

CURTAIN MOTORS

POWERFUL 3L·3L-HM·3L-HL 220V
POWERFUL 4P·4P-HM·4P-HL 220V

No.N-210011

First edition

INSTRUCTION MANUAL (FOR INSTALLATION CONTRACTORS)

Please read carefully before installation.

WARNING

Follow all the instructions described below. Incorrect installation can lead to severe injury.

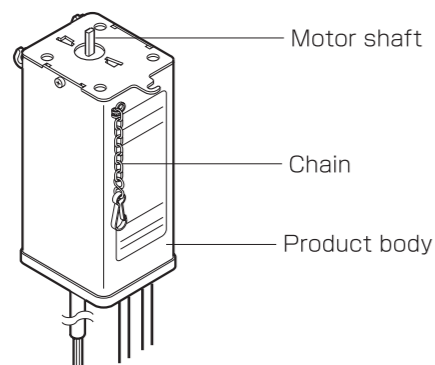
- ❶ Before installing the motor, remove any unnecessary electric wires and disable any equipment not required for powered operation.
- ❷ Curtain load and bracket intervals have to meet the specifications of each curtain track and motor.

PRECAUTIONS

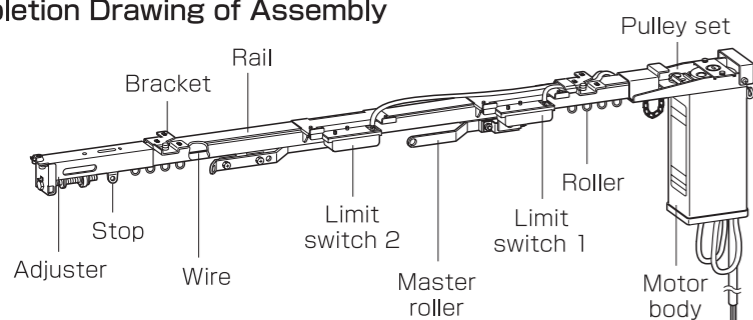
- ❶ This motor series is for indoor operations and not for outdoor operations.
- ❷ These motors are designed for open/close operation of curtains. If you discover that these motors are used for any purposes other than open/close operation of curtains, be sure to contact our business office.
- ❸ Do not disassemble any of these products.

GENERAL DRAWING OF PRODUCTS AND NAMES OF PARTS

Product Body



Completion Drawing of Assembly



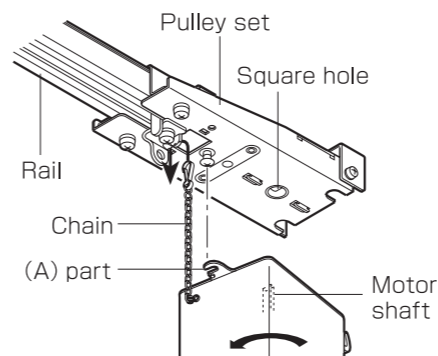
INSTALLATION PROCEDURES

PRECAUTIONS

- ❶ When attaching curtain rails, never damage the power line of the limit switch with an attaching screw, etc. Otherwise, it will cause a short circuit.
- ❷ Set the motor on a firmly attached curtain rail.

Setting the motor

- ❶ Align the motor shaft with the square hole of the pulley set. Then, insert the shaft into the hole in a vertical position.
- ❷ Turn the motor on the motor shaft, and firmly attach (A) part with a screw.
- ❸ Hang the chain onto the hole of the pulley set as shown in the drawing.

