

<Please read this manual before using the product.>

Introduction

Thank you for purchasing our product. A Simple Instruction Manual (this document) and a Detailed Instruction Manual are available for this product.

Related Instruction Manual

Table with 2 columns: Name, How to Obtain. Includes links to manuals and QR codes.

Safety Precautions

- Be sure to carefully read the contents described in this instruction manual to understand how to use the product correctly before using it.

Description of symbols

Table defining symbols: DANGER, WARNING, CAUTION with descriptions of hazardous situations.

Even items described in "CAUTION" may lead to a serious results depending on the situation.

The types of contents to be observed are explained with classification by graphical symbols below.

Table mapping symbols to their meanings: "What You Must Pay Attention To," "Burn Hazard," "Electric Shock Hazard," "Fire Hazard," etc.

DANGER

If the product is used in a device such as a personnel transport device, make sure to install a protective device for safety purposes.

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If the product is used in an elevator, install a safety device on the device side to prevent it from falling.

Use an explosion-proof motor that complies with operation under the explosive atmosphere.

Never perform operations with wet hands. Failure to follow this precaution may result in electric shock.

Do not work while the product is energized. Be sure to turn off the power before work.

Make sure to ground the grounding terminal. Otherwise, it may result in electric shock.

Make sure not to come close or touch the rotating parts (output shaft, etc.) during operation.

WARNING

The operators in charge of installation, piping, wiring, operation, handling, maintenance and inspection should have enough knowledge and technical skill related to the product.

Be sure not to get water or oil/grease into the brake unit. Failure to follow this precaution may result in falling or out-of-control accident due to the decreased brake torque.

Do not repair, disassemble or remodel the product. Failure to observe this precaution may result in injury, fire, electric shock, and/or burns.

When performing a trial operation, fix the product in place and disconnect it from the machine.

CAUTION

Operate the product under the conditions specified in this instruction manual. Failure to follow this precaution may result in injury or damage to the equipment.

Do not expose the product to strong impacts/shocks. Failure to observe this precaution may result in failure of the product and/or injury.

Do not use the gearmotor under conditions other than specified on the nameplate or the product specification.

Do not use damaged products. Failure to follow this precaution may result in injury, fire, and/or damage to the device.

Do not insert fingers or objects in the open parts of the product. Failure to follow this precaution may result in electric shock, injury, fire, and/or damage to the device.

Do not remove the nameplate.

Products modified by a customer will not be covered by the warranty.

The product must be transported correctly in accordance with its weight. Otherwise, it may result in injury and/or failure.

Do not overload/over stack the products. Failure to follow this precaution may result in injury and/or equipment failure.

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When handling the gearmotor, be careful with the sharp edges/points of the device.

Do not stand on or place any heavy object on the product.

Do not put any combustible material near the product.

Do not put any object that may prevent air from being circulated around the product.

Be careful not to cause damage to the cable nor pull it strongly.

Immediately stop the operation if there is any abnormality.

Do not touch the gearmotor when the power is on or immediately after turning off the power.

Note

When disposing of the product, dispose of it as a general industrial waste.

Notice

We shall assume no responsibility or liability for any trouble caused by use that violates the caution instructions given on the left.

The contents of this manual are subject to change without notice.

We have made every possible effort to make the contents of this manual easy to understand.

Inspection upon unpacking

Checking package contents

Check for the following items when unpacking the package. Contact the dealer from where you purchased the product...

- (1) Is the information on the nameplate consistent with your order?
(2) Were any parts damaged during transportation?
(3) Are there any loose screws, bolts, and nuts?
(4) In the case of a gearmotor with a brake, is there a rectifier included in the package?

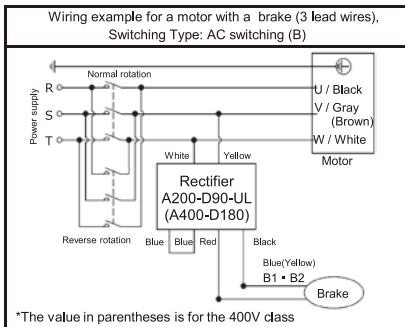
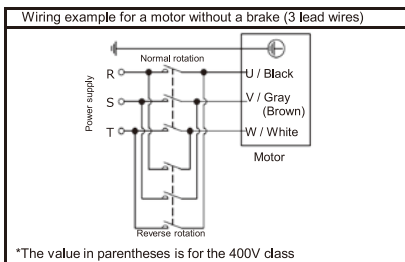
Wiring

- (1) Wire the gearmotor in accordance with the wire connection diagram.
(2) Since electric shock may occur, make sure to ground the grounding terminal.
(3) For the motor rotation direction of the connection below, "Forward" is defined as clockwise rotation seen from the back-side of the motor.
(4) The rectifier may become damaged due to improper connection.

