

OPERATING MANUAL

Motor Cover PCM5 PCM5-C

Thank you for purchasing an Oriental Motor product. Only qualified personnel of electrical and mechanical engineering should work with the product. Use the product correctly after thoroughly reading the section "Safety precautions."

Before use

The product described in this manual has been designed and manufactured to be incorporated in general industrial equipment. Do not use for any other purpose. Oriental Motor Co., Ltd. is not responsible for any damage caused through failure to observe this warning.

Safety precautions

The precautions described below are intended to prevent danger or injury to the user and other personnel through safe, correct use of the product. Use the product only after carefully reading and fully understanding these instructions.

Warning Handling the product without observing the instructions that accompany a "Warning" symbol may result in serious injury or death.

- Do not use the product in explosive environments, in the presence of flammable gases, or near combustibles. Doing so may result in fire or injury.
- Do not use for any product other than applicable products. Doing so may result in electric shock or damage to equipment.
- When installing the motor, ground the Protective Earth Terminal of the motor. Failure to do so may result in electric shock.
- Install securely based on the installation condition or mounting instruction. Failure to do so may result in electric shock or damage to equipment.
- Do not forcibly bend or pull the cable. Doing so may result in electric shock or damage to equipment.

Precautions for use

- The watertight performance of the motor cover is designed assuming fresh water and tap water at normal temperature [+5 to +35 °C (+41 to +95 °F)]. Do not splash hot water or blow hot air.
- The motor cover cannot be used under water, and also cannot be washed by high water pressure.
- Tighten hexagonal socket head screws evenly so that the mounting surface of the motor cover and the mounting plate are in parallel. Check periodically if any of the tightened screws come loose. Re-tighten if the screw was loose.

Applicable product

- BMU Series: 30 W, 60 W, 120 W type
- BLE2 Series: 30 W, 60 W, 120 W type

Installation

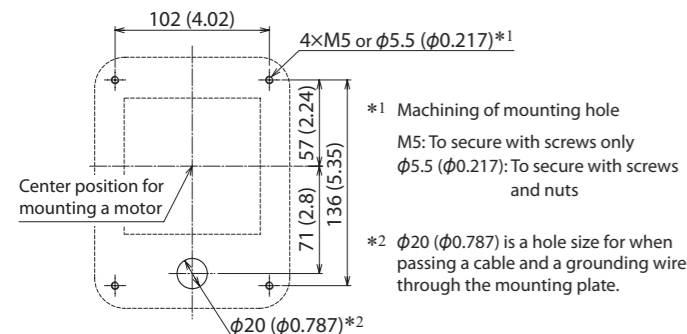
Install the motor cover to a flat metal plate.

Installation conditions

- Indoors
- Operating ambient temperature: 0 to +40 °C (+32 to +104°F)
- Operating ambient humidity 85% or less
- Area that is free of explosive atmosphere or free of atmosphere which contains strong acids, strong alkali or organic solvents (ethyl chloride, methyl chloride, cresol, etc.)
- Area free of radioactive materials
- Area free of damp or ozonic atmosphere
- Area not exposed to direct sun
- Area not subject to continuous vibration or excessive shocks
- Install the motor to a mounting plate of the following size or larger.
30 W and 60 W: 170 X 170 mm (6.69 X 6.69 in.) or larger
120 W: 250 X 250 mm (9.84 X 9.84 in.) or larger
Thickness: 5 mm (0.20 in.) Material: Aluminum alloy

Reference panel cut-out

[Unit: mm (in.)]



With hole plug: PCM5

- Housing of motor cover
- Attachments (supplied)
 - Hexagonal socket head screws 4 pieces
Size: M5
Screw length 25 mm (0.98 in.) (with washer)
 - Nuts 4 pieces

Gasket
Hole plug (cap and rubber washer)

This gasket is a consumable part. An estimated timing for replacement is approximately one year. The gasket for replacement is provided as an accessory (sold separately).

