

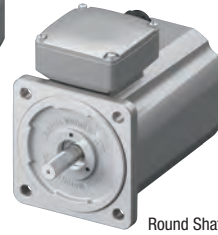
Induction Motors

KIS Series 200 W

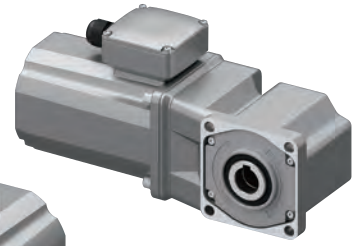
Frame Size 110 mm



Parallel Shaft Gearhead



Round Shaft Type



Right-Angle Hollow Shaft Gearhead

Specifications - Continuous Rating

Product Name	Output [W]	Voltage [VAC]	Frequency [Hz]	Current [A]	Starting Torque [mNm]	Rated Torque [mNm]	Rated Speed [r/min]
Terminal Box Type							
7IK200VES3T2-□S 7IK200VAS-ES3T2	200	Three-Phase 220	50	1.00	1690	1350	1420
			60	0.90	1410	1130	1700
		Three-Phase 230	50	1.02	1690	1350	1420
			60	0.89	1410	1130	1700
		Three-Phase 240	50	1.06	1690	1350	1420
			60	0.90	1410	1130	1700
7IK200VEU3T2-□S 7IK200VAS-EU3T2	200	Three-Phase 380	50	0.56	1400	1350	1420
			60	0.52	1300	1130	1700
		Three-Phase 400	50	0.56	1400	1350	1420
			60	0.51	1300	1130	1700
		Three-Phase 415	50	0.57	1400	1350	1420

*7IK200VAS-ES3T2 conforms to the Electrical Appliance and Material Safety Law.

●The values in the tables are characteristics for motor only.

●No built-in overheat protection device (thermal protector) When there is an overload or the output shaft is locked, use the electromagnetic switch and the inverter's electronic thermal function to prevent motor burnout.

●Use an inverter setting frequency of 120 Hz or less when driving in combination with inverter.

Product Line

● Parallel Shaft Gearhead **GV** Gear

Price includes motor and gearhead.

◇ Terminal Box Type

Product Name	Gear Ratio	List Price
7IK200VES3T2-□S	5, 10, 15, 20	402.00 €
	30, 50	414.00 €
	100	428.00 €
7IK200VEU3T2-□S	5, 10, 15, 20	412.00 €
	30, 50	424.00 €
	100	438.00 €

●The following items are included with each product. Motor, Gearhead, Installation Screws, Parallel Key, Operating Manual

● Round Shaft Type

◇ Terminal Box Type

Product Name	List Price
7IK200VAS-ES3T2	214.00 €
7IK200VAS-EU3T2	224.00 €

●The following items are included with each product. Motor, Operating Manual

Permissible Torque

- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.

The actual speed is a maximum of 10% less, depending on the load.

50 Hz

Unit: Nm

Product Name	Speed [r/min]	300	150	100	75	50	30	15
	Gear Ratio	5	10	15	20	30	50	100
7IK200V ■ 3T2 -□ S		6.1	12.2	18.2	24.3	34.8	58.1	70

60 Hz

Unit: Nm

Product Name	Speed [r/min]	360	180	120	90	60	36	18
	Gear Ratio	5	10	15	20	30	50	100
7IK200V ■ 3T2 -□ S		5.1	10.2	15.3	20.3	29.2	48.6	70

- A number indicating the gear ratio is entered where the box □ is located within the product name.
- Either ES, or EU indicating the power supply voltage is entered where the box ■ is located within the product name.

Dimensions (Unit = mm)

Installation screws are included. Dimensions for installation screws

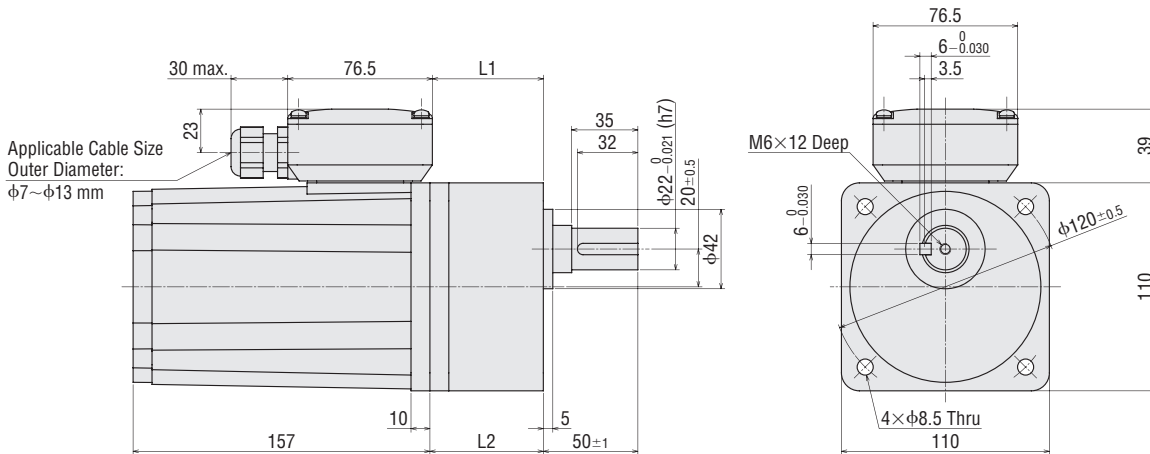
The cable outlet of the terminal box can be changed and fixed in four different directions.