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Wiring diagram (3-phase)

(Note) Typical wiring examples are shown below. For the wiring diagram, see detailed instruction manual.



Installation

Location

Table with 3 columns: Item, Standard specification, Water-resistant specification. Includes ingress protection (IP65), ambient temperature, humidity, and atmosphere requirements.

Orientation

No restriction on installation orientation. (Since it uses a grease lubrication system)

Procedure

- Foot mount, Flange mount: Secure the gearmotor with four bolts on a vibration-free and flat machine-processed surface.
Shaft mount (torque arm): The driven shaft must be able to carry the weight of the reducer.

Tightening torque for bolts for installation

Table showing tightening torque for different mounting hole sizes and bolt sizes in N·m, kgf·m, and lbf·in.

Operation

Pre-Operation Checks

- (1) Is the wiring correctly performed?
(2) Is the product correctly installed?
(3) Is the ground connection properly done?

Trial Operation Checks

- (1) Switch on for 1 to 2 seconds under no load to check the rotational direction before installing to the driven machine.
(2) Connect to the machine and operate at no load.

Routine Operation Checks

- (1) Refer to the details of the daily inspection and check the state of operation.
(2) Refer to the detailed instruction manual for the diagnosis when an abnormality occurs.

Daily inspection

Table with 3 columns: Inspection item, Method, Inspection Details. Covers load current, noise, vibration, surface temperature, and grease leakage.

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Regular Inspection

Table with 3 columns: Inspection item, Inspection frequency, Inspection Details. Includes mounting bolt, chain V-belt, motor insulation resistance, and gap amount.

Maintenance and Product Life

- All models are equipped with a grease lubrication system, and replenishment of grease is not required.
Although gearmotors have 10,000 hours of operating life, oil seals may need to be replaced before the 10,000 hour mark.
Though the oil seals and O-rings should prevent grease leakage from the motor, we recommend using additional protection such as oil pans.

Storage

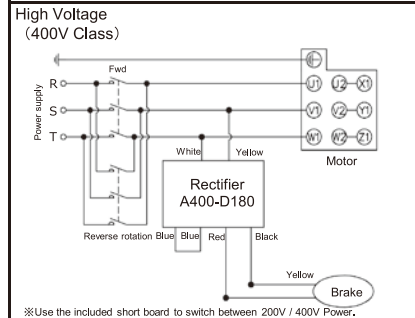
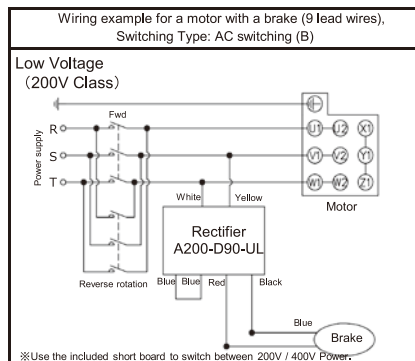
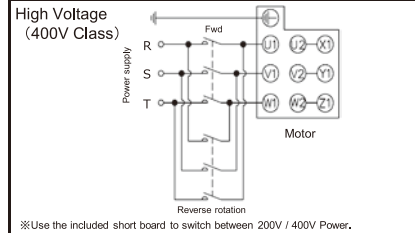
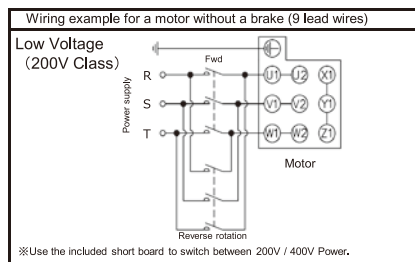
- (1) Storage location: When the product is stored for six months or longer, it shall be stored in a place indoors, with good ventilation.
(2) Operation during storage: To prevent the bearings from getting rusty, operate the motor every six months.

Terms and Conditions

- Full Terms and Conditions can be found at the link below.
www.brother-usa.com/GM-terms-conditions

Wiring diagram (3-phase)

(Note) Typical wiring examples are shown below. For the wiring diagram, see detailed instruction manual.



Efficiency values for High-Efficiency Gearmotor for Europe

Rated efficiency value under 50Hz and under 75% and 50% rated load. *Please refer to the product name plate for the rated efficiency at 100% load.

Large table showing efficiency (%) for various motor classes (IE2, IE3), powers (0.2kW, 0.4kW, 0.75kW, 1.5kW, 2.2kW), and voltages/frequencies.