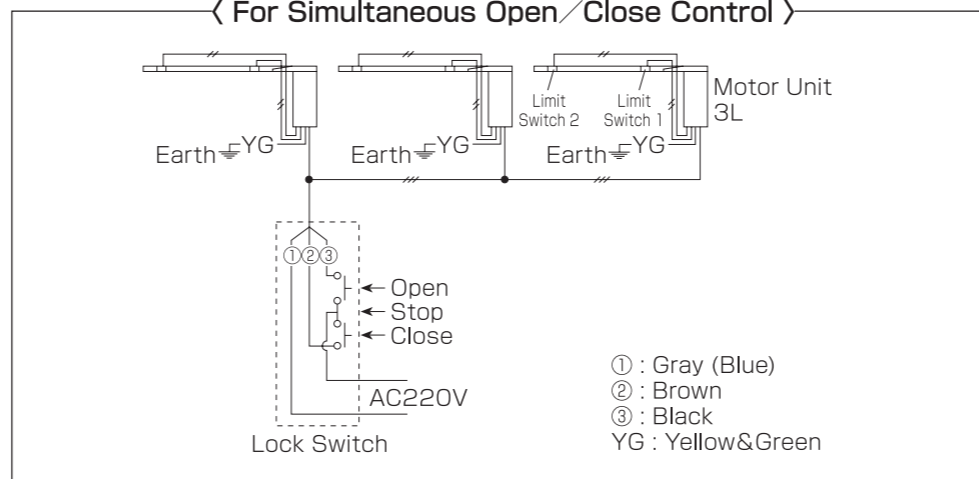


CONNECTION PROCEDURES

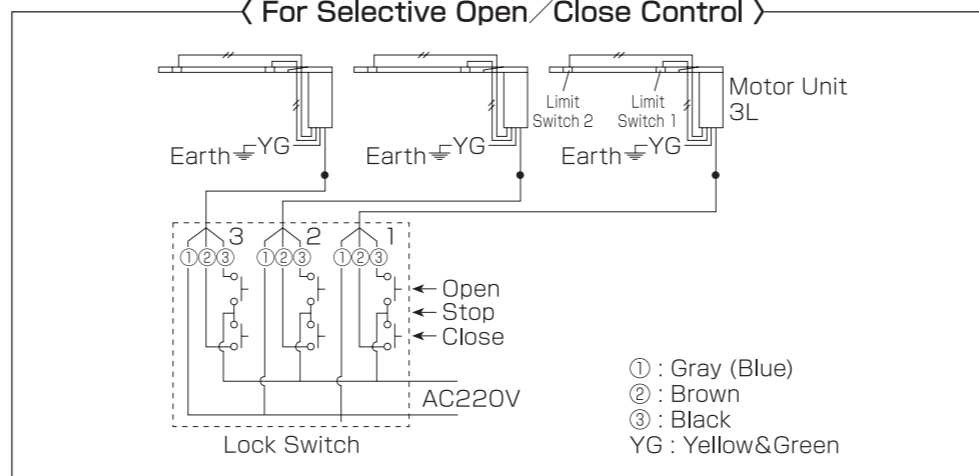
For the power lines and operating lines, consult with one of our staff members and an electrician.