A number indicating the gear ratio is entered where the box □ is located within the product name.

Parallel Shaft Gearhead **GV** Gear

◇ Terminal Box Type

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	L1	L2	Mass [kg]
7IK200VES3T2 -□ S	7IK200VGV-ES3T2 7IK200VGV-EU3T2	7GV □ BS	5~20	58.7	60	7.3
7IK200VEU3T2 -□ S			100	84.7	86	8.4

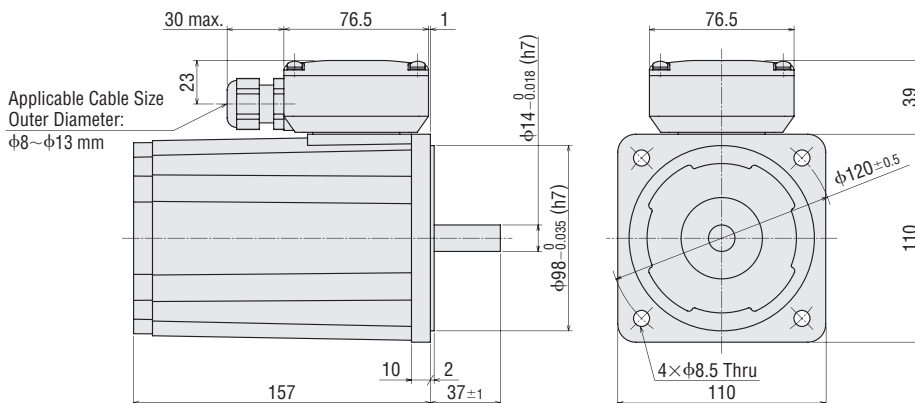


Round Shaft Type

◇ Terminal Box Type

7IK200VAS-ES3T2, 7IK200VAS-EU3T2

Mass: 5.4 kg



Specifications - Continuous Rating

Product Name Terminal Box Type	Output [W]	Voltage [VAC]	Frequency [Hz]	Current [A]
7IK200VES3T2-□RHS	200	Three-Phase 220	50	1.00
			60	0.90
		Three-Phase 230	50	1.02
			60	0.89
		Three-Phase 240	50	1.06
			60	0.90
7IK200VEU3T2-□RHS	200	Three-Phase 380	50	0.56
			60	0.52
		Three-Phase 400	50	0.56
			60	0.51
		Three-Phase 415	50	0.57

Gear Ratio		5	9	15	18	30	50	100	180	
Speed [r/min]	50 Hz	300	166	100	83	50	30	15	8.3	
	60 Hz	360	200	120	100	60	36	18	10	
Rated Torque [Nm]	50 Hz	4.9	8.9	14.8	17.7	29.6	40	56.5	60	
	60 Hz	4.2	7.4	12.4	14.8	27.7	40	54.5	60	
Permissible Inertia J [$\times 10^{-4} \text{kgm}^2$]		100	320	1000	1400	3900	9300	180000	37000	
	Instantaneous Stop	50	162	450	648	1800	5000			
Permissible Radial Load [N] *	10 mm from Installation Surface	1200					2200			
	20 mm from Installation Surface	1100					2000			
Permissible Axial Load [N]	300									

*The radial load at each distance can be calculated with a formula.

●The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio.

The actual speed is a maximum of 10% less, depending on the load.

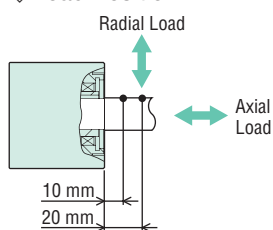
●No built-in overheat protection device (thermal protector). When there is an overload or the output shaft is locked, use the electromagnetic switch and the inverter's electronic thermal function to prevent motor burnout.