Installation method

Installation methods are explained using the connector type motor as an example.

- Put on the motor cover after passing the motor cable through the hole of the mounting plate.
- Secure to the mounting plate with the supplied hexagonal socket head screws.

Mounting plate, Motor, Cable, Grounding wire*, Grounding

Tightening torque: 1.49 to 2.5 N·m (13.1 to 22 lb-in)

* Connect the grounding wire to the grounding terminal of the driver or equipment. When connecting, do not pinch the grounding wire between the motor cover and the mounting plate.

When watertight and dust-resistant performance is not needed

The motor cover can be installed as shown in the figure below. Remove the hole plug to pass through the cable.

Mounting plate, Motor, Cable, Grounding

Tightening torque: 1.49 to 2.5 N·m (13.1 to 22 lb-in)

Round shaft type

Tightening torque for when attaching the hole plug again: 2.0 to 2.5 N·m (17.7 to 22 lb-in)

memo Before covering the motor with the motor cover, consider the bending of the cable as shown in the figure, and adjust the cable length to be stored in the motor cover. Do not forcibly pull the cable.

Specifications of motor cover

- Degree of protection: IP66 (classification stated in IEC 60529)
- Material:

Housing of motor cover	Polycarbonate (flammability grade UL94V-0)
Hexagonal socket head screw, nut	Stainless steel
Gasket	Nitrile butadiene rubber
Cable gland	Nylon 66 (flammability grade UL94V-2), ethylene propylene diene rubber
Hole plug	
- RoHS Directive: The products do not contain the substances exceeding the restriction values of RoHS Directive (2011/65/EU).

With cable gland: PCM5-C

- Housing of motor cover
- Attachments (supplied)
 - Hexagonal socket head screws 4 pieces
Size: M5
Screw length 25 mm (0.98 in.) (with washer)
 - Nuts 4 pieces

Gasket

This gasket is a consumable part. An estimated timing for replacement is approximately one year. The gasket for replacement is provided as an accessory (sold separately).

Installation method

Installation methods are explained using the connector type motor as an example.

- Pass the motor cable through (B), and put the motor cover over the motor.

Mounting plate, Motor, Cable, Grounding wire*, Grounding

* Connect the grounding wire to the grounding terminal of the driver or equipment. When connecting, do not pinch the grounding wire between the motor cover and the mounting plate.
- Assemble the cable gland. Secure to the mounting plate with the supplied hexagonal socket head screws.

Mounting plate, Cable, Grounding

Tightening torque: 1.49 to 2.5 N·m (13.1 to 22 lb-in)

Round shaft type

Assembling the cable gland

- Pass the cable through (C) and (D).

Detach assembled (C) and (D).
Install to the cable as shown in the right figure, and assemble (C) with (D).
Install in the direction shown in the figure.
Install C to the cable.
Pass the connector (end) of the connection cable through D.

Note Securely assemble (C) and (D). Incomplete assembling may cause ingress of liquids.
- Pass the cable through (E), and tighten to (B).

Tightening torque: 2.0 to 2.5 N·m (17.7 to 22 lb-in)

Note If the once-tightened (E) is loosened, the assembling state for (B) and the motor cover will also come loose. Tighten (B) and the motor cover using the specified torque in order to prevent ingress of liquids.
Tightening torque: 2.0 to 2.5 N·m (17.7 to 22 lb-in)

Assembled with housing of motor cover: (A) Rubber washer, (B) Cable gland

Supplied: (C) Sealing insert, (D) Clamping claw, (E) Sealing nut

(C) and (D) have been assembled.

Applicable diameter of cable: $\phi 6$ to 10.5 mm ($\phi 0.24$ to 0.41 in.)

memo Before covering the motor with the motor cover, consider the bending of the cable as shown in the figure, and adjust the cable length to be stored in the motor cover. Do not forcibly pull the cable.

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Published in July 2017