POWERFUL 3L·3L-HM·3L-HL 220V

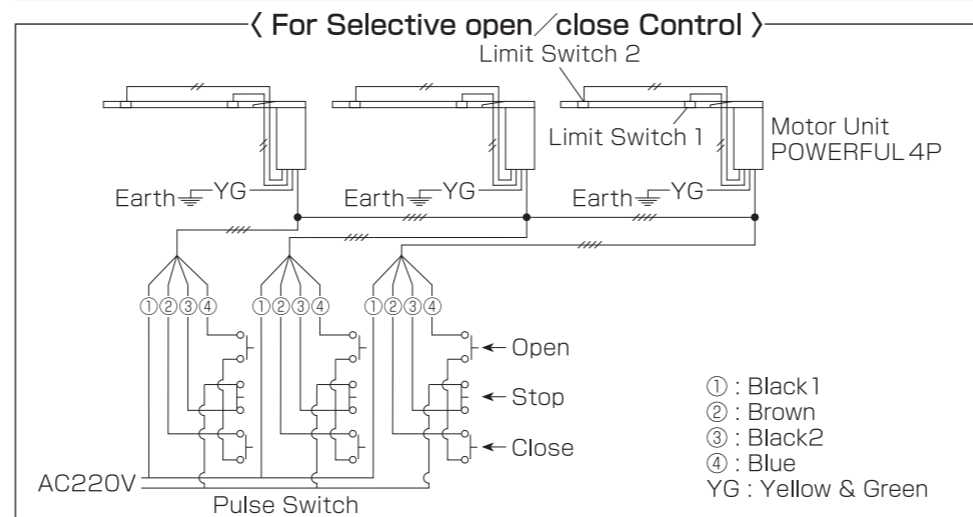
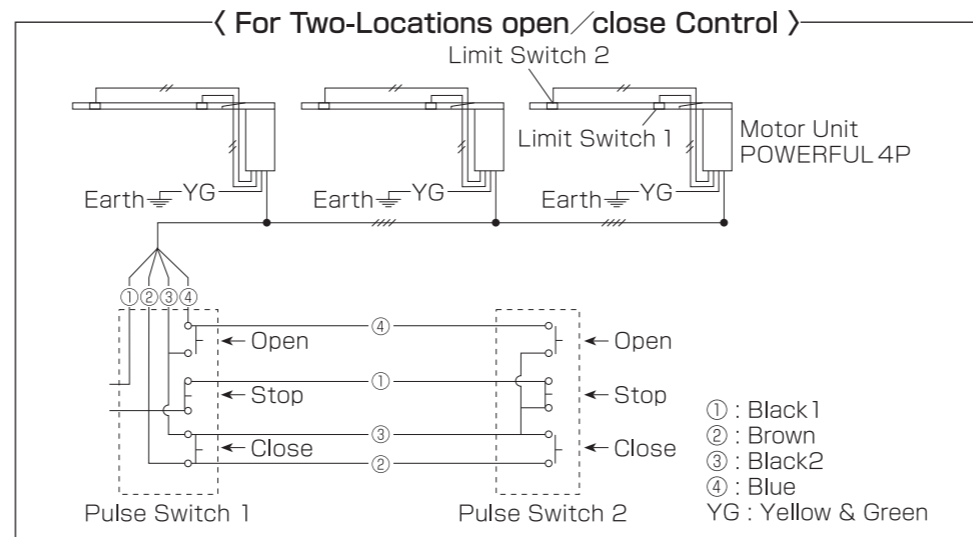
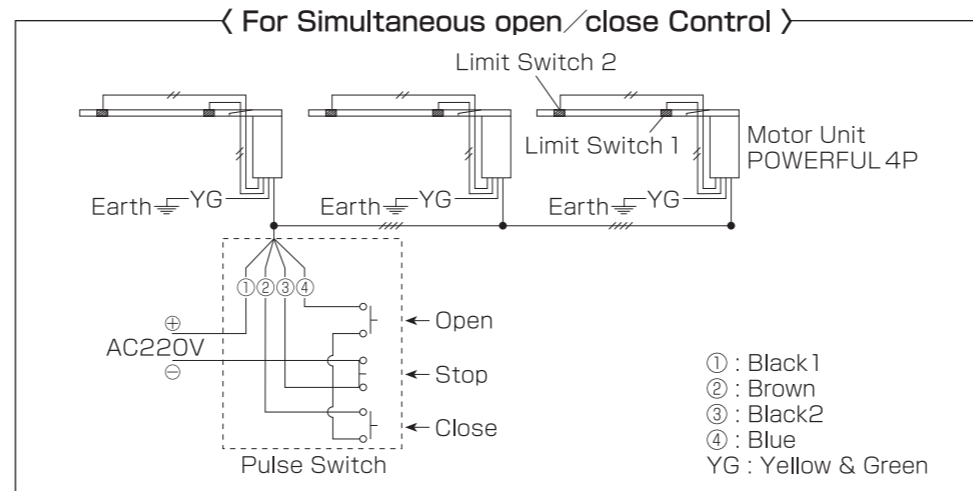
< For Simultaneous Open / Close Control >



< For Selective Open / Close Control >



■ POWERFUL4P, POWERFUL4P-HM·4P-HL 220V



■ CONFIRMATION OF OPERATION

- ① Make sure that there is no erroneous connection.
- ② Power ON
- ③ Use the switch to confirm the open/close operation of the master rollers.

If the open/close operation is abnormal, refer to TROUBLESHOOTING.