●Use an inverter setting frequency of 120 Hz or less when driving in combination with the inverter. Keep the motor operating ambient temperature between 0 and 40°C.

Note

●Do not perform instantaneous bi-directional operations.

◇ Load Position



Distance from Installation Surface

Product Line

● Terminal Box Type

Product Name	Gear Ratio	List Price
7IK200VES3T2-□RHS	5, 9, 15, 18, 30	565.00 €
	50, 100, 180	581.00 €
7IK200VEU3T2-□RHS	5, 9, 15, 18, 30	576.00 €
	50, 100, 180	592.00 €

●A number indicating the gear ratio is entered where the box □ is located within the product name.

Included

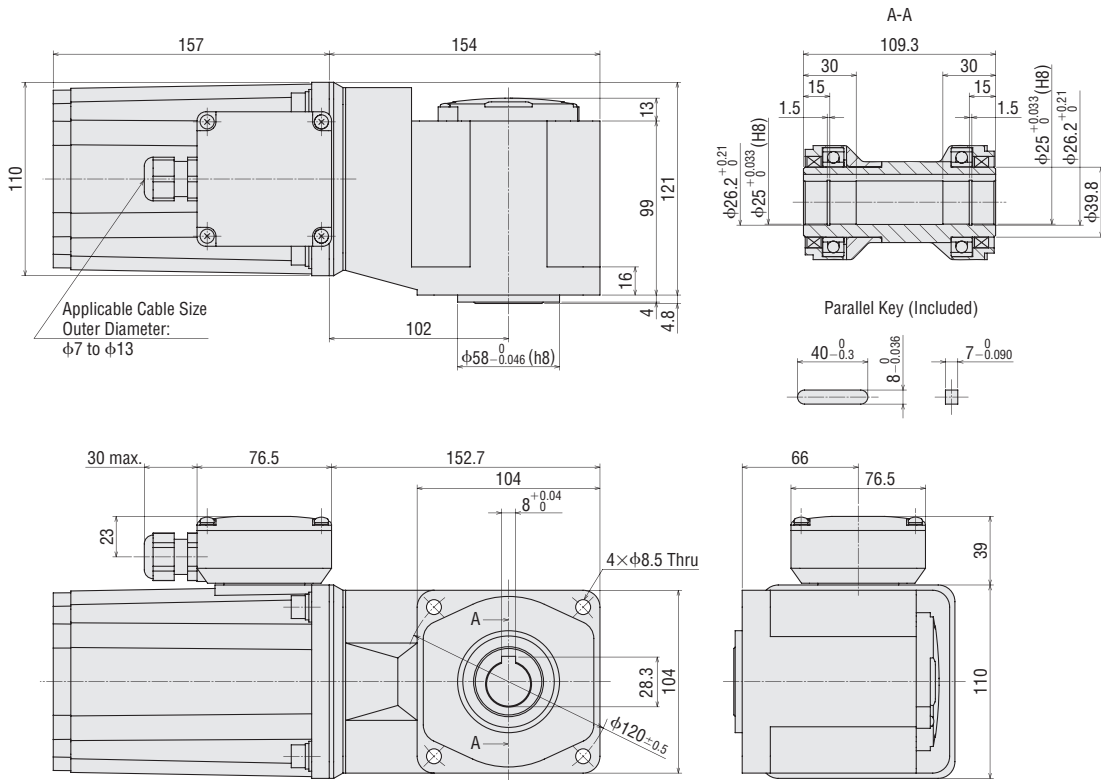
Parallel Key (Stainless Steel)	Operating Manual
1 Piece	1 Copy

Dimensions (Unit = mm)

The cable outlet of the terminal box can be changed and fixed in four different directions.
 A number indicating the gear ratio is entered where the box □ is located within the product name.

Terminal Box Type

Product Name	Motor Product Name	Gearhead Product Name	Mass [kg]
7IK200VES3T2-□RHS	7IK200VG-ES3T2	7GV□RHS	9.6
7IK200VEU3T2-□RHS	7IK200VG-EU3T2		



Standard AC Motors

Accessories

Overview,
Product
Series

Constant
Speed
Motors

Single-Phase
Induction
Motors

Three-Phase
Induction
Motors

Reversible
Motors

Electromagnetic
Brake Motors

Torque
Motors

Watertight,
Dust-Resistant
Motors

Brake Pack

Accessories

Accessories

Installation

	<u>Page</u>
Motor and Gearhead Mounting Brackets.....	C-154
Flexible Couplings	C-158
Watertight Power Relay Box	C-163
Watertight Extension Cables	C-163
CR Circuit for Surge Suppression	C-163

Motor and Gearhead Mounting Brackets

Mounting Brackets

Torque Arms

Couplings

Power Relay Box

Extension Cables

CR Circuit for Surge Suppression

This is an aluminum die cast mounting bracket for gearheads and geared motors. There are also high-strength models available for high-power motors and gearheads.

