SESAME MOTOR CORP.

Induction Motor & Speed Reducer Installation Manual

Thank you for selecting SESAME products.
Please read this manual before operation.

ISO 9001
ISO 14001

Safety Standards: The safety standard marks are indicated on the nameplates of approved products.

1. Attention

1.1 Install preparation

- Please read this operation manual before using this motors. Any problems caused by inappropriate operation contrary with the manual, or damage caused by natural disasters, or restructure without our permission, Sesame will not take any responsibility nor will the motor / speed reducer be cover by warranty.
- Warranty is within one year after purchase. Within warranty period, if motor / speed reducer damage is not caused by operation error or by natural disaster, then please send back the product, we should replace the damaged spare part at free of charge.
- Before Installation, ensure correct voltage can be applied to motor
- Do not bend the lead wires.
- Installation should be proceeded by trained technicians only.
- Please wire motor correctly according to the manual to prevent fire or electrical shock.
- Do not attempt to disassemble or modify the motor to prevent electrical shock or injury.

1.2 Installation Conditions

The conditions below must be fulfilled to avoid any motor damage, which is not covered under warranty.

- The motor was designed to be installed on the other facilities/applications.
- Do not expose the motor to flammable or corrosive gas.
- Indoor application only. Room temperature should be maintained between -10 ~ +50℃ (-10~+40℃ for motor with capacitor)
- The air humidity should not exceed 85%.
- The altitude of where the motor was installed should not exceed 1000 meter above the sea level.
- Do not expose the motor to the sunshine directly. Dust and spray of oil/water is also forbidden.
- Avoid any continuous vibration or impact on the motor.
- Ensure the motor was installed in a well ventilated location.

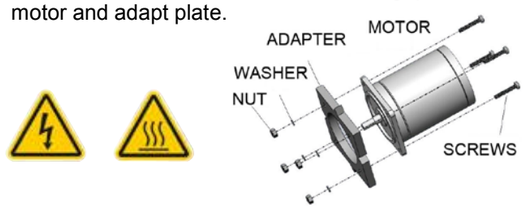
1.3 Preparation of start up

- Please check the power supply before starting the motor.
- High temperature might cause the coil and bearing failed earlier.
- Do not connect the motor with inverter.
- Motor might burn out if wrong wiring or overloaded.

2. Installation

2.1 Round shaft model

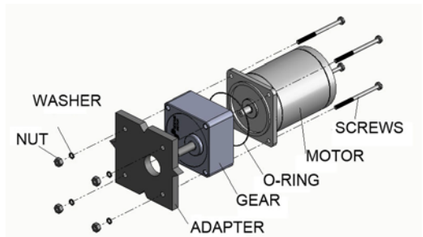
- Mount the motor on the adapt plate by screws. Make sure the motor and the adapter were tightly mounted. (Note that screws for connecting motor and machine were not included)
- Please note that there should be no gap between motor and adapt plate.



Flange dim. □ :	Screw	Tightening torque
60mm	M4	2.0 N ·m
70mm	M5	2.5 N ·m
80mm	M5	2.5 N ·m
90mm	M6	3.0 N ·m

2.2 Gear shaft model

- Install motor and speed reducer by turning speed reducer left and right when gently inserting motor gear shaft into speed reducer until no gap between the mounting surfaces. Insert the screws and tighten them. No hammer or force is allowed.



- O-rings are necessary for some specific models. Please install accordingly.

Attention

- Incorrect installation will damage gears and results in abnormal noise , short lifespan or accident. Please be alert.
- Installation is available only when speed reducer and motor output shaft have the same gear type. Please confirm the specification of both products before installation.
- Specification compatibility check is required before applying both products to other machinery or equipment.
- Sesame Motor Corp. is not responsible for any cause there might occur if user's neglects of specification compatibility checking.

Attention

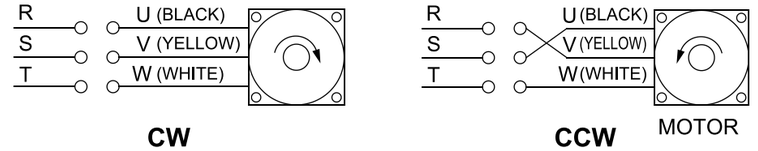
- The product must always be switched off before any work is performed on it (assembly, dismantling, maintenance, installation). The product must be disconnected from the electrical system and secured against being switched on again. All rotating parts must have come to a stop.
- Incorrectly performed electrical work can result in fatal injury! This work may only be carried out by a qualified electrician.
- The housing parts can heat up to well above 40°C. There is a danger of burns. After switching off, let the product cool down to ambient temperature.

