

The Simple and Compact Inverter



J1 Inverter – Efficient, Reliable, and Smart

In today's market, businesses are looking for **cost-effective solutions** without sacrificing quality. Many applications don't require high-end features — so why pay for more than you need?

That's why OMRON developed the **J1 Inverter**: a compact, affordable solution designed specifically for **low-end applications**, where the balance between **performance**, **functionality**, and **price** truly matters.

Ideal solution for a wide range of application




Designed for stability, it features stall prevention functions to ensure smooth operation during load or power supply fluctuations.

Quick reaction response against external disturbances thank to Dynamic Torque Vector Control.

Avoid overvoltage trip thanks to automatic deceleration control.

Overload prevention control automatically decreasing the frequency until the inverter cools down.

Slow flow-rate stopping function for stopping fan or pump at speed lower than a low limit is added for keeping lowest speed, to realize further energy-saving in conjunction with PID control.

Food & Commodity	Energy Saving	Others
		
Beverage, Fruit, Agriculture, Bakery etc.. Material Handling Applications: <ul style="list-style-type: none">• Conveyors System s• Mixer	Water Treatment Variable Torque Applications: <ul style="list-style-type: none">• HVAC• Pumps• Fans	General Purpose Variety of Applications: <ul style="list-style-type: none">• Noodle-making machine• Woodworking machinery

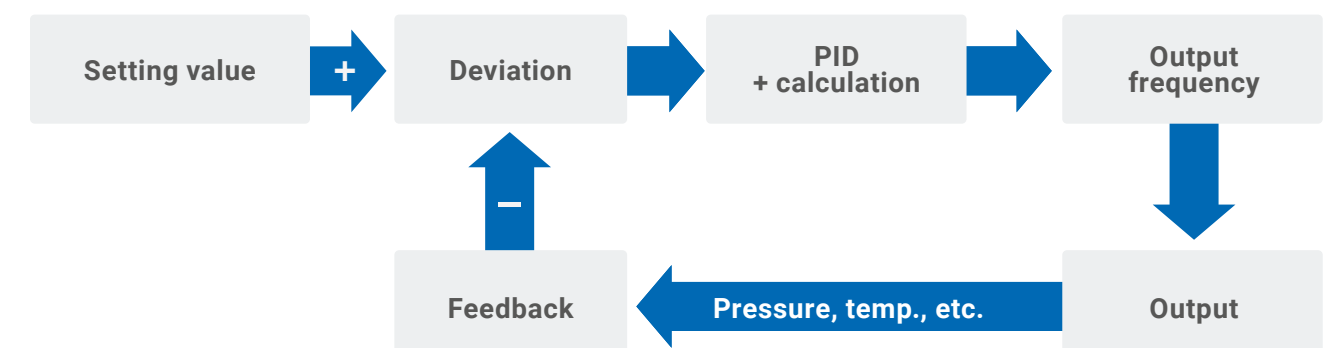
Equipped with PID control function

PID control is used to eliminate disparities in actual measurement values and target values for such applications as those involving instrument control employed for fans and pumps, facilitating the control of temperature, flow rate, and pressure with proportional action (P), integral action (I), and derivative action (D).

Proportional, Integral and Derivative adjustable parameters adaptable for each system (temperature, pressure, etc.).

Set Value (SV) selectable between keypad, analog input, UP/DOWN function, communications or multistep.

Equipped with PID control function



Installation

Side-by-side mounting is possible



For inverters installed side-by-side, maximum ambient temperature is **+40 °C**

Connectivity

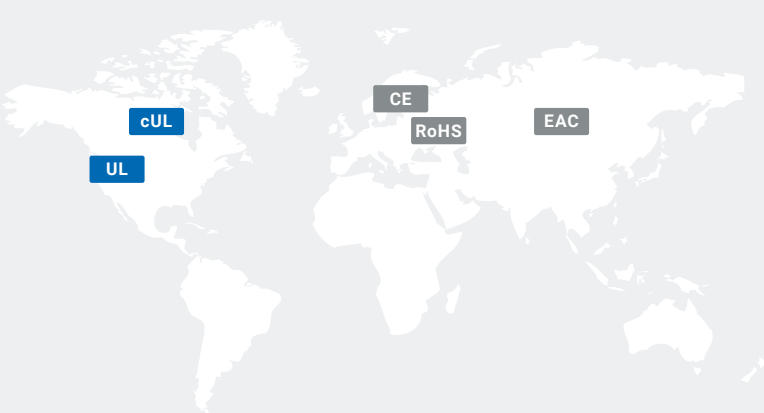
Equipped with RS-485 as standard

Designed for seamless integration, J1 enables reliable multi-drop connections at the inverter's terminals. It supports Modbus communication, ensuring efficient and flexible data exchange across your network.