Long, horizontal holes make it easy to make fine adjustments during installation.



Product Line

Material: Aluminum alloy Surface treatment: paint

● Standard AC Motors, Speed Control Motors

● Select the pinion shaft type based on the gearhead to be attached.

Product Name	List Price	Applicable Product					
		Standard AC Motors		Brushless Motors		AC Speed Control Motors	
		Combination Type Geared Motor	Round Shaft Type	Combination Type	Round Shaft Type	Combination Type	Round Shaft Type
SOL0M3	€22.00	—	—	—	BLH015-A	—	—
SOL0B	€22.00	—	—	BLH015-□	—	—	—
SOL2M4F	€26.00	2IK6, 2RK6	2IK6, 2RK6	BLM230	BLM230, BLM260	DSCI26	DSCI26
SOL2M4	€24.00	—	—	BXS230, BLH230	BXS230, BLH230	—	—
SOL3M5F	€27.00	—	3IK15, 3RK15	—	—	—	DSCI315
SOL3M6F	€27.00	3IK15, 3RK15	—	—	—	DSCI315	—
SOL4M5F	€29.00	—	4IK25, 4RK25	—	—	—	DSCI425
SOL4M5	€28.00	—	—	—	—	—	—
SOL4M6F	€29.00	4IK25, 4RK25	—	BLM460	—	DSCI425	—
SOL4M6	€28.00	—	—	BXS460, BLH450	BXS460, BLH450	—	—
SOL5M6F	€30.00	—	5IK40, 5RK40 5IK60, 5RK60 5IK90, 5RK90 5IK100	—	—	—	DSCI540, DSCI560, DSCI590
SOL5M6	€30.00	—	—	—	—	—	—
SOL5M8F	€30.00	5IK40, 5RK40 5IK60, 5RK60 5IK90, 5RK90 5IK100	—	BLM5120	BLM5120, BLM5200, BLM5300	DSCI540, DSCI560, DSCI590	—
SOL5M8	€30.00	—	—	BXS5120, BLH5100	BXS5120, BLH5100	—	—
SOL6M8F	€32.00	7IK200	—	BLM6200, BLM6300	—	—	—
SOL6M8	€32.00	—	—	BXS6200, BXS6400	BXS6200, BXS6400	—	—

● Letters are provided in the applicable products table for identifying the series.

Note

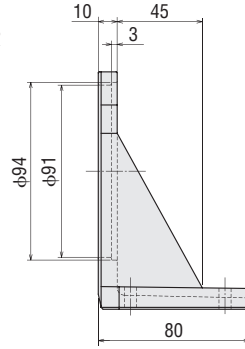
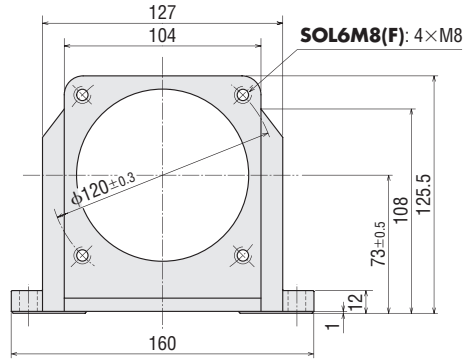
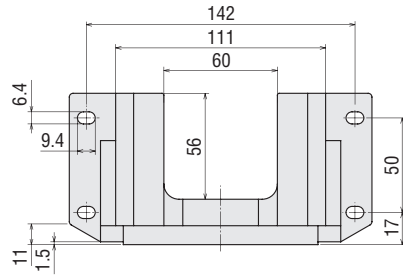
● Not available for the following products.

KIIS Series Right-Angle Geared Motor

Hollow Shaft Flat Gearhead (**GFS2G□FR, GFS4G□FR, GFS5G□FR, GFS6G□FR**)

● A number indicating the gear ratio is entered where the box □ is located within the product name.

SOL6M8F, SOL6M8
 Mass: 430 g



Mounting
 Brackets

Torque
 Arms

Couplings

Power
 Relay Box

Extension
 Cables

CR Circuit
 for Surge
 Suppression

Overview,
Product
Series

Constant
Speed
Motors

Single-Phase
Induction
Motors

Three-Phase
Induction
Motors

Reversible
Motors

Electromagnetic
Brake Motors

Torque
Motors

Watertight,
Dust-Resistant
Motors

Brake Pack

Accessories

Installation

Flexible Couplings

These are clamp type couplings for connecting the motor/gearhead shaft with the driven shaft. Once the motor or gearhead is determined, the coupling can be selected.



