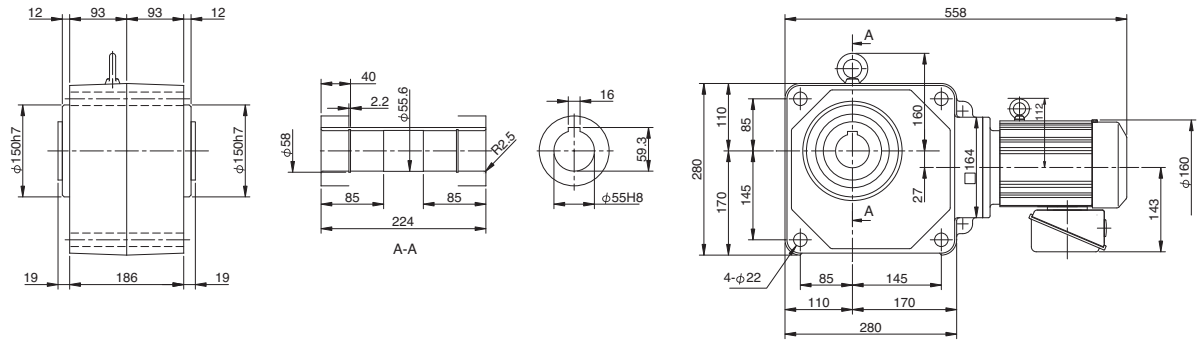


Fig. 6 RNYM1–1630–100~120 (RNYM1–1630–B–100~120) Mass 46kg (Mass 48kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.75kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
9.67	11.7	631	522	64.3	53.3	1.07	6230	6230	635	635	1 — 1530 — 150	1
						2.35	9810	9810	1000	1000	1 — 1631 — 150	2
7.25	8.75	732	697	74.6	71.0	✻	6230	6230	635	635	1 — 1530 — 200	1
		841	697	85.7	71.0	1.76	9810	9810	1000	1000	1 — 1631 — 200	2
6.04	7.29	732	732	74.6	74.6	✻	6230	6230	635	635	1 — 1530 — 240	1
		1010	836	103	85.2	1.47	9810	9810	1000	1000	1 — 1631 — 240	2
4.83	5.83	1190	983	121	100	1.07	9810	9810	1000	1000	1 — 1640 — 300	3
4.03	4.86	1420	1180	145	120	1.04	9810	9810	1000	1000	1 — 1640 — 360	
3.02	3.65	1480	1480	151	151	✻	9810	9810	1000	1000	1 — 1640 — 480	
2.42	2.92	1480	1480	151	151	✻	9810	9810	1000	1000	1 — 1640 — 600	
2.01	2.43	1480	1480	151	151	✻	9810	9810	1000	1000	1 — 1640 — 720	
1.61	1.94	1480	1480	151	151	✻	9810	9810	1000	1000	1 — 1640 — 900	
1.21	1.46	1480	1480	151	151	✻	9810	9810	1000	1000	1 — 1640 — 1200	
1.01	1.22	1480	1480	151	151	✻	9810	9810	1000	1000	1 — 1640 — 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM1–1530–150~240 (RNYM1–1530–B–150~240) Mass 25kg (Mass 28kg)

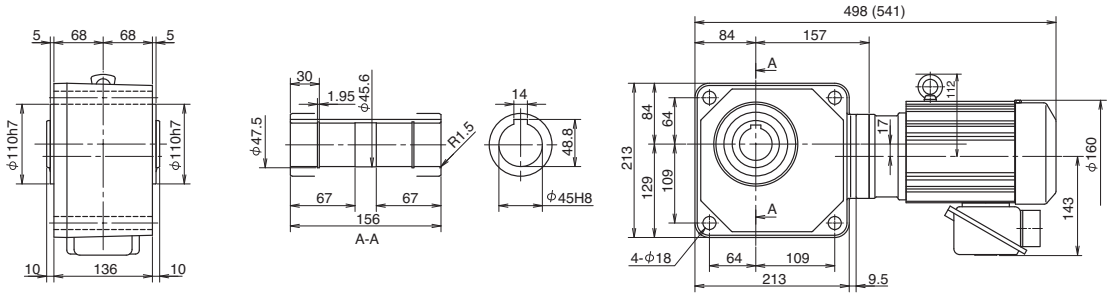


Fig. 2 RNYM1–1631–150~240 (RNYM1–1631–B–150~240) Mass 46kg (Mass 48kg)

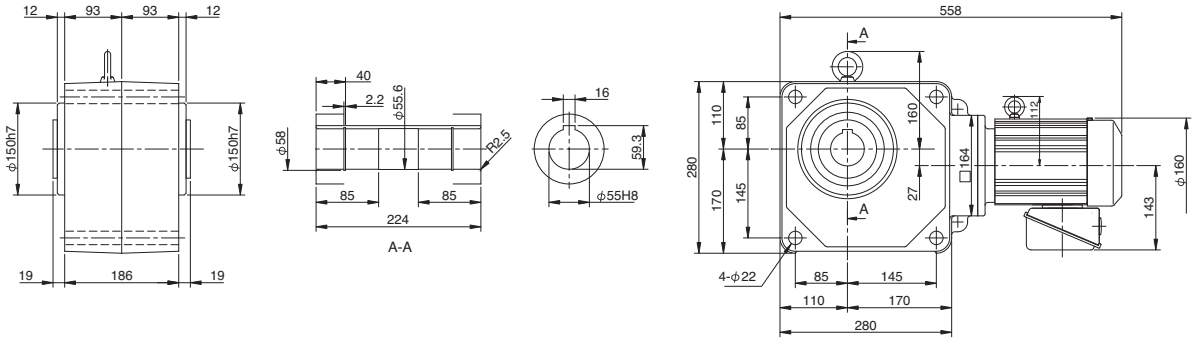
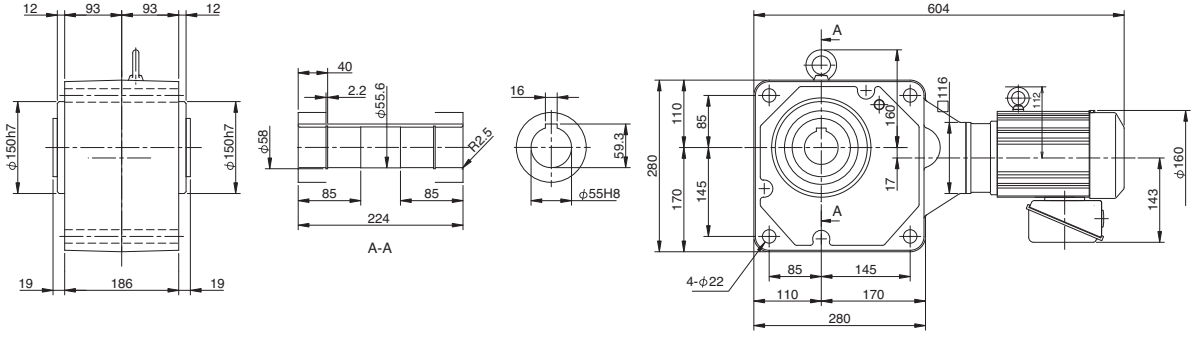


Fig. 3 RNYM1–1640–300~1440 (RNYM1–1640–B–300~1440) Mass 68kg (Mass 70kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.1kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	30.8	25.5	3.14	2.60	2.00	2160	2060	220	210	1H — 1410 — 5	4
						1.40					1H — 1420 — 5	5
207	250	43.2	35.8	4.40	3.65	2.00	2450	2300	250	235	1H — 1410 — 7	4
						1.40					1H — 1420 — 7	5
145	175	61.7	51.1	6.29	5.21	1.40	2750	2600	280	265	1H — 1410 — 10	4
						1.40					1H — 1420 — 10	5
121	146	74.0	61.3	7.54	6.25	1.40	2840	2750	290	280	1H — 1420 — 12	
96.7	117	92.5	76.6	9.43	7.81	1.40	3090	2940	315	300	1H — 1420 — 15	
72.5	87.5	123	102	12.6	10.4	1.40	3330	3190	340	325	1H — 1420 — 20	5
58.0	70.0	154	128	15.7	13.0	1.40	3530	3380	360	345	1H — 1420 — 25	
48.3	58.3	185	153	18.9	15.6	1.40	3730	3580	380	365	1H — 1420 — 30	
36.3	43.8	247	204	25.1	20.8	1.40	5740	5540	585	565	1H — 1520 — 40	
29.0	35.0	308	255	31.4	26.0	1.40	6030	5830	615	595	1H — 1520 — 50	6
24.2	29.2	370	307	37.7	31.3	1.40	6230	6030	635	615	1H — 1520 — 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM1H–1410–5~10 (RNYM1H–1410–B–5~10) Mass 20kg (Mass 24kg)

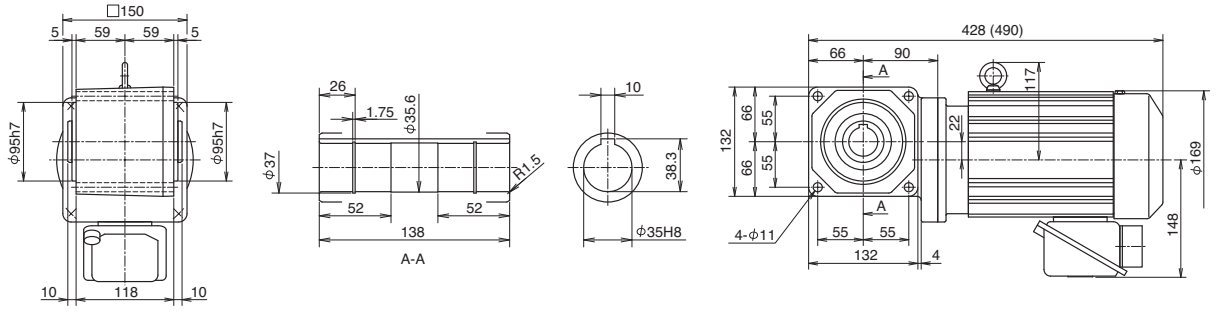


Fig. 5 RNYM1H–1420–5~30 (RNYM1H–1420–B–5~30) Mass 21kg (Mass 25kg)

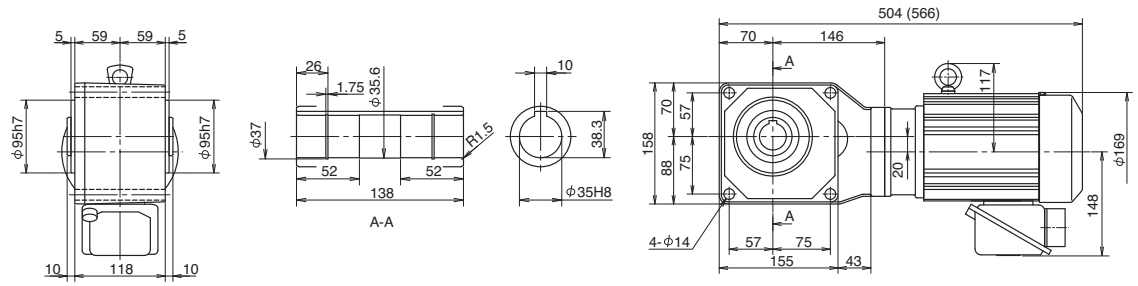
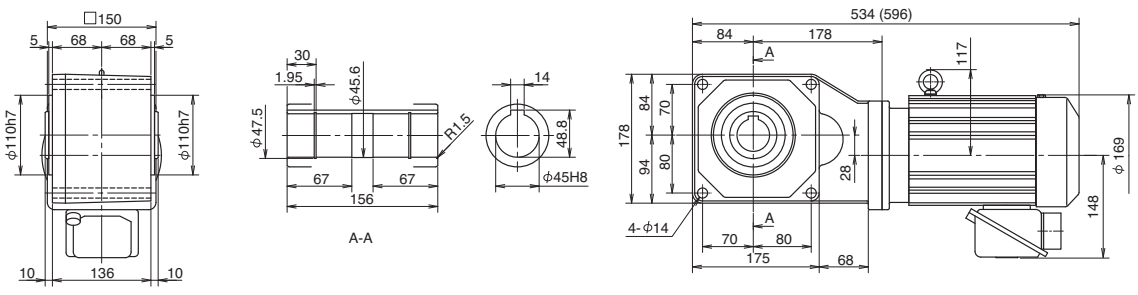


Fig. 6 RNYM1H–1520–40~60 (RNYM1H–1520–B–40~60) Mass 29kg (Mass 33kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.1kW 3-phase Motor

3-phase Motor Indoor Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	493	409	50.3	41.7	1.40	6230	6130	635	625	1H — 1531 — 80	1
14.5	17.5	617	511	62.9	52.1	2.00	9810	9810	1000	1000	1H — 1630 — 100	2
12.1	14.6	740	613	75.4	62.5	2.00	9810	9810	1000	1000	1H — 1630 — 120	
9.67	11.7	925	766	94.3	78.1	1.60	9810	9810	1000	1000	1H — 1631 — 150	
7.25	8.75	1230	1020	126	104	1.20	9810	9810	1000	1000	1H — 1631 — 200	3
6.04	7.29	1480	1230	151	125	1.00	9810	9810	1000	1000	1H — 1631 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM1H–1531–80 (RNYM1H–1531–B–80) Mass 29kg (Mass 33kg)

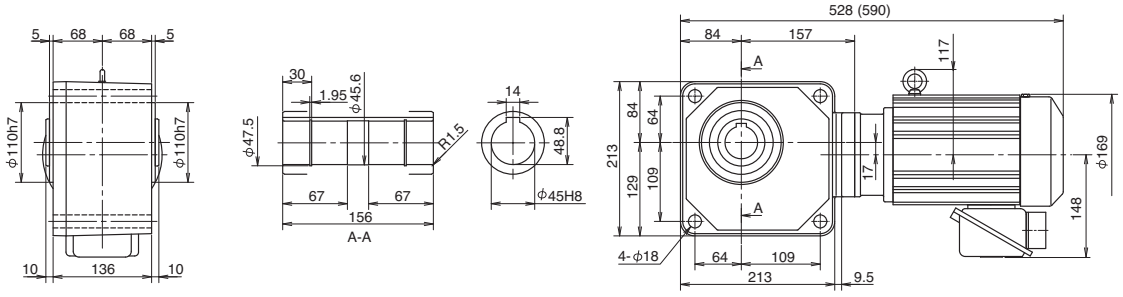


Fig. 2 RNYM1H–1630–100~120 (RNYM1H–1630–B–100~120) Mass 52kg (Mass 56kg)

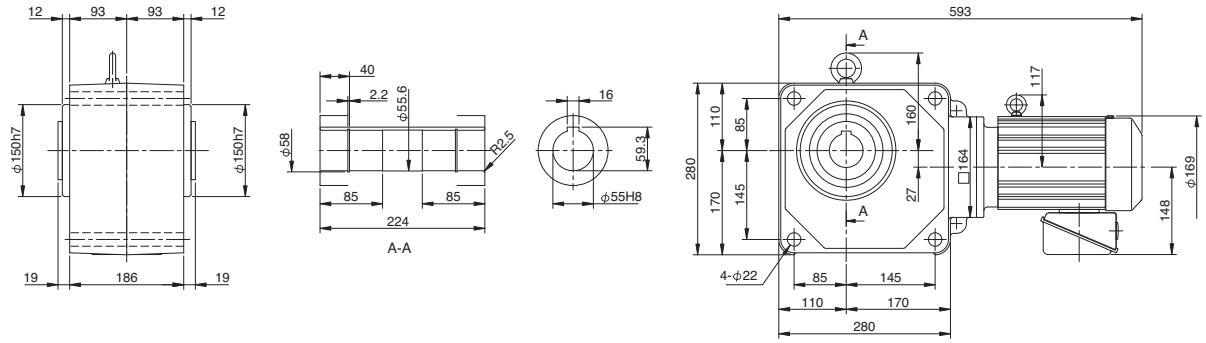
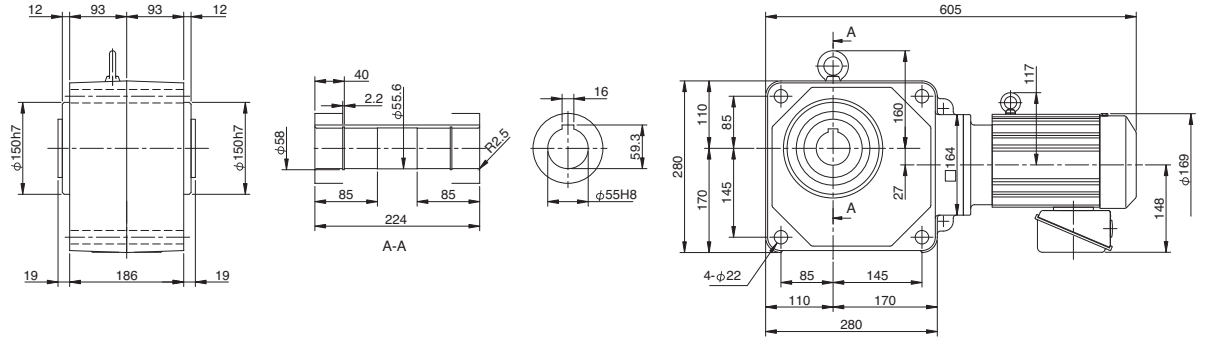


Fig. 3 RNYM1H–1631–150~240 (RNYM1H–1631–B–150~240) Mass 53kg (Mass 57kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.5kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	42.0	34.8	4.29	3.55	1.47	2160	2060	220	210	2 — 1410 — 5	4
						1.03	2160	2060	220	210	2 — 1420 — 5	5
						1.47	3140	2940	320	300	2 — 1520 — 5	6
207	250	58.9	48.8	6.00	4.97	1.47	2450	2300	250	235	2 — 1410 — 7	4
						1.03	2450	2300	250	235	2 — 1420 — 7	5
						1.47	3530	3330	360	340	2 — 1520 — 7	6
145	175	84.1	69.7	8.57	7.10	1.03	2750	2600	280	265	2 — 1410 — 10	4
						1.03	2750	2600	280	265	2 — 1420 — 10	5
						1.47	3920	3730	400	380	2 — 1520 — 10	6

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM2–1410–5~10 (RNYM2–1410–B–5~10) Mass 22kg (Mass 26kg)

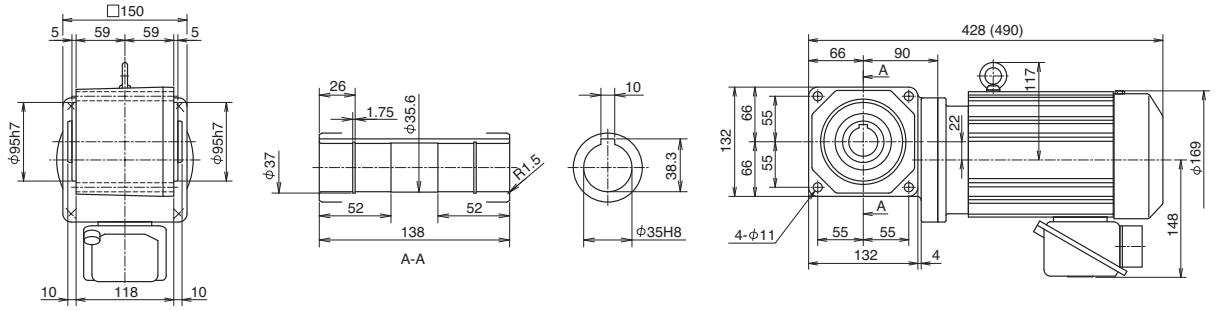


Fig. 5 RNYM2–1420–5~10 (RNYM2–1420–B–5~10) Mass 22kg (Mass 26kg)

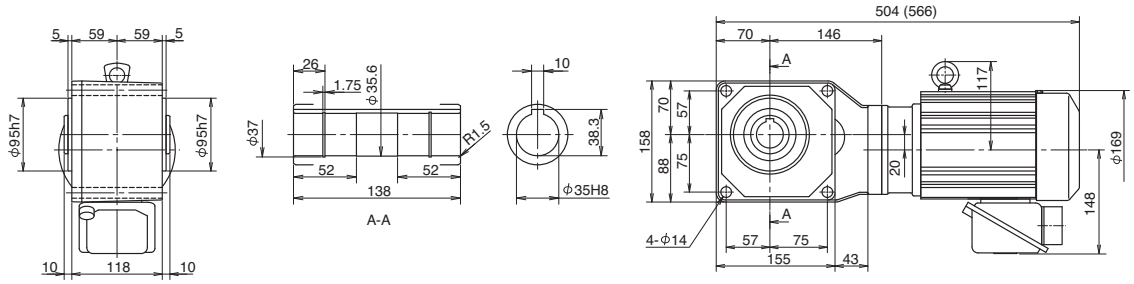
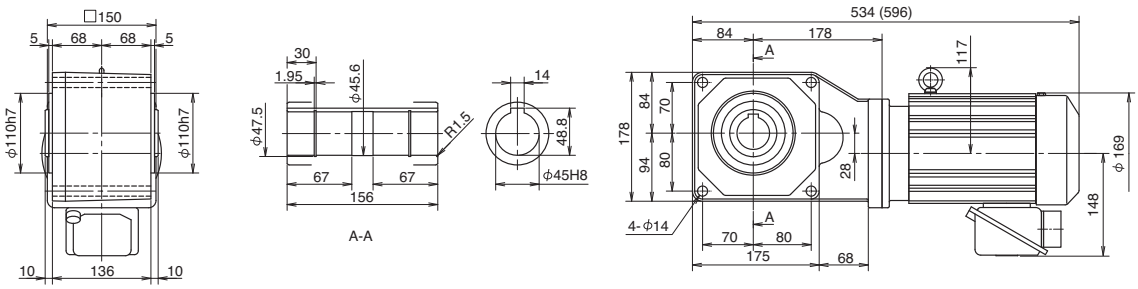


Fig. 6 RNYM2–1520–80~120 (RNYM2–1520–B–80~120) Mass 31kg (Mass 35kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.5kW 3-phase Motor

3-phase Motor Indoor Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
121	146	101	83.6	10.3	8.52	1.03	2840	2750	290	280	2 — 1420 — 12	1
						1.47	4120	3970	420	405	2 — 1520 — 12	2
96.7	117	126	104	12.9	10.7	1.03	3090	2940	315	300	2 — 1420 — 15	1
						1.47	4410	4220	450	430	2 — 1520 — 15	2
72.5	87.5	168	139	17.1	14.2	1.03	3330	3190	340	325	2 — 1420 — 20	1
						1.47	4810	4610	490	470	2 — 1520 — 20	2
58.0	70.0	210	174	21.4	17.8	1.03	3530	3380	360	345	2 — 1420 — 25	1
						1.47	5100	4900	520	500	2 — 1520 — 25	2
48.3	58.3	252	209	25.7	21.3	1.03	3730	3580	380	365	2 — 1420 — 30	1
						1.47	5340	5150	545	525	2 — 1520 — 30	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM2–1420–12~30 (RNYM2–1420–B–12~30) Mass 22kg (Mass 26kg)

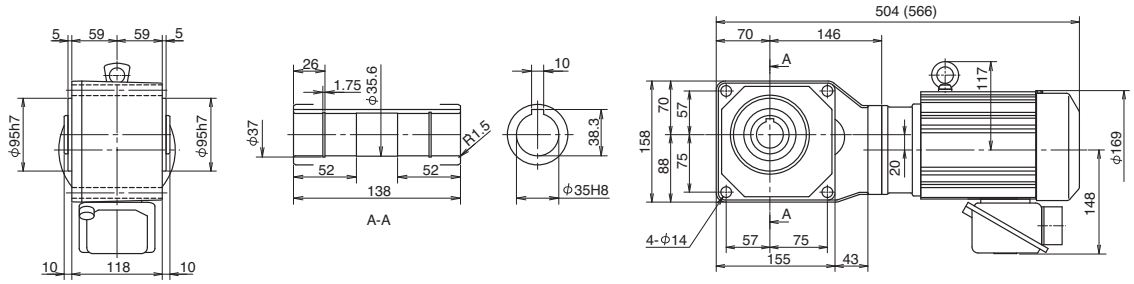
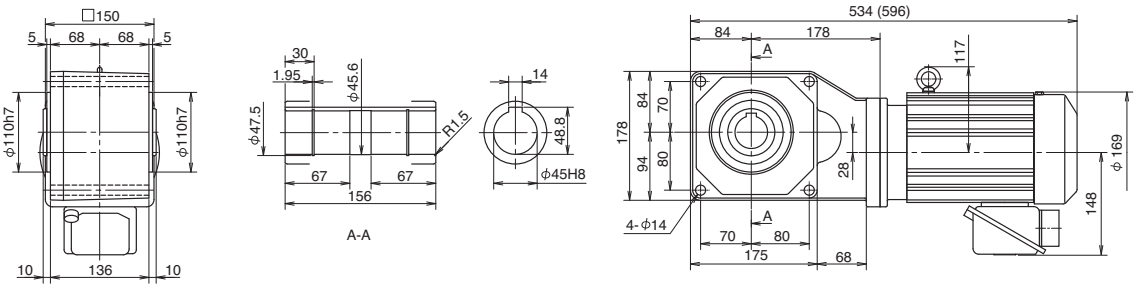


Fig. 2 RNYM2–1520–12~30 (RNYM2–1520–B–12~30) Mass 31kg (Mass 35kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.5kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
36.3	43.8	336	279	34.3	28.4	1.03	5740	5540	585	565	2	1520	40	3
						1.47	5740	5540	585	565	2	1531	40	4
29.0	35.0	420	348	42.9	35.5	1.03	6030	5830	615	595	2	1520	50	3
						1.47	6030	5830	615	595	2	1531	50	4
24.2	29.2	504	418	51.4	42.6	1.03	6230	6030	635	615	2	1520	60	3
						1.47	6230	6030	635	615	2	1531	60	4

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM2–1520–40~60 (RNYM2–1520–B–40~60) Mass 31kg (Mass 35kg)

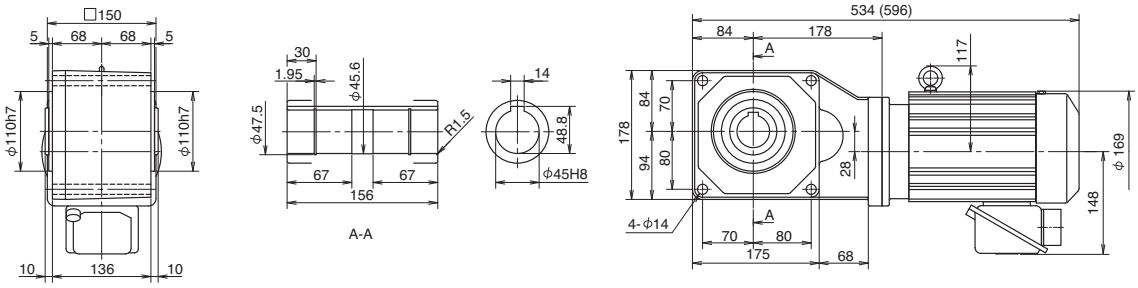
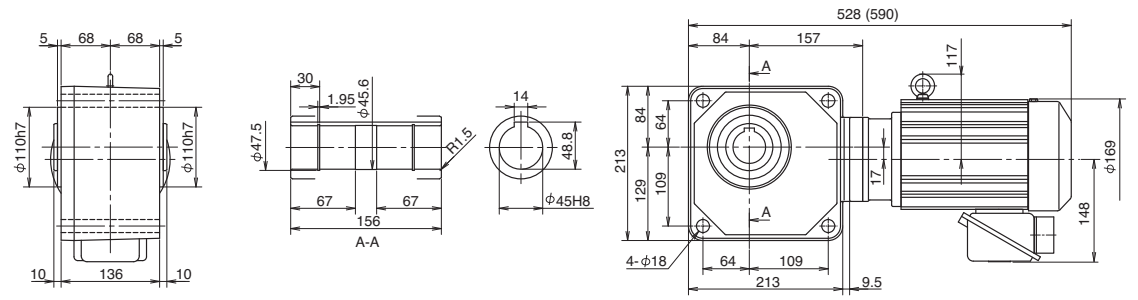


Fig. 4 RNYM2–1531–40~80 (RNYM2–1531–B–40~80) Mass 30kg (Mass 34kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.5kW 3-phase Motor

3-phase Motor Indoor Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio			Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz				
18.1	21.9	673	557	68.6	56.8	1.03	6230	6130	635	625	2	— 1531 —	80	1
						1.47	9810	9660	1000	985	2	— 1630 —	80	2
14.5	17.5	841	697	85.7	71.0	1.47	9810	9810	1000	1000	2	— 1630 —	100	2
12.1	14.6	1010	836	103	85.2	1.47	9810	9810	1000	1000	2	— 1630 —	120	
9.67	11.7	1260	1040	129	107	1.17	9810	9810	1000	1000	2	— 1631 —	150	
7.25	8.75	1480	1390	151	142	*	9810	9810	1000	1000	2	— 1631 —	200	3
6.04	7.29	1480	1480	151	151	*	9810	9810	1000	1000	2	— 1631 —	240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM2–1531–80 (RNYM2–1531–B–80) Mass 30kg (Mass 34kg)

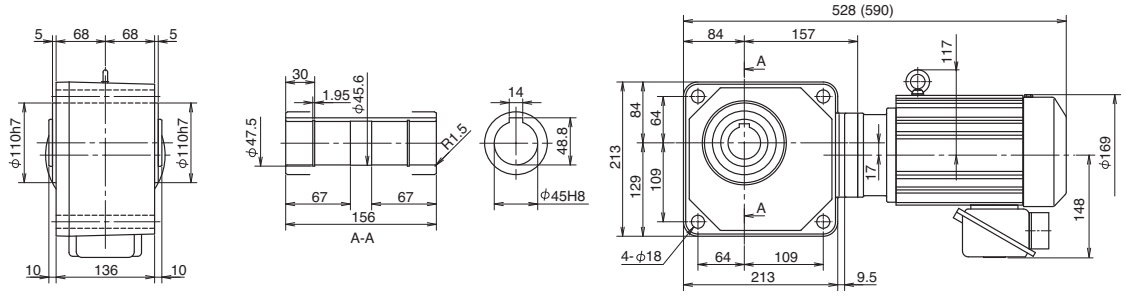


Fig. 2 RNYM2–1630–80~120 (RNYM2–1630–B–80~120) Mass 52kg (Mass 56kg)

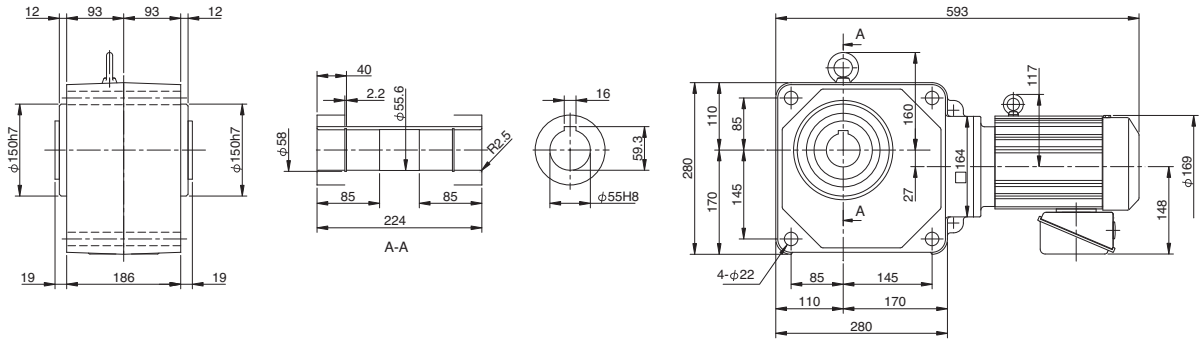
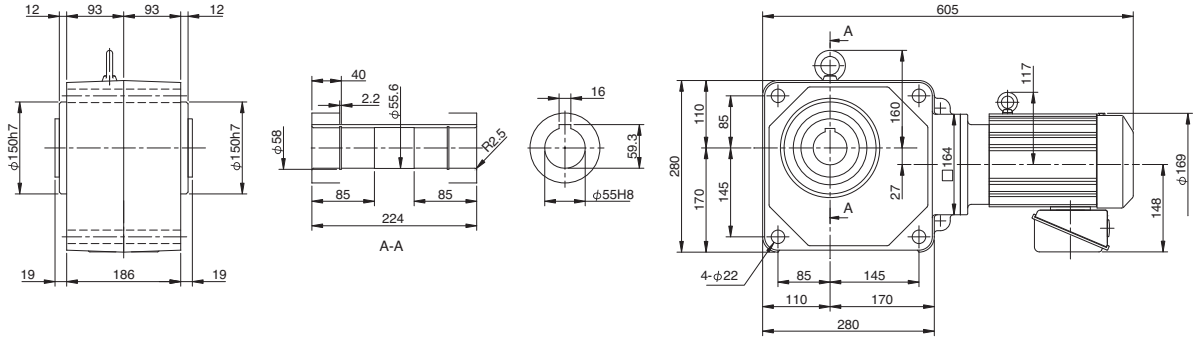


Fig. 3 RNYM2–1631–150~240 (RNYM2–1631–B–150~240) Mass 53kg (Mass 57kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

2.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	61.7	51.1	6.29	5.21	2.50	3140	2940	320	300	3 — 1510 — 5	4
						1.00					3 — 1520 — 5	5
						1.68					3 — 1521 — 5	6
207	250	86.3	71.5	8.80	7.29	1.68	3530	3330	360	340	3 — 1510 — 7	4
						1.00					3 — 1520 — 7	5
						1.68					3 — 1521 — 7	6
145	175	123	102	12.6	10.4	1.00	3920	3730	400	380	3 — 1510 — 10	4
						1.00					3 — 1520 — 10	5
						1.68					3 — 1521 — 10	6
121	146	148	123	15.1	12.5	1.00	4120	3970	420	405	3 — 1520 — 12	5
						1.68					3 — 1521 — 12	6
96.7	117	185	153	18.9	15.6	1.00	4410	4220	450	430	3 — 1520 — 15	5
						1.68					3 — 1521 — 15	6
72.5	87.5	247	204	25.1	20.8	1.00	4810	4610	490	470	3 — 1520 — 20	5
						1.68					3 — 1521 — 20	6
58.0	70.0	308	255	31.4	26.0	1.00	5100	4900	520	500	3 — 1520 — 25	5
						1.68					3 — 1521 — 25	6

Notes : 1. Motor slippage may affect n_1 and n_2.

2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM3–1510–5~10 (RNYM3–1510–B–5~10) Mass 29kg (Mass 35kg)

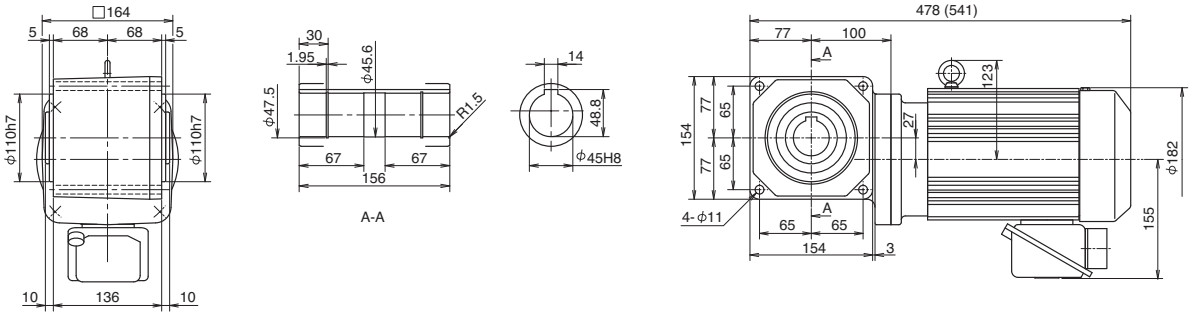


Fig. 5 RNYM3–1520–5~30 (RNYM3–1520–B–5~30) Mass 34kg (Mass 39kg)

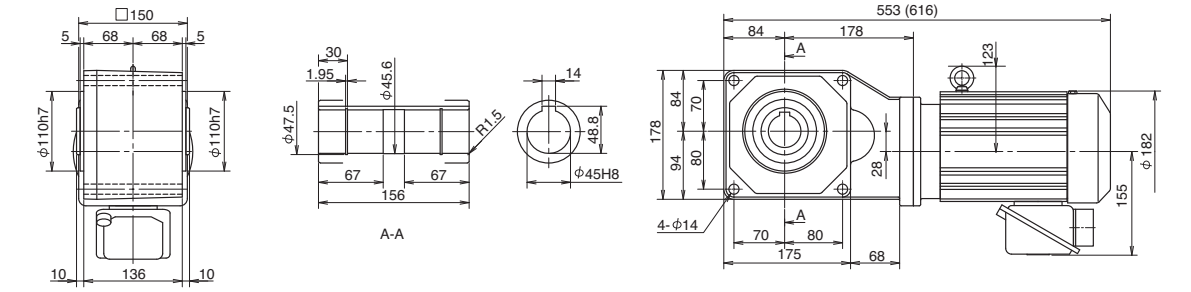
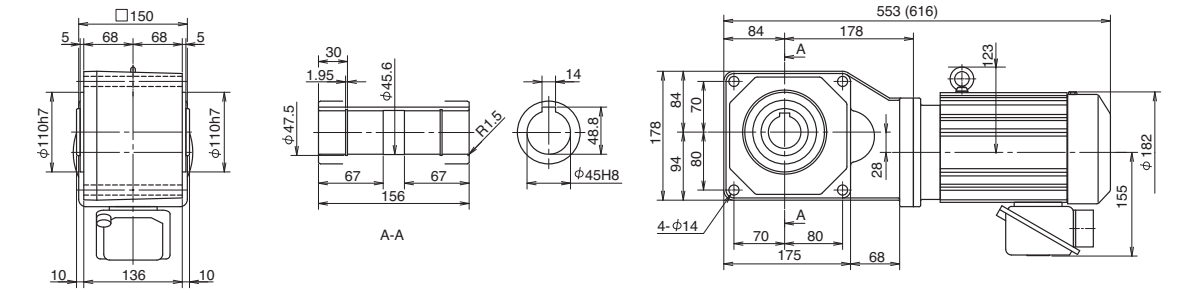


Fig. 6 RNYM3–1521–5~25 (RNYM3–1521–B–5~25) Mass 34kg (Mass 39kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".

2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).

3. Dimensions and Masses in the drawings are subject to change without notice.

2.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
48.3	58.3	370	307	37.7	31.3	1.00	5340	5150	545	525	3 — 1520 — 30	1
						1.68	8380	8090	855	825	3 — 1632 — 30	2
36.3	43.8	493	409	50.3	41.7	1.00	5740	5540	585	565	3 — 1531 — 40	1
						1.68	8830	8480	900	865	3 — 1632 — 40	2
29.0	35.0	617	511	62.9	52.1	1.00	6030	5830	615	595	3 — 1531 — 50	1
						1.68	9120	8880	930	905	3 — 1632 — 50	2
121	146	148	123	15.1	12.5	1.00	4120	3970	420	405	3 — 1531 — 60	3
96.7	117	185	153	18.9	15.6	1.00	4410	4220	450	430	3 — 1632 — 60	

Notes : 1. Motor slippage may affect n_1 and n_2.

2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM3–1520–5~30 (RNYM3–1520–B–5~30) Mass 34kg (Mass 39kg)

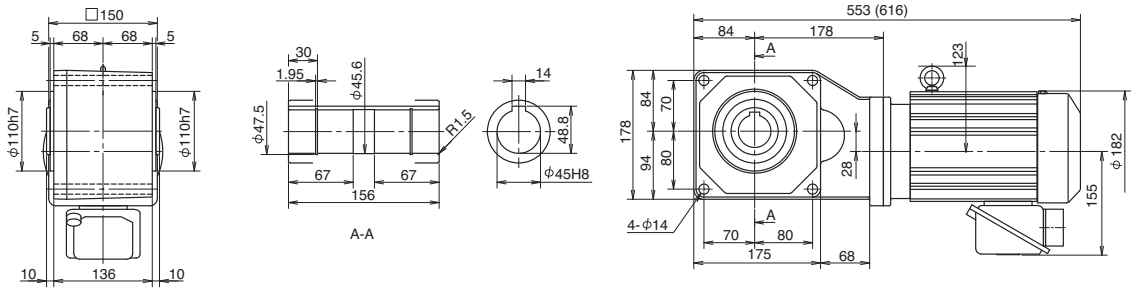


Fig. 2 RNYM3–1632–30~60 (RNYM3–1632–B–30~60) Mass 55kg (Mass 61kg)

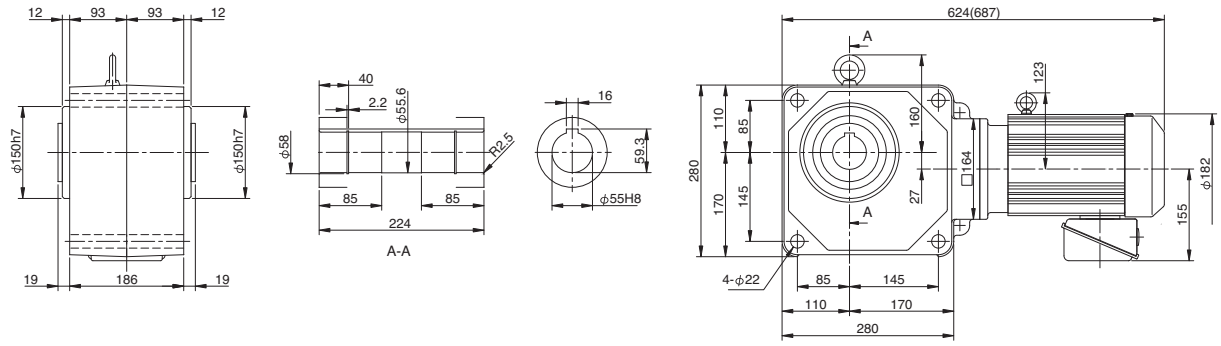
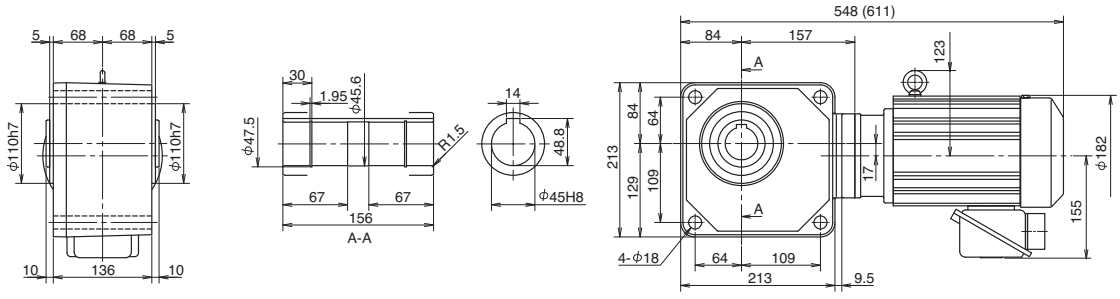


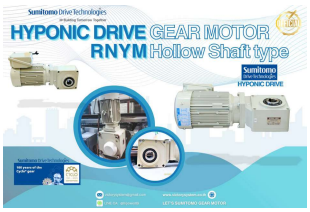
Fig. 3 RNYM3–1531–40~60 (RNYM3–1531–B–40~60) Mass 34kg (Mass 39kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".

2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).

3. Dimensions and Masses in the drawings are subject to change without notice.



2.2kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	986	817	101	83.3	1.00	9810	9660	1000	985	3 — 1630 — 80	
14.5	17.5	1230	1020	126	104	1.00	9810	9810	1000	1000	3 — 1630 — 100	4
12.1	14.6	1480	1230	151	125	1.00	9810	9810	1000	1000	3 — 1630 — 120	
9.67	11.7	1480	1480	151	151	*	9810	9810	1000	1000	3 — 1631 — 150	
7.25	8.75	1480	1480	151	151	*	9810	9810	1000	1000	3 — 1631 — 200	5
6.04	7.29	1480	1480	151	151	*	9810	9810	1000	1000	3 — 1631 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM3–1630–80~120 (RNYM3–1630–B–80~120) Mass 57kg (Mass 63kg)

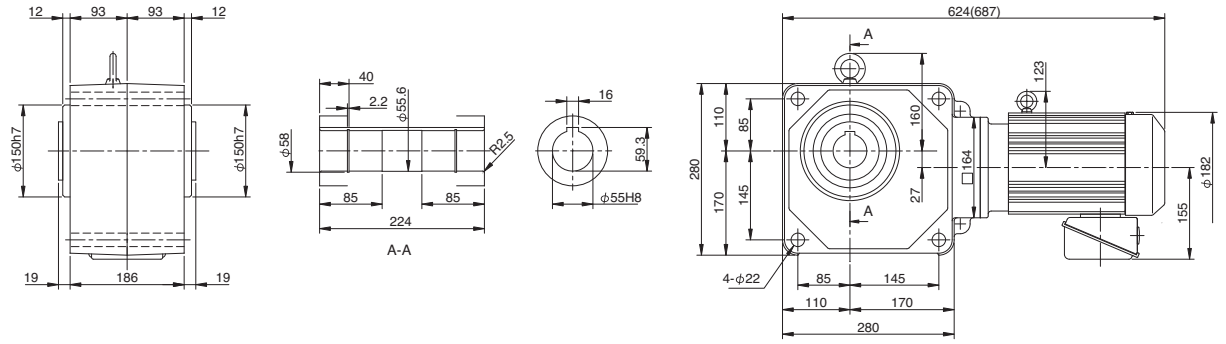
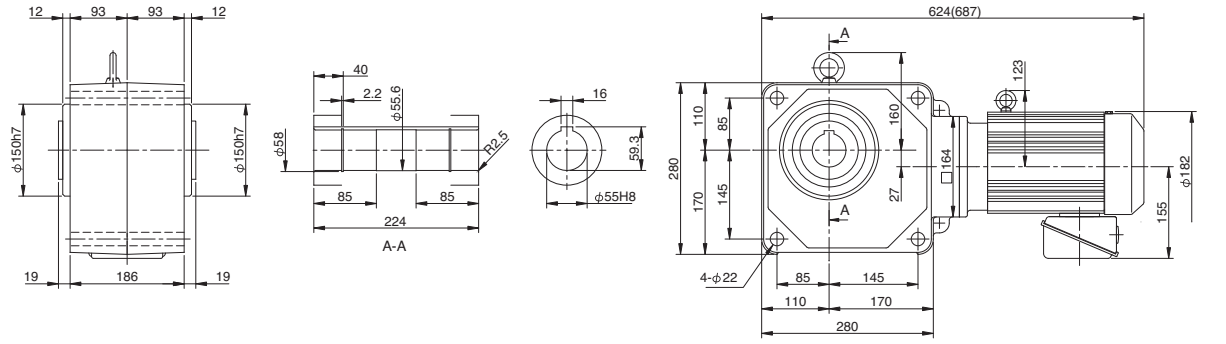


Fig. 5 RNYM3–1631–150~240 (RNYM3–1631–B–150~240) Mass 57kg (Mass 63kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

3.0kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	84.1	69.7	8.57	7.10	1.23	3140	2940	320	300	4 — 1521 — 5	1
						1.83					4 — 1522 — 5	2
207	250	118	97.5	12.0	9.95	1.23	3530	3330	360	340	4 — 1521 — 7	1
						1.83					4 — 1522 — 7	2
145	175	168	139	17.1	14.2	1.23	3920	3730	400	380	4 — 1521 — 10	1
						1.83					4 — 1522 — 10	2
121	146	202	167	20.6	17.0	1.23	4120	3970	420	405	4 — 1521 — 12	1
						1.83					4 — 1522 — 12	2
96.7	117	252	209	25.7	21.3	1.23	4410	4220	450	430	4 — 1521 — 15	1
						1.83					4 — 1522 — 15	2
72.5	87.5	336	279	34.3	28.4	1.23	4810	4610	490	470	4 — 1521 — 20	1
						1.83	7700	7350	785	750	4 — 1633 — 20	3
58.0	70.0	420	348	42.9	35.5	1.23	5100	4900	520	500	4 — 1521 — 25	1
						1.83	8090	7750	825	790	4 — 1633 — 25	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM4–1521–5~25 (RNYM4–1521–B–5~25) Mass 47kg (Mass 58kg)

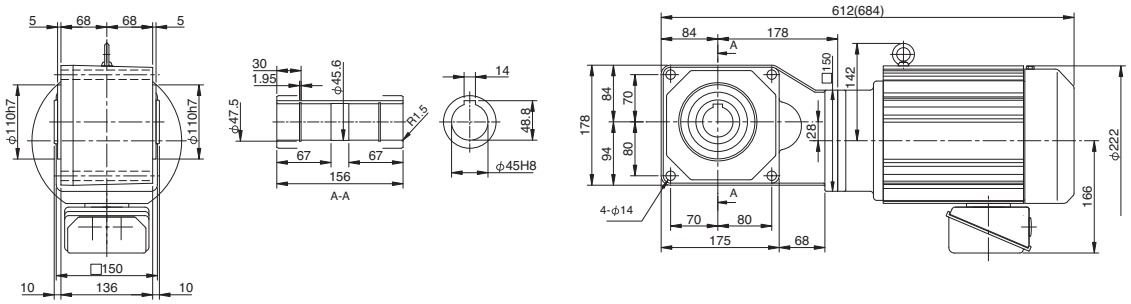


Fig. 2 RNYM4–1522–5~15 (RNYM4–1522–B–5~15) Mass 47kg (Mass 58kg)

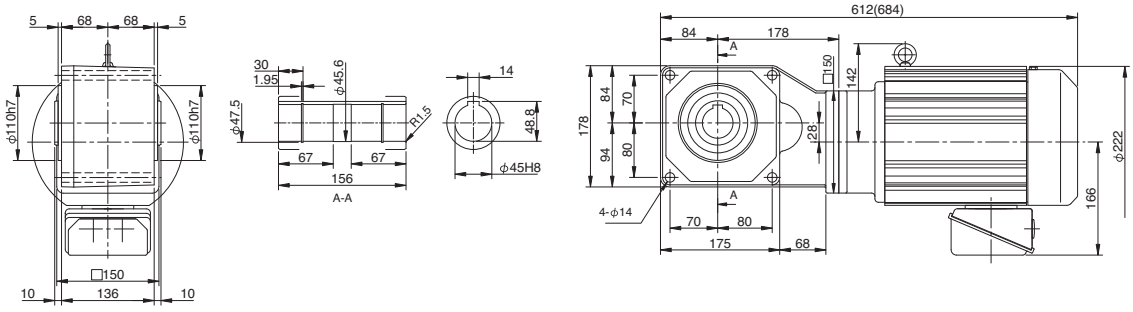
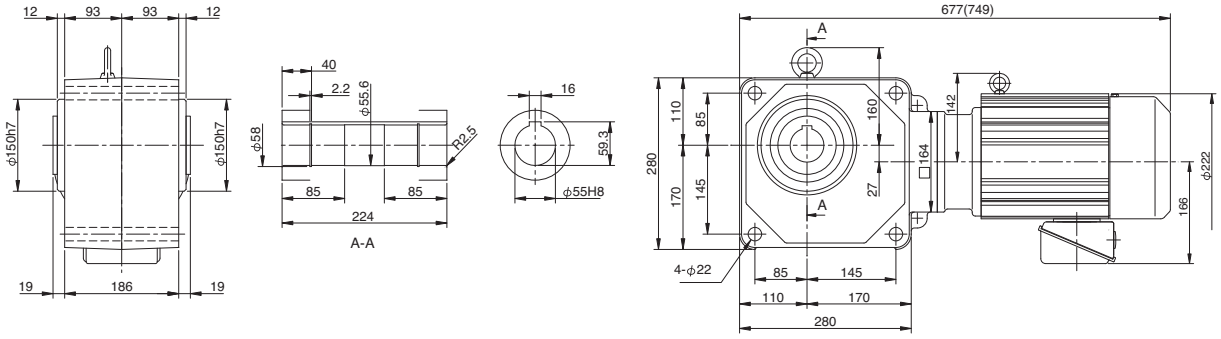


Fig. 3 RNYM4–1633–20~25 (RNYM4–1633–B–20~25) Mass 67kg (Mass68kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

3.0kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
48.3	58.3	504	418	51.4	42.6	1.23	8380	8090	855	825	4 — 1632 — 30	4
						1.83					4 — 1633 — 30	5
36.3	43.8	673	557	68.6	56.8	1.23	8830	8480	900	865	4 — 1632 — 40	4
						1.83					4 — 1633 — 40	5
29.0	35.0	841	697	85.7	71.0	1.23	9120	8880	930	905	4 — 1632 — 50	4
24.2	29.2	1010	836	103	85.2	1.23	9410	9170	960	935	4 — 1632 — 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM4–1632–30~60 (RNYM4–1632–B–30~60) Mass 66kg (Mass 77kg)

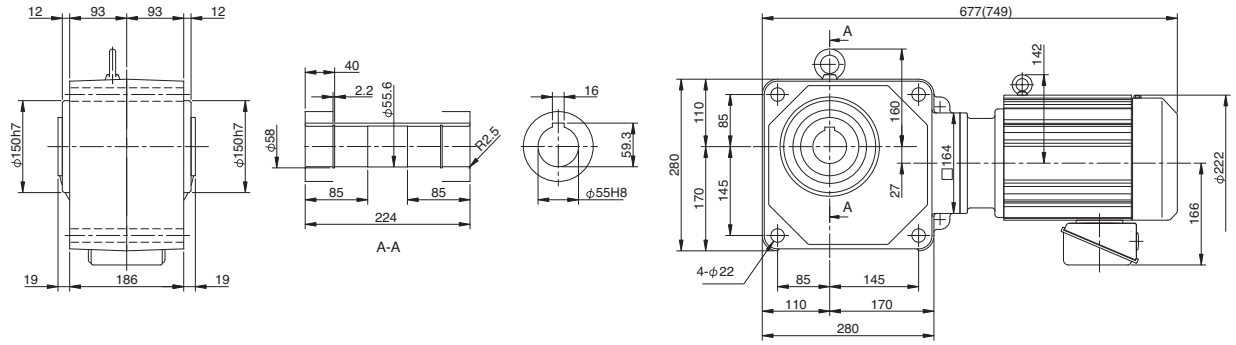
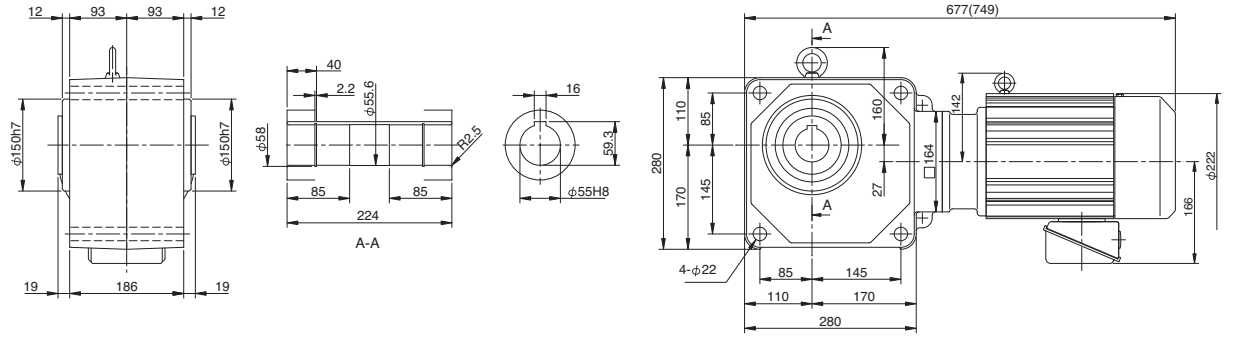


Fig. 5 RNYM4–1633–30~40 (RNYM4–1633–B–30~40) Mass 67kg (Mass 78kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

3.7kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	104	85.9	10.6	8.76	1.00	3140	2940	320	300	5 — 1521 — 5	1
						1.49					5 — 1522 — 5	2
207	250	145	120	14.8	12.3	1.00	3530	3330	360	340	5 — 1521 — 7	1
						1.49					5 — 1522 — 7	2
145	175	207	172	21.1	17.5	1.00	3920	3730	400	380	5 — 1521 — 10	1
						1.49					5 — 1522 — 10	2
121	146	249	206	25.4	21.0	1.00	4120	3970	420	405	5 — 1521 — 12	1
						1.49					5 — 1522 — 12	2
96.7	117	311	258	31.7	26.3	1.00	4410	4220	450	430	5 — 1521 — 15	1
						1.49					5 — 1522 — 15	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM5–1521–5~15 (RNYM5–1521–B–5~15) Mass 50kg (Mass 61kg)

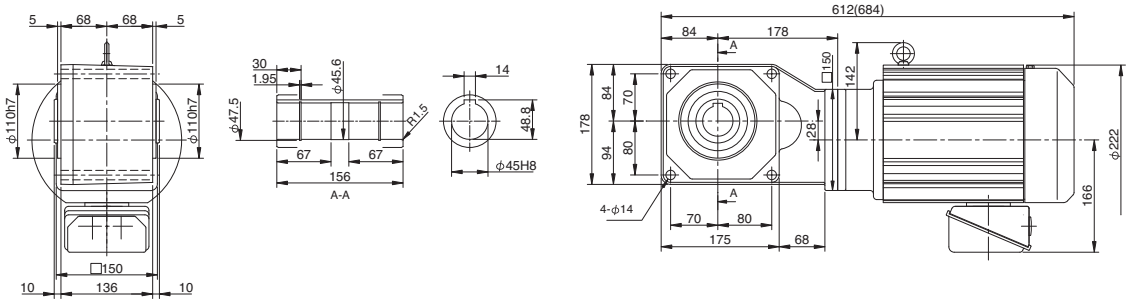
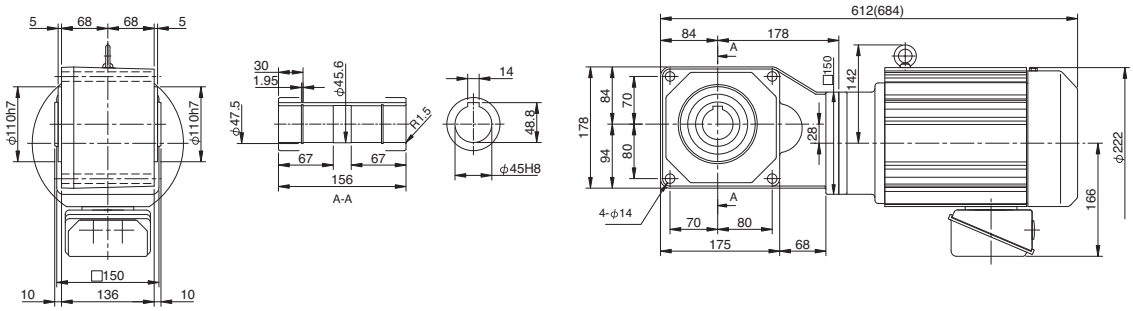


Fig. 2 RNYM5–1522–5~15 (RNYM5–1522–B–5~15) Mass 50kg (Mass 61kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

3.7kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
72.5	87.5	415	344	42.3	35.0	1.00	4810	4610	490	470	5 — 1521 — 20	3
						1.49	7700	7350	785	750	5 — 1633 — 20	4
58.0	70.0	518	430	52.9	43.8	1.00	5100	4900	520	500	5 — 1521 — 25	3
						1.49	8090	7750	825	790	5 — 1633 — 25	4
48.3	58.3	622	516	63.4	52.6	1.00	8380	8090	855	825	5 — 1632 — 30	5
						1.49					5 — 1633 — 30	4
36.3	43.8	830	687	84.6	70.1	1.00	8830	8480	900	865	5 — 1632 — 40	5
						1.49					5 — 1633 — 40	4
29.0	35.0	1040	859	106	87.6	1.00	9120	8880	930	905	5 — 1632 — 50	5
24.2	29.2	1240	1030	127	105	1.00	9410	9170	960	935	5 — 1632 — 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM5–1521–20~25 (RNYM5–1521–B–20~25) Mass 50kg (Mass 61kg)

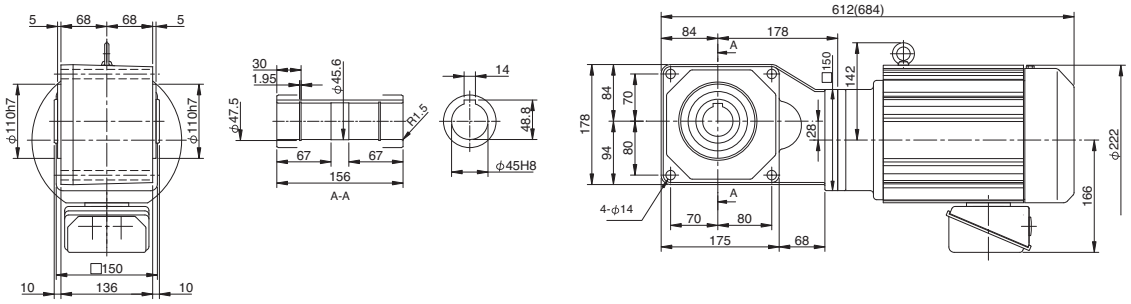


Fig. 4 RNYM5–1633–20~40 (RNYM5–1633–B–20~40) Mass 70kg (Mass 81kg)

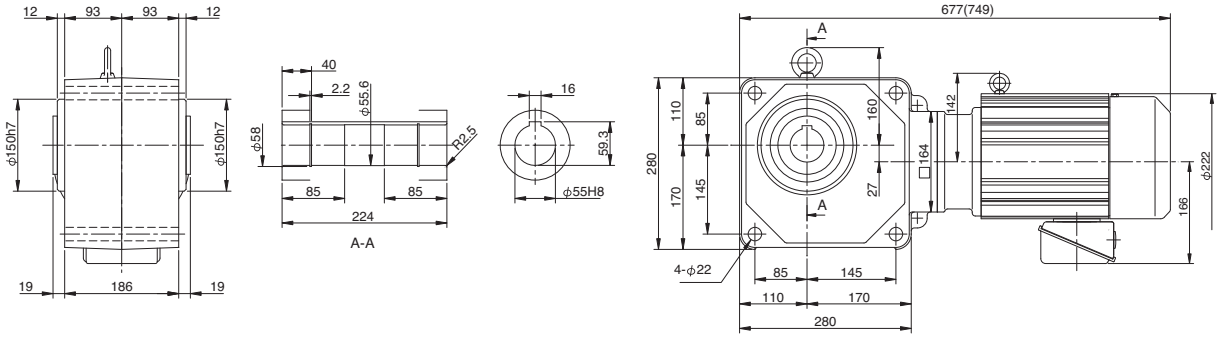
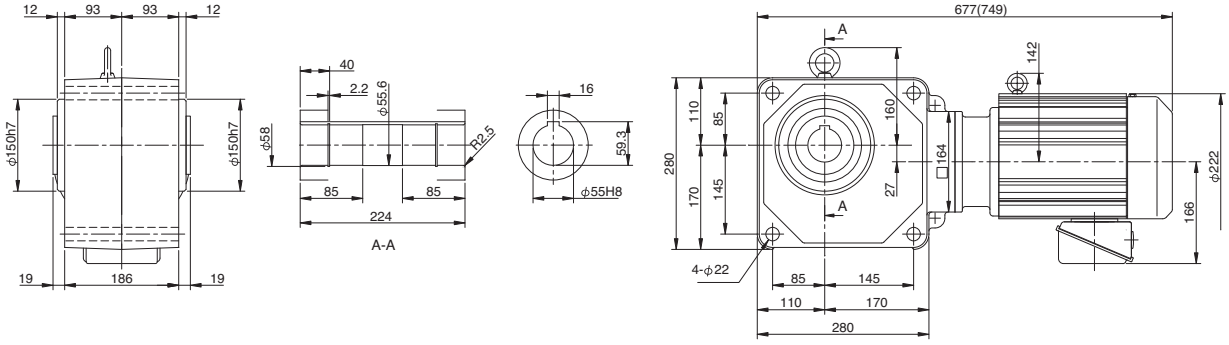


Fig. 5 RNYM5–1632–30~60 (RNYM5–1632–B–30~60) Mass 69kg (Mass 80kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

5.5kW 3-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	154	128	15.7	13.0	1.00	3140	2940	320	300	8 — 1522 — 5	1
						2.00	5000	4760	510	485	8 — 1634 — 5	3
207	250	216	179	22.0	18.2	1.00	3530	3330	360	340	8 — 1522 — 7	1
						2.00	5590	5250	570	535	8 — 1634 — 7	3
145	175	308	255	31.4	26.0	1.00	3920	3730	400	380	8 — 1522 — 10	1
						2.00	6230	5930	635	605	8 — 1634 — 10	3
121	146	370	307	37.7	31.3	1.00	4120	3970	420	405	8 — 1522 — 12	1
						2.00	6620	6330	675	645	8 — 1634 — 12	3
96.7	117	462	383	47.2	39.1	1.00	4410	4220	450	430	8 — 1522 — 15	1
						2.00	6960	6670	710	680	8 — 1634 — 15	3
72.5	87.5	617	511	62.9	52.1	1.00	7700	7350	785	750	8 — 1633 — 20	2
						2.00					8 — 1630 — 20	3
58.0	70.0	771	639	78.6	65.1	1.00	8090	7750	825	790	8 — 1633 — 25	2
						1.92					8 — 1630 — 25	3
48.3	58.3	925	766	94.3	78.1	1.00	8380	8090	855	825	8 — 1633 — 30	2
36.3	43.8	1230	1020	126	104	1.00	8830	8480	900	865	8 — 1633 — 40	3

Notes : 1. Motor slippage may affect n_1 and n_2.

2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM8–1522–5~15 (RNYM8–1522–B–5~15) Mass 57kg (Mass 68kg)

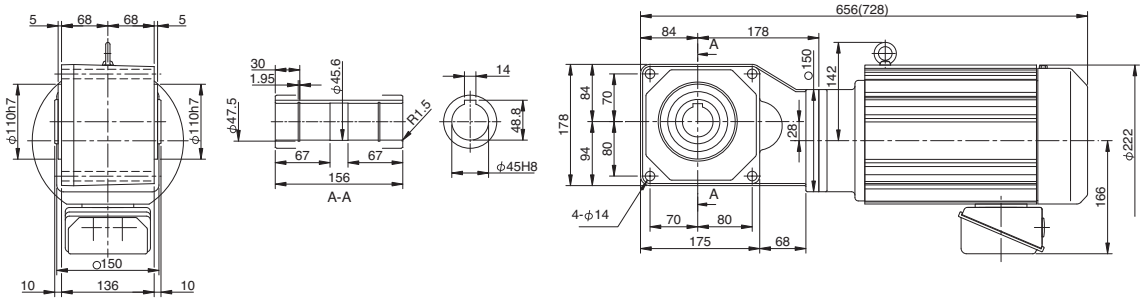


Fig. 2 RNYM8–1633–20~40 (RNYM8–1633–B–20~40) Mass 77kg (Mass 88kg)

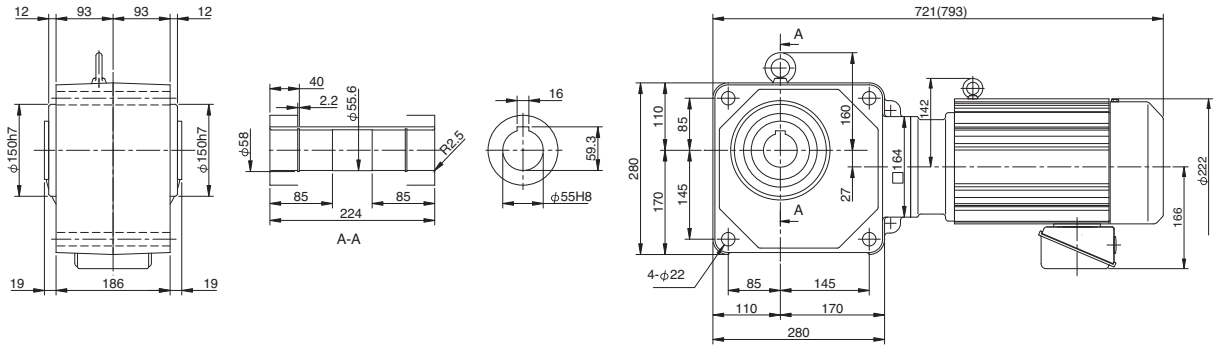
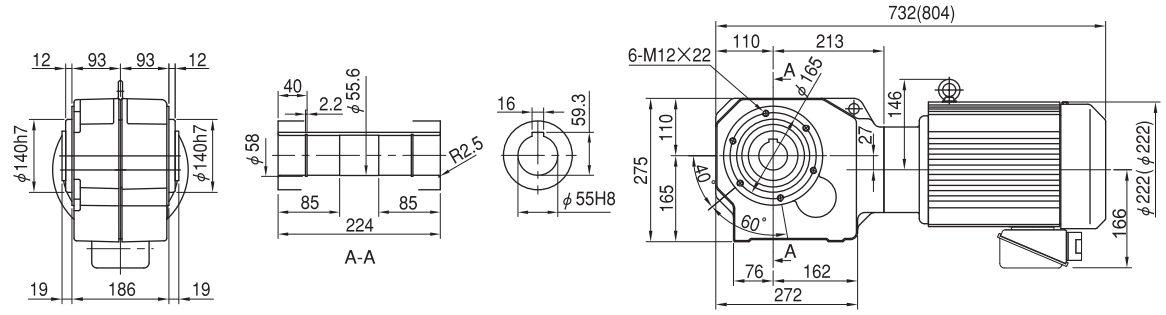


Fig. 3 RNYM8–1634–5~25 (RNYM8–1634–B–5~25) Mass 95kg (Mass 105kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".

2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).

3. Dimensions and Masses in the drawings are subject to change without notice.

7.5kW 3-phase Motor

RNYM Series Hollow Shaft Type

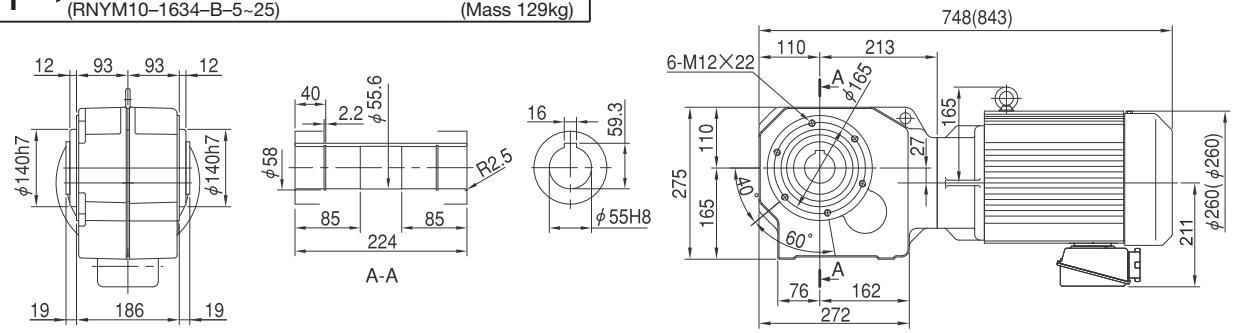
Motor Speed n_1	
50Hz	1450r/min
60Hz	1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	210	174	21.4	17.8	1.47	5000	4760	510	485	10 – 1634(-B) – 5	
207	250	294	244	30.0	24.9	1.47	5590	5250	570	535	10 – 1634(-B) – 7	
145	175	420	348	42.9	35.5	1.47	6230	5930	635	605	10 – 1634(-B) – 10	
121	146	504	418	51.4	42.6	1.47	6620	6330	675	645	10 – 1634(-B) – 12	1
96.7	117	631	522	64.3	53.3	1.47	6960	6670	710	680	10 – 1634(-B) – 15	
72.5	87.5	841	697	85.7	71.0	1.47	7700	7350	785	750	10 – 1634(-B) – 20	
58.0	70.0	1050	871	107	88.8	1.41	8090	7750	825	790	10 – 1634(-B) – 25	

Notes: 1. Output shaft speed is the representative value when motor speed is: 1450r/min at 50Hz and 1750r/min at 60Hz. Refer to Technical Data for details.
2. Allowable radial load of output shaft is the value 20mm from the end of the output shaft.
3. Figure inside the bracket ( ) shows the nomenclature for unit with brake.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 ▶ RNYM10–1634–5~25 (RNYM10–1634–B–5~25) Mass 111kg (Mass 129kg)



Notes: 1. Output shaft diameter: Dimension tolerance conforms to JIS B 0401-1976 "H8."
2. Shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."
3. Dimension and mass shown in the above drawings are subject to change without prior notice.
4. Safety cover is attached to the output shaft part in this product. Refer to Technical data for detailed dimensions of the safety cover.

11kW 3-phase Motor

RNYM Series Hollow Shaft Type

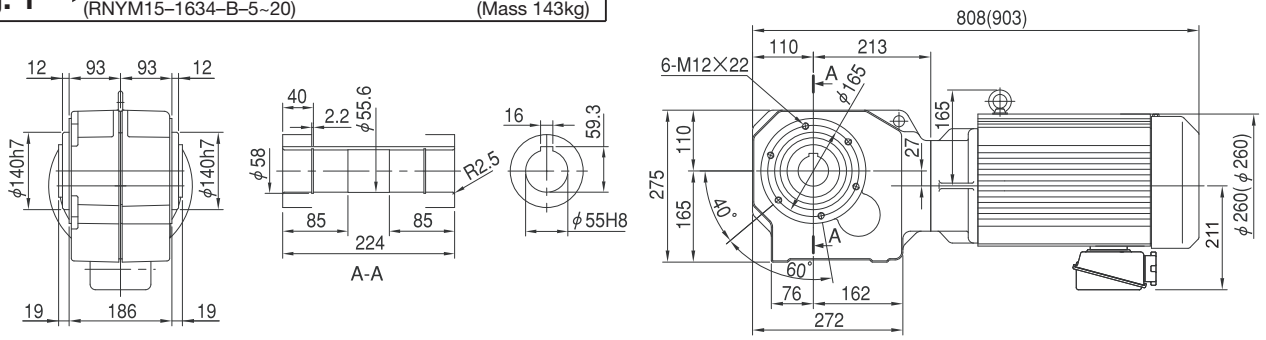
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	308	255	31.4	26.0	1.00	5000	4760	510	485	15 – 1634(-B) – 5	
207	250	432	358	44.0	36.5	1.00	5590	5250	570	535	15 – 1634(-B) – 7	
145	175	617	511	62.9	52.1	1.00	6230	5930	635	605	15 – 1634(-B) – 10	
121	146	740	613	75.4	62.5	1.00	6620	6330	675	645	15 – 1634(-B) – 12	1
96.7	117	925	766	94.3	78.1	1.00	6960	6670	710	680	15 – 1634(-B) – 15	
72.5	87.5	1230	1020	126	104	1.00	7700	7350	785	750	15 – 1634(-B) – 20	

Notes: 1. Output shaft speed is the representative value when motor speed is: 1450r/min at 50Hz and 1750r/min at 60Hz. Refer to Technical Data for details.
2. Allowable radial load of output shaft is the value 20mm from the end of the output shaft.
3. Figure inside the bracket ( ) shows the nomenclature for unit with brake.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM15–1634–5~20 (RNYM15–1634–B–5~20) Mass 125kg (Mass 143kg)



Notes: 1. Output shaft diameter: Dimension tolerance conforms to JIS B 0401-1976 "H8."
2. Shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."
3. Dimension and mass shown in the above drawings are subject to change without prior notice.
4. Safety cover is attached to the output shaft part in this product. Refer to Technical data for detailed dimensions of the safety cover.

