1 INVERTER INSTALLATION AND PRECAUTIONS

When cleaning the inverter, make sure to turn off the power and let the inverter cool down. Using a vacuum cleaner, remove dust, dirt, and other dirt from the inverter. Do not use a sprayer or other spray because this may cause electric shock.

1.1 Installation precautions

- Make sure that the installation location is suitable for the inverter. This inverter is designed to be used indoors. Do not use in the following places:
  - Places where corrosive gas, flammable gas, oil mist, dust, dirt, or water may enter
  - Places subject to high temperatures or high humidity
  - Places subject to vibration or shock
  - Places subject to extreme temperature changes

- Before installing the inverter, check that the input power voltage is within the specified range. The input power voltage is 380 VAC (50 Hz/60 Hz).

- Always install the inverter in a suitable location that allows easy access to the inverter for maintenance and inspection.

1.2 Precautions for using the inverter

- Always use the inverter for the intended purposes.
- Do not use the inverter for purposes other than those specified in the instruction manual.
- Always use the inverter for the intended motor.

2 INSTALLATION AND WIRING

2.1 Removal and reinstallation of covers

- Removal of the front cover (FR-E820-0010(0.4K) or lower, FR-E820S-0000(0.1K) or lower)

- Reinstallation of the wiring cover (FR-E820-0050(0.75K) or lower, FR-E820S-0030(0.4K) or lower)

2.2 Main circuit terminal layout and wiring to power supply and motor

- Three-phase 200-400 V class

3 Table of parameters

- The table lists the parameters of the inverter.
- The table includes the parameter number, parameter name, and parameter description.
- The parameter number is a unique identifier for each parameter.
- The parameter name is a descriptive name for the parameter.
- The parameter description is a brief explanation of the parameter's function.

4 Details on the main circuit terminals and the control circuit terminals

- The tables list the terminals of the inverter.
- The tables include the terminal number, terminal name, and terminal function.
- The terminal number is a unique identifier for each terminal.
- The terminal name is a descriptive name for the terminal.
- The terminal function is a brief explanation of the terminal's function.

5 Applicable cables and wiring length

- The tables list the applicable cables and wiring length for the inverter.
- The tables include the cable type, wiring length, and notes.
- The cable type is a description of the cable type.
- The wiring length is the maximum length of the cable.
- The notes include any additional information about the cable type or wiring length.

6 Safety Information

- The safety information includes important safety precautions for using the inverter.
- The safety information includes the following:
  - Do not connect a resistor directly to the DC terminals.
  - Do not use the inverter for purposes other than those specified in the instruction manual.
  - Always use the inverter for the intended motor.

7 Specifications

- The specifications include the technical specifications of the inverter.
- The specifications include the following:
  - Input voltage: 380 VAC
  - Output voltage: 200-400 V
  - Motor rating: 0.1K to 7.5K
  - Power supply: AC powersupply
  - Frequency setting: 50 Hz/60 Hz
  - Power factor: 0.4

8 (a) Insert a tool such as a flathead screwdriver into the half-hole above the figure above.

(b) Insert the hooks of the cover into the sockets of the wiring cover, and reinstall the cover and wiring cover to fix the inverter.

(c) Note that sterilization or disinfection of wood packages should be performed before packing the product.
### 2.6 Control circuit terminal layout

<table>
<thead>
<tr>
<th>Terminal Block</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1, A2, A3</td>
<td>Input lines for control circuits</td>
</tr>
<tr>
<td>B1, B2, B3</td>
<td>Output lines for control circuits</td>
</tr>
<tr>
<td>C1, C2, C3</td>
<td>Additional input/output lines</td>
</tr>
</tbody>
</table>

### 3.1 Components of the operation panel

<table>
<thead>
<tr>
<th>Component</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start/Stop</td>
<td>Begin/cancel operation</td>
</tr>
<tr>
<td>Jog</td>
<td>Manual operation control</td>
</tr>
<tr>
<td>Parameter setting</td>
<td>Access to settings</td>
</tr>
<tr>
<td>Fault display</td>
<td>Monitor fault conditions</td>
</tr>
<tr>
<td>Current display</td>
<td>Monitor current values</td>
</tr>
</tbody>
</table>

### 4.1 Wiring method

- Use crimp terminals and stripped wire for the control circuit wiring.
- If only a single wire is used, the wire can be stripped and used without a ferrule.
- Connect the end of wires (crimp terminal or stranded wire) to the terminal block.
- • Crimp terminals commercially available (as of December 2019.)

### 4.2 Specifications

- **Power supply capacity:**
  - With DC reactor: 2.5, 4.5, 6.8, 8.2, 12.0, 19.0, 25.0, 32.0kVA
  - Without DC reactor: 1.2, 2.0, 3.0, 4.6, 7.2, 9.1, 13.0kVA

### 5.1 List of fault displays

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>No fault detected</td>
</tr>
<tr>
<td>001</td>
<td>Over-current</td>
</tr>
<tr>
<td>002</td>
<td>Under-voltage</td>
</tr>
</tbody>
</table>

### 6.1 Inverter rating

- **Three-phase 400 V class**
- **Three-phase 480 V class**
- **Single-phase 200 V class**

### 7.1 Instructions for compliance with the EU Directives

- **CE**
- **LVD**
- **EMC**
- **RoHS**
- **WEEE**

### 7.2 Instructions for UL and CUL

- **UL**
- **CUL**

### 7.3 SERIAL number check

- **Unit model:**
- **Unit type:**
- **Serial number:**

### 7.4 Instructions for EAC

- **EAC**

### 7.5 Restricted Use of Hazardous Substances in Electronic and Electrical Products

- **Restriction of the Use of Hazardous Substances in Electrical and Electronic Products**

### 7.6 Referenced Standard (Requirement of Chinese standardized law)

- **GB 7258-2017**
- **GB 15052-2015**
- **GB 4989-2017**

### 8. WARRANTY

- **Specifications and quality:**
- **Term:**
- **Conditions:**

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