Mounting Brackets

Torque Arms

Couplings

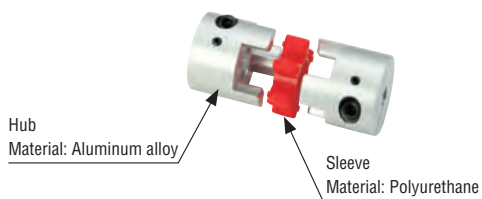
Power Relay Box

Extension Cables

CR Circuit for Surge Suppression

Features

- Can be used with high torque
- Excellent for preventing eccentricity
- The structure features a separated hub and sleeve, so workability during installation is improved.



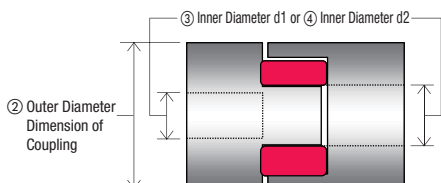
Product Number Code

MCL 40 12 15

- ① ② ③ ④

①	Flexible Coupling
②	Outer Diameter Dimension of Coupling 20 : φ20 mm~ 65 : φ65 mm
③	Inner Diameter d1 (Smaller side) 05 : φ5 mm~ 25 : φ25 mm
④	Inner Diameter d2 (Larger side) 05 : φ5 mm~ 25 : φ25 mm

● Applicable products → Page C-246



Product Line

Product Name	List Price
MCL20 □	€33.00
MCL30 □	€39.00
MCL40 □	€60.00
MCL55 □	€79.00
MCL65 □	€127.00

● A number indicating the coupling inner diameter is entered where the box □ is located within the product name.

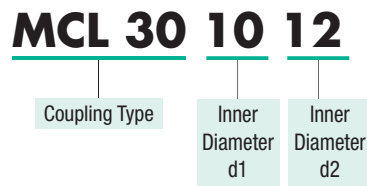
Selecting a Flexible Coupling

Once you have decided on a motor and gearhead as well as the driven shaft diameter, this determines the necessary coupling to use.

The coupling selection process is explained using the conditions below.

- Condition
 - Model: **2IK6** (shaft diameter φ10 mm)
 - Applicable Driven Shaft Diameter: φ12 mm
 - Uniform load*
 - Selection Procedure
1. Select a coupling appropriate for the **2IK6** with a uniform load from the applicable products table on the following page.
Coupling Type: **MCL30**
 2. From the applicable products table on the following page, find a product from the **MCL30** type that is compatible with a shaft diameter of φ10 mm and a driven shaft diameter of φ12 mm.

● Applicable Coupling Model



* Uniform load and impact load are the two types of load conditions.
Uniform Load: When a uniform load is applied such as with a conveyor etc.
Shock Load: When shock-inducing loads are applied from frequent starting and stopping

Applicable Products

- Standard AC Motors, Speed Control Motors
- Couplings can also be used with round shaft types. Select a coupling with the same inner diameter size as the motor shaft diameter.
- For the **BXII** Series round shaft type, refer to the **MCS** coupling.

Coupling Selection Table

- Standard AC Motors, Speed Control Motors

○: Uniform load ●: Compatible with uniform and shock load

Gearhead Model		Coupling Type	Shaft Diameter		Connected Device Shaft Diameter mm											
Uniform Load	Shock Load		05	06	08	10	12	14	15	16	18	20	22	25		
			mm	φ5	φ6	φ8	φ10	φ12	φ14	φ15	φ16	φ18	φ20	φ22	φ25	
BLH015	BLH015	MCL20	06	φ6	●	●	●									
2IK, 2RK, BLM230, BXS230, BLH230, DSCI26	2IK, 2RK, BLM230, BXS230, BLH230, DSCI26	MCL30	10	φ10			●	●	●							
3IK15, 3RK15, DSCI315	—		12	φ12			○	○	○							
—	3IK15, 3RK15, DSCI315	MCL40	12	φ12			●	●	●	●	●					
4IK25, 4RK25, BLM460, BXS460, BLH450, DSCI425	—		15	φ15				○	○	○	○	○				
—	4IK25, 4RK25, BLM460, BXS460, BLH450, DSCI425	MCL55	15	φ15							●	●	●	●	●	
5IK40, 5RK40, 5IK60, 5RK60, 5IK90, 5RK90, 5IK100, BLM5120, BXS5120, BLH5100, DSCI540, DSCI560, DSCI590	5IK40, 5RK40, 5IK60, 5RK60, 5IK90, 5RK90, 5IK100, BLM5120, BXS5120, BLH5100, DSCI540, DSCI560, DSCI590		18	φ18								●	●	●	●	●
BLM6200, BLM6300, BXS6200, BXS6400, 7IK200	BLM6200, BLM6300, BXS6200, BXS6400, 7IK200	MCL65	22	φ22									●	●	●	

- The load in this table are of common use. Check the specifications values of each coupling for details.
- Letters are provided in the applicable products table for identifying the series.