15W Single-phase Motor

RNYM Series Hollow Shaft Type

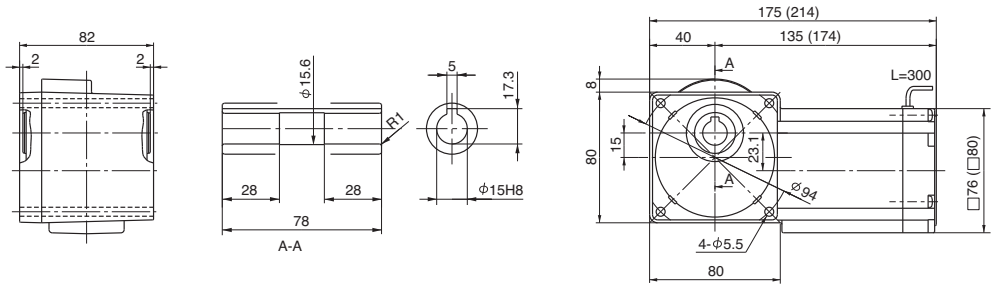
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.371	0.307	0.038	0.031	4.00	539	490	55	50	0015 – 03 – CA – 5	
193	233	0.556	0.461	0.057	0.047	4.00	588	539	60	55	0015 – 03 – CA – 7.5	
145	175	0.742	0.615	0.076	0.063	4.00	637	588	65	60	0015 – 03 – CA – 10	
121	146	0.890	0.738	0.091	0.075	4.00	686	637	70	65	0015 – 03 – CA – 12	
96.7	117	1.11	0.922	0.113	0.094	4.00	735	686	75	70	0015 – 03 – CA – 15	
72.5	87.5	1.48	1.23	0.151	0.125	4.00	785	735	80	75	0015 – 03 – CA – 20	
58.0	70.0	1.85	1.54	0.189	0.157	4.00	834	785	85	80	0015 – 03 – CA – 25	
48.3	58.3	2.23	1.84	0.227	0.188	4.00	883	834	90	85	0015 – 03 – CA – 30	
36.3	43.8	2.97	2.46	0.303	0.251	4.00	981	932	100	95	0015 – 03 – CA – 40	1
29.0	35.0	3.71	3.07	0.378	0.313	4.00	1080	1030	110	105	0015 – 03 – CA – 50	
24.2	29.2	4.45	3.69	0.454	0.376	4.00	1080	1080	110	110	0015 – 03 – CA – 60	
18.1	21.9	5.93	4.92	0.605	0.501	4.00	1080	1080	110	110	0015 – 03 – CA – 80	
14.5	17.5	7.42	6.15	0.756	0.627	4.00	1080	1080	110	110	0015 – 03 – CA – 100	
12.1	14.6	8.90	7.38	0.908	0.752	3.34	1080	1080	110	110	0015 – 03 – CA – 120	
9.06	10.9	11.9	9.83	1.21	1.00	2.50	1080	1080	110	110	0015 – 03 – CA – 160	
7.25	8.75	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0015 – 03 – CA – 200	
6.04	7.29	17.8	14.8	1.82	1.50	1.67	1080	1080	110	110	0015 – 03 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM0015–03–CA–5~240 (RNYM0015–03–CA–B–5~240) Mass 2.6kg (Mass 3.2kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

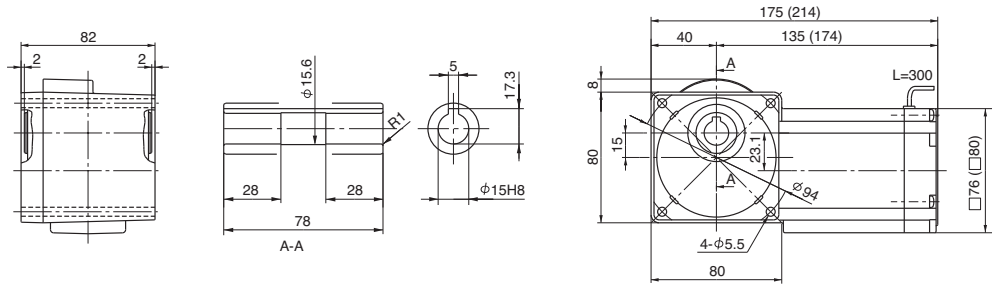
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.618	0.512	0.063	0.052	2.40	539	490	55	50	0025 – 03– CA – 5	
193	233	0.927	0.768	0.095	0.078	2.40	588	539	60	55	0025 – 03 – CA – 7.5	
145	175	1.24	1.02	0.126	0.104	2.40	637	588	65	60	0025 – 03 – CA – 10	
121	146	1.48	1.23	0.151	0.125	2.40	686	637	70	65	0025 – 03 – CA – 12	
96.7	117	1.85	1.54	0.189	0.157	2.40	735	686	75	70	0025 – 03 – CA – 15	
72.5	87.5	2.47	2.05	0.252	0.209	2.40	785	735	80	75	0025 – 03 – CA – 20	
58.0	70.0	3.09	2.56	0.315	0.261	2.40	834	785	85	80	0025 – 03 – CA – 25	
48.3	58.3	3.71	3.07	0.378	0.313	2.40	883	834	90	85	0025 – 03 – CA – 30	
36.3	43.8	4.95	4.10	0.504	0.418	2.40	981	932	100	95	0025 – 03 – CA – 40	2
29.0	35.0	6.18	5.12	0.630	0.522	2.40	1080	1030	110	105	0025 – 03 – CA – 50	
24.2	29.2	7.42	6.15	0.756	0.627	2.40	1080	1080	110	110	0025 – 03 – CA – 60	
18.1	21.9	9.89	8.20	1.01	0.836	2.40	1080	1080	110	110	0025 – 03– CA – 80	
14.5	17.5	12.4	10.2	1.26	1.04	2.40	1080	1080	110	110	0025 – 03 – CA – 100	
12.1	14.6	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0025 – 03 – CA – 120	
9.06	10.9	19.8	16.4	2.02	1.67	1.50	1080	1080	110	110	0025 – 03 – CA – 160	
7.25	8.75	24.7	20.5	2.52	2.09	1.20	1080	1080	110	110	0025 – 03 – CA – 200	
6.04	7.29	29.7	24.6	3.03	2.51	1.00	1080	1080	110	110	0025 – 03 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 2 RNYM0025–03–CA–5~240 (Mass 2.7kg)
(RNYM0025–03–CA–B–5~240) (Mass 3.3kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

40W Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.12	0.929	0.114	0.095	1.50	539	490	55	50	004 – 07 – CA – 5	
193	233	1.68	1.39	0.171	0.142	1.50	588	539	60	55	004 – 07 – CA – 7.5	
145	175	2.24	1.86	0.229	0.189	1.50	637	588	65	60	004 – 07 – CA – 10	
121	146	2.69	2.23	0.274	0.227	1.50	686	637	70	65	004 – 07 – CA – 12	
96.7	117	3.36	2.79	0.343	0.284	1.50	735	686	75	70	004 – 07 – CA – 15	
72.5	87.5	4.48	3.72	0.457	0.379	1.50	785	735	80	75	004 – 07 – CA – 20	
58.0	70.0	5.61	4.64	0.572	0.474	1.50	834	785	85	80	004 – 07 – CA – 25	1
48.3	58.3	6.73	5.57	0.686	0.568	1.50	883	834	90	85	004 – 07 – CA – 30	
36.3	43.8	8.97	7.43	0.914	0.758	1.50	981	932	100	95	004 – 07 – CA – 40	
29.0	35.0	11.2	9.29	1.14	0.947	1.50	1080	1030	110	105	004 – 07 – CA – 50	
24.2	29.2	13.5	11.1	1.37	1.14	1.50	1080	1080	110	110	004 – 07 – CA – 60	
18.1	21.9	17.9	14.9	1.83	1.52	1.50	1080	1080	110	110	004 – 07 – CA – 80	
14.5	17.5	22.4	18.6	2.29	1.89	1.20	1080	1080	110	110	004 – 07 – CA – 100	
12.1	14.6	26.9	22.3	2.74	2.27	1.00	1080	1080	110	110	004 – 07 – CA – 120	
9.67	11.7	33.6	27.9	3.43	2.84	1.60	1420	1420	145	145	004 – 17 – CA – 150	
7.25	8.75	44.8	37.2	4.57	3.79	1.20	1420	1420	145	145	004 – 17 – CA – 200	2
6.04	7.29	53.8	44.6	5.49	4.55	1.00	1420	1420	145	145	004 – 17 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM004–07–CA–5~60 (RNYM004–07–CA–B–5~60) Mass 2.9kg (Mass 3.5kg)

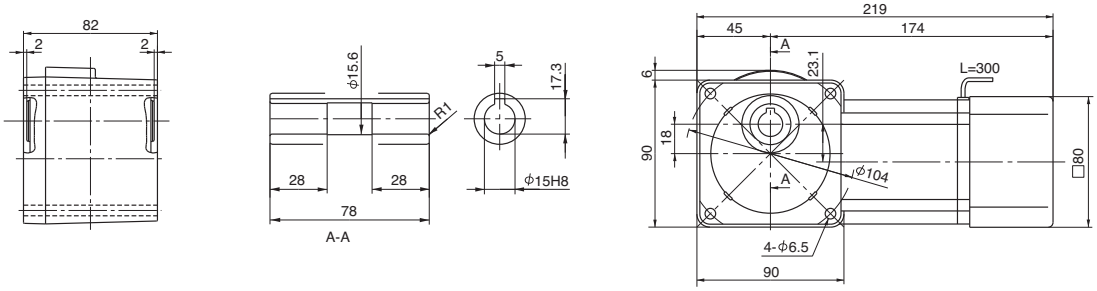
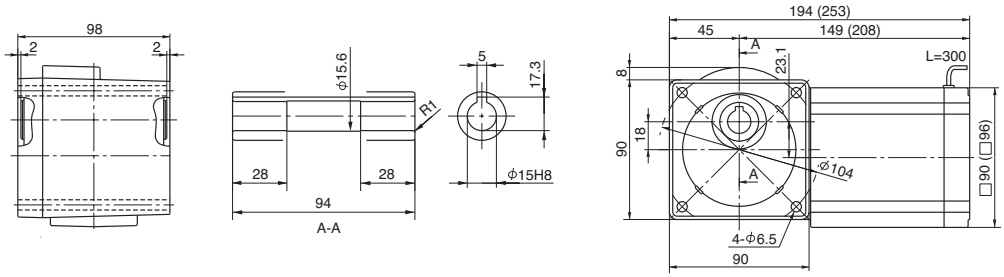


Fig. 2 RNYM004–17–CA–150~240 (RNYM004–17–CA–B–150~240) Mass 4.1kg (Mass 4.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

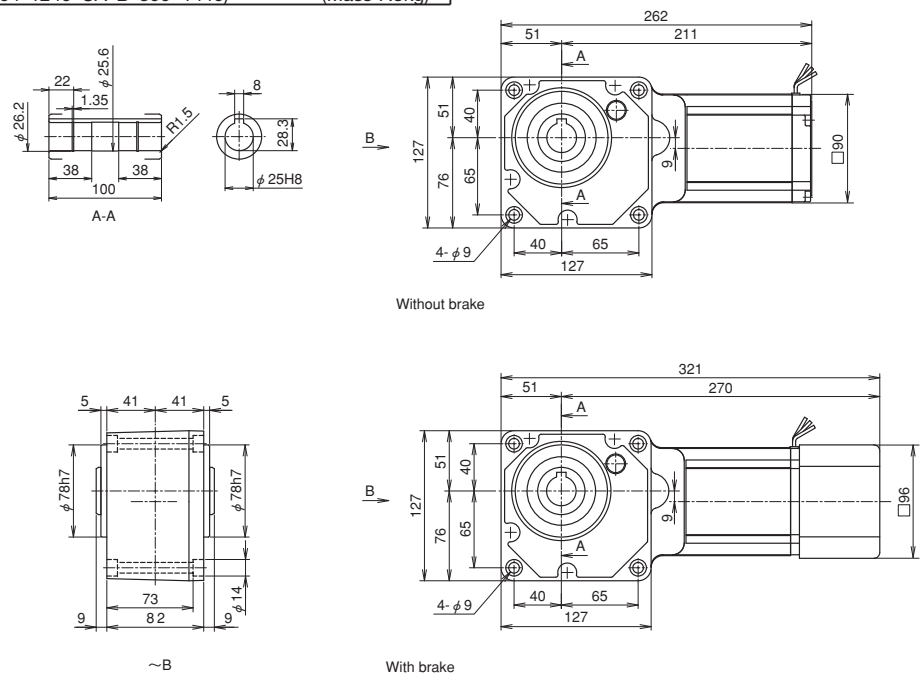
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	63.3	52.5	6.46	5.35	1.55	1810	1810	185	185	004 –1240 – CA – 300	3
4.03	4.86	76.0	62.9	7.75	6.42	1.29	1810	1810	185	185	004 –1240 – CA – 360	
3.02	3.65	98.1	83.9	10.0	8.56	✻	1810	1810	185	185	004 –1240 – CA – 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004 –1240 – CA – 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004 –1240 – CA – 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004 –1240 – CA – 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004 –1240 – CA – 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004 –1240 – CA – 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model, voltage, and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM004–1240–CA–300~1440 (RNYM004–1240–CA–B–300~1440) Mass 6.9kg (Mass 7.3kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

60W Single-phase Motor

RNYM Series Hollow Shaft Type

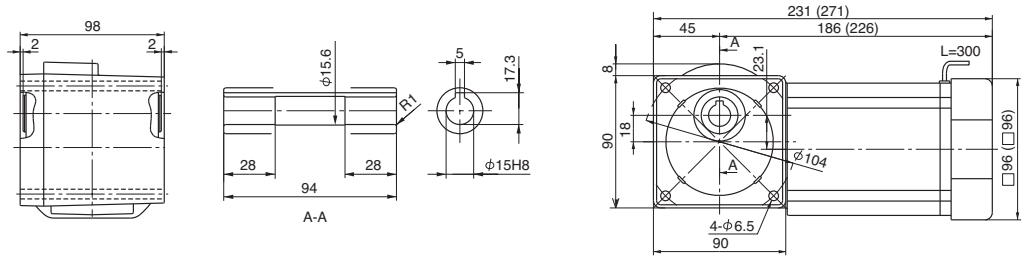
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.68	1.39	0.171	0.142	1.50	637	588	65	60	006 – 17 – CA – 5	
193	233	2.52	2.09	0.257	0.213	1.50	686	637	70	65	006 – 17 – CA – 7.5	
145	175	3.36	2.79	0.343	0.284	1.50	785	735	80	75	006 – 17 – CA – 10	
121	146	4.04	3.34	0.412	0.341	1.50	834	785	85	80	006 – 17 – CA – 12	
96.7	117	5.04	4.18	0.514	0.426	1.50	883	834	90	85	006 – 17 – CA – 15	
72.5	87.5	6.73	5.57	0.686	0.568	1.50	981	932	100	95	006 – 17 – CA – 20	
58.0	70.0	8.41	6.97	0.857	0.710	1.50	1030	981	105	100	006 – 17 – CA – 25	
48.3	58.3	10.1	8.36	1.03	0.852	1.50	1080	1030	110	105	006 – 17 – CA – 30	
36.3	43.8	13.5	11.1	1.37	1.14	1.50	1180	1130	120	115	006 – 17 – CA – 40	1
29.0	35.0	16.8	13.9	1.71	1.42	1.50	1270	1230	130	125	006 – 17 – CA – 50	
24.2	29.2	20.2	16.7	2.06	1.70	1.50	1320	1270	135	130	006 – 17 – CA – 60	
18.1	21.9	26.9	22.3	2.74	2.27	1.50	1420	1370	145	140	006 – 17 – CA – 80	
14.5	17.5	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	006 – 17 – CA – 100	
12.1	14.6	40.4	33.4	4.12	3.41	1.34	1420	1420	145	145	006 – 17 – CA – 120	
9.67	11.7	50.4	41.8	5.14	4.26	1.07	1420	1420	145	145	006 – 17 – CA – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CA – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM006–17–CA–5~240 (RNYM006–17–CA–B–5~240) Mass 4.4kg (Mass 4.8kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

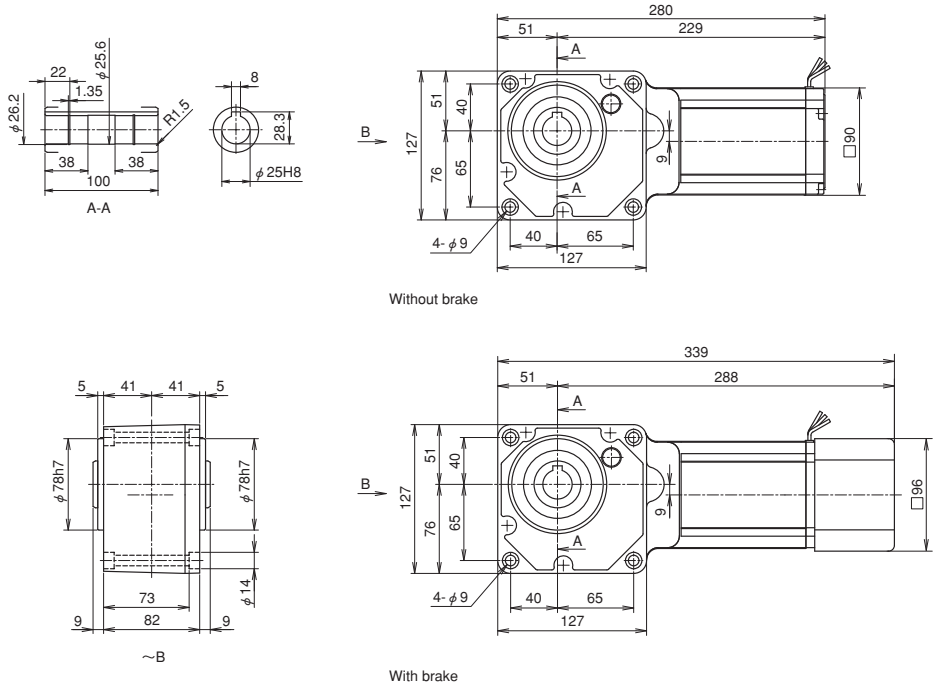
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	95.0	78.7	9.68	8.02	1.03	1810	1810	185	185	006 –1240 – CA – 300	2
4.03	4.86	98.1	94.4	10.0	9.63	✻	1810	1810	185	185	006 –1240 – CA – 360	
3.02	3.65	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CA – 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CA – 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CA – 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CA – 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CA – 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CA – 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model, voltage, and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 2 RNYM006–1240–CA–300~1440 (RNYM006–1240–CA–B–300~1440) Mass 7.2kg (Mass 7.6kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

90W Single-phase Motor

RNYM Series Hollow Shaft Type

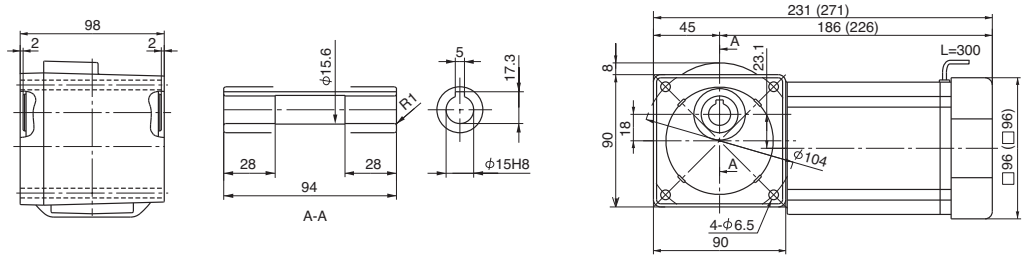
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.52	2.09	0.257	0.213	1.00	637	588	65	60	009 – 17 – CA – 5	
193	233	3.78	3.13	0.386	0.320	1.00	686	637	70	65	009 – 17 – CA – 7.5	
145	175	5.04	4.18	0.514	0.426	1.00	785	735	80	75	009 – 17 – CA – 10	
121	146	6.05	5.02	0.617	0.511	1.00	834	785	85	80	009 – 17 – CA – 12	
96.7	117	7.57	6.27	0.772	0.639	1.00	883	834	90	85	009 – 17 – CA – 15	
72.5	87.5	10.1	8.36	1.03	0.852	1.00	981	932	100	95	009 – 17 – CA – 20	
58.0	70.0	12.6	10.4	1.29	1.07	1.00	1030	981	105	100	009 – 17 – CA – 25	
48.3	58.3	15.1	12.5	1.54	1.28	1.00	1080	1030	110	105	009 – 17 – CA – 30	
36.3	43.8	20.2	16.7	2.06	1.70	1.00	1180	1130	120	115	009 – 17 – CA – 40	1
29.0	35.0	25.2	20.9	2.57	2.13	1.00	1270	1230	130	125	009 – 17 – CA – 50	
24.2	29.2	30.3	25.1	3.09	2.56	1.00	1320	1270	135	130	009 – 17 – CA – 60	
18.1	21.9	40.4	33.4	4.12	3.41	1.00	1420	1370	145	140	009 – 17 – CA – 80	
14.5	17.5	50.4	41.8	5.14	4.26	1.00	1420	1420	145	145	009 – 17 – CA – 100	
12.1	14.6	53.9	50.2	5.50	5.11	✻	1420	1420	145	145	009 – 17 – CA – 120	
9.67	11.7	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CA – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CA – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM009–17–CA–5~240 (RNYM009–17–CA–B–5~240) Mass 4.9kg (Mass 5.3kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

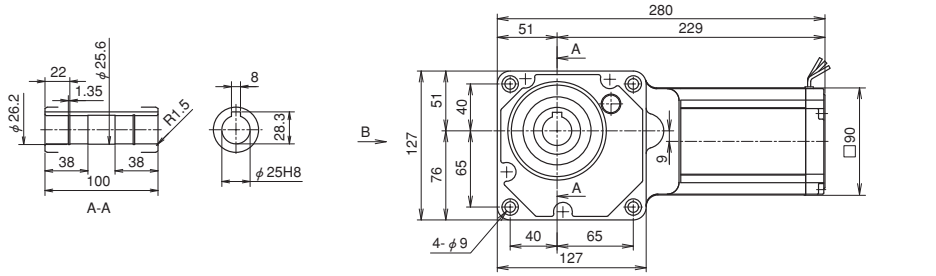
Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 300	2
4.03	4.86	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 360	
3.02	3.65	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 –1240 – CA – 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

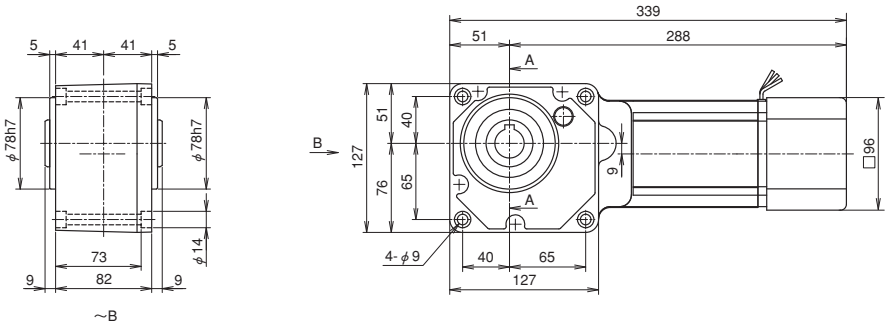
Designate model, voltage, and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 2

RNYM009–1240–CA–300~1440 (RNYM009–1240–CA–B–300~1440) Mass 7.7kg (Mass 8.1kg)



Without brake



With brake

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

0.1kW Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.80	2.32	0.286	0.237	4.00	637	588	65	60	01 – 1110 – CB – 5	1
						2.00					01 – 1120 – CB – 5	2
207	250	3.92	3.25	0.400	0.332	4.00	686	637	70	65	01 – 1110 – CB – 7	1
						2.00					01 – 1120 – CB – 7	2
145	175	5.61	4.64	0.572	0.474	2.00	785	735	80	75	01 – 1110 – CB – 10	1
						2.00					01 – 1120 – CB – 10	2
121	146	6.73	5.57	0.686	0.568	2.00	834	785	85	80	01 – 1120 – CB – 12	
96.7	117	8.41	6.97	0.857	0.710	2.00	883	834	90	85	01 – 1120 – CB – 15	
72.5	87.5	11.2	9.29	1.14	0.947	2.00	981	932	100	95	01 – 1120 – CB – 20	2
58.0	70.0	14.0	11.6	1.43	1.18	2.00	1030	981	105	100	01 – 1120 – CB – 25	
48.3	58.3	16.8	13.9	1.71	1.42	2.00	1080	1030	110	105	01 – 1120 – CB – 30	
36.3	43.8	22.4	18.6	2.29	1.89	2.00	1620	1570	165	160	01 – 1220 – CB – 40	
29.0	35.0	28.0	23.2	2.86	2.37	2.00	1720	1670	175	170	01 – 1220 – CB – 50	3
24.2	29.2	33.6	27.9	3.43	2.84	2.00	1770	1720	180	175	01 – 1220 – CB – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM01–1110–CB–5~10 (RNYM01–1110–CB–B–5~10) Mass 6.0kg (Mass 7.5kg)

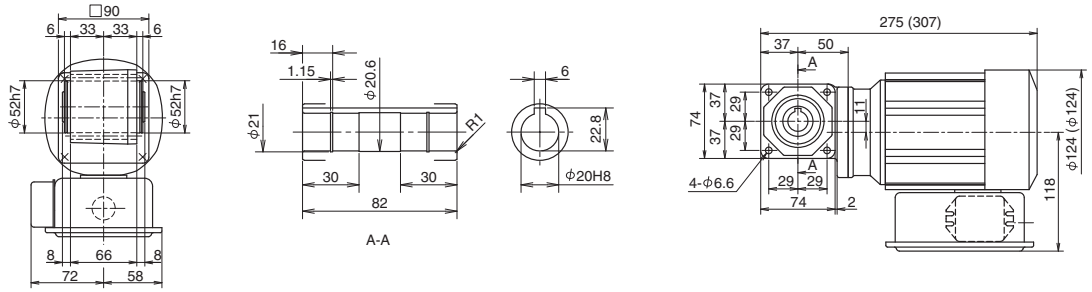


Fig. 2 RNYM01–1120–CB–5~30 (RNYM01–1120–CB–B–5~30) Mass 7.0kg (Mass 8.5kg)

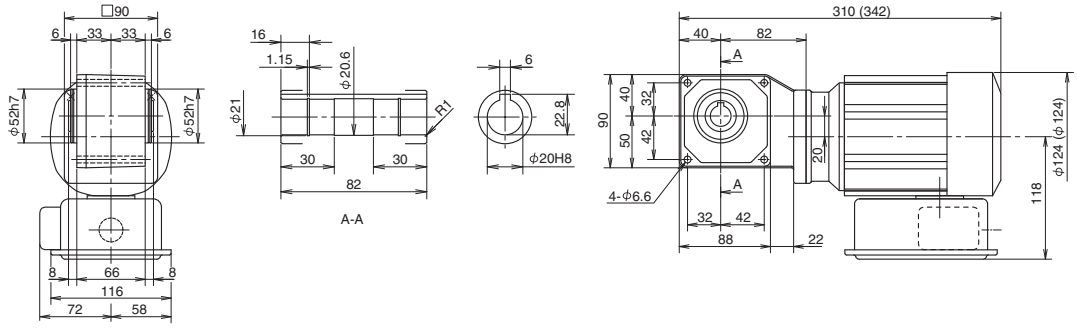
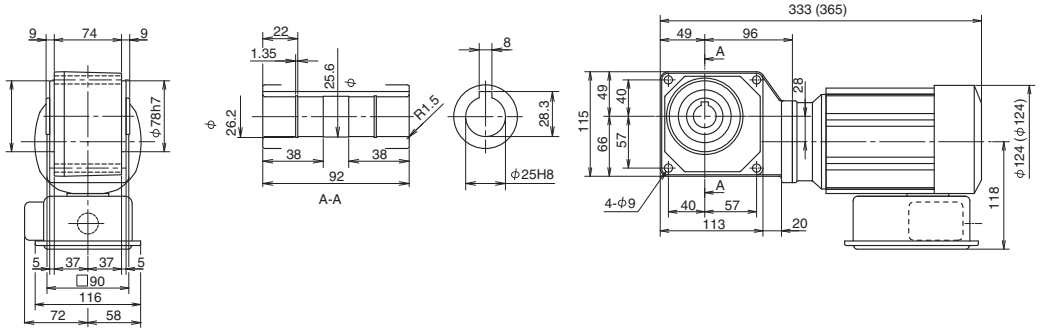


Fig. 3 RNYM01–1220–CB–40~60 (RNYM01–1220–CB–B–40~60) Mass 8.5kg (Mass 10kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1kW Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	44.8	37.2	4.57	3.79	2.00	3040	2940	310	300	01 – 1330 – CB – 80	4
14.5	17.5	56.1	46.4	5.72	4.74	2.00	3090	3040	315	310	01 – 1330 – CB – 100	
12.1	14.6	67.3	55.7	6.86	5.68	2.00	3090	3090	315	315	01 – 1330 – CB – 120	
9.67	11.7	84.1	69.7	8.57	7.10	2.00	3090	3090	315	315	01 – 1330 – CB – 150	
7.25	8.75	112	92.9	11.4	9.47	1.74	3090	3090	315	315	01 – 1330 – CB – 200	
6.04	7.29	135	111	13.7	11.4	1.45	3090	3090	315	315	01 – 1330 – CB – 240	
4.83	5.83	158	131	16.1	13.4	4.00	6230	6230	635	635	01 – 1540 – CB – 300	5
4.03	4.86	190	157	19.4	16.0	3.85	6230	6230	635	635	01 – 1540 – CB – 360	
3.02	3.65	253	210	25.8	21.4	2.89	6230	6230	635	635	01 – 1540 – CB – 480	
2.42	2.92	317	262	32.3	26.7	2.31	6230	6230	635	635	01 – 1540 – CB – 600	
2.01	2.43	380	315	38.7	32.1	1.93	6230	6230	635	635	01 – 1540 – CB – 720	
1.61	1.94	475	393	48.4	40.1	1.54	6230	6230	635	635	01 – 1540 – CB – 900	
1.21	1.46	630	520	64.6	53.5	1.16	6230	6230	635	635	01 – 1540 – CB – 1200	
1.01	1.22	732	630	74.6	64.2	✻	6230	6230	635	635	01 – 1540 – CB – 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM01–1330–CB–80~240 (RNYM01–1330–CB–B–80~240) Mass 10kg (Mass 11kg)

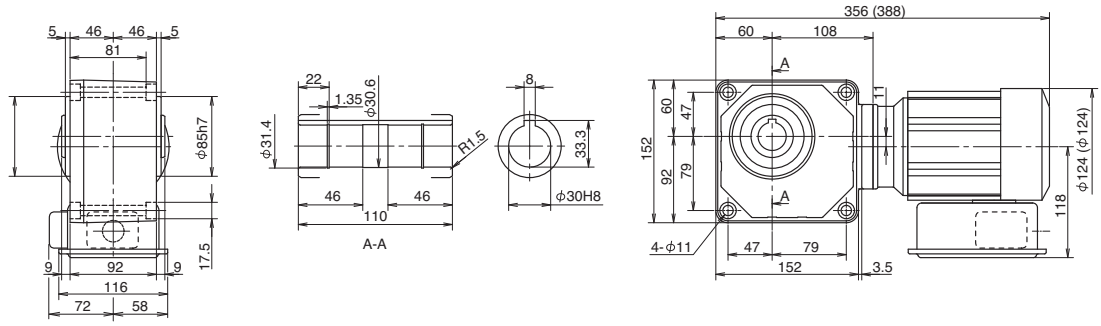
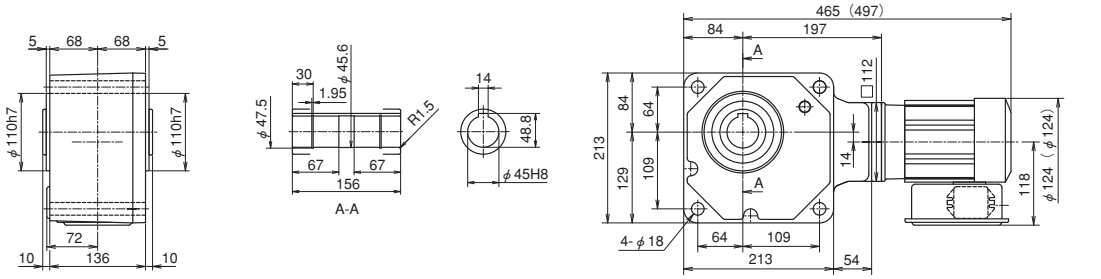


Fig. 5 RNYM01–1540–300~1440 (RNYM01–1540–B–300~1440) Mass 24.5kg (Mass 25.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	5.61	4.64	0.572	0.474	4.00	883	834	90	85	02 – 1210 – CB – 5	1
						2.00					02 – 1220 – CB – 5	2
207	250	7.85	6.50	0.800	0.66	4.00	981	932	100	95	02 – 1210 – CB – 7	1
						2.00					02 – 1220 – CB – 7	2
145	175	11.2	9.29	1.14	0.947	2.00	1079	1030	110	105	02 – 1210 – CB – 10	1
						2.00					02 – 1220 – CB – 10	2
121	146	13.5	11.1	1.37	1.14	2.00	1130	1080	115	110	02 – 1220 – CB – 12	
96.7	117	16.8	13.9	1.71	1.42	2.00	1230	1180	125	120	02 – 1220 – CB – 15	
72.5	87.5	22.4	18.6	2.29	1.89	2.00	1370	1320	140	135	02 – 1220 – CB – 20	2
58.0	70.0	28.0	23.2	2.86	2.37	2.00	1470	1370	150	140	02 – 1220 – CB – 25	
48.3	58.3	33.6	27.9	3.43	2.84	2.00	1520	1470	155	150	02 – 1220 – CB – 30	
36.3	43.8	44.8	37.2	4.57	3.79	2.00	2650	2550	270	260	02 – 1320 – CB – 40	
29.0	35.0	56.1	46.4	5.72	4.74	2.00	2840	2750	290	280	02 – 1320 – CB – 50	3
24.2	29.2	67.3	55.7	6.86	5.68	2.00	2940	2840	300	290	02 – 1320 – CB – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1210–CB–5~10 (RNYM02–1210–CB–B–5~10) Mass 10kg (Mass 10kg)

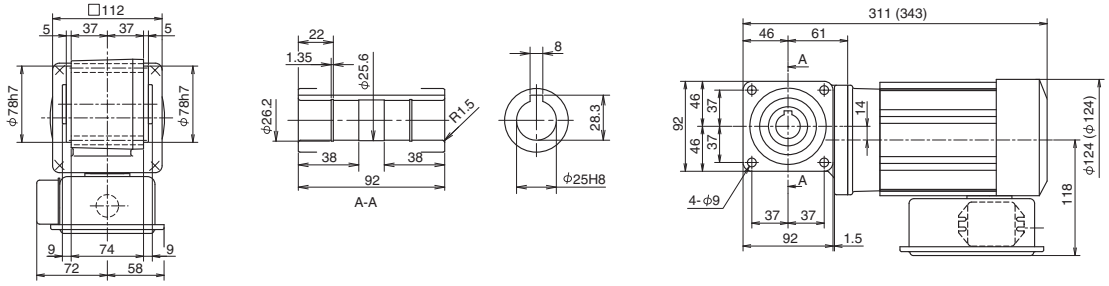


Fig. 2 RNYM02–1220–CB–5~30 (RNYM02–1220–CB–B–5~30) Mass 9.5kg (Mass 11kg)

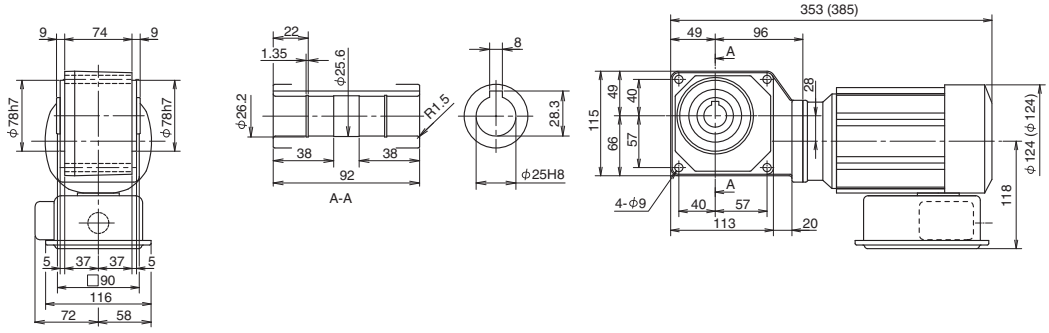
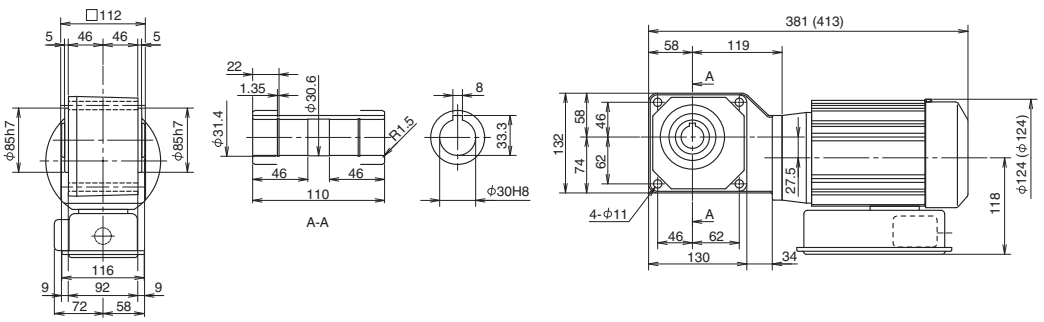


Fig. 3 RNYM02–1320–CB–40~60 (RNYM02–1320–CB–B–40~60) Mass 11kg (Mass 13kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	89.7	74.3	9.14	7.58	2.00	4360	4270	445	435	02 – 1430 – CB – 80	4
14.5	17.5	112	92.9	11.4	9.47	2.00	4360	4360	445	445	02 – 1430 – CB – 100	
12.1	14.6	135	111	13.7	11.4	2.00	4360	4360	445	445	02 – 1430 – CB – 120	
9.67	11.7	168	139	17.1	14.2	2.00	4360	4360	445	445	02 – 1430 – CB – 150	
7.25	8.75	224	186	22.9	18.9	1.74	4360	4360	445	445	02 – 1430 – CB – 200	
6.04	7.29	269	223	27.4	22.7	1.45	4360	4360	445	445	02 – 1430 – CB – 240	
4.83	5.83	317	262	32.3	26.7	2.00	6230	6230	635	635	02 – 1540 – CB – 300	5
4.03	4.86	380	315	38.7	32.1	1.93	6230	6230	635	635	02 – 1540 – CB – 360	
3.02	3.65	506	420	51.6	42.8	1.44	6230	6230	635	635	02 – 1540 – CB – 480	
2.42	2.92	633	525	64.6	53.5	1.16	6230	6230	635	635	02 – 1540 – CB – 600	
2.01	2.43	732	629	74.6	64.2	✻	6230	6230	635	635	02 – 1540 – CB – 720	
1.61	1.94	732	732	74.6	74.6	✻	6230	6230	635	635	02 – 1540 – CB – 900	
1.21	1.46	732	732	74.6	74.6	✻	6230	6230	635	635	02 – 1540 – CB –1200	
1.01	1.22	732	732	74.6	74.6	✻	6230	6230	635	635	02 – 1540 – CB –1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 ▶ RNYM02–1430–CB–80~240 (RNYM02–1430–CB–B–80~240) Mass 16kg (Mass 17kg)

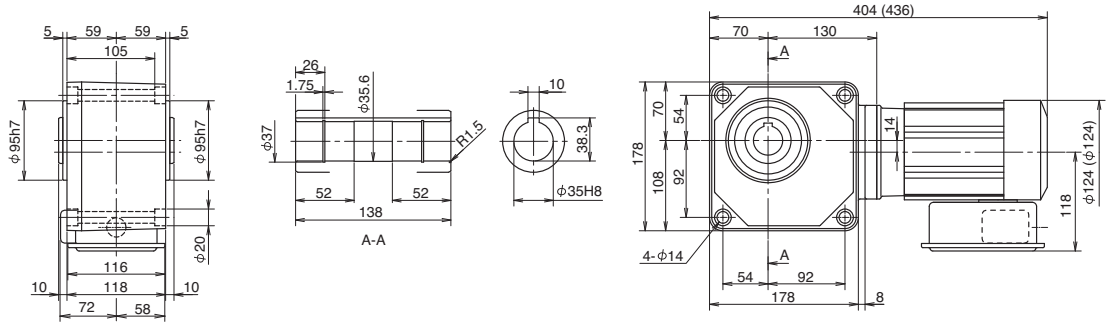
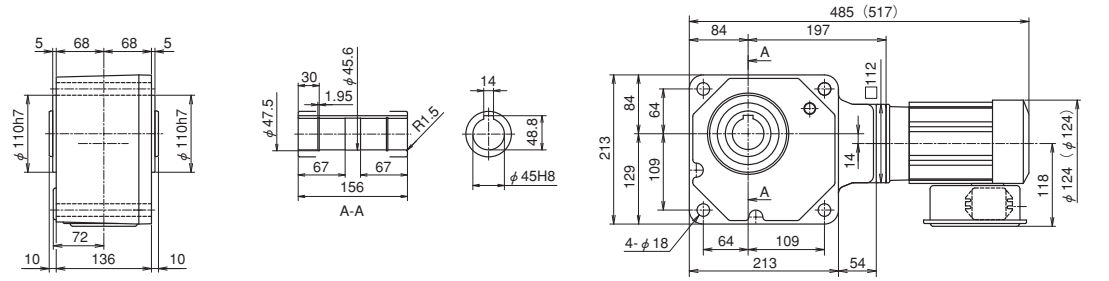


Fig. 5 RNYM02–1540–CB–300~1440 (RNYM02–1540–CB–B–300~1440) Mass 26kg (Mass 27.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	11.2	9.29	1.14	0.947	3.85	1470	1370	150	140	05 – 1310 – CB – 5	1
						2.00					05 – 1320 – CB – 5	2
207	250	15.7	13.0	1.60	1.33	3.85	1670	1570	170	160	05 – 1310 – CB – 7	1
						2.00					05 – 1320 – CB – 7	2
145	175	22.4	18.6	2.29	1.89	2.00	1810	1720	185	175	05 – 1310 – CB – 10	1
						2.00					05 – 1320 – CB – 10	2
121	146	26.9	22.3	2.74	2.27	2.00	1910	1810	195	185	05 – 1320 – CB – 12	
96.7	117	33.6	27.9	3.43	2.84	2.00	2060	1960	210	200	05 – 1320 – CB – 15	
72.5	87.5	44.8	37.2	4.57	3.79	2.00	2260	2160	230	220	05 – 1320 – CB – 20	2
58.0	70.0	56.1	46.4	5.72	4.74	2.00	2350	2260	240	230	05 – 1320 – CB – 25	
48.3	58.3	67.3	55.7	6.86	5.68	2.00	2450	2350	250	240	05 – 1320 – CB – 30	
36.3	43.8	89.7	74.3	9.14	7.58	2.00	3970	3820	405	390	05 – 1420 – CB – 40	
29.0	35.0	112	92.9	11.4	9.47	2.00	4170	4020	425	410	05 – 1420 – CB – 50	3
24.2	29.2	135	111	13.7	11.4	2.00	4310	4170	440	425	05 – 1420 – CB – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM05–1310–CB–5~10 (RNYM05–1310–CB–B–5~10) Mass 13kg (Mass 16kg)

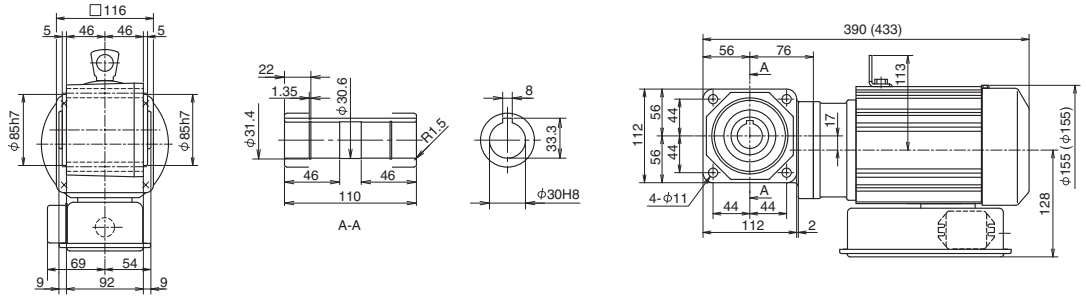


Fig. 2 RNYM05–1320–CB–5~30 (RNYM05–1320–CB–B–5~30) Mass 15kg (Mass 17kg)

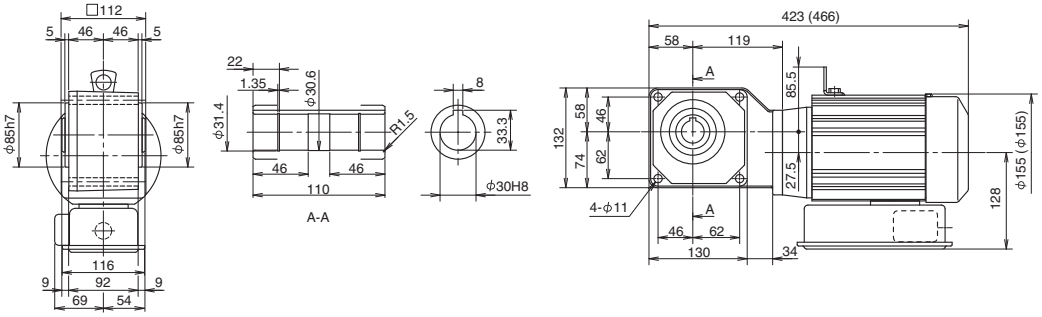
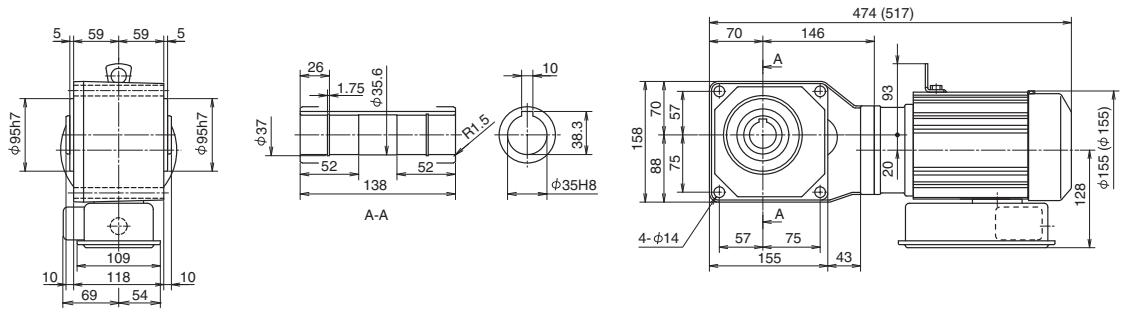


Fig. 3 RNYM05–1420–CB–40~60 (RNYM05–1420–CB–B–40~60) Mass 18kg (Mass 20kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW Single-phase Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
18.1	21.9	179	149	18.3	15.2	2.00	6230	6130	635	625	05 – 1530 – CB – 80	4
14.5	17.5	224	186	22.9	18.9	2.00	6230	6230	635	635	05 – 1530 – CB – 100	
12.1	14.6	269	223	27.4	22.7	2.00	6230	6230	635	635	05 – 1530 – CB – 120	
9.67	11.7	336	279	34.3	28.4	2.00	6230	6230	635	635	05 – 1530 – CB – 150	
7.25	8.75	448	372	45.7	37.9	1.63	6230	6230	635	635	05 – 1530 – CB – 200	
6.04	7.29	538	446	55	45.5	1.36	6230	6230	635	635	05 – 1530 – CB – 240	
4.83	5.83	630	525	64.6	53.5	2.00	9810	9810	1000	1000	05 – 1640 – CB – 300	5
4.03	4.86	760	630	77.5	64.2	1.95	9810	9810	1000	1000	05 – 1640 – CB – 360	
3.02	3.65	1010	840	103	85.6	1.46	9810	9810	1000	1000	05 – 1640 – CB – 480	
2.42	2.92	1270	1050	129	107	1.17	9810	9810	1000	1000	05 – 1640 – CB – 600	
2.01	2.43	1480	1260	151	128	✻	9810	9810	1000	1000	05 – 1640 – CB – 720	
1.61	1.94	1480	1480	151	151	✻	9810	9810	1000	1000	05 – 1640 – CB – 900	
1.21	1.46	1480	1480	151	151	✻	9810	9810	1000	1000	05 – 1640 – CB –1200	
1.01	1.22	1480	1480	151	151	✻	9810	9810	1000	1000	05 – 1640 – CB –1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM05–1530–CB–80~240 (RNYM05–1530–CB–B–80~240) Mass 25kg (Mass 28kg)

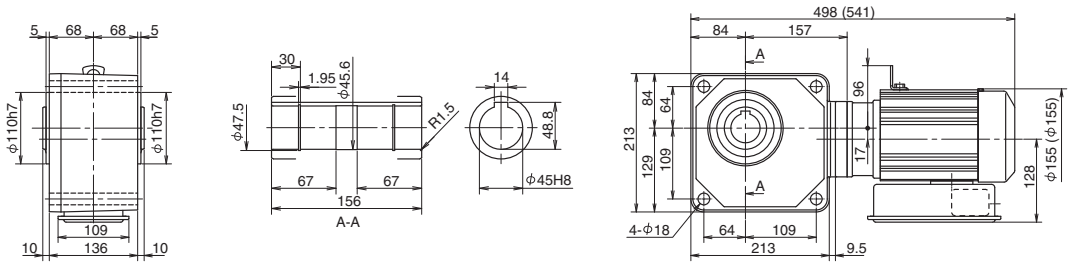
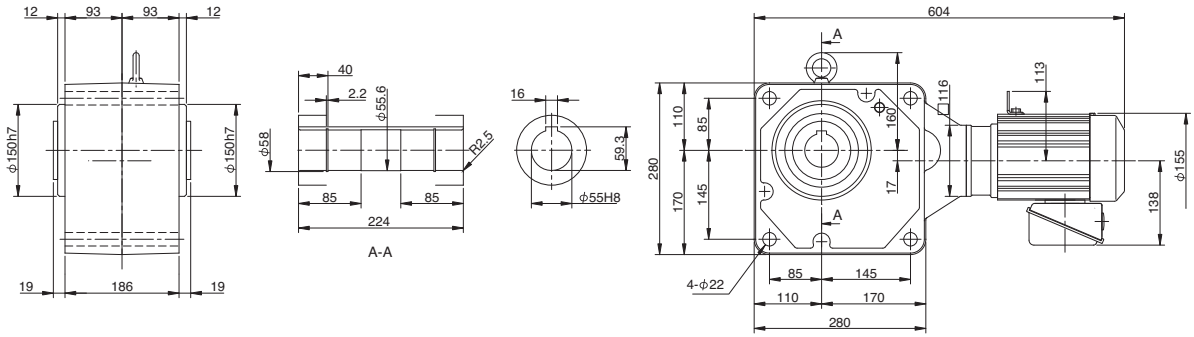


Fig. 5 RNYM05–1640–CB–300~1440 (RNYM05–1640–CB–B–300~1440) Mass 68kg (Mass 70kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

15W Single-phase Reversible Motor

RNYM Series Hollow Shaft Type

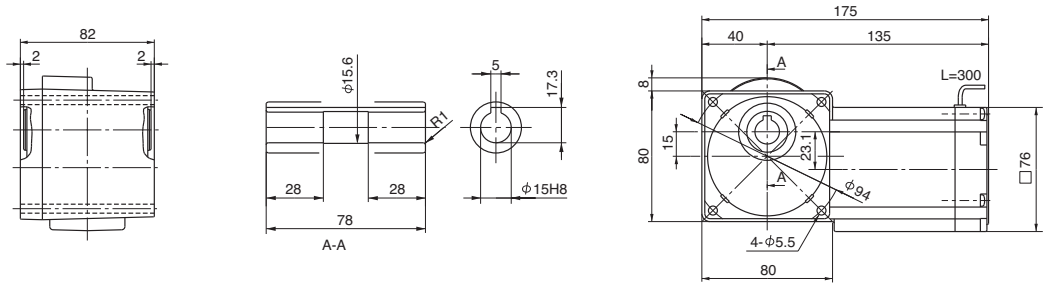
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.371	0.307	0.038	0.031	4.00	539	490	55	50	0015 – 03 – CC – 5	
193	233	0.556	0.461	0.057	0.047	4.00	588	539	60	55	0015 – 03 – CC – 7.5	
145	175	0.742	0.615	0.076	0.063	4.00	637	588	65	60	0015 – 03 – CC – 10	
121	146	0.890	0.738	0.091	0.075	4.00	686	637	70	65	0015 – 03 – CC – 12	
96.7	117	1.11	0.922	0.113	0.094	4.00	735	686	75	70	0015 – 03 – CC – 15	
72.5	87.5	1.48	1.23	0.151	0.125	4.00	785	735	80	75	0015 – 03 – CC – 20	
58.0	70.0	1.85	1.54	0.189	0.157	4.00	834	785	85	80	0015 – 03 – CC – 25	
48.3	58.3	2.23	1.84	0.227	0.188	4.00	883	834	90	85	0015 – 03 – CC – 30	
36.3	43.8	2.97	2.46	0.303	0.251	4.00	981	932	100	95	0015 – 03 – CC – 40	1
29.0	35.0	3.71	3.07	0.378	0.313	4.00	1080	1030	110	105	0015 – 03 – CC – 50	
24.2	29.2	4.45	3.69	0.454	0.376	4.00	1080	1080	110	110	0015 – 03 – CC – 60	
18.1	21.9	5.93	4.92	0.605	0.501	4.00	1080	1080	110	110	0015 – 03 – CC – 80	
14.5	17.5	7.42	6.15	0.756	0.627	4.00	1080	1080	110	110	0015 – 03 – CC – 100	
12.1	14.6	8.90	7.38	0.908	0.752	3.34	1080	1080	110	110	0015 – 03 – CC – 120	
9.06	10.9	11.9	9.83	1.21	1.00	2.50	1080	1080	110	110	0015 – 03 – CC – 160	
7.25	8.75	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0015 – 03 – CC – 200	
6.04	7.29	17.8	14.8	1.82	1.50	1.67	1080	1080	110	110	0015 – 03 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering.

Fig. 1 ▶ RNYM0015–03–CC–5~240 Mass 2.6kg



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

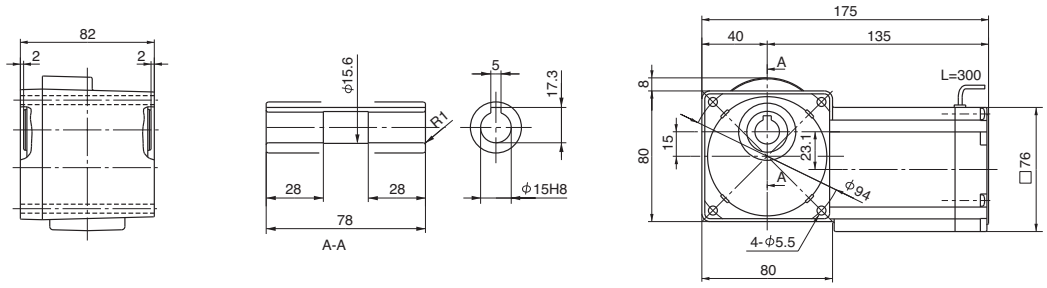
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.618	0.512	0.063	0.052	2.40	539	490	55	50	0025 – 03 – CC – 5	
193	233	0.927	0.768	0.095	0.078	2.40	588	539	60	55	0025 – 03 – CC – 7.5	
145	175	1.24	1.02	0.126	0.104	2.40	637	588	65	60	0025 – 03 – CC – 10	
121	146	1.48	1.23	0.151	0.125	2.40	686	637	70	65	0025 – 03 – CC – 12	
96.7	117	1.85	1.54	0.189	0.157	2.40	735	686	75	70	0025 – 03 – CC – 15	
72.5	87.5	2.47	2.05	0.252	0.209	2.40	785	735	80	75	0025 – 03 – CC – 20	
58.0	70.0	3.09	2.56	0.315	0.261	2.40	834	785	85	80	0025 – 03 – CC – 25	
48.3	58.3	3.71	3.07	0.378	0.313	2.40	883	834	90	85	0025 – 03 – CC – 30	
36.3	43.8	4.95	4.10	0.504	0.418	2.40	981	932	100	95	0025 – 03 – CC – 40	2
29.0	35.0	6.18	5.12	0.630	0.522	2.40	1080	1030	110	105	0025 – 03 – CC – 50	
24.2	29.2	7.42	6.15	0.756	0.627	2.40	1080	1080	110	110	0025 – 03 – CC – 60	
18.1	21.9	9.9	8.20	1.01	0.836	2.40	1080	1080	110	110	0025 – 03 – CC – 80	
14.5	17.5	12.4	10.2	1.26	1.04	2.40	1080	1080	110	110	0025 – 03 – CC – 100	
12.1	14.6	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0025 – 03 – CC – 120	
9.06	10.9	19.8	16.4	2.02	1.67	1.50	1080	1080	110	110	0025 – 03 – CC – 160	
7.25	8.75	24.7	20.5	2.52	2.09	1.20	1080	1080	110	110	0025 – 03 – CC – 200	
6.04	7.29	29.7	24.6	3.03	2.51	1.00	1080	1080	110	110	0025 – 03 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering.

Fig. 2 ▶ RNYM0025–03–CC–5~240 Mass 2.7kg



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

40W Single-phase Reversible Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.12	0.929	0.114	0.095	1.50	539	490	55	50	004 – 07 – CC – 5	1
193	233	1.68	1.39	0.171	0.142	1.50	588	539	60	55	004 – 07 – CC – 7.5	
145	175	2.24	1.86	0.229	0.189	1.50	637	588	65	60	004 – 07 – CC – 10	
121	146	2.69	2.23	0.274	0.227	1.50	686	637	70	65	004 – 07 – CC – 12	
96.7	117	3.36	2.79	0.343	0.284	1.50	735	686	75	70	004 – 07 – CC – 15	
72.5	87.5	4.48	3.72	0.457	0.379	1.50	785	735	80	75	004 – 07 – CC – 20	
58.0	70.0	5.61	4.64	0.572	0.474	1.50	834	785	85	80	004 – 07 – CC – 25	
48.3	58.3	6.73	5.57	0.686	0.568	1.50	883	834	90	85	004 – 07 – CC – 30	
36.3	43.8	8.97	7.43	0.914	0.758	1.50	981	932	100	95	004 – 07 – CC – 40	
29.0	35.0	11.2	9.29	1.14	0.947	1.50	1080	1030	110	105	004 – 07 – CC – 50	
24.2	29.2	13.5	11.1	1.37	1.14	1.50	1080	1080	110	110	004 – 07 – CC – 60	
18.1	21.9	17.9	14.9	1.83	1.52	1.50	1080	1080	110	110	004 – 07 – CC – 80	
14.5	17.5	22.4	18.6	2.29	1.89	1.20	1080	1080	110	110	004 – 07 – CC – 100	
12.1	14.6	26.9	22.3	2.74	2.27	1.00	1080	1080	110	110	004 – 07 – CC – 120	
9.67	11.7	33.6	27.9	3.43	2.84	1.60	1420	1420	145	145	004 – 17 – CC – 150	2
7.25	8.75	44.8	37.2	4.57	3.79	1.20	1420	1420	145	145	004 – 17 – CC – 200	
6.04	7.29	53.8	44.6	5.49	4.55	1.00	1420	1420	145	145	004 – 17 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering.

Fig. 1 ▶ RNYM004–07–CC–5~120 Mass 2.9kg

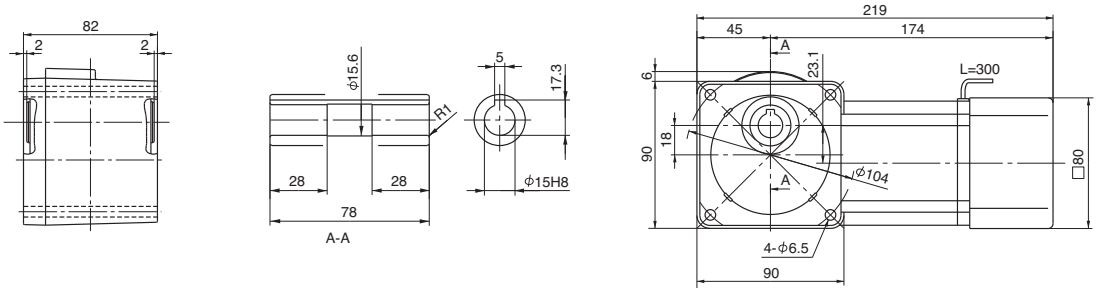
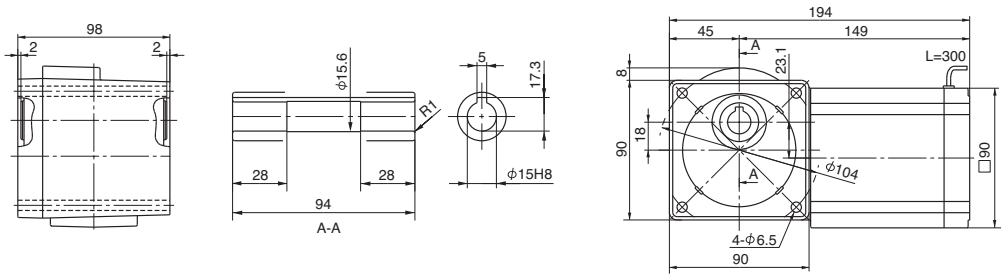


Fig. 2 RNYM004–17–CC–150~240 Mass 4.1kg



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

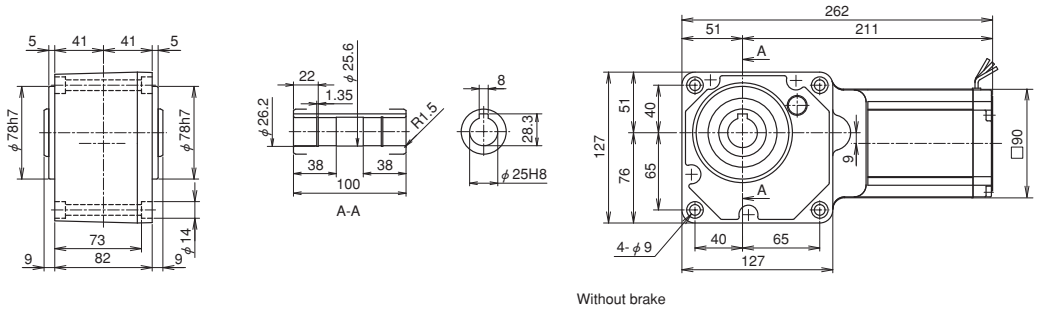
Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
4.83	5.83	63.3	52.5	6.46	5.35	1.55	1810	1810	185	185	004– 1240 – CC – 300	3
4.03	4.86	76.0	62.9	7.75	6.42	1.29	1810	1810	185	185	004– 1240 – CC – 360	
3.02	3.65	98.1	83.9	10.0	8.56	✻	1810	1810	185	185	004– 1240 – CC – 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004– 1240 – CC – 600	
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004– 1240 – CC – 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004– 1240 – CC – 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004– 1240 – CC – 1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	004– 1240 – CC – 1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model, voltage, and frequency when ordering.

Fig. 3 ▶ RNYM004–1240–CC–300~1440 Mass 6.9kg



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

60W Single-phase Reversible Motor

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.68	1.39	0.171	0.142	1.50	637	588	65	60	006 – 17 – CC – 5	
193	233	2.52	2.09	0.257	0.213	1.50	686	637	70	65	006 – 17 – CC – 7.5	
145	175	3.36	2.79	0.343	0.284	1.50	785	735	80	75	006 – 17 – CC – 10	
121	146	4.04	3.34	0.412	0.341	1.50	834	785	85	80	006 – 17 – CC – 12	
96.7	117	5.04	4.18	0.514	0.426	1.50	883	834	90	85	006 – 17 – CC – 15	
72.5	87.5	6.73	5.57	0.686	0.568	1.50	981	932	100	95	006 – 17 – CC – 20	
58.0	70.0	8.41	6.97	0.857	0.710	1.50	1030	981	105	100	006 – 17 – CC – 25	
48.3	58.3	10.1	8.36	1.03	0.852	1.50	1080	1030	110	105	006 – 17 – CC – 30	
36.3	43.8	13.5	11.1	1.37	1.14	1.50	1180	1130	120	115	006 – 17 – CC – 40	1
29.0	35.0	16.8	13.9	1.71	1.42	1.50	1270	1230	130	125	006 – 17 – CC – 50	
24.2	29.2	20.2	16.7	2.06	1.70	1.50	1320	1270	135	130	006 – 17 – CC – 60	
18.1	21.9	26.9	22.3	2.74	2.27	1.50	1420	1370	145	140	006 – 17 – CC – 80	
14.5	17.5	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	006 – 17 – CC – 100	
12.1	14.6	40.4	33.4	4.12	3.41	1.34	1420	1420	145	145	006 – 17 – CC – 120	
9.67	11.7	50.4	41.8	5.14	4.26	1.07	1420	1420	145	145	006 – 17 – CC – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CC – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CC – 240	
4.83	5.83	95.0	78.7	9.68	8.02	1.03	1810	1810	185	185	006 –1240 – CC – 300	
4.03	4.86	98.1	94.4	10.0	9.63	✻	1810	1810	185	185	006 –1240 – CC – 360	
3.02	3.65	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CC – 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CC – 600	2
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CC – 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CC – 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CC –1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	006 –1240 – CC –1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering.

Fig. 1 ▶ RNYM006–17–CC–5~240 Mass 4.4kg

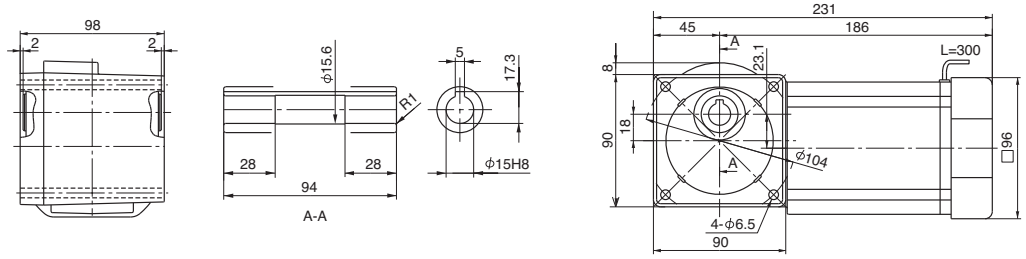
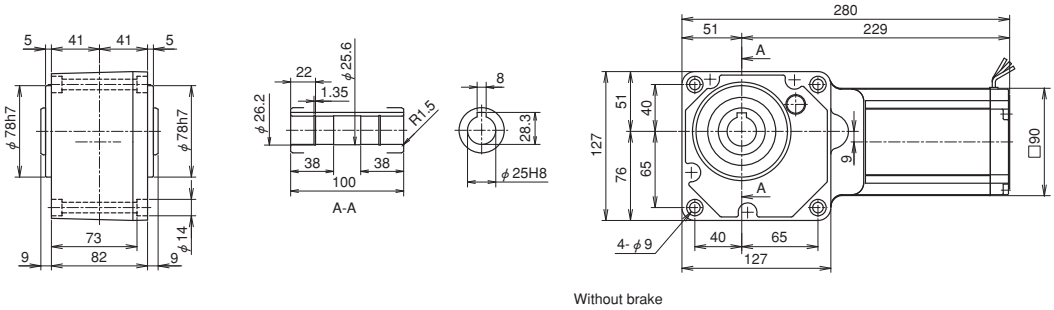


Fig. 2 RNYM006–1240–CC–300~1440 Mass 7.2kg



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.52	2.09	0.257	0.213	1.00	637	588	65	60	009 – 17 – CC – 5	
193	233	3.78	3.13	0.386	0.320	1.00	686	637	70	65	009 – 17 – CC – 7.5	
145	175	5.04	4.18	0.514	0.426	1.00	785	735	80	75	009 – 17 – CC – 10	
121	146	6.05	5.02	0.617	0.511	1.00	834	785	85	80	009 – 17 – CC – 12	
96.7	117	7.57	6.27	0.772	0.639	1.00	883	834	90	85	009 – 17 – CC – 15	
72.5	87.5	10.1	8.36	1.03	0.852	1.00	981	932	100	95	009 – 17 – CC – 20	
58.0	70.0	12.6	10.4	1.29	1.07	1.00	1030	981	105	100	009 – 17 – CC – 25	
48.3	58.3	15.1	12.5	1.54	1.28	1.00	1080	1030	110	105	009 – 17 – CC – 30	
36.3	43.8	20.2	16.7	2.06	1.70	1.00	1180	1130	120	115	009 – 17 – CC – 40	1
29.0	35.0	25.2	20.9	2.57	2.13	1.00	1270	1230	130	125	009 – 17 – CC – 50	
24.2	29.2	30.3	25.1	3.09	2.56	1.00	1320	1270	135	130	009 – 17 – CC – 60	
18.1	21.9	40.4	33.4	4.12	3.41	1.00	1420	1370	145	140	009 – 17 – CC – 80	
14.5	17.5	50.4	41.8	5.14	4.26	1.00	1420	1420	145	145	009 – 17 – CC – 100	
12.1	14.6	53.9	50.2	5.50	5.11	✻	1420	1420	145	145	009 – 17 – CC – 120	
9.67	11.7	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CC – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CC – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CC – 240	
4.83	5.83	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC – 300	
4.03	4.86	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC – 360	
3.02	3.65	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC – 480	
2.42	2.92	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC – 600	2
2.01	2.43	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC – 720	
1.61	1.94	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC – 900	
1.21	1.46	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC –1200	
1.01	1.22	98.1	98.1	10.0	10.0	✻	1810	1810	185	185	009 – 1240–CC –1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering.

Fig. 1 ▶ RNYM009–17–CC–5~240 Mass 4.9kg

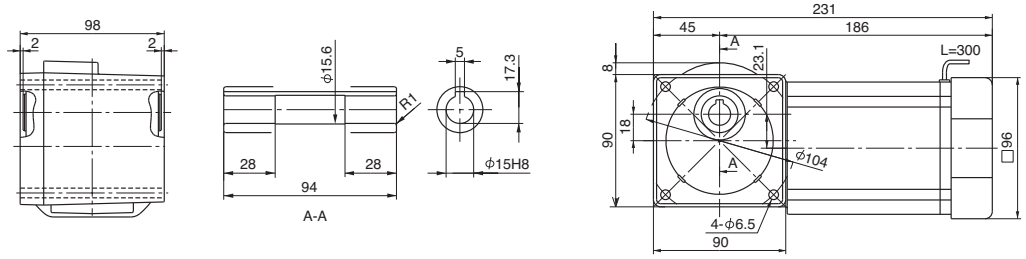
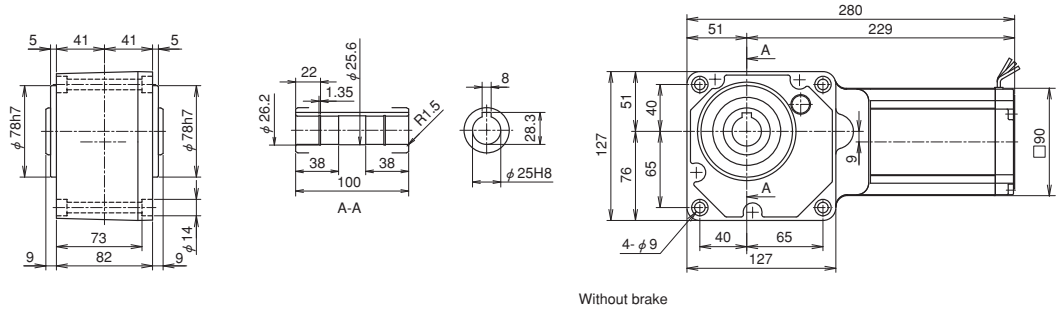


Fig. 2 RNYM009–1240–CC–300~1440 Mass 7.7kg



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1~0.4kW Single-phase Motor Outdoor Type Light Dust Proof

RNYM Series Hollow Shaft Type

Dimension J, L and the shape of terminal box are as below.
Please refer to page 62–67 for other dimensions and selection table.

