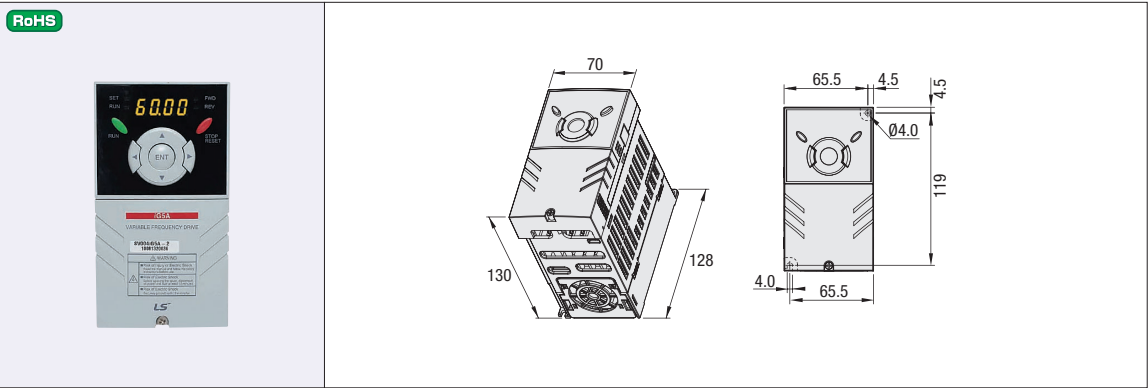


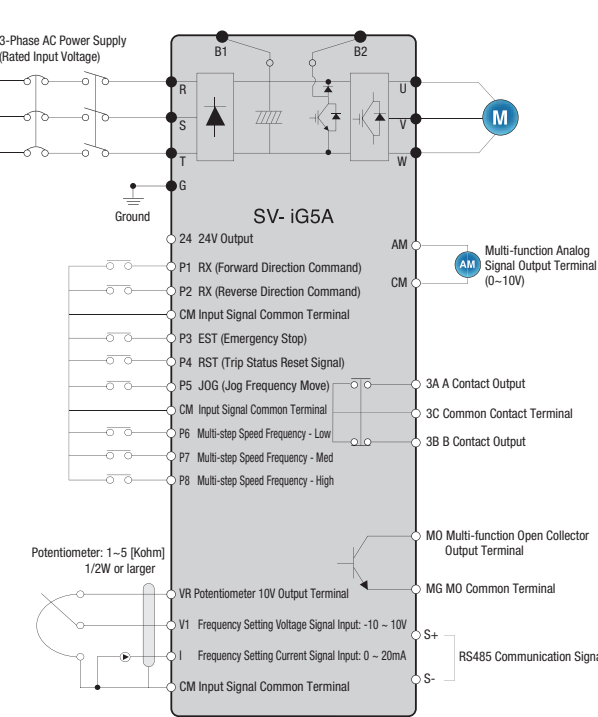
# Inverter Overview



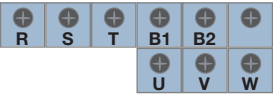
## Basic Specifications

MISUMI Part Number		SV004-IG5A-2		
Specification	Motor Power Rating (kW)	0.4	Spontaneous	15msec. or less: Continued Operation
	Rated Input Voltage (V)	Three-phase 200~230V (+10%, -15%)	Power Interruption	15msec. or more: Automatic Re-start Operation Possible
	Rated Input Frequency (Hz)	50~60	Protection	Open (IP20)
	Rated Output Power (kVA)	0.95	Ambient Temperature	-10~+50°C
	Rated Output Current (A)	2.5	Ambient Humidity	Relative Humidity 90%RH or less (No condensation)
	Rated Output Frequency (Hz)	0.1~400	Altitude, Vibrations	1,000m or less, 5.9m/sec <sup>2</sup> (0.6G) or less
	Weight (kg)	0.76	Ambient Atmospheric Pressure	70~106kPa
	Cooling	Naturally Cooled	Environment	No corrosive gas, flammable gas, oil mist, dust in room
Operations		Choose from: Main Unit / Terminal Block / Communications / Remote Loader Analog 0~10 (V), -10~10 (V), 0~20 (mA), 4~20 (mA) Digital Keypad (Main Unit)		