Overview, Product Series

Constant Speed Induction Motors

Single-Phase Induction Motors

Three-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Torque Motors

Watertight, Dust-Resistant Motors

Brake Pack

Accessories

Installation

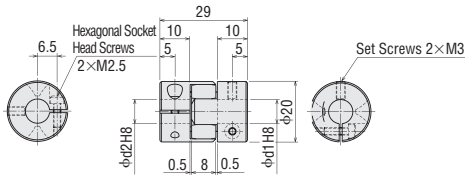
Specifications

Coupling Type	Product Name	Dimensions				Normal Torque [N·m]	Mass [g]	Inertia J [$\times 10^{-4}$ kg·m ²]	Permissible Eccentricity [mm]	Permissible Declination [°]	End Play [mm]									
		Outer Diameter [mm]	Overall Length [mm]	Shaft Hole Diameter d1 [mm]	Shaft Hole Diameter d2 [mm]															
Mounting Brackets	MCL200505	φ20	29	5	5	5.0	19	0.01	0.15	1.0	+0.8 0									
	MCL200506			5	6															
	MCL200508			5	8															
	MCL200606			6	6															
	MCL200608			6	8															
Torque Arms	MCL200808	φ20	29	8	8	5.0	19	0.01	0.15	1.0	+0.8 0									
	MCL300808			8	8															
	MCL300810			8	10															
	MCL300812			8	12															
	MCL301010			10	10															
Couplings	MCL301012	φ30	43.5	10	12	12.5	66	0.083	0.2	1.0	+1.0 0									
	MCL301212			12	12															
	MCL401010			10	10															
	MCL401012			10	12															
	MCL401014			10	14															
Power Relay Box	MCL401015	φ40	64	10	15	25.0	150	0.36	0.2	1.0	+1.2 0									
	MCL401016			10	16															
	MCL401212			12	12															
	MCL401214			12	14															
	MCL401215			12	15															
Extension Cables	MCL401216	φ40	64	12	16	25.0	150	0.36	0.2	1.0	+1.2 0									
	MCL401414			14	14															
	MCL401415			14	15															
	MCL401416			14	16															
	MCL401515			15	15															
	CR Circuit for Surge Suppression			MCL401516	φ40							64	15	16	25.0	150	0.36	0.2	1.0	+1.2 0
				MCL401616									16	16						
				MCL551515									15	15						
				MCL551516									15	16						
				MCL551518									15	18						
				MCL551520									15	20						
				MCL551525									15	25						
				MCL551616									16	16						
				MCL551618									16	18						
				MCL551620									16	20						
MCL551625		16	25																	
MCL551818		18	18																	
MCL551820		18	20																	
MCL551825		18	25																	
CR Circuit for Surge Suppression		MCL651515	φ65	87.5		15	15	160	570	3.7	0.2		1.0	+1.5 0						
	MCL651516	15			16															
	MCL651518	15			18															
	MCL651520	15			20															
	MCL651525	15			25															
	MCL651616	16			16															
	MCL651618	16			18															
	MCL651620	16			20															
	MCL651625	16			25															
	MCL651818	18			18															
	MCL651820	18			20															
	MCL651825	18			25															
	MCL652022	20			22															
	MCL652222	22			22															
	MCL652225	22			25															

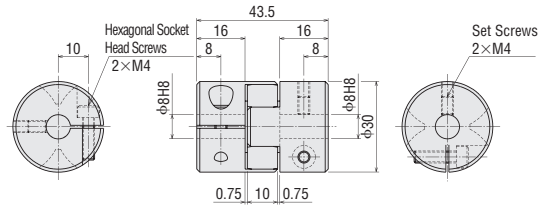
● The specifications above are the values when combined with Oriental Motor's motor and gearhead.

