

### 3. Operation

#### 3-1 Inspection and Preparation before Operation

Check the following before operation:

- ① Check that the connection is correct.  
In particular, check that the power supply is not connected to any of the U, V, and W output terminals and that the ground terminal is securely grounded.
- ② Check for short-circuits and ground faults between the terminals and live sections.
- ③ Check for loose terminals, connectors, or screws.
- ④ Check that the motor is separated from mechanical equipment.
- ⑤ Turn off switches before turning power to ensure that the inverter will not start or operate abnormally at power-on.
- ⑥ Check the following after power-on:
  - a. Check that no alarm message is displayed on the keypad panel (see Figure 3-1-2).
  - b. Check that the fan inside the inverter is rotating. (For inverters with 2HP or more)

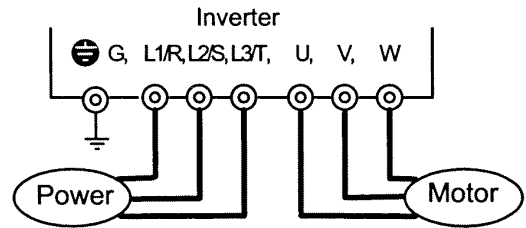


Fig. 3-1-1 Inverter connection


 <b>WARNING</b>	<p>Be sure to put on the surface cover before turning on the power (close). Never remove the cover while the power is applied to the inverter. To ensure safety, do not operate switches with wet hands.</p> <p><b>Electric shock may result</b></p>
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Fig. 3-1-2 Display on keypad panel at power-on

#### 3-2 Operation Method



There are various methods of operation. Select a method of operation according to operating purpose and specifications by referring to Section 4-2, "Operating the Keypad Panel," and Chapter 5, "Explanation of Functions." Table 3-2-1 lists general operation methods

#### 3-3 Trial Run

Upon confirming that inspection results are normal (see Section 3-1), proceed with a trial run. The initial operation mode (set at factory) is using the keypad panel.

- ① Turn power on and confirm that frequency display 0.00Hz is blinking on the LED monitor.
- ② Set the frequency to about 5Hz using  key.
- ③ To start the run, press **FWD** key (for forward rotation) or **REV** key (for reverse rotation). To stop, press **STOP** key.
- ④ Check the following items :
  - a. Is the rotating direction correct?
  - b. Is the rotation smooth? (no buzzing or abnormal vibration)
  - c. Is acceleration and deceleration smooth?

**Table 3-2-1 General operation methods**

Operation command	Frequency setting	Operation command
Operation using keypad panel	Keys on keypad panel  	<b>FWD</b> <b>REV</b> <b>STOP</b>
Operation using external signal terminals	Freq. Setting POT (VR), analog voltage, analog current	Contact input (switch) Terminals FWD-CM and REV-CM

If no abnormality is detected, increase the frequency and check the above items again. If the results of the trial run are normal, start a formal run.

- Notes:**
- If an error is detected in the inverter or motor, immediately stop the operation and attempt to determine the cause of error referring to Chapter 7, "Troubleshooting."
  - As voltage is still applied to the main circuit terminals (L1/R, L2/S, L3/T) and auxiliary control-power terminals (R0, T0) even when the output from the inverter is terminated, do not touch the terminals. The smoothing capacitor in the inverter is being charged after the power is turned off and it is not discharged immediately. Before touching an electric circuit, confirm that the charge lamp is off or a multimeter is indicating a low voltage at the terminals.