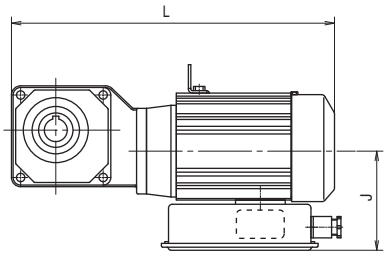


Fig. 2

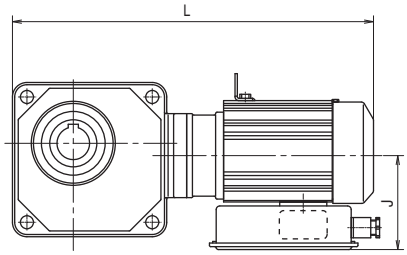
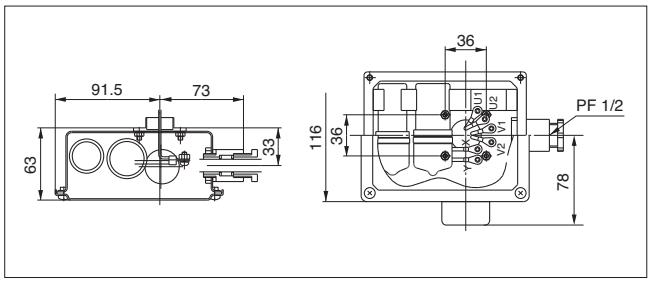
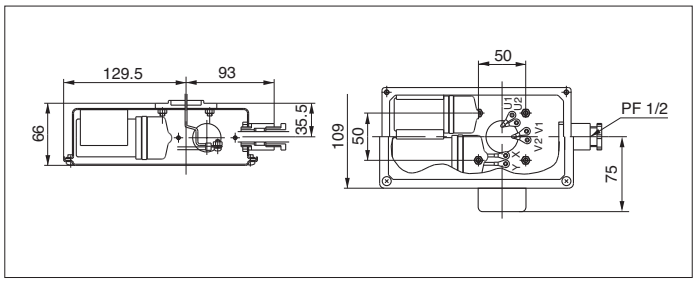


Fig. 3

without brake, with brake



Terminal box (0.1, 0.2kW)
(A rectifier is built-in for motors with brake)



Terminal box (0.4kW)
(A rectifier is built-in for motors with brake)

Motor Power	Model	L	J	Mass (kg)	Fig.
0.1kW	RNYM01-1110-CB(-B)-5~10	289(307)	120	6.0(7.5)	2
	RNYM01-1120-CB(-B)-5~30	325(342)	120	8.0(9.5)	2
	RNYM01-1220-CB(-B)-40~60	348(365)	120	8.5(11)	2
	RNYM01-1330-CB(-B)-80~240	370(388)	120	11(12)	3
	RNYM01-1440-CB(-B)-300~1440	435(453)	120	16(17)	3
	RNYM01-1540-CB(-B)-300~1440	479(497)	120	25(26)	3
0.2kW	RNYM02-1210-CB(-B)-5~10	325(343)	120	9.0(10)	2
	RNYM02-1220-CB(-B)-5~30	368(385)	120	10(12)	2
	RNYM02-1320-CB(-B)-40~60	395(413)	120	12(14)	2
	RNYM02-1430-CB(-B)-80~240	418(436)	120	17(18)	3
	RNYM02-1540-CB(-B)-300~1440	499(517)	120	26(27.5)	3
0.4kW	RNYM05-1310-CB(-B)-5~10	390(433)	120	13(16)	2
	RNYM05-1320-CB(-B)-5~30	423(466)	130	16(18)	2
	RNYM05-1420-CB(-B)-40~60	474(517)	130	19(21)	2
	RNYM05-1530-CB(-B)-80~240	498(541)	130	26(29)	3
	RNYM05-1640-CB(-B)-300~1440	604(647)	130	68.5(70.5)	3

Values in brackets ( ) are for motors with brake.

0.1kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1	60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	700 (120Hz)	2.32	0.237	2.00	588	60	01 – 1110 – AV – 5	1
								01 – 1120 – AV – 5	2
25.0	250	500 (120Hz)	3.25	0.332	2.00	637	65	01 – 1110 – AV – 7	1
								01 – 1120 – AV – 7	2
17.5	175	350 (120Hz)	4.64	0.474	2.00	735	75	01 – 1110 – AV – 10	1
								01 – 1120 – AV – 10	2
14.6	146	292 (120Hz)	5.57	0.568	2.00	785	80	01 – 1120 – AV – 12	
11.7	117	234 (120Hz)	6.97	0.710	2.00	834	85	01 – 1120 – AV – 15	2
8.75	87.5	175 (120Hz)	9.29	0.947	2.00	932	95	01 – 1120 – AV – 20	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM01–1110–AV–5~10 (RNYM01–1110–AV–B–5~10) Mass 6.0kg (Mass 7.5kg)

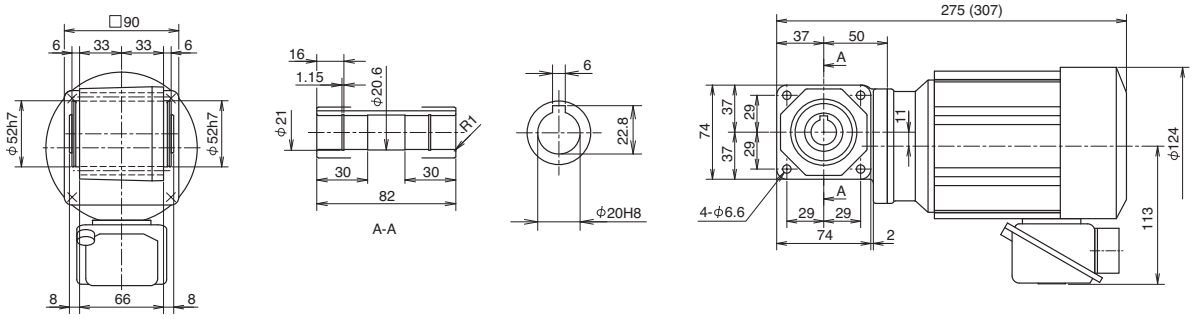
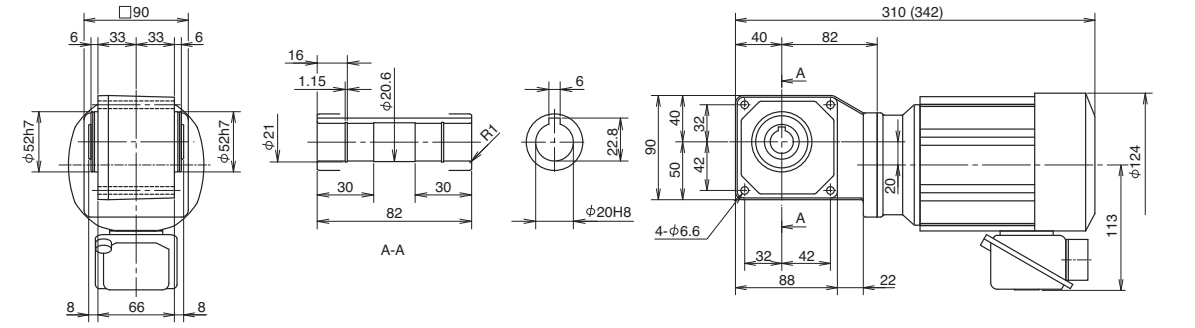


Fig. 2 RNYM01–1120–AV–5~30 (RNYM01–1120–AV–B–5~30) Mass 7.0kg (Mass 8.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1	60Hz	1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size –Suffix– Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
7.00	70.0	140 (120Hz)	11.6	1.18	2.00	981	100	01 – 1120 – AV – 25	3
5.83	58.3	117 (120Hz)	13.9	1.42	2.00	1030	105	01 – 1120 – AV – 30	3
4.38	43.8	87.6 (120Hz)	18.6	1.89	1.00	1130	115	01 – 1120 – AV – 40	3
					2.00	1570	160	01 – 1220 – AV – 40	4
3.50	35.0	70.0 (120Hz)	23.2	2.37	1.00	1230	125	01 – 1120 – AV – 50	3
					2.00	1670	170	01 – 1220 – AV – 50	4
2.92	29.2	58.4 (120Hz)	27.9	2.84	1.00	1270	130	01 – 1120 – AV – 60	3
					2.00	1720	175	01 – 1220 – AV – 60	4

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM01–1120–AV–5~30 (RNYM01–1120–AV–B–5~30) Mass 7.0kg (Mass 8.5kg)

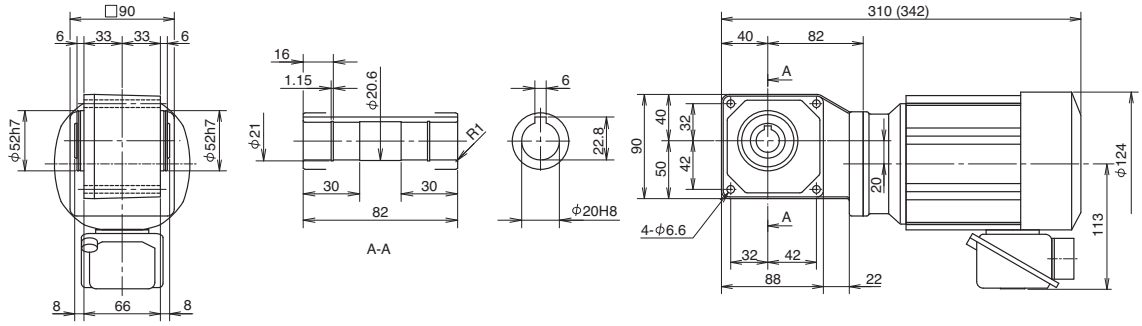
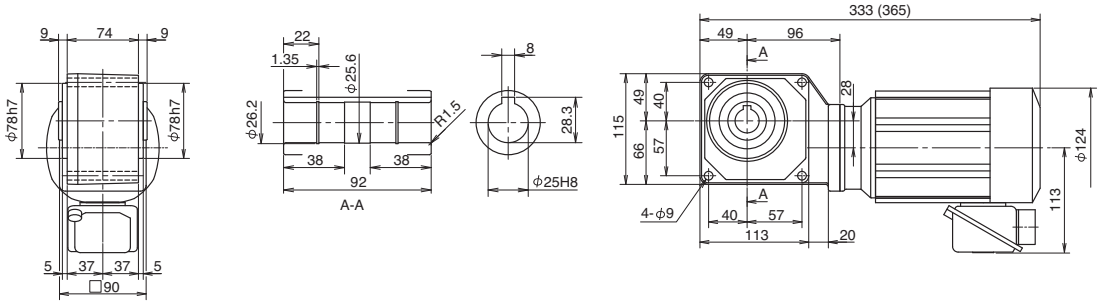


Fig. 4 RNYM01–1220–AV–40~60 (RNYM01–1220–AV–B–40~60) Mass 8.5kg (Mass 10kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size –Suffix– Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
2.19	21.9	43.8 (120Hz)	37.2	3.79	1.00	1770	180	01 – 1230 – AV – 80	1
					2.00	2940	300	01 – 1330 – AV – 80	2
1.75	17.5	35.0 (120Hz)	46.4	4.74	1.00	1770	180	01 – 1230 – AV – 100	1
					2.00	3040	310	01 – 1330 – AV – 100	2
1.46	14.6	29.2 (120Hz)	55.7	5.68	1.00	1810	185	01 – 1230 – AV – 120	1
					2.00	3090	315	01 – 1330 – AV – 120	2
1.17	11.7	23.4 (120Hz)	69.7	7.10	1.00	1810	185	01 – 1230 – AV – 150	1
					2.00	3090	315	01 – 1330 – AV – 150	2
0.875	8.75	17.5 (120Hz)	92.9	9.47	1.00	1810	185	01 – 1230 – AV – 200	1
					2.00	3090	315	01 – 1330 – AV – 200	2
0.729	7.29	14.6 (120Hz)	111	11.4	✻	1810	185	01 – 1230 – AV – 240	1
					1.80	3090	315	01 – 1330 – AV – 240	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1230–AV–80~240 (RNYM02–1230–AV–B–80~240) Mass 8.5kg (Mass 10kg)

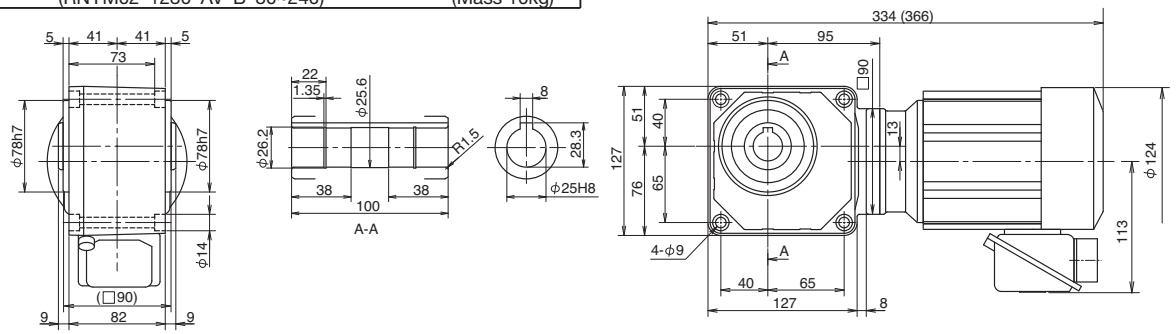
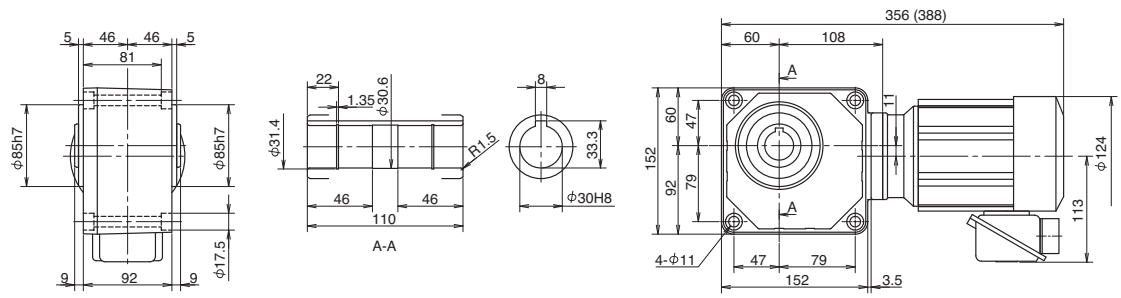


Fig. 2 RNYM01–1330–AV–80~240 (RNYM01–1330–AV–B–80~240) Mass 10kg (Mass 11kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 | 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
0.58	5.83	11.7 (120Hz)	131	13.4	1.00	3090	315	01 – 1340 – AV – 300	3
					2.00	4360	445	01 – 1440 – AV – 300	4
0.49	4.86	9.72 (120Hz)	157	16.0	1.00	3090	315	01 – 1340 – AV – 360	3
					2.00	4360	445	01 – 1440 – AV – 360	4
0.36	3.65	7.29 (120Hz)	210	21.4	✻	3090	315	01 – 1340 – AV – 480	3
					1.85	4360	445	01 – 1440 – AV – 480	4
0.29	2.92	5.83 (120Hz)	262	26.7	✻	3090	315	01 – 1340 – AV – 600	3
					1.48	4360	445	01 – 1440 – AV – 600	4
0.24	2.43	4.86 (120Hz)	315	32.1	✻	3090	315	01 – 1340 – AV – 720	3
					1.23	4360	445	01 – 1440 – AV – 720	4
0.19	1.94	3.89 (120Hz)	390	39.8	✻	3090	315	01 – 1340 – AV – 900	3
			393	40.1	✻	4360	445	01 – 1440 – AV – 900	4
0.15	1.46	2.92 (120Hz)	390	39.8	✻	3090	315	01 – 1340 – AV – 1200	3
			520	53.5	✻	4360	445	01 – 1440 – AV – 1200	4
0.12	1.22	2.43 (120Hz)	390	39.8	✻	3090	315	01 – 1340 – AV – 1440	3
			630	64.2	✻	4360	445	01 – 1440 – AV – 1440	4

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model, voltage, and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM02–1340–AV–300~1440 (RNYM02–1340–AV–B–300~1440) Mass 11kg (Mass 12kg)

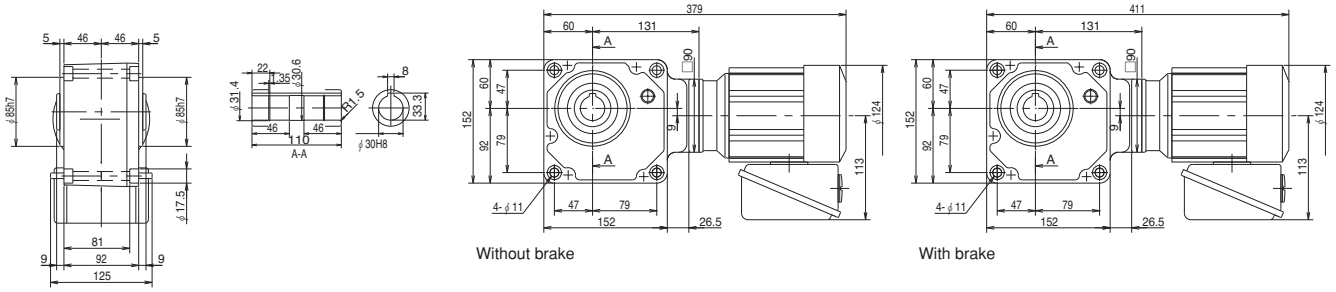
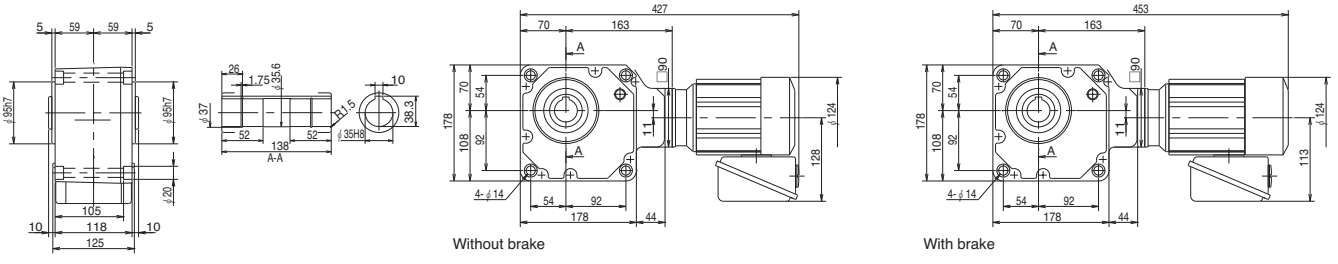


Fig. 4 RNYM01–1440–AV–300~1440 (RNYM01–1440–AV–B–300~1440) Mass 15.5kg (Mass 17kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and masses in the drawings are subject to change without notice.

0.2kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 | 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	700 (120Hz)	4.64	0.474	4.00	834	85	02 – 1210 – AV – 5	1
					1.00	588	60	02 – 1120 – AV – 5	2
					2.00			02 – 1220 – AV – 5	3
25.0	250	500 (120Hz)	6.50	0.663	4.00	932	95	02 – 1210 – AV – 7	1
					1.00	637	65	02 – 1120 – AV – 7	2
					2.00			02 – 1220 – AV – 7	3
17.5	175	350 (120Hz)	9.29	0.947	1.00	1030	105	02 – 1210 – AV – 10	1
					2.00	735	75	02 – 1120 – AV – 10	2
					2.00			02 – 1220 – AV – 10	3
14.6	146	292 (120Hz)	11.1	1.14	1.00	785	80	02 – 1120 – AV – 12	2
					2.00	1080	110	02 – 1220 – AV – 12	3
11.7	117	234 (120Hz)	13.9	1.42	1.00	834	85	02 – 1120 – AV – 15	2
					2.00	1180	120	02 – 1220 – AV – 15	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1210–AV–5~10 (RNYM02–1210–AV–B–5~10) Mass 9.0kg (Mass 10kg)

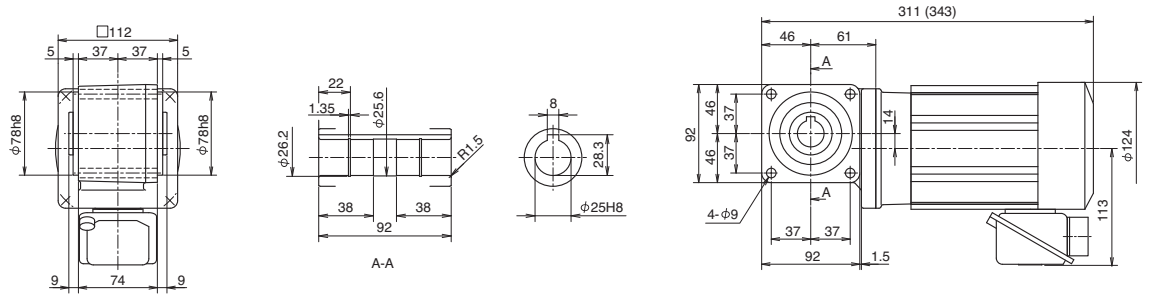


Fig. 2 RNYM02–1120–AV–5~15 (RNYM02–1120–AV–B–5~15) Mass 8.0kg (Mass 9.0kg)

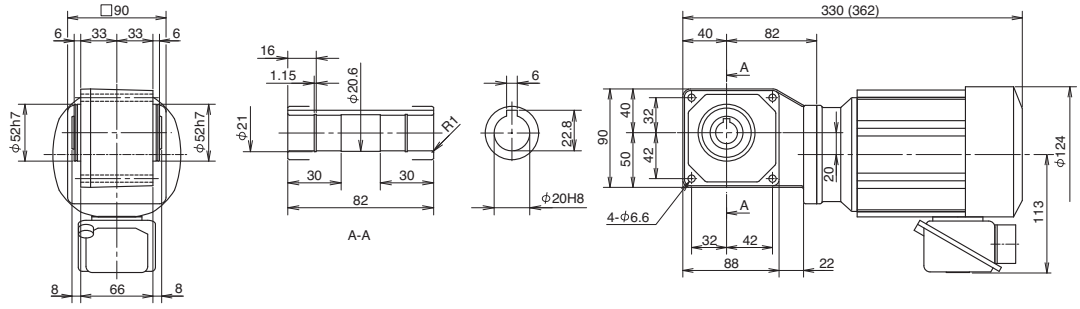
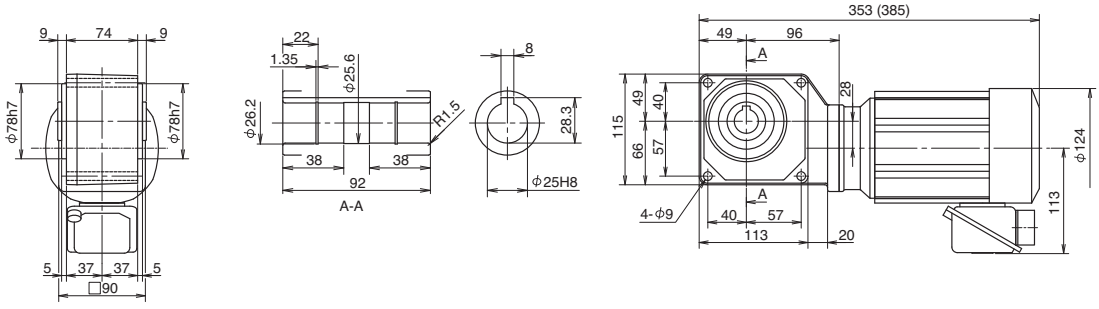


Fig. 3 RNYM02–1220–AV–5~15 (RNYM02–1220–AV–B–5~15) Mass 9.5kg (Mass 11kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 | 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
8.75	87.5	175 (120Hz)	18.6	1.89	1.00	932	95	02 – 1120 – AV – 20	1
					2.00	1320	135	02 – 1220 – AV – 20	2
7.00	70.0	140 (120Hz)	23.2	2.37	1.00	981	100	02 – 1120 – AV – 25	1
					2.00	1370	140	02 – 1220 – AV – 25	2
5.83	58.3	117 (120Hz)	27.9	2.84	1.00	1030	105	02 – 1120 – AV – 30	1
					2.00	1470	150	02 – 1220 – AV – 30	2
4.38	43.8	87.6 (120Hz)	37.2	3.79	1.00	1570	160	02 – 1220 – AV – 40	2
					2.00	2550	260	02 – 1320 – AV – 40	3
3.50	35.0	70.0 (120Hz)	46.4	4.74	1.00	1670	170	02 – 1220 – AV – 50	2
					2.00	2750	280	02 – 1320 – AV – 50	3
2.92	29.2	58.4 (120Hz)	55.7	5.68	1.00	1720	175	02 – 1220 – AV – 60	2
					2.00	2840	290	02 – 1320 – AV – 60	3

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1120–AV–20~30 (RNYM02–1120–AV–B–20~30) Mass 8.0kg (Mass 9.0kg)

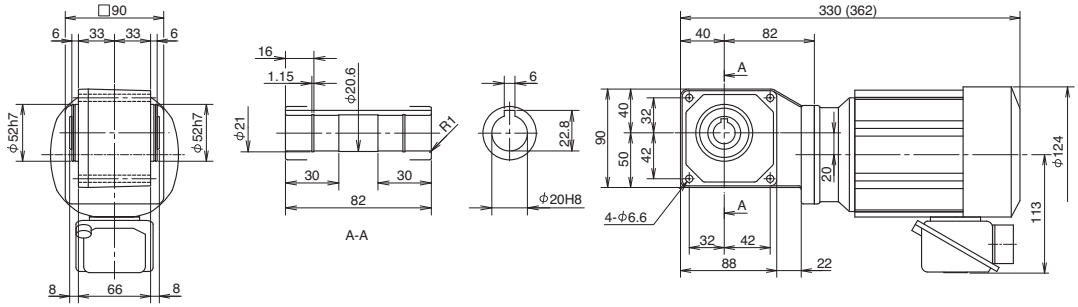


Fig. 2 RNYM02–1220–AV–20~60 (RNYM02–1220–AV–B–20~60) Mass 9.5kg (Mass 11kg)

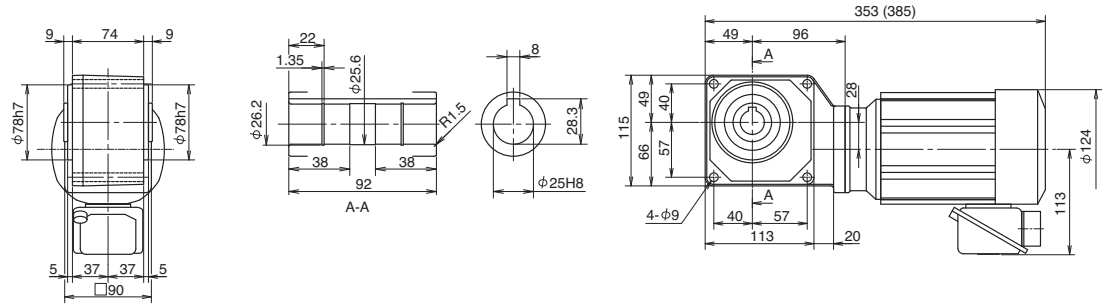
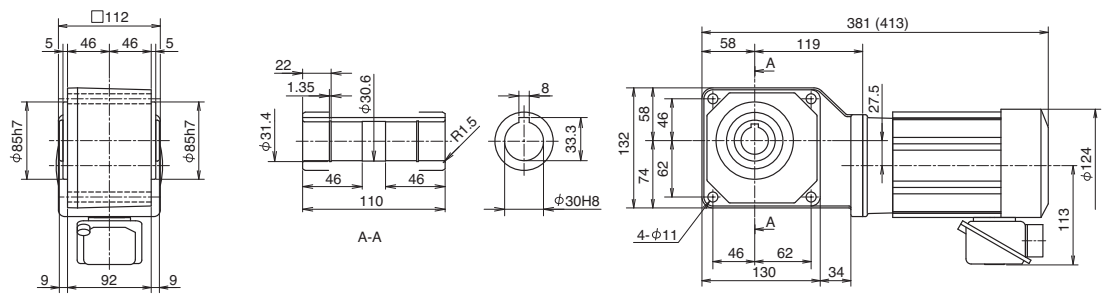


Fig. 3 RNYM02–1320–AV–40~60 (RNYM02–1320–AV–B–40~60) Mass 11kg (Mass 13kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
2.19	21.9	43.8 (120Hz)	74.3	7.58	1.00	2940	300	02 – 1330 – AV – 80	1
					2.00	4270	435	02 – 1430 – AV – 80	2
1.75	17.5	35.0 (120Hz)	92.9	9.47	1.00	3040	310	02 – 1330 – AV – 100	1
					2.00	4360	445	02 – 1430 – AV – 100	2
1.46	14.6	29.2 (120Hz)	111	11.4	1.00	3090	315	02 – 1330 – AV – 120	1
					2.00	4360	445	02 – 1430 – AV – 120	2
1.17	11.7	23.4 (120Hz)	139	14.2	1.00	3090	315	02 – 1330 – AV – 150	1
					2.00	4360	445	02 – 1430 – AV – 150	2
0.875	8.75	17.5 (120Hz)	186	18.9	1.00	3090	315	02 – 1330 – AV – 200	1
					2.00	4360	445	02 – 1430 – AV – 200	2
0.729	7.29	14.6 (120Hz)	223	22.7	*	3090	315	02 – 1330 – AV – 240	1
					1.80	4360	445	02 – 1430 – AV – 240	2

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM02–1330–AV–80~240 (RNYM02–1330–AV–B–80~240) Mass 11kg (Mass 12kg)

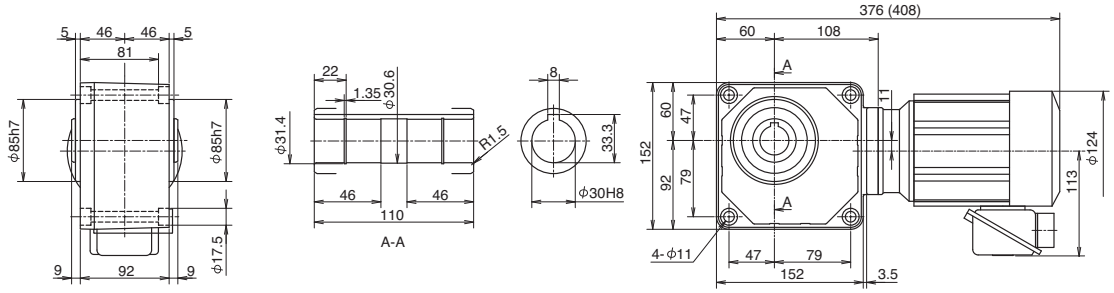
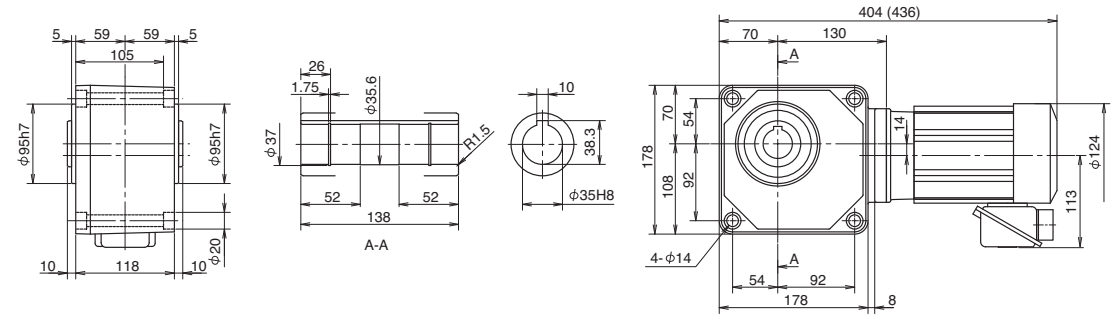


Fig. 2 RNYM02–1430–AV–80~240 (RNYM02–1430–AV–B–80~240) Mass 16kg (Mass 17kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.2kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size –Suffix– Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
0.58	5.83	11.7 (120Hz)	262	26.7	1.00	4360	445	02 – 1440 – AV – 300	3
					2.00	6230	635	02 – 1540 – AV – 300	4
0.49	4.86	9.72 (120Hz)	315	32.1	1.00	4360	445	02 – 1440 – AV – 360	3
					2.00	6230	635	02 – 1540 – AV – 360	4
0.36	3.65	7.29 (120Hz)	420	42.8	*	4360	445	02 – 1440 – AV – 480	3
					1.74	6230	635	02 – 1540 – AV – 480	4
0.29	2.92	5.83 (120Hz)	525	53.5	*	4360	445	02 – 1440 – AV – 600	3
					1.39	6230	635	02 – 1540 – AV – 600	4
0.24	2.43	4.86 (120Hz)	629	64.2	*	4360	445	02 – 1440 – AV – 720	3
					1.16	6230	635	02 – 1540 – AV – 720	4
0.19	1.94	3.89 (120Hz)	732	74.6	*	4360	445	02 – 1440 – AV – 900	3
					*	6230	635	02 – 1540 – AV – 900	4
0.15	1.46	2.92 (120Hz)	732	74.6	*	4360	445	02 – 1440 – AV –1200	3
					*	6230	635	02 – 1540 – AV –1200	4
0.12	1.22	2.43 (120Hz)	732	74.6	*	4360	445	02 – 1440 – AV –1440	3
					*	6230	635	02 – 1540 – AV –1440	4

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM02–1440–AV–300~1440 (RNYM02–1440–AV–B–300~1440) Mass 17kg (Mass 18kg)

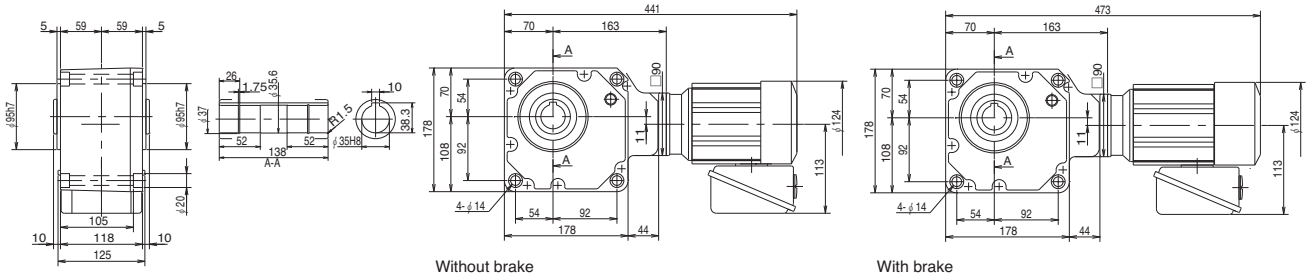
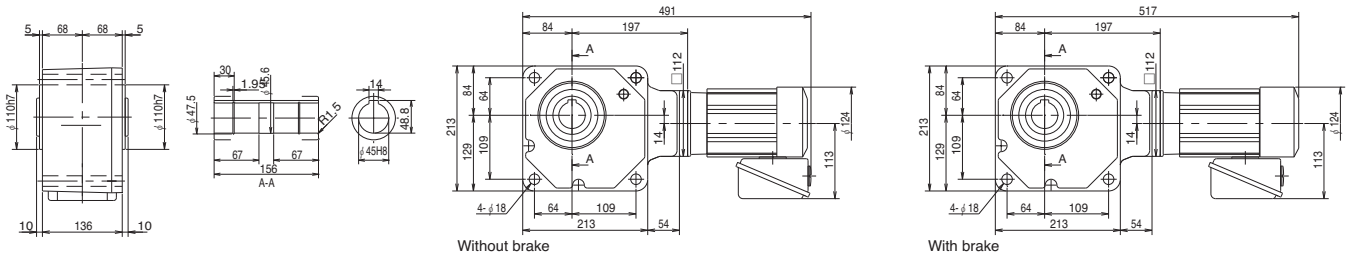


Fig. 4 RNYM02–1540–AV–300~1440 (RNYM02–1540–AV–B–300~1440) Mass 26kg (Mass 27.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.4kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1	60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	700 (120Hz)	9.29	0.947	1.88	1370	140	05 – 1310 – AV – 5	1
								05 – 1320 – AV – 5	2
25.0	250	500 (120Hz)	13.0	1.33	1.88	1570	160	05 – 1310 – AV – 7	1
								05 – 1320 – AV – 7	2
17.5	175	350 (120Hz)	18.6	1.89	1.88	1720	175	05 – 1310 – AV – 10	1
								05 – 1320 – AV – 10	2
14.6	146	292 (120Hz)	22.3	2.27	1.88	1810	185	05 – 1320 – AV – 12	
11.7	117	234 (120Hz)	27.9	2.84	1.88	1960	200	05 – 1320 – AV – 15	
8.75	87.5	175 (120Hz)	37.2	3.79	1.88	2160	220	05 – 1320 – AV – 20	2
7.00	70.0	140 (120Hz)	46.4	4.74	1.88	2260	230	05 – 1320 – AV – 25	
5.83	58.3	117 (120Hz)	55.7	5.68	1.88	2350	240	05 – 1320 – AV – 30	
4.38	43.8	87.6 (120Hz)	74.3	7.58	1.88	3820	390	05 – 1420 – AV – 40	
3.50	35.0	70.0 (120Hz)	92.9	9.47	1.88	4020	410	05 – 1420 – AV – 50	3
2.92	29.2	58.4 (120Hz)	111	11.4	1.88	4170	425	05 – 1420 – AV – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM05–1310–AV–5~10 (RNYM05–1310–AV–B–5~10) Mass 13kg (Mass 16kg)

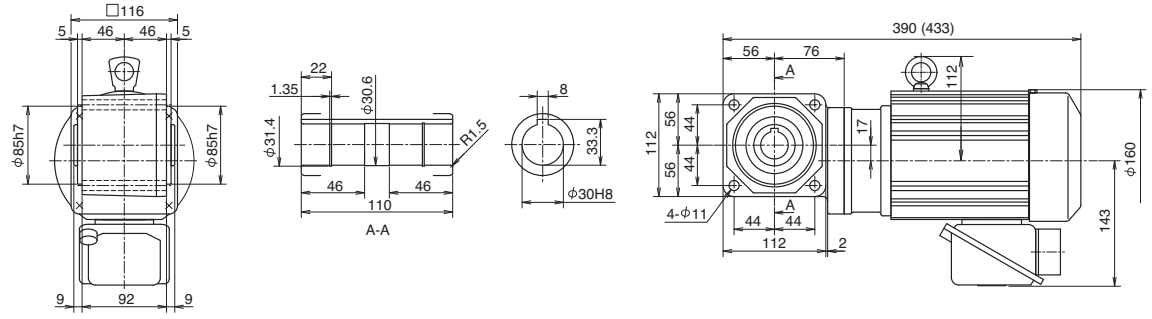


Fig. 2 RNYM05–1320–AV–5~30 (RNYM05–1320–AV–B–5~30) Mass 15kg (Mass 17kg)

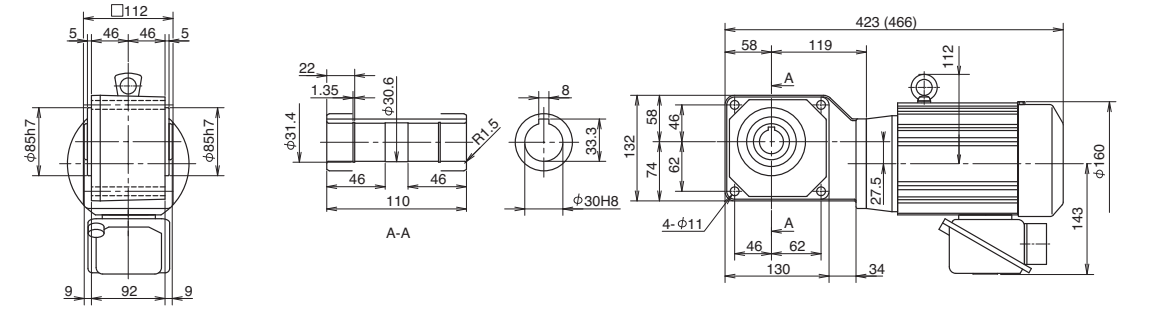
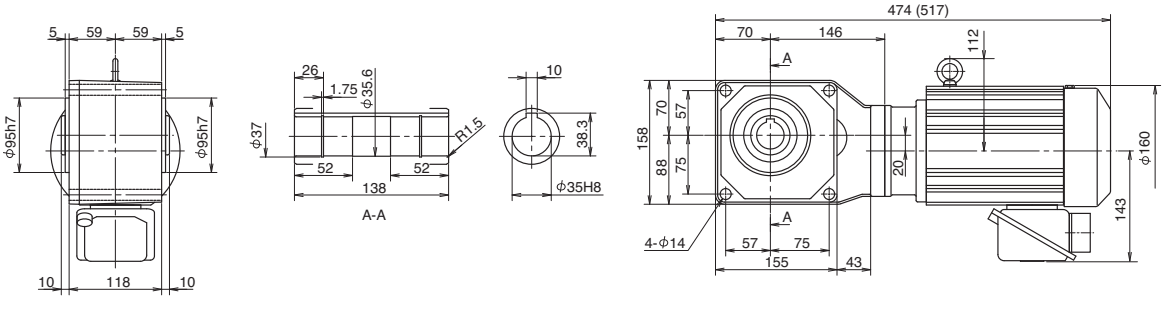


Fig. 3 RNYM05–1420–AV–40~60 (RNYM05–1420–AV–B–40~60) Mass 18kg (Mass 20kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNYM Series Hollow Shaft Type

Motor Speed n_1	60Hz	1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
2.19	21.9	43.8 (120Hz)	149	15.2	1.88	6130	625	05 – 1530 – AV – 80	4
1.75	17.5	35.0 (120Hz)	186	18.9	1.88	6230	635	05 – 1530 – AV – 100	
1.46	14.6	29.2 (120Hz)	223	22.7	1.88	6230	635	05 – 1530 – AV – 120	
1.17	11.7	23.4 (120Hz)	279	28.4	1.88	6230	635	05 – 1530 – AV – 150	
0.875	8.75	17.5 (120Hz)	372	37.9	1.88	6230	635	05 – 1530 – AV – 200	
0.729	7.29	14.6 (120Hz)	446	45.5	1.69	6230	635	05 – 1530 – AV – 240	
0.583	5.83	11.7 (120Hz)	525	53.5	2.00	9810	1000	05 – 1640 – AV – 300	5
0.486	4.86	9.72 (120Hz)	630	64.2	2.00	9810	1000	05 – 1640 – AV – 360	
0.365	3.65	7.29 (120Hz)	840	85.6	1.76	9810	1000	05 – 1640 – AV – 480	
0.292	2.92	5.83 (120Hz)	1050	107	1.41	9810	1000	05 – 1640 – AV – 600	
0.243	2.43	4.86 (120Hz)	1260	128	1.18	9810	1000	05 – 1640 – AV – 720	
0.194	1.94	3.89 (120Hz)	1480	151	*	9810	1000	05 – 1640 – AV – 900	
0.146	1.46	2.92 (120Hz)	1480	151	*	9810	1000	05 – 1640 – AV –1200	
0.122	1.22	2.43 (120Hz)	1480	151	*	9810	1000	05 – 1640 – AV –1440	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM05–1530–AV–80~240 (RNYM05–1530–AV–B–80~240) Mass 25kg (Mass 28kg)

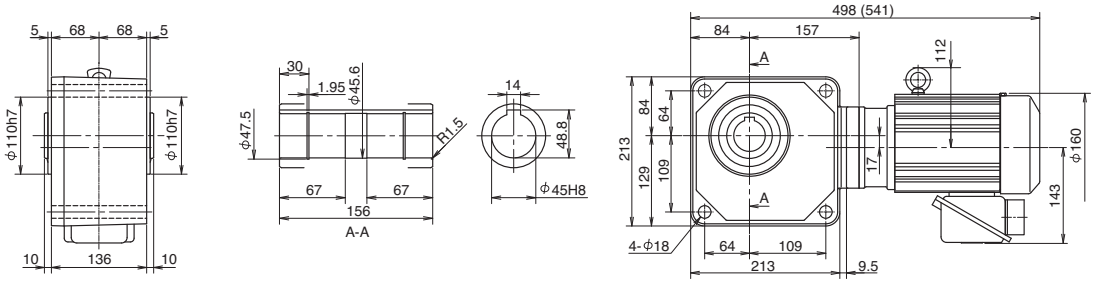
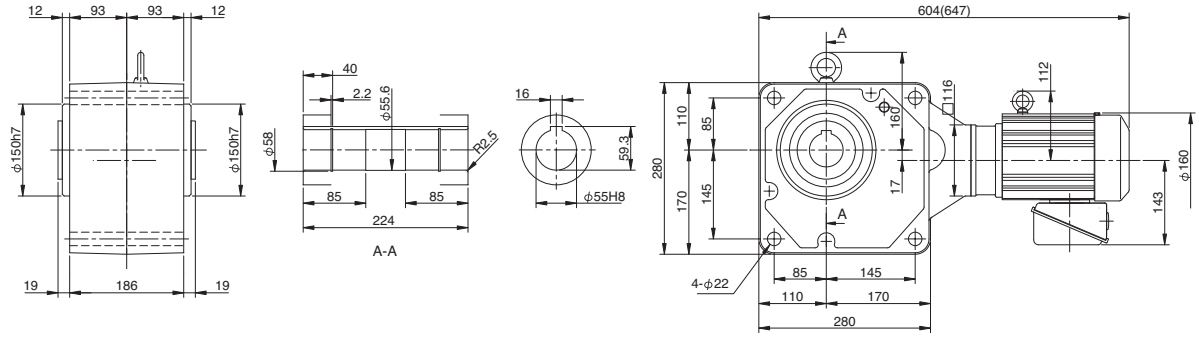


Fig.5 RNYM05–1640–AV–300~1440 (RNYM05–1640–AV–B–300~1440) Mass 68kg (Mass 70kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.75kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 | 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	700 (120Hz)	17.4	1.78	2.00	2060	210	1 – 1410 – AV – 5	1
								1 – 1420 – AV – 5	2
25.0	250	500 (120Hz)	24.4	2.49	2.00	2300	235	1 – 1410 – AV – 7	1
								1 – 1420 – AV – 7	2
17.5	175	350 (120Hz)	34.8	3.55	2.00	2600	265	1 – 1410 – AV – 10	1
								1 – 1420 – AV – 10	2
14.6	146	292 (120Hz)	41.8	4.26	2.00	2750	280	1 – 1420 – AV – 12	
11.7	117	234 (120Hz)	52.2	5.33	2.00	2940	300	1 – 1420 – AV – 15	
8.75	87.5	175 (120Hz)	69.7	7.10	2.00	3190	325	1 – 1420 – AV – 20	2
7.00	70.0	140 (120Hz)	87.1	8.88	2.00	3380	345	1 – 1420 – AV – 25	
5.83	58.3	117 (120Hz)	104	10.7	2.00	3580	365	1 – 1420 – AV – 30	
4.38	43.8	87.6 (120Hz)	139	14.2	2.00	5540	565	1 – 1520 – AV – 40	
3.50	35.0	70.0 (120Hz)	174	17.8	2.00	5830	595	1 – 1520 – AV – 50	3
2.92	29.2	58.4 (120Hz)	209	21.3	2.00	6030	615	1 – 1520 – AV – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM1–1410–AV–5~10 (RNYM1–1410–AV–B–5~10) Mass 22kg (Mass 26kg)

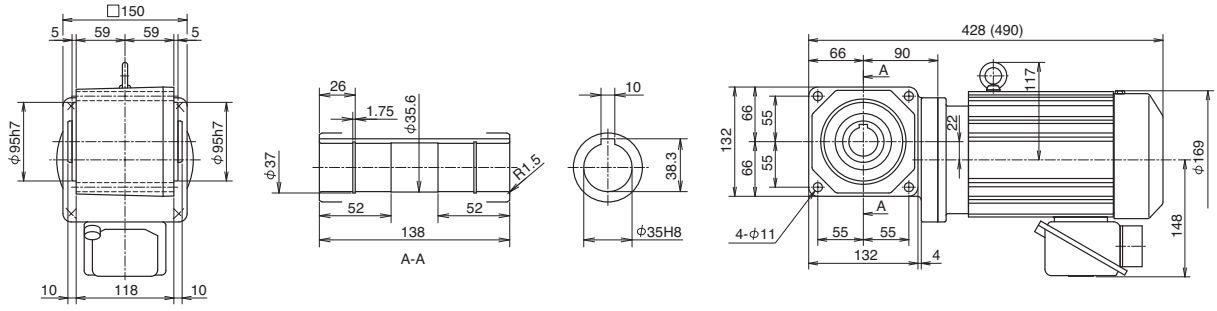


Fig. 2 RNYM1–1420–AV–5~30 (RNYM1–1420–AV–B–5~30) Mass 22kg (Mass 26kg)

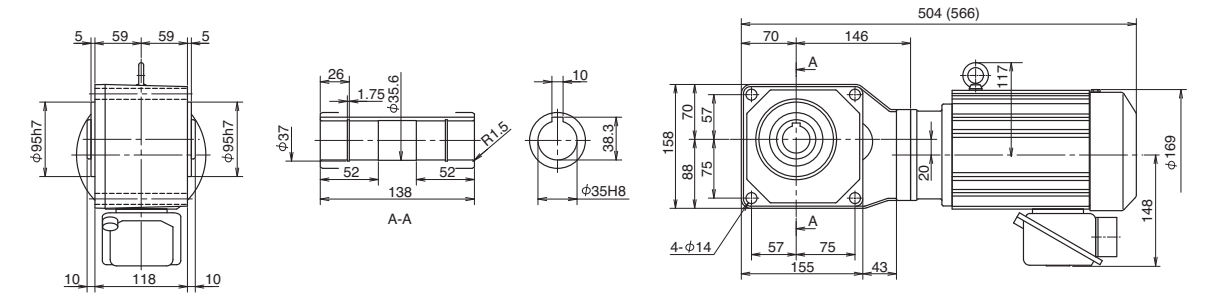
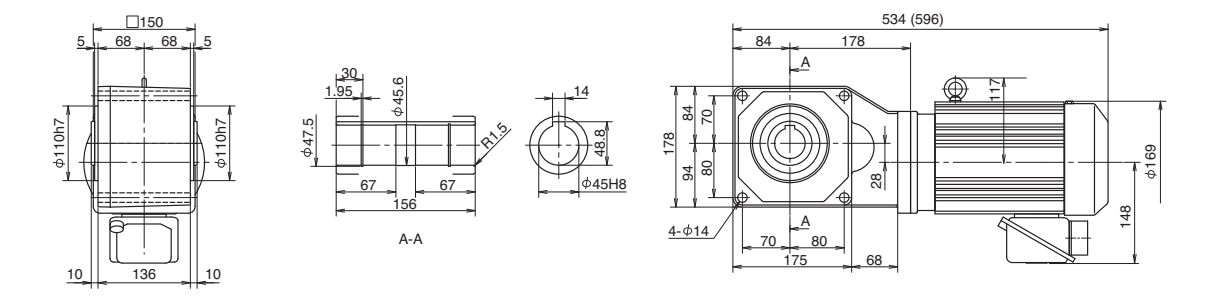


Fig. 3 RNYM1–1520–AV–40~60 (RNYM1–1520–AV–B–40~60) Mass 31kg (Mass 35kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.75kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
2.19	21.9	43.8 (120Hz)	279	28.4	2.00	6130	625	1 – 1531 – AV – 80	4
1.75	17.5	35.0 (120Hz)	348	35.5	2.93	9810	1000	1 – 1630 – AV – 100	5
1.46	14.6	29.2 (120Hz)	418	42.6	2.93	9810	1000	1 – 1630 – AV – 120	
1.17	11.7	23.3 (120Hz)	522	53.3	2.83	9810	1000	1 – 1631 – AV – 150	6
0.875	8.75	17.5 (120Hz)	697	71.0	2.13	9810	1000	1 – 1631 – AV – 200	
0.729	7.29	14.6 (120Hz)	836	85.2	1.77	9810	1000	1 – 1631 – AV – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM1–1531–AV–80 (RNYM1–1531–AV–B–80) Mass 30kg (Mass 34kg)

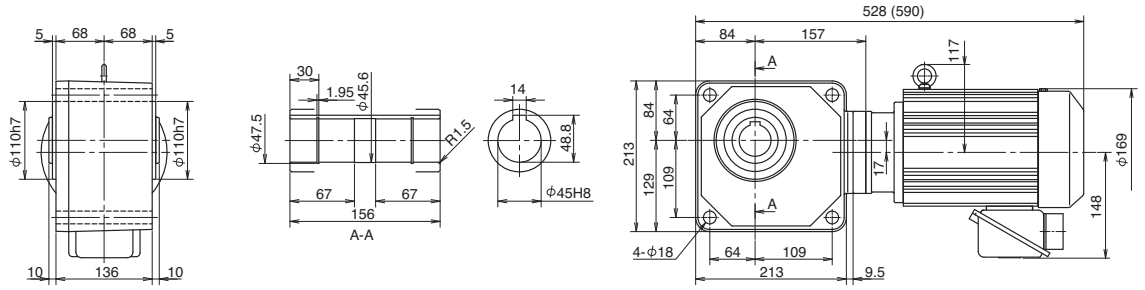


Fig. 5 RNYM1–1630–AV–100~120 (RNYM1–1630–AV–B–100~120) Mass 52kg (Mass 56kg)

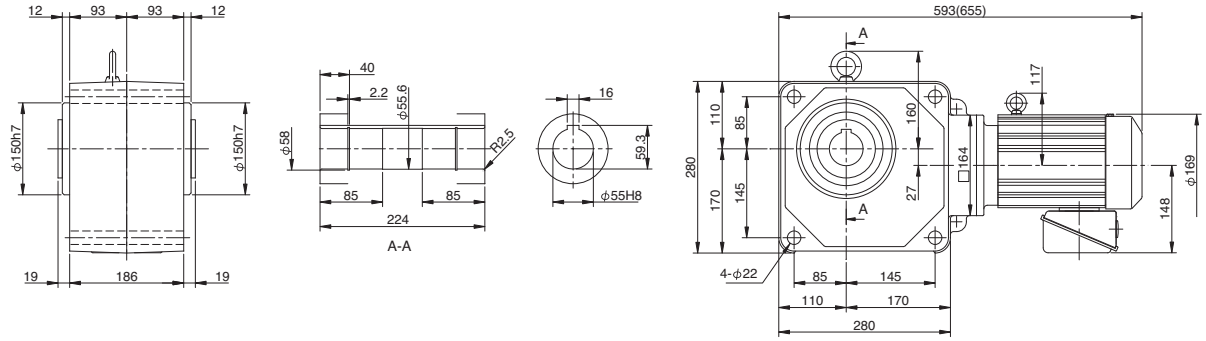
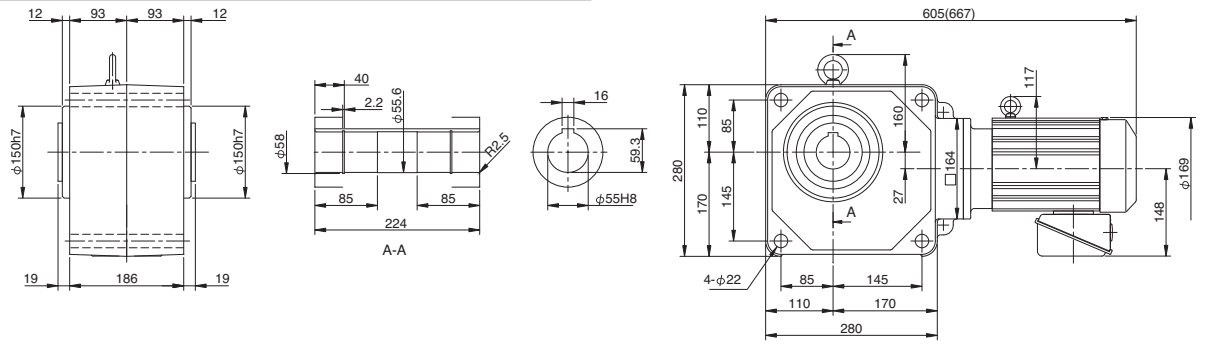


Fig. 6 RNYM1–1631–AV–150~240 (RNYM1–1631–AV–B–150~240) Mass 53kg (Mass 57kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.5kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1	60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	700 (120Hz)	34.8	3.55	3.67	2940	300	2 – 1510 – AV – 5	1
					1.47			2 – 1520 – AV – 5	2
25.0	250	500 (120Hz)	48.8	4.97	2.47	3330	340	2 – 1510 – AV – 7	1
					1.47			2 – 1520 – AV – 7	2
17.5	175	350 (120Hz)	69.7	7.10	1.47	3730	380	2 – 1510 – AV – 10	1
								2 – 1520 – AV – 10	2
14.6	146	292 (120Hz)	83.6	8.52	1.47	3970	405	2 – 1520 – AV – 12	
11.7	117	234 (120Hz)	104	10.7	1.47	4220	430	2 – 1520 – AV – 15	
8.75	87.5	175 (120Hz)	139	14.2	1.47	4610	470	2 – 1520 – AV – 20	2
7.00	70.0	140 (120Hz)	174	17.8	1.47	4900	500	2 – 1520 – AV – 25	
5.83	58.3	117 (120Hz)	209	21.3	1.47	5150	525	2 – 1520 – AV – 30	
4.38	43.8	87.6 (120Hz)	279	28.4	1.47	5540	565	2 – 1531 – AV – 40	
3.50	35.0	70.0 (120Hz)	348	35.5	1.47	5830	595	2 – 1531 – AV – 50	3
2.92	29.2	58.4 (120Hz)	418	42.6	1.47	6030	615	2 – 1531 – AV – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM2–1510–AV–5~10 (RNYM2–1510–AV–B–5~10) Mass 29kg (Mass 35kg)

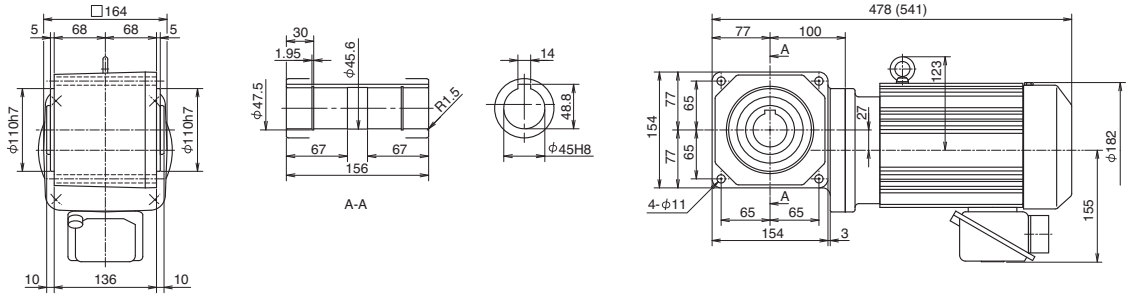


Fig. 2 RNYM2–1520–AV–5~30 (RNYM2–1520–AV–B–5~30) Mass 34kg (Mass 39kg)

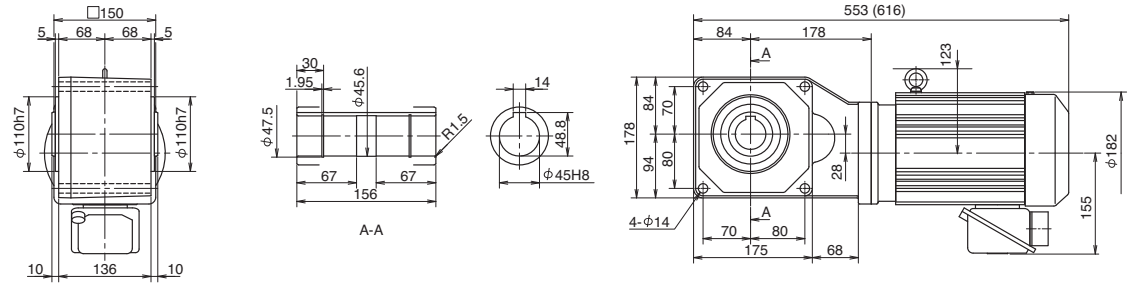
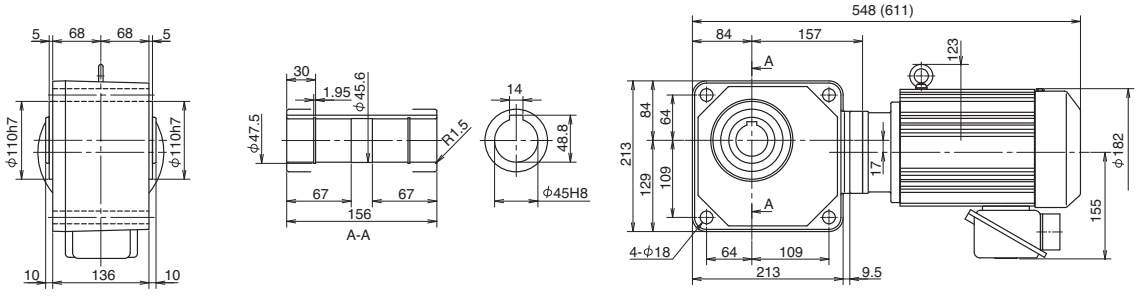


Fig. 3 RNYM2–1531–AV–40~60 (RNYM2–1531–AV–B–40~60) Mass 34kg (Mass 39kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

1.5kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 | 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
2.19	21.9	43.8 (120Hz)	557	56.8	1.47	9660	985	2 – 1630 – AV – 80	4
1.75	17.5	35.0 (120Hz)	697	71.0	1.47	9810	1000	2 – 1630 – AV – 100	4
1.46	14.6	29.2 (120Hz)	836	85.2	1.47	9810	1000	2 – 1630 – AV – 120	4
1.17	11.7	23.3 (120Hz)	1040	107	1.42	9810	1000	2 – 1631 – AV – 150	
0.875	8.75	17.5 (120Hz)	1390	142	1.06	9810	1000	2 – 1631 – AV – 200	5
0.729	7.29	14.6 (120Hz)	1480	151	*	9810	1000	2 – 1631 – AV – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNYM2–1630–AV–80~120 (RNYM2–1630–AV–B–80~120) Mass 57kg (Mass 63kg)

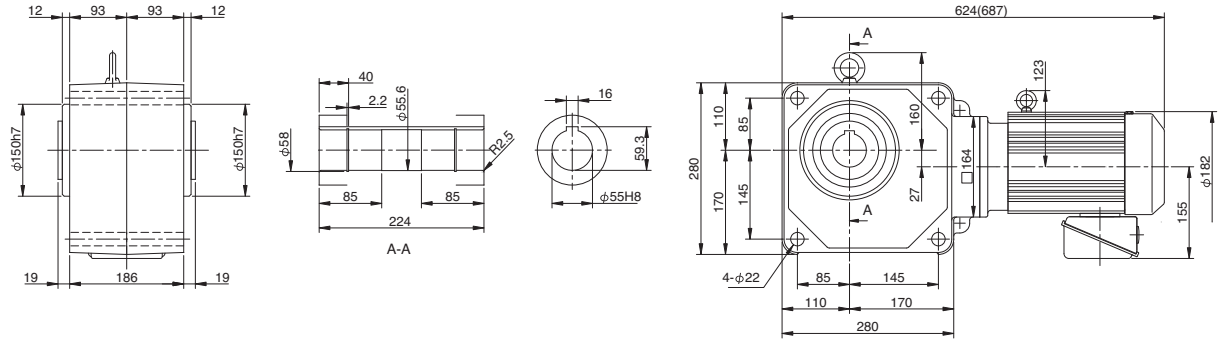
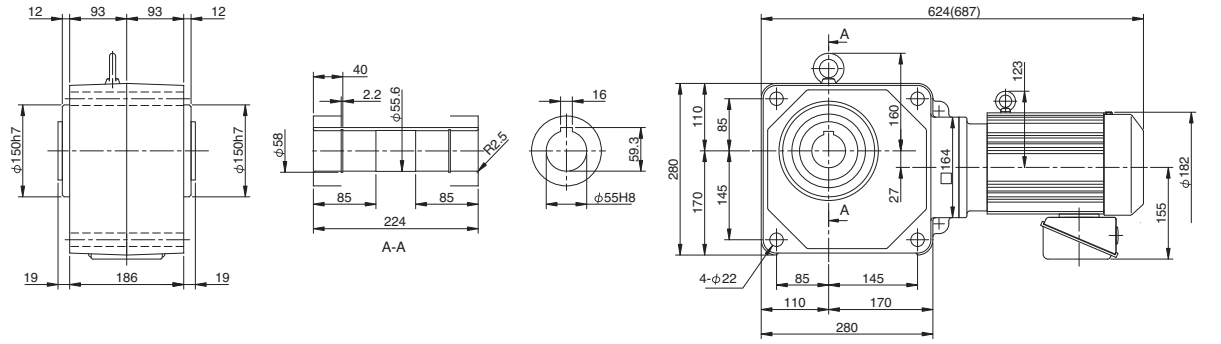


Fig. 5 RNYM2–1631–AV–150~240 (RNYM2–1631–AV–B–150~240) Mass 57kg (Mass 63kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

2.2kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1 | 60Hz 1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	350 (60Hz)	51.1	5.21	1.68	2940	300	3 – 1521 – AV – 5	1
25.0	250	250 (60Hz)	71.5	7.29	1.68	3330	340	3 – 1521 – AV – 7	
17.5	175	175 (60Hz)	102	10.4	1.68	3730	380	3 – 1521 – AV – 10	1
14.6	146	146 (60Hz)	123	12.5	1.68	3970	405	3 – 1521 – AV – 12	1
11.7	117	117 (60Hz)	153	15.6	1.68	4220	430	3 – 1521 – AV – 15	1
8.75	87.5	87.5 (60Hz)	204	20.8	1.68	4610	470	3 – 1521 – AV – 20	1
7.00	70.0	70.0 (60Hz)	255	26.0	1.68	4900	500	3 – 1521 – AV – 25	1
5.83	58.3	117 (120Hz)	307	31.3	1.68	8090	825	3 – 1632 – AV – 30	2
4.38	43.8	87.5 (120Hz)	409	41.7	1.68	8480	865	3 – 1632 – AV – 40	
3.50	35.0	70.0 (120Hz)	511	52.1	1.68	8880	905	3 – 1632 – AV – 50	
2.92	29.2	58.3 (120Hz)	613	62.5	1.68	9270	945	3 – 1632 – AV – 60	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM3–1521–AV–5~25 (RNYM3–1521–AV–B–5~25) Mass 50kg (Mass 61kg)

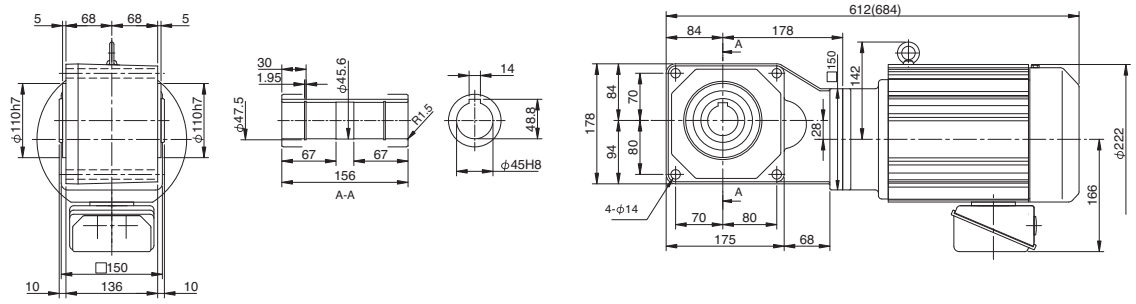
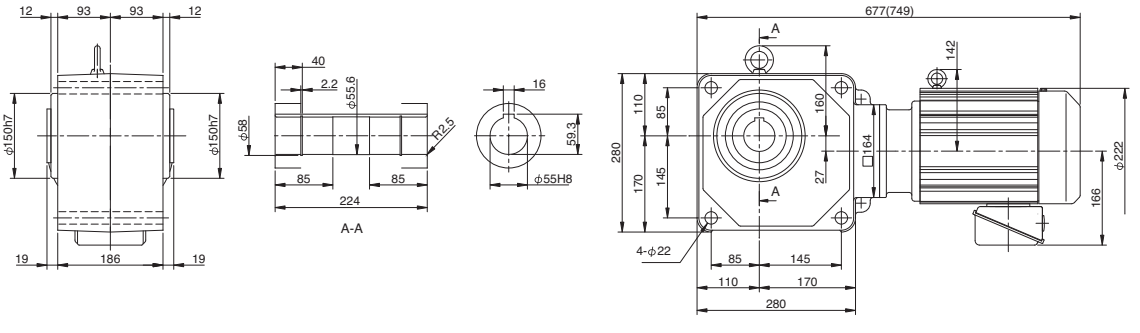


Fig. 2 RNYM3–1632–AV–30~60 (RNYM3–1632–AV–B–30~60) Mass 69kg (Mass 80kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

3.7kW Motor for inverter

RNYM Series Hollow Shaft Type

Motor Speed n_1	60Hz	1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	350 (60Hz)	85.9	8.76	1.49	2940	300	5 – 1522 – AV – 5	3
25.0	250	250 (60Hz)	120	12.3	1.49	3330	340	5 – 1522 – AV – 7	
17.5	175	175 (60Hz)	172	17.5	1.49	3730	380	5 – 1522 – AV – 10	
14.6	146	146 (60Hz)	206	21.0	1.49	3970	405	5 – 1522 – AV – 12	
11.7	117	117 (60Hz)	258	26.3	1.49	4220	430	5 – 1522 – AV – 15	
8.75	87.5	117 (80Hz)	344	35.0	1.49	7350	750	5 – 1633 – AV – 20	4
7.00	70.0	93.4 (80Hz)	430	43.8	1.49	7750	790	5 – 1633 – AV – 25	
5.83	58.3	77.8 (80Hz)	516	52.6	1.49	8090	825	5 – 1633 – AV – 30	
4.38	43.8	58.3 (80Hz)	687	70.1	1.49	8480	865	5 – 1633 – AV – 40	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3 RNYM5–1522–AV–5~15 (RNYM5–1522–AV–B–5~15) Mass 57kg (Mass 68kg)

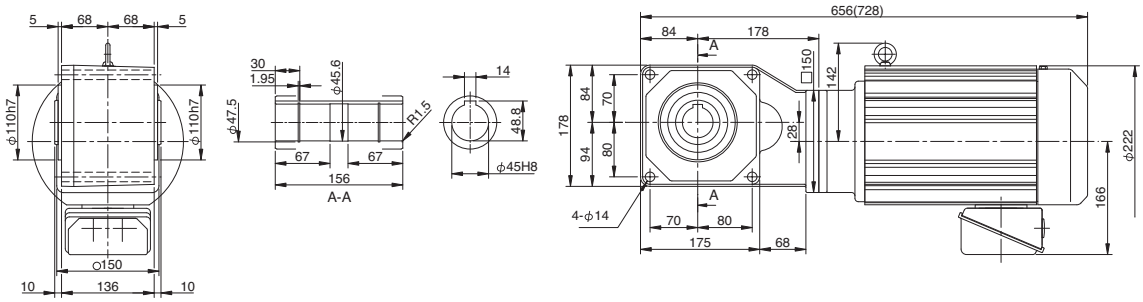
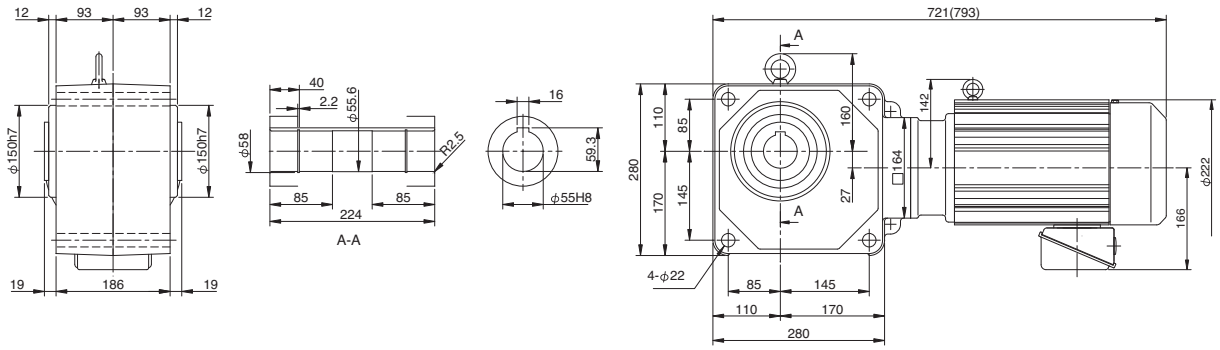


Fig. 4 RNYM5–1633–AV–20~40 (RNYM5–1633–AV–B–20~40) Mass 77kg (Mass 88kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

5.5kW Motor for inverter

RNYM Series Hollow Shaft Type

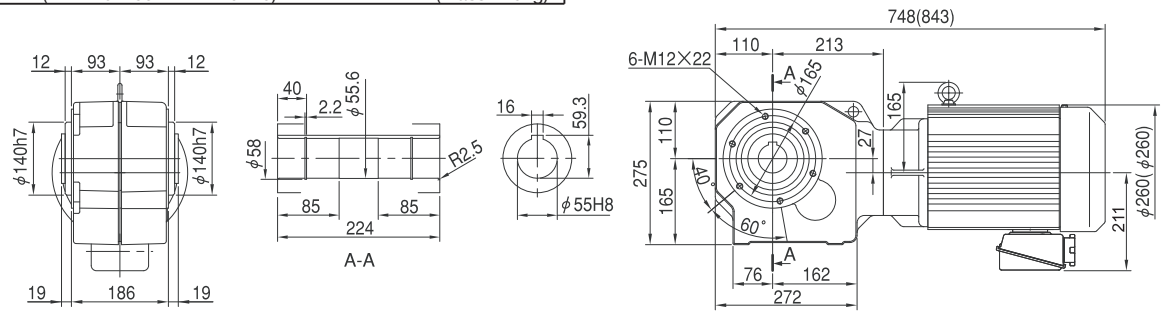
Motor Speed n_1	60Hz	1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	350 (60Hz)	128	13.0	2.00	4760	485	8 – 1634 – AV – 5	1
25.0	250	250 (60Hz)	179	18.2	2.00	5250	535	8 – 1634 – AV – 7	
17.5	175	175 (60Hz)	255	26.0	2.00	5930	605	8 – 1634 – AV – 10	
14.6	146	146 (60Hz)	307	31.3	2.00	6330	645	8 – 1634 – AV – 12	
11.7	117	117 (60Hz)	383	39.1	2.00	6670	680	8 – 1634 – AV – 15	
8.75	87.5	87.5 (60Hz)	511	52.1	2.00	7350	750	8 – 1634 – AV – 20	
7.00	70.0	70.0 (60Hz)	639	65.1	2.00	7750	790	8 – 1634 – AV – 25	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNYM8–1634–AV–5~25 (RNYM8–1634–AV–B–5~25) Mass 111kg (Mass 129kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

7.5kW Motor for inverter

RNYM Series Hollow Shaft Type

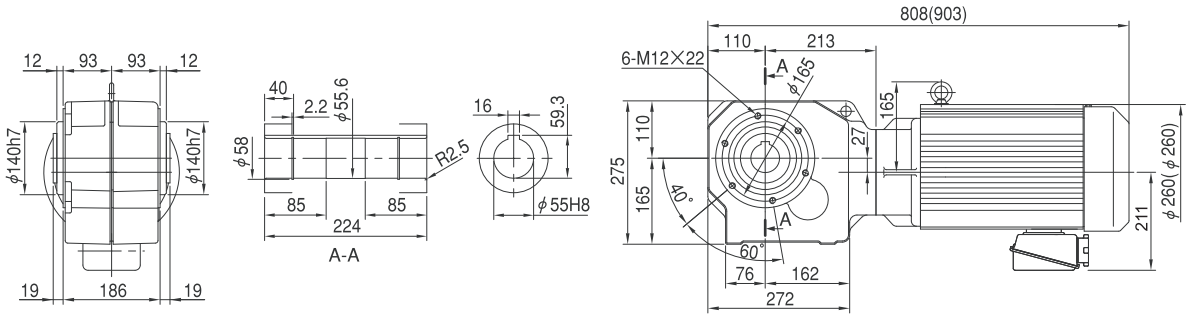
Motor Speed n_1	60Hz	1750r/min

Output speed n_2 r/min			Output Torque Tout		SF	Allowable Pro		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
			Nm	kgf m		N	kgf		
6Hz	60Hz	Allowable max speed	60Hz	60Hz		60Hz	60Hz		
35.0	350	350 (60Hz)	174	17.8	1.47	4760	485	10 – 1634 – AV – 5	2
25.0	250	250 (60Hz)	244	24.9	1.47	5250	535	10 – 1634 – AV – 7	
17.5	175	175 (60Hz)	348	35.5	1.47	5930	605	10 – 1634 – AV – 10	
14.6	146	146 (60Hz)	418	42.6	1.47	6330	645	10 – 1634 – AV – 12	
11.7	117	117 (60Hz)	522	53.3	1.47	6670	680	10 – 1634 – AV – 15	
8.75	87.5	87.5 (60Hz)	697	71.0	1.47	7350	750	10 – 1634 – AV – 20	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Usage of motor for inverters enables constant torque operation (continuous operation) within range of 6-60Hz.
4. Sensorless operation using our inverter (HF-320) enables constant torque operation using general-purpose motors. Refer to page A223 for details.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 2 RNYM10–1634–AV–5~20 (RNYM10–1634–AV–B–5~20) Mass 125kg (Mass 143kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

HyPower Drive®

Solid Shaft

15W-90W

15W 3-phase Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.371	0.307	0.038	0.031	4.00	343	343	35	35	0015 — 01 — 5	
193	233	0.556	0.461	0.057	0.047	4.00	343	343	35	35	0015 — 01 — 7.5	
145	175	0.742	0.615	0.076	0.063	4.00	343	343	35	35	0015 — 01 — 10	
121	146	0.890	0.738	0.091	0.075	4.00	343	343	35	35	0015 — 01 — 12	
96.7	117	1.11	0.922	0.113	0.094	4.00	343	343	35	35	0015 — 01 — 15	
72.5	87.5	1.48	1.23	0.151	0.125	4.00	343	343	35	35	0015 — 01 — 20	
58.0	70.0	1.85	1.54	0.189	0.157	4.00	343	343	35	35	0015 — 01 — 25	1
48.3	58.3	2.23	1.84	0.227	0.188	3.53	343	343	35	35	0015 — 01 — 30	
36.3	43.8	2.97	2.46	0.303	0.251	2.64	343	343	35	35	0015 — 01 — 40	
29.0	35.0	3.71	3.07	0.378	0.313	2.12	343	343	35	35	0015 — 01 — 50	
24.2	29.2	4.45	3.69	0.454	0.376	1.76	343	343	35	35	0015 — 01 — 60	
18.1	21.9	5.93	4.92	0.605	0.501	1.32	343	343	35	35	0015 — 01 — 80	
14.5	17.5	7.42	6.15	0.756	0.627	1.06	343	343	35	35	0015 — 01 — 100	
12.1	14.6	8.90	7.38	0.908	0.752	3.34	1080	1080	110	110	0015 — 03 — 120	
9.06	10.9	11.9	9.83	1.21	1.00	2.50	1080	1080	110	110	0015 — 03 — 160	2
7.25	8.75	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0015 — 03 — 200	
6.04	7.29	17.8	14.8	1.82	1.50	1.67	1080	1080	110	110	0015 — 03 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1

RNFM0015–01 $\frac{}{R}$ –5~100 (RNFM0015–01 $\frac{}{R}$ –B–5~100) Mass 2.7kg (Mass 3.3kg)

• Use hex socket head cap screws (M5) for installation.