3. Wiring Diagrams

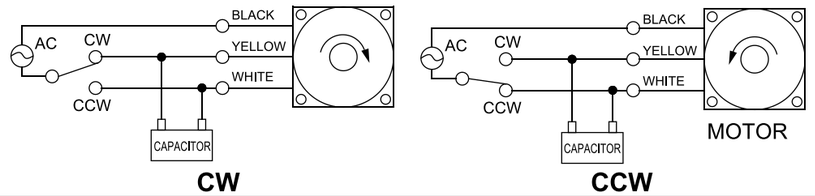
- The motor rotating direction was defined by looking toward the output shaft. In the forward direction for CW, reversed direction for CCW.
- 1 phase motor rotating direction change is available by switching wiring to CW. or CCW.
- 3 phases motor rotating direction change is available by switching any two wires of U, V, and W.

3.1 Induction / reversible motor

3.1.1 3 phases



3.1.2 1 phase

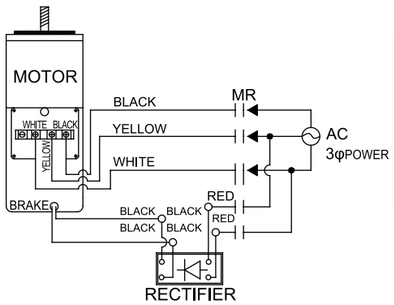


3.2 Brake motor

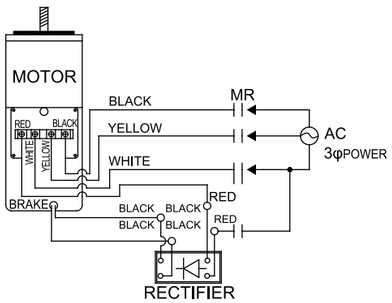
Attention

- The lining clearance will bigger than 0.3~0.35mm after a period of usage, please contact us to replace the lining.
- Isolating wiring is required when frequent braking condition.

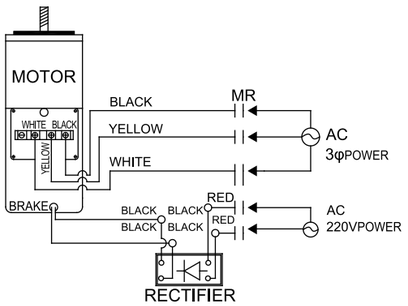
3.2.1
3 phases brake motor with terminal box. (220V / IP54)



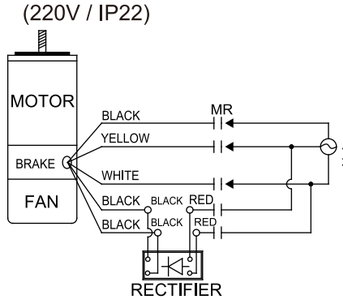
3.2.2
3 phases brake motor with terminal box. (380V~460V / IP54)



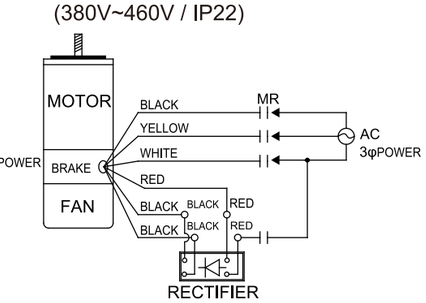
3.2.3
3 phases brake motor with terminal box. (460V~600V / IP54)



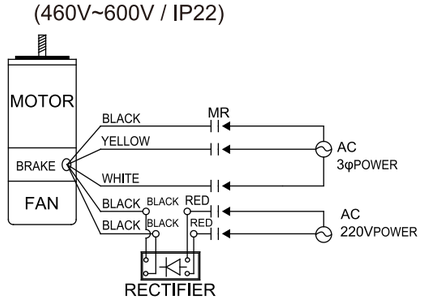
3.2.4
3 phases brake motor (220V / IP22)



3.2.5
3 phases brake motor (380V~460V / IP22)

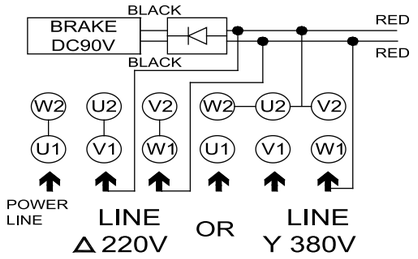


3.2.6
3 phases brake motor (460V~600V / IP22)

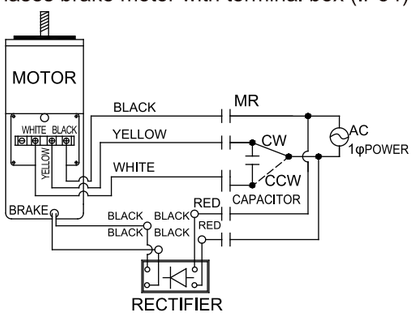


3.Wiring Diagrams(cont.)