Dimensions (Unit mm)

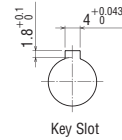
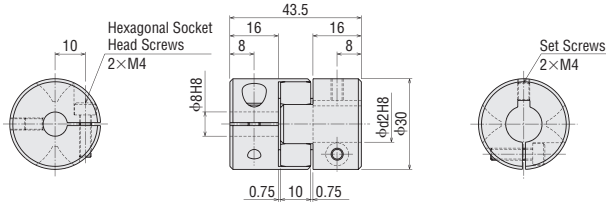
MCL20 Type



MCL300808



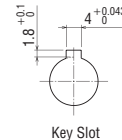
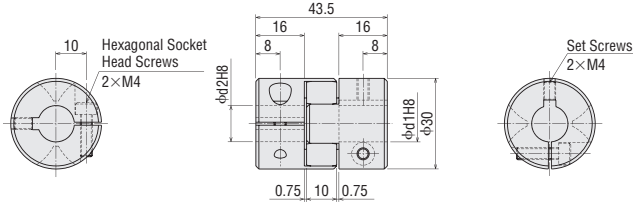
MCL300810 MCL300812



Key Slot

Shaft Hole Diameter ($\phi d2$)
 $\phi 10, \phi 12$

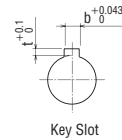
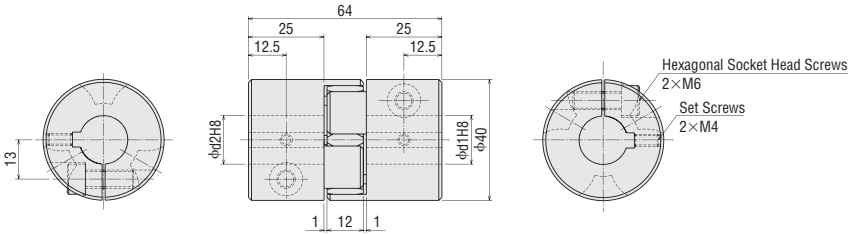
MCL301010 MCL301012 MCL301212



Key Slot

Shaft Hole Diameter ($\phi d1, \phi d2$)
 $\phi 10, \phi 12$

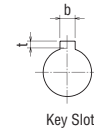
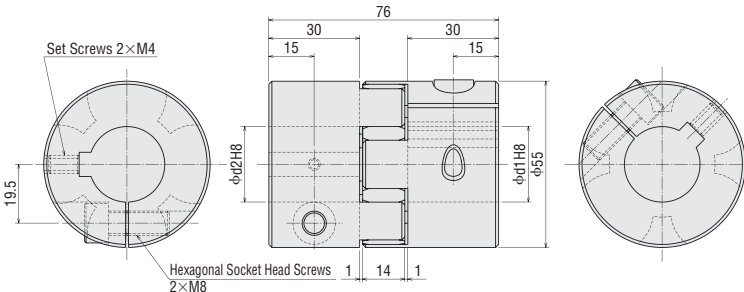
MCL40 Type



Key Slot

Shaft Hole Diameter ($\phi d1, \phi d2$)	Key Slot Width b	Key Slot Length t
$\phi 10, \phi 12$	4	1.8
$\phi 14, \phi 15, \phi 16$	5	2.3

MCL55 Type



Key Slot

Shaft Hole Diameter ($\phi d1, \phi d2$)	Key Slot Width b	Key Slot Length t
$\phi 15, \phi 16$	$5^{+0.043}_0$	$2.3^{+0.1}_0$
$\phi 18, \phi 20$	$6^{+0.052}_0$	$2.8^{+0.1}_0$
$\phi 25$	$8^{+0.052}_0$	$3.3^{+0.2}_0$

Overview,
Product
Series

Constant
Speed
Induction
Motors

Single-Phase
Induction
Motors

Three-Phase
Induction
Motors

Reversible
Motors

Electromagnetic
Brake Motors

Torque
Motors

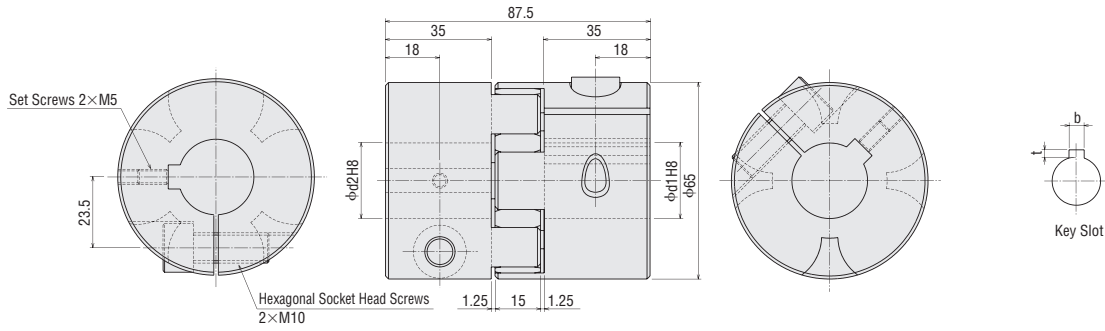
Watertight,
Dust-Resistant
Motors

Brake Pack

Accessories

Installation

MCL65 Type



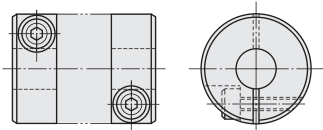
Shaft Hole Diameter (φd1, φd2)	Key Slot Width b	Key Slot Length t
φ15, φ16	$5^{+0.043}_0$	$2.3^{+0.1}_0$
φ18, φ20, φ22	$6^{+0.052}_0$	$2.8^{+0.1}_0$
φ25	$8^{+0.052}_0$	$3.3^{+0.2}_0$