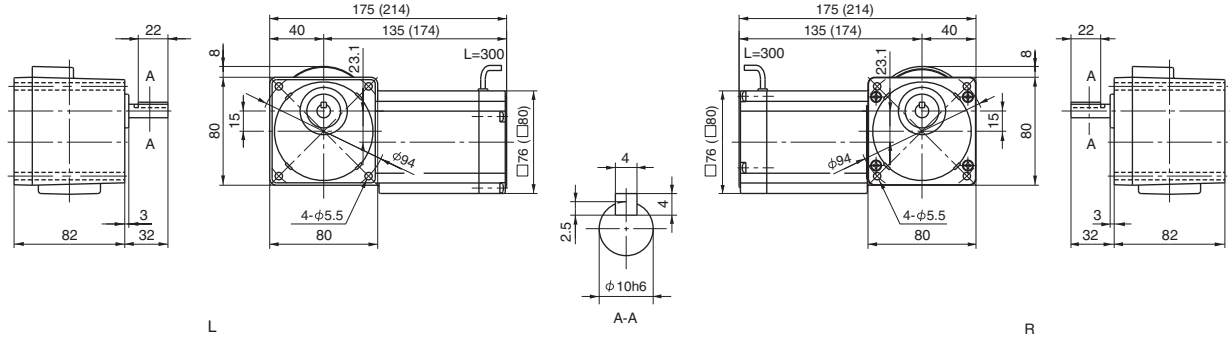
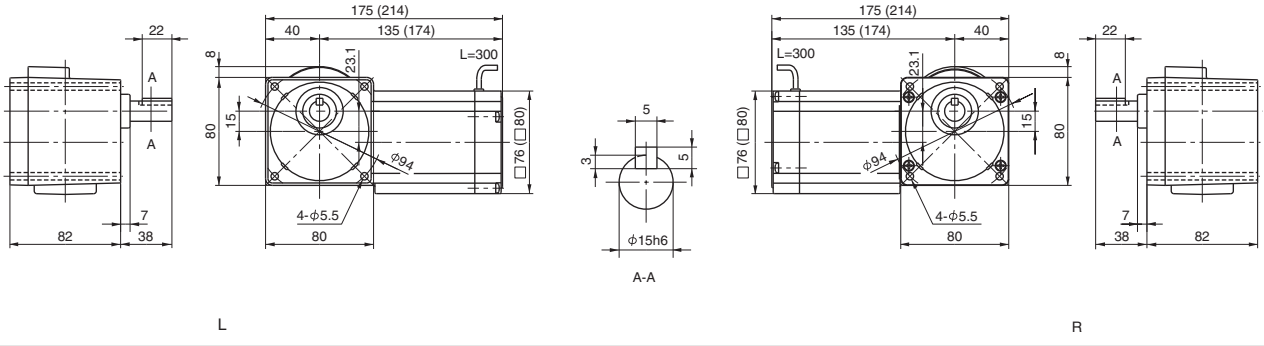


Fig. 2

RNFM0015–03 $\frac{}{R}$ –120~240 (RNFM0015–03 $\frac{}{R}$ –B–120~240) Mass 2.7kg (Mass 3.3kg)

• Use hex socket head cap screws (M5) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.618	0.512	0.063	0.052	2.40	343	343	35	35	0025 — 01 — 5	
193	233	0.927	0.768	0.095	0.078	2.40	343	343	35	35	0025 — 01 — 7.5	
145	175	1.24	1.02	0.126	0.104	2.40	343	343	35	35	0025 — 01 — 10	
121	146	1.48	1.23	0.151	0.125	2.40	343	343	35	35	0025 — 01 — 12	
96.7	117	1.85	1.54	0.189	0.157	2.40	343	343	35	35	0025 — 01 — 15	
72.5	87.5	2.47	2.05	0.252	0.209	2.40	343	343	35	35	0025 — 01 — 20	3
58.0	70.0	3.09	2.56	0.315	0.261	2.40	343	343	35	35	0025 — 01 — 25	
48.3	58.3	3.71	3.07	0.378	0.313	2.12	343	343	35	35	0025 — 01 — 30	
36.3	43.8	4.95	4.10	0.504	0.418	1.59	343	343	35	35	0025 — 01 — 40	
29.0	35.0	6.18	5.12	0.630	0.522	1.27	343	343	35	35	0025 — 01 — 50	
24.2	29.2	7.42	6.15	0.756	0.627	1.06	343	343	35	35	0025 — 01 — 60	
18.1	21.9	9.9	8.20	1.01	0.836	2.40	1080	1080	110	110	0025 — 03 — 80	
14.5	17.5	12.4	10.2	1.26	1.04	2.40	1080	1080	110	110	0025 — 03 — 100	
12.1	14.6	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0025 — 03 — 120	4
9.06	10.9	19.8	16.4	2.02	1.67	1.50	1080	1080	110	110	0025 — 03 — 160	
7.25	8.75	24.7	20.5	2.52	2.09	1.20	1080	1080	110	110	0025 — 03 — 200	
6.04	7.29	29.7	24.6	3.03	2.51	1.00	1080	1080	110	110	0025 — 03 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3

RNFM0025–01 $\frac{L}{R}$–5~60 (RNFM0025–01 $\frac{L}{R}$–B–5~60) Mass 2.8kg (Mass 3.4kg)

• Use hex socket head cap screws (M5) for installation.

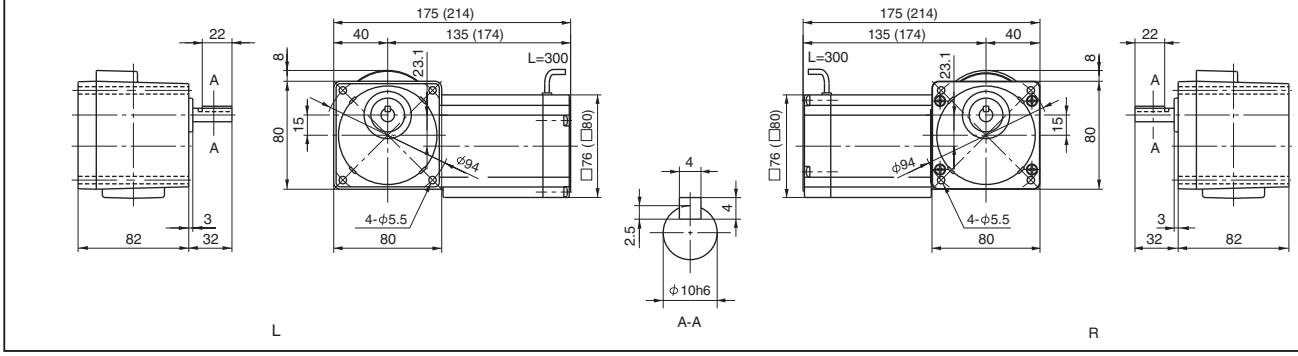
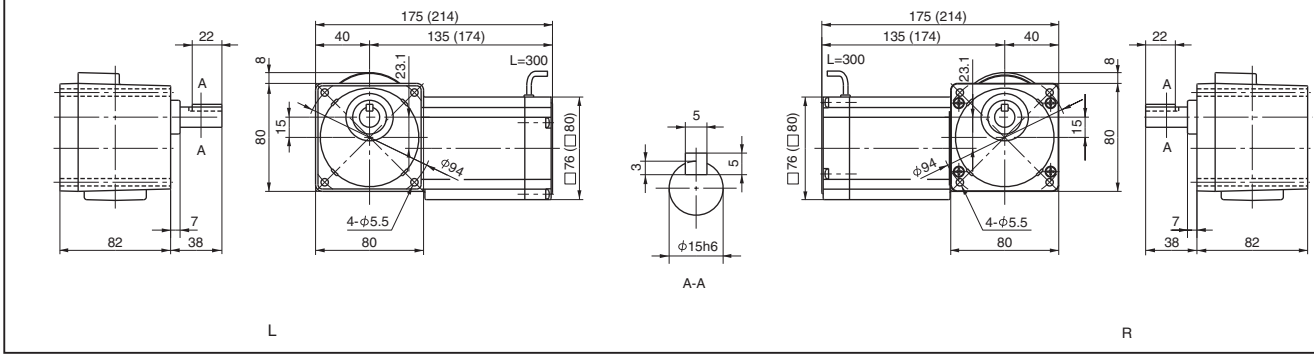


Fig. 4

RNFM0025–03 $\frac{L}{R}$–80~240 (RNFM0025–03 $\frac{L}{R}$–B–80~240) Mass 2.9kg (Mass 3.5kg)

• Use hex socket head cap screws (M5) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

40W 3-phase Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.12	0.929	0.114	0.095	1.50	441	392	45	40	004 — 05 — 5	1
193	233	1.68	1.39	0.171	0.142	1.50	490	441	50	45	004 — 05 — 7.5	
145	175	2.24	1.86	0.229	0.189	1.50	539	490	55	50	004 — 05 — 10	
121	146	2.69	2.23	0.274	0.227	1.50	588	539	60	55	004 — 05 — 12	
96.7	117	3.36	2.79	0.343	0.284	1.50	588	588	60	60	004 — 05 — 15	
72.5	87.5	4.48	3.72	0.457	0.379	1.50	588	588	60	60	004 — 05 — 20	
58.0	70.0	5.61	4.64	0.572	0.474	1.50	588	588	60	60	004 — 05 — 25	
48.3	58.3	6.73	5.57	0.686	0.568	1.50	588	588	60	60	004 — 05 — 30	
36.3	43.8	8.97	7.43	0.914	0.758	1.31	588	588	60	60	004 — 05 — 40	
29.0	35.0	11.2	9.29	1.14	0.947	1.05	588	588	60	60	004 — 05 — 50	
24.2	29.2	13.5	11.1	1.37	1.14	1.50	1080	1080	110	110	004 — 07 — 60	2
18.1	21.9	17.9	14.9	1.83	1.52	1.50	1080	1080	110	110	004 — 07 — 80	
14.5	17.5	22.4	18.6	2.29	1.89	1.20	1080	1080	110	110	004 — 07 — 100	
12.1	14.6	26.9	22.3	2.74	2.27	1.00	1080	1080	110	110	004 — 07 — 120	
9.67	11.7	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	004 — 17 — 150	
7.25	8.75	44.8	37.2	4.57	3.79	1.20	1420	1420	145	145	004 — 17 — 200	3
6.04	7.29	53.8	44.6	5.49	4.55	1.00	1420	1420	145	145	004 — 17 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNFM004–05 $\frac{L}{R}$–5~50 (RNFM004–05 $\frac{L}{R}$–B–5~50) Mass 3.0kg (Mass 3.6kg)

• Use hex socket head cap screws (M6) for installation.

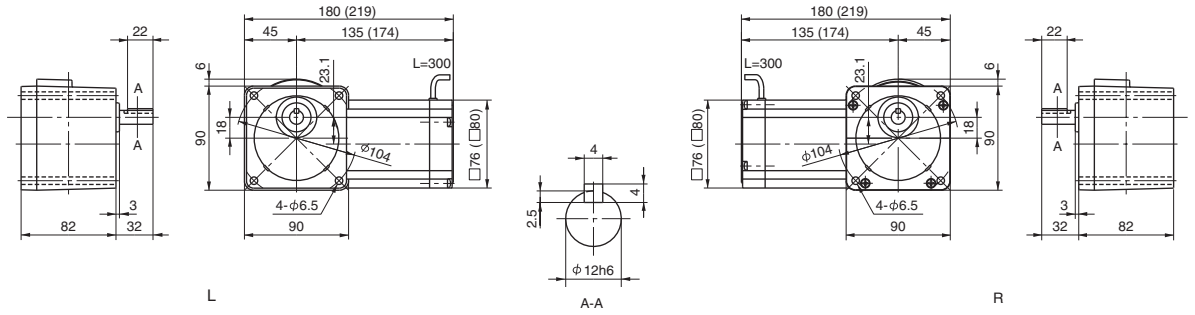


Fig. 2 RNFM004–07 $\frac{L}{R}$–60~120 (RNFM004–07 $\frac{L}{R}$–B–60~120) Mass 3.1kg (Mass 3.7kg)

• Use hex socket head cap screws (M6) for installation.

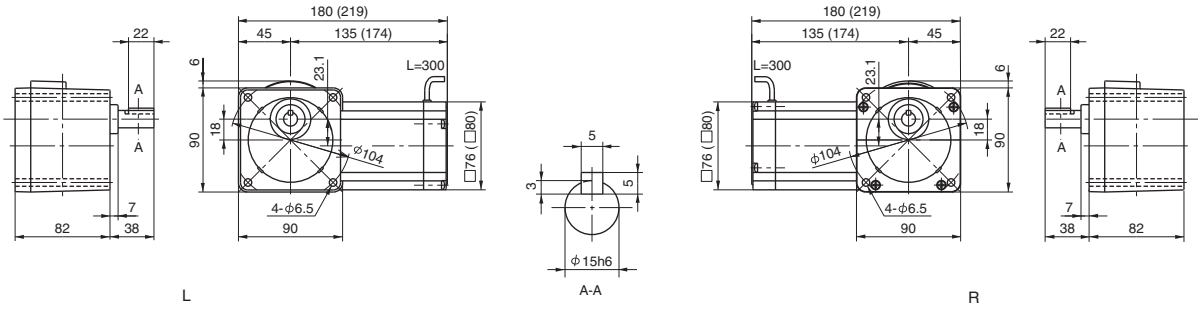
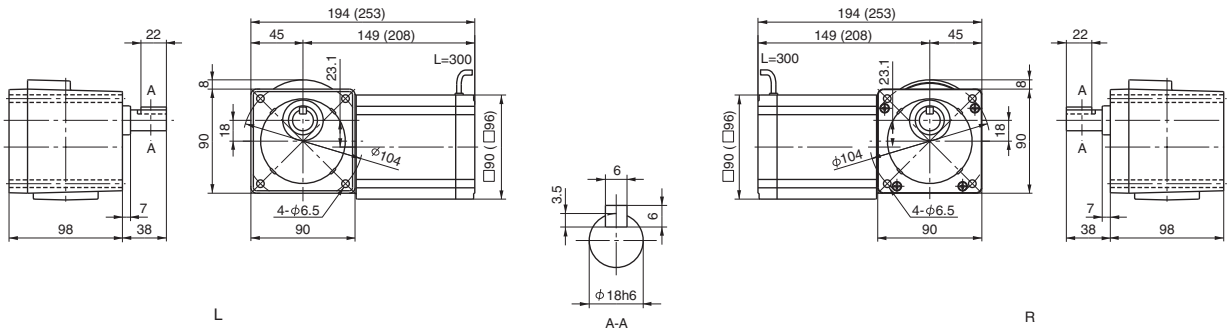


Fig. 3 RNFM004–17 $\frac{L}{R}$–150~240 (RNFM004–17 $\frac{L}{R}$–B–150~240) Mass 3.8kg (Mass 4.2kg)

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.68	1.39	0.171	0.142	1.00	539	490	55	50	006 — 07 — 5	
193	233	2.52	2.09	0.257	0.213	1.00	588	539	60	55	006 — 07 — 7.5	
145	175	3.36	2.79	0.343	0.284	1.00	637	588	65	60	006 — 07 — 10	
121	146	4.04	3.34	0.412	0.341	1.00	686	637	70	65	006 — 07 — 12	
96.7	117	5.04	4.18	0.514	0.426	1.00	735	686	75	70	006 — 07 — 15	
72.5	87.5	6.73	5.57	0.686	0.568	1.00	785	735	80	75	006 — 07 — 20	4
58.0	70.0	8.41	6.97	0.857	0.710	1.00	834	785	85	80	006 — 07 — 25	
48.3	58.3	10.1	8.36	1.03	0.852	1.00	883	834	90	85	006 — 07 — 30	
36.3	43.8	13.5	11.1	1.37	1.14	1.00	981	932	100	95	006 — 07 — 40	
29.0	35.0	16.8	13.9	1.71	1.42	1.00	1080	1030	110	105	006 — 07 — 50	
24.2	29.2	20.2	16.7	2.06	1.70	1.00	1080	1080	110	110	006 — 07 — 60	
18.1	21.9	26.9	22.3	2.74	2.27	1.50	1420	1370	145	140	006 — 17 — 80	
14.5	17.5	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	006 — 17 — 100	
12.1	14.6	40.4	33.4	4.12	3.41	1.34	1420	1420	145	145	006 — 17 — 120	
9.67	11.7	50.4	41.8	5.14	4.26	1.07	1420	1420	145	145	006 — 17 — 150	5
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 — 17 — 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 — 17 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNFM006–07 $\frac{L}{R}$–5~60 (RNFM006–07 $\frac{L}{R}$–B–5~60) Mass 3.1kg (Mass 3.6kg)

• Use hex socket head cap screws (M6) for installation.

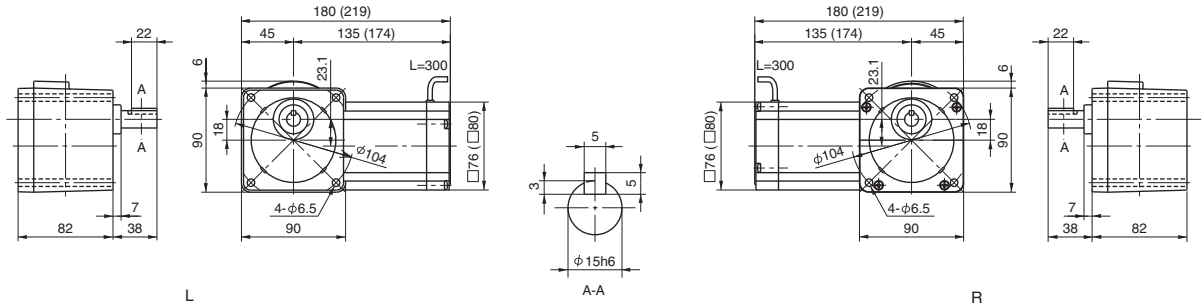
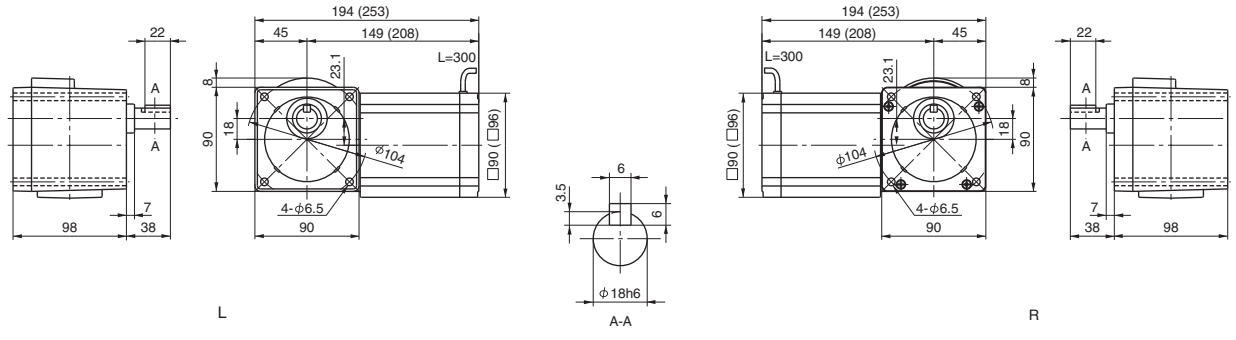


Fig. 5 RNFM006–17 $\frac{L}{R}$–80~240 (RNFM006–17 $\frac{L}{R}$–B–80~240) Mass 4.0kg (Mass 4.4kg)

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

90W 3-phase Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.52	2.09	0.257	0.213	1.00	539	490	55	50	009 — 15 — 5	
193	233	3.78	3.13	0.386	0.320	1.00	588	539	60	55	009 — 15 — 7.5	
145	175	5.04	4.18	0.514	0.426	1.00	637	588	65	60	009 — 15 — 10	
121	146	6.05	5.02	0.617	0.511	1.00	686	637	70	65	009 — 15 — 12	
96.7	117	7.57	6.27	0.772	0.639	1.00	735	686	75	70	009 — 15 — 15	
72.5	87.5	10.1	8.36	1.03	0.852	1.00	785	735	80	75	009 — 15 — 20	1
58.0	70.0	12.6	10.4	1.29	1.07	1.00	834	785	85	80	009 — 15 — 25	
48.3	58.3	15.1	12.5	1.54	1.28	1.00	883	834	90	85	009 — 15 — 30	
36.3	43.8	20.2	16.7	2.06	1.70	1.00	981	932	100	95	009 — 15 — 40	
29.0	35.0	25.2	20.9	2.57	2.13	1.00	1270	1230	130	125	009 — 15 — 50	
24.2	29.2	30.3	25.1	3.09	2.56	1.00	1320	1270	135	130	009 — 15 — 60	
18.1	21.9	40.4	33.4	4.12	3.41	1.00	1420	1370	145	140	009 — 17 — 80	
14.5	17.5	50.4	41.8	5.14	4.26	1.00	1420	1420	145	145	009 — 17 — 100	
12.1	14.6	53.9	50.2	5.50	5.11	✻	1420	1420	145	145	009 — 17 — 120	2
9.67	11.7	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 — 17 — 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 — 17 — 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 — 17 — 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNFM009–15 $\frac{L}{R}$–5~60 (RNFM009–15 $\frac{L}{R}$–B–5~60) Mass 4.3kg (Mass 4.7kg)

• Use hex socket head cap screws (M6) for installation.

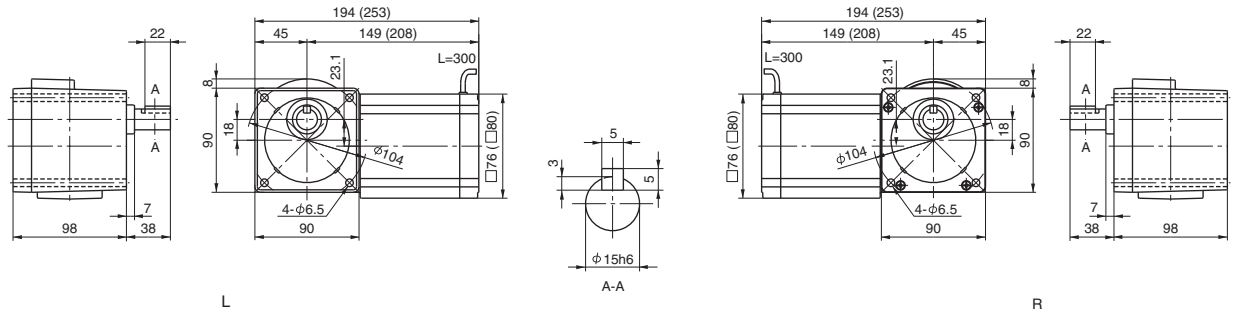
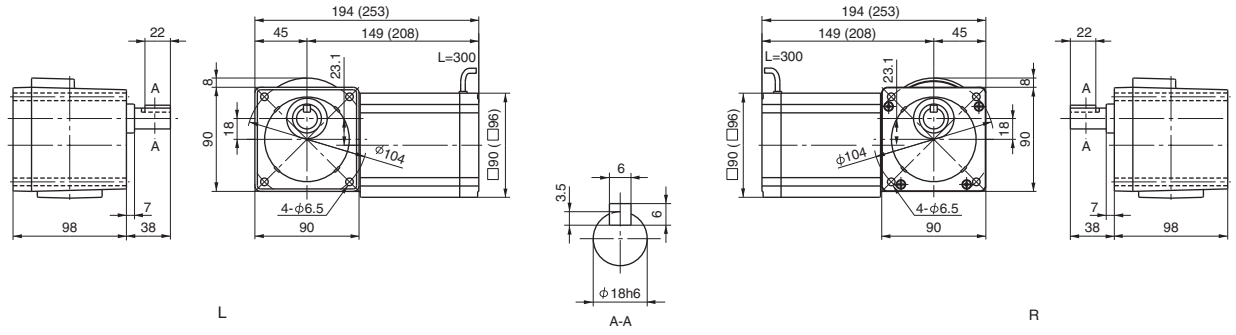


Fig. 2 RNFM009–17 $\frac{L}{R}$–80~240 (RNFM009–17 $\frac{L}{R}$–B–80~240) Mass 4.3kg (Mass 4.7kg)

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

MEMO

15W Single-phase Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.371	0.307	0.038	0.031	4.00	343	343	35	35	0015 – 01 – CA – 5	
193	233	0.556	0.461	0.057	0.047	4.00	343	343	35	35	0015 – 01 – CA – 7.5	
145	175	0.742	0.615	0.076	0.063	4.00	343	343	35	35	0015 – 01 – CA – 10	
121	146	0.890	0.738	0.091	0.075	4.00	343	343	35	35	0015 – 01 – CA – 12	
96.7	117	1.11	0.922	0.113	0.094	4.00	343	343	35	35	0015 – 01 – CA – 15	
72.5	87.5	1.48	1.23	0.151	0.125	4.00	343	343	35	35	0015 – 01 – CA – 20	
58.0	70.0	1.85	1.54	0.189	0.157	4.00	343	343	35	35	0015 – 01 – CA – 25	1
48.3	58.3	2.23	1.84	0.227	0.188	3.53	343	343	35	35	0015 – 01 – CA – 30	
36.3	43.8	2.97	2.46	0.303	0.251	2.64	343	343	35	35	0015 – 01 – CA – 40	
29.0	35.0	3.71	3.07	0.378	0.313	2.12	343	343	35	35	0015 – 01 – CA – 50	
24.2	29.2	4.45	3.69	0.454	0.376	1.76	343	343	35	35	0015 – 01 – CA – 60	
18.1	21.9	5.93	4.92	0.605	0.501	1.32	343	343	35	35	0015 – 01 – CA – 80	
14.5	17.5	7.42	6.15	0.756	0.627	1.06	343	343	35	35	0015 – 01 – CA – 100	
12.1	14.6	8.90	7.38	0.908	0.752	3.34	1080	1080	110	110	0015 – 03 – CA – 120	
9.06	10.9	11.9	9.83	1.21	1.00	2.50	1080	1080	110	110	0015 – 03 – CA – 160	2
7.25	8.75	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0015 – 03 – CA – 200	
6.04	7.29	17.8	14.8	1.82	1.50	1.67	1080	1080	110	110	0015 – 03 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNFM0015–01 [ ]–CA–5~100 Mass 2.7kg
(RNFM0015–01 [ ]–CA–B–5~100) (Mass 3.3kg)

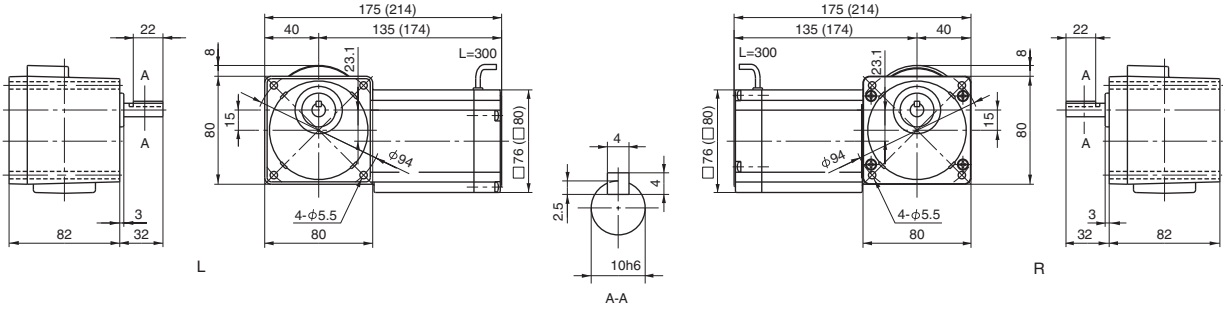
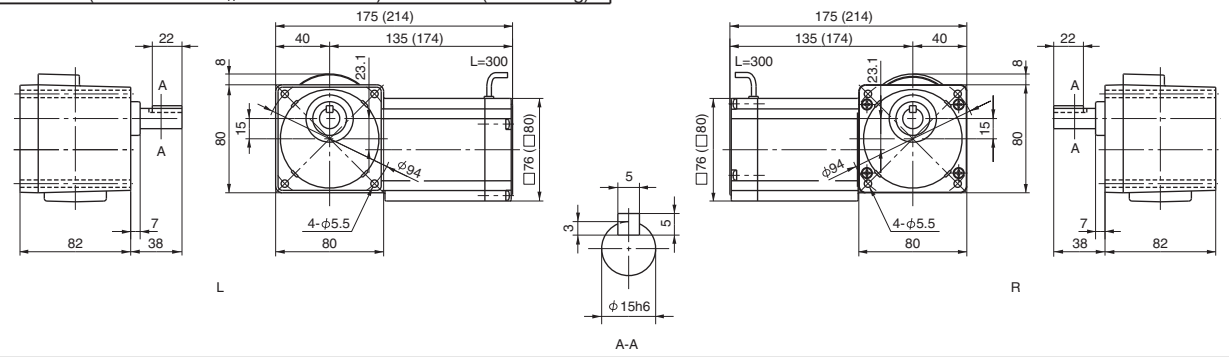


Fig. 2 RNFM0015–03 [ ]–CA–120~240 Mass 2.7kg
(RNFM0015–03 [ ]–CA–B–120~240) (Mass 3.3kg)

• Use hex socket head cap screws (M5) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.618	0.512	0.063	0.052	2.40	343	343	35	35	0025 – 01 – CA – 5	
193	233	0.927	0.768	0.095	0.078	2.40	343	343	35	35	0025 – 01 – CA – 7.5	
145	175	1.24	1.02	0.126	0.104	2.40	343	343	35	35	0025 – 01 – CA – 10	
121	146	1.48	1.23	0.151	0.125	2.40	343	343	35	35	0025 – 01 – CA – 12	
96.7	117	1.85	1.54	0.189	0.157	2.40	343	343	35	35	0025 – 01 – CA – 15	
72.5	87.5	2.47	2.05	0.252	0.209	2.40	343	343	35	35	0025 – 01 – CA – 20	3
58.0	70.0	3.09	2.56	0.315	0.261	2.40	343	343	35	35	0025 – 01 – CA – 25	
48.3	58.3	3.71	3.07	0.378	0.313	2.12	343	343	35	35	0025 – 01 – CA – 30	
36.3	43.8	4.95	4.10	0.504	0.418	1.59	343	343	35	35	0025 – 01 – CA – 40	
29.0	35.0	6.18	5.12	0.630	0.522	1.27	343	343	35	35	0025 – 01 – CA – 50	
24.2	29.2	7.42	6.15	0.756	0.627	1.06	343	343	35	35	0025 – 01 – CA – 60	
18.1	21.9	9.9	8.20	1.01	0.836	2.40	1080	1080	110	110	0025 – 03 – CA – 80	
14.5	17.5	12.4	10.2	1.26	1.04	2.40	1080	1080	110	110	0025 – 03 – CA – 100	
12.1	14.6	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0025 – 03 – CA – 120	
9.06	10.9	19.8	16.4	2.02	1.67	1.50	1080	1080	110	110	0025 – 03 – CA – 160	4
7.25	8.75	24.7	20.5	2.52	2.09	1.20	1080	1080	110	110	0025 – 03 – CA – 200	
6.04	7.29	29.7	24.6	3.03	2.51	1.00	1080	1080	110	110	0025 – 03 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 3

RNFM0025–01 $\frac{L}{R}$–CA–5~60 Mass 2.8kg
(RNFM0025–01 $\frac{L}{R}$–CA–B–5~60) (Mass 3.4kg)

• Use hex socket head cap screws (M5) for installation.

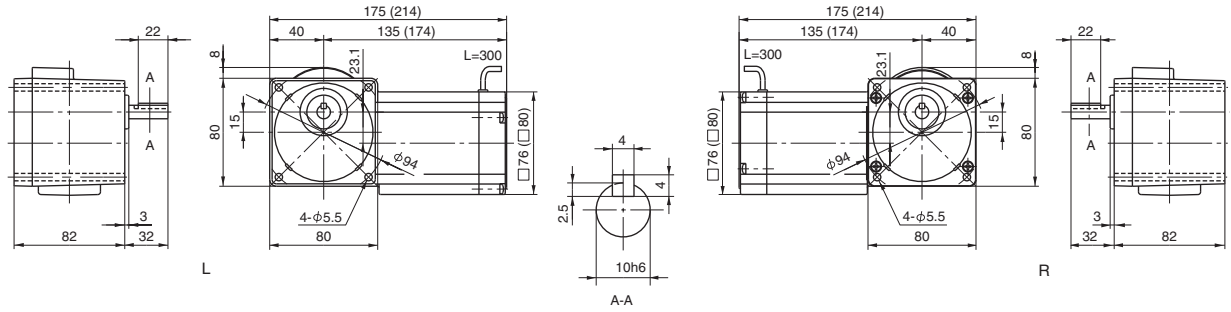
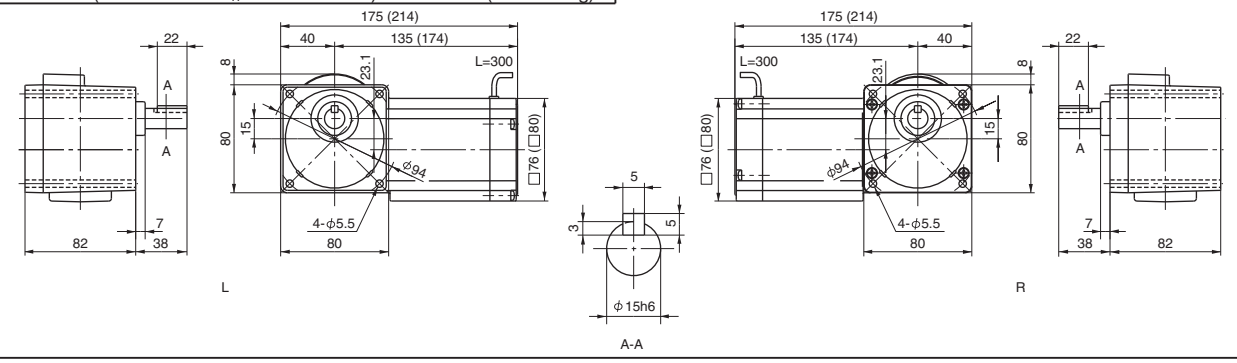


Fig. 4

RNFM0025–03 $\frac{L}{R}$–CA–80~240 Mass 2.9kg
(RNFM0025–03 $\frac{L}{R}$–CA–B–80~240) (Mass 3.5kg)



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

40W Single-phase Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		kgf m		SF	Allowable Pro N		kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.12	0.929	0.114	0.095	1.50	441	392	45	40	004 – 05 – CA – 5	1
193	233	1.68	1.39	0.171	0.142	1.50	490	441	50	45	004 – 05 – CA – 7.5	
145	175	2.24	1.86	0.229	0.189	1.50	539	490	55	50	004 – 05 – CA – 10	
121	146	2.69	2.23	0.274	0.227	1.50	588	539	60	55	004 – 05 – CA – 12	
96.7	117	3.36	2.79	0.343	0.284	1.50	588	588	60	60	004 – 05 – CA – 15	
72.5	87.5	4.48	3.72	0.457	0.379	1.50	588	588	60	60	004 – 05 – CA – 20	
58.0	70.0	5.61	4.64	0.572	0.474	1.50	588	588	60	60	004 – 05 – CA – 25	
48.3	58.3	6.73	5.57	0.686	0.568	1.50	588	588	60	60	004 – 05 – CA – 30	
36.3	43.8	8.97	7.43	0.914	0.758	1.31	588	588	60	60	004 – 05 – CA – 40	
29.0	35.0	11.2	9.29	1.14	0.947	1.05	588	588	60	60	004 – 05 – CA – 50	
24.2	29.2	13.5	11.1	1.37	1.14	1.50	1080	1080	110	110	004 – 07 – CA – 60	2
18.1	21.9	17.9	14.9	1.83	1.52	1.50	1080	1080	110	110	004 – 07 – CA – 80	
14.5	17.5	22.4	18.6	2.29	1.89	1.20	1080	1080	110	110	004 – 07 – CA – 100	
12.1	14.6	26.9	22.3	2.74	2.27	1.00	1080	1080	110	110	004 – 07 – CA – 120	
9.67	11.7	33.6	27.9	3.43	2.84	1.60	1420	1420	145	145	004 – 17 – CA – 150	
7.25	8.75	44.8	37.2	4.57	3.79	1.20	1420	1420	145	145	004 – 17 – CA – 200	3
6.04	7.29	53.8	44.6	5.49	4.55	1.00	1420	1420	145	145	004 – 17 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNFM004–05 $\frac{L}{R}$–CA–5~50 Mass 3.0kg
(RNFM004–05 $\frac{L}{R}$–CA–B–5~50) (Mass 3.6kg)

• Use hex socket head cap screws (M6) for installation.

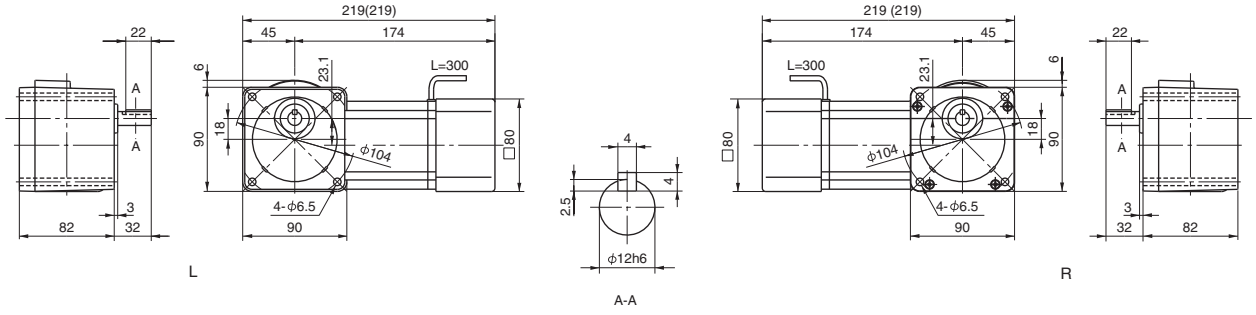


Fig. 2 RNFM004–07 $\frac{L}{R}$–CA–60~120 Mass 3.1kg
(RNFM004–07 $\frac{L}{R}$–CA–B–60~120) (Mass 3.7kg)

• Use hex socket head cap screws (M6) for installation.

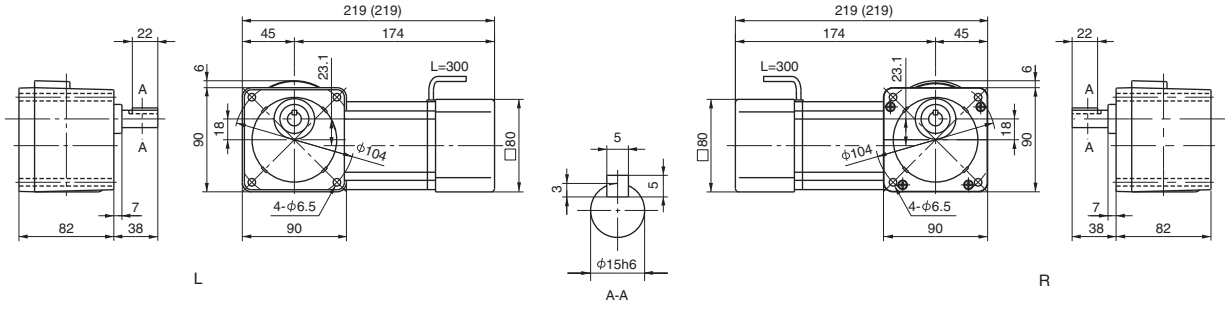
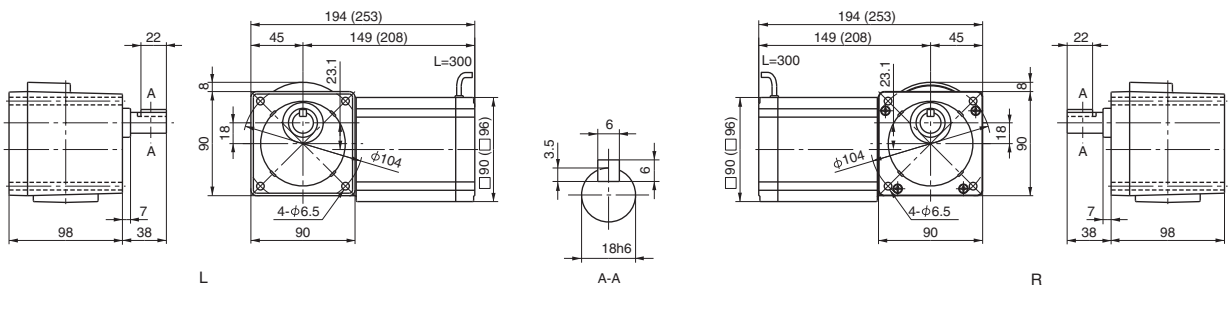


Fig. 3 RNFM004–17 $\frac{L}{R}$–CA–150~240 Mass 4.3kg
(RNFM004–17 $\frac{L}{R}$–CA–B–150~240) (Mass 4.7kg)

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301–1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.68	1.39	0.171	0.142	1.50	539	490	55	50	006 – 15 – CA – 5	
193	233	2.52	2.09	0.257	0.213	1.50	588	539	60	55	006 – 15 – CA – 7.5	
145	175	3.36	2.79	0.343	0.284	1.50	637	588	65	60	006 – 15 – CA – 10	
121	146	4.04	3.34	0.412	0.341	1.50	686	637	70	65	006 – 15 – CA – 12	
96.7	117	5.04	4.18	0.514	0.426	1.50	735	686	75	70	006 – 15 – CA – 15	
72.5	87.5	6.73	5.57	0.686	0.568	1.50	785	735	80	75	006 – 15 – CA – 20	4
58.0	70.0	8.41	6.97	0.857	0.710	1.50	834	785	85	80	006 – 15 – CA – 25	
48.3	58.3	10.1	8.36	1.03	0.852	1.50	883	834	90	85	006 – 15 – CA – 30	
36.3	43.8	13.5	11.1	1.37	1.14	1.50	981	932	100	95	006 – 15 – CA – 40	
29.0	35.0	16.8	13.9	1.71	1.42	1.50	1080	1030	110	105	006 – 15 – CA – 50	
24.2	29.2	20.2	16.7	2.06	1.70	1.50	1080	1080	110	110	006 – 15 – CA – 60	
18.1	21.9	26.9	22.3	2.74	2.27	1.50	1420	1370	145	140	006 – 17 – CA – 80	
14.5	17.5	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	006 – 17 – CA – 100	
12.1	14.6	40.4	33.4	4.12	3.41	1.34	1420	1420	145	145	006 – 17 – CA – 120	5
9.67	11.7	50.4	41.8	5.14	4.26	1.07	1420	1420	145	145	006 – 17 – CA – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CA – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 4 RNFM006–15 $\frac{L}{R}$–CA–5~60 (RNFM006–15 $\frac{L}{R}$–CA–B–5~60) Mass 4.3kg (Mass 4.7kg)

• Use hex socket head cap screws (M6) for installation.

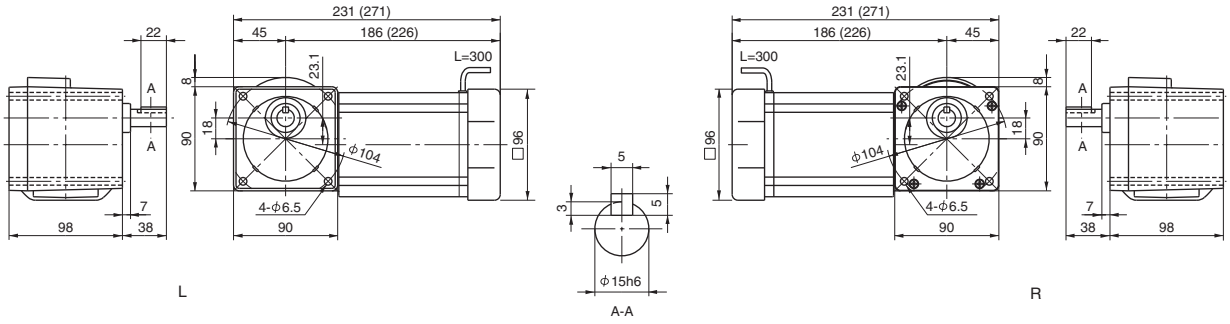
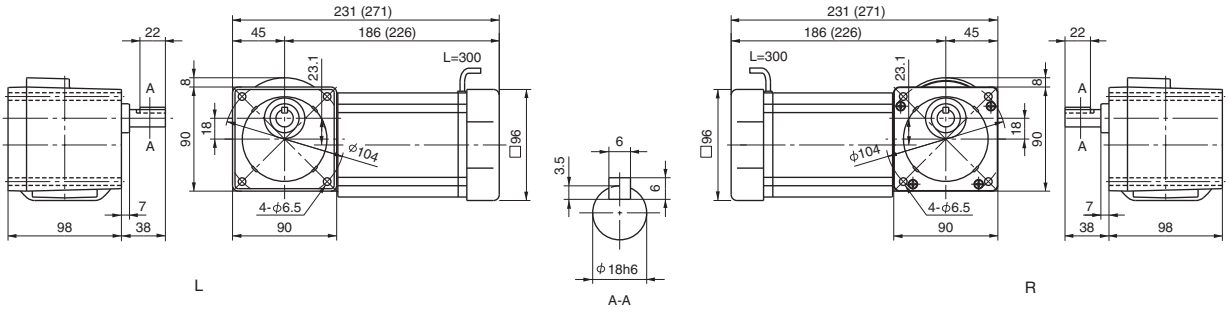


Fig. 5 RNFM006–17 $\frac{L}{R}$–CA–80~240 (RNFM006–17 $\frac{L}{R}$–CA–B–80~240) Mass 4.5kg (Mass 4.9kg)

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

90W Single-phase Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.52	2.09	0.257	0.213	1.00	539	490	55	50	009 – 15 – CA – 5	
193	233	3.78	3.13	0.386	0.320	1.00	588	539	60	55	009 – 15 – CA – 7.5	
145	175	5.04	4.18	0.514	0.426	1.00	637	588	65	60	009 – 15 – CA – 10	
121	146	6.05	5.02	0.617	0.511	1.00	686	637	70	65	009 – 15 – CA – 12	
96.7	117	7.57	6.27	0.772	0.639	1.00	735	686	75	70	009 – 15 – CA – 15	
72.5	87.5	10.1	8.36	1.03	0.852	1.00	785	735	80	75	009 – 15 – CA – 20	1
58.0	70.0	12.6	10.4	1.29	1.07	1.00	834	785	85	80	009 – 15 – CA – 25	
48.3	58.3	15.1	12.5	1.54	1.28	1.00	883	834	90	85	009 – 15 – CA – 30	
36.3	43.8	20.2	16.7	2.06	1.70	1.00	981	932	100	95	009 – 15 – CA – 40	
29.0	35.0	25.2	20.9	2.57	2.13	1.00	1270	1230	130	125	009 – 15 – CA – 50	
24.2	29.2	30.3	25.1	3.09	2.56	1.00	1320	1270	135	130	009 – 15 – CA – 60	
18.1	21.9	40.4	33.4	4.12	3.41	1.00	1420	1370	145	140	009 – 17 – CA – 80	
14.5	17.5	50.4	41.8	5.14	4.26	1.00	1420	1420	145	145	009 – 17 – CA – 100	
12.1	14.6	53.9	50.2	5.50	5.11	✻	1420	1420	145	145	009 – 17 – CA – 120	2
9.67	11.7	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CA – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CA – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CA – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering. Brackets contain dimension, model, or mass of type with brakes.

Fig. 1 RNFM009–15 $\frac{L}{R}$–CA–5~60 (RNFM009–15 $\frac{L}{R}$–CA–B–5~60) Mass 5.0kg (Mass 5.4kg)

• Use hex socket head cap screws (M6) for installation.

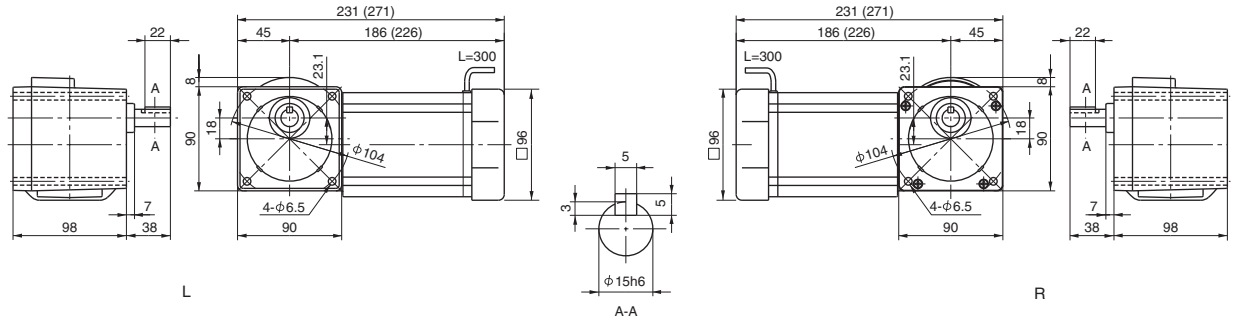
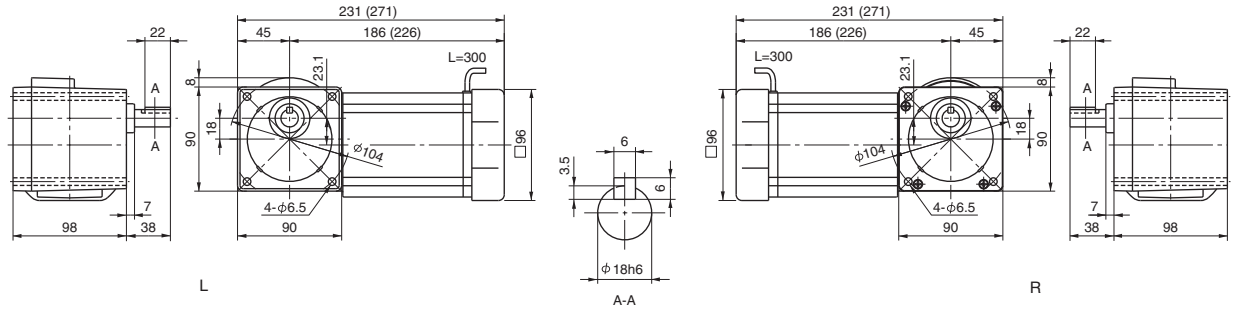


Fig. 2 RNFM009–17 $\frac{L}{R}$–CA–80~240 (RNFM009–17 $\frac{L}{R}$–CA–B–80~240) Mass 5.0kg (Mass 5.4kg)

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

MEMO

15W Single-phase Reversible Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.371	0.307	0.038	0.031	4.00	343	343	35	35	0015 – 01 – CC – 5	
193	233	0.556	0.461	0.057	0.047	4.00	343	343	35	35	0015 – 01 – CC – 7.5	
145	175	0.742	0.615	0.076	0.063	4.00	343	343	35	35	0015 – 01 – CC – 10	
121	146	0.890	0.738	0.091	0.075	4.00	343	343	35	35	0015 – 01 – CC – 12	
96.7	117	1.11	0.922	0.113	0.094	4.00	343	343	35	35	0015 – 01 – CC – 15	
72.5	87.5	1.48	1.23	0.151	0.125	4.00	343	343	35	35	0015 – 01 – CC – 20	
58.0	70.0	1.85	1.54	0.189	0.157	4.00	343	343	35	35	0015 – 01 – CC – 25	1
48.3	58.3	2.23	1.84	0.227	0.188	3.53	343	343	35	35	0015 – 01 – CC – 30	
36.3	43.8	2.97	2.46	0.303	0.251	2.64	343	343	35	35	0015 – 01 – CC – 40	
29.0	35.0	3.71	3.07	0.378	0.313	2.12	343	343	35	35	0015 – 01 – CC – 50	
24.2	29.2	4.45	3.69	0.454	0.376	1.76	343	343	35	35	0015 – 01 – CC – 60	
18.1	21.9	5.93	4.92	0.605	0.501	1.32	343	343	35	35	0015 – 01 – CC – 80	
14.5	17.5	7.42	6.15	0.756	0.627	1.06	343	343	35	35	0015 – 01 – CC – 100	
12.1	14.6	8.90	7.38	0.908	0.752	3.34	1080	1080	110	110	0015 – 03 – CC – 120	
9.06	10.9	11.9	9.83	1.21	1.00	2.50	1080	1080	110	110	0015 – 03 – CC – 160	2
7.25	8.75	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0015 – 03 – CC – 200	
6.04	7.29	17.8	14.8	1.82	1.50	1.67	1080	1080	110	110	0015 – 03 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering.

Fig. 1 ▶ RNFM0015–01 ☐–CC–5~100 Mass 2.7kg

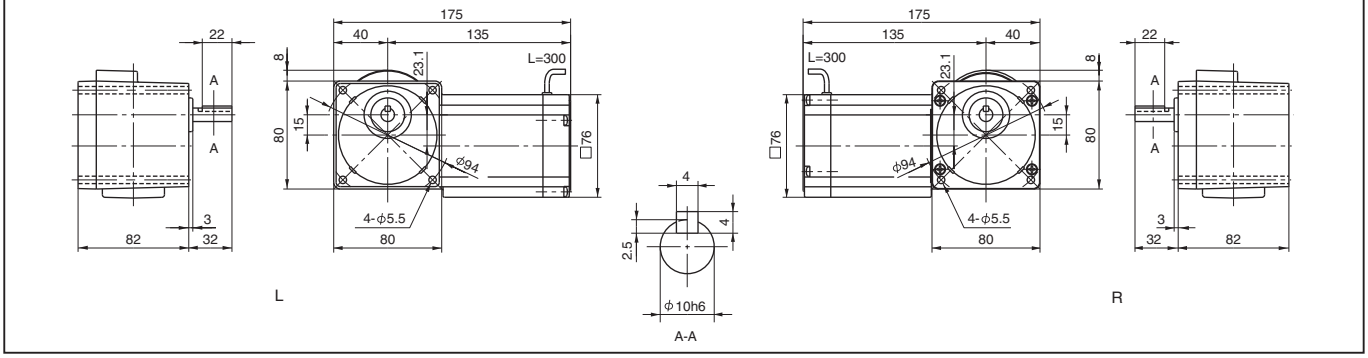
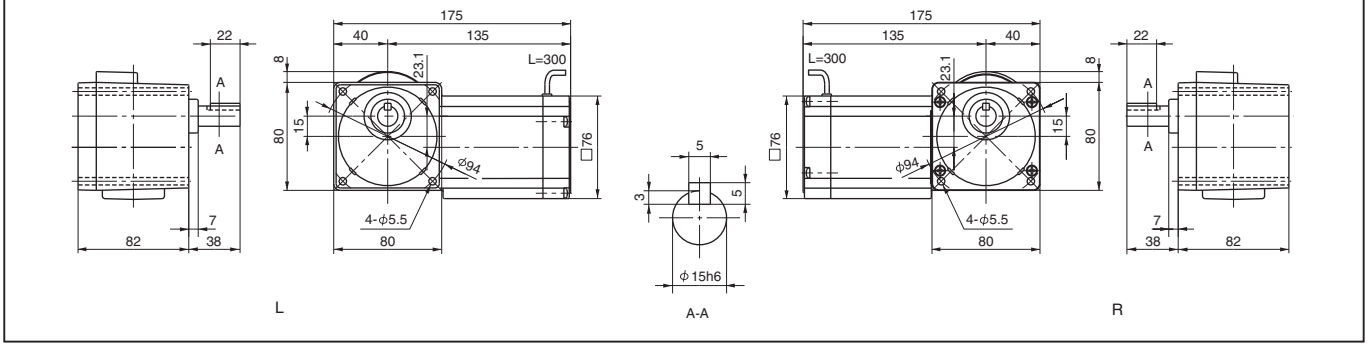


Fig. 2 RNFM0015–03 ☐–CC–120~240 Mass 2.7kg

• Use hex socket head cap screws (M5) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	0.618	0.512	0.063	0.052	2.40	343	343	35	35	0025 – 01 – CC – 5	
193	233	0.927	0.768	0.095	0.078	2.40	343	343	35	35	0025 – 01 – CC – 7.5	
145	175	1.24	1.02	0.126	0.104	2.40	343	343	35	35	0025 – 01 – CC – 10	
121	146	1.48	1.23	0.151	0.125	2.40	343	343	35	35	0025 – 01 – CC – 12	
96.7	117	1.85	1.54	0.189	0.157	2.40	343	343	35	35	0025 – 01 – CC – 15	
72.5	87.5	2.47	2.05	0.252	0.209	2.40	343	343	35	35	0025 – 01 – CC – 20	3
58.0	70.0	3.09	2.56	0.315	0.261	2.40	343	343	35	35	0025 – 01 – CC – 25	
48.3	58.3	3.71	3.07	0.378	0.313	2.12	343	343	35	35	0025 – 01 – CC – 30	
36.3	43.8	4.95	4.10	0.504	0.418	1.59	343	343	35	35	0025 – 01 – CC – 40	
29.0	35.0	6.18	5.12	0.630	0.522	1.27	343	343	35	35	0025 – 01 – CC – 50	
24.2	29.2	7.42	6.15	0.756	0.627	1.06	343	343	35	35	0025 – 01 – CC – 60	
18.1	21.9	9.89	8.20	1.01	0.836	2.40	1080	1080	110	110	0025 – 03 – CC – 80	
14.5	17.5	12.4	10.2	1.26	1.04	2.40	1080	1080	110	110	0025 – 03 – CC – 100	
12.1	14.6	14.8	12.3	1.51	1.25	2.00	1080	1080	110	110	0025 – 03 – CC – 120	4
9.06	10.9	19.8	16.4	2.02	1.67	1.50	1080	1080	110	110	0025 – 03 – CC – 160	
7.25	8.75	24.7	20.5	2.52	2.09	1.20	1080	1080	110	110	0025 – 03 – CC – 200	
6.04	7.29	29.7	24.6	3.03	2.51	1.00	1080	1080	110	110	0025 – 03 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering.

Fig. 3 ▶ RNFM0025–01 $\frac{L}{R}$–CC–5~60 Mass 2.8kg

• Use hex socket head cap screws (M5) for installation.

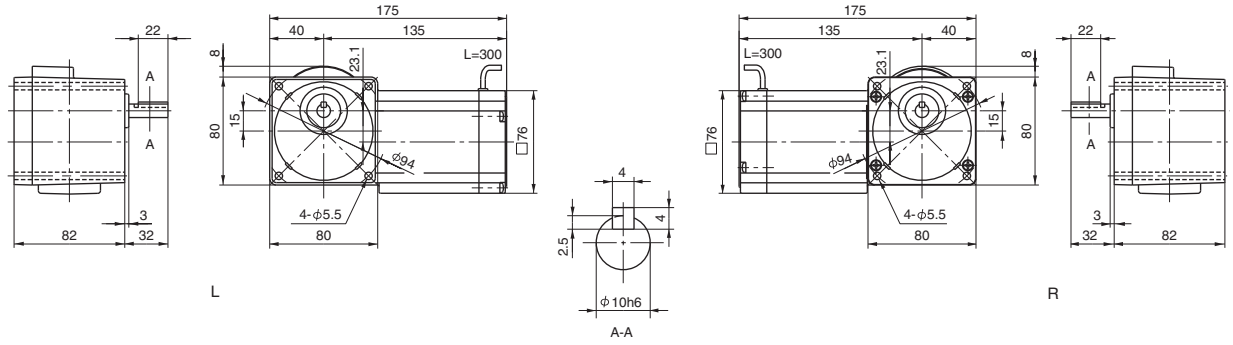
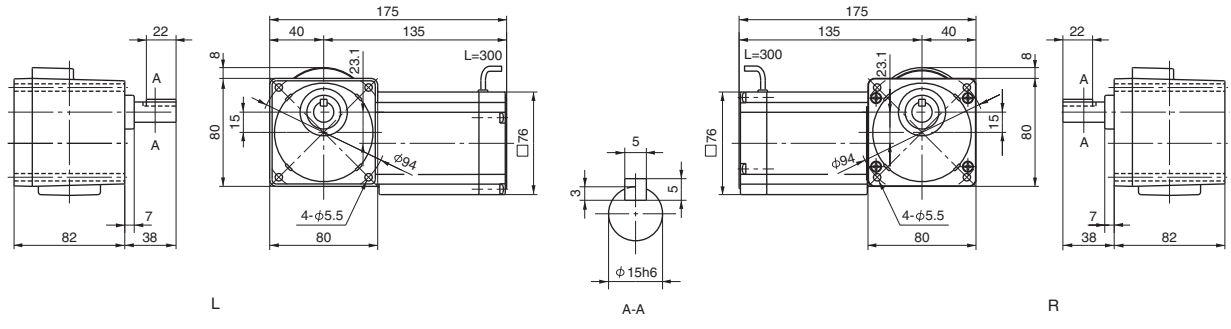


Fig. 4 RNFM0025–03 $\frac{L}{R}$–CC–80~240 Mass 2.9kg

• Use hex socket head cap screws (M5) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

40W Single-phase Reversible Motor

RNFM Series Solid shaft Flange mount type

Motor Speed n_1	50Hz 1450r/min
	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout Nm		Output Torque Tout kgf m		SF	Allowable Pro N		Allowable Pro kgf		Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.12	0.929	0.114	0.095	1.50	441	392	45	40	004 – 05 – CC – 5	1
193	233	1.68	1.39	0.171	0.142	1.50	490	441	50	45	004 – 05 – CC – 7.5	
145	175	2.24	1.86	0.229	0.189	1.50	539	490	55	50	004 – 05 – CC – 10	
121	146	2.69	2.23	0.274	0.227	1.50	588	539	60	55	004 – 05 – CC – 12	
96.7	117	3.36	2.79	0.343	0.284	1.50	588	588	60	60	004 – 05 – CC – 15	
72.5	87.5	4.48	3.72	0.457	0.379	1.50	588	588	60	60	004 – 05 – CC – 20	
58.0	70.0	5.61	4.64	0.572	0.474	1.50	588	588	60	60	004 – 05 – CC – 25	
48.3	58.3	6.73	5.57	0.686	0.568	1.50	588	588	60	60	004 – 05 – CC – 30	
36.3	43.8	8.97	7.43	0.914	0.758	1.31	588	588	60	60	004 – 05 – CC – 40	
29.0	35.0	11.2	9.29	1.14	0.947	1.05	588	588	60	60	004 – 05 – CC – 50	
24.2	29.2	13.5	11.1	1.37	1.14	1.50	1080	1080	110	110	004 – 07 – CC – 60	2
18.1	21.9	17.9	14.9	1.83	1.52	1.50	1080	1080	110	110	004 – 07 – CC – 80	
14.5	17.5	22.4	18.6	2.29	1.89	1.20	1080	1080	110	110	004 – 07 – CC – 100	
12.1	14.6	26.9	22.3	2.74	2.27	1.00	1080	1080	110	110	004 – 07 – CC – 120	
9.67	11.7	33.6	27.9	3.43	2.84	1.60	1420	1420	145	145	004 – 17 – CC – 150	3
7.25	8.75	44.8	37.2	4.57	3.79	1.20	1420	1420	145	145	004 – 17 – CC – 200	
6.04	7.29	53.8	44.6	5.49	4.55	1.00	1420	1420	145	145	004 – 17 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.

Designate model and voltage and frequency when ordering.

Fig. 1 ▶ RNFM004–05 $^{L}_{R}$–CC–5~50 Mass 3.0kg

• Use hex socket head cap screws (M6) for installation.

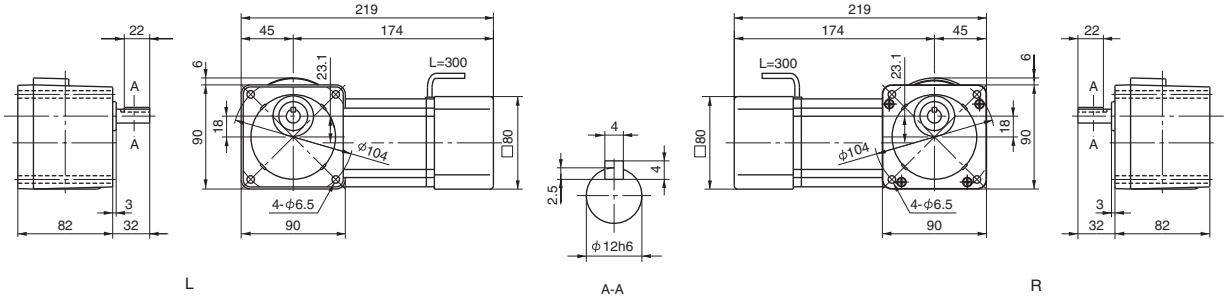


Fig. 2 RNFM004–07 $^{L}_{R}$–CC–60~120 Mass 3.1kg

• Use hex socket head cap screws (M6) for installation.

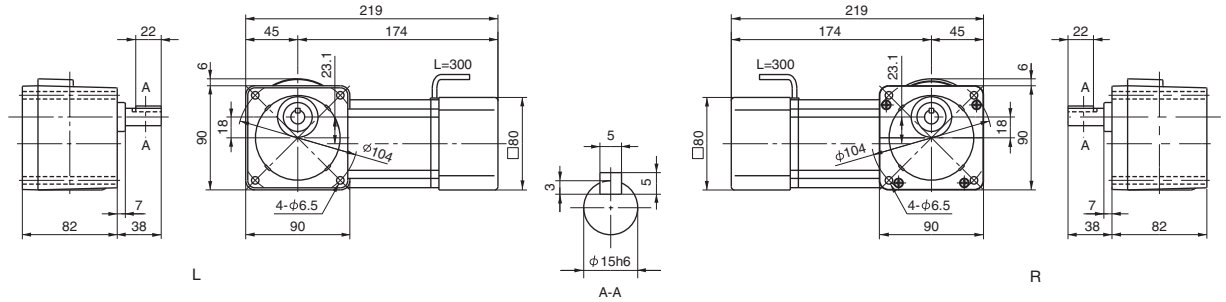
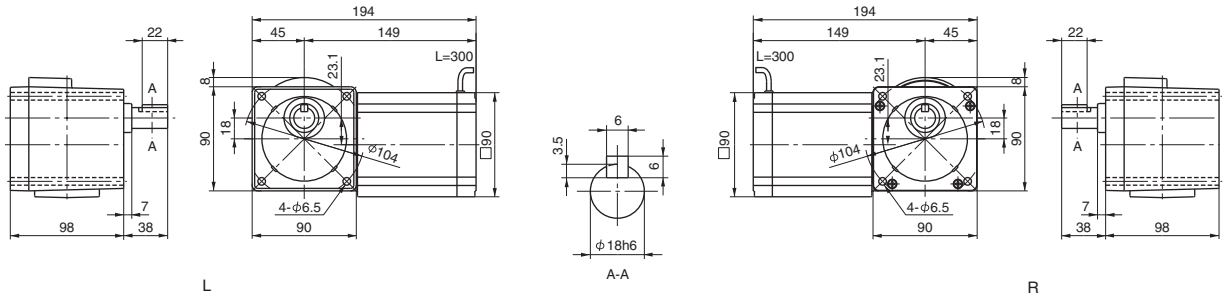


Fig. 3 RNFM004–17 $^{L}_{R}$–CC–150~240 Mass 4.3kg

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301–1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

60W Single-phase Reversible Motor

RNFM Series Solid shaft Flange mount type

Motor Speed	n_1	50Hz 1450r/min	60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	1.68	1.39	0.171	0.142	1.50	539	490	55	50	006 – 15 – CC – 5	4
193	233	2.52	2.09	0.257	0.213	1.50	588	539	60	55	006 – 15 – CC – 7.5	
145	175	3.36	2.79	0.343	0.284	1.50	637	588	65	60	006 – 15 – CC – 10	
121	146	4.04	3.34	0.412	0.341	1.50	686	637	70	65	006 – 15 – CC – 12	
96.7	117	5.04	4.18	0.514	0.426	1.50	735	686	75	70	006 – 15 – CC – 15	
72.5	87.5	6.73	5.57	0.686	0.568	1.50	785	735	80	75	006 – 15 – CC – 20	
58.0	70.0	8.41	6.97	0.857	0.710	1.50	834	785	85	80	006 – 15 – CC – 25	
48.3	58.3	10.1	8.36	1.03	0.852	1.50	883	834	90	85	006 – 15 – CC – 30	
36.3	43.8	13.5	11.1	1.37	1.14	1.50	981	932	100	95	006 – 15 – CC – 40	
29.0	35.0	16.8	13.9	1.71	1.42	1.50	1080	1030	110	105	006 – 15 – CC – 50	
24.2	29.2	20.2	16.7	2.06	1.70	1.50	1080	1080	110	110	006 – 15 – CC – 60	
18.1	21.9	26.9	22.3	2.74	2.27	1.50	1420	1370	145	140	006 – 17 – CC – 80	5
14.5	17.5	33.6	27.9	3.43	2.84	1.50	1420	1420	145	145	006 – 17 – CC – 100	
12.1	14.6	40.4	33.4	4.12	3.41	1.34	1420	1420	145	145	006 – 17 – CC – 120	
9.67	11.7	50.4	41.8	5.14	4.26	1.07	1420	1420	145	145	006 – 17 – CC – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CC – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	006 – 17 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering.

Fig. 4 RNFM006–15 L/R–CC–5~60 MassA 4.5kg

• Use hex socket head cap screws (M6) for installation.

