Orientalmotor

Installation Manual

Flange Drive Adapter

HG-9037-3



Thank you for purchasing an Oriental Motor product

This manual describes installation procedures for the product. Please read the installation manual (this document) and the operating manual of the motor combined thoroughly to ensure safe operation. Only qualified personnel of electrical and mechanical engineering should work with the product.

RoHS Directive: This product do not contain the substances exceeding the restriction values of

RoHS Directive (2011/65/EU).

Applicable gearhead

Use the flange drive adapter in combination with the applicable gearhead.

Model	Applicable gearhead	
AGD580B	GFS5G, GFV5G*, TS geared type frame size 90 mm (3.54 in.)	

* Excluding gearheads with inch-sized output shaft

1. Assembling the motor

- Check the parallel key is fitted to the output shaft before assembling the motor with the flange drive adapter.
- 2. Check there is no gap between the flange drive adapter and the motor to secure with mounting screws.



*1 The parallel key is fixed to the output shaft depending on the motor.

*2 Included with the motor. In the case of GFS5G_____, assemble without using the included plain washers.

• Do not forcibly assemble the motor. Doing so may result in (Note) abnormal noise or shorter service life.



Cable outlet position

If the motor is assembled with the flange output head in a state of the motor cable outlet facing downward, the motor cable contacts the mounting plate.



2. Installing on mounting plate

Ensure that there is no gap between the mounting plate having excellent vibration resistance and the flange drive adapter before installing. Screws for mounting are required separately. Check on the Oriental Motor Website for machining dimensions of mounting holes.



Safety precautions

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

Handling the product without observing the instructions that accompany a "CAUTION" symbol may result in injury or property damage.

- Do not use in places subjected to splashing water. Doing so may result in damage to the product.
- Do not perform instantaneous bidirectional operation of the motor. Doing so may result in damage to the product.
- Do not lift the product by holding the rotary. Doing so may result in injury. • Do not insert an object into the gaps between the rotary and the bracket. Doing so may result in injury.
- Do not touch the rotary during operation. Doing so may result in injury.
- Dispose the product correctly in accordance with laws and regulations, or instructions of local governments.

Precautions for use

This section explains requirements the user should consider when using the product.

Grease measures

On rare occasions, grease may ooze out from the flange drive adapter. If there is a concern over possible environmental damage resulting from the leakage of grease, provide an oil tray or similar oil catching mechanism in order not to cause a secondary damage. Grease leakage may lead to problems in the user's equipment or products.

• When using in low temperature environment

When an ambient temperature is low, a load torque may increase due to viscosity of the grease used in the flange drive adapter, and the output torque may decrease or the overload alarm may be generated. However, as time passes, the grease is warmed up, and the motor can be operated without generating the overload alarm.

• To prevent seizure

Grease for preventing seizure is applied to the inserting section of output shaft of the flange drive adapter. When maintaining or assembling the motor to the flange drive adapter, apply molybdenum disulfide grease to the inserting section of output shaft.

Permissible radial load and permissible axial load

Use the product in a state where the permissible radial load and the permissible axial load are less than or equal to the values in the table.

Permissible radial load [N (lb.)]	Permissible axial load [N (lb.)]
Fr max.	Fa max.
1500 (1000) [330 (220)]	1000 (500) [220 (112)]
Value in ():	Value in ():
When 300 r/min is exceeded.	When 150 r/min is exceeded.
Fr: Radial load [N (lb.)]	F: External force [N (lb.)]
Fa: Axial load [N (lb.)]	L: Distance to load point [m (ft.)

DM: Load moment [N·m (lb-in)] a: 0.017

m: Load mass [kg (lb.)] g: Gravitational acceleration

• When an external force F is applied on the position of distance L from the center of the rotary

Calculate the load moment and use within the permissible values.



 $\Delta M = F \times L \le a \times Fr$ max.

 $Fa = F + m \times q \ge Fa max$

• When a radial load Fr is applied on the position of distance L from the mounting surface

Use within the permissible values.



 $Fr \leq \frac{a}{(a+L)} \times Fr max.$

 $F_a \leq F_a \max$.

When installing a tire on the flange drive adapter to use as a transfer carriage, calculate the radial load in consideration of the mass of the motor and flange drive adapter.



If the radial load or the axial load is exceeded the permissible value, the bearing or rotary of the flange drive adapter may be damaged.

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Please contact your nearest Oriental Motor office for further information.

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