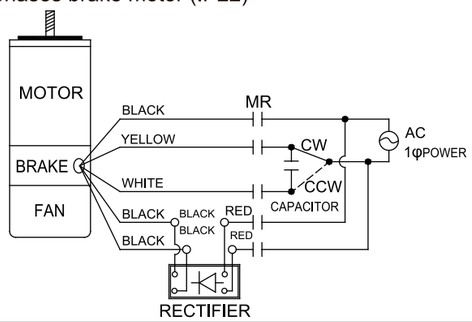
3.2.7
3 phases brake motor (dual voltage)



3.2.8
1 phases brake motor with terminal box (IP54)



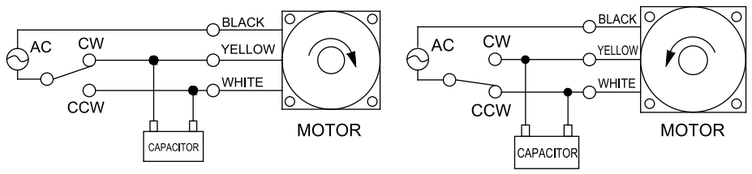
3.2.9
1 phases brake motor (IP22)



3.3 Torque motor

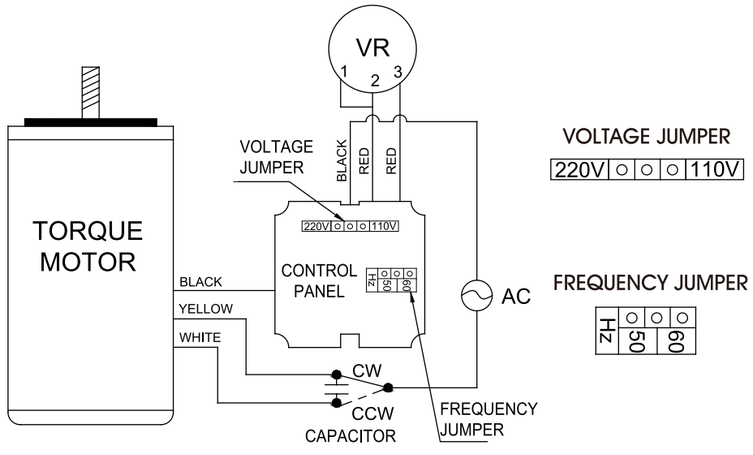
3.3.1 Standard type

- Motor rotating direction change is available by switching wiring to CW. or CCW.
- To adjust speed and torque, an external voltage regulator is needed.



3.3.2 Terminal box type

- Voltage regulator is installed in terminal box. Motor speed adjust is available by attached speed controller.

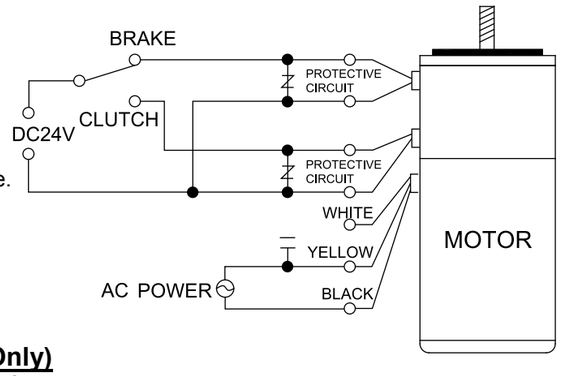


Attention

- Before operate terminal type torque motor, please make sure correct voltage and frequency jumper on the control panel to prevent motor burning down.

3.4 Clutch brake motor

- The power supply for motor (AC) and clutch brake (DC24V) must be separated.
- The output shaft keeps rotating when switch to clutch side after power supplied. As the switch is on the brake side, the brake will stop shaft rotation and keep great holding force.
- DC power off will release the brake and hence the output shaft rotates freely.



4. Installation of Capacitor (Single Phase Motor Only)

- Ensure the capacitor matches the specification of the motor before installation.
- Install the capacitor with M4 screws (not included).
- Capacitor should be installed inside the electrical box or IP54 rated box to avoid electric shock.

Attention

- To avoid damaging on the mounting foot, the screws tightening torque should not exceed 1 N.m.
- Install capacitor at least 10 cm away from motor to prevent heat damage to capacitor.
- Connect one wire in one terminal only.

5. Thermally Protected Motor Precaution

- Single phase thermally protected motor will restart automatically when motor temperature falls below a certain level. Always turn off the power before conducting checks or performing work on the motor.
- Thermal switch of three phases motor is installed with two red wires. Please connect two red wires to control system. Thermally protected motor will restart automatically when motor temperature falls below a certain level. Always turn off the power before conducting checks or performing work on the motor.

6. Trouble Shooting Guides

Please check the motor according to procedures below if abnormal situation.

- The motor does not work or the speed cannot be raised.
  - Check if the power supply fits the motor specification?
  - Confirm if the power supply is correctly connected?
  - Confirm if the motor is overloaded?
  - Confirm if the wires are poor connected when using crimping terminal or terminal block?
  - Confirm if the capacitor is well installed?
- The motor is over heated
  - Check if the power supply fits the motor specification?
  - Check if the room temperature is under the requirement (< 40℃)?
  - Confirm if the capacitor specification is correct?
- Noise
  - Check if the motor was blocked?
  - Check if a phase failure occurs?
  - Check if brake well functioning?
  - Check if the fan loosens?

- If the problem could not be solved via the procedures above, please DO NOT take apart the products, contact Sesame for technical support.

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