2. To prevent fire, note the following

**CAUTION**
- Install the servo amplifier, servo motor and regenerative resistor on insulating material. Installing them directly on concrete or insulating materials will result in fire or smoke. If the power supply lines, such as a busbar or lead wire, are flammable, cut them off from the servo amplifier, and configure the wiring as to isolate them from the power feed. Even if the servo amplifier is disconnected, continue the flow of a large current may cause a fire when the servo amplifier is energized.
- When a regenerative resistor is included, be sure to replace the regenerative resistor with a new one, as the resistor becomes faulty over time.
- A regenerative resistor is essential. The current may become too large, which may damage the regenerative resistor, motor, and other components.
- Never use fire extinguishers other than fire extinguishers to put out fire.
- The fire extinguisher should be placed near the firewall of the machine or room. Fire can spread rapidly if not extinguished quickly.

3. To prevent injury, note the following

**CAUTION**
- Be sure to handle the amplifier, servo motor, and regenerative resistor carefully. Otherwise, you may cause an injury or damage to the machine.
- Do not touch the amplifier directly, as it may cause an injury or damage to the machine.
- Do not use fire extinguishers other than fire extinguishers to put out fire.
- The fire extinguisher should be placed near the firewall of the machine or room. Fire can spread rapidly if not extinguished quickly.

4. Additional instructions

The following instructions should also be fully noted. Incorrect handling may cause a fault, injury, electric shock, etc.

(1) Transportation and installation

**CAUTION**
- Do not use the transportation option that is not approved. Otherwise, an injury or damage to the machine may occur.
- When transporting the equipment, use transportation equipment that is approved. Otherwise, the machine may be damaged.
- Do not transport the equipment by hand, as it may cause an injury or damage to the machine.
- Do not transport the equipment with other equipment, as it may cause an injury or damage to the machine.

(2) Wiring

**CAUTION**
- Do not connect AC power directly to the servo motor. Otherwise, it may cause a malfunction, injury, or death.
- Do not connect AC power directly to the regenerative resistor. Otherwise, it may cause an injury or death.
- Do not connect AC power directly to the regenerative resistor. Otherwise, it may cause an injury or death.
- Do not connect AC power directly to the regenerative resistor. Otherwise, it may cause an injury or death.

(3) Test run adjustment

**CAUTION**
- Before starting the test run, make sure that the test run is performed in an air-conditioned, clean room.
- Before starting the test run, make sure that the test run is performed in an air-conditioned, clean room.
- Before starting the test run, make sure that the test run is performed in an air-conditioned, clean room.
- Before starting the test run, make sure that the test run is performed in an air-conditioned, clean room.

(4) Usage

**CAUTION**
- Do not use the equipment in the presence of combustible gases. Otherwise, an injury or fire may occur.
- Do not use the equipment in the presence of combustible gases. Otherwise, an injury or fire may occur.
- Do not use the equipment in the presence of combustible gases. Otherwise, an injury or fire may occur.
- Do not use the equipment in the presence of combustible gases. Otherwise, an injury or fire may occur.

1.2. Contents of the packaging

After unpacking, check the rating plate to confirm that the servo amplifier you received is as you ordered.

1.3. Model code definition

(1) Rating plate

(2) Model code

The following describes what each of a model name indicates. Note that not all the combinations of the symbols may be available.

MR-J2S-10A  MR-J2S-700

- The order code of the packaging
- The year and month of manufacture
- Model
- Country of origin
- Serial number
- Model code

2. COMPLIANCE WITH THE CE MARKING

2.1. What is the CE marking?

The CE marking is mandatory and must be affixed to specific products placed on the European Union. When a product conforms to the requirements, the CE marking must be affixed to the product. The CE marking is affixed to the product to demonstrate that the product complies with the applicable EU regulations.

(1) EMC directive

The EMC directive applies to the servo units alone. This servo is designed to comply with the EMC directive. The EMC directive also applies to the servo incorporated machines and equipment. When the equipment is operated, the servo motor is inserted into the machinery. In this case, refer to the appropriate directive for compliance with the EMC directive. For specific EMC directive conforming methods, refer to the “EMC Guideline.”

(2) Low voltage directive

The low voltage directive applies to servo units alone. This servo is designed to comply with the low voltage directive.