## Terminal Diagram



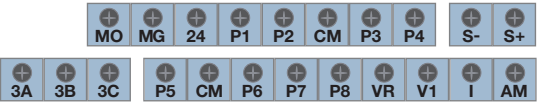
### Power Circuit Terminals



Terminal Label	Terminal Name	Explanation
R,S,T	AC Power Input	Connect commercial AC power
U,V,W	Inverter Output	Connect a 3-phase motor

Electrical Wire Size (mm <sup>2</sup> )	Terminal Screw	Ground
2	M3.5	Type 3 Grounding

### Control Circuit Terminals



Electrical Wire Size (mm <sup>2</sup> )		Terminal Screw	Tightening Torque
Single Wire	Stranded Wire		
1.0	1.5	M2.6	0.4

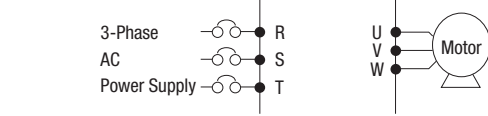
## Inverter Initial Settings

The default Inverter configuration is set to operate RUN/STOP button, and the frequency is changed with the cursor keys on the main unit.

Item	Parameter
Operations	Main Unit
Output Frequency [Hz]	50
Display	Output Frequency
Direction	Forward Rotation
Accel./Decel. Time [Sec.]	3 Seconds
Frequency Setting Range [Hz]	10-120

See the inverter manual for the setting changes.

### Motor Connection Diagram



Inverter Output	Panasonic	Oriental	Taiwanese
U	White	Red	Yellow
V	Gray	White	Black
W	Black	Black	White

If rotates in reverse direction: Swap two of the leads.  
Reverse the inverter directional command.

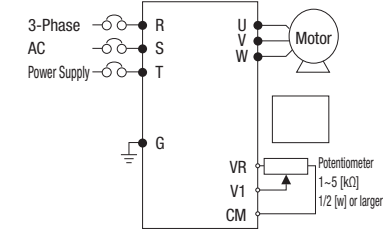
## Operation

- Wire according to the connection diagram.  
Be sure to properly connect Power: R, S, T, Outputs: U, V, W wires. If incorrectly wired, the Inverter may be damaged.
- When the power is turned ON and RUN button is pressed, the conveyor will start. If the default run direction needs to be reversed, re-adjust the unit accordingly.

## Example

**Example 1:** Using a potentiometer to vary the speed, and starting and stopping with the RUN/STOP key on the main unit.

### Connection Diagram 1

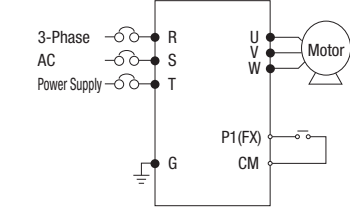


1		Apply power to the Inverter.
2	0.00	Confirm that the Inverter display shows as on the left. Press UP key (▲) 4 times.
3	Frq	The Inverter is now in the mode where frequency setting method can be changed. Press ENTER key (●).
4	0	The Frequency setting mode is currently set to 0 (main unit). Press UP key (▲) 3 times.
5	3	Press ENTER key (●) after confirming that 3 shows on the display. Press the ENTER key (●) once more while the display 3 is blinking.
6	Frq	When "Frq" is displayed, the frequency adjustment is changed to an external potentiometer. The frequency can be changed by rotating the external potentiometer.

When using an external potentiometer, the variable frequency will be 60Hz or below. If speed increase is desired, use the keypad on the main unit.

**Example 2:** When setting the speed at the main unit, and starting and stopping with a switch wired to the terminal block.

### Connection Diagram 2



1		Apply power to the Inverter.
2	0.00	Confirm that the Inverter display shows as on the left. Press UP key (▲) 3 times.
3	dru	The Inverter is now in the mode where operation command method can be changed. Press ENTER key (●).
4	0	The operation command mode is currently set to 0 (main unit). Press DOWN key (▼).
5	1	Press ENTER key (●) after confirming that 1 shows on the display. Press the ENTER key (●) once more while the display 1 is blinking.

## Cautions on BIDIRECTIONAL operations

For bidirectional operation, conveyors with the guided belts are recommended.  
Belts without the guide are adjusted for the lateral movement with the default direction at the time of shipping, and the belt may start to have lateral movement or slack.