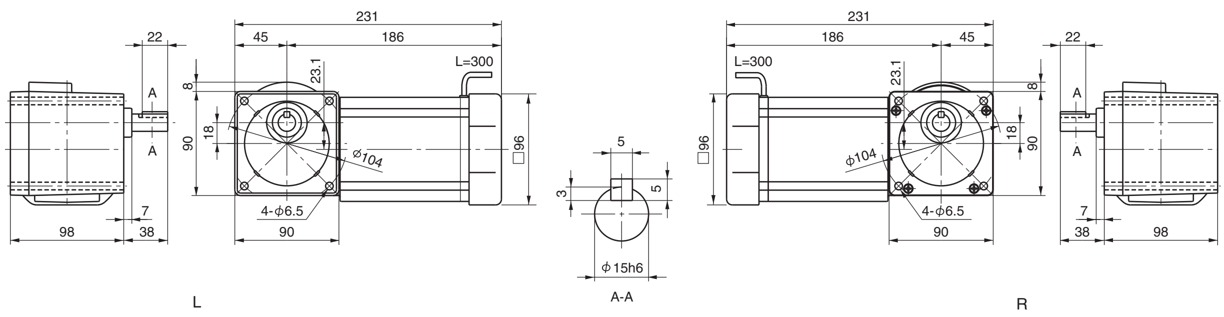
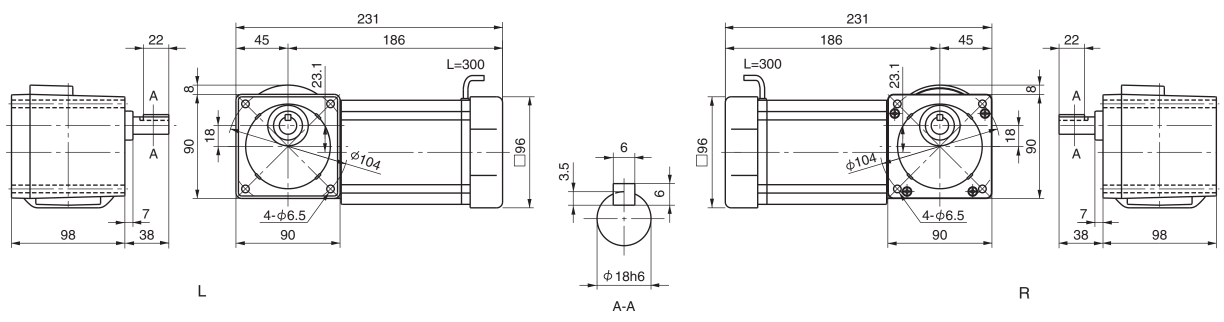


Fig. 5 RNFM006–17 L/R–CC–80~120 Mass 4.9kg

• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

90W Single-phase Reversible Motor

RNFM Series Solid shaft Flange mount type

Motor Speed	n_1	50Hz 1450r/min
		60Hz 1750r/min

Output speed n_2 r/min		Output Torque Tout				SF	Allowable Pro				Capacity Symbol – Frame Size – Suffix – Reduction Ratio	Outline Drawing Fig.
		Nm		kgf m			N		kgf			
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	50Hz	60Hz		
290	350	2.52	2.09	0.257	0.213	1.00	539	490	55	50	009 – 15 – CC – 5	
193	233	3.78	3.13	0.386	0.320	1.00	588	539	60	55	009 – 15 – CC – 7.5	
145	175	5.04	4.18	0.514	0.426	1.00	637	588	65	60	009 – 15 – CC – 10	
121	146	6.05	5.02	0.617	0.511	1.00	686	637	70	65	009 – 15 – CC – 12	
96.7	117	7.57	6.27	0.772	0.639	1.00	735	686	75	70	009 – 15 – CC – 15	
72.5	87.5	10.1	8.36	1.03	0.852	1.00	785	735	80	75	009 – 15 – CC – 20	1
58.0	70.0	12.6	10.4	1.29	1.07	1.00	834	785	85	80	009 – 15 – CC – 25	
48.3	58.3	15.1	12.5	1.54	1.28	1.00	883	834	90	85	009 – 15 – CC – 30	
36.3	43.8	20.2	16.7	2.06	1.70	1.00	981	932	100	95	009 – 15 – CC – 40	
29.0	35.0	25.2	20.9	2.57	2.13	1.00	1270	1230	130	125	009 – 15 – CC – 50	
24.2	29.2	30.3	25.1	3.09	2.56	1.00	1320	1270	135	130	009 – 15 – CC – 60	
18.1	21.9	40.4	33.4	4.12	3.41	1.00	1420	1370	145	140	009 – 17 – CC – 80	
14.5	17.5	50.4	41.8	5.14	4.26	1.00	1420	1420	145	145	009 – 17 – CC – 100	
12.1	14.6	53.9	50.2	5.50	5.11	✻	1420	1420	145	145	009 – 17 – CC – 120	2
9.67	11.7	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CC – 150	
7.25	8.75	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CC – 200	
6.04	7.29	53.9	53.9	5.50	5.50	✻	1420	1420	145	145	009 – 17 – CC – 240	

Notes : 1. Motor slippage may affect n_1 and n_2.
2. Allowable radial load shows the value when the distance from hollow shaft end to the point of radial load is 20 mm.
3. Output torque is limited when SF is ✻. It must be used within the value stipulated in the table as overload may occur if the motor is loaded to its full capacity.

Designate model and voltage and frequency when ordering.

Fig. 1 RNFM009–15 L/R–CC–5~60 Mass 5.0kg

• Use hex socket head cap screws (M6) for installation.

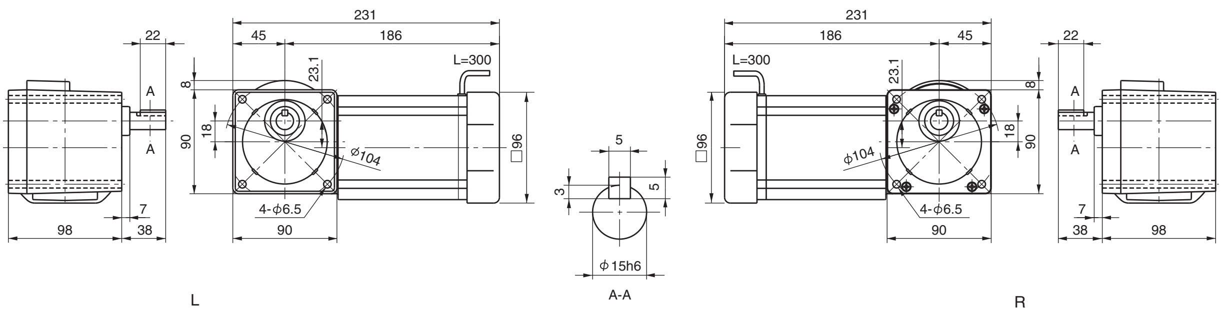
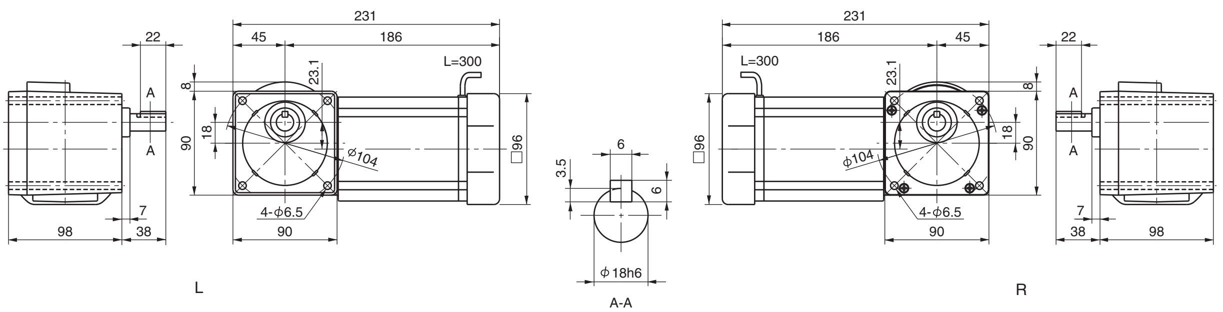


Fig. 2 RNFM009–17 L/R–CC–80~120 Mass 5.4kg

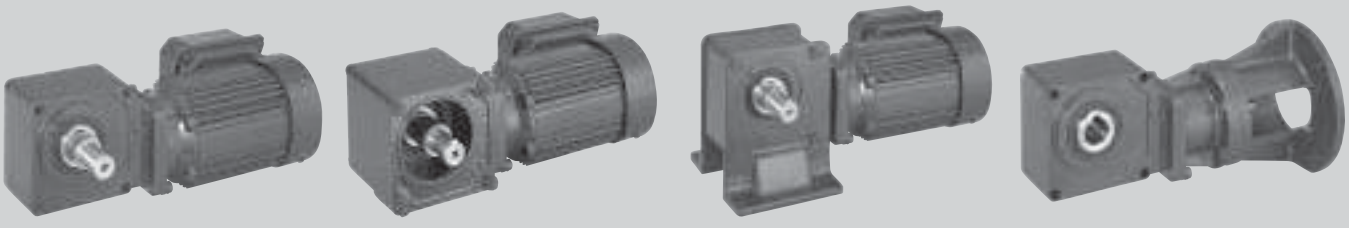
• Use hex socket head cap screws (M6) for installation.



Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

HyPONIC Drive®

Option



OPTION Dimension sheet

RNFM Series Solid Shaft Flange Mount Type (1) 3-phase Motor

Please refer to page 24-50 for selection table.

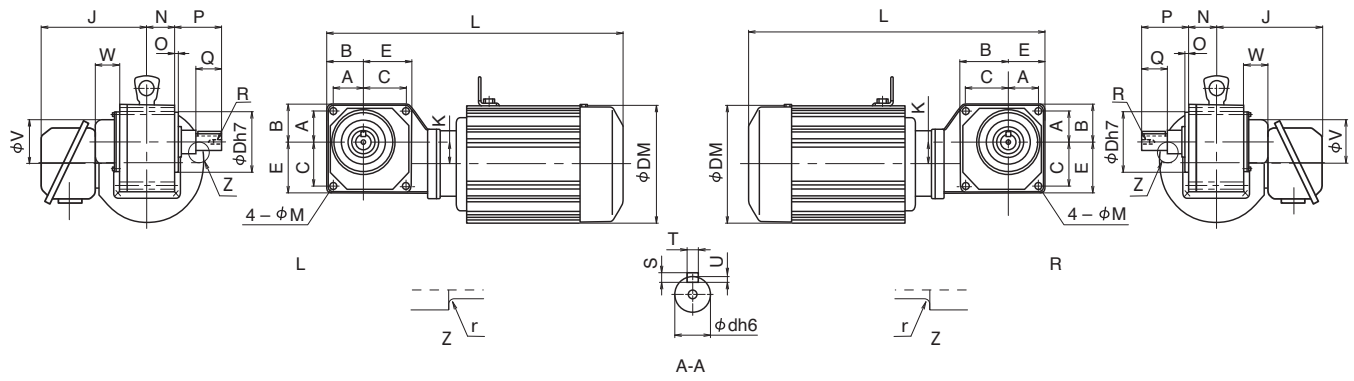
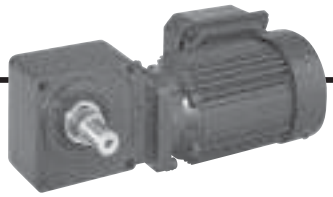


Fig.1

Power	Reduction Ratio	Model	A	B	C	E	J	K	M	D	N	O	V	W
0.1kW	5-60	RNFM01– 1120 L/R –X1(–B)–Ratio	32	40	42	50	113	20	6.6	52	33	6	56	20
	40-60	RNFM01– 1220 L/R –X1(–B)–Ratio	40	49	57	66	113	28	9	78	37	5	59	32
	80-240	RNFM01– 1230 L/R –X1(–B)–Ratio	40	51	65	76	113	13	9	78	42	5	59	32
	80-240	RNFM01– 1330 L/R –X1(–B)–Ratio	47	60	79	92	113	11	11	85	46	5	67	32
0.2kW	5-30	RNFM02– 1120 L/R –X1(–B)–Ratio	32	40	42	50	113	20	6.6	52	33	6	56	20
	5-60	RNFM02– 1220 L/R –X1(–B)–Ratio	40	49	57	66	113	28	9	78	37	5	59	32
	40-60	RNFM02– 1320 L/R –X1(–B)–Ratio	46	58	62	74	113	27.5	11	85	46	5	67	32
	80-240	RNFM02– 1330 L/R –X1(–B)–Ratio	47	60	79	92	113	11	11	85	46	5	67	32
	80-240	RNFM02– 1430 L/R –X1(–B)–Ratio	54	70	92	108	113	14	14	95	59	5	77	42
0.25kW	5-30	RNFM03– 1220 L/R –X1(–B)–Ratio	40	49	57	66	113	28	9	78	37	5	59	32
	40-60	RNFM03– 1320 L/R –X1(–B)–Ratio	46	58	62	74	113	27.5	11	85	46	5	67	32
	80-240	RNFM03– 1430 L/R –X1(–B)–Ratio	54	70	92	108	113	14	14	95	59	5	77	42
0.4kW	5-30	RNFM05– 1220 L/R –X1(–B)–Ratio	40	49	57	66	113	28	9	78	37	5	59	32
	5-60	RNFM05– 1320 L/R –X1(–B)–Ratio	46	58	62	72	113	27.5	11	85	46	5	67	32
	40-60	RNFM05– 1420 L/R –X1(–B)–Ratio	57	70	75	88	113	20	14	95	59	5	77	42
	80-240	RNFM05– 1430 L/R –X1(–B)–Ratio	54	70	92	108	113	14	14	95	59	5	77	42
	80-240	RNFM05– 1530 L/R –X1(–B)–Ratio	64	84	109	129	113	17	18	110	68	5	90	42
0.55kW	5-30	RNFM08– 1320 L/R –X1(–B)–Ratio	46	58	62	74	143	27.5	11	85	46	5	67	32
	40-60	RNFM08– 1420 L/R –X1(–B)–Ratio	57	70	75	88	143	20	14	95	59	5	77	42
	80-240	RNFM08– 1530 L/R –X1(–B)–Ratio	64	84	109	129	143	17	18	110	68	5	90	42
0.75kW	5-30	RNFM1– 1320 L/R –X1(–B)–Ratio	46	58	62	74	143	27.5	11	85	46	5	67	32
	5-60	RNFM1– 1420 L/R –X1(–B)–Ratio	57	70	75	88	143	20	14	95	59	5	77	42
	40-60	RNFM1– 1520 L/R –X1(–B)–Ratio	70	84	80	94	143	28	14	110	68	5	90	42
	80-240	RNFM1– 1530 L/R –X1(–B)–Ratio	64	84	109	129	143	17	18	110	68	5	90	42
	80	RNFM1– 1531 L/R –X1(–B)–Ratio	64	84	109	129	143	17	18	110	68	5	90	42
1.1kW	5-30	RNFM1H– 1420 L/R –X1(–B)–Ratio	57	70	75	88	148	20	14	95	59	5	77	42
	40-60	RNFM1H– 1520 L/R –X1(–B)–Ratio	70	84	80	94	148	28	14	110	68	5	90	42
	80	RNFM1H– 1531 L/R –X1(–B)–Ratio	64	84	109	129	148	17	18	110	68	5	90	42
1.5kW	5-30	RNFM2– 1420 L/R –X1(–B)–Ratio	57	70	75	88	148	20	14	95	59	5	77	42
	5-60	RNFM2– 1520 L/R –X1(–B)–Ratio	70	84	80	94	148	28	14	110	68	5	90	42
	40-80	RNFM2– 1531 L/R –X1(–B)–Ratio	64	84	109	129	148	17	18	110	68	5	90	42
2.2kW	5-30	RNFM3– 1520 L/R –X1(–B)–Ratio	70	84	80	94	155	28	14	110	68	5	90	42
	40-60	RNFM3– 1531 L/R –X1(–B)–Ratio	64	84	109	129	155	17	18	110	68	5	90	42

Notes : 1. This type consisits of RNYM type and plug-in shaft.
2. The dimensions of right side shaft type are the same as left side shaft type except for the shaft and safety cover direction.
3. Values in brackets ( ) are for motors with brake.



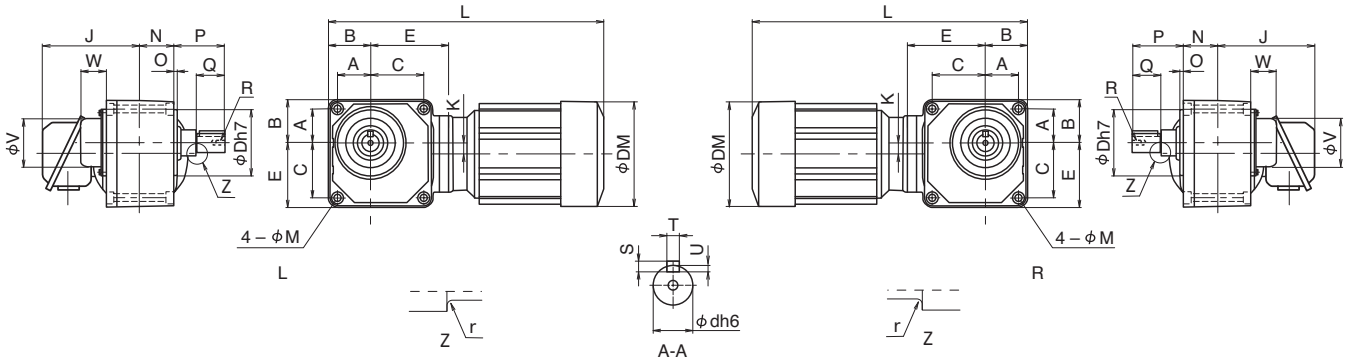


Fig.2

Output Shaft								Without brake			With brake			Fig.
d	P	Q	R	S	T	U	r	L	DM	Mass	L	DM	Mass	
18	50	28	M6 × 12	6	6	3.5	1	268	119	6.5 kg	303	124	8.0 kg	1
22	63.5	36	M6 × 12	6	6	3.5	1	291	119	7.5 kg	326	124	9.0 kg	1
22	63.5	36	M6 × 12	6	6	3.5	1	292	119	8.0 kg	327	124	9.5 kg	2
28	71	42	M8 × 16	7	8	4	2	314	119	10 kg	349	124	11 kg	2
18	50	28	M6 × 12	6	6	3.5	1	310	124	7.5 kg	342	124	9.0 kg	1
22	63.5	36	M6 × 12	6	6	3.5	1	333	124	9.0 kg	365	124	10.5 kg	1
28	71	42	M8 × 16	7	8	4	2	361	124	11 kg	393	124	12 kg	1
28	71	42	M8 × 16	7	8	4	2	356	124	11 kg	388	124	12 kg	2
32	91	58	M8 × 16	8	10	5	2	384	124	16 kg	416	124	17 kg	2
22	63.5	36	M6 × 12	6	6	3.5	1	353	124	10 kg	385	124	12 kg	1
28	71	42	M8 × 16	7	8	4	2	381	124	12 kg	413	124	14 kg	1
32	91	58	M8 × 16	8	10	5	2	404	124	17 kg	436	124	18 kg	2
22	63.5	36	M6 × 12	6	6	3.5	1	353	124	10 kg	385	124	12 kg	1
28	71	42	M8 × 16	7	8	4	2	381	124	12 kg	413	124	14 kg	1
32	91	58	M8 × 16	8	10	5	2	412	124	16 kg	444	124	17 kg	1
32	91	58	M8 × 16	8	10	5	2	404	124	17 kg	436	124	18 kg	2
40	120	82	M10× 18	8	12	5	3	437	124	25 kg	469	124	26 kg	2
28	71	42	M8 × 16	7	8	4	2	423	160	14 kg	466	160	17 kg	1
32	91	58	M8 × 16	8	10	5	2	474	160	19 kg	517	160	21 kg	1
40	120	82	M10× 18	8	12	5	3	498	160	27 kg	541	160	30 kg	2
28	71	42	M8 × 16	7	8	4	2	423	160	14 kg	466	160	17 kg	1
32	91	58	M8 × 16	8	10	5	2	474	160	19 kg	517	160	21 kg	1
40	120	82	M10× 18	8	12	5	3	498	160	28 kg	541	160	30 kg	1
40	120	82	M10× 18	8	12	5	3	498	160	27 kg	541	160	30 kg	2
40	120	82	M10× 18	8	12	5	3	498	160	28 kg	541	160	30 kg	2
32	91	58	M8 × 16	8	10	5	2	504	169	23 kg	566	169	27 kg	1
40	120	82	M10× 18	8	12	5	3	534	169	33 kg	596	169	37 kg	1
40	120	82	M10× 18	8	12	5	3	528	169	32 kg	590	169	36 kg	2
32	91	58	M8 × 16	8	10	5	2	504	169	23 kg	566	169	27 kg	1
40	120	82	M10× 18	8	12	5	3	534	169	33 kg	596	169	37 kg	1
40	120	82	M10× 18	8	12	5	3	528	169	32 kg	590	169	36 kg	2
40	120	82	M10× 18	8	12	5	3	553	182	36 kg	616	182	41 kg	1
40	120	82	M10× 18	8	12	5	3	548	182	36 kg	611	182	41 kg	2

OPTION Dimension sheet

RNFM Series Solid Shaft Flange Mount Type (2) 3-phase Motor

Please refer to page 24-50 for selection table.

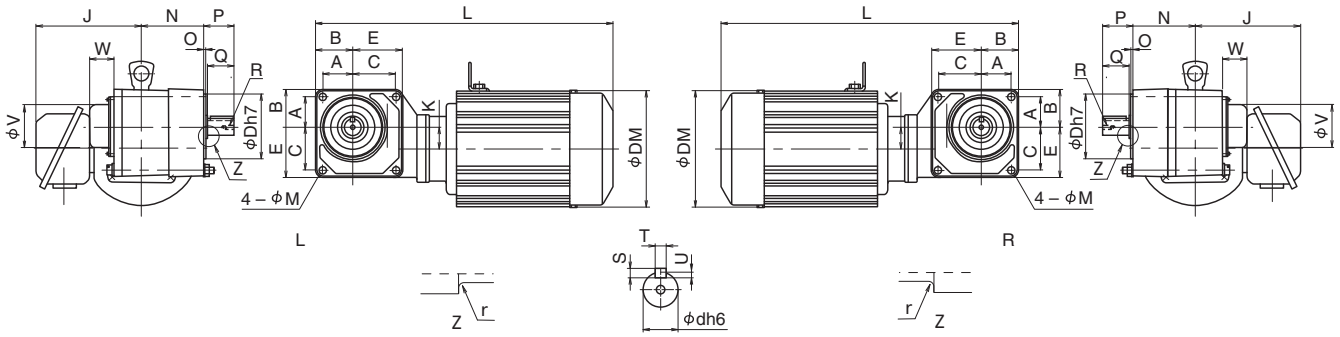
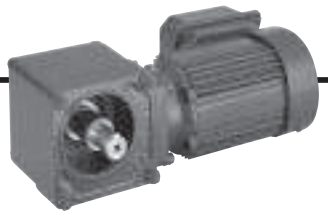


Fig.1

Power	Reduction Ratio	Model	A	B	C	E	J	K	M	D	N	O	V	W
0.1kW	5-60	RNFM01– 1120 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	32	40	42	50	113	20	6.6	60	63.5	3	56	20
	40-60	RNFM01– 1220 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	40	49	57	66	113	28	9	85	82.5	3	59	32
	80-240	RNFM01– 1230 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	40	51	65	76	113	13	9	85	63.5	3	59	32
	80-240	RNFM01– 1330 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	47	60	79	92	113	11	11	94	63.5	3	67	32
0.2kW	5-30	RNFM02– 1120 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	32	40	42	50	113	20	6.6	60	63.5	3	56	20
	5-60	RNFM02– 1220 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	40	49	57	66	113	28	9	85	82.5	3	59	32
	40-60	RNFM02– 1320 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	46	58	62	74	113	27.5	11	94	88.5	3	67	32
	80-240	RNFM02– 1330 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	47	60	79	92	113	11	11	94	63.5	3	67	32
	80-240	RNFM02– 1430 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	54	70	92	108	113	14	14	105	82.5	3	77	42
0.25kW	5-30	RNFM03– 1220 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	40	49	57	66	113	28	9	85	82.5	3	59	32
	40-60	RNFM03– 1320 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	46	58	62	74	113	27.5	11	94	88.5	3	67	32
	80-240	RNFM03– 1430 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	54	70	92	108	113	14	14	105	82.5	3	77	42
0.4kW	5-30	RNFM05– 1220 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	40	49	57	66	113	28	9	85	82.5	3	59	32
	5-60	RNFM05– 1320 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	46	58	62	74	113	27.5	11	94	88.5	3	67	32
	40-60	RNFM05– 1420 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	57	70	75	88	113	20	14	105	95	3	77	42
	80-240	RNFM05– 1430 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	54	70	92	108	113	14	14	105	82.5	3	77	42
	80-240	RNFM05– 1530 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	113	17	18	120	95	3	90	42
0.55kW	5-30	RNFM08– 1320 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	46	58	62	74	143	27.5	11	94	88.5	3	67	32
	40-60	RNFM08– 1420 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	57	70	75	88	143	20	14	105	95	3	77	42
	80-240	RNFM08– 1530 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	143	17	18	120	95	3	90	42
0.75kW	5-30	RNFM1– 1320 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	46	58	62	74	143	27.5	11	94	88.5	3	67	32
	5-60	RNFM1– 1420 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	57	70	75	88	143	20	14	105	95	3	77	42
	40-60	RNFM1– 1520 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	70	84	80	94	143	28	14	120	95	3	90	42
	80-240	RNFM1– 1530 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	143	17	18	120	95	3	90	42
	80	RNFM1– 1531 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	143	17	18	120	95	3	90	42
1.1kW	5-30	RNFM1H– 1420 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	57	70	75	88	148	20	14	105	95	3	77	42
	40-60	RNFM1H– 1520 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	70	84	80	94	148	28	14	120	95	3	90	42
	80	RNFM1H– 1531 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	148	17	18	120	95	3	90	42
1.5kW	5-30	RNFM2– 1420 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	57	70	75	88	148	20	14	105	95	3	77	42
	5-60	RNFM2– 1520 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	70	84	80	94	148	28	14	120	95	3	90	42
	40-80	RNFM2– 1531 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	148	17	18	120	95	3	90	42
2.2kW	5-30	RNFM3– 1520 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	70	84	80	94	155	28	14	120	95	3	90	42
	40-60	RNFM3– 1531 $^{L}_{R}$ – $^{P1}_{Q1}$ (–B)–Ratio	64	84	109	129	155	17	18	120	95	3	90	42

Notes : 1. This type consisits of RNYM type, plug-in shaft and bolt-on flange.

2. The dimensions of right side shaft type are the same as left side shaft type except for the shaft and safety cover direction.



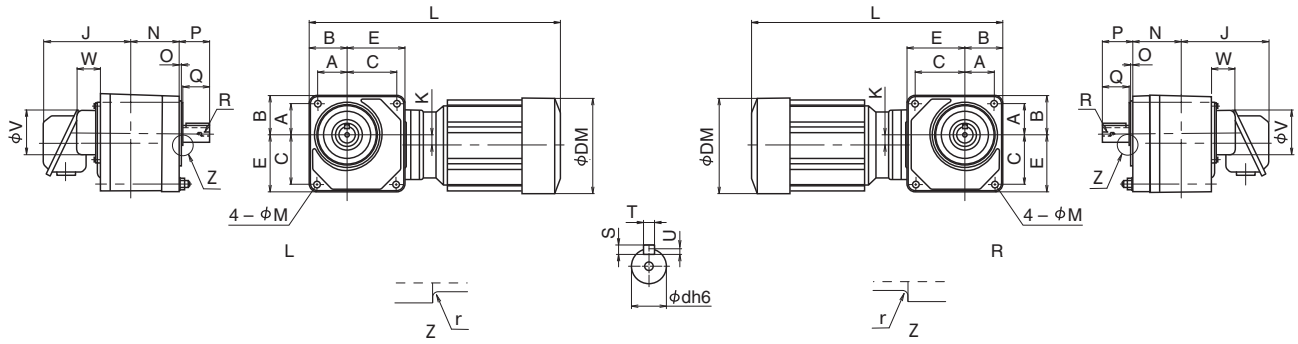


Fig.2

Output Shaft								Without brake			With brake			Fig.
d	P	Q	R	S	T	U	r	L	DM	Mass	L	DM	Mass	
18	33	28	M6 × 12	6	6	3.5	1	268	119	7.0 kg	303	124	8.5 kg	1
22	41	36	M6 × 12	6	6	3.5	1	291	119	9.0 kg	326	124	10.5 kg	1
22	41	36	M6 × 12	6	6	3.5	1	292	119	9.0 kg	327	124	10.5 kg	2
28	47	42	M8 × 16	7	8	4	2	314	119	11 kg	349	124	12 kg	2
18	33	28	M6 × 12	6	6	3.5	1	310	124	8.0 kg	342	124	9.5 kg	1
22	41	36	M6 × 12	6	6	3.5	1	333	124	10.5 kg	365	124	12 kg	1
28	47	42	M8 × 16	7	8	4	2	361	124	12 kg	393	124	14 kg	1
28	47	42	M8 × 16	7	8	4	2	356	124	12 kg	388	124	13 kg	2
32	63	58	M8 × 16	8	10	5	2	384	124	18 kg	416	124	19 kg	2
22	41	36	M6 × 12	6	6	3.5	1	353	124	12 kg	385	124	14 kg	1
28	47	42	M8 × 16	7	8	4	2	381	124	14 kg	413	124	16 kg	1
32	63	58	M8 × 16	8	10	5	2	404	124	19 kg	436	124	20 kg	2
22	41	36	M6 × 12	6	6	3.5	1	353	124	12 kg	385	124	14 kg	1
28	47	42	M8 × 16	7	8	4	2	381	124	14 kg	413	124	16 kg	1
32	63	58	M8 × 16	8	10	5	2	412	124	18 kg	444	124	19 kg	1
32	63	58	M8 × 16	8	10	5	2	404	124	19 kg	436	124	20 kg	2
40	87	82	M10× 18	8	12	5	3	437	124	29 kg	469	124	30 kg	2
28	47	42	M8 × 16	7	8	4	2	423	160	16 kg	466	160	19 kg	1
32	63	58	M8 × 16	8	10	5	2	474	160	21 kg	517	160	23 kg	1
40	87	82	M10× 18	8	12	5	3	498	160	31 kg	541	160	34 kg	2
28	47	42	M8 × 16	7	8	4	2	423	160	16 kg	466	160	19 kg	1
32	63	58	M8 × 16	8	10	5	2	474	160	21 kg	517	160	23 kg	1
40	87	82	M10× 18	8	12	5	3	498	160	30 kg	541	160	32 kg	1
40	87	82	M10× 18	8	12	5	3	498	160	31 kg	541	160	34 kg	2
40	87	82	M10× 18	8	12	5	3	498	160	32 kg	541	160	34 kg	2
32	63	58	M8 × 16	8	10	5	2	504	169	25 kg	566	169	29 kg	1
40	87	82	M10× 18	8	12	5	3	534	169	35 kg	596	169	39 kg	1
40	87	82	M10× 18	8	12	5	3	528	169	36 kg	590	169	40 kg	2
32	63	58	M8 × 16	8	10	5	2	504	169	25 kg	566	169	29 kg	1
40	87	82	M10× 18	8	12	5	3	534	169	35 kg	596	169	39 kg	1
40	87	82	M10× 18	8	12	5	3	528	169	36 kg	590	169	40 kg	2
40	87	82	M10× 18	8	12	5	3	553	182	38 kg	616	182	43 kg	1
40	87	82	M10× 18	8	12	5	3	548	182	40 kg	611	182	45 kg	2

OPTION Dimension sheet

RNHM Series Solid Shaft Foot Mount Type 3-phase Motor

Please refer to page 24-50 for selection table.

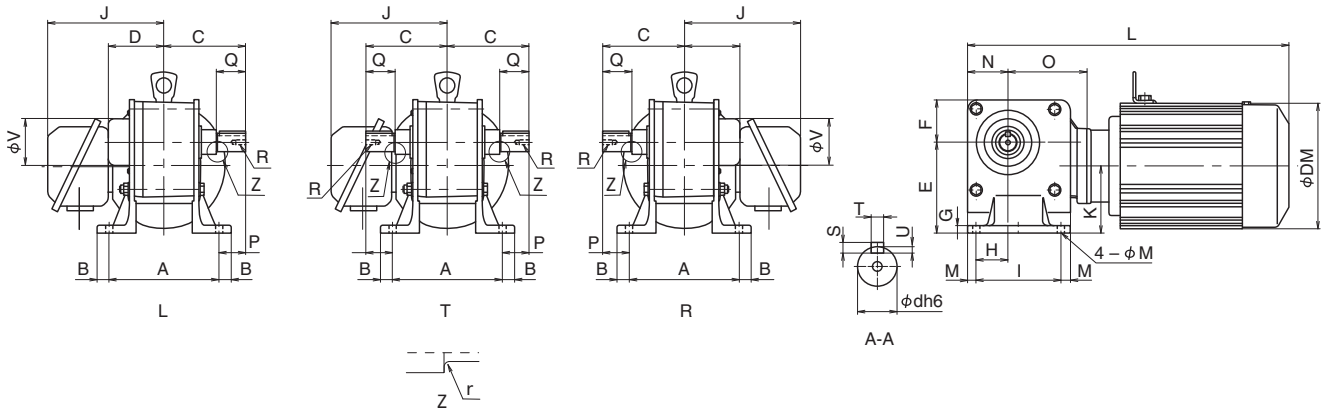
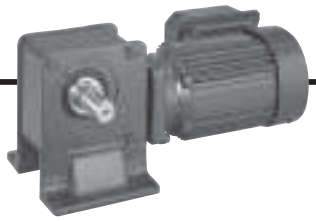


Fig.1

Power	Reduction Ratio	Model	A	B	C	D	E	F	G	H	I	J	K	M
0.1kW	5-60	RNHM01– 1120 R/T –J1(–B)–Ratio	120	10	83	66	90	40	10	30	70	113	70	10
	40-60	RNHM01– 1220 L/R –J1(–B)–Ratio	136	15	100.5	69	110	51	10	40	105	113	82	11
	80-240	RNHM01– 1230 L/R –J1(–B)–Ratio	144	15	104.5	73	110	51	10	40	105	113	97	11
	80-240	RNHM01– 1330 R/T –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	113	101	13
0.2kW	5-30	RNHM02– 1120 R/T –J1(–B)–Ratio	120	10	83	66	90	40	10	30	70	113	70	10
	5-60	RNHM02– 1220 L/R –J1(–B)–Ratio	136	15	100.5	69	110	51	10	40	105	113	82	11
	40-60	RNHM02– 1320 L/R –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	113	84.5	13
	80-240	RNHM02– 1330 R/T –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	113	101	13
	80-240	RNHM02– 1430 R/T –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	113	118	19
0.25kW	5-30	RNHM03– 1220 R/T –J1(–B)–Ratio	136	15	100.5	69	110	51	10	40	105	113	82	11
	40-60	RNHM03– 1320 R/T –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	113	84.5	13
	80-240	RNHM03– 1430 L/R –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	113	118	19
0.4kW	5-30	RNHM05– 1220 R/T –J1(–B)–Ratio	136	15	100.5	69	110	51	10	40	105	113	82	11
	5-60	RNHM05– 1320 R/T –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	113	84.5	13
	40-60	RNHM05– 1420 L/R –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	113	112	19
	80-240	RNHM05– 1430 L/R –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	113	118	19
	80-240	RNHM05– 1530 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	113	143	20
0.55kW	5-30	RNHM08– 1320 R/T –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	143	84.5	13
	40-60	RNHM08– 1420 L/R –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	143	112	19
	80-240	RNHM08– 1530 L/R –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	143	143	20
0.75kW	5-30	RNHM1– 1320 R/T –J1(–B)–Ratio	164	15	117	78	112	60	12	47	126	143	84.5	13
	5-60	RNHM1– 1420 R/T –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	143	112	19
	40-60	RNHM1– 1520 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	143	132	20
	80-240	RNHM1– 1530 L/R –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	143	143	20
	80	RNHM1– 1531 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	143	143	20
1.1kW	5-30	RNHM1H– 1420 R/T –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	148	112	19
	40-60	RNHM1H– 1520 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	148	132	20
	80	RNHM1H– 1531 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	148	143	20
1.5kW	5-30	RNHM2– 1420 R/T –J1(–B)–Ratio	204	20	150	101	132	70	12	51	140	148	112	19
	5-60	RNHM2– 1520 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	148	132	20
	40-80	RNHM2– 1531 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	148	143	20
2.2kW	5-30	RNHM3– 1520 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	155	132	20
	40-60	RNHM3– 1531 R/T –J1(–B)–Ratio	244	20	188	110	160	84	15	64	173	155	143	20

Notes : 1. This type consisits of RNYM type, plug-in shaft and bolt-on foot.

2. The dimensions of right side shaft type are the same as left side shaft type except for the shaft and safety cover direction. There is no safety cover on twin shaft type.



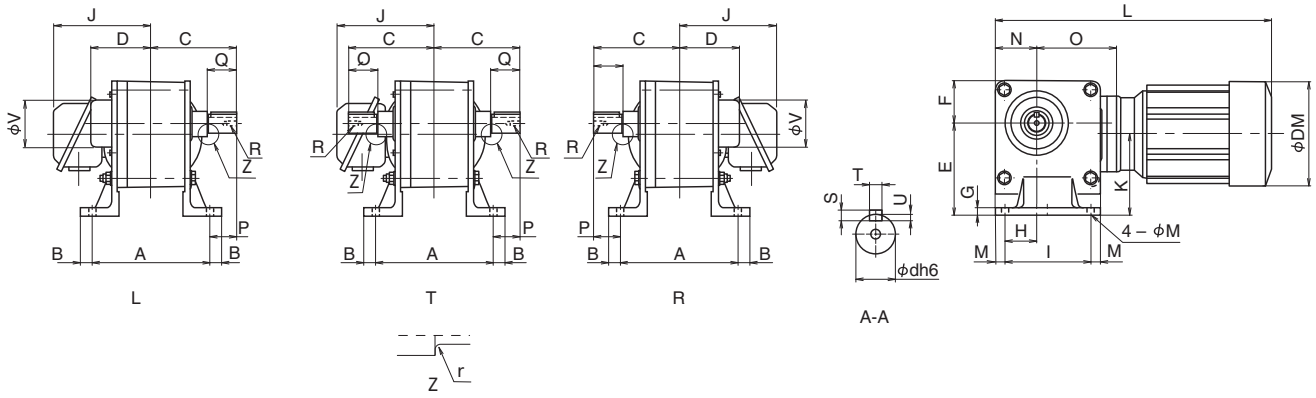


Fig.2

N	O	V	X	Output Shaft								Without brake			With brake			Fig.
				d	P	Q	R	S	T	U	r	L	DM	Mass	L	DM	Mass	
40	82	59	9	18	23	28	M6 × 12	6	6	3.5	1	268	119	6.5 kg	303	124	8.0 kg	1
51	96	59	9	22	32.5	36	M6 × 12	6	6	3.5	1	293	119	7.5 kg	328	124	9.0 kg	1
51	95	59	9	22	32.5	36	M6 × 12	6	6	3.5	1	292	119	8.0 kg	327	124	9.5 kg	2
60	108	67	11	28	35	42	M8 × 16	7	8	4	2	314	119	10 kg	349	124	11 kg	2
40	82	59	9	18	23	28	M6 × 12	6	6	3.5	1	310	124	7.5 kg	342	124	9.0 kg	1
51	96	59	9	22	32.5	36	M6 × 12	6	6	3.5	1	335	124	9.0 kg	367	124	10.5 kg	1
60	114	67	11	28	35	42	M8 × 16	7	8	4	2	363	124	11 kg	395	124	12 kg	1
60	108	67	11	28	35	42	M8 × 16	7	8	4	2	356	124	11 kg	388	124	12 kg	2
70	130	77	14	32	48	58	M8 × 16	8	10	5	2	384	124	16 kg	416	124	17 kg	2
51	96	59	9	22	32.5	36	M6 × 12	6	6	3.5	1	355	124	10 kg	387	124	12 kg	1
60	114	67	11	28	35	42	M8 × 16	7	8	4	2	383	124	12 kg	415	124	14 kg	1
70	130	77	14	32	48	58	M8 × 16	8	10	5	2	404	124	17 kg	436	124	18 kg	2
51	96	59	9	22	32.5	36	M6 × 12	6	6	3.5	1	355	124	10 kg	387	124	12 kg	1
60	114	67	11	28	35	42	M8 × 16	7	8	4	2	383	124	12 kg	415	124	14 kg	1
70	146	77	14	32	48	58	M8 × 16	8	10	5	2	412	124	16 kg	444	124	17 kg	1
70	130	77	14	32	48	58	M8 × 16	8	10	5	2	404	124	17 kg	436	124	18 kg	2
84	157	90	18	40	66	82	M10× 18	8	12	5	3	437	124	25 kg	469	124	26 kg	2
60	114	67	11	28	35	42	M8 × 16	7	8	4	2	425	160	14 kg	468	160	17 kg	1
70	146	77	14	32	48	58	M8 × 16	8	10	5	2	474	160	19 kg	517	160	21 kg	1
84	157	90	18	40	66	82	M10× 18	8	12	5	3	498	160	27 kg	541	160	30 kg	2
60	114	67	11	28	35	42	M8 × 16	7	8	4	2	425	160	14 kg	468	160	17 kg	1
70	146	77	14	32	48	58	M8 × 16	8	10	5	2	474	160	19 kg	517	160	21 kg	1
84	178	90	18	40	66	82	M10× 18	8	12	5	3	498	160	28 kg	541	160	30 kg	1
84	157	90	18	40	66	82	M10× 18	8	12	5	3	498	160	27 kg	541	160	30 kg	2
84	157	90	18	40	66	82	M10× 18	8	12	5	3	498	160	28 kg	541	160	30 kg	2
70	146	77	14	32	48	58	M8 × 16	8	10	5	2	504	169	23 kg	566	169	27 kg	1
84	178	90	18	40	66	82	M10× 18	8	12	5	3	534	169	33 kg	596	169	37 kg	1
84	157	90	18	40	66	82	M10× 18	8	12	5	3	528	169	32 kg	590	169	36 kg	2
70	146	77	14	32	48	58	M8 × 16	8	10	5	2	504	169	23 kg	566	169	27 kg	1
84	178	90	18	40	66	82	M10× 18	8	12	5	3	534	169	33 kg	596	169	37 kg	1
84	157	90	18	40	66	82	M10× 18	8	12	5	3	528	169	32 kg	590	169	36 kg	2
84	178	90	18	40	66	82	M10× 18	8	12	5	3	553	182	36 kg	616	182	41 kg	1
84	157	90	18	40	66	82	M10× 18	8	12	5	3	548	182	36 kg	611	182	41 kg	2

OPTION Dimension sheet

IEC Flange Type

Please refer to page 24-50 for selection table and other dimensions.

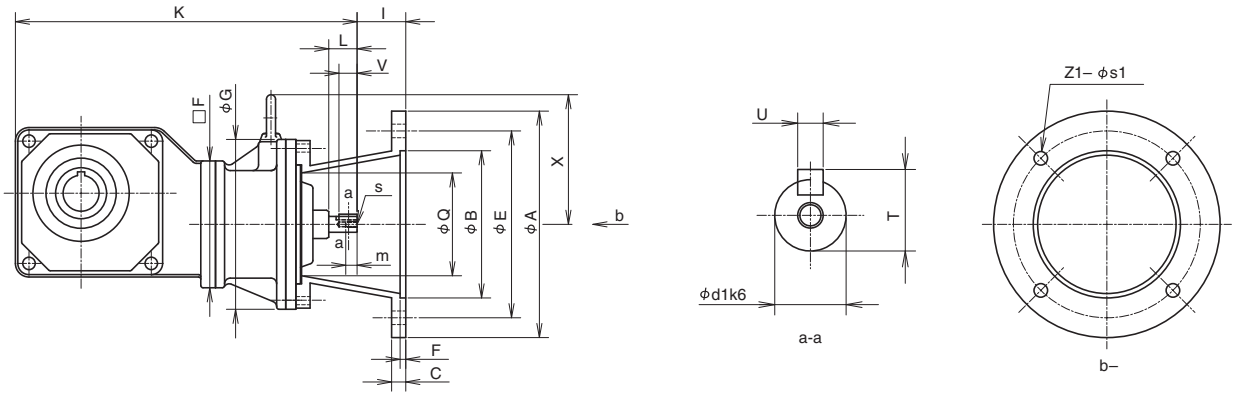
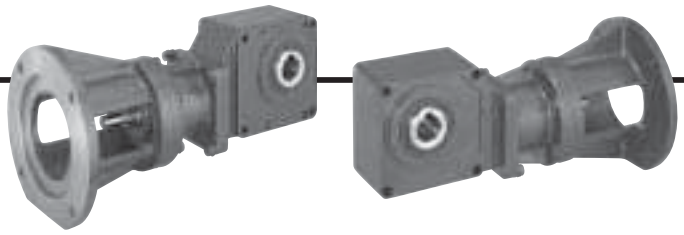


Fig.1

Power	Reduction Ratio	Model	Motor Flange Size	A	B	Q	E	Z	S	C1	F1	I	D
0.1kW	5~60	RNYJ – 1120 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
	80~240	RNYJ – 1230 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
0.2kW	5~30	RNYJ – 1120 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
	40~60	RNYJ – 1220 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
	80~240	RNYJ – 1330 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
0.25kW	5~30	RNYJ – 1220 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
	40~60	RNYJ – 1320 – Ratio	71/A160	160	110H8	90	130	4	9	10	5	33	14k6
	80~120	RNYJ – 1430 – Ratio	71/A160	160	110H8	90	130	4	9	10	5	33	14k6
	150~240	RNYJ – 1430 – Ratio	71/A160	160	110H8	90	130	4	9	10	5	33	14k6
0.4kW	5~30	RNYJ – 1220 – Ratio	71/A160	160	110H8	65	130	4	9	11	4.5	35	12k6
	40~60	RNYJ – 1320 – Ratio	71/A160	160	110H8	90	130	4	9	10	5	33	14k6
	80~120	RNYJ – 1430 – Ratio	71/A160	160	110H8	90	130	4	9	10	5	33	14k6
	150~240	RNYJ – 1430 – Ratio	71/A160	160	110H8	90	130	4	9	10	5	33	14k6
0.55kW	5~30	RNYJ – 1320 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	40~60	RNYJ – 1420 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	80~120	RNYJ – 1530 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	150~240	RNYJ – 1530 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
0.75kW	5~30	RNYJ – 1320 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	40~60	RNYJ – 1420 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	80~120	RNYJ – 1530 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	150~240	RNYJ – 1530 – Ratio	80/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
1.1kW	5~30	RNYJ – 1420 – Ratio	90/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	40~60	RNYJ – 1520 – Ratio	80/A200	200	130H8	110	165	4	11	12	5	53	19k6
	80	RNYJ – 1531 – Ratio	90/A200	200	130H8	110	165	4	11	12	5	53	19k6
1.5kW	5~30	RNYJ – 1420 – Ratio	90/A200	200	130H8	90	165	4	12	12.5	5	43	14k6
	40~60	RNYJ – 1520 – Ratio	80/A200	200	130H8	110	165	4	11	12	5	53	19k6
	80	RNYJ – 1531 – Ratio	90/A200	200	130H8	110	165	4	11	12	5	53	19k6
2.2kW	5~30	RNYJ – 1520 – Ratio	100/A250	250	180H8	150	215	4	14	15	6	63	19k6
	40~60	RNYJ – 1531 – Ratio	100/A250	250	180H8	150	215	4	14	15	6	63	19k6



L	U	T	V	s1	m1	G	F	X	K	Mass
25	4	13.5	18	M4	8	110	90	–	227	6.2 kg
25	4	13.5	18	M4	8	110	90	–	251	7.7 kg
25	4	13.5	18	M4	8	110	90	–	227	6.2 kg
25	4	13.5	18	M4	8	110	90	–	260	7.7 kg
25	4	13.5	18	M4	8	110	90	–	283	9.4 kg
25	4	13.5	18	M4	8	110	90	–	260	7.7 kg
25	5	16	16	M5	10	150	112	115	302	12.6 kg
25	5	16	16	M5	10	150	112	115	325	16.8 kg
25	5	16	16	M5	10	150	112	115	326	16.8 kg
25	4	13.5	18	M4	8	110	90	–	260	7.7 kg
25	5	16	16	M5	10	150	112	115	302	12.6 kg
25	5	16	16	M5	10	150	112	115	325	16.8 kg
25	5	16	16	M5	10	150	112	115	326	16.8 kg
25	5	16	16	M5	10	150	112	115	302	13.3 kg
25	5	16	16	M5	10	150	116	115	338	16.5 kg
25	5	16	16	M5	10	150	116	115	363	23.5 kg
25	5	16	16	M5	10	150	116	115	370	23.5 kg
25	5	16	16	M5	10	150	112	115	302	13.3 kg
25	5	16	16	M5	10	150	116	115	338	16.5 kg
25	5	16	16	M5	10	150	116	115	363	23.5 kg
25	5	16	16	M5	10	150	116	115	370	23.5 kg
25	5	16	16	M5	10	150	116	115	347	16.5 kg
35	6	21.5	25	M6	12	200	150	130	421	31.6 kg
35	6	21.5	25	M6	12	200	116	130	388	26.6 kg
25	5	16	16	M5	10	150	116	115	347	16.5 kg
35	6	21.5	25	M6	12	200	150	130	421	31.6 kg
35	6	21.5	25	M6	12	200	116	130	388	26.6 kg
35	6	21.5	25	M6	12	200	150	130	421	33.5 kg
35	6	21.5	25	M6	12	200	116	130	388	31.5 kg

MEMO

Water proof type IP65

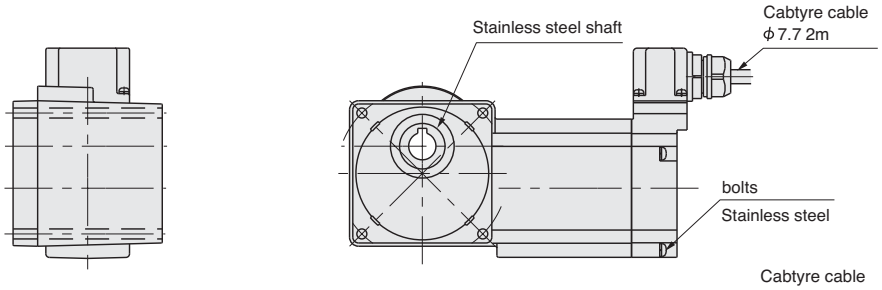
Water proof / Dust proof IP65

IEC Standard IP65 Water proof/dust proof. It is ideal for places exposed to water splashes or places that are washed periodically.

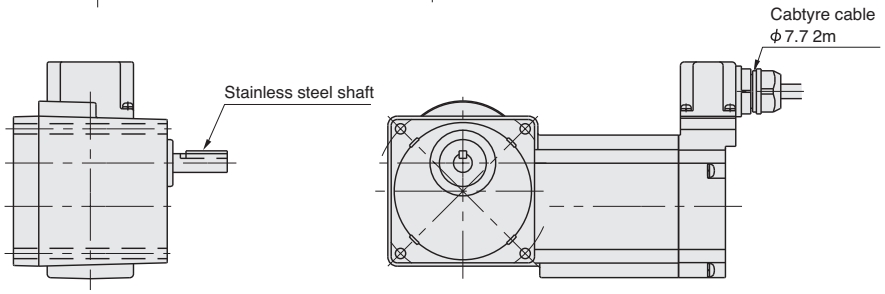
IP65: The IP indication that represents dust-proofing and water-proofing grades is prescribed by IEC529 and IEC34-5. "6" of IP65 represents a "perfect dust-proofing structure" that is the highest-grade protection from contact or entry of solids, while "5" represents protection from water, ensuring protection from water jets in all directions.
The motor has a structure that permits motor operation without any trouble even if it is exposed to water jets in all directions from a nozzle.

Test conditions: A nozzle of 6.3 mm in I.D. is placed at a distance of 3 m from the test piece and water jetted out of the nozzle under pressure of 30 kPa at the flow rate of 12.5 l/min is directed at the test piece in all directions for three minutes. After that, there should be no abnormality. The motor cannot be used underwater or in places exposed to high-pressure water jets.

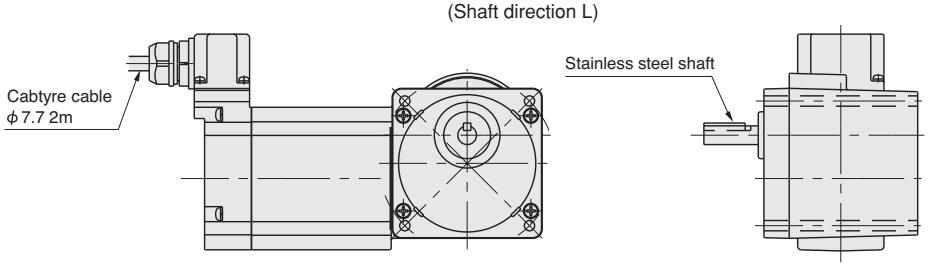
Hollow shaft type



Solid shaft type



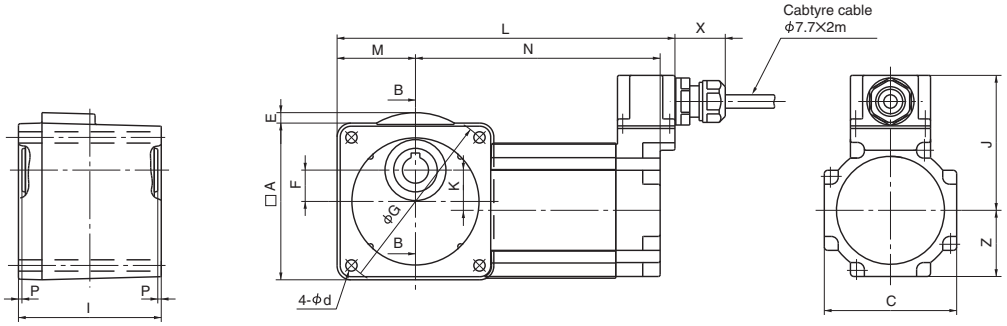
(Shaft direction L)



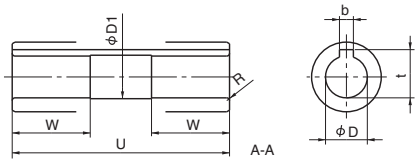
(Shaft direction R)

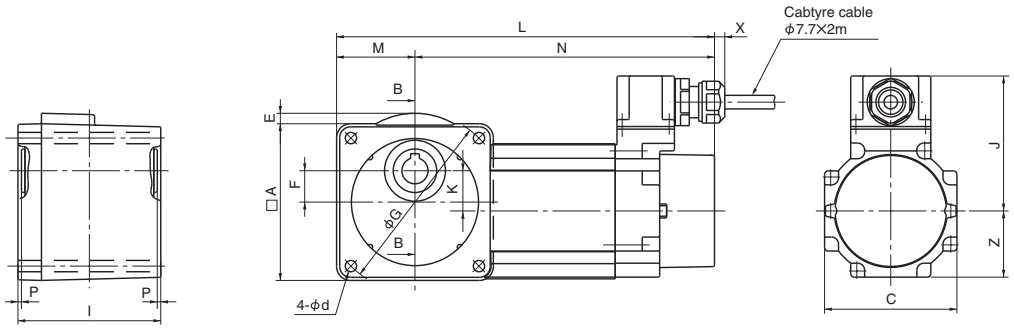
RNYM Series Hollow Shaft Type

Dimensions of waterproof types (IP65) are as below.
Please refer to page B2–B8 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.



Without brake





With brake

3-phase motor

Motor Power	Model	A	C	E	F	G	I	J	K	M	P	Z	d
15W	RNYM0015-03(-B)-5~240	80	76	8	15	94	82	78	23	40	2	38	5.5
25W	RNYM0025-03(-B)-5~240	80	76	8	15	94	82	78	23	40	2	38	5.5
40W	RNYM004-07(-B)-5~120	90	76	6	18	104	82	78	23	45	2	38	6.5
	RNYM004-17(-B)-150~240	90	90	8	18	104	98	86	23	45	2	45	6.5
60W	RNYM006-07(-B)-5~60	90	76	6	18	104	82	78	23	45	2	38	6.5
	RNYM006-17(-B)-80~240	90	90	8	18	104	98	86	23	45	2	45	6.5
90W	RNYM009-17(-B)-5~240	90	90	8	18	104	98	86	23	45	2	45	6.5

Motor Power	Model	Output Hollow Shaft							Without Brake			With Brake			Mass
		D	b	t	D1	U	W	R	L	N	X	L	N	X	(kg)
15W	RNYM0015-03(-B)-5~240	15H8	5	17.3	15.6	78	28	1	189	141	29	212	172	6	2.8(3.1)
25W	RNYM0025-03(-B)-5~240	15H8	5	17.3	15.6	78	28	1	189	141	29	212	172	6	2.9(3.2)
40W	RNYM004-07(-B)-5~120	15H8	5	17.3	15.6	78	28	1	194	141	29	217	172	6	3.1(3.4)
	RNYM004-17(-B)-150~240	15H8	5	17.3	15.6	94	28	1	229	176	29	255	210	3	4.7(5.1)
60W	RNYM006-07(-B)-5~60	15H8	5	17.3	15.6	78	28	1	194	141	29	217	172	6	3.1(3.4)
	RNYM006-17(-B)-80~240	15H8	5	17.3	15.6	94	28	1	229	176	29	255	210	3	4.7(5.1)
90W	RNYM009-17(-B)-5~240	15H8	5	17.3	15.6	94	28	1	229	176	29	255	210	3	4.7(5.1)

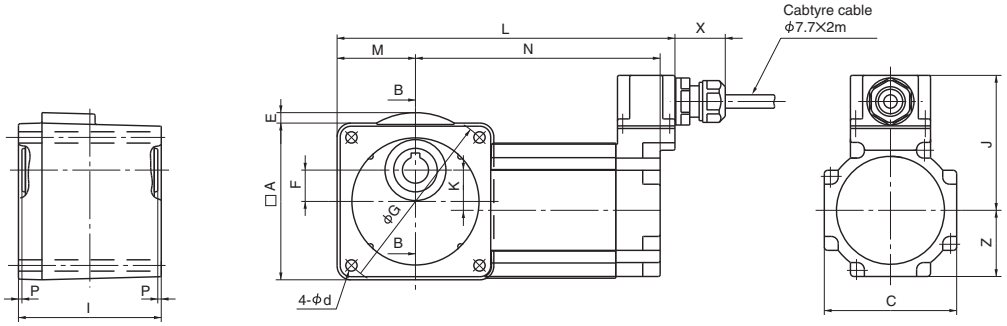
Values in bracket ( ) are for motors with brake.

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

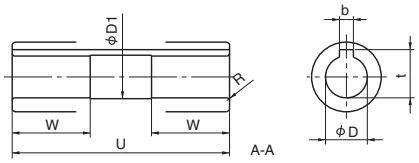
15~40W Single-phase Motor Water Proof Type (IP65)

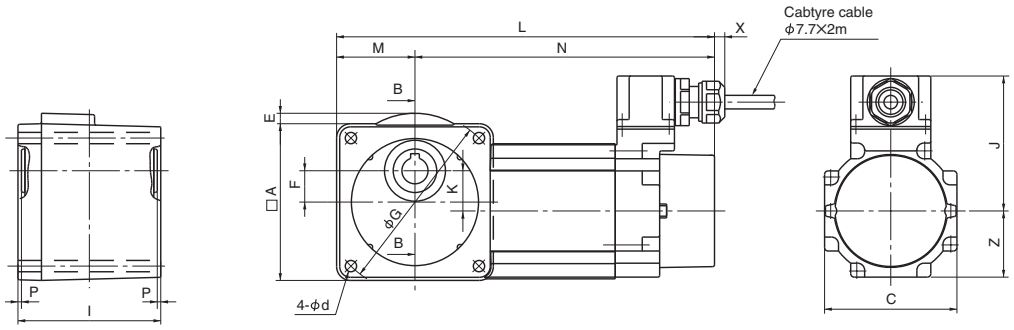
RNYM Series Hollow Shaft Type

Dimensions of waterproof types (IP65) are as below.
Please refer to page B46–B48 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.



Without brake





With brake

Single-phase motor

Motor Power	Model	A	C	E	F	G	I	J	K	M	P	Z	d
15W	RNYM0015-03-CA(-B)-5~240	80	76	8	15	94	82	78	23	40	2	38	5.5
25W	RNYM0025-03-CA(-B)-5~240	80	76	8	15	94	82	78	23	40	2	38	5.5
40W	RNYM004-17-CA(-B)-5~240	90	90	8	18	104	98	86	23	45	2	45	6.5

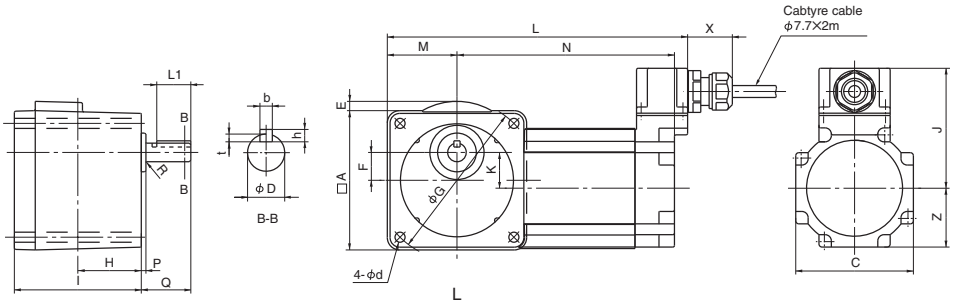
Motor Power	Model	Output Hollow Shaft							Without Brake			With Brake			Mass
		D	b	t	D1	U	W	R	L	N	X	L	N	X	(kg)
15W	RNYM0015-03-CA(-B)-5~240	15H8	5	17.3	15.6	78	28	1	189	141	29	212	172	6	2.8(3.1)
25W	RNYM0025-03-CA(-B)-5~240	15H8	5	17.3	15.6	78	28	1	189	141	29	212	172	6	2.9(3.2)
40W	RNYM004-17-CA(-B)-5~240	15H8	5	17.3	15.6	94	28	1	229	176	29	255	210	3	4.7(5.1)

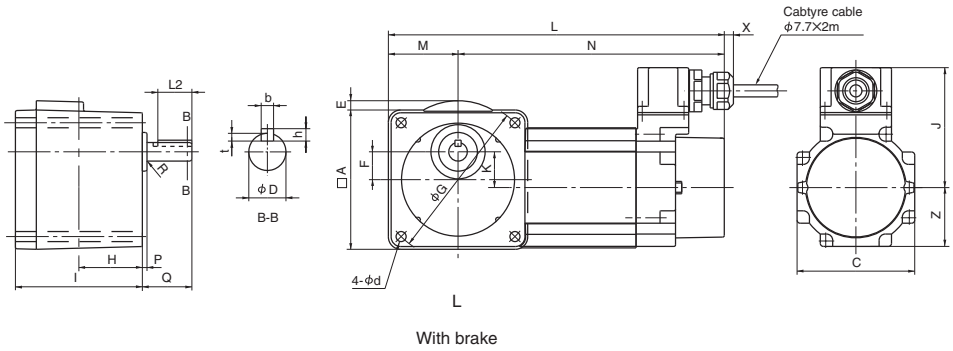
Values in bracket ( ) are for motors with brake.

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "H8".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid Shaft Flange Mount Type Shaft Direction L

Dimensions of waterproof types (IP65) are as below.
Please refer to page B88–B92 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.





3-phase motor

Motor Power	Model	A	C	E	F	G	H	I	J	K	M	P	Q	Z	d
15W	RNFM0015-01L(-B)-5~100	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0015-03L(-B)-120~240	80	76	8	15	94	41	82	78	23	40	7	38	38	5.5
25W	RNFM0025-01L(-B)-5~60	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0025-03L(-B)-80~240	80	76	8	15	94	41	82	78	23	40	7	38	38	5.5
40W	RNFM004-05L(-B)-5~50	90	76	6	18	104	41	82	78	23	45	3	32	38	6.5
	RNFM004-07L(-B)-60~120	90	76	6	18	104	41	82	78	23	45	7	38	38	6.5
	RNFM004-17L(-B)-150~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5
60W	RNFM006-07L(-B)-5~60	90	76	6	18	104	41	82	78	23	45	7	38	38	6.5
	RNFM006-17L(-B)-80~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5
90W	RNFM009-15L(-B)-5~60	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5
	RNFM009-17L(-B)-80~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5

Motor Power	Model	Output Hollow Shaft						Without Brake			With Brake			Mass
		D	b	t	h	R	L1	L	N	X	L	N	X	(kg)
15W	RNFM0015-01L(-B)-5~100	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	2.9(3.2)
	RNFM0015-03L(-B)-120~240	15h6	5	3	5	0.4	22	189	141	29	212	172	6	2.9(3.2)
25W	RNFM0025-01L(-B)-5~60	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	3.0(3.3)
	RNFM0025-03L(-B)-80~240	15h6	5	3	5	0.4	22	189	141	29	212	172	6	3.1(3.4)
40W	RNFM004-05L(-B)-5~50	12h6	4	2.5	4	0.4	22	194	141	29	217	172	6	3.2(3.5)
	RNFM004-07L(-B)-60~120	15h6	5	3	5	0.4	22	194	141	29	217	172	6	3.3(3.6)
	RNFM004-17L(-B)-150~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)
60W	RNFM006-07L(-B)-5~60	15h6	5	3	5	0.4	22	194	141	29	217	172	6	3.3(3.6)
	RNFM006-17L(-B)-80~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)
90W	RNFM009-15L(-B)-5~60	15h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)
	RNFM009-17L(-B)-80~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)

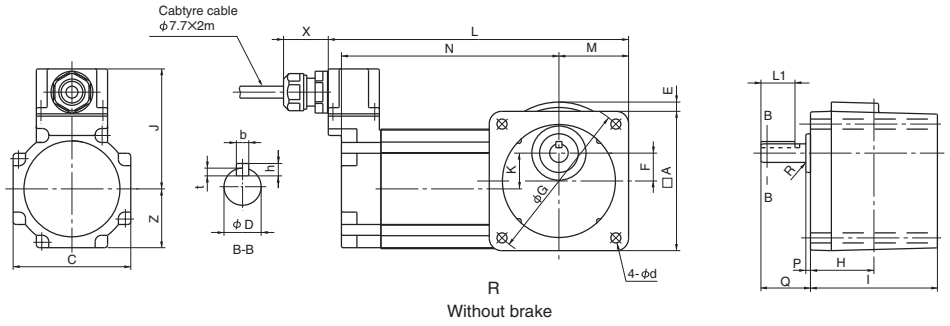
Values in bracket ( ) are for motors with brake.

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "h6".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

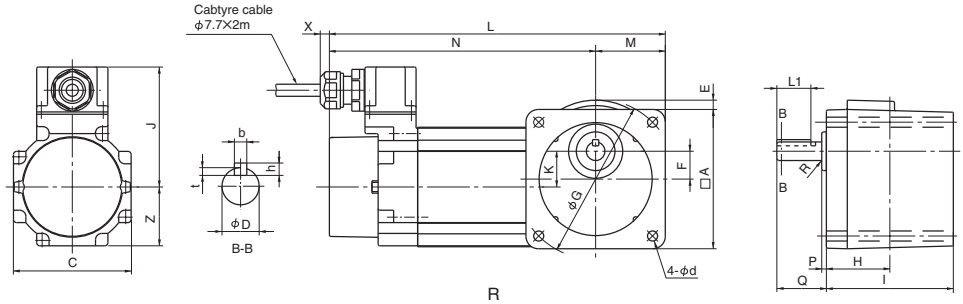
15~90W 3-phase Motor Water Proof Type (IP65)

RNFM Series Solid Shaft Flange Mount Type Shaft Direction R

Dimensions of waterproof types (IP65) are as below.
Please refer to page B88–B92 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.



R
Without brake



R
With brake

3-phase motor

Motor Power	Model	A	C	E	F	G	H	I	J	K	M	P	Q	Z	d
15W	RNFM0015-01R(-B)-5~100	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0015-03R(-B)-120~240	80	76	8	15	94	41	82	78	23	40	7	38	38	5.5
25W	RNFM0025-01R(-B)-5~60	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0025-03R(-B)-80~240	80	76	8	15	94	41	82	78	23	40	7	38	38	5.5
40W	RNFM004-05R(-B)-5~50	90	76	6	18	104	41	82	78	23	45	3	32	38	6.5
	RNFM004-07R(-B)-60~120	90	76	6	18	104	41	82	78	23	45	7	38	38	6.5
	RNFM004-17R(-B)-150~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5
60W	RNFM006-07R(-B)-5~60	90	76	6	18	104	41	82	78	23	45	7	38	38	6.5
	RNFM006-17R(-B)-80~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5
90W	RNFM009-15R(-B)-5~60	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5
	RNFM009-17R(-B)-80~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5

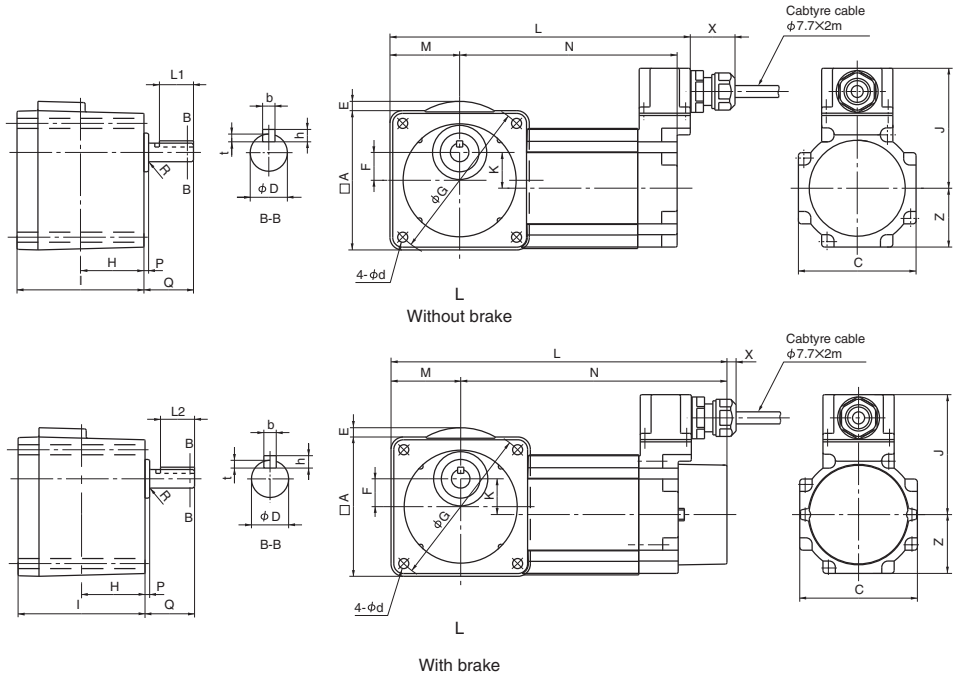
Motor Power	Model	Output Hollow Shaft						Without Brake			With Brake			Mass
		D	b	t	h	R	L1	L	N	X	L	N	X	(kg)
15W	RNFM0015-01R(-B)-5~100	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	2.9(3.2)
	RNFM0015-03R(-B)-120~240	15h6	5	3	5	0.4	22	189	141	29	212	172	6	2.9(3.2)
25W	RNFM0025-01R(-B)-5~60	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	3.0(3.3)
	RNFM0025-03R(-B)-80~240	15h6	5	3	5	0.4	22	189	141	29	212	172	6	3.1(3.4)
40W	RNFM004-05R(-B)-5~50	12h6	4	2.5	4	0.4	22	194	141	29	217	172	6	3.2(3.5)
	RNFM004-07R(-B)-60~120	15h6	5	3	5	0.4	22	194	141	29	217	172	6	3.3(3.6)
	RNFM004-17R(-B)-150~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)
60W	RNFM006-07R(-B)-5~60	15h6	5	3	5	0.4	22	194	141	29	217	172	6	3.3(3.6)
	RNFM006-17R(-B)-80~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)
90W	RNFM009-15R(-B)-5~60	15h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)
	RNFM009-17R(-B)-80~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)

Values in bracket ( ) are for motors with brake.

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "h6".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

RNFM Series Solid Shaft Flange Mount Type Shaft Direction L

Dimensions of waterproof types (IP65) are as below.
Please refer to page B94–B96 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.



Single-phase motor

Motor Power	Model	A	C	E	F	G	H	I	J	K	M	P	Q	Z	d
15W	RNFM0015-01L-CA(-B)-5~100	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0015-03L-CA(-B)-120~240	80	76	8	15	94	41	82	78	23	40	7	32	38	5.5
25W	RNFM0025-01L-CA(-B)-5~60	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0025-03L-CA(-B)-80~240	80	76	8	15	94	41	82	78	23	40	7	32	38	5.5
40W	RNFM004-17L-CA(-B)-80~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5

Motor Power	Model	Output Hollow Shaft						Without Brake			With Brake			Mass
		D	b	t	h	R	L1	L	N	X	L	N	X	(kg)
15W	RNFM0015-01L-CA(-B)-5~100	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	2.9(3.2)
	RNFM0015-03L-CA(-B)-120~240	15h6	4	2.5	4	0.4	22	189	141	29	212	172	6	2.9(3.2)
25W	RNFM0025-01L-CA(-B)-5~60	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	3.0(3.3)
	RNFM0025-03L-CA(-B)-80~240	15h6	4	2.5	4	0.4	22	189	141	29	212	172	6	3.1(3.4)
40W	RNFM004-17L-CA(-B)-80~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)

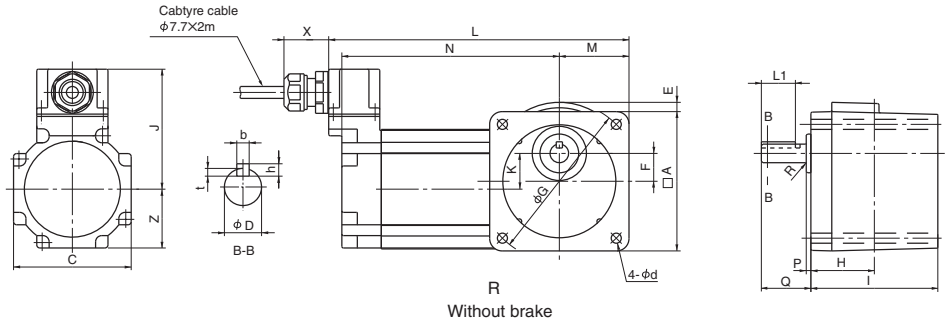
Values in bracket ( ) are for motors with brake.