Mounting to a Shaft

MCL couplings are clamp type couplings.

● Clamp Type

Clamp type couplings use the tightening force of the screw to compress the shaft hole diameter and thereby fasten the coupling to the shaft. This does not damage the shaft and is easy to mount and remove. The following table shows the screw tightening torque. We recommend using a torque wrench to fasten.



Type	MCL20*	MCL30	MCL40	MCL55	MCL65
Tightening Torque [N·m]	1	2.5	12	25	50
Tightening Torque of Key Press Screw [N·m]	0.7	1.7	1.7	1.7	4

*The MCL20 type are screws used to clamp flat sections.

Mounting Brackets

Torque Arms

Couplings

Power Relay Box

Extension Cables

CR Circuit for Surge Suppression

Watertight Power Relay Box

Product Line

4-terminal type

Product Name	List Price
TB4-0608	€37.00



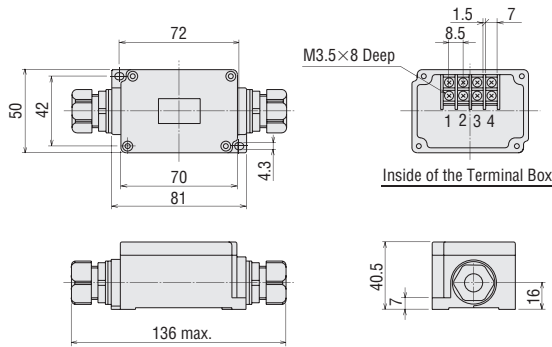
Applicable Products

FPW Series

Applicable Cable Diameter: $\phi 6.5 \sim \phi 8.5$

Dimensions (Unit mm)

Mass: 150 g



- This product conforms to the IP65 degree of protection rating only when used with a watertight extension cable for the **FPW Series**.

Screws for the cable gland and the cover of the power relay box should be adjusted to the torque shown below.

Cable gland	1.0 to 1.5 N·m
Cover of power relay box	0.54 to 0.66 N·m

- This product can be used with the lead wire type. However, they are not watertight. Also, note that lead wires cannot be fixed with the cable gland.

Watertight Extension Cables

These cables are used with watertight power relay boxes. Extensions of 5 m and 10 m are available.

Product Line

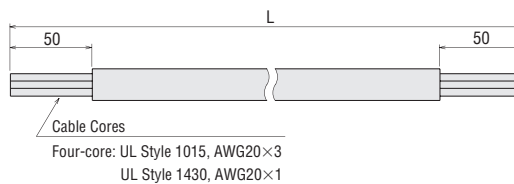
Number of Conductors	Product Name	Applicable Products	Length L (m)	List Price
4 Conductors	CC05AC43P	FPW Series	5	€95.00
	CC10AC43P		10	€173.00



Specifications

Cable Cores Construction: Refer to the dimension on the right
 Finished Outer Diameter: $\phi 7.8$
 Outer Sheath: Heat-resistant vinyl chloride

Dimensions (Unit mm)



CR Circuit for Surge Suppression

This is used to protect the contacts of the relay or switch used in the bi-directional circuit or the instantaneous stop circuit of a motor.

Product Line

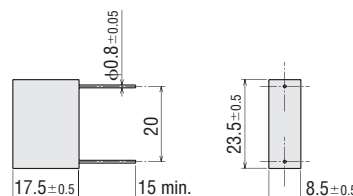
250 VAC (120 Ω , 0.1 μ F)

Product Name	List Price
EPCR1201-2	€4.00



Dimensions (Unit mm)

Mass: 5 g



Overview, Product Series

Constant Speed Induction Motors

Single-Phase Induction Motors

Three-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Torque Motors

Watertight, Dust-Resistant Motors

Brake Pack

Accessories

Installation

Orientalmotor

These products are manufactured at plants certified with the international standards **ISO 9001** (for quality assurance) and **ISO 14001** (for systems of environmental management).

Specifications are subject to change without notice. Published in November 2022

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