2.2. For compliance

Be sure to perform the import inspection or equipment inspection of your country before installation. In addition, make sure to perform the import inspection on the machine, and make sure to perform the import inspection on the machine.

(1) Servo amplifier and servo motor


(2) Structure

(3) Environment

- The servo amplifier is set at a pollution degree of 2 or less in EN 60664-1. For this reason, install the servo amplifier in a cabinet in which specific environment, water, dust, dirt, etc. (dirt).

(4) Power supply

- The AC power supply to the servo motor must meet the requirements of the so-called voltage category "2." (See EN 60664-1 for details.)
- For the indoor power supply use, make sure that the power supply voltage is supported (see EN 60664-1 for details.).

(5) Grounding

- The ground connection should be of the following: "2." (See EN 60664-1 for details.)
- The servo amplifier is connected to the protective earth terminal (PE) of the cabinet.

- The ground connection should be of the following: "2." (See EN 60664-1 for details.)
- The servo motor is connected to the protective earth terminal (PE) of the cabinet.
(1) It is a leakage current breaker to be used to prevent an electric shock, the protective earth (PE) terminals of the servo amplifier must be connected to the corresponding earth terminals.

(2) The wires to be connected to the terminal block of the servo amplifier must have spring terminals provided with insulating inserts to prevent contact with adjacent terminals.

(3) Use the servo motor side power supply connection which connects with the KSN. The KSN compliant power supply connection sets are available or options.

(4) The servo amplifier must be installed in the vertical position.

(5) Peripheral devices, options

(6) Use the shielded circuit breaker and magnetic contactor models which are KSN compliant and according to the relevant catalog. The Cirrus model is required for 100V.

(7) The wires of the group given in the MR-204A-C Servo Amplifier Instruction Manual meet the following conditions: See wiring type conditions, Table 1-6 and Table 2-1 from KSS 802/81

(8) Capacitor discharge time

The capacitor discharge time is as follows. To ensure safety, do not touch the charging section for 15 minutes after power-off.

(9) Options, peripheral devices

(10) The UL, CF, and CE indicate the European standard.

3. CONFORMANCE WITH UL/ULC STANDARD

This servo amplifier complies with UL 508C and CSA C22.2 No.14 standard. Refer to section 3.11 for the servo amplifier main names described in the tables and figures.

(1) Servo amplifier and servo motor used

Use standard servo amplifiers and servo motors.

Note: Use standard servo amplifiers and servo motors.

Table: Recommended crimping terminals

Table: Recommended crimping terminals

(2) Installation

The MR-204 series have been approved as the products which have been installed in the following conditions. The minimum clearance is shown above 100% of each MR-204 series.

(3) Toroidal current rating (SCCOS)

(4) Change Mount the servo motor on a flange which has the following size or produces an equivalent or higher level of demagnetization effect.

(5) About wiring protection

For installation in United States, branch circuit protection must be provided, in accordance with the Wiring with Electrical Code and any applicable protection codes. For installation in Canada, branch circuit protection must be provided, in accordance with the Electrical Code and any applicable protection codes.

(6) Capacitor discharge time

The capacitor discharge time is as follows. To ensure safety, do not touch the charging section for 15 minutes after power-off.

(7) Options, peripheral devices

Use the UL, CF, and CE indicate the European standard.

(8) About wiring protection

For installation in United States, branch circuit protection must be provided, in accordance with the Wiring with Electrical Code and any applicable protection codes. For installation in Canada, branch circuit protection must be provided, in accordance with the Electrical Code and any applicable protection codes.

(9) Capacitor discharge time

The capacitor discharge time is as follows. To ensure safety, do not touch the charging section for 15 minutes after power-off.

(10) Overload Protection Characteristics

An electronic thermal relay is built in the servo amplifier to protect the servo motor, servo amplifier and power source from overload. The overcurrent characteristics of the electronic thermal relay are shown below. It is recommended to use an unshielded temperature generated machine, such as an axial motion shaft, or that unshielded and untempered is not more than the lowest 10% of its rated current. The machine needs to be installed at least at a level of pollution degree 2. For connection, use copper wires.

(11) Short-circuit current rating (SCCOS)

(12) Change

Mount the servo motor on a flange which has the following size or produces an equivalent or higher level of demagnetization effect.

(13) Over-current protection for motor

Motor Over temperature sensing is not provided by the drive.