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "h6".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

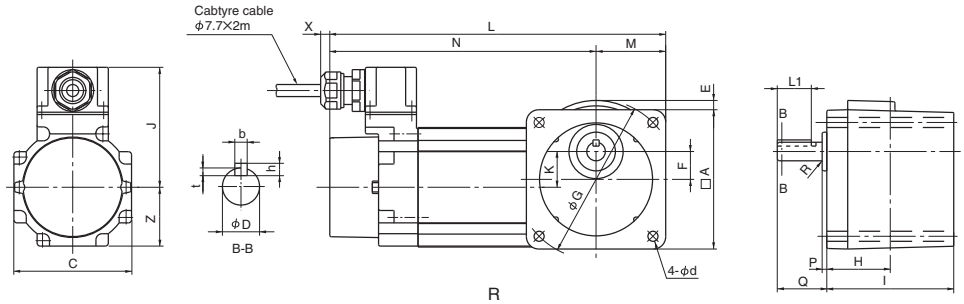
15~40W Single-phase Motor Water Proof Type (IP65)

RNFM Series Solid Shaft Flange Mount Type Shaft Direction R

Dimensions of waterproof types (IP65) are as below.
Please refer to page B94–B96 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.



R
Without brake



R
With brake

Single-phase motor

Motor Power	Model	A	C	E	F	G	H	I	J	K	M	P	Q	Z	d
15W	RNFM0015-01R-CA(-B)-5~100	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0015-03R-CA(-B)-120~240	80	76	8	15	94	41	82	78	23	40	7	32	38	5.5
25W	RNFM0025-01R-CA(-B)-5~60	80	76	8	15	94	41	82	78	23	40	3	32	38	5.5
	RNFM0025-03R-CA-(-B)-80~240	80	76	8	15	94	41	82	78	23	40	7	32	38	5.5
40W	RNFM004-17R-CA-(-B)-80~240	90	90	8	18	104	49	98	86	23	45	7	38	45	6.5

Motor Power	Model	Output Hollow Shaft						Without Brake			With Brake			Mass
		D	b	t	h	R	L1	L	N	X	L	N	X	(kg)
15W	RNFM0015-01R-CA(-B)-5~100	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	2.9(3.2)
	RNFM0015-03R-CA(-B)-120~240	15h6	4	2.5	4	0.4	22	189	141	29	212	172	6	2.9(3.2)
25W	RNFM0025-01R-CA(-B)-5~60	10h6	4	2.5	4	0.4	22	189	141	29	212	172	6	3.0(3.3)
	RNFM0025-03R-CA(-B)-80~240	15h6	4	2.5	4	0.4	22	189	141	29	212	172	6	3.1(3.4)
40W	RNFM004-17R-CA(-B)-80~240	18h6	6	3.5	6	0.4	22	229	176	29	255	210	3	4.8(5.2)

Values in bracket ( ) are for motors with brake.

Notes : 1. Output shaft diameter dimensions : Dimension tolerance in accordance with JIS B 0401-1976 "h6".
2. Output shaft keyway dimensions : Dimension tolerance in accordance with JIS B 1301-1996 parallel key (Normal Grade).
3. Dimensions and Masses in the drawings are subject to change without notice.

0.1~2.2kW 3-phase Motor Water Proof Type (IP65)

RNYM Series Hollow Shaft Type

Motors without brake are available for the water proof type of 0.1kW or more. Dimensions of waterproof types (IP65) are as below.
Please refer to page B10–B37 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.

0.1~0.4kW

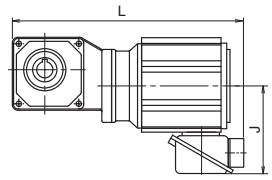


Fig. 1 0.1kW Without brake

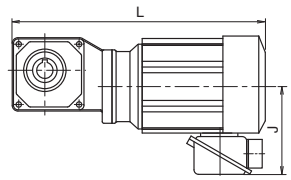


Fig. 2 0.2~0.4kW Without brake

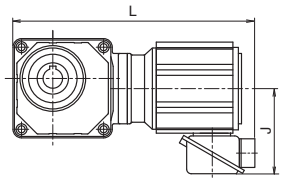


Fig. 3 0.1kW Without brake

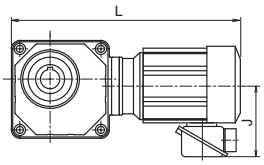


Fig. 4 0.2~0.4kW Without brake

Motor Power	Model	L	J	Mass(kg)	Fig.
0.1kW	RNYM01-1010-5~10	258	149	5.5	1
	RNYM01-1120-7~60	303	149	7.0	1
	RNYM01-1220-40~60	326	149	7.5	1
	RNYM01-1230-80~240	327	149	8.5	3
	RNYM01-1330-80~240	349	149	10	3
	RNYM01-1340-300~1440	377	147	11	3
	RNYM01-1440-300~1440	419	147	15.5	3
0.2kW	RNYM02-1110-5~10	286	149	6.5	2
	RNYM02-1120-7~30	321	149	8.0	2
	RNYM02-1220-7~60	344	149	9.5	2
	RNYM02-1320-40~60	372	149	11	2
	RNYM02-1330-80~240	367	149	10	4
	RNYM02-1430-80~240	395	149	16	4
	RNYM02-1440-300~1440	437	147	16.5	4
	RNYM02-1540-300~1440	481	147	24.5	4
0.25kW	RNYM03-1210-5~10	322	149	9.5	2
	RNYM03-1220-7~30	364	149	10.5	2
	RNYM03-1320-40~60	392	149	12	2
	RNYM03-1430-80~240	415	149	17	4
	RNYM03-1540-300~1440	501	147	27	4
0.4kW	RNYM05-1210-5~10	322	149	9.5	2
	RNYM05-1220-7~30	364	149	10.5	2
	RNYM05-1320-7~60	392	149	12	2
	RNYM05-1420-40~60	423	149	16	2
	RNYM05-1430-80~240	415	149	17	4
	RNYM05-1530-80~240	448	149	24	4
	RNYM05-1540-300~1440	501	147	27	4
	RNYM05-1640-300~1440	559	147	64	4

0.55~2.2kW

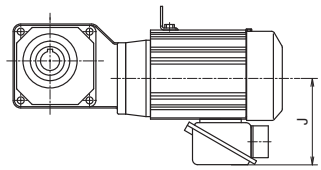


Fig. 5 0.55~2.2kW Without brake

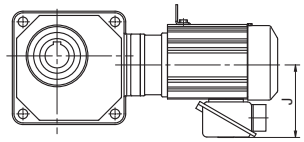


Fig. 6 0.55~2.2kW Without brake

Motor Power	Model	L	J	Mass(kg)	Fig.
0.55kW	RNYM08-1310-5~10	390	153	12.5	5
	RNYM08-1320-7~30	423	153	14	5
	RNYM08-1420-40~60	474	153	18	5
	RNYM08-1530-80~240	498	153	25	6
	RNYM08-1640-300~1440	604	152	68	6
0.75kW	RNYM1-1310-5~10	390	153	13.5	5
	RNYM1-1320-7~30	423	153	14	5
	RNYM1-1420-7~60	474	153	18	5
	RNYM1-1520-40~60	498	153	27	5
	RNYM1-1530-80~240	498	153	26	6
	RNYM1-1531-80	498	153	27	6
	RNYM1-1631-150~240	558	152	47	6
	RNYM1-1640-300~1440	604	152	69	6
1.1kW	RNYM1H-1410-5~10	428	158	20.5	5
	RNYM1H-1420-7~30	504	158	22	5
	RNYM1H-1520-40~60	534	158	30	5
	RNYM1H-1531-80	528	158	30	6
	RNYM1H-1630-100~120	593	158	53	6
	RNYM1H-1631-150~240	605	158	54	6
1.5kW	RNYM2-1410-5~10	428	158	22.5	5
	RNYM2-1420-7~30	504	158	22	5
	RNYM2-1520-7~60	534	158	32	5
	RNYM2-1531-40~80	528	158	31	6
	RNYM2-1630-80~120	593	158	53	6
	RNYM2-1631-150~240	605	158	54	6
2.2kW	RNYM3-1510-5~10	478	165	29.5	5
	RNYM3-1520-7~30	553	165	35	5
	RNYM3-1531-40~60	548	165	35	6
	RNYM3-1630-80~120	624	165	58	6
	RNYM3-1631-150~240	635	165	59	6

0.1~1.5kW Motor for inverter Water Proof Type (IP65)

RNYM Series Hollow Shaft Type

Motors without brake are available for the water proof type of 0.1kW or more. Dimensions of waterproof types (IP65) are as below.
Please refer to page B68–B81 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is waterproof (IP65) when ordering or inquiring.

0.1~0.2kW

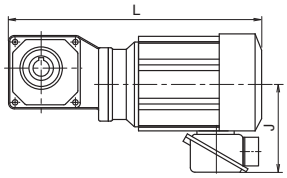


Fig. 1 0.1~0.2kW Without brake

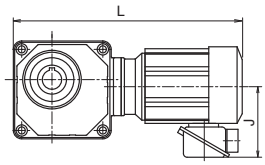


Fig. 2 0.1~0.2kW Without brake

Motor Power	Model	L	J	Mass(kg)	Fig.
0.1kW	RNYM01-1110-AV-5~10	286	149	6.5	1
	RNYM01-1120-AV-7~30	321	149	8.0	1
	RNYM01-1220-AV-5~60	344	149	9.5	1
	RNYM01-1320-AV-40~60	372	149	11	1
	RNYM01-1330-AV-80~240	367	149	10	2
	RNYM01-1430-AV-80~240	395	149	16	2
	RNYM02-1440-AV-300~1440	437	147	16.5	2
	RNYM02-1540-AV-300~1440	481	147	24.5	2
0.2kW	RNYM02-1210-AV-5~10	322	149	9.5	1
	RNYM02-1220-AV-7~30	364	149	10.5	1
	RNYM02-1320-AV-5~60	392	149	12	1
	RNYM02-1420-AV-40~60	423	149	16	1
	RNYM02-1430-AV-80~240	415	149	17	2
	RNYM02-1530-AV-80~240	448	149	24	2
	RNYM05-1540-AV-300~1440	501	147	27	2
	RNYM05-1640-AV-300~1440	559	147	64	2

0.4~1.5kW

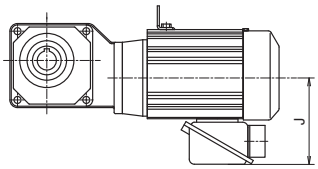


Fig. 3 0.4~1.5kW Without brake

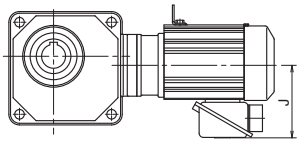


Fig. 4 0.4~1.5kW Without brake

Motor Power	Model	L	J	Mass(kg)	Fig.
0.4kW	RNYM05-1310-AV-5~10	390	153	13.5	3
	RNYM05-1320-AV-7~30	423	153	14	3
	RNYM05-1420-AV-7~60	474	153	18	3
	RNYM05-1520-AV-40~60	498	153	27	3
	RNYM05-1530-AV-80~240	498	153	26	4
	RNYM05-1531-AV-80	498	153	27	4
	RNYM1-1631-AV-150~240	558	152	47	4
	RNYM1-1640-AV-300~1440	604	152	69	4
0.75kW	RNYM1-1410-AV-5~10	428	158	22.5	3
	RNYM1-1420-AV-7~30	504	158	22	3
	RNYM1-1520-AV-7~60	534	158	32	3
	RNYM1-1531-AV-40~80	528	158	31	4
	RNYM2-1630-AV-80~120	593	158	53	4
	RNYM2-1631-AV-150~240	605	158	54	4
1.5kW	RNYM2-1510-AV-5~10	478	165	29.5	3
	RNYM2-1520-AV-7~30	553	165	35	3
	RNYM2-1531-AV-40~80	548	165	35	4
	RNYM3-1630-AV-80~120	624	164	58	4
	RNYM3-1631-AV-150~240	624	164	58	4

Increased safety type eG3

0.1~0.4kW 3-phase Motor Increased Safety Type (eG3)

RNYM Series Hollow Shaft Type

Motors without brake are available for the Increased safety type. Dimensions of Increased safety types (eG3) are as below.
Please refer to page B10–B22 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is Increased safety (eG3) when ordering or inquiring.
Increased safety motors conform to eG3 of Japanese Industrial Standards (JIS).

0.1~0.4kW

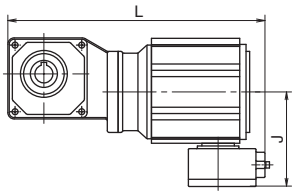


Fig. 1 0.1kW Without brake

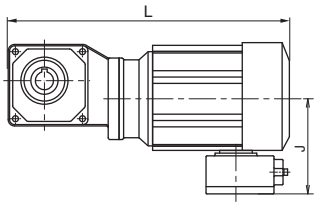


Fig. 2 0.2~0.4kW Without brake

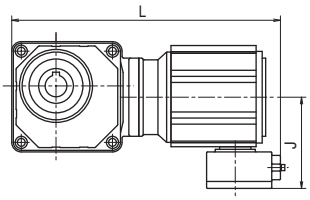


Fig. 3 0.1kW Without brake

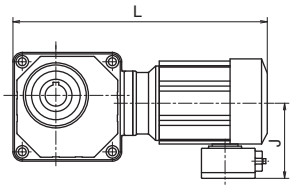
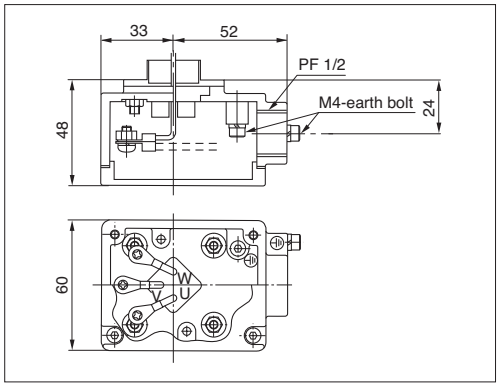


Fig. 4 0.2~0.4kW Without brake



Terminal box

Motor Power	Model	L	J	Mass(kg)	Fig.
0.1kW	RNYM01-1010-5~10	240	105	5.5	1
	RNYM01-1120-5~60	285	105	7.0	1
	RNYM01-1220-40~60	308	105	8.0	1
	RNYM01-1230-80~240	309	105	8.5	3
	RNYM01-1330-80~240	331	105	10	3
	RNYM01-1340-300~1440	354	105	10.5	3
	RNYM01-1440-300~1440	396	105	15	3
0.2kW	RNYM02-1110-5~10	275	105	6.5	2
	RNYM02-1120-5~30	310	105	8.0	2
	RNYM02-1220-5~60	333	105	9.5	2
	RNYM02-1320-40~60	361	105	11	2
	RNYM02-1330-80~240	356	105	10	4
	RNYM02-1430-80~240	384	105	16	4
	RNYM02-1440-300~1440	421	105	16	4
	RNYM02-1540-300~1440	465	105	25	4
0.4kW	RNYM05-1210-5~10	311	105	9.5	2
	RNYM05-1220-5~30	353	105	10.5	2
	RNYM05-1320-5~60	381	105	12	2
	RNYM05-1420-40~60	412	105	16	2
	RNYM05-1430-80~240	404	105	17	4
	RNYM05-1530-80~240	437	105	24	4
	RNYM05-1540-300~1440	485	105	26.5	4
	RNYM05-1640-300~1440	543	105	63.5	4

RNYM Series Hollow Shaft Type

Motors without brake are available for the Increased safety type. Dimensions of Increased safety types (eG3) are as below.
Please refer to page B25–B42 for selection tables.
Please let us know the nomenclature, voltage, frequency, and that it is Increased safety (eG3) when ordering or inquiring.
Increased safety motors conform to eG3 of Japanese Industrial Standards (JIS).

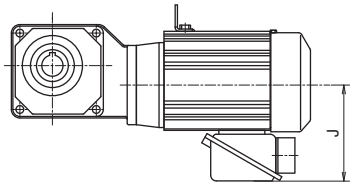


Fig. 5 Without brake

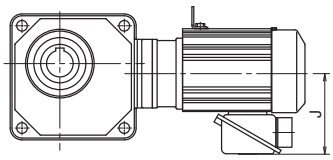
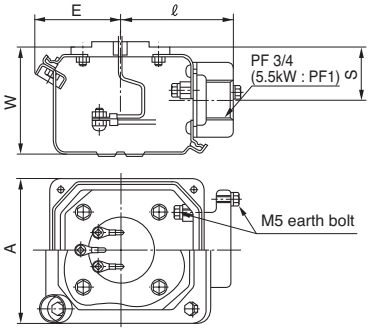


Fig. 6 Without brake



Terminal box

Motor Power	Model	J	A	E	ℓ	W	S	Mass(kg)	Fig.
0.75kW	RNYM1-1310-5~10	141	100	57	75	72	35.5	13.5	5
	RNYM1-1320-5~30	141	100	57	75	72	35.5	14	5
	RNYM1-1420-5~60	141	100	57	75	72	35.5	18	5
	RNYM1-1520-40~60	141	100	57	75	72	35.5	27	5
	RNYM1-1530-80~240	141	100	57	75	72	35.5	26	6
	RNYM1-1531-80	141	100	57	75	72	35.5	27	6
	RNYM1-1631-150~240	141	100	57	75	72	35.5	47	6
	RNYM1-1640-300~1440	141	100	57	75	72	35.5	69	6
1.5kW	RNYM2-1410-5~10	146	100	57	75	72	35.5	22.5	5
	RNYM2-1420-5~30	146	100	57	75	72	35.5	22	5
	RNYM2-1520-5~60	146	100	57	75	72	35.5	32	5
	RNYM2-1531-40~80	146	100	57	75	72	35.5	31	6
	RNYM2-1630-80~120	146	100	57	75	72	35.5	53	6
	RNYM2-1631-150~240	146	100	57	75	72	35.5	54	6
2.2kW	RNYM3-1510-5~10	153	100	57	75	72	35.5	29.5	5
	RNYM3-1520-5~30	153	100	57	75	72	35.5	35	5
	RNYM3-1531-40~80	153	100	57	75	72	35.5	35	6
	RNYM3-1630-80~120	153	100	57	75	72	35.5	58	6
	RNYM3-1631-150~240	153	100	57	75	72	35.5	58	6
3.7kW	RNYM5-1521-5~25	183	123	65	87	90	45	51	6
	RNYM5-1522-5~15	183	123	65	87	90	45	51	6
	RNYM5-1632-30~60	183	123	65	87	90	45	70	6
	RNYM5-1633-20~60	183	123	65	87	90	45	71	6
5.5kW	RNYM8-1522-5~15	183	123	65	87	90	45	58	6
	RNYM8-1633-20~40	183	123	65	87	90	45	78	6

MEMO

Technical Data

1. Hollow shaft type (RNYM series)

Selection procedure

Tℓ : Actual transmitted torque on slow speed shaft of a gear motor [N · m]
Tout : Allowable output torque of a gear motor [N · m]
Te : Equivalent transmitted torque [N · m]
Pr : Actual radial load [N]
Pro : Allowable radial load [N]
Lf : Location factor
Cf : Coupling factor
Fs : Shock factor
A_R : Torque arm length [mm]
A_{RO} : Standard torque arm length [mm]

Selection Example

Determine equivalent transmitted torque [Te]

Te=Tℓ ×load factor of gear motor [N·m]

(50=50×1.0)

Tℓ (50 N·m) ← Actual transmitted torque

SF (1.0) ← Table 9 (Page C6) ← Load conditions, Operation time

□Tℓ =50 [N-m]

□Chain conveyor (uniform load)
□10 hrs/day

Reduction ratio and output speed

Output speed n2 r/min	
50Hz	60Hz
290	350
207	250
145	175
121	146
96.7	117
72.5	87.5
58.0	70.0
48.3	58.3

Output speed, Power supply frequency

*Motor slippage is not accounted for output speed

□50 [r/min]
□50 [Hz]
□3-phase motor
Indoor type
Hollow shaft type

Te (50N·m)

Reduction ratio (30)

Determine Model (input power, frame size and reduction ratio)

Select model **Tout×SF*** (service factor of gear motor) **≧Te**

(67.3×1.00≧50)

*In case SF is ✻, select the model Tout ≧ Te

Tout ← Selectin tables Page B2–B44

Model (RNYM05-1220– △– ○–30)

[Flange/foot mount]
●Pr=1500 [N]
●Load point : L=20 [mm]
●Shock: negligible
●Coupling: chain coupling

[Shaft mount]
●A_R: 200 [mm]
●Load point: 20 [mm] away from output shaft end
●Shock: negligible

Flange mount / foot mount

Check radial load

Note 2

$Pr \leqq \frac{Pro}{Lf5Cf5Fs}$

$(1500 \leqq \frac{1520}{1.051.051.0})$

When the load is out of allowable range, use one bigger input power or frame size and check it again.

Pr (1500N) ← Actual radial load
Lf (1.0) ← Table 1 ← Location factor
Cf (1.0) ← Table 2 ← Coupling factor
Fs (1.0) ← Table 3 ← Shock factor
Pro (1520N) ← Selection tables Page B2–B44

Shaft top mount

Check torque arm length (A_R)

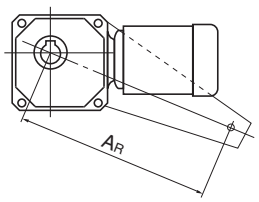
$A_R \geqq A_{RO} \times Lf \times Fs$

(200 ≧100×1×1)

A_R (200㎜) ← Note 1 Torque arm length
Lf (1.0) ← Table 1 ← Location factor
Fs (1.0) ← Table 3 ← Shock factor
Table 4 ← Standard torque arm length
A_{RO} (100㎜)

Check driven shaft strength

Check strength of driven shaft, bearings and torque arms. (Refer to page C20–C21)



Determine a model

Refer to A15 for nomenclature

Model (RNYM05-1220– △– ○–30)

Confirm specifications and dimensions

●Confirm specifications: Refer to page A14.
*Specify supply voltage and outdoor/indoor usage when placing your order.
●Confirm dimensions: Refer to page B2–B44.

3-phase ← Motor type
Without brake ← Brake

Model (RNYM05–1220–30)

Note 1: Torque arm length is a distance between the center of driven shaft and the torque arm whirl stop.
Note 2: Refer to page C16 for the formula in case of axial load.

Table 1 Location factor [Lf]

Frame size	L (mm)								
	10	20	30	40	50	60	70	80	90
03, 07	1.0	1.0	1.2	1.3	1.4	1.5	1.7	1.8	1.9
17	1.0	1.0	1.2	1.3	1.4	1.5	1.6	1.7	1.8
60, 63, 64	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4
1010	1.0	1.0	1.2	1.3	1.4	1.5	1.7	1.8	1.9
1120	1.0	1.0	1.2	1.3	1.4	1.5	1.6	1.8	1.9
1210, 1220, 1230, 1240	1.0	1.0	1.2	1.3	1.4	1.5	1.6	1.7	1.8
1310, 1320, 1330, 1340	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7
1410, 1420, 1430, 1440	1.0	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.6
1510,1520,1521,1522,1530,1531,1540	1.0	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5
1630, 1631, 1632, 1633, 1634, 1640	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4

Note: "L" indicates the distance from hollow shaft end to the point of radial load.

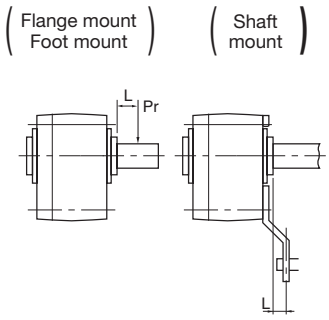


Table 2 Coupling factor [Cf]

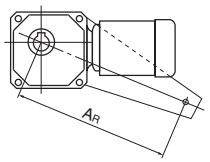
Coupling method	Cf
Chain	1
Gear	1.25
V-belt	1.5

Table 3 Shock factor [Fs]

Degree of shock	Fs
Negligible shock	1
Moderate shock	1~1.2
Heavy shock	1.4~1.6

Table 4 Standard torque arm length [A_{RO}]

Frame size	A_{R0}	Frame size	A_{R0}	Frame size	A_{R0}
03,07,17,1010	50	1410,1420	140	1430, 1440	160
1110,1120	80	1510,1520, 1521, 1522	150	1530,1531, 1540	200
1210,1220	100	1230, 1240	100	1630,1631,1632,1633, 1640	280
1310,1320	120	1330, 1340	130	1634	290



2. Solid shaft type

Flange mount type (RNFM series)
Foot mount type (RNHM series)

Selection procedure

Tℓ : Actual transmitted torque on slow speed shaft of a gear motor [N·m]
Tout : Allowable output torque of a gear motor [N·m]
Te : Equivalent transmitted torque [N·m]
Pr : Actual radial load [N]
Pro : Allowable radial load [N]
Lf : Location factor
Cf : Coupling factor
Fs : Shock factor

Selection Example

Determine equivalent transmitted torque [Te]

Te=Tℓ ×load factor of gear motor [N·m]

(50=50×1.0)

Tℓ (50 N·m) ← Actual transmitted torque

SF (1.0) ← Table 9 ← Load conditions, Operation time

□Tℓ =50 [N·m]
□Chain conveyor (uniform load)
□10 hrs/day

Reduction ratio and output speed

Output speed n2 r/min	
50Hz	60Hz
290	350
207	250
145	175
121	146
96.7	117
72.5	87.5
58.0	70.0
48.3	58.3

Output speed, Power supply frequency

*Motor slippage is not accounted for output speed

□50 [r/min]
□50 [Hz]
□3-phase motor
Indoor type
Flange mount type

Te (50N·m)

Reduction ratio (30)

Regarding selection of 0.1kW–5.5kW please refer to page B10–B42 for selection table

Determine Model (input power, frame size and reduction ratio)

Select model **Tout×SF** (service factor of gear motor) **≧ Te**

(67.3×1.00≧50)

*In case SF is ✻, select the model Tout ≧ Te

Tout ← Selection tables Page B88–B92

●Sprocket pitch circle dia.90 [mm]
Radius R=0.045 [m]

●$Pr = \frac{TR}{R} = \frac{50}{0.045} \fallingdotseq 1110N$

Model (05-1220□-30)

Check radial load

Note.1 $Pr \leqq \frac{Pro}{Lf \times Cf \times Fs}$

$(1110 \leqq \frac{1520}{1.1 \times 1.0 \times 1.0})$

When the load is out of allowable range, use a bigger input power or frame size and check it again.

Pr (1110N) ← Actual radial load
Lf (1.0) ← Table 5,6 ← Radial load location
Cf (1.0) ← Table 7 ← Coupling
Fs (1.0) ← Table 8 ← Shock factor

Pro (1520N) ← Selection tables Page B88–B92

●Load point: L=20 [mm]

●Coupling: chain coupling

●Shock: negligible

Model (05-1220□-30)

Determine a model

Refer to A15 and B10–B42 for nomenclature

(RNFM-Flange mount) ← Mounting
(L-left) ← Shaft direction

●Flange mount

●Left (Viewed from motor)

Model (RNFM05-1220L–X1–○–30)

Confirm specifications and dimensions

●Confirm specifications: Refer to page A14.
*Specify supply voltage and outdoor/indoor usage when placing your order.
●Confirm dimensions: Refer to page B10–B42.

3-phase ← Motor type
Without brake ← Brake

Model (RNFM05–1220L–X1–30)

Note 1: Values and models in bracket ( ) for the selection example.
Note 2: Refer to page C16 for the formula in case of axial load.

(1) 15W–90W

Table 5 Location factor [Lf]

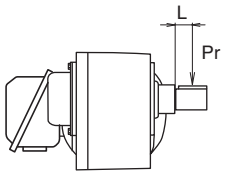
Load location	Lf
Shaft root	0.8
Shaft center	1.0
Shaft end	1.4

(2) 0.1kW–2.2kW

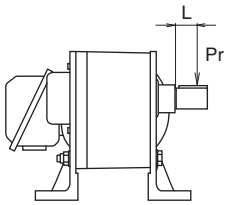
Table 6 Location factor [Lf]

RNFM-X1 RNHM-J1

Frame Size	L (mm)								
	10	20	30	40	50	60	70	80	90
1120	1.0	1.1	1.2	1.3	1.4	1.6	1.8	2.1	1.2
1220	1.0	1.1	1.2	1.3	1.5	1.8	2.1	2.4	1.2
1320	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.3
1420	1.0	1.1	1.1	1.2	1.3	1.4	1.6	1.8	1.3
1520	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.5
1230	1.0	1.1	1.3	1.7	2.2	2.6	3.0	3.5	1.6
1330	1.0	1.1	1.2	1.2	1.3	1.4	1.7	1.9	1.3
1430	1.0	1.1	1.3	1.7	2.2	2.6	3.0	3.5	2.5
1530, 1531	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.6



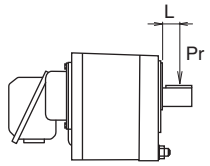
RNFM–X1



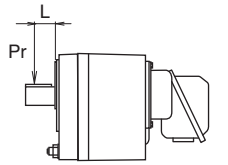
RNHM–J1

RNFM-P1, Q1

Frame Size	L (mm)								
	10	20	30	40	50	60	70	80	90
1120	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.0	1.4
1220	1.3	1.5	1.6	1.7	1.8	1.9	2.1	2.4	1.6
1320	1.3	1.4	1.5	1.5	1.6	1.7	1.8	1.9	1.6
1420	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.8	1.5
1520	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.6
1230	1.1	1.2	1.3	1.7	2.2	2.6	3.0	3.5	1.6
1330	1.0	1.1	1.2	1.3	1.4	1.5	1.7	1.9	1.3
1430	1.1	1.1	1.3	1.7	2.2	2.6	3.0	3.5	2.5
1530, 1531	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.6



RNFM–P1



RNFM–Q1

Table 7 Coupling factor [Cf]

Coupling method	Cf
Chain	1
Gear	1.25
V-belt	1.5

Table 8 Shock factor [Fs]

Degree of shock	Fs
Negligible shock	1
Moderate shock	1~1.2
Heavy shock	1.4~1.6

3. Selection of load factor

The Load Factor is rated for the characteristics of the driven machine.
The tabulated ratings are based on a running time of 10 hours per day with uniform load.
For your reference, please see method ① and ② shown below.

① Recommended Load Factor by the Driven Application.

Table 9 Service Factor [S.F.]

Operation time / Load conditions	10 hrs/ day max.	10~24hrs/ day max.	Applications
Uniform	1	1.25	Conveyors (uniform load), Pumps (centrifugal), Food processing machine (rice polishers, canning machines), Elevators (uniform load), Plastic extruders, Agitators (pure liquid), Bar screens
Moderate shock	1.25	1.5	Conveyors (variable speed and heavy duty), Food processing machine (peat slicer, dough mixer, meat grinder), Elevators (heavy duty), Agitators (liquid and solid, variable-density liquid), Feeders (belts, aprons, screws), Thickeners, Flocculators, Machine tools
Heavy shock	1.75	2.0	Punching presses, Tapping machine, Crushers (crusher mills), Hoists (heavy duty), Drum barkers, Log hauls, Cutters, Platers

Note 1: The service factors and applications in the above table are only for your relerence. Actual applications and their characteristics may be variable.

②Recommended Load Factor Modifications for Frequent Start-Stop Operation.

Please select a model using Table 8 and check the motor thermal rating (Table 10).

Table 10 Number of Starts-Stops and Load Factor.

Number of starts-stops (Times/hour)	~10 hours/day			24 hours/day		
	Ⅰ	Ⅱ	Ⅲ	Ⅰ	Ⅱ	Ⅲ
~10	1.00	1.15	1.50	1.20	1.30	1.65
~200	1.10	1.35	1.65	1.30	1.50	1.85
~500	1.15	1.50	1.80	1.40	1.65	2.00

$$\text{The ratio of Moment of Inertia (The ratio of } GD^2) = \frac{\text{Total Moment of Inertia } (GD^2) \text{ as seen from the motor shaft}}{\text{Moment of Inertia } (GD^2) \text{ of motor}}$$

Ⅰ : Allowable ratio of Moment of Inertia (GD^2) ≦ 0.3
Ⅱ : Allowable ratio of Moment of Inertia (GD^2) ≦ 3
Ⅲ : Allowable ratio of Moment of Inertia (GD^2) ≦ 10

Note : 1. The number of starts-stops includes brake or clutch operation times.
Note : 2. Consult us when starting under loaded conditions.

Table 11 Motor thermal rating (C×Z)

Note : Contact us regarding a motor for inverters and a single-phase motor.

Output Motor kW	Allowable C×Z (35%ED)	Allowable C×Z (35%ED~50ED%)	Allowable C×Z (50%ED~80ED%)	Allowable C×Z (80%ED~100ED%)	Motor moment of inertia kgf · m²		Motor GD² kgf·m²	
					Standard	With brake	Standard	With brake
0.1	3200	3000	2000	1200	0.00033	0.00035	0.0013	0.0014
0.2	2200	2800	2800	2500	0.00050	0.00055	0.002	0.0022
0.25	2200	2800	2800	2500	0.00050	0.00055	0.002	0.0022
0.4	1800	2200	1500	1500	0.00065	0.00068	0.0026	0.0027
0.55	1800	2200	1500	1500	0.00101	0.00111	0.00405	0.00445
0.75	1400	1400	800	500	0.00120	0.00130	0.0048	0.0052
1.1	1400	1400	800	500	0.00185	0.00208	0.0074	0.0083
1.5	1200	1200	500	400	0.00213	0.00235	0.0085	0.0094
2.2	1000	900	400	200	0.00333	0.00373	0.0133	0.0149
3.0	1000	900	400	200	0.00700	0.00810	0.0281	0.0325
3.7	800	800	800	700	0.00848	0.00958	0.0339	0.0383
5.5	300	300	200	150	0.01143	0.01253	0.0457	0.0501

C×Z calculated below ① to ③ should be less than allowable C×Z listed in Table 10.

(1) Obtain the C value.

$$C = \frac{GD_M^2 + GD_L^2}{GD_M^2}$$

GD_M^2 : Moment of inertia (kgf·m²) or GD^2 (kg·m²) of motor.
GD_L^2 : Total moment of inertia (kgf·m²) or GD^2 (kg·m²) of load as seen from the motor.

(2) Obtain the Z value, number of starts per hour.

(a) Assume that one operating period consists of "on time" ta (sec), "off time" tb (sec) and the motor is started nr (times/cycle)

$$Z\,r = \frac{3600nr}{t\,a + t\,b} \text{ (times/hr)}$$

(b) When inching, ni (times/cycle) is included in 1 cycle (ta+tb), the number of inching times per hour Zi, and then included in the number of starts.

$$Z\,i = \frac{3600ni}{t\,a + t\,b} \text{ (times/hr)}$$

(c) Calculate Z (times/hr) by (a) and (b).

$$Z = Z\,r + 1/2 \cdot Z\,i = \frac{3600}{t\,a + t\,b} \left(nr + \frac{1}{2}\,ni\right) \text{ (times/hr)}$$

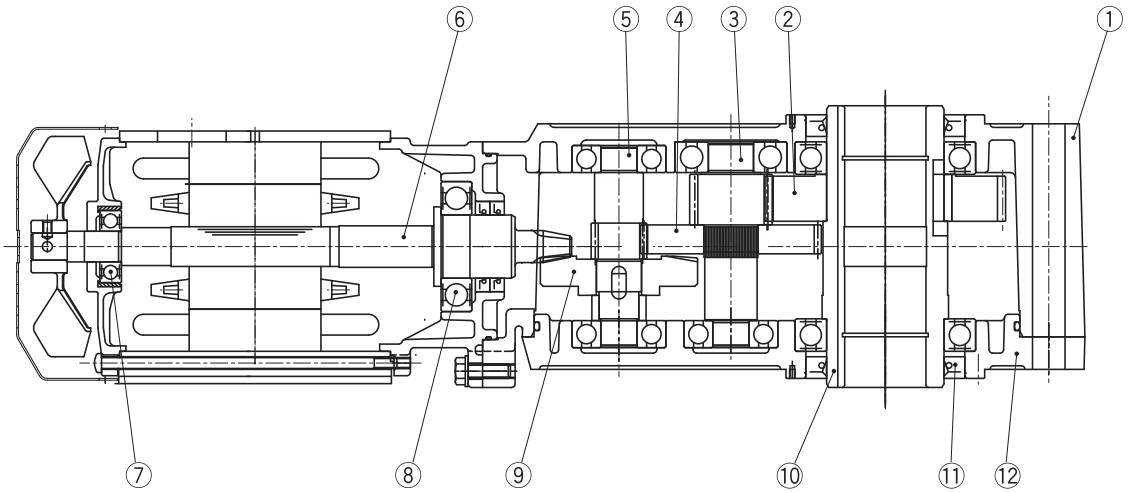
(3) Calculate C multiplied by Z.

Use the C obtained in step ① and Z in step ②.

(4) Obtain the duty cycle %ED and check with table above.

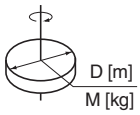
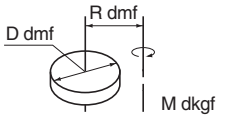
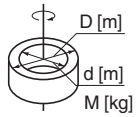
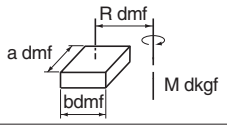
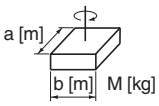
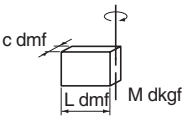
$$\%ED = \frac{t\,a}{t\,a + t\,b} \times 100$$

Hollow shaft type example (RNYM1-1530-120)

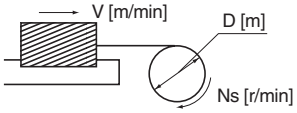
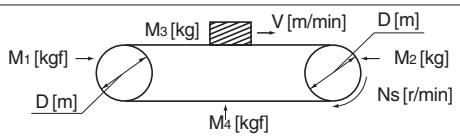
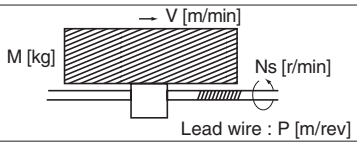
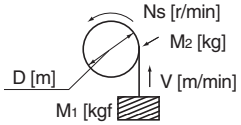


Part No.	Description	Part No.	Description	Part No.	Description	Part No.	Description
1	Casing (1)	4	Gear	7	Bearing	10	Output shaft
2	Gear	5	Pinion shaft	8	Bearing	11	Oil seal
3	Pinion shaft	6	Hypoid pinion shaft	9	Hypoid gear	12	Casing (2)

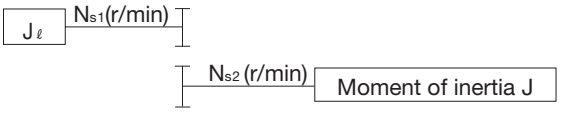
(1) Moment of inertia of rotating motion

Rotating motion on the center of gravity		Rotating motion off the center of gravity	
	$J=\frac{1}{8}MD^2$ [kg·m²]		$J=\frac{M}{4}\left(\frac{1}{2}D^2+4R^2\right)$ [kg·m²]
	$J=\frac{1}{8}M\,(D^2+d^2)$ [kg·m²]		$J=\frac{M}{4}\left(\frac{a^2+b^2}{3}+4R^2\right)$ [kg·m²]
	$J=\frac{1}{12}M\,(a^2+b^2)$ [kg·m²]		$J=\frac{1}{12}M\,(4L^2+C^2)$ [kg·m²]

(2) Moment of inertia of rectilinear motion

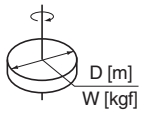
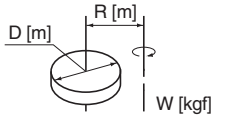
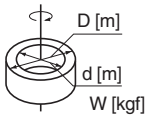
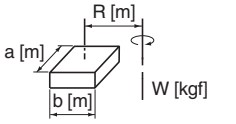
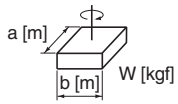
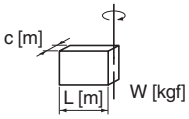
General application		$J=\frac{M}{4}\left(\frac{V}{\pi\cdot Ns}\right)^2=\frac{M}{4}D^2$	[kg·m²]
Horizontal motion by conveyor		$J=\frac{M}{4}\left(\frac{M_1+M_2}{2}+M_3+M_4\right)5D^2$	[kg·m²]
Horizontal motion by lead screw		$J=\frac{M}{4}\left(\frac{V}{\pi\cdot Ns}\right)^2=\frac{M}{4}\left(\frac{P}{\pi}\right)^2$	[kg·m²]
Vertical motion by hoist		$J=\frac{M_1D^2}{4}+\frac{1}{8}M_2D^2$	[kg·m²]

(3) Calculation of moment of inertia at different rotating speeds

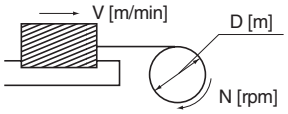
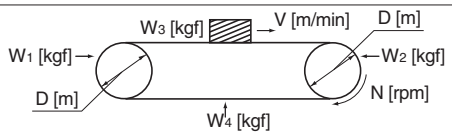
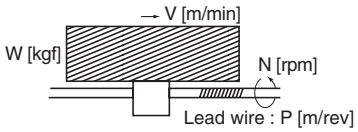
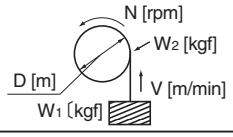


$$J_\ell=\left(\frac{N_{s2}}{N_{s1}}\right)^2 J$$

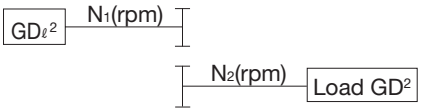
(1) GD² of rotating motion

Rotating motion on the center of gravity		Rotating motion off the center of gravity	
	$GD^2=\frac{1}{2}WD^2$ [kg·m²]		$GD^2=W\left(\frac{1}{2}D^2+4R^2\right)$ [kg·m²]
	$GD^2=\frac{1}{2}W(D^2+d^2)$ [kg·m²]		$GD^2=W\left(\frac{a^2+b^2}{3}+4R^2\right)$ [kg·m²]
	$GD^2=\frac{1}{3}W(a^2+b^2)$ [kg·m²]		$GD^2=\frac{1}{3}W(4L^2+C^2)$ [kg·m²]

(2) GD² of rectilinear motion

General application		$GD^2=W\left(\frac{V}{\pi\cdot N}\right)^2=WD^2$	[kg·m²]
Horizontal motion by conveyor		$GD^2=\left(\frac{W_1+W_2}{2}+W_3+W_4\right)\times D^2$	[kg·m²]
Horizontal motion by lead screw		$GD^2=W\left(\frac{V}{\pi\cdot N}\right)^2=W\left(\frac{P}{\pi}\right)^2$	[kg·m²]
Vertical motion by hoist		$GD^2=W_1D^2+\frac{1}{2}W_2D^2$	[kg·m²]

(3) Calculation of GD² at different rotation speeds



$$GD_\ell^2=\left(\frac{N_2}{N_1}\right)^2GD^2$$

Table 12

Motor type			15W		25W		40W			
			Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²
			kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²
		Motor frame size	01#, 03#		01#, 03#		05#, 07#		17#	
Indoor	3-phase	Without brake	0.000050	0.00020	0.000058	0.00023	0.000070	0.00028	0.00011	0.00043
		With brake	0.000070	0.00028	0.000078	0.00031	0.000090	0.00036	0.00012	0.00047
	Single-phase Single-phase reversible	Without brake	0.000050	0.00020	0.000058	0.00023	0.000070	0.00028	0.00015	0.00058
		With brake	0.000070	0.00028	0.000078	0.00031	0.000090	0.00036	0.00015	0.00061
Water proof	3-phase	Without brake	0.000050	0.00020	0.000058	0.00023	0.000070	0.00028	0.00011	0.00043
		With brake	0.000070	0.00028	0.000078	0.00031	0.000090	0.00036	0.00012	0.00047
	Single-phase Single-phase reversible	Without brake	0.000050	0.00020	0.000058	0.00023	0.000070	0.00028	0.00015	0.00058
		With brake	0.000070	0.00028	0.000078	0.00031	0.000090	0.00036	0.00015	0.00061

Motor type			60W				90W			
			Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²
			kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²
		Motor frame size	07#		17#		15#,17#		36#, 361#	
Indoor	3-phase	Without brake	0.000070	0.00028	0.00012	0.00049	0.00015	0.00058	0.00033	0.0013
		With brake	0.000090	0.00036	0.00013	0.00052	0.00016	0.00062	0.00035	0.0014
	Single-phase Single-phase reversible	Without brake	0.000070	0.00028	0.00016	0.00065	0.00021	0.00083	–	–
		With brake	0.000090	0.00036	0.00017	0.00068	0.00022	0.00086	–	–
Water proof	3-phase	Without brake	0.000070	0.00028	0.00012	0.00049	0.00015	0.00058	–	–
		With brake	0.000090	0.00036	0.00013	0.00052	0.00016	0.00062	–	–
	Single-phase Single-phase reversible	Without brake	0.000070	0.00028	0.00016	0.00065	0.00021	0.00083	–	–
		With brake	0.000090	0.00036	0.00017	0.00068	0.00022	0.00086	–	–

Motor type			0.1kW		0.2kW		0.25kW		0.4kW		0.55kW	
			Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²
			kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²
Indoor	3-phase	Without brake	0.00033	0.0013	0.00050	0.0020	0.00065	0.0026	0.00065	0.0026	0.00101	0.00405
		With brake for FB	0.00035	0.0014	0.00055	0.0022	0.00068	0.0027	0.00068	0.0027	0.00111	0.00445
	Single-phase	Without brake	0.00050	0.0020	0.00065	0.0026	–	–	0.00120	0.0048	–	–
		With brake for FB	0.00055	0.0022	0.00068	0.0027	–	–	0.00130	0.0052	–	–
	For inverter	Without brake	0.00050	0.0020	0.00065	0.0026	–	–	0.00120	0.0048	–	–
		With brake for FB	0.00055	0.0022	0.00068	0.0027	–	–	0.00130	0.0052	–	–
Outdoor Light dust proof	3-phase	Without brake	0.00033	0.0013	0.00050	0.0020	0.00065	0.0026	0.00065	0.0026	0.00101	0.00405
		With brake forFB	0.00035	0.0014	0.00055	0.0022	0.00068	0.0027	0.00068	0.0027	0.00111	0.00445
	Single-phase	Without brake	0.00050	0.0020	0.00065	0.0026	–	–	0.00120	0.0048	–	–
		With brake for FB	0.00055	0.0022	0.00068	0.0027	–	–	0.00130	0.0052	–	–
	For inverter	Without brake	0.00050	0.0020	0.00065	0.0026	–	–	0.00120	0.0048	–	–
		With brake for FB	0.00055	0.0022	0.00068	0.0027	–	–	0.00130	0.0052	–	–
Protected explosion proof	3-phase	Without brake	0.00033	0.0013	0.00050	0.0020	–	–	0.00065	0.0026	–	–

Motor type			0.75kW		1.1kW		1.5kW		2.2kW		3.0kW	
			Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²
			kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²
Indoor	3-phase	Without brake	0.00120	0.0048	0.00185	0.0074	0.00213	0.0085	0.00333	0.0133	0.00703	0.0281
		With brake for FB	0.00130	0.0052	0.00208	0.0083	0.00235	0.0094	0.00373	0.0149	0.00813	0.0325
	For inverter	Without brake	0.00213	0.0085	–	–	0.00333	0.0133	0.00848	0.0339	–	–
		With brake for FB	0.00235	0.0094	–	–	0.00373	0.0149	0.00958	0.0383	–	–
Outdoor Light dust proof	3-phase	Without brake	0.00120	0.0048	0.00185	0.0074	0.00213	0.0085	0.00333	0.0133	0.00703	0.0281
		With brake for FB	0.00130	0.0052	0.00208	0.0083	0.00235	0.0094	0.00373	0.0149	0.00813	0.0325
	For inverter	Without brake	0.00213	0.0085	–	–	0.00333	0.0133	0.00848	0.0339	–	–
		With brake for FB	0.00235	0.0094	–	–	0.00373	0.0149	0.00958	0.0383	–	–
Protected explosion proof	3-phase	Without brake	0.00120	0.0048	–	–	0.00213	0.0085	0.00333	0.0133	–	–

Motor type			3.7kW		5.5kW		7.5kW		11kW	
			Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²	Moment of inertia	GD²
			kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²	kg·m²	kgf·m²
Indoor	3-phase	Without brake	0.00848	0.0339	0.0114	0.0457	0.0268	0.107	0.0375	0.150
		With brake for FB	0.00958	0.0383	0.0125	0.0501	0.0303	0.121	0.0410	0.164
	For inverter	Without brake	0.0114	0.0457	0.0268	0.107	0.0375	0.150	–	–
		With brake for FB	0.0125	0.0501	0.0303	0.121	0.0410	0.164	–	–
Outdoor Light dust proof	3-phase	Without brake	0.00848	0.0339	0.0114	0.0457	0.0268	0.107	0.0375	0.150
		With brake for FB	0.00958	0.0383	0.0125	0.0501	0.0303	0.121	0.0410	0.164
	For inverter	Without brake	0.0114	0.0457	0.0268	0.107	0.0375	0.150	–	–
		With brake for FB	0.0125	0.0501	0.0303	0.121	0.0410	0.164	–	–
Protected explosion proof	3-phase	Without brake	0.00848	0.0339	0.0114	0.0457	0.0268	0.107	0.0375	0.150

Note 1. Moment of inertia/GD² on reducer and motor accounted for the value stipulated in the tables.
Note 2. The values in the tables are subject to change without notice.

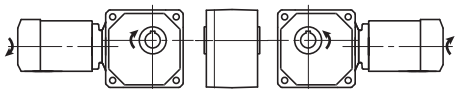
a. 3-phase motor (15W–90W)

Motor shaft will be rotating clockwise looking from the fan cover side when wire is connented as shown in connection figure in page 168–169.

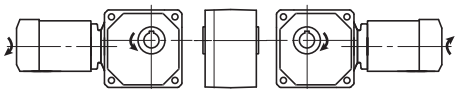
The direction of output shaft rotation will be as in the arrows of diagrams below.

Frame size	Reduction ratio	Frame size	Reduction ratio
01,03,05,07	5, 80, 100, 120, 160, 200, 240	01,03,05,07	7.5, 10, 12, 15, 20, 25, 30, 40, 50, 60
15,17	5, 7.5, 10, 12, 80, 100, 120, 150, 200, 240	15,17	15, 20, 25, 30, 40, 50, 60
1240	300, 360, 480, 600, 720, 900, 1200, 1440	1240	—

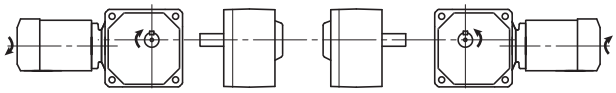
RNYM series



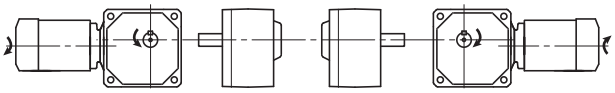
RNYM series



RNFM series



RNFM series



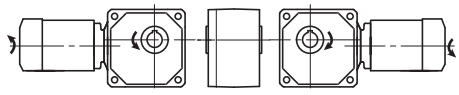
b. 3-phase motor and motor for inverter (0.1kW–5.5kW)

Motor shaft will be rotating counterclockwise looking from the fan cover side when wire is connented as shown in connection figure in page 168–173.

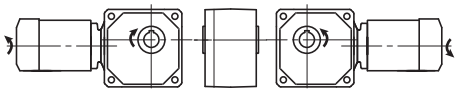
The direction of output shaft rotation will be as in the arrows of diagrams below.

Frame size	Reduction ratio	Frame size	Reduction ratio
1010	—	1010	5, 7, 10
1110	—	1110	5, 7, 10
1120	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1120	—
1210	—	1210	5, 7, 10
1220	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1220	—
1230	—	1230	80, 100, 120, 150, 200, 240
1240	300, 360, 480, 600, 720, 900, 1200, 1440		
1310	—	1310	5, 7, 10
1320	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1320	—
1330	—	1330	80, 100, 120, 150, 200, 240
1340	300, 360, 480, 600, 720, 900, 1200, 1440		
1410	—	1410	5, 7, 10
1420	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1420	—
1430	—	1430	80, 100, 120, 150, 200, 240
1440	300, 360, 480, 600, 720, 900, 1200, 1440		
1510	—	1510	5, 7, 10
1520	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1520	—
1521	5, 7, 10, 12, 15, 20, 25		
1522	5, 7, 10, 12, 15		
1530	—	1530	80, 100, 120, 150, 200, 240
1531	—	1531	40, 50, 60, 80
1540	300, 360, 480, 600, 720, 900, 1200, 1440		
1630	—	1630	80, 100, 120
1631	—	1631	150, 200, 240
1632	30	1632	40, 50, 60
1633	20, 25	1633	30, 40
1634	5, 7, 10, 12, 15	1634	20, 25
1640	300, 360, 480, 600, 720, 900, 1200, 1440	1640	—

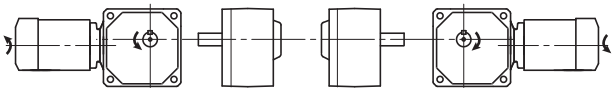
RNYM series



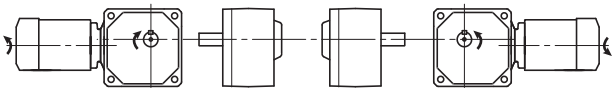
RNYM series



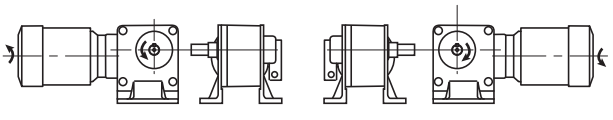
RNFM series



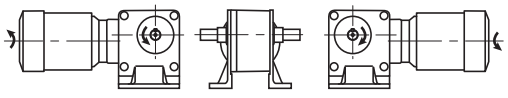
RNFM series



RNHM series

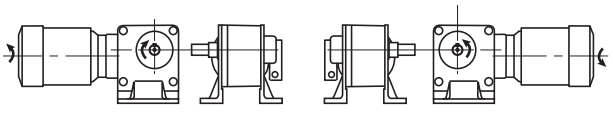


R type L type

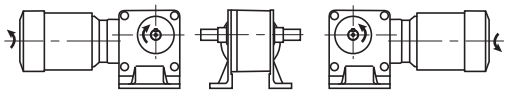


T type

RNHM series



R type L type



T type

Technical Data

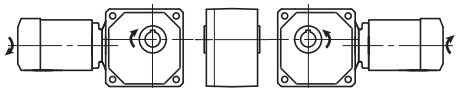
c. Single-phase motor

Motor shaft will be rotating clockwise looking from the fan cover side when wire is connented as shown in connection figure in page 163–167.

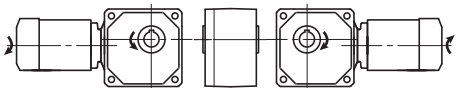
The direction of output shaft rotation will be as in the arrows of diagrams below.

Frame size	Reduction ratio	Frame size	Reduction ratio
01,03,05,07	5, 80, 100, 120, 160, 200, 240	01,03,05,07	7.5, 10, 12, 15, 20, 25, 30, 40, 50, 60
15,17	5, 7.5, 10, 12, 80, 100, 120, 150, 200, 240	15,17	15, 20, 25, 30, 40, 50, 60
1110	—	1110	5, 7, 10
1120	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1120	—
1210	—	1210	5, 7, 10
1220	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1220	—
1240	300, 360, 480, 600, 720, 900, 1200, 1440		
1310	—	1310	5, 7, 10
1320	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1320	—
1330	—	1330	80, 100, 120, 150, 200, 240
1340	300, 360, 480, 600, 720, 900, 1200, 1440		
1420	5, 7, 10, 12, 15, 20, 25, 30, 40, 50, 60	1420	—
1430	—	1430	80, 100, 120, 150, 200, 240
1440	300, 360, 480, 600, 720, 900, 1200, 1440		
1530	—	1530	80, 100, 120, 150, 200, 240
1540	300, 360, 480, 600, 720, 900, 1200, 1440		
1640	300, 360, 480, 600, 720, 900, 1200, 1440	1640	—

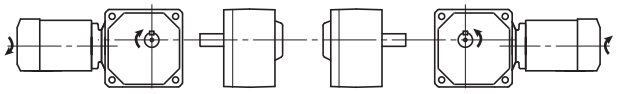
RNYM series



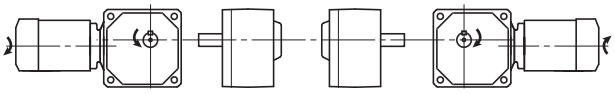
RNYM series



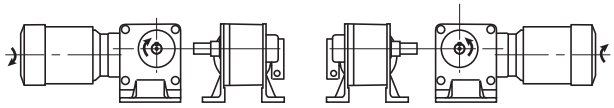
RNFM series



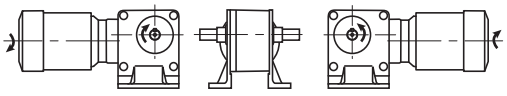
RNFM series



RNHM series

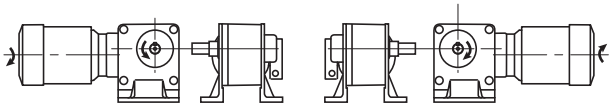


R type L type

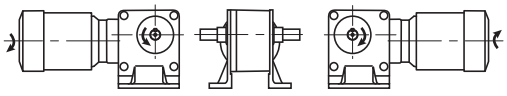


T type

RNHM series



R type L type



T type

Table 13 Actual reduction ratio RNYM, RNFM, RNHM series (Reduction raito: 5~240)

Frame size	Reduction ratio																		
	5	7	7.5	10	12	15	20	25	30	40	50	60	80	100	120	150	160	200	240
03 07	5.01		7.50	10.00	12.27	15.00	20.00	24.55	30.00	40.00	50.00	60.91	80.00	100.00	121.82		160.0	200.00	243.64
17	5.00		7.50	10.18	12.00	15.00	20.36	25.42	30.48	40.00	50.71	60.83	80.00	103.16	120.00	152.14		195.61	234.64
1010	5.00	7.00		10.00															
1110	5.00	7.00		10.00															
1210	5.00	7.00		10.00															
1310	5.00	7.00		10.00															
1410	5.00	7.00		10.00															
1510	5.00	7.00		10.00															
1120	5.00	7.03		9.81	11.74	15.26	20.67	24.62	30.00	41.33	49.23	60.00							
1220	5.00	7.03		9.81	11.74	15.26	20.67	24.62	30.00	41.33	49.23	60.00							
1320	5.00	7.03		9.81	11.74	15.26	20.67	24.62	30.00	41.33	49.23	60.00							
1420	5.00	6.97		10.00	11.96	14.75	19.69	25.00	30.45	39.38	50.00	60.91							
1520	5.00	7.03		9.81	11.74	15.26	20.67	24.62	30.00	41.33	49.23	60.00							
1521	5.00	7.03		9.81	11.74	15.26	20.67	24.62											
1522	5.06	7.00		10.00	12.21	15.25													
1230													81.45	101.01	120.15	151.51		200.39	231.27
1330													81.94	102.27	122.54	153.40		199.13	232.50
1430													80.37	102.35	122.64	153.52		199.29	240.00
1530													79.63	101.32	119.17	149.65		188.57	232.25
1531										39.20	49.88	57.60	77.42						
1630													80.50	102.94	119.00				
1631																154.41		195.42	244.07
1632									29.24	41.16	49.00	56.35							
1633							20.88	24.33	29.40	40.25	51.47	59.50							
1634	4.90	7.13		10.02	11.97	15.09	20.07	25.29											

Note: The values in the tables are subject to change without notice.

Table 14 Actual reduction ratio RNYM series (Reduction raito: 300~1440)

Frame size	Reduction ratio							
	300	360	480	600	720	900	1200	1440
1240	297.57	346.15	485.71	626.32	728.57	923.72	1159.41	1424.62
1340	302.72	360.10	479.79	595.00	707.78	892.50	1180.45	1382.22
1440	301.12	360.81	498.18	621.72	744.97	932.59	1210.57	1413.28
1540	311.59	373.36	502.52	602.13	753.78	903.20	1194.57	1403.08
1640	297.68	350.10	475.66	605.28	711.87	907.91	1144.07	1396.15

When radial and axial loads are posed simultaneously.

$$\left(\frac{Pr \cdot Lf}{Pro} + \frac{Pa}{Pao}\right) \cdot Cf \cdot Fs \leqq 1$$

Check your selection to be within the formula.

Pr : Actual radial load
Pro : Allowable radial load (refer to selection tables)
Pa : Actual axial load
Pao : Allowable axial load
Lf : Load location factor (refer to Table 1 of page 131, Table 5, 6 of page 133)
Cf : Coupling factor (refer to Table 2 of page 131, Table 7 of page 133)
Fs : Shock factor (refer to Table 3 of page 131, Table 8 of page 133)

Table 15 Allowable axial load on output shaft (3/single-phase)

Frame size	N/kgf
01, 03, 05, 07	294N/30kgf
15, 17	294N/30kgf
1010, 1110, 1210, 1310, 1410, 1510	0N/0kgf
1120	294N/30kgf
1220, 1230	784N/80kgf
1320, 1330	980N/100kgf
1420, 1430	1470N/150kgf
1520, 1521, 1522, 1530, 1531	2940N/300kgf
1630, 1631, 1632, 1633, 1634, 1640	5390N/550kgf

Note: Radial load on output shaft not accounted for in the calculation above.

Lubrication

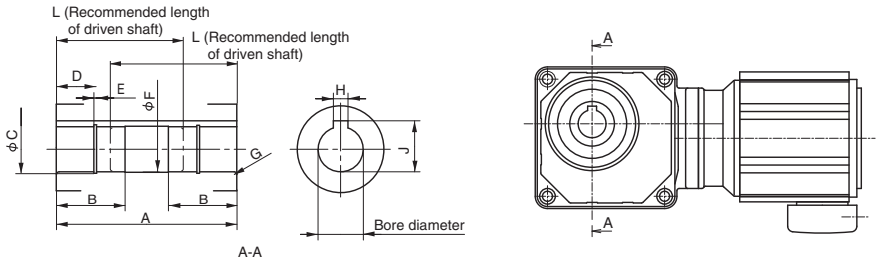
- As Hyponic Drives are sealed with long-life grease, replenishment is practically unnecessary, but overhaul in approximately 20,000 hours or 3~5 years of operation will provide longer service life.
- The durability of oil seals is subject to operating conditions. It may be required to change them in less than 20,000 hours or three years of operation under severe conditions.
- Overhaul of gear motors must be performed at our specified sites with professional knowledge and technique.

Hollow shaft type (RNYM series) output shaft bore size

Frame size	Bore (mm)									
	15	20	25	30	35	38	40	45	50	55
03, 07, 17, 1010	●									
1110, 1120		●								
1210, 1220, 1230, 1240		○	●							
1310, 1320, 1330, 1340		○	○	●						
1410, 1420, 1440			○	○	●					
1430			○	○	●	○				
1510, 1520, 1521, 1522, 1530, 1531, 1540				○	○	○	○	●		
1630, 1631, 1632, 1633, 1634, 1640							○	○	○	●

● Standard
○ Semi-standard
(Contact us for price and delivery.)

Output shaft dimensions



(mm)

Frame size	Bore	A	B	C	D	E	F	G	H	J	L	Effective length of driven shaft
03, 07	15	78	28	–	–	–	15.6	R1.0	5	17.3	55	20
17	15	94	28	–	–	–	15.6	R1.0	5	17.3	70	35
1010	15	82	28	–	–	–	15.6	R1.0	5	17.3	60	20
1110, 1120	20	82	30	21	16	1.15	20.6	R1.0	6	22.8	60	20
1210, 1220	20	92	31	21	15	1.15	20.6	R1.5	6	22.8	65	55
	25	92	38	26.2	22	1.35	25.6	R1.5	8	28.3	60	40
1230, 1240	20	100	31	21	15	1.15	20.6	R1.5	6	22.8	75	55
	25	100	38	26.2	22	1.35	25.6	R1.5	8	28.3	65	40
1310, 1320, 1330, 1340	20	110	31	21	15	1.15	20.6	R1.5	6	22.8	85	75
	25	110	38	26.2	22	1.35	25.6	R1.5	8	28.3	80	55
	30	110	46	31.4	22	1.35	30.6	R1.5	8	33.3	70	45
1410, 1420, 1440	25	138	38	26.2	22	1.35	25.6	R1.5	8	28.3	105	80
	30	138	46	31.4	22	1.35	30.6	R1.5	8	33.3	95	65
	35	138	52	37	26	1.75	35.6	R1.5	10	38.3	90	50
1430	25	138	38	26.2	22	1.35	25.6	R1.5	8	28.3	105	80
	30	138	46	31.4	22	1.35	30.6	R1.5	8	33.3	95	65
	35	138	52	37	26	1.75	35.6	R1.5	10	38.3	90	50
	38	138	58	40	26	1.75	38.6	R1.5	10	41.3	90	50
1510, 1520, 1521, 1522, 1530, 1531, 1540	30	156 (160)	46	31.4	22	1.35	30.6	R1.5	8	33.3	130 (135)	115
	35	156 (160)	52	37	26	1.75	35.6	R1.5	10	38.3	115 (120)	100
	38	156 (160)	58	40	26	1.75	38.6	R1.5	10	41.3	110 (115)	90
	40	156 (160)	60	42.5	30	1.95	40.6	R1.5	12	43.3	105 (110)	85
	45	156 (160)	67	47.5	30	1.95	45.6	R1.5	14	48.8	100 (105)	70
1630, 1631, 1632, 1633, 1634, 1640	40	224	60	42.5	30	1.95	40.6	R1.5	12	43.3	180	155
	45	224	67	47.5	30	1.95	45.6	R1.5	14	48.8	175	120
	50	224	76	53	30	2.2	50.6	R1.5	14	53.8	165	110
	55	224	85	58	40	2.2	55.6	R2.5	16	59.3	155	90

Keyway dimensions in accordance with JIS B 1301-1996 parallel key (Normal Grade). Bore dimension tolerance in accordance with JIS B 0401-1976 "H8".

1. Mounting torque arm

(1) Mounting on driven shaft

- Apply molybdenum disulfide to the surface of the driven shaft and the inside of the hollow shaft, and insert Hyponic Drive onto the driven shaft.
- When engagement is too tight, lightly strike on the end of the hollow output shaft with a mallet. Never strike on the casing. It is recommended to make a jig shown on the right for smooth insertion.

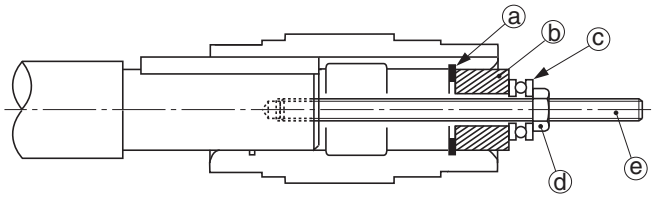


Fig. 1

ⓐ·····Retaining ring
ⓑ·····Spacer
ⓒ·····Thrust bearing
ⓓ·····Nut
ⓔ·····Double-end threaded bolt

- The hollow shaft dimension tolerance is in accordance with JIS "H8". The recommended tolerance for the driven shaft is :
  uniform load without impact·····JIS h6 or js6
  shock load or large radial load·····JIS js6 or k6
- Snap ring size is in accordance with JIS B2804C.

(2) Hyponic Drive must be secured to driven shaft.

a) How to secure Hyponic Drive not to move to the machine side (Ex.: Figs.2~4)

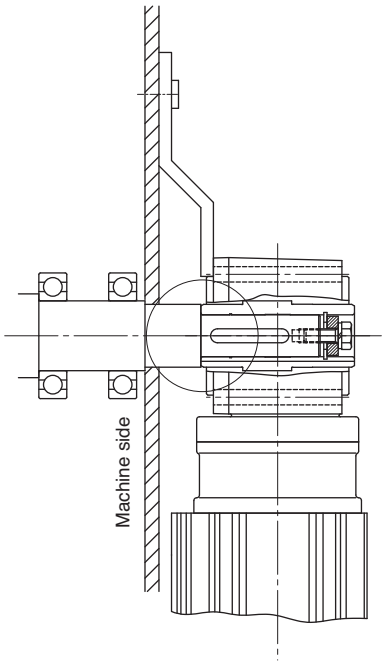


Fig. 2 secured by staged shaft

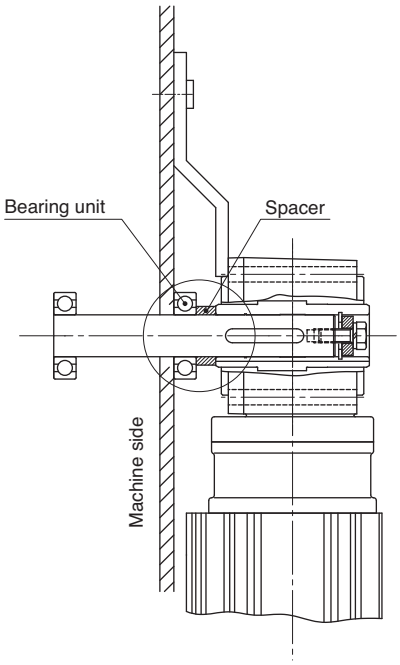


Fig.3 secured by spacer (stageless driven shaft)

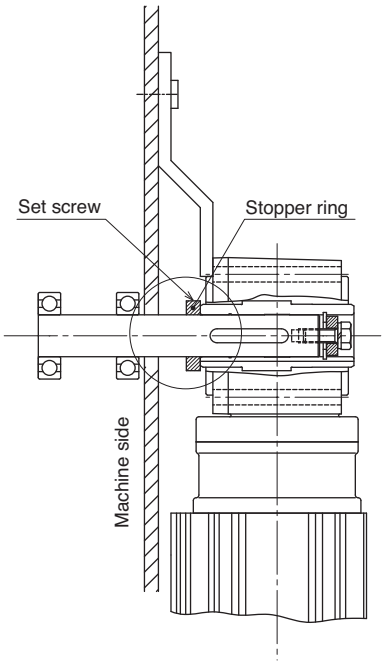


Fig. 4 secured by a set screw and a stopper (stageless driven shaft)

b) How to secure Hyponic Drive not to move off from the machine side (Figs. C5-C7)

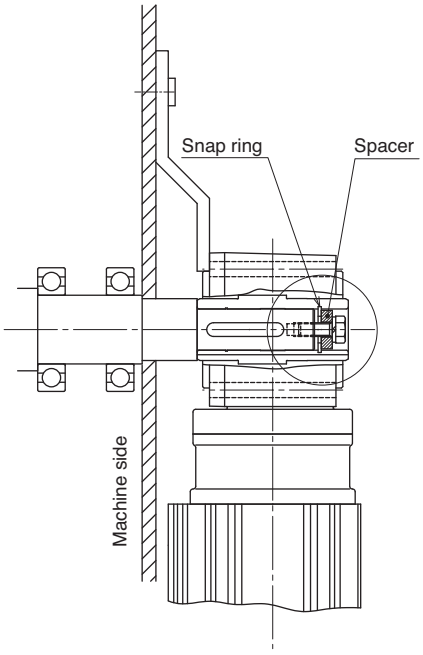


Fig. 5 secured by a spacer and a snap ring

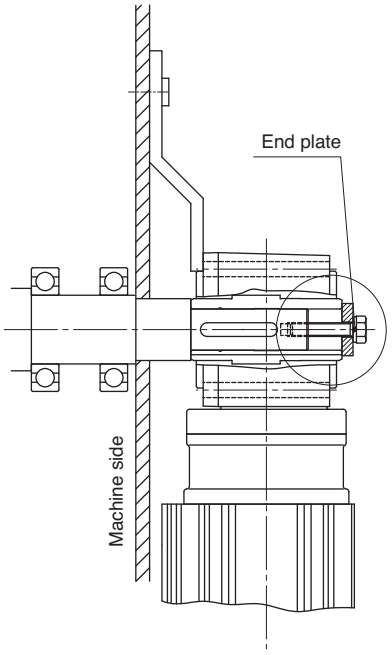


Fig. 6 secured by an end plate

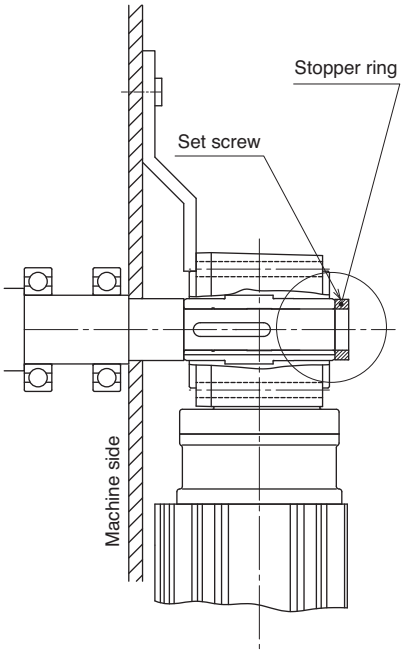


Fig. 7 secured by a set screw and a stopper ring

(3) Torque arm whirl stop

Attach the torque arm to Hyponic Drive casing on the machine side with hex socket head cap screws. (Refer to the table below for sizes of the bolts.).
Leave some allowance in the section of torque arm whirl stop so that excessive force will not be applied between Hyponic Drive and the driven shaft. Don't secure the torque arm with the whirl stop bolt. Or it may damage the whirl stop bolt, the torque arm, Hyponic Drive, or the machine.
In case of frequent start/stop operations, or repeated normal/reverse operations, use a rubber bush between the torque arm and mounting bolt (or spacer) to absorb the shock.

