CAUTION

The servo amplifier is charged and you may get an electric shock.

Connect the CN5A of the converter module to the CN5A of the servo amplifier with the protection
incombustible material. Installing them directly or close to combustibles will lead to a fire.

Connect the wires to the correct phase terminals (U, V, W) of the servo amplifier and servo
motor. Not doing so may cause unexpected operation.

When operating or using the converter unit, servo amplifier, and servo motor, comply with
the environmental conditions given in the servo amplifier Instruction Manual and servo
motor Instruction Manual. Proper operation is required in order to prevent an accident.

Stacking in excess of the specified number of products is not allowed.

Do not connect AC power directly to the servo motor. Otherwise, a fault may occur.

WARNING

Handling of the SERVODrive servo amplifier was discontinued in December 2015.

MITSUBISHI ELECTRIC CORPORATION

1.1 Introduction to the manuals

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DISPOSAL OF WASTE

The low voltage directive applies also to servo units alone. This servo is designed to comply with the directive. Do not test servo with a megger (measure insulation resistance), or it may damage the servo. Servo amplifier :MR-J2S-30K (a) Check for loose terminal block screws. Retighten any loose screws. (b) Check the cables and the like for snags and childproof. Perform periodic inspection according to operating conditions. (c) Check the servo motor switch for sticking and baseline. (d) The following parts must be changed periodically as listed below. If any part is found faulty, it must be changed immediately even when it has not yet reached the end of its life, which depends on the operating method and environmental conditions. For use in the atmosphere having much soil, dust, etc., clean and inspect every three months. For parts replacement, please contact your sales representative.

Battery transportation

The revision (Edition 44) of the Dangerous Goods Rule of the International Air Transport Association specifies different transportation restrictions on the air transportation of batteries. However, since the battery used for this servo amplifier (Mitsubishi) is not dangerous goods (Class 9), transportation at 2 or below 100,000 times of the forced stop frequency. However, this value changes by the difference of the power supply capacity. If any part is faulty, it must be changed (A) servo wire or terminal block wires. If the terminal block is damaged, the value of the forced stop frequency will be reduced. If a part is faulty, it must be changed. (1) Overload Protection Characteristics

An electronic thermal relay is built in the servo amplifier and contactor unit to protect the servo amplifier, contactor unit and servo motor from overloads. The operational characteristics of the electronic thermal relay are shown below. It is recommended to use an infilled thermal sensor generator. Large Capacity Servo has a main servo motor overload protection. The motor full load current is 115% rated current. (2) Installation

Large Capacity Servo has been approved as the products which have been installed in the electrical equipment. The minimum operating voltage is based on 150V. And also, design the amount of the ambient temperature in the enclosure in CLASS 1F7A "A". The servo amplifier must be installed in the metal cabinet. For environment, the units should be used in open type UL-150 and overhead category III or lower. The converter unit and servo amplifier needs to be installed at the below of pollution degree D. For connection, use copper wires. (3) Overload current rating (ISCO)

Suitable For Use A Circuit Capability of Furthermore Not More Than 100 ka 1mm Symmetrical Ampere 300 Volts Maximum. (4) Flange

Always use the servo motor at a flange which has the following size or produces an equivalent or higher bending stress effect.

امرها تشمل:
- \text{MR-J2S-55K}  
- 30(AWG2)  
- \text{MR-H45K}  
- 30K1  
- \text{37K1M}  
- \text{MR-H30K}  
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(9) Performing EMC tests

When EMC tests are run on a machine/device into which this servo has been installed, it must satisfy the operating environment/electrical equipment specifications. For the other EMC directive guidelines on converter unit and servo amplifier, refer to the EMC Installation Manual.

(10) Overload protection characteristics

An electronic thermal relay is built in the servo amplifier and contactor unit to protect the servo amplifier, contactor unit and servo motor from overloads. The operational characteristics of the electronic thermal relay are shown below. It is recommended to use an infilled thermal sensor generator. Large Capacity Servo has a main servo motor overload protection. The motor full load current is 115% rated current. (1) Converter unit

The converter unit, servo amplifier and servo motors which standard product. MR-J2S30-50K does not have any options.

(1) Environment

Operator converter unit and servo amplifier at above Pollution degree 2 (set in CLASS 1F7A). For this purpose, install the servo amplifier in a box which is protected against moisture, oil, dust, dirt, etc. (IP54).

(5) Grounding

To prevent an electric shock, the protective parts of the servo amplifier must be connected to the protective earth terminal of the control box. Do not connect two ground cables to the same protective earth terminal. Always connect cables to the terminal to be used. (8) Performing EMC tests

When EMC tests are run on a machine/device into which this servo has been installed, it must satisfy the operating environment/electrical equipment specifications. For the other EMC directive guidelines on converter unit and servo amplifier, refer to the EMC Installation Manual.

(11) Protection

The wires to be connected to the terminal block of the servo amplifier must have crimping terminals provided with insulating tubes to prevent contact with adjacent terminals. (7) About wiring protection

For installations with the UL Standard, use UL approved copper wires rated at 60°C/105°C or less. (6) Options, peripheral devices

Use the shielded wire-cable bundle (UL1569 Listed CMR) (indicated in the table below).

(2) Structures

Configuration diagram of MR-J2S series to conform with UL/cUL Standard is shown below. (8) Installation

Large Capacity Servo has been approved as the products which have been installed in the electrical equipment. The minimum operating voltage is based on 150V. And also, design the amount of the ambient temperature in the enclosure in CLASS 1F7A "A". The servo amplifier must be installed in the metal cabinet. For environment, the units should be used in open type UL-150 and overhead category III or lower. The converter unit and servo amplifier needs to be installed at the below of pollution degree D. For connection, use copper wires. (3) Sheath-current rating (ISCO)

Suitable For Use A Circuit Capability of Furthermore Not More Than 100 ka 1mm Symmetrical Ampere 300 Volts Maximum.

(4) Flange

Always use the servo motor at a flange which has the following size or produces an equivalent or higher bending stress effect.