- ④ Confirm operation is normal before installing curtains.
- ⑤ Install the curtains to confirm the operation is normal.

■ TROUBLE SHOOTING

| TROUBLE | CHECK POINT |
|---|---|
| No operation at all. | Check power supply. Confirm plugs for Limit Switches are securely plugged into terminals "1" and "2" on the motor. |
| Operates only open or close. | Check plugs for Limit Switches. Confirm designated plugs are properly located in terminals "1" and "2" on the motor. |
| Operates either open or close and stops at Limit Switch but no reverse movement. Inside of the motor box buzzes when a push-button switch is pressed. | Reconnect Blue-or Black2-colored wire instead of Black1 wire in the terminal or in the switch. Holding down buzzerly noise may defect magnet relay in motor. |
| Reverse operation for a push-button switch. | Reconnect the Brown and Blue wires to the terminal or the switch if they are reversed. |
| Repeating movement between the Master Roller and Limit Switch. | At closing end (in the middle of rail) Width of curtain is shorter than distance of the Master Roller traverse way. Relocate Limit Switch to bring motor box closer At opening end (beside motor) Check distance shortage of the rollers store. Also check repulsive force from gathered pleats of thick curtain, when used. Relocate Limit Switch to keep motor away. |
| No movement of Master Roller while the motor and Pulley Set are rotating. | Check tension of wire for Master Rollers. Retight tension at wire fixing, right hand of Master Roller, or readjust tension adjuster. Confirm wire is correctly on the Pulley. |
| No opening when making shock noises. | Check locking of curtain hooks on arms of Master Rollers at right-and-left crossing point. Reform curtain hooks to escape from locking. |
| Motor dose not stop when Master Roller pressing Limit Switch and anomalous noise in motor. | Check plugs "1" and "2" for Limit Switches and terminals "1" and "2" on motor. Insert plugs in the terminals correctly. |
| Motor dose not rotate after repeating a long time running. | Wait 5 to 10 minutes. Motor is equipped with overheating protection. |
| Roller travel is not smooth or produces noise. | Check wires. Confirm wires are not being crossed, nor interfering with Pulley Set, Roller, or Adjuster stopper. Rearrange wires and reset rollers. |
| Dragging noise during open or close operation. | Check for high wire tensioning. Readjust tension by loosening the screw on the Adjuster or loosening the wire-securing screw of the Master Roller (R). |

■ PRODUCT SPECIFICATIONS

| Item | | Powerful 4P/3L | Powerful 4P-HM/3L-HM | Powerful 4P-HL/3L-HL | | | |
|--|----------------|----------------------|----------------------|----------------------|----|---------------|--|
| Power source voltage | V | AC220 | AC220 | AC220 | | | |
| Frequency | Hz | 50 | 50 | 50 | | | |
| Power source current | A | 0.4 | 0.4 | 0.4 | | | |
| Power consumption | W | 85 | 85 | 85 | | | |
| Operating voltage | V | same as power source | same as power source | same as power source | | | |
| Operating current | A | same as power source | same as power source | same as power source | | | |
| Rated torque | N·m | 1.4 | 2.5 | 4.9 | | | |
| Rotation speed | r.p.m | 84 | 42 | 21 | | | |
| Time rating | min. | 5 | 5 | 5 | | | |
| Overheating protection operating temperature | ℃ | 120±5 | 120±5 | 120±5 | | | |
| Opening and closing time | New Delac rail | sec/m | 5 | 9 | 18 | | |
| | Supertrac | | 5 | 9 | 18 | | |
| | Theatrac | | 3 | 6 | 12 | | |
| Maximum curtain weight | New Delac rail | kg | 30 | — | — | | |
| | Supertrac | | 80 | Straight | | 80 | |
| | | | | Sloping angle | | Sloping angle | |
| Theatrac | 80 | 100 | 120 | | | | |
| Maximum rail length | New Delac rail | m | 10 | — | — | | |
| | Supertrac | | 20 | 10 | 10 | | |
| | Theatrac | | 20 | 20 | 10 | | |

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