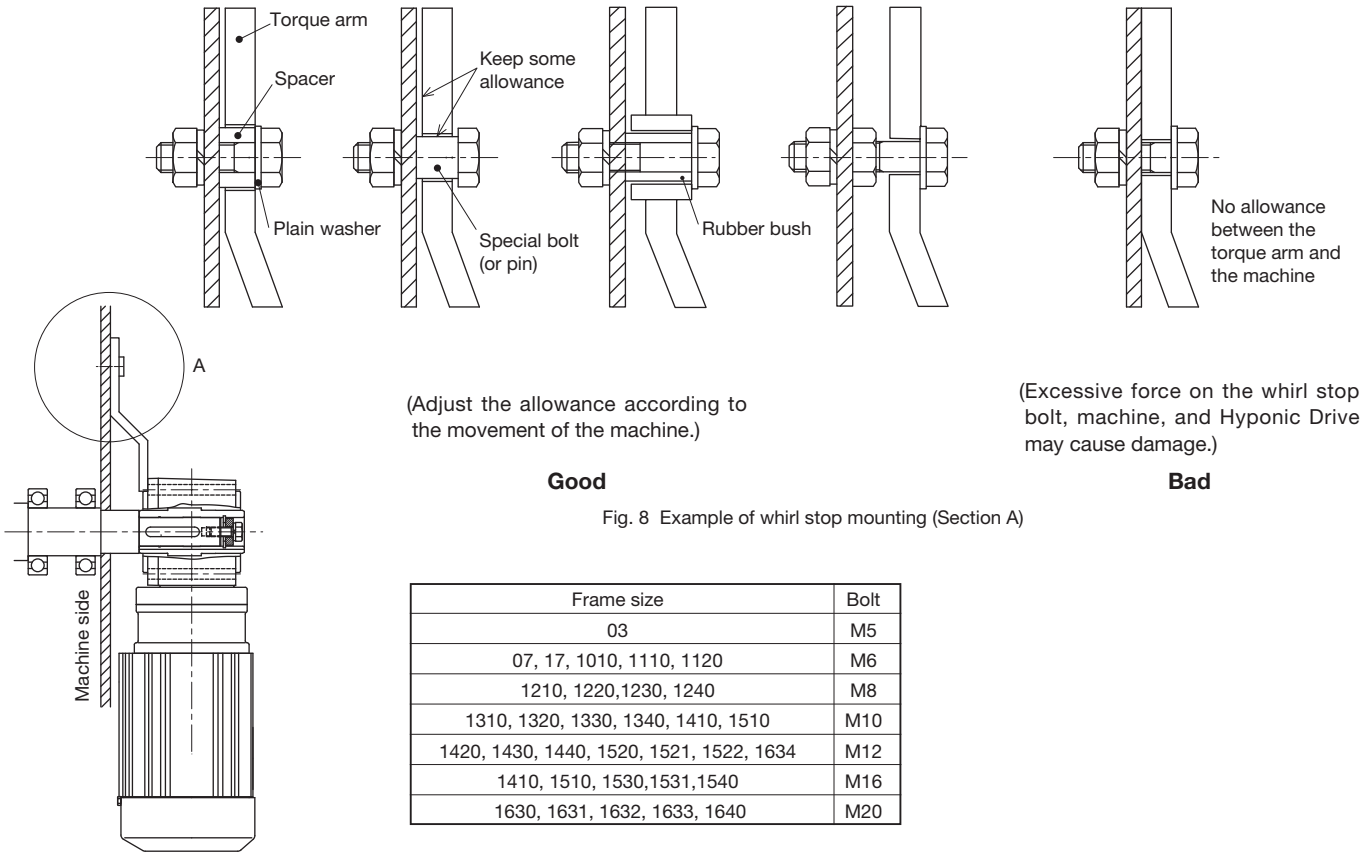


Fig. 8 Example of whirl stop mounting (Section A)

Frame size	Bolt
03	M5
07, 17, 1010, 1110, 1120	M6
1210, 1220,1230, 1240	M8
1310, 1320, 1330, 1340, 1410, 1510	M10
1420, 1430, 1440, 1520, 1521, 1522, 1634	M12
1410, 1510, 1530,1531,1540	M16
1630, 1631, 1632, 1633, 1640	M20

(4) Removal from a driven shaft

Handle with care so that excessive force will not be applied between the casing and the hollow shaft. It is recommended to make a jig as shown on the right for easy removal.

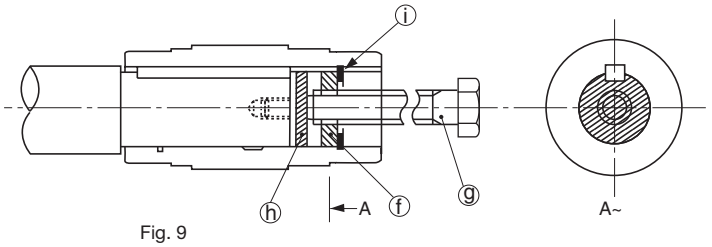


Fig. 9

ⓕ·····Spacer
ⓖ·····Upper bolt
ⓗ·····Disc
ⓘ·····Snap ring

Note:
Parts for mounting, securing, and removal should be provided by the customer.

2. Flange mounting and casing bottom mounting (optional)

Handle with care in order not to apply excessive force to driven shaft or hollow shaft by twisting the Hyponic casing.

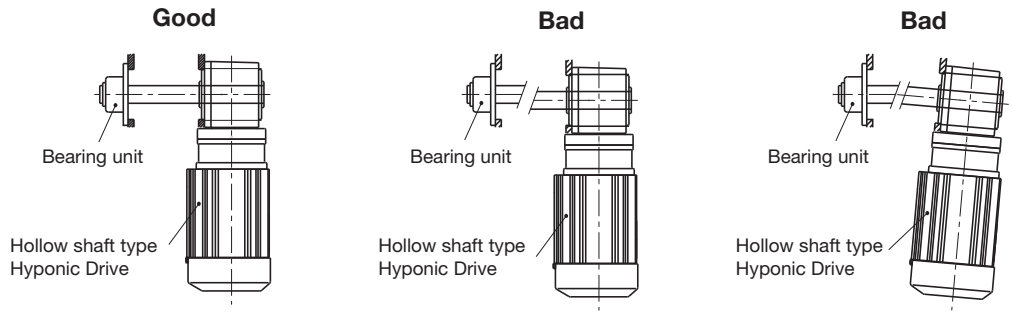


Fig. 10 Flange mounting surface

(Poor concentricity of the driven shaft and mounting faucet)

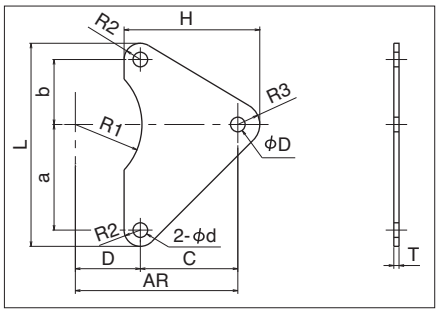
(Poor perpendicularity of the driven shaft center and mounting flange surface)

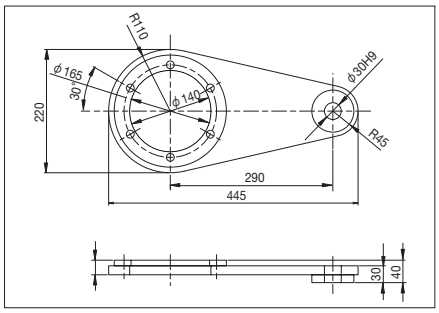
(Excessive force on Hyponic and the bearing unit may cause damage on inner parts.)

Torque arm (Option)

· There is an option for attaching torque arms. They can be used for continuous operations and cases where there are infrequent startup and stops.
· Refer to "Hollow shaft type handling precautions (146–148)" when mounting.
· Torque arm cannot be attached between hollow shaft and motor.
· Refer to "Torque arm designs (150)" and "Examples of torque arm designs (151)" when designing for cases when customers are preparing their own torque and, when startup and stop is frequent, or torque arm is going to be attached on the motor side. Mount torque arm to reducer casing using 4 bolts.

Torque arm shape



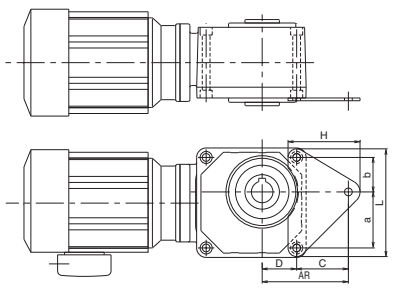


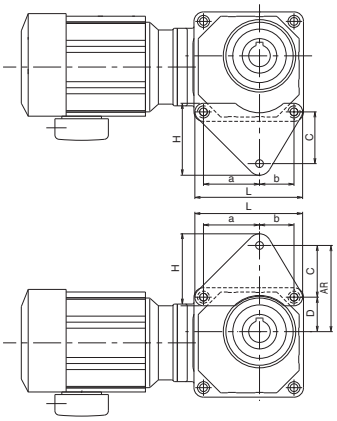
(For 1634)

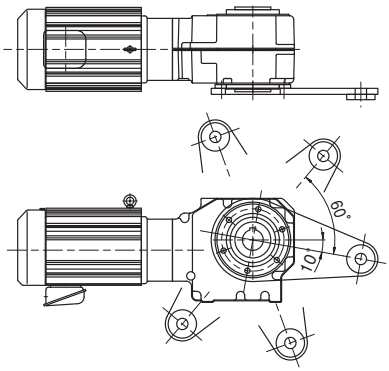
Dimensions

Frame size	a	b	C	D	H	L	d1	d2	R1	R2	R3	T
03	33.2	33.2	46.8	–	61.8	78.4	6	6	–	6	9	3.2
07, 17	36.8	36.8	53.2	18.8	70.7	87.6	7	7	26	7	10.5	3.2
1010	25	25	25	25	45.5	64	7	9	26	7	13.5	3.2
1110	29	29	51	29	72.5	74	7	9	28	8	13.5	3.2
1210	37	37	63	37	88.5	92	9	11	41	9	16.5	4.5
1310	44	44	76	44	108	110	11	14	44.5	11	21	4.5
1410	55	55	85	55	123	132	11	18	49.5	11	27	6
1510	65	65	85	65	130	154	11	22	57	12	33	9
1120	42	32	48	32	69.5	90	7	9	28	8	13.5	3.2
1220	57	40	60	40	85.5	115	9	11	41	9	16.5	4.5
1320	62	46	74	46	107	132	11	14	44.5	12	21	4.5
1420	75	57	83	57	123	158	14	18	49.5	13	27	6
1520, 1521, 1522	80	70	80	–	127	178	14	22	–	14	33	9
1230, 1240	65	40	60	40	82.5	123	9	9	41	9	13.5	3.2
1330, 1340	79	47	83	47	110.5	148	11	11	45	11	21	6
1430, 1440	92	54	106	54	141	174	14	14	50	14	21	6
1530, 1531, 1540	109	64	136	64	181	209	18	18	60	18	27	9
1630, 1631, 1632, 1633, 1640	145	85	195	85	250	274	22	22	80	22	33	12
1634	See the above figure.											

Assenbly Example



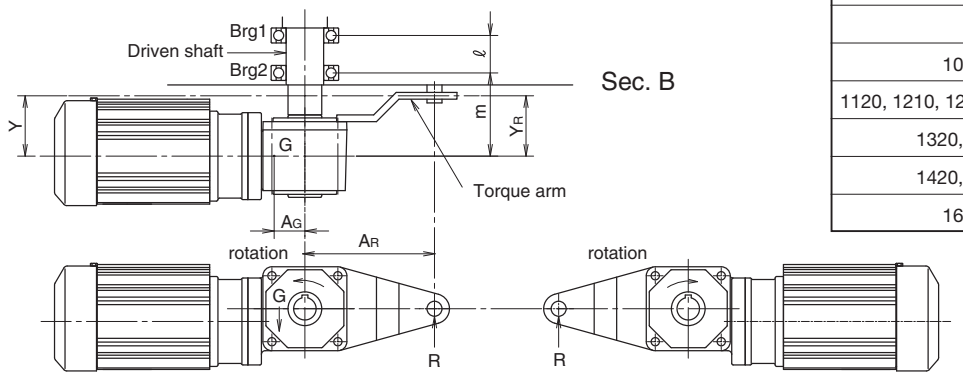




(For 1634)

Notes:
· Use torque arm only for whirl stop function.
· Fasten reducer at driven shaft for fixing in axial direction.

Check the strength of torque arm and driven shaft and the life time of the bearing.



(m)

Frame size	A_G
03, 07, 17	0.05
1010, 1110, 1230, 1240	0.1
1120, 1210, 1220, 1310, 1330, 1340 ,1430, 1440	0.15
1320, 1410, 1430, 1510, 1540	0.2
1420, 1520, 1530, 1531, 1640	0.25
1630, 1631, 1632, 1633	0.30

approximate values

1. Torque arm load : $R = \frac{T+A_G \cdot G}{A_R}$

2. Brg.1 load : $B1 = \frac{m\,(R-G) - Y_R \cdot R}{\ell}$

3. Brg.2 load : $B2 = \frac{(R+m)\,(R-G) - Y_R \cdot R}{\ell}$

4. Sec. B of driven shaft

: $M = Y_R \cdot R - Y\,(R-G)\quad 0 < Y \leqq m$

T : Output torque [N·m]
G : Hyponic Drive gravity [N]
R : Torque arm load [N]
A^G : Distance between the centers of the driven shaft and gravity [m]
A^R : Distance from driven shaft center to torque arm whirl stop [m]
Y^R : Distance from the center of Hyponic Drive to torque arm whirl stop [m]
m : Distance from the center of Hyponic Drive to Brg 2 [m]
R : Distance between Brg.1 and Brg.2 [m]
Y : Distance between the center of Hyponic Drive and Sec. B [m]

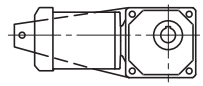
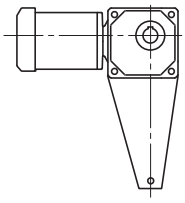
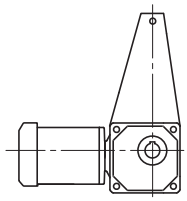
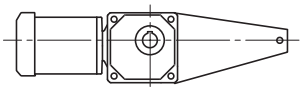
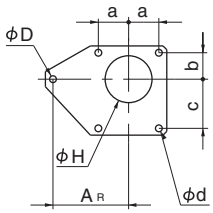
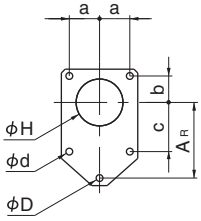
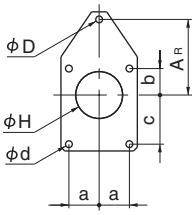
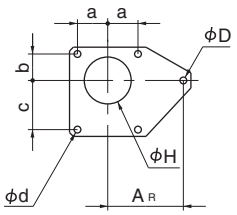
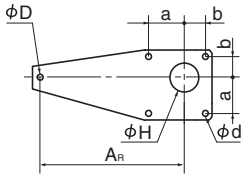
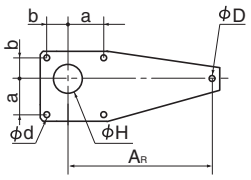
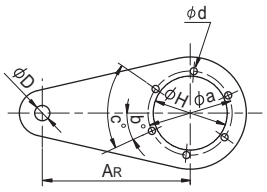
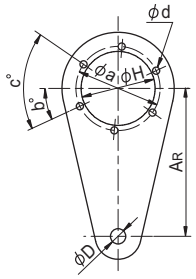
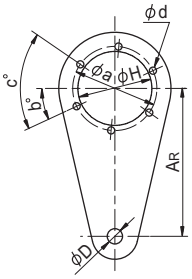
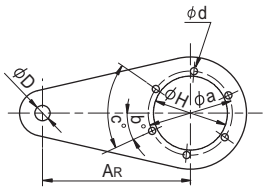
Note: Output torque is (+) on the shown rotation, and (-) on the opposite rotation.

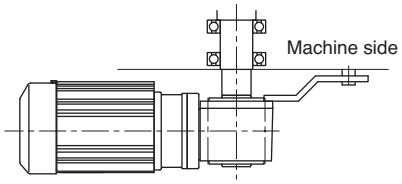
Table. 16 Recommended dimensions of torque arm design

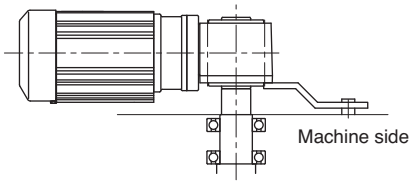
(mm)

Frame size	Length	Bore	Whirl stop bore	Mounting pitches			Mounting bore	Thickness
	A_R	H	D	a	b	c	d	
03	80	37	6	33	18	48	6	3.2
07	90	37	7	37	19	55	7	3.2
17	90	37	7	37	19	55	7	4.5
1010	50	50	9	25	25	—	7	3.2
1110	80	54	9	29	29	—	7	3.2
1120	80	54	9	42	32	—	7	3.2
1210	100	80	11	37	37	—	9	3.2
1220	100	80	11	57	40	—	9	4.5
1230, 1240	100	80	9	65	40	—	9	6
1310	120	87	14	44	44	—	11	4.5
1320	120	87	14	62	46	—	11	4.5
1330, 1340	130	87	11	79	47	—	11	9
1410	140	97	18	55	55	—	11	6
1420	140	97	18	75	57	—	14	6
1430, 1440	160	97	14	92	54	—	14	9
1510	150	112	18	65	65	—	11	9
1520	150	112	22	80	70	—	14	9
1530, 1531, 1540	200	112	18	109	64	—	18	9
1630,1631,1632,1633,1640	280	152	22	145	85	—	22	12
1634	290	142	33	165	20°	60°	14	16

Fig. 11 Torque arm mountings and designs

	1	2	3	4
Mounting examples				
Drawing examples 03 07 17				
Drawing examples 1120 1220 1230 1320 1331, 361 1420 1430, 461 1520 1530, 1531, 56 60, 63, 64				
Drawing examples 1634				





Attach the torque arm to the casing on the machine side.

- It may be mounted on either the left or right side.
- Made of plastics

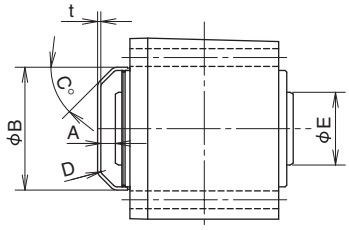


Fig. 12

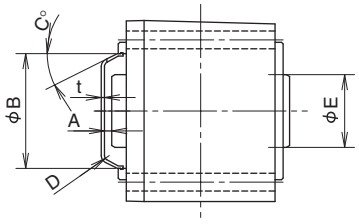


Fig. 13

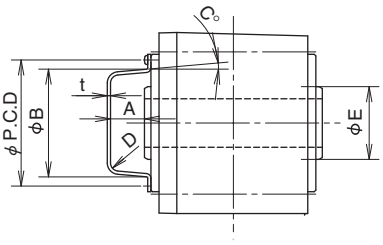


Fig. 14

(mm)

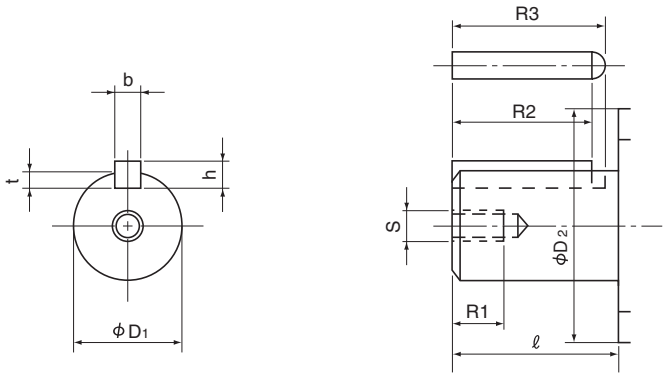
Dimensions / Frame size	Safety cover								Output shaft end	Fig.
	A	B	C°	D	t	P.C.D	N	M×P×L	E	
03, 07, 17	10	72	28	R5	2	—	—	—	25	13
1010	10	52	45	R3	2	—	—	—	25	12
1110, 1120	10	56	45	R3	2	—	—	—	30	
1210, 1220, 1230, 1240	21	59	5	R5	2	70	2	M3×0.5×6	40	14
1310, 1320, 1330, 1340	21	67	5	R5	2	78	2	M3×0.5×6	45	
1410, 1420, 1430, 1440	30	77	5	R5	2	88	2	M3×0.5×6	55	
1510, 1520, 1521, 1522, 1530, 1531, 1540	30	90	5	R5	2	103	2	M3×0.5×6	65	
1630, 1631, 1632, 1633, 1640	40	114	5	R5	2	135	2	M5×0.8×10	95	
1634	40	114	5	R5	1.2	130	2	M5×0.8×10	95	

M : Screw size P : Thread pitch L : Thread length P.C.D : Mounting pitch N : Q'ty

Note 1: The values are subject to change without notice.

Note 2: No screw is required for safety cover for frame size 03, 07, 17, 1010 and 1120.

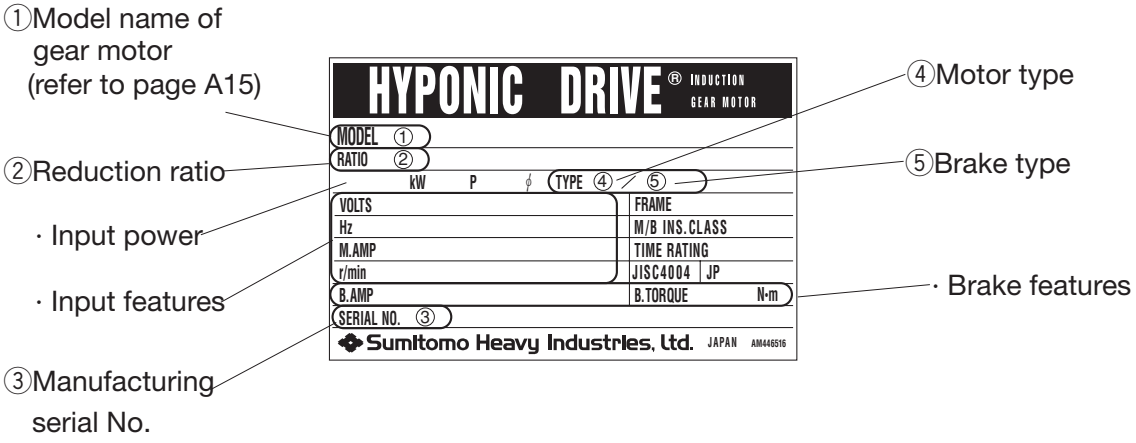
Note 3: Contact us when safety covers are required.



Dimensions / Frame size	D_1	Tolerance (h6)	ℓ	S	ℓ 1	t	Tolerance	b (Key)	Tolerance (h9)	h (Key)	Tolerance	ℓ 2 (Key)	ℓ 3	D_2
01	10	0 -0.009	29	—	—	2.5	+0.1 0	4	0 -0.030	4	0 -0.030	22	25	25
03	15	0 -0.011	31	—	—	3	+0.1 0	5	0 -0.030	5	0 -0.030	22	25	25
05	12	0 -0.011	29	—	—	2.5	+0.1 0	4	0 -0.030	4	0 -0.030	22	25	25
07	15	0 -0.011	31	—	—	3	+0.1 0	5	0 -0.030	5	0 -0.030	22	25	25
15	15	0 -0.011	31	—	—	3	+0.1 0	5	0 -0.030	5	0 -0.030	22	25	25
17	18	0 -0.011	31	—	—	3.5	+0.1 0	6	0 -0.030	6	0 -0.030	22	25	25
1120	18	0 -0.011	28	M6	12	3.5	+0.1 0	6	0 -0.030	6	0 -0.030	22	25	25
1220, 1230	22	0 -0.013	36	M6	12	3.5	+0.1 0	6	0 -0.030	6	0 -0.030	32	35	30
1320, 1330	28	0 -0.013	42	M8	16	4	+0.2 0	8	0 -0.036	7	0 -0.090	35	39	35
1420, 1430	32	0 -0.016	58	M8	16	5	+0.2 0	10	0 -0.036	8	0 -0.090	50	55	45
1520, 1530, 1531	40	0 -0.016	82	M10	18	5	+0.2 0	12	0 -0.043	8	0 -0.090	70	76	55

Note: Keyway dimensions in accordance with JIS B 1301-1996 parallel keyway (Normal Grade).

Name plate



1. 3-phase motor characteristics

(1) Non-explosion Proof

Motor frame size	Reducer frame size	Pole	4 poles														
		Power	200V-50Hz					220V-60Hz					230V-50Hz				
		Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
F-50S	01#,03#	0.015	0.11	250	240	0.31	1350	0.11	319	319	0.37	1680	0.11	275	260	0.32	1360
F-50M	01#,03#	0.025	0.16	232	221	0.41	1330	0.17	279	272	0.54	1670	0.16	259	248	0.51	1350
F-50L	05#, 07#	0.04	0.23	201	200	0.61	1260	0.24	248	248	0.74	1630	0.23	220	219	0.63	1290
F-56S	17#, 1240#	0.04	0.26	217	215	0.80	1400	0.28	274	266	0.90	1710	0.27	239	242	0.80	1410
F-50L	07#	0.06	0.35	150	148	0.80	1200	0.35	197	197	0.92	1590	0.35	165	164	0.81	1230
F-56M	17#, 1240#	0.06	0.37	208	211	1.1	1380	0.39	268	261	1.4	1690	0.38	229	236	1.2	1390
F-56L	15#, 17#, 1240#	0.09	0.55	214	223	1.7	1370	0.57	269	271	2.1	1690	0.56	235	251	1.8	1380

Motor frame size	Pole	4 poles														
	Power	220V-50Hz					230V-50Hz					220V-60Hz				
	Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
V-63S	0.1	0.60	235	230	2.3	1420	0.62	261	261	2.3	1430	0.53	220	202	2.1	1700
V-63M	0.2	1.0	210	206	3.8	1410	1.0	231	236	4.0	1420	0.95	186	191	3.5	1690
V-71M	0.25	1.6	332	334	7.3	1460	1.8	365	379	7.8	1460	1.4	311	287	6.6	1750
V-71M	0.4	2.0	200	201	7.3	1410	2.1	221	229	7.8	1420	1.8	188	185	6.6	1680
V-80S	0.55	2.4	182	206	9.2	1410	2.4	200	225	9.6	1420	2.3	164	166	8.6	1680
V-80M	0.75	3.3	211	193	13.1	1420	3.3	219	215	13.8	1430	3.1	189	180	12.3	1720
V-90S	1.1	4.7	215	200	21.7	1420	4.6	236	223	22.8	1420	4.4	189	170	19.9	1690
V-90L	1.5	6.1	204	192	27.9	1420	6.0	228	224	28.9	1430	5.7	196	175	25.5	1700
V-100L	2.2	8.7	203	213	42.1	1420	8.3	231	255	45.0	1430	8.1	207	185	38.0	1690
V-112S	3.0	11.2	205	213	61	1420	11.1	224	237	64	1420	10.8	189	155	54	1690
V-112M	3.7	13.4	219	218	80	1410	13.0	231	236	81	1420	12.9	207	178	70	1700

Motor frame size	Pole	4 poles														
	Power	380V-50Hz					400V-50Hz					415V-50Hz				
	Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
V-63S	0.1	0.34	235	230	1.3	1420	0.36	261	261	1.3	1430	0.37	281	286	1.4	1430
V-63M	0.2	0.61	210	206	2.2	1410	0.62	233	236	2.3	1420	0.63	251	260	2.4	1420
V-71M	0.25	0.95	332	334	4.2	1460	1.0	365	379	4.5	1460	1.1	389	413	4.7	1460
V-71M	0.4	1.2	200	201	4.2	1410	1.2	221	229	4.5	1420	1.3	236	250	4.7	1420
V-80S	0.55	1.4	182	206	5.3	1410	1.4	200	225	5.5	1420	1.4	218	248	5.8	1420
V-80M	0.75	1.9	211	193	7.6	1420	1.9	219	215	8.0	1430	2.0	237	232	8.4	1440
V-90S	1.1	2.7	215	200	12.5	1420	2.7	236	223	13.2	1420	2.7	256	243	14.3	1430
V-90L	1.5	3.5	204	192	16.1	1420	3.5	228	224	17.1	1430	3.6	242	236	17.8	1430
V-100L	2.2	5.0	203	213	24.3	1420	4.8	231	255	26.0	1430	5.0	240	263	26.8	1430
V-112S	3.0	6.5	205	213	35.1	1420	6.4	224	237	37.0	1420	6.2	241	255	35.7	1420
V-112M	3.7	7.8	219	218	45.9	1410	7.5	231	236	46.9	1420	7.7	259	269	51	1430
V-132S	5.5	11.3	215	227	69.0	1410	11.1	237	256	73	1420	11.0	256	281	76	1430
F-132M	7.5	15.0	228	232	93	1450	14.8	252	261	99	1450	14.8	270	284	103	1450
F-160M	11	21.5	231	250	139	1450	21.0	256	282	147	1450	20.8	274	308	154	1450

*The values shown in the above tables are subject to change without notice. Contact us for confirming values.

Motor frame size	Pole	4 poles				
	Power	440V-60Hz				
	Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
V-63S	0.1	0.32	300	289	1.4	1730
V-63M	0.2	0.54	268	266	2.4	1720
V-71M	0.25	0.87	420	429	4.6	1780
V-71M	0.4	1.0	256	262	4.6	1730
V-80S	0.55	1.2	224	240	5.9	1720
V-80M	0.75	1.7	247	242	8.4	1740
V-90S	1.1	2.3	257	246	13.6	1720
V-90L	1.5	3.0	250	243	17.5	1740
V-100L	2.2	4.2	248	260	26.2	1720
V-112S	3.0	5.5	238	225	27.0	1720
V-112M	3.7	6.6	246	238	46.4	1720
V-132S	5.5	9.6	254	263	73	1720
F-132M	7.5	12.8	267	271	98	1750
F-160M	11	18.4	270	296	145	1750

(2) Increased safety motors

Increased safety motors conform to eG3 of Japanese Industrial Standards (JIS).

a. 200V class

Motor frame size	Pole	4 poles														
	Power	200V-50Hz					200V-60Hz					220V-60Hz				
	Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
V-63S	0.1	0.69	274	281	2.7	1430	0.60	255	245	2.5	1710	0.62	311	297	2.8	1730
V-63M	0.2	1.2	238	233	4.6	1420	1.1	223	207	4.2	1700	1.1	273	250	4.8	1720
V-71M	0.4	2.3	221	237	9.1	1410	2.0	203	210	8.3	1700	2.0	249	257	9.4	1730
V-80M	0.75	3.9	219	215	16.0	1430	3.4	203	190	15.1	1730	3.3	247	242	16.8	1740
V-90L	1.5	7.0	228	224	34.1	1430	6.3	206	192	31.2	1720	6.0	250	243	34.9	1740
V-100L	2.2	9.6	231	255	52	1430	8.8	204	204	46.9	1710	8.3	248	260	52	1720
F-112M	3.7	15.1	231	236	94	1420	14.2	202	188	83	1700	13.1	246	238	93	1720
F-132S	5.5	22.9	243	286	158	1420	21.1	209	229	139	1700	19.7	254	291	156	1720
F-132M	7.5	29.5	274	261	198	1450	27.4	240	224	175	1750	25.6	292	271	195	1760
F-160M	11	41.9	305	297	302	1450	39.5	263	247	265	1740	36.7	322	309	296	1750

b. 400V class

Motor frame size	Pole	4 poles														
	Power	400V-50Hz					400V-60Hz					440V-60Hz				
	Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
V-63S	0.1	0.36	261	261	1.3	1430	0.31	246	224	1.2	1710	0.32	300	289	1.4	1730
V-63M	0.2	0.62	233	236	2.3	1420	0.54	219	202	2.1	1700	0.54	268	266	2.4	1720
V-71M	0.4	1.2	221	229	4.5	1420	1.0	209	201	4.1	1700	1.0	256	262	4.6	1730
V-80M	0.75	1.9	219	215	8.0	1430	1.7	203	190	7.6	1730	1.7	247	242	8.4	1740
V-90L	1.5	3.5	228	224	17.1	1430	3.1	206	192	15.6	1720	3.0	250	243	17.5	1740
V-100L	2.2	4.8	231	255	26.0	1430	4.4	204	204	23.5	1710	4.2	248	260	26.2	1720
F-112M	3.7	7.5	231	236	46.9	1420	7.1	202	188	41.4	1700	6.6	246	238	46.4	1720
F-132S	5.5	11.4	233	286	79	1420	10.5	209	229	70	1700	9.9	254	291	78	1720
F-132M	7.5	14.8	274	261	99	1450	13.7	240	224	88	1750	12.8	292	271	98	1760
F-160M	11	21.0	305	297	151	1450	19.7	263	247	133	1740	18.3	322	309	148	1750

*The values shown in the above tables are subject to change without notice. Contact us for confirming values.

2. Single-phase motor characteristics

a. Induction motors

Motor frame size	Reducer frame size	Pole	4 poles				
		Power	230V-50Hz				
		Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
FS-50S	01#, 03#	0.015	0.18	225	115	0.37	1390
FS-50M	01#, 03#	0.025	0.23	145	82	0.38	1320
FS-50L	05#, 07#	0.04	0.36	131	81	0.53	1300
FS-56S	17#, 1240#	0.04	0.32	206	105	0.85	1380
FS-56M	15#,17#,1240#	0.06	0.46	166	83	1.1	1330
FS-56L	15#,17#,1240#	0.09	0.70	172	96	1.5	1360
VS-63M	—	0.1	1.1	254	254	4.8	1450
VS-71M	—	0.2	1.6	201	224	6.9	1440
FS-80M	—	0.4	2.9	219	205	15.1	1450

b. Reversible motors

Motor frame size	Reducer frame size	Pole	4 poles					4 poles				
		Power	100V-50Hz					100V-60Hz				
		Output power (kW)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)	Full load current (A)	Largest torque (%)	Starting torque (%)	Starting current (A)	Speed (r/min)
FS-50S	01#, 03#	0.015	0.41	175	104	0.69	1290	0.38	158	103	0.67	1630
FS-50M	01#, 03#	0.025	0.57	162	105	0.92	1310	0.66	190	133	0.93	1620
FS-50L	05#, 07#	0.04	0.84	136	89	1.22	1270	0.97	145	106	1.24	1580
FS-56S	17#, 1240#	0.04	0.78	217	114	1.9	1370	0.92	240	150	1.8	1670
FS-56M	15#,17#,1240#	0.06	1.1	195	112	2.5	1370	1.4	220	140	2.4	1660
FS-56L	15#,17#,1240#	0.09	1.6	185	104	3.5	1360	2.10	206	138	3.3	1660

*The values shown in the above tables are subject to change without notice. Contact us for confirming values.

3. Characteristics of motors for inverters

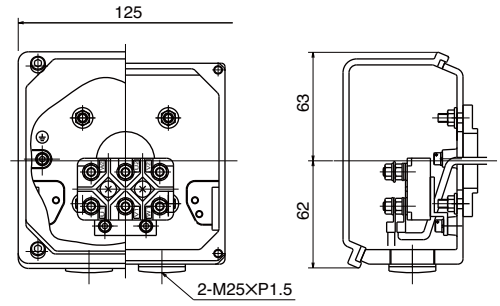
Motor frame size	Pole	4 poles				4 poles				4 poles			
	Power	220V-60Hz				380V-60Hz				415V-60Hz			
	Output power (kW)	Frequency (Hz)	Voltage (V)	Full load current (A)	Speed (r/min)	Frequency (Hz)	Voltage (V)	Full load current (A)	Speed (r/min)	Frequency (Hz)	Voltage (V)	Full load current (A)	Speed (r/min)
VA-63S	0.1	60	220	0.85	1765	60	380	0.38	1755	60	415	0.40	1760
		6	34	0.75	120	6	68	0.37	125	6	68	0.37	125
VA-63M	0.2	60	220	1.6	1760	60	380	0.69	1750	60	415	0.75	1760
		6	34	1.5	130	6	68	0.75	130	6	68	0.75	130
VA-71M	0.4	60	220	2.4	1745	60	380	1.1	1725	60	415	1.1	1740
		6	35	2.2	115	6	70	1.1	115	6	70	1.1	115
VA-80M	0.75	60	220	4.0	1755	60	380	1.9	1735	60	415	1.9	1745
		6	31	3.9	120	6	62	1.9	120	6	62	1.9	120
VA-90L	1.5	60	220	6.4	1735	60	380	3.3	1705	60	415	3.1	1725
		6	33	6.5	105	6	66	3.2	110	6	66	3.2	110
VA-100L	2.2	60	220	9.1	1755	60	380	4.7	1740	60	415	4.4	1750
		6	31	9.3	140	6	62	4.6	135	6	62	4.6	135
VA-112M	3.7	60	220	14.0	1750	60	380	7.7	1730	60	415	7.2	1745
		6	30	14.8	125	6	60	7.4	120	6	60	7.4	120
FA-132S	5.5	60	220	20.2	1760	60	380	11.2	1745	60	415	10.5	1755
		6	30	21.3	135	6	60	10.7	130	6	60	10.7	130
FA-132M	7.5	60	220	27.4	1765	60	380	15.2	1750	60	415	14.2	1760
		6	30	28.2	145	6	60	14.1	145	6	60	14.1	145

*The values shown in the above tables are subject to change without notice.
Contact us for confirming values.

3-phase

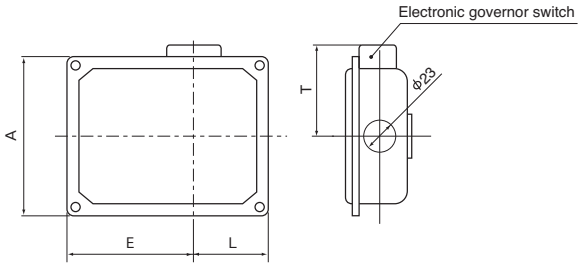
Standard motors 0.1kW~5.5kW and motors for inverters 0.1~3.7kW

(mm)



Single-phase

0.1kW~0.4kW



(mm)

kW	With/without brake			
	A	E	L	T
0.1	116	91.5	55.5	72
0.2	116	91.5	55.5	72
0.4	109	129.5	75.5	69

RNFM and RNHM Series of solid shaft type do not come with electronic governor switch.

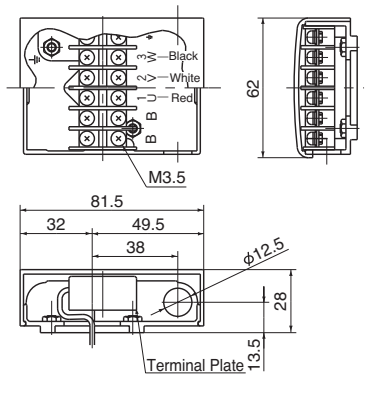
Terminal box with a terminal plate (option)

Terminal boxes are optional for 15-90W.

3-phase, Single-phase

15W~90W

(mm)

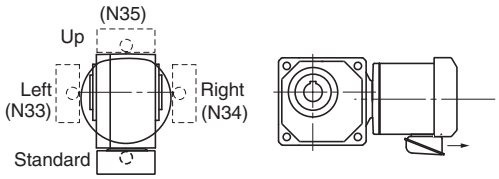
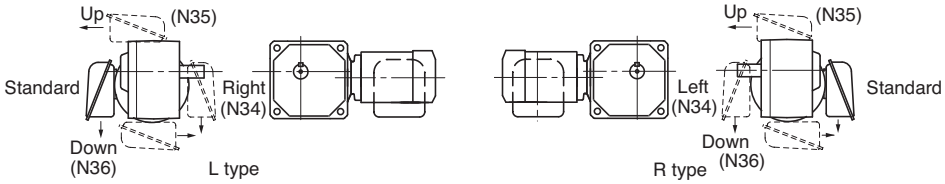


Applicable motors	
Induction motors	Without brake
	With brake
Reversible motors	Without brake

Mounting direction of a terminal box

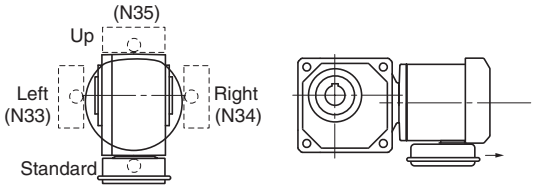
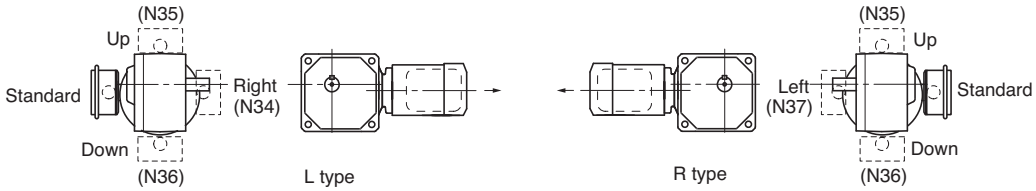
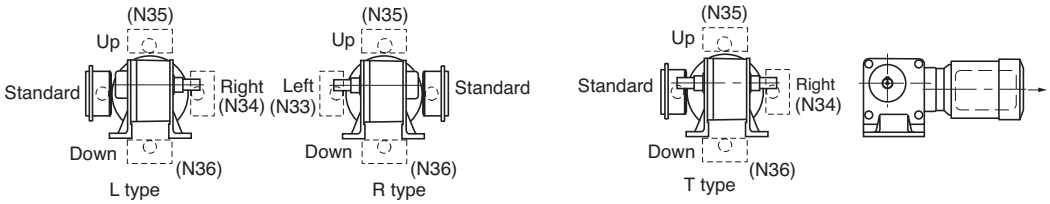
Mounting direction of a terminal box may be changed by 90˚. Specify a direction according to the Figs below. The direction must be changed by Sumitomo.
(Terminal boxes are optional for 15-90W. Refer to the outline drawings for lead wire opening direction. The direction cannot be changed after shipment.)

(1) 3-phase (Standard motors and motors for inverters)

Hollow shaft type (RNYM series)	
Solid shaft Flange mount type (RNFM series)	
Solid shaft Foot mount type (RNHM series)	

The directions indicated as above are viewed from the opposite side of motor fan cover.
Arrows indicate lead wire opening direction.

(2) Single-phase

Hollow shaft type (RNYM series)	
Solid shaft Flange mount type (RNFM series)	
Solid shaft Foot mount type (RNHM series)	

The directions indicated as above are viewed from the opposite side of motor fan cover.
Arrows indicate lead wire opening direction.

(1) Specifications

a. Brake specifications of 3-phase motors (standard)

Brake type	Output power (4 poles)	Reducer frame size	Standard torque (Nm)	Moment of inertia (1×10^{-4}kg·m^2)	Total braking energy ($\times10^7$J)	Motion delay (Sec)		Brake current (A)						
						Standard control circuit	Quick braking circuit	220V50Hz	230V50Hz	220V60Hz	380V50Hz	400V50Hz	415V50Hz	440V60Hz
SB-004	15W	01#, 03#	0.4	0.135	1.1	0.1~0.2	0.005~0.015	0.06	—	0.05	—	—	—	—
	25W	01#, 03#												
	40W	05#, 07#												
FB-003	40W	17#	0.3	1.1	1.0	0.1~0.12	0.05~0.06	0.03	—	0.04	—	—	—	—
SB-004	60W	07#	0.4	0.135	1.1	0.1~0.2	0.005~0.015	0.06	—	0.05	—	—	—	—
FB-005	60W	17#	0.5	1.2	1.0	0.1~0.12	0.05~0.06	0.03	—	0.04	—	—	—	—
	90W	15#, 17#,		1.5										
FB-01A1	90W	361#, 36#	1.0	3.6	12	0.15~0.2	0.015~0.02	0.08	0.08	0.08	0.03	0.04	0.04	0.04
FB-01A	0.1kW	—	1.0	3.6	12	0.15~0.2	0.015~0.02	0.08	0.08	0.08	Brakes are available only for 200V class. Refer to the brake current at 200V classs			
FB-02A1	0.2kW	—	2.0	5.6	12			0.1	0.1	0.1				
FB-05A1	0.25kW 0.4kW	—	4.0	6.9	12	0.1~0.15	0.01~0.015	0.1	0.1	0.1				
FB-1D	0.55kW 0.75kW	—	7.5	13	33	0.2~0.3	0.01~0.02	0.1	0.1	0.1				
FB-2D	1.1kW 1.5kW	—	15	24	38			0.3	0.3	0.3				
FB-3D	2.2kW	—	22	38	45	0.3~0.4		0.3	0.3	0.3				
FB-5B	3.0kW 3.7kW	—	37	98	235	0.4~0.5	0.01~0.02	0.6	0.6	0.6				
FB-8B	5.5kW	—	55	128	235	0.3~0.4		—	—	—	0.3	0.3	0.3	0.3
FB-10B	7.5kW	—	75	303	343	0.7~0.8	0.03~0.04	—	—	—	0.3	0.4	0.4	0.4
FB-15B	11kW	—	110	410	343	0.5~0.6		—	—	—	0.4	0.4	0.4	0.4

b. Brake specifications of 3-phase motors (water-proof)

Brake type	Output power (4 poles)	Reducer frame size	Standard torque (Nm)	Moment of inertia (1×10^{-4}kg·m^2)	Total braking energy ($\times10^7$J)	Motion delay (Sec)		Brake current (A)		
						Standard control circuit	Quick braking circuit	220V50Hz	220V60Hz	230V50Hz
SB-004	15W	01#, 03#	0.4	0.135	1.1	0.1~0.2	0.005~0.015	0.05	0.05	—
	25W	01#, 03#								
	40W	05#, 07#								
FB-003	40W	17#	0.3	1.1	1.0	0.1~0.12	0.05~0.06	0.04	0.04	—
SB-004	60W	07#	0.4	0.135	1.1	0.1~0.2	0.005~0.015	0.05	0.05	—
FB-005	60W	17#	0.5	1.2	1.0	0.1~0.12	0.05~0.06	0.04	0.04	—
	90W	15#, 17#,		1.5						

c. Brake specifications of single-phase motors (standard)

Brake type	Output power (4 poles)	Reducer frame size	Standard torque (Nm)	Moment of inertia (1×10^{-4}kg·m^2)	Total braking energy ($\times10^7$J)	Motion delay (Sec)		Quick braking circuit
						Standard control circuit	Quick braking circuit	230V50Hz
SB-004	15W	01#, 03#	0.4	0.135	1.1	0.1~0.2	0.005~0.015	—
	25W	01#, 03#						
	40W	05#, 07#						
FB-003	40W	17#	0.3	1.4	1.0	0.1~0.12	0.05~0.06	—
FB-005	60W	15#, 17#	0.5	1.2				
	90W	15#, 17#		1.5				
FB-01A1	0.1kW	—	1.0	5.6	12	0.15~0.2	0.015~0.02	0.2
FB-02A1	0.2kW	—	2.0	6.9	12			
FB-1B	0.4kW	—	4.0	13	33	0.3~0.4	0.01~0.02	0.2

d. Brake specifications of single-phase motors (water-proof)

Brake type	Output power (4 poles)	Reducer frame size	Standard torque (Nm)	Moment of inertia (1×10^{-4}kg·m^2)	Total braking energy ($\times10^7$J)	Motion delay (Sec)		Brake current (A)
						Standard control circuit	Quick braking circuit	230V50Hz
SB-004	15W	01#, 03#	0.4	0.074	1.1	0.1~0.2	0.005~0.015	—
	25W	01#, 03#						
	40W	05#, 07#						

e. Brake specifications of 3-phase motors for inverter

Brake type	Output power (4 poles)	Standard torque (Nm)	Moment of inertia (1×10^{-4}kg·m^2)	Total braking energy ($\times10^7$J)	Motion delay (Sec)		Brake Current (A)		
					Standard control circuit	Quick braking circuit	200V60Hz	380V60Hz	415V60Hz
FB-02A2	0.1kW	2.0	5.6	12	0.15~0.2	0.015~0.02	0.1	Brakes are available only for 200V class. Refer to the brake current at 200V class.	
FB-05A1	0.2kW	4.0	6.9	12	0.03~0.07	0.01~0.015	0.1		
FB-1D	0.4kW	7.5	13	33	0.1~0.15	0.01~0.02	0.1		
FB-2D	0.75kW	15	24	38			0.3		
FB-3D	1.5kW	22	38	45	0.15~0.2		0.3		
FB-5B	2.2kW	37	98	235	0.2~0.25	0.01~0.02	0.6		
FB-8B	3.7kW	55	128	235	0.1~0.15		—		
FB-10B	5.5kW	75	303	343	0.7~0.8	0.03~0.04	—		
FB-15B	7.5kW	110	410	343	0.5~0.6		—		

- Continuous time rating for Motor as well as brake.
- Non-asbestos lining is used for brake.
- Mechanical life time of brake is as long as 2 million times under normal usage conditions.
- Rectifiers of FB brake is built in the brake for 40-90W and in the terminal box for 0.1kW and above. Rectifiers of SB brake is supplied separately.
- To improve the elevating device and stopping accuracy, use the quick braking circuit.
- Low-noise type FB brake is available optionally. (FB-01A2-FB-8B)
- FB brake is direct current and spring braking type (non-electrical braking).
- The above standard torque indicates the value of dynamic friction torque.

Output power of a rectifier in 3-phase brake

Input voltage	Output voltage
AC200V	DC90V
AC220V	DC99V
AC400V	DC180V
AC440V	DC198V

Why quick braking circuit shortens braking time.

See Fig 15 and Fig 16 for differences between standard braking circuit and quick braking circuit.
See Fig 17 and Fig 18 for current curves of standard braking circuit and quick braking circuit.

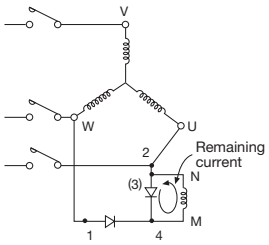


Fig. 15 standard circuit

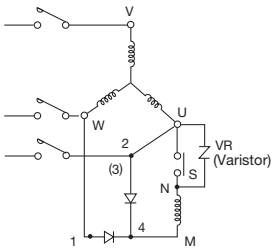


Fig. 16 quick braking circuit

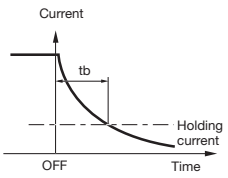


Fig. 17 current curve of standard braking circuit

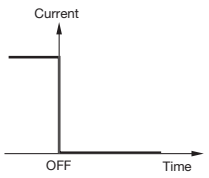
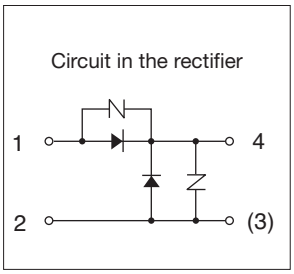


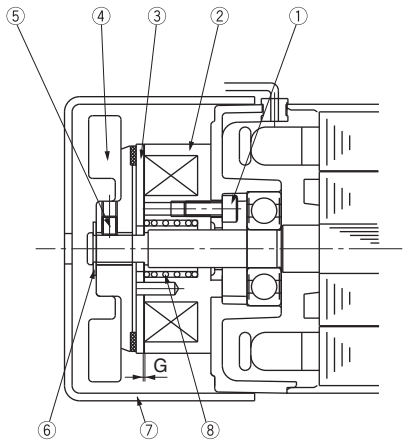
Fig. 18 current curve of quick braking circuit



In the standard circuit as Fig 15, some current remains after the power is turned off due to the saved energy in the inductance L of brake coil. The current curve is shown in the Fig. 17.
When it is connected to quick braking circuit as the Fig 16 and S is released at the same time, no current remains as there is no closed circuit with the brake coil. (See the Fig. 18.)
Therefore, it shortens the braking time by tb in the Fig 17. Quick braking circuit is to release all current by ON/OFF of brake coil at the same time with power ON/OFF.
(VR varistor must be used to protect the rectifier and connection S.)

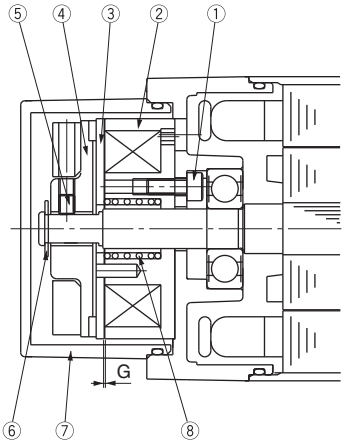
(2) Construction

Fig. 19 SB-004 (Indoor) (15W~60W×4 Poles)



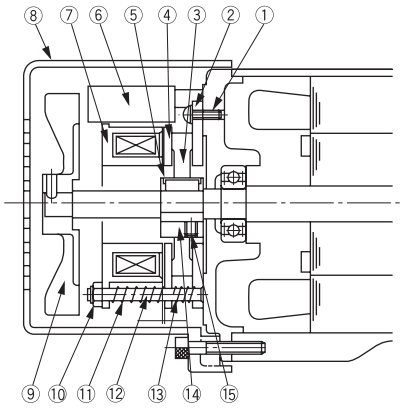
Part No.	Description	8	Set bolt
1	Assembling bolt	9	Retaining ring
2	Stationary core	10	Cover
3	Armature plate	11	Torque spring
4	Lining with fan		

Fig. 20 SB-004 (water-proof) (15W~90W×4 Poles)



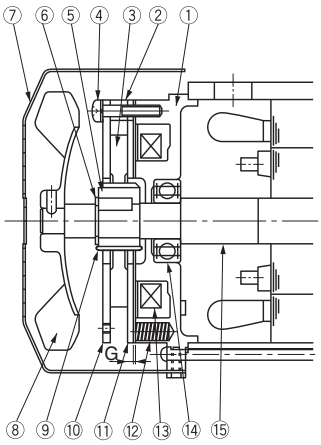
Part No.	Description	8	Set bolt
1	Assembling bolt	9	Retaining ring
2	Stationary core	10	Cover
3	Armature plate	11	Torque spring
4	Lining with fan		

Fig. 21 FB-003,005 (40W~90W×4 Poles)



Part No.	Description	8	Cover
1	Assembling bolt	9	Fan (only for single-phase 60 and 90W)
2	Stationary core	10	Gap adjusting shim
3	Brake lining	11	Torque spring
4	Armature plate	12	Stud bolt
5	Leaf spring	13	Supporting spring
6	Rectifier	14	Boss
7	Stationary core	15	Boss set bolt

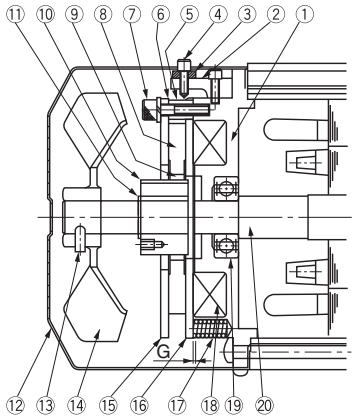
Fig. 22 FB-01A1,02A1,05A1 (0.1kW~0.4kW×4 Poles)
(FB-01A1 Without Fan)



Part No.	Description	8	Fan (except for 0.1kW ×4 poles)
1	Stationary core	9	Leaf spring
2	Spacer	10	Fixed plate
3	Brake lining	11	Armature plate
4	Assembling bolt	12	Spring
5	Boss	13	Electromagnetic coil
6	Shaft retaining C-ring	14	Ball bearing
7	Cove	15	Motor shaft

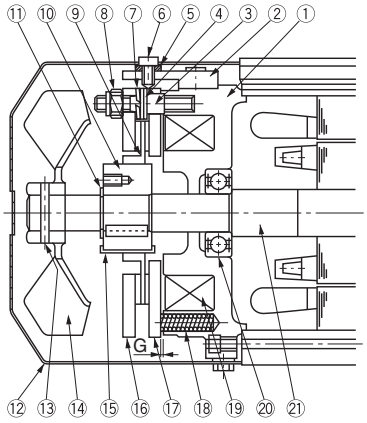
*Brake releasing unit is optionally available.

Fig.23 FB-1B,2B1,3B (0.75~2.2kW×4 poles)



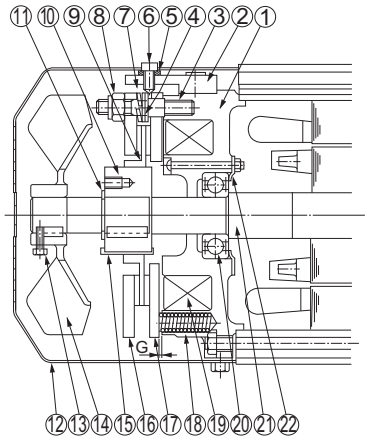
Part No.	Description		
1	Stationary core	11	Shaft retaining C-ring
2	Release fitting	12	Cover
3	Manual release protection spacer	13	Fan set bolt
4	Brake release bolt	14	Fan
5	Spacer	15	Fixed plate
6	Gap adjusting shim	16	Armature plate
7	Assembling bolt	17	Spring
8	Brake lining	18	Electromagnetic coil
9	Leaf spring	19	Ball bearing
10	Boss	20	Motor shaft

Fig. 24 FB-5B, 8B (3.0~5.5kW×4 poles)



Part No.	Description		
1	Stationary core	12	Cover
2	Release fitting	13	Spring pin
3	Stud bolt	14	Fan
4	Adjusting washer	15	Leaf spring
5	Manual release protection spacer	16	Fixed plate
6	Brake release bolt	17	Armature plate
7	Spring washer	18	Spring
8	Gap adjusting nut	19	Electromagnetic coil
9	Brake lining	20	Ball bearing
10	Boss	21	Motor shaft

Fig. 25 FB-10B, 15B (7.5~11kW×4 poles)



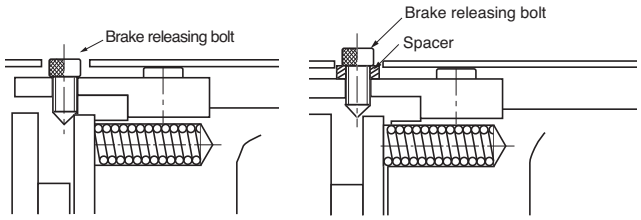
Part No.	Description		
1	Stationary core	12	Cover
2	Release fitting	13	Fan set bolt
3	Stud bolt	14	Fan
4	Adjusting washer	15	Leaf spring
5	Manual release protection spacer	16	Fixed plate
6	Brake release bolt	17	Armature plate
7	Spring washer	18	Spring
8	Gap adjusting nut	19	Electromagnetic coil
9	Brake lining	20	Ball bearing
10	Boss	21	Motor shaft
11	Shaft retaining C-ring	22	Bearing cover

Manual releasing of FB brake

To release the brake manually, follow the steps as below.

(1) Release two of the brake releasing bolts diagonally and remove the spacer. Then put back the bolts with a hexagon wrench until the brake will be released. Carefully screw the releasing bolts as the brake is being released.
(2) After the brake is released, put back the spacer in place for safety.

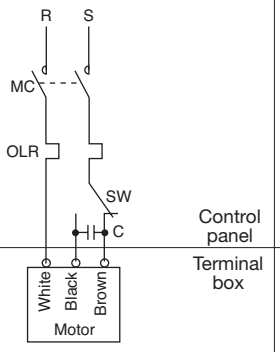
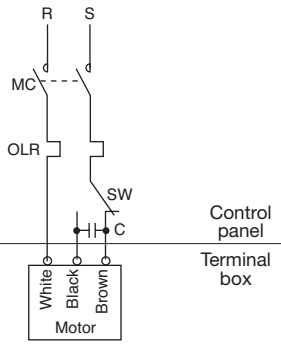
Note that brake releasing unit is optional for FB-01A1, FB-02A1 and FB-05A1 while it is supplied as standard specifications to FB-1B and above.

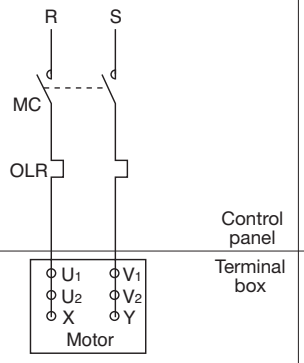
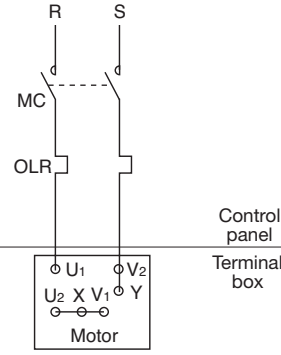
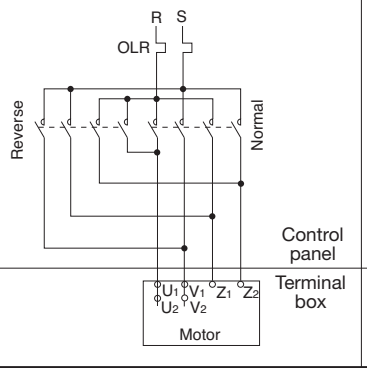
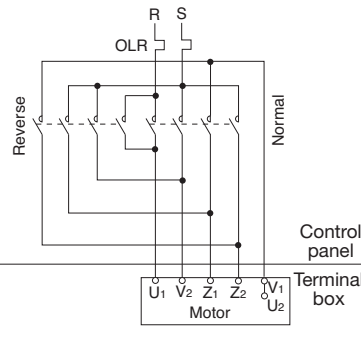


Released In operation

1. Single-phase motor

Wiring diagram for standard motors

	15W~90W	
	100V Class	200V Class
Operation in one direction		
Operating in both directions	Note 1: Turn the switch SW to change the current to the opposite direction. When instant switching is required, use a reversible motor. Note 2: Capacitor attached to the motor must be connected. (Refer to page 164 for a capacitor.)	Note 1: Turn the switch SW to change the current to the opposite direction. When instant switching is required, use reversible motor. Note 2: Capacitor attached to the motor must be connected. (Refer to page 164 for a capacitor.) Note 3: Single-phase 200V class motors for 15–90W are available by request.

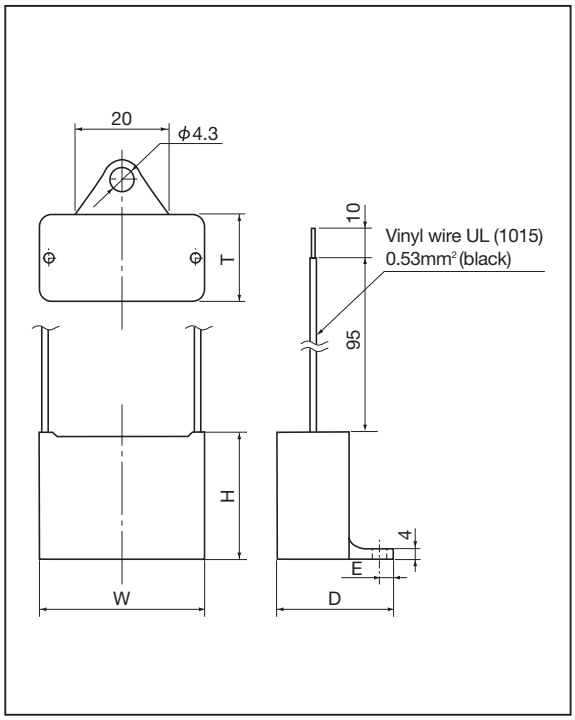
	0.1kW~0.4kW	
	100V Class	200V Class
Operation in one direction		
Operating in both directions		

Note: When operating in the reversed direction, exchange X and Y in the above diagrams .

MC: Electromagnetic contactor, OLR: Overload relay (thermal relay), SW: switch and C: capacitor are not supplied by Sumitomo.

Wiring diagram

Specifications and dimensions of capacitors for 15-90W single-phase motor



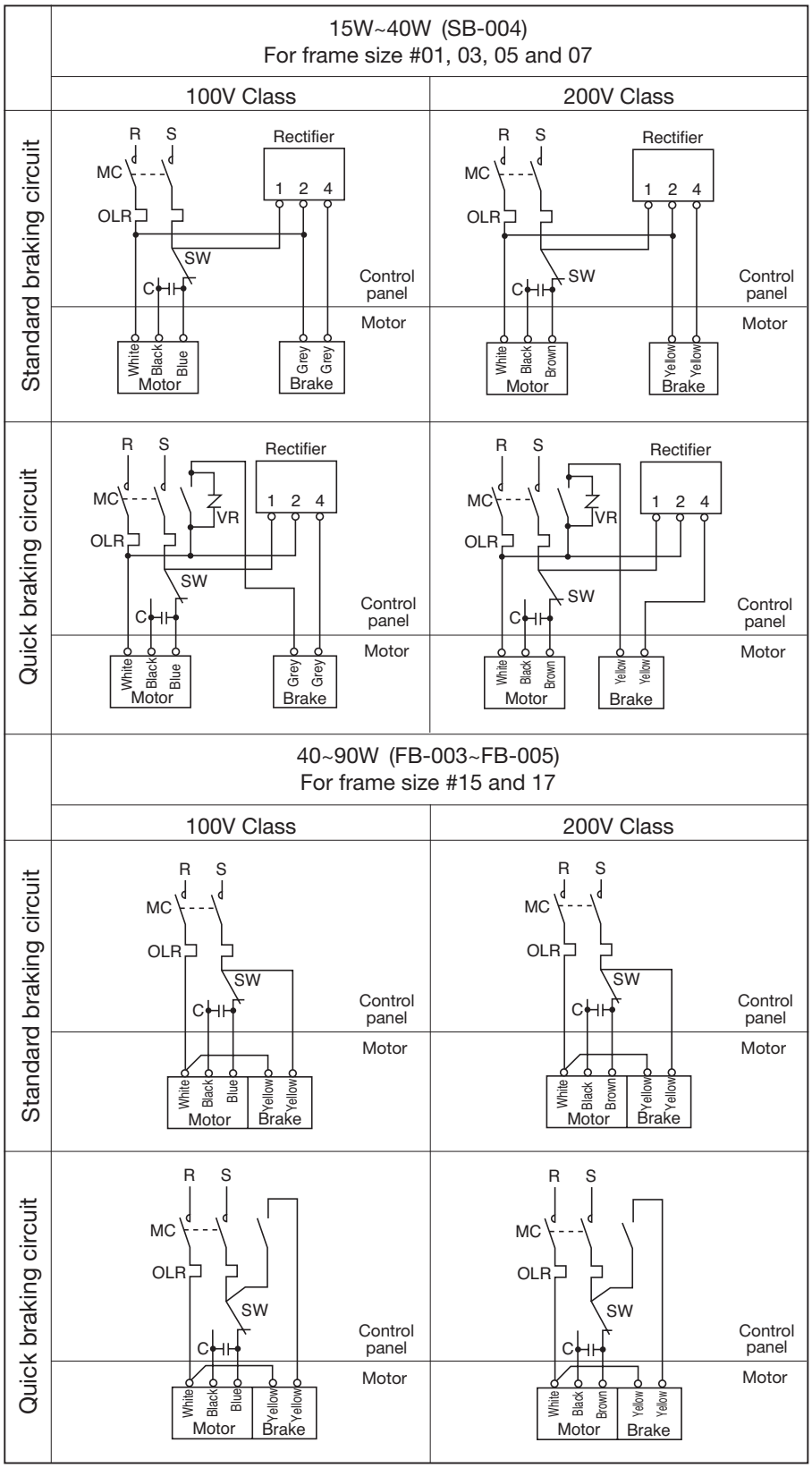
Motor voltage	Capacitor voltage	Motor type	Input power (W)	Frame size of reducer	Capacitor capacity (μF)	Capacitor dimension (mm)				
						W	H	T	D	E
100V	220V	Induction	15	01#,03#	5	31	27	17	27	4.5
			25	01#,03#	7	37	27	18	28	4.5
			40	05#,07#	12	48	29	19	29	4.5
			40	17#, 1240#	14	58	31	21	31	4.5
			60	17#, 1240#	18	58	31	21	31	4.5
			90	15#,17#, 1240#	25	58	37	23.5	38.5	7
		Reversible	15	01#,03#	6	37	27	18	28	4.5
			25	01#,03#	10	48	29	19	29	4.5
			40	05#,07#	14	58	31	21	31	4.5
			40	17#, 1240#	16	58	31	21	31	4.5
			60	17#, 1240#	22	58	37	23.5	38.5	7
			90	15#,17#, 1240#	32	58	41	29	44	7
200V	440V	Induction	40	17#, 1240#	3.5	58	35	22	32	4.5
			60	17#, 1240#	4.5	58	37	23.5	38.5	7
			90	15#,17#, 1240#	6.5	58	41	29	44	7
		Reversible	40	17#, 1240#	4	58	35	22	32	4.5
			60	17#, 1240#	5.5	58	37	23.5	38.5	7
			90	15#,17#	8	58	50	35	50	7

Note: Contact us for 200V motors.

2. Single-phase motor with brake

a.Connections when operating in one direction

· For the elevating device or to improve stopping accuracy, use the quick braking circuit.
· Connection capacity for quick braking circuit is recommended to have more than five times of braking capacity (direct current coil load) of the brake current.



Note 1: A rectifier is supplied separately for motors of 15~40W for frame size #01, 03, 05 and 07.

Note 2: A rectifier is built in the brake of motors of 40~90W for frame size #15 and 17. (FB-003~005)

Note 3: Turn the switch SW to change the current of 15~90W motors to the opposite direction. When instant switching is required, use a reversible motor.

Note 4: Contact us for motors of 40~90W 200V.

MC: Electromagnetic contactor, OLR: Overload relay (thermal relay), SW: switch, VR: varistor and C: capacitor are not supplied by Sumitomo.

Note 5: Capacitor
Use the capacitor attached to the product.

Capacity of varistor (VR)

Input power	AC100V, 200V
Rated voltage of varistor	AC260V~300V
Voltage of varistor	430V~470V
Rated capacity of motor	0.2Watt or more

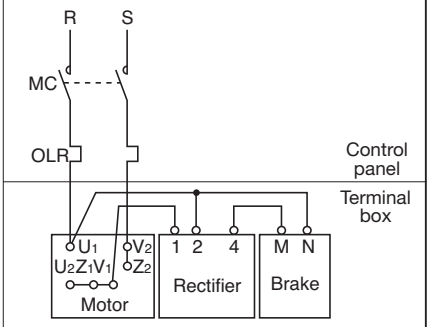
Varistor is optionally available at Sumitomo.

Wiring diagram

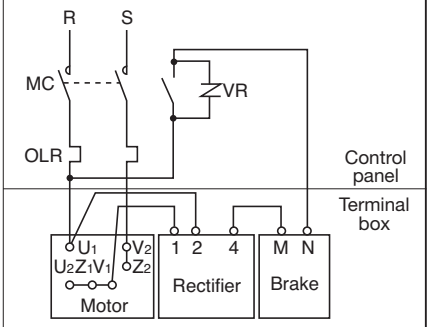
0.1kW~0.2kW (FB-01A1~FB-02A1)

200V Class

Standard braking circuit



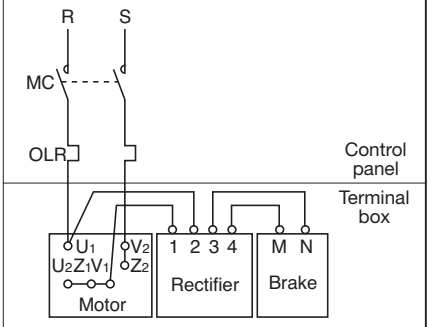
Quick braking circuit



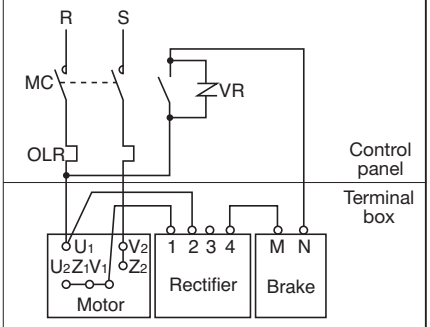
0.4kW (FB-1D)

200V Class

Standard braking circuit



Quick braking circuit



Note: When reversing 0.1~0.4kW motor, change X to Y (or Y to X) after the motor has stopped.

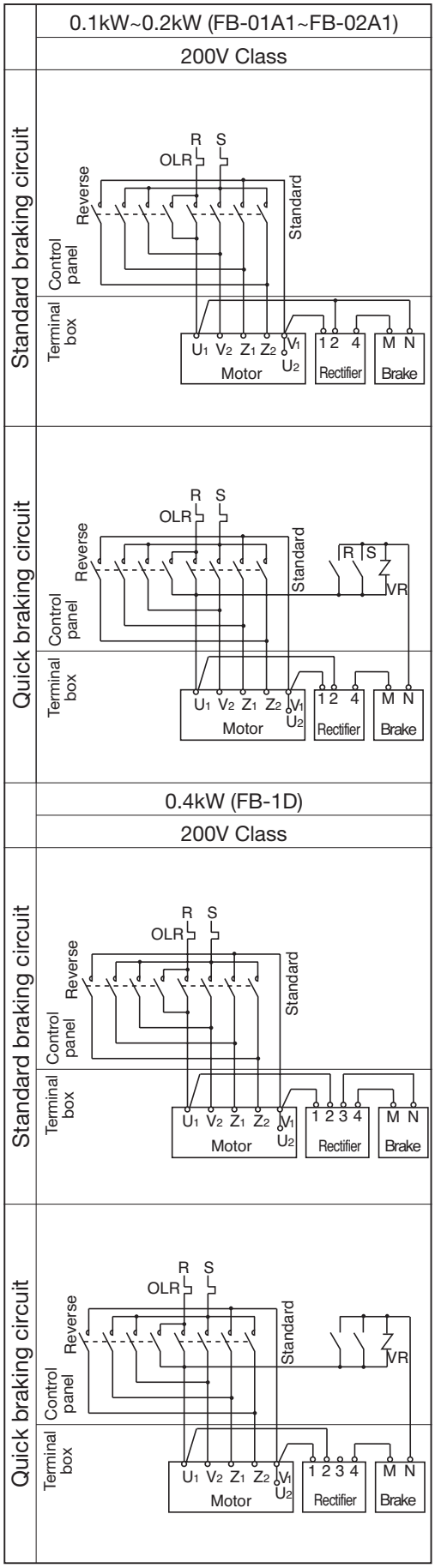
MC: Electromagnetic contactor, OLR: Overload relay (thermal relay), SW: switch and VR: varistor are not supplied by Sumitomo.

Capacity of varistor (VR)

Input power		AC100V, 200V
Rated voltage of varistor		AC260V~300V
Voltage of varistor		430V~470V
Rated capacity of varistor	FB-01A1, 02A1	0.2Watt or more
	FB-1D	0.4Watt or more

Varistor is optionally available at Sumitomo.

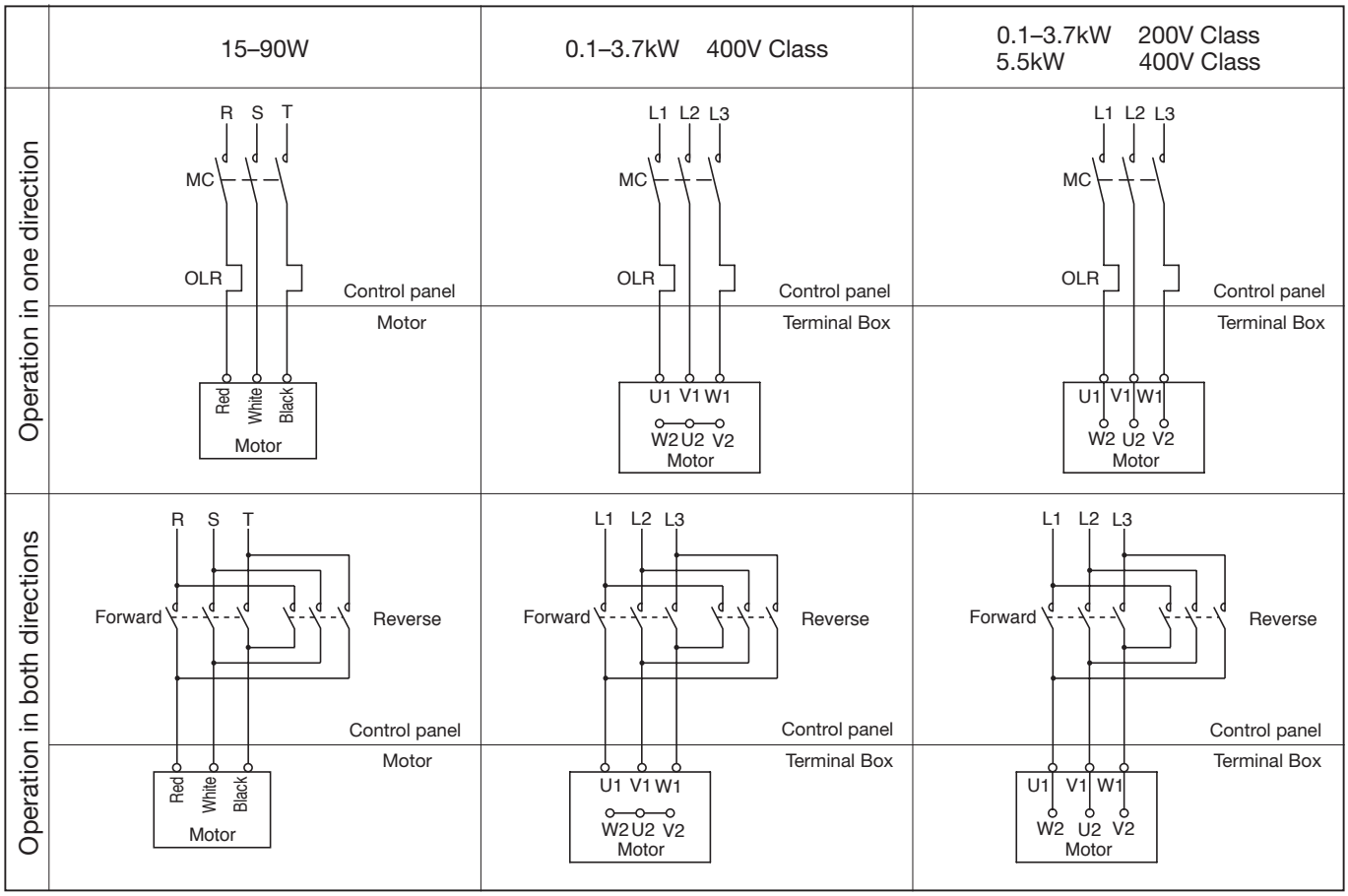
b. Connections when operating in both directions (0.1~0.4kW single-motor)



・Reversible electromagnetic contactor and OLR: Overload relay are not supplied by Sumitomo. VR: varistor is optionally available at Sumitomo.

3. 3-phase motors

Wiring diagram for standard motors

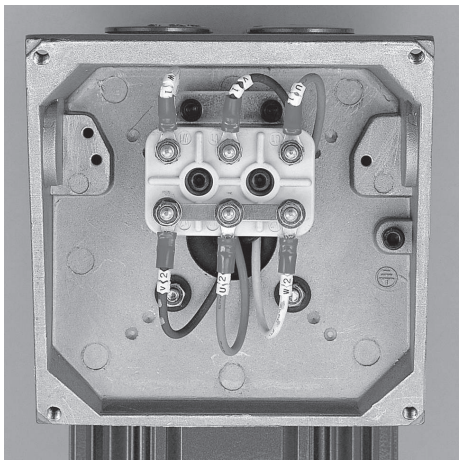


Note:

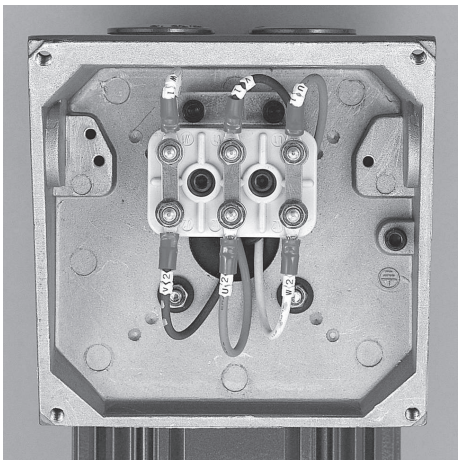
MC: Electromagnetic contactor
OLR: Overload relay or thermal relay

These should be furnished by the customer.

Example of wiring



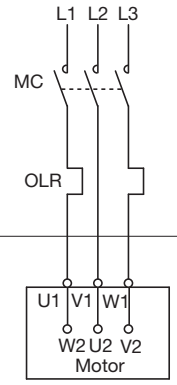
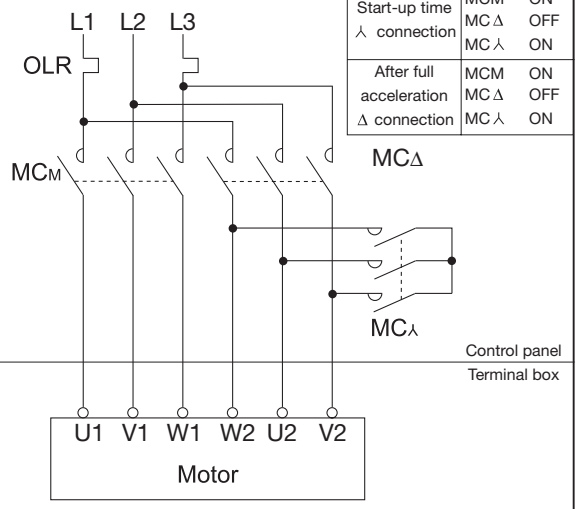
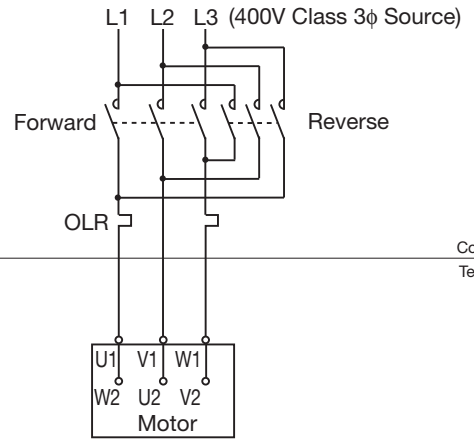
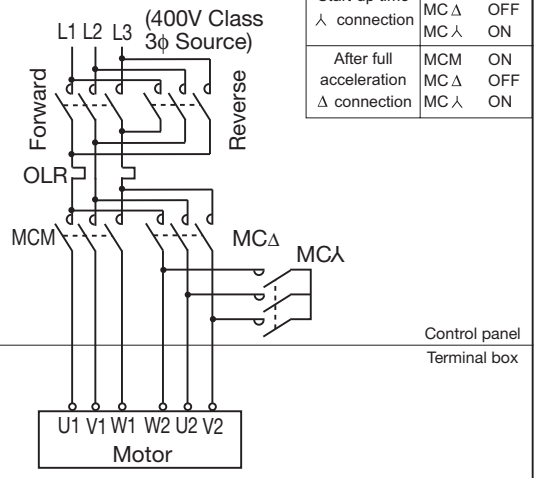
0.1–3.7kW 400V Class



0.1–3.7kW 200V Class
5.5kW 400V Class

3. 3-phase motors

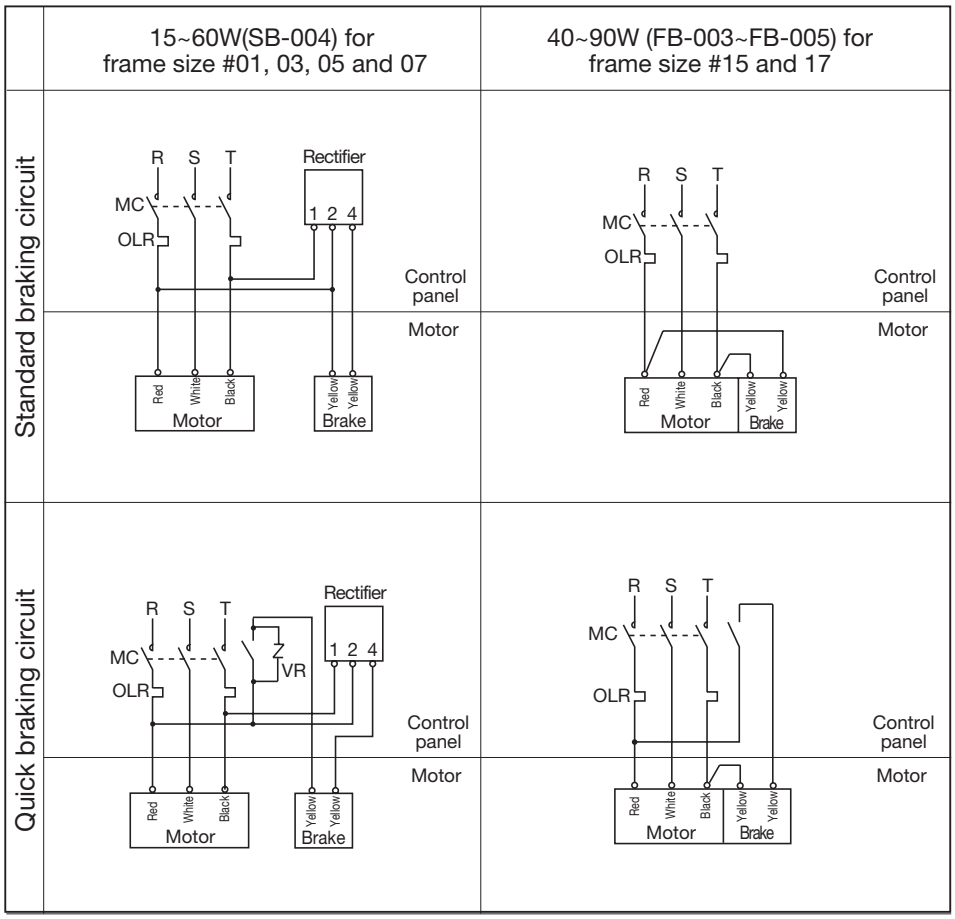
Wiring diagram for standard motors

	7.5-11kW x 4P 400V Class Direct Starting	7.5-11kW x 4P 400V Class 人-Δ Starting
Operation in one direction		
Operation in both directions		

MC: Electromagnetic contactor and
OLR: Overload relay or thermal relay are not supplied by Sumitomo.

4. 3-phase motor with brake

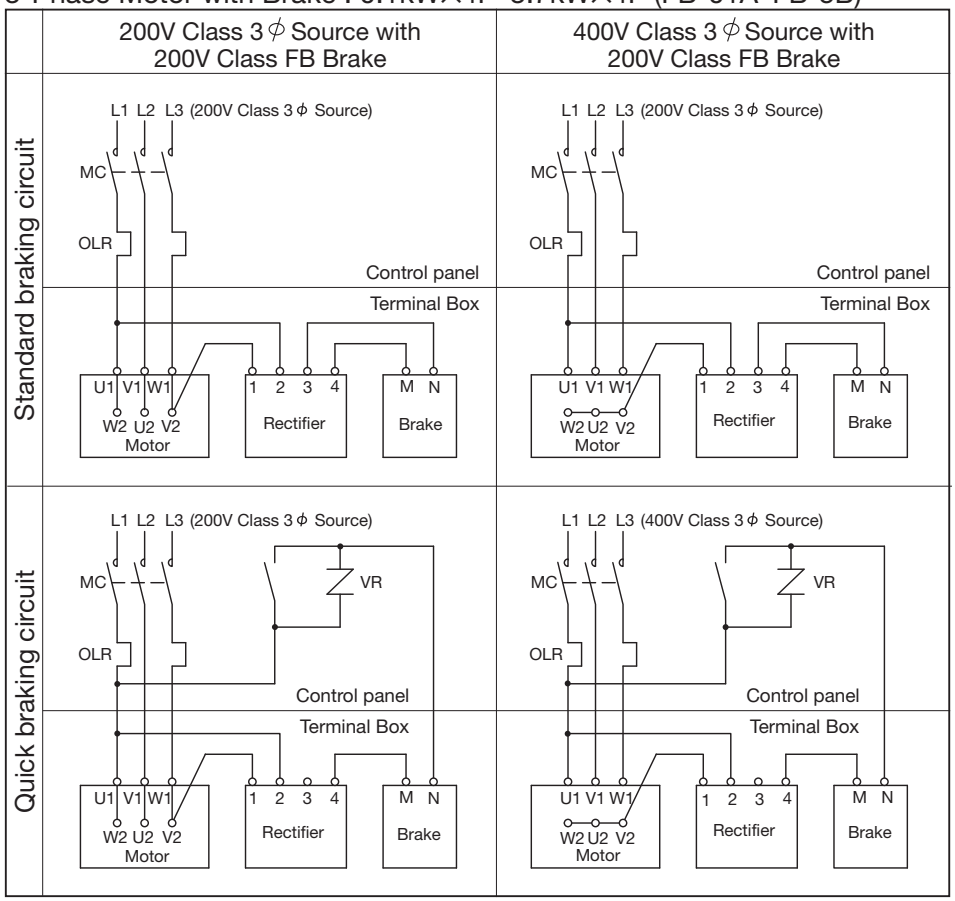
a.Connections when operating in one direction



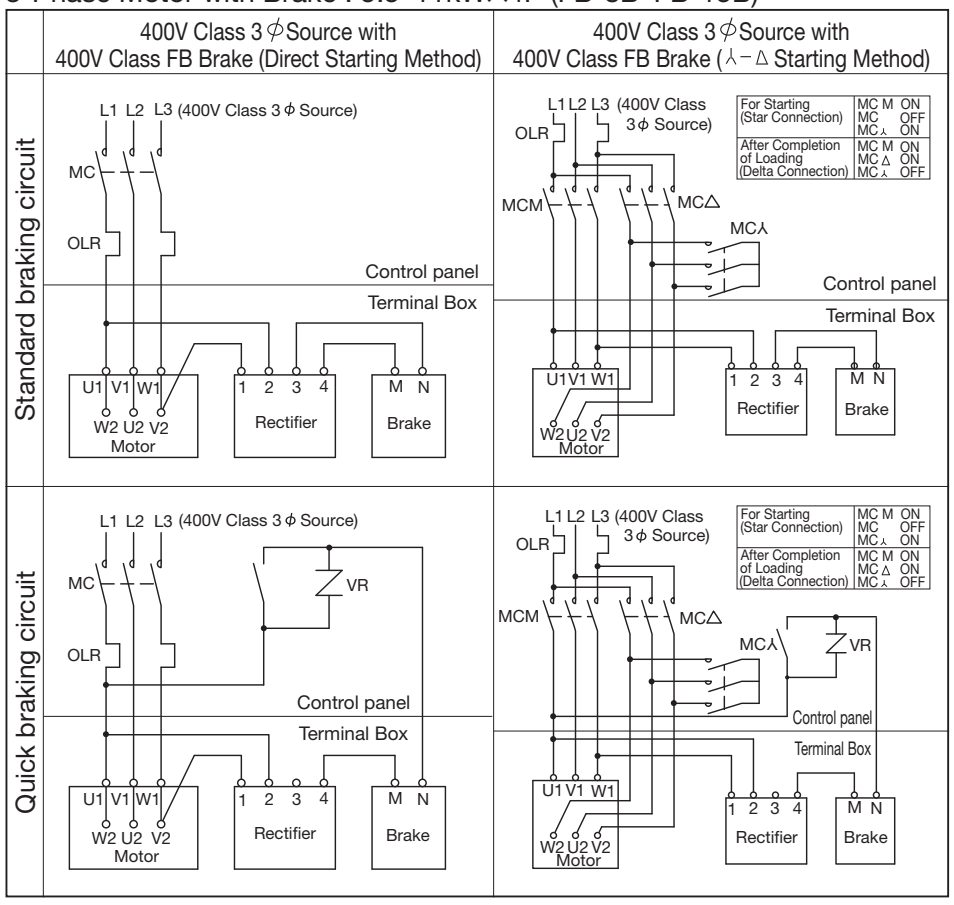
Note 1: A rectifier is supplied separately for 15~40W motors for frame size #01, 03, 05 and 07.

Note 2: A rectifier is built in the brake of 40~90W motors for frame size #15, 17 and 19.
(FB-003~005)

3-Phase Motor with Brake : 0.1kW×4P–3.7kW×4P (FB-01A–FB-5B)



3-Phase Motor with Brake : 5.5–11kW×4P (FB-8B–FB-15B)



・Electromagnetic contactor and OLR: Overload relay are not supplied by Sumitomo.

VR: varistor is optionally available at Sumitomo.

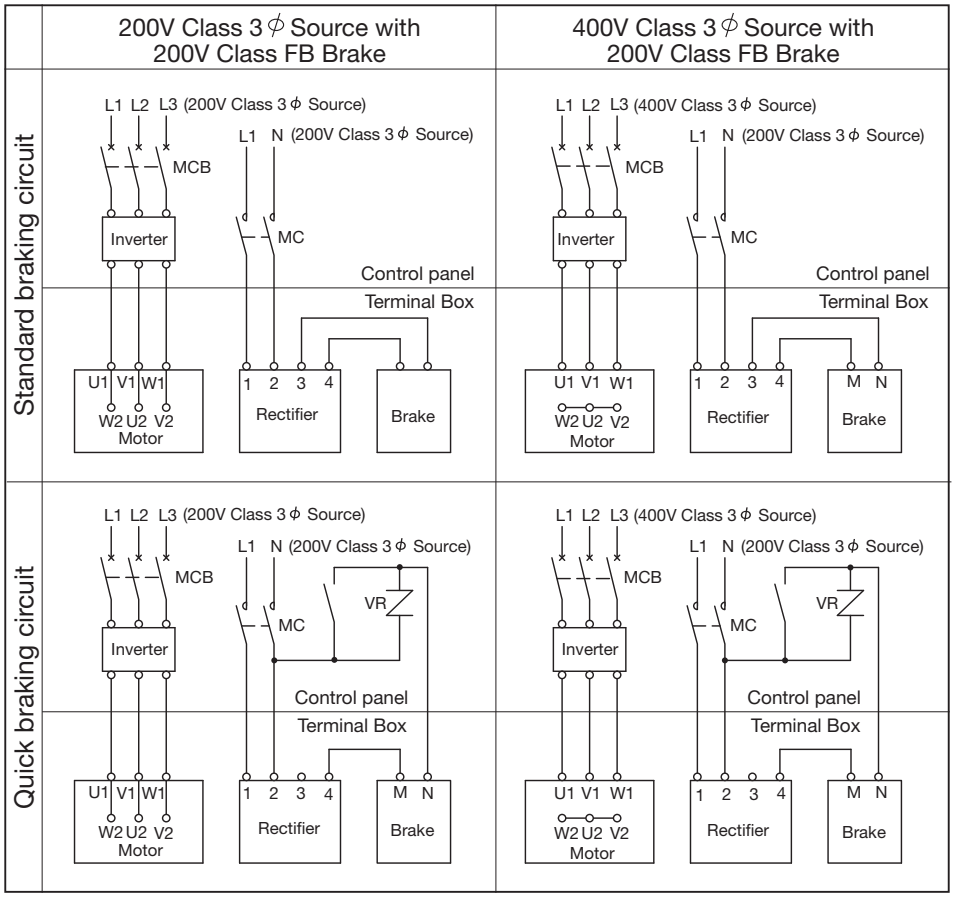
Brake input power		AC200V~230V	AC380V~460V
Rated voltage of varistor		AC260~AC300V	AC510V
Varistor voltage		430V~470V	820V
Rated capacity of varistor	FB-01A1,02A1,05A1	0.2Watt and above	0.4Watt and above
	FB-1B	0.4Watt and above	0.6Watt and above
	FB-2B,3B,5B,8B	0.6Watt and above	1.5Watt and above

・To improve the elevating device and stopping accuracy, use the quick braking circuit.

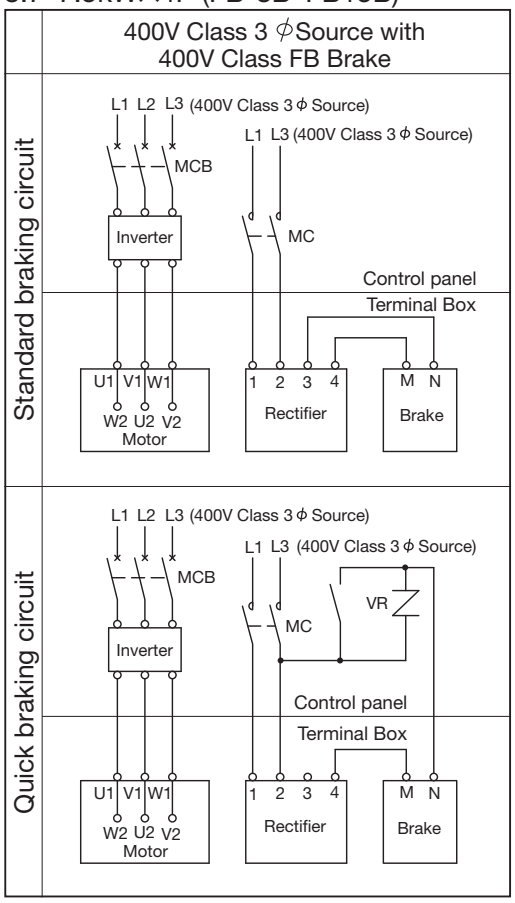
・Connection capacity of quick braking circuit is recommended to have more than five times of braking capacity (direct current coil load) of the brake current shown on the table in page 159.

b. Connections when operating a brake motor by an inverter

3-Phase Motor with Brake(Inverter Driven Connection) : 0.1kW×4P–2.2kW×4P (FB-01A–FB-5B)



3-Phase Motor with Brake (Inverter Driven Connection) :
3.7–7.5kW×4P (FB-8B–FB15B)



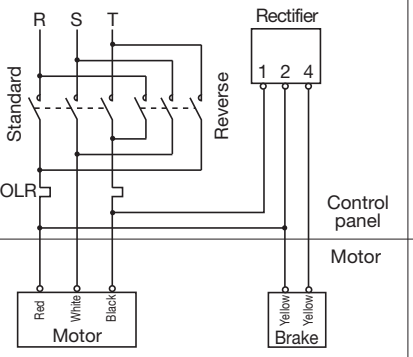
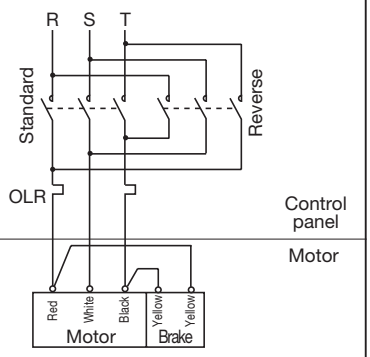
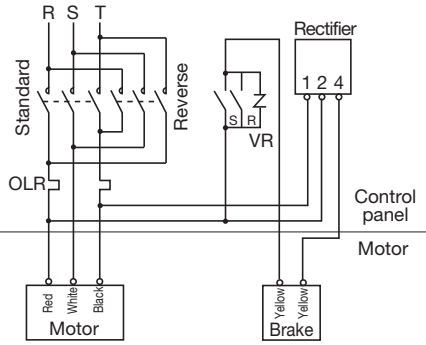
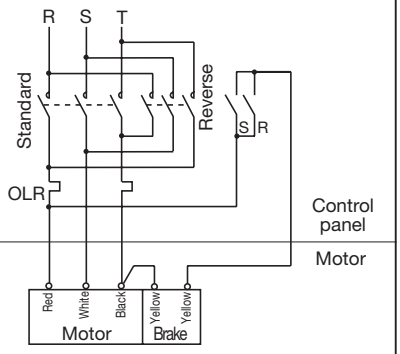
Note 1: Refer to instruction manuals and guide manual of inverter for interlocking with inverter required in MC ON/OFF.

Note 2: Connection capacity for quick braking circuit is recommended to have more than five times of braking capacity (direct current coil load) of the brake current shown on the table in page 159.

· VR: varistor is optionally available at Sumitomo.

Brake input power		AC200V~230V	AC380V~460V
Rated voltage of varistor		AC260~AC300V	AC510V
Varistor voltage		430V~470V	820V
Rated capacity of varistor	FB-01A1,02A1,05A1	0.2Watt and above	0.4Watt and above
	FB-1B	0.4Watt and above	0.6Watt and above
	FB-2B, 3B, 5B, 8B	0.6Watt and above	1.5Watt and above

c. Connections when operating in both directions

	15W-60W (SB-004) for frame size #01, 03, 05 and 07	40W-90W(FB-003, FB-005) for frame size #15 and 17
Standard braking circuit		
Quick braking circuit		

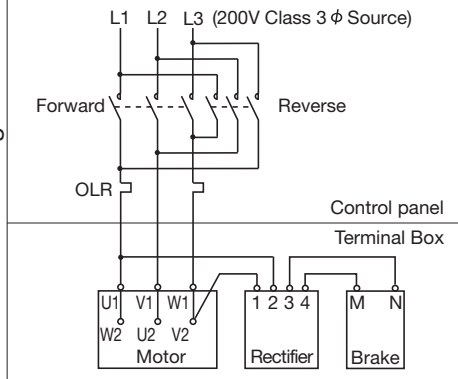
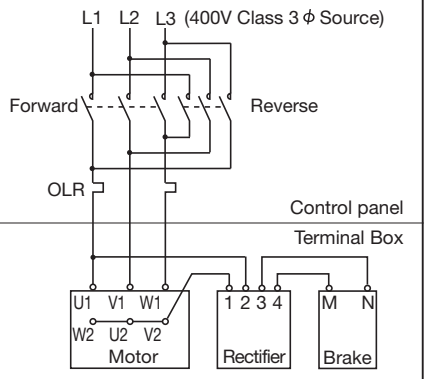
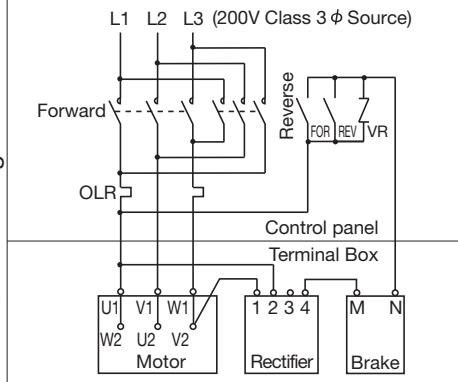
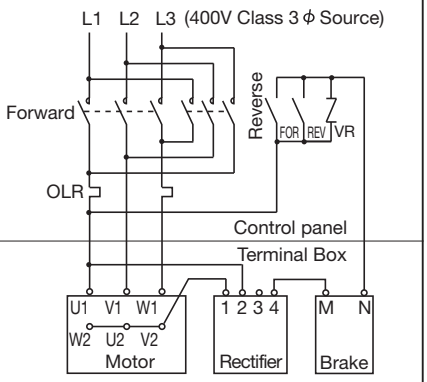
Note 1: A rectifier is supplied separately for 15W-40W (SB-004) motors for frame size #01, 03, 05 and 07.

Note 2: A rectifier is built in the brake of 40-90W motors for frame size #15 and 17 (FB-003-005)

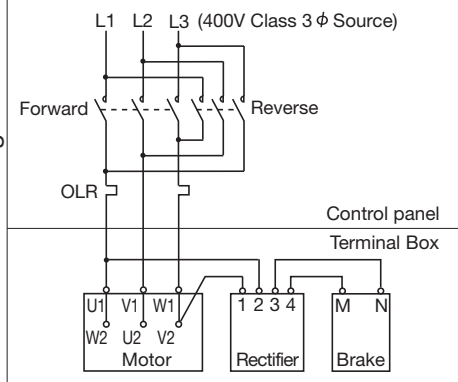
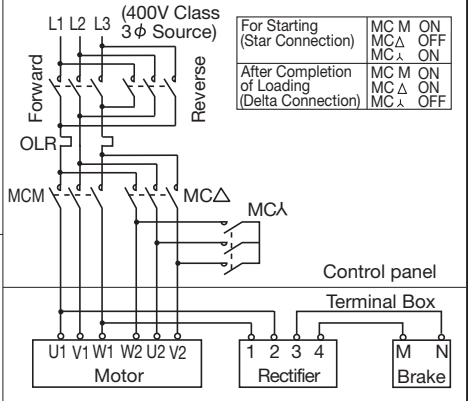
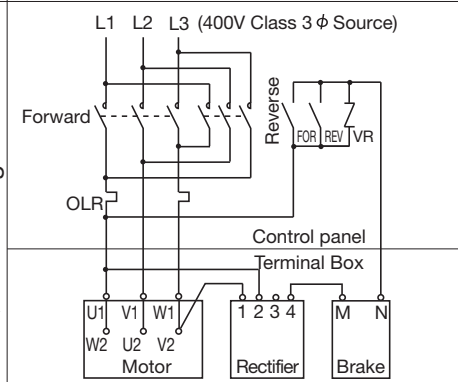
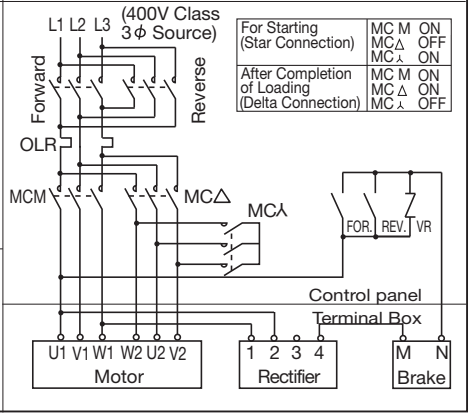
・Electromagnetic contactor and OLR: Overload relay are not supplied by Sumitomo.

VR: varistor is optionally available at Sumitomo.

3-Phase Motor with Brake : 0.1kW×4P–3.7kW×4P (FB-01A–FB-5B)
(Forward & Reverse Mode Connection)

	200V Class 3φ Source with 200V Class FB Brake	400V Class 3φ Source with 200V Class FB Brake
Standard braking circuit		
Quick braking circuit		

3-Phase Motor with Brake : 5.5–11kW×4P (FB-8B–FB-15B)
(Forward & Reverse Mode Connection)

	400V Class 3φ Source with 400V Class FB Brake (Direct Starting Method)	400V Class 3φ Source with 400V Class FB Brake (Y−Δ Starting Method)
Standard braking circuit		
Quick braking circuit		

Note 1: Refer to instruction manuals and guide manual of inverter for interlocking with inverter required in MC ON/OFF.

Note 2: Connection capacity for quick braking circuit is recommended to have more than five times of braking capacity (direct current coil load) of the brake current shown on the table in page 159.

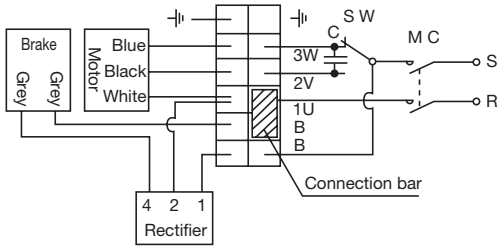
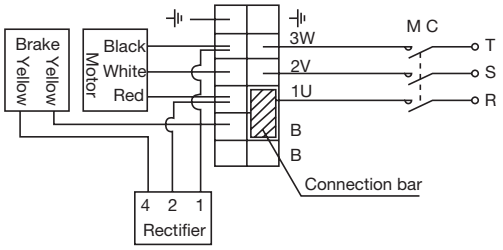
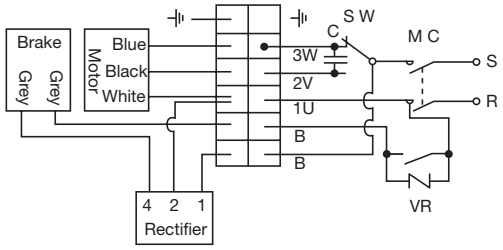
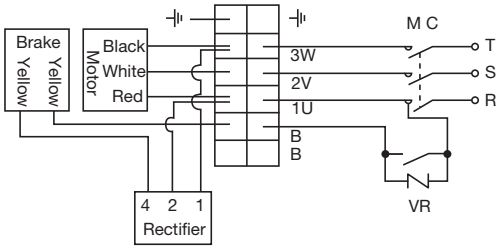
· VR: varistor is optionally available at Sumitomo.

Brake input power		AC200V~230V
Rated voltage of varistor		AC260~AC300V
Varistor voltage		430V~470V
Rated capacity of varistor	FB-01A1,02A1,05A1	0.2Watt and above
	FB-1D	0.4Watt and above
	FB-2D, 3D, 5B, 8B	0.6Watt and above

Brake input power		AC380V~460V
Rated voltage of varistor		AC510V
Varistor voltage		820V
Rated capacity of varistor	FB-01A1,02A1,05A1	0.4Watt and above
	FB-1D	0.6Watt and above
	FB-2D, 3D, 5B, 8B	1.5Watt and above

Frame size 01#,03#,05# and 07#

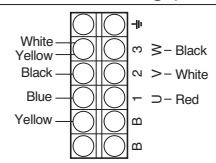
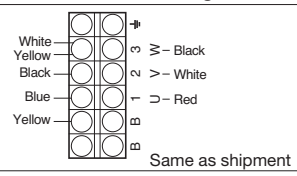
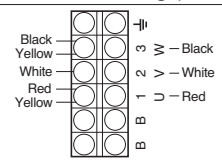
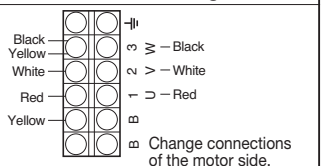
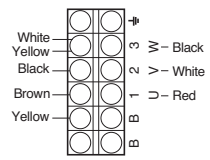
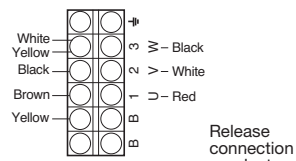
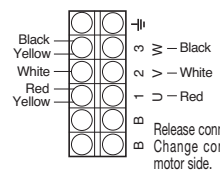
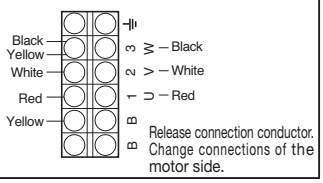
(Motor frame F-50S, F-50M, F-50L, FS-50S, FS-50M, FS-50L)

Single-phase motor 15~40W 100V Class	3-phase motor 15~60W 200V Class
Standard braking circuit	Standard braking circuit
	
Quick braking circuit	Quick braking circuit
	

Connection of terminal plate for brake motors (optional)

For frame size 15# and 17#

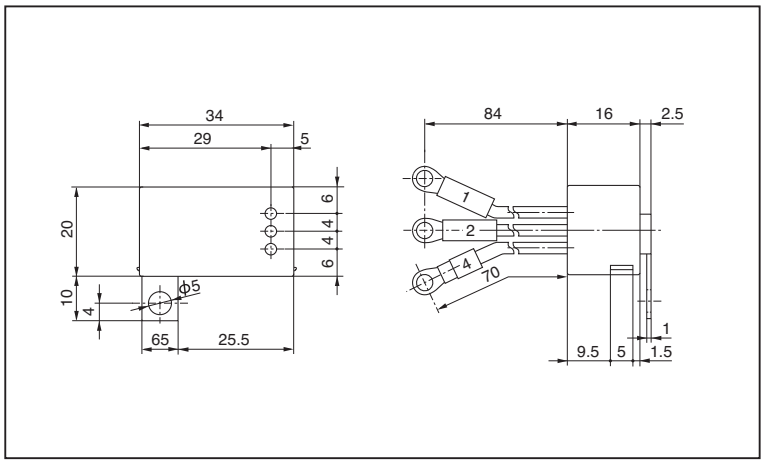
(Motor frame F-56S, F-56M, F-56L, FS-56S, FS-56M, FS-56L)

Single-phase 40W~90W 100V Class		3-phase 40W~90W 200V Class	
Standard braking (at shipment)	Quick braking	Standard braking (at shipment)	Quick braking
			
Single-phase 40W~90W 200V Class		**3-phase 0.1kW~0.4kW 400V Class**	
Standard braking (at shipment)	Quick braking	Standard braking (at shipment)	Quick braking
			

Note 1: Refer to page 163–173 for the connections shown above.
Note 2: Connect brake to primary power supply of inverter when the motor is driven by an inverter.
Note 3: Symbols and colors of lead wire are different when a motor is driven in the reversed direction (standard: clockwise rotation viewed from the fan cover.)

Dimensions of separate rectifier

(15W~60W for frame size #01, 03, 05 and 07)



No.1 Symbol form of protection of humans and solid foreign substances
No.2 Symbol form of protection against water permeation
} Classified according to combination.

Table 17 Protection Method of Motors

No.1 Symbol / No.1 Form \ No.2 Symbol / No.2 Form	0 Non-protected type	2 Drip-proof type	3 Spray-proof type	4 Splash-proof type	5 Water-jet-proof type	6 Sea-wave-proof type	7 Immersion-proof type	8 Submersible type
0 (Non-protected type)	IP00			×	×	×	×	
1 (Semi-protected type)	IP10	IP12S			×	×	×	
2 (Protected type)	IP20	IP22S	IP23S	IP24	×	×	×	
4 (Totally enclosed type)	×			IP44	IP45			
5 (Dust-proof type)	×			IP54	IP55	IP56		
6 (Complete dust-proof type)	×				IP65			

Note 1: × mark denotes difficulty in forming the combination.
Note 2: ☐ Outlined columns denote the manufacturing range of Sumitomo.
Note 3: Contact us for motors of JP45 and JP55.

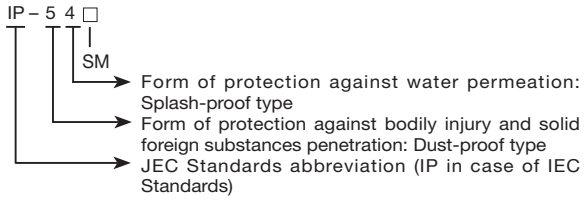
Table 18 Class of No.1 Symbol

Type	Symbol	Description
Non-protected	0	Constructed without special protection against human contact and penetration of solid foreign substances.
Semi-protected	1	Constructed to prevent inadvertent contact with rotating and conductive parts inside the machine, by hand or other critical parts of human body. Constructed to prevent penetration of solid foreign substances over 50 mm in diameter.
Protected	2	Constructed to prevent contact with rotating and conductive parts inside the machine, by hand or other critical parts of the human body. Constructed to prevent penetration by solid substances over 12mm in diameter.
Totally enclosed	4	Constructed to prevent contact with the rotating and conductive parts inside the machine, by tools, electric wires, etc., with minimum width and thickness over 1mm. Constructed to prevent penetration of solid foreign substances over 1mm diameter. However, water drainage outlet and exhaust outlet may be of Symbol 2 construction.
Dust-proof type	5	Constructed to prevent contact with rotating and conductive parts inside the machine by any form of object. Constructed for maximum protection against dust particles penetration, but will not interfere with normal operation, despite of such penetration.
Complete dust-proof type	6	Constructed for complete protection against dust particles penetration.

Table 19 Class of No.2 Symbol

Type	Symbol	Description
Non-protected	0	Constructed without special protection against water permeation.
Drip-proof	2	Constructed to prevent harmful effect from dripping water falling from within 15° direction from vertical.
Spray-proof	3	Constructed to prevent harmful effect from dripping water falling from within 60° direction from vertical.
Splash-proof	4	Constructed to prevent harmful effect from dripping water falling from any direction.
Water-jet-proof	5	Constructed to prevent harmful effect from spray from any direction.
Sea-wave-proof	6	Constructed to prevent harmful effect from strong spray from any direction.
Immersion-proof	7	Constructed for submersion into water of prescribed depth and time, but not having any harmful effect in spite of water permeation.
Submersible	8	Constructed to assure normal operations under water.

Example:



S····· Test of form of protection against water permeation, conducted when motor is stopped.
M····· Test of form of protection against water permeation, conducted while motor is operating.
When no S or M stipulated··· Test conducted when motor stopped and when operating

Cooling

Enclosure Construction	IEC Standards
Totally enclosed, non-ventilated (TENV)	IC410
Totally enclosed, fan-cooled (TEFC)	IC411

CCC Standards (China Compulsory Certification)

China had implemented the China Compulsory Certification (CCC) system since May 1, 2002 as becoming the full member of World Trade Organization (WTO). They have moved on to compulsory licensing on August 1, 2003. Motor capacity 1.1kW and below are subject to this certification, and requires CCC Mark for sales in China. Below table is our motor with CCC.

Motor	Single Phase Motor		Three Phase Motor		AF Motor	AF Motor (Foot Mount)
Capacity	15~90W	0.1~0.75kW	40~90W	0.1~1.1kW	0.1~0.75kW	0.4~0.75kW
Voltage	220V		220 or 380V			
Frequency	50Hz		50Hz			
Thermal class	Class E	Class B	Class E	Class F		
Usage	Indoor (IP44), Outdoor (IP55)		Indoor (IP44), Outdoor (IP55)			

AF motor: 3 Phase Motor for inverter

Difference with standard items
- CCC Mark as in the right is applied on the nameplate.
- Aluminum terminal box is the standard for three phase motor (except indoor specification for 40~90W).
- Terminal block type (6 terminals, European system) is the standard for three phase motor (for 0.1kW or more).
- Rotational direction is the opposite from Japanese domestic specification (in CCW direction looking from the anti-load side).
- CCC correspondence motor coil is used.

China Compulsory Certificate

Remarks
- CCC Mark is necessary when exporting small size motor (or gear motor) units of 1.1kW or below to China.
- Subject service products and spare parts without certification may be permitted for import to China by applying for exemption. Consult us for any clarification.

GOST-R Standard (Russian Gosstandard)

GOST-R Standard is a national certification system determined by State Committee of Russian Federation for Standardization and Metrology.
Any product distributed in the Russian Federation requires certification. Especially products subject to compulsory certification are not allowed to export to Russian Federation without this certification.
Sumitomo offers motors conforming to GOST-R specification for export to Russia, because motors are subject to compulsory certification.
Our Certified Motor Specification (Range other than the below is the same as CE Marking of Europe.)

Motor	General motor				Inverter motor (AF motor)			
	Without brake	With brake	Without brake	With brake	Without brake	With brake	Without brake	With brake
Capacity x 4P	0.1~3.7kW	5.5kW	0.1~3.7kW	5.5kW	0.1~2.2kW	3.7kW	0.1~2.2kW	3.7kW
Motor voltage	220/380V	380V	220/380V	380V	220/380V	380V	220/380V	380V
Brake voltage	-	-	220V	380V	-	-	220V	380V
Frequency	50Hz				60Hz			
Thermal class	F				F			
Rating	S1 (continuous)				S1 (continuous)			
Construction	Indoor (IP44), Outdoor (IP55)				Indoor (IP44), Outdoor (IP55)			
Starting	Dual voltage inline	Y−Δ	Dual voltage inline	Y−Δ	-			

AF motor: 3-Phase Motor for inverter

Difference Compared to Standard Japanese Product
- Nameplate is marked with GOST-R Mark (as shown in the right).
- Standard terminal box is made of Aluminum
- The motor has terminal block (European type with 6 terminals).
- Rotation direction is counterclockwise viewed from fan cover side (opposite from Japanese specification).
- Motor coil is certified for GOST-R.

GOST-R Mark

Cautions
- Uncertified products cannot pass through customs when exported to Russia. (No specific certification is necessary when the unit is exported to Russia as a part of the machine.)
- A verified copy of the certification is necessary when exporting the individual unit for each case (each ship). Let us know when ordering the units which are not included in an apparatus or not built into the exported aparatus.

CE MARKING

The CE mark is to be affixed to products that conform to EC directives, in order to certify the quality and safety of products and ensure free distribution of products across borders within the region of the EU (European Union).

EC directives applicable to machine products and implementation period

The following three directives apply to ordinary machine products.

EC directives \ Details	Objects	Details of directive
Machinery directive	Aggregates of parts, which are movable (Industrial machines, primarily)	Essential matters related to safety of machines are stipulated. Machines that are electrically dangerous shall fulfill the requirements for low voltage.
Low Voltage Directive	Products driven by power of 50-1,000 VAC or 75-15,000 VDC	Products not conforming to standards cannot be put on the market.
EMC Directives Electromagnetic Compatibility Directive	All types of products that may cause jamming (electromagnetic radiation) or have their functions impeded by nearby radio waves	EMI : Not to cause external electromagnetic interference EMS : To withstand external electromagnetic interference

Standard Specifications of CE Marking Motors

Input power : 15W~90W 200V 50Hz Direct start-up
0.1kW~4kW 230/400V 50Hz Dual voltage direct starting
5.5kW or more 400V 50Hz 人−△ Start

Insulation : 15W~0.4kW Class E
0.75kW or more Class B

Rated time : Continuous

Characteristics : IEC34-1

Protection : P54 (without brake), IP44 (with brake) 15W~90W : Aluminum (M20 bolts(P1.5)×1pcs)

Terminal box : (Material) 5.5kW or less : Aluminum (PG16 bolts×2pcs or M25 bolts (P1.5)×2pcs)
7.5kW or more : cast iron (PG21 bolts×2pcs or M32 bolts (P1.5)×2pcs)
(specification) Terminal plate (six terminals European style)
with grounding terminal
Conduit tube in European size (*PG thread or M thread) *different from Japanese standard of conduit tube PF thread.
Models of 15W~90W contain M thread and cable ground (applicable lead diameter P6.0~12)

Shaft rotating direction : Rotating direction is reverse to Japanese standard direction.

Insulation : Distances between insulated surfaces and spaces in accordance with IEC standards.

External dimensions : Same as standard except for the terminal box Length might vary in some cases for models 90W or less.

TÜV test report : Acquired for a representative model 0.75kW×4p, 230V/400V (Oct 1996)
CE marking motors are manufactured in accordance with the model.

Declaration of Conformity : Declaration of Conformity is available when necessary for CE marking

Manufacturing range of CE Marking motors

3-phase induction motor

	230/400V dual voltage													
Input power symbol	0015	0025	004	006	009	01	012	018	02	03	04	05	08	1
kW×4P	(0.015)	(0.025)	(0.04)	(0.06)	(0.09)	(0.1)	0.12	0.18	(0.2)	0.25	0.37	(0.4)	0.55	0.75
Frame	F50S	F50M	F50L or F56S	F50L or F56M	F56L	V63S		V63M			V71M		V80S	V80M

	230/400V dual voltage						400V
Input power symbol	1H	2	3	4	5	6	8
kW×4P	1.1	1.5	2.2	3	(3.7)	4	5.5
Frame	V90S	V90L	V100L	V112S	V112M		V132S

· Motors of kWs without brackets ( ) in the above table are standard in Europe while motors of kWs with brackets ( ) are used only in Japan and other countries.
· European standard kW motors are recommended. Motors of kWs with brackets ( ) are also available.
3-phase 200V/50Hz, 200V/60Hz, 220V/60Hz 3-phase 400V/50Hz, 400V/60Hz, 440V/60Hz 3-phase 380V/50Hz, 3P 415V/50Hz
Contact us when motors of kW and voltage not shown in the above table are required.
· Consult us when M bolt (Metric bolt) is needed for conduit tube.

Measures to take for EC directives and CE marking related to gear motors

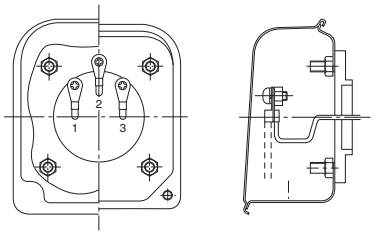
Among EC directives, the machinery directive (issued in January 1995) concerning induction motors and low voltage directive (issued in January 1997) are applicable.
The EMC directive (issued in January 1996) does not apply to induction motors.

CE marking logo shown on nameplates

CE

UL Standards (Underwriters Laboratories)

UL Standards are established for safety by a commercial testing institute in the US to prevent harmful effect to human life, fire and disaster based on a series of scientific study, research and experiment. It is not regulated to comply with the standards by Federal Government, but it is regulated by some states or cities. Approved products by UL standards are highly appreciated in the US to represent your reliability.

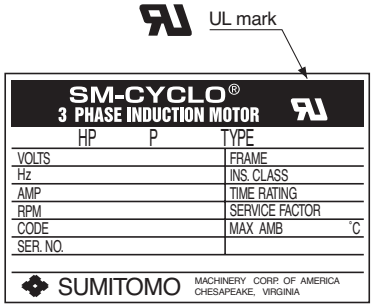


3-Phase indoor terminal box

*1. Single-phase motor or motor w/brake is manufactured in the range of 1/50 through 1/9 HP.
*2. Outdoor type is available. Please consult us.
*3. F-class insulation type is available. Please consult us.
*4. For other voltages or frequencies, please consult us.

Differences from Sumitomo standard models
- Terminal symbol: 1,2,3
- Name plate with UL mark and measurement in HP
- Opposite rotating direction
- Copper terminal box
- UL standard motor coil and brake coil

Remarks
- Manufacturing and repair work may be conducted only at authorized factories.
- Motor for inverter is excluded from UL approval. Sumitomo supplies UL compliant AF motor. (UL mark is not fixed on a nameplate of UL compliant products.)



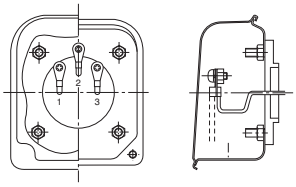
UL nameplate

CSA Standards (Canadian Standard Association)

National standards established by a semi-governmental organization in Canada. Most states in Canada require electronic products to be approved by CSA. CSA is considered equivalent in some states in the US.

Motor	3-phase induction motor	3-phase induction motor with brake	High efficiency 3-phase induction motor *1	High efficiency 3-phase induction motor with brake *1
Power	1/8~1HP×4P	1/8~1HP×4P	1.5~5HP×4P	1.5~5HP×4P
Voltage	208V, 230V, 460V, 575V		230V, 460V, 575V	
Frequency	60Hz			
Insulation	Class B (and Class F)			
Ambient conditions	Indoor type *2			

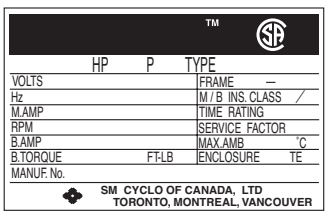
*1: Contact us for manufacture of a single-phase motor or a high-efficiency motor with brake. *2: Outdoor type not supplied
*3: Some 1/50 through 1/9HP¥4P are CUL approved products which are permitted for us in Canada.



3-Phase indoor terminal box

Differences from Sumitomo standard models
- Terminal symbol: 1,2,3 (with Brake type, T_1, T_2, T_3)
- The frame size of a high-efficiency motor is special.
- Name plate with CSA mark and measurement in HP
- Opposite rotating direction
- Copper terminal box
- CSA standard motor coil

Remarks
- If exporting to Canada, it should be CSA approved motor and if above 1HP, High efficiency motor is needed.
- Manufacturing and repair work may be conducted only at authorized factories.
- Motor for inverter is excluded from CSA approval. Sumitomo supplies CSA compliant AF motor. (CSA mark is not fixed on a nameplate of CSA compliant products.)
  NRCan established the energy efficiency act (EEACT) in 1992 and the energy efficiency regulations (EER) in 1995, and additional regulations were applied to gear motors imported on November 27, 1999 or later. Import of gear motors that do not meet the efficiency standards has been banned. This rule applies to the following motors : 1-200HP, IEC frame 90 and larger, 600V or less, constant speed.



CSA nameplate

NEMA Standards (National Electrical Manufacturers Association)

Established by a manufacturers' association to provide standards of most electrical products for both manufacturers and consumers.

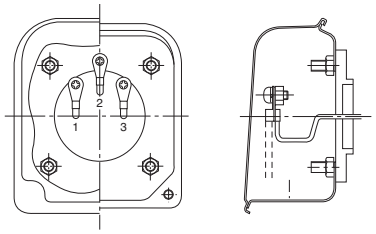
Differences from Sumitomo standard models

- · Terminal symbol: 1,2,3
- · Name plate marked with NEMA DESIGN and measurement in HP
- · Opposite rotating direction
- · Copper terminal box

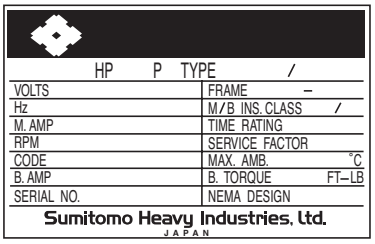
NEMA standard motor coil

Remarks

- · No approval is required to state NEMA compliance.
- · NEMA is also applicable for inverter motor, but limited to terminal symbols, measurement in HP, rotating direction and terminal box.



3-Phase indoor terminal box



NEMA nameplate

Other standards

Application of International Standards (Example)

● : Sumitomo standards
■ : Manufactured to special specification on customer's request

Country/Standards	Japan · JIS JEM JEC	International·IEC	UK · BS	Germany· VDE DIN
Standard output	●	●	■ : 4kWmax. ● : 5.5kWmin.	■ : 4kWmax. ● : 5.5kWmin.
Applicable output frame size	●	—	■	■
Motor mounting dimension of corresponding frame size	●	●	●	●
Shaft end dimension	●	●	■	■
Dimension tolerance of shaft end key and key groove	●	●	■	■
Insulation class	●	●	●	—
Lead wire code	●	●	●	●
Standard direction of rotation	●	■	■	■
Description on nameplate	●	■	■	■
Characteristic testing method	●	●	■	■
Standard voltage	200V · 220V 400V · 440V	■	415V	220V 380V
Standard frequency	50Hz · 60Hz	50Hz · 60Hz	50Hz	50Hz

IEC–International Electrotechnical Commission.
BS–British Standards.

(Note): Dimensions of flanges and shafts are suitable for Sumitomo products only. For other dimensions, consult factory.

Major Japanese Standards

(1) General rotating electrical machines
- JIS C 4004 (1992) : General rules for rotating electrical machines
- JEC-200 (1993) : Rotating machinery in general
- JEM 1188 (1969) : Rated output values of electric motors

(2) General 3-phase induction motors
- JIS C 4210 (1983) : Low-voltage 3-phase squirrel cage induction motors for general purpose
- JIS C4212 (2000) : High efficiency low-voltage 3-phase squirrel cage induction motors.
- JEC-37 (1979) : Induction machines

(3) Methods of testing and calculating characteristics
- JEC-37 (1979) : Induction machines
- JIS C 4207 (1995) :Calculating method of 3-phase induction motors characteristics

(4) Dimensions
- JEM 1400 (1991) : Dimension of low-voltage 3-phase squirrel cage induction motors for general purpose
- JEM 1401 (1991) : Dimensions of flange-mounted low-voltage 3-phase squirrel cage induction motors for general purposes

(5) Explosion-proof construction
- JIS C 0903 (1983) : Electrical apparatus for explosive atmospheres in general industries
- JIS C 0904 (1983) : Test methods on electrical apparatus for explosive gas atmospheres in general industries
- JIS C 0905 (1983) : Supplementary requirements for construction of electrical apparatus for explosive atmosphere in general industries

Recommended practices for explosion-protected electrical installations in general industries (1979)
Rules for authorization of explosion-proof construction of electrical machine tools (1981)

(6) Others
- JIS C 4003 (1977) : Classification of materials for insulation of electrical machinery and apparatus
- JEC-147 (1960) : Classification of materials for insulation of electrical machinery and apparatus
- JEM 1313 (1983) : Noise levels for low-voltage 3-phase squirrel-cage induction motors for general purpose

Remarks: JEC Japanese Electrotechnical Committee Standards
JIS Japanese Industrial Standard
JEM Japan Electrical Manufacturers' Association

1. Constant torque operation

Constant torque operation needs a special motor for the inverter. Contact us especially when operation is in the frequency range less than 6 Hz.
The sensorless operation mode of our inverter HF-320 permits constant torque operation of general-purpose motors at 3.7 kW or less.

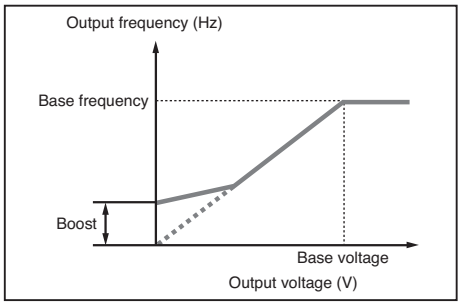
2. Operation in frequency range exceeding the base frequency (60 Hz)

Rated output operation will be carried out in the frequency range exceeding the base frequency. Therefore, the torque will decrease as the speed increases. Select an appropriate motor capacity according to the machine load characteristics. (See Fig. 25.)
The frequency exceeding 60 Hz is regarded as the base frequency. The output torque is lower than that at 60 Hz, which is the standard base frequency, also when V/f is set for constant torque operation.
When such adjustment is made, insufficient torque may result at low frequency or during start-up.
Do not change the base frequency figure for cases other than reduction load characteristics.

3. V/f mode operation of general-purpose inverter

In the case of multiple operation of motors or V/f operation with an inverter that has no sensorless function, it is necessary to adjust the boost value in compensation for the start-up torque and slow-speed torque. Standard values are usually set before shipment from manufacturer's factory but overcurrent may result depending on the load condition and acceleration/deceleration. In such a case, change values appropriately as follows :

a. In the case of a small capacity motor and a small load, a large boost setting may cause overexcitation of a motor, leading to overcurrent. In that case, lower the boost to return to a normal value.
b. In cases where a load is large and overcurrent during start-up and slow-speed operation easily causes tripping, increase the boost to lower the current value. If no improvement is observed after boost adjustment, it is necessary to examine the motor capacity.

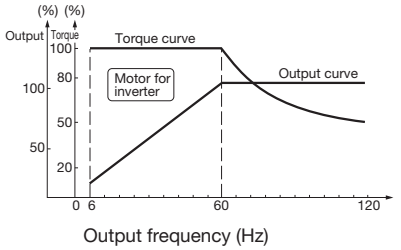


4. Operation by sensorless vector inverter

Some high-performance inverters of a newest type are equipped with a sensorless vector operation function. This function is basically valid only when a motor and an inverter are operated in one-to-one correspondence. The function does not apply to multiple operation or pole-change operation. Products to which the auto-tuning method is applied do not need adjustment as in the case of V/f operation due to automatic control of the motor characteristics. Vector operation is carried out on the basis of the motor data read by the inverter, and operation is controlled instantaneously in accordance with the load condition to continue optimal operation.
When the wiring distance between the motor and inverter becomes long (20 m or more), compensation may be necessary according to the drop in the line impedance. Select sufficiently thick cables when the wiring distance is long.

5.Output torque characteristics of motor

● Total output/torque characteristics curve when motor for inverter and SUMITOMO inverter are operated in combination



Note: Constant torque operation is possible from 1 Hz when an axial fan type is used.

● Continuous operation characteristics when a general-purpose motor is driven by an inverter

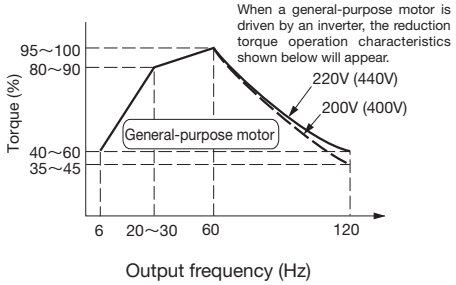


Fig. 26

6. Motor temperature rise

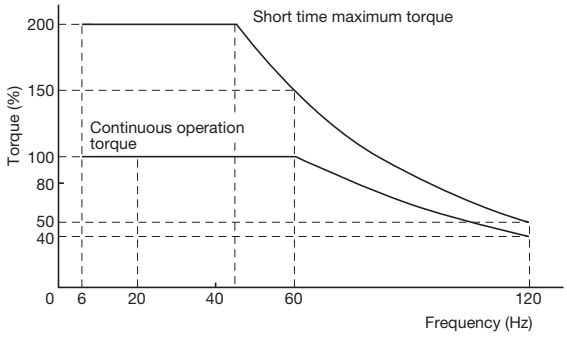
When a general-purpose motor is combined with an inverter for variable-speed operation, the motor temperature rise may be slightly greater than if the motor is operated by a commercial power supply.
Possible causes are shown below :
Influence of output waveform ・・・・ Unlike a commercial power supply, the output waveform of an inverter is not a complete sine wave but includes harmonics; therefore, motor damage will increase, raising the temperature slightly higher.
Decrease in motor cooling effect during slow-speed operation ・・・・・・・・・・・・・・・ A motor is cooled by its own fan. Therefore, when the motor speed is decreased by an inverter, the quantity of cooling air decreases, reducing the cooling effect.
When a motor is to be operated at frequencies lower than the frequency of a commercial power supply, reduce the load torque to hold down the temperature rise or use a special motor designed for inverter operation.

Operation with the following characteristics is possible when our inverter HF-320 series is used for sensorless control in combination with our general-purpose motors (3.7 kW or less).
A combination with a motor of standard frame size can be used for constant torque operation where an inverter motor with a reducer of a larger frame size has conventionally been used.

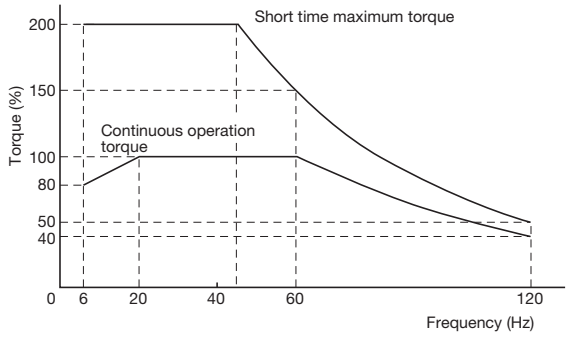
Notes : 1. Contact us for 400V class model because insulation selection is necessary for inverter operation.
2. When a motor with brakes is to be operated for a long time at slow speed, the cooling effect of the fan will decrease and the brake temperature will rise substantially.
Contact us for details.
3 Contact us for details when a general-purpose motor is to be operated under V/F control. (Contact us also when SF-320 series is to be used.)

kW	Motor frame size	Insulation	Frequency range	Series of inverter
0.1	V63S	Class F	6~120Hz (Base frequency 60HZ)	HF-320α Series
0.2	V63M			
0.4	V71M			
0.75	V80M			
1.5	V90L			
2.2	V100L			
3.7	V112M			
5.5	V132S			
7.5	F132M			HF-430 Series
11	F160M			

HF-320α & HF-430 Output Torque Characteristics during Operation in Sensorless Mode



0.2~0.4kW



0.75~11kW

● The combination-output torque presupposes that the rating is 100% when the frequency of motor power is 60 Hz.
● Consult us about motor with brake.

1. Painting Quality and color

1-1. Standard Painting Quality

Model	Treatment	Kind of painting		Additional lead time(days)	Painting specifications			Applied paint	Weather resistance	Submersible	Oil-proof	Acid resistance	Alkali resistance	Heat resistance(℃)	Application
		Classification	Paint of finish coat		Type	Layers (μm)	Quality	Brand							
15W~90W Indoor type Water-proof type 3-phase, single-phase	Cast iron : Near White blast cleaning Steel plate : Power tool cleaning	Standard	—	0	Under coating	1 (5~10)	Etching Primer	Shinto wash #20						100	Standard under coat
			Acrylic resin	0	Finish coating	1 (15~25)	Acrylic resin baking top coat	Saglan 33	◎	×	△	◇	◇	100	Standard finish coat
0.1kW~5.5kW Indoor, Outdoor type 3-phase, single-phase and for inverters	Cast iron : Near White blast cleaning Steel plate : Power tool cleaning	Standard	—	0	Under coating	1 (20~40)	Modified alkyd resin	UNIGROUND PTC PRIMER						100	Standard under coat
			Acrylic modified phtalic	0	Finish coating	1 (15~30)	Acrylic modified phtalic	SUPIKA #3000	○	×	△	◇	◇	100	Standard finish coat

◎○◇ : Appropriate
△ : Caution in selection
× : Inappropriate

1-2. Standard Painting Color

Model	Painting Color
15W~90W Indoor type 3-phase, single-phase	Gear case and motor : Warm silver Terminal box, Safety cover, Brake cover : Warm beige
0.1kW~5.5kW Indoor, Outdoor type 3-phase, single-phase and for inverters	Equivalent to Muncell 6.5PB 3.6/8.2

1-3.Painting Specifications except Standard

Treatment	Kind of painting		Additional lead time(days)	Painting specifications			Applied paint	Weather resistance	Submersible	Oil-proof	Acid resistance	Alkali resistance	Heat resistance(℃)	Application
	Classification	Paint of finish coat		Type	Layers (μm)	Quality	Brand							
Cast iron : Near White blast cleaning / Steel plate : Power tool cleaning	Standard export painting	Acrylic modified phtalic	2	Under coating	1 (30~60)	Modified alkyd resin	UNIGROUND PTC PRIMER	○	×	△	⧋	×	100	Export
				Finish coating	1 (15~30)	Acrylic modified alkyd resin	SUPIKA #3000							
	Special painting (including rust-proof and heat resisting painting) one layer of Uniground PTC Primer as the first primer	Modified epoxy	3	Under coating	1 (20~40)	Vinyl modified epoxy paint	NEO-GOSE #500 Red lead primer	◎	△	○	⧋	⧋	100	Moderate corrosive atmosphere, sea side, outdoor humid atmosphere, chemical plant area, etc.
				Finish coating	1 (30~60)	Acrylic modified alkyd resin	Acron #300							
		Long oil phtalic (synthetic resin type)	7	Under coating	2 (40~70)	Lead rust preventive paint	SSD MARINE PRIMER (rust)	○	×	×	⧋	×	100	Ocean-going vessel & boat, bridge, sea side, outdoor humid atmosphere, etc.
				Finish coating	2 (30~60)	Synthetics resin paint	PENFORTE #600							
		Chloride rubber	10	Under coating	2 (40~70)	Lead rust preventive paint	SD MARINE PRIMER (rust)	◎	△	△	○	○	80	Ocean-going vessel & boat, bridge, sea side, outdoor humid atmosphere, etc.
				Second coating	1 (20~40)	Phenol M.I.O. paint	SHINTOH M10							
				Finish coating	2 (40~70)	Chloride rubber paint	RUBBER #100							
		Phenol	7	Under coating	2 (40–70)	Lead rust preventive paint	SD MARINE PRIMER (rust)	○	×	△	○	⧋	100	In-and-out door of acid treating plant and chemical plant, etc.
				Finish coating	2 (30~60)	Phenol resin enamel	NEW AKNON							
		Heat-proof silver	7	Under coating	1 (20~40)	Lead rust preventive paint	SD MARINE PRIMER (rust)	○	×	×	×	×	120	Heating furnace (120°C), etc.
				Finish coating	1 (15~30)	Aluminum paint	SILVER TOP (heat resisting)							
	Extra rust-proof painting	Epoxy	10	Under coating	1 (50~60)	Special permeability epoxy aluminum paint	CARBOMASTIC #15	✻ ◎	◎	◎	◎	◎	150	Chemical contact area, chemical plant, anti-corrosion plant, etc.
				Finish coating	3 (30~90)	Polyamide epoxy	NEO-GOSE #200							
		Epoxy	10	Under coating	1 (50~60)	Special permeability epoxy aluminum paint	CARBOMASTIC #15	✻ ◎	◎	◎	◎	◎	150	Nuclear power plant, etc.
				Finish coating	3 (120~240)	Polyamide epoxy	NEO-GOSE #2300CW							
		Polyurethane	10	Under coating	1 (50~60)	Special permeability epoxy aluminum paint	CARBOMASTIC #15	◎	◎	◎	◎	◎	150	Nuclear power plant, etc.
				Finish coating	3 (45~90)	Polyisocianate urethane resin paint	NY POLIN K finish coat							
	Extra rust-preventive painting (sand blast undercoating)	Thick film epoxy	12		5 (250~350)	Thick film type modified epoxy resin paint	NEO-GOSE #2300 NTHB	◎	◎	◎	◎	◎	100	Submersible equipment, marine structure, etc.

Notes : 1. Additional lead time for coating refers to the number of days required for special coating compared to standard painting.
2. Coating may be substituted.
3. The coatings marked with ✻ may fade from the sun's ray.
4. Consult us when ambient temperature is above the heat resistance temperature. (The above heat resistance temperature is only for the painting and not for gear motor.)
5. Consult us when ambient temperature varies widely in a short period.

◎ ○ ⧋ : Appropriate
△ : Caution in selection
× : Inappropriate

2. Surface conditioning

Treatment	Surface condition after treatment	Methods	Standards	
			SSPC	SIS
Class 1 Near white blast cleaning	Surface to be completely free of mill scales, rust, corrosive substances, dirt and other foreign substances. However, solidly embedded residues (mill scales, rust, slight smears or discoloration of oxide substances) may be excepted, provided that a minimum of 95% of the surface area is visually free of any residues and the remaining area is limited to smears, stains and other minute loose particles.	Near White Blast Cleaning ●Shot blast ●Sand blast, etc.	SP-10	Sa-2 1/2
Class 2 Power tool cleaning	Except for solidly embedded mill scales, the surface shall be completely free of loose mill scales, rust, corrosive substances, oil & grease, dirt and other foreign matters. However, solidly embedded residue (mill scales, rust, slight smears or stains of oxide substances) may be excepted. If there is any porous corrosion in the surface, residual rust and coating peelings may remain in such pores, but a minimum of two-thirds of the surface shall be visually free of such residues, with the remaining area being limited to minor smears, stains and other loose minute particles.	Commercial Blast Cleaning Power Tool Cleaning ●Disk sander ●Wire wheel ●Grinder, etc.	SP-6 (SP-3)	Sa-2 (St-3)
Class 3 Hand tool cleaning	Remove the loose scale, rust, coating peelings, oil & grease and other foreign matters, with a wire brush, scrapper, etc. The surface shall have a slight metallic luster.	Hand Tool Cleaning ●Wire brush ●Scrapper, etc.	SP-2	St-2

Ref. SSPC (U.S.A. Steel Structural Painting Councils) and SIS (Sweeden, Svensk Standard, S.I.S 055900)

Rust Proof Standards

Rust proof treatment is applied to all completely assembled models, prior to shipment.

1. Standard specifications of rust proof

(1) External treatment

Rust-proof oil is applied prior to shipment. Check the condition every six months and reapply the oil if necessary.

(2) Internal treatment

Rust-proofing period	One year
Storage condition	To be stored inside the shop or warehouse, relatively free of humidity, dust, extreme variation of temperature, corrosive gas and similar atmosphere.

2. Export specifications of rust-proof

Contact us for export rust-proof when special treatment is required or goods are exported.

Warranty Period	The warranty period for the Products shall be 18 months after the commencement of delivery or 18 months after the shipment of the Products from the seller's works or 12 months from the Products coming into operation, whether comes first.
Warranty Condition	In the event that any problem or damage to the Product arises during the "Warranty Period" from defects in the Product whenever the Product is properly installed and combined with the Buyer's equipment or machines, maintained as specified in the maintenance manual, and properly operated under the conditions described in the catalog or as otherwise agree upon in writing between the Seller and the Buyer or its customers; the Seller will provide, at its sole discretion, appropriate repair or replacement of the Product, without charge, at a designated facility, except as stipulated in the "Warranty Exclusions" described below. However, if the Product is installed or integrated into the Buyer's equipment or machines, the Seller shall not reimburse the cost of: removal or re-installation of the Product or other incidental costs related thereto, any lost opportunity, any profit loss or other incidental or consequential losses or damages incurred by the Buyer or its customers.
Warranty Exclusions	Not withstanding the above warranty, the warranty as set forth herein shall not apply to any problem or damage to the Product that is caused by : 1. installation, connection, combination or integration of the Product in or to the other equipment or machine that is rendered by any person or entity other than the Seller ; 2. insufficient maintenance or improper operation by the Buyer or its customers, such that the Product is not maintained in accordance with the maintenance manual provided or designated by the Seller ; 3. improper use or operation of the Product by the Buyer or its customers that is not informed to the Seller, including, without limitation, the Buyer's or its customers' operation of the Product not in conformity with the specifications, or use of lubricating oil in the Product that is not recommended by the Seller ; 4. any problem or damage to any equipment or machine to which the Product is installed, connected or combined, or on any specifications particular to the Buyer or its customers ; 5. any changes, modifications, improvements or alterations to the Product or those functions that are rendered on the Product by any person or entity other than the Seller ; 6. any parts in the Product that are supplied or designated by the Buyer or its customers ; 7. earthquake, fire, flood, sea-breeze, gas, thunder, acts of God or any other reasons beyond the control of the Seller ; 8. normal wear and tear, or deterioration of the Product's parts, such as bearings, oil-seals ; 9. any other troubles, problems or damage to the Product that are not attributable to the Seller.

⚠ SAFETY PRECAUTIONS

● Strictly observe the safety rules for the installation place and the equipment to use. (Industrial Safety and Health Law, Technical Standard for Electric Facilities, Extension Rules, Plant Explosion Guidelines, Building Standards Law, etc.)
● Carefully read the maintenance manual before use. If the maintenance manual is not on hand, make a request for one to the distributor from which you purchased the product or to our sales department. The maintenance manual should be sent to the actual user.
● Select an appropriate product that matches the operating environment and usage.
● Install protective equipment on the machine side when the machine is used for transportation of passengers or for elevators, escalators, and dumbwaiters.
● Use an explosion-proof type motor in an explosive environment.
Select an explosion-proof type motor whose specifications is best suited to the danger zone.
● When a 400V-class inverter is used for driving the motor, mount a control filter or reactor on the inverter side or use a sufficiently insulated motor.
● When the machine is used for food processing equipment and others that are susceptible to oil, install an oil pan or other damage preventive devices in case of oil leakage or termination of service life.

Precautions for applications of special motors

● Explosion-proof motors ... When driving an explosion-proof motor, an explosion-proof verification test is necessary for a motor and an inverter in combination. The same applies to cases where existing explosion-proof motors are driven. Inverters are of a non explosion-proof type. Install them in a safe place.
● Pole change motors ... The rated current is different from that of general-purpose motors. Confirm the max. current of the motor before selecting an inverter. Make sure to stop the motor when changing the number of poles, otherwise the regenerative overvoltage protective circuit or overcurrent protective circuit will be activated, allowing the motor to run free.
● Motors with brake ... Use an independent power supply for the brake. Be sure to connect the brake power supply to the primary side of the inverter, and shut off the inverter output when the brake is activated (when the motor is stopped). Some types of brakes may produce rattling sound during slow-speed running.
● Single-phase motor ... A single-phase motor is not suitable for inverter driving. In the capacitor starting method, the harmonic current flowing through the capacitor may break the capacitor. In motors of a split-phase-start type and arepulsion-start type, the centrifugal switch inside will not be activated, possibly burning the starter coil.

When driving a 400V-class general-purpose motor by an inverter

● Contact us in cases where a standard motor is driven by an inverter. The withstand voltage of the motor may have to be taken into consideration when a high carrier frequency type (IGBT, for example) inverter that has high input voltage (400V or more) is used or when the wiring distance is long.