Certifications

Corresponding to the main international standards



- **UL Standards (USA)**
- **cUL Approval (Canada)**
- **CE Marking (Europe)**
- **Restriction of Hazardous Substances (Europe)**
- **EAC (Eurasian and Russia)**



Programming

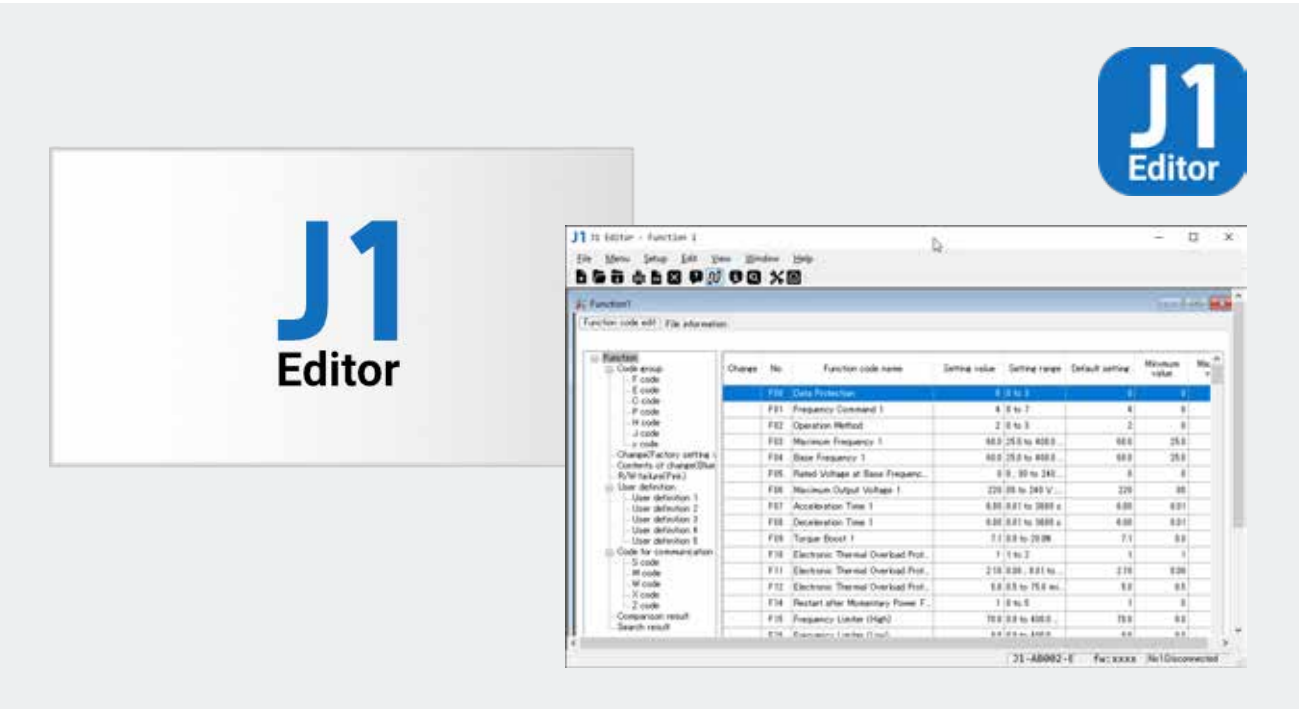
Sysmac Studio Support

One software for programming, configuration and monitoring. User friendly and helpful GUI for drive configuration by Sysmac Studio Drive Edition.



Simple and Intuitive Programming Software

J1 Editor is a lightweight 100KB tool ideal for new users. It offers basic functionality like parameter editing and upload/download. Trace is not included, and the software is completely free to use.



Product Scope

Low-End Inverter J1



0.4 to 2.2kW 1ph 200V
0.4 to 3.7kW 3ph 400V
IP20

Product	Description
J1-A4004-E	J1 AC Drive, 0.4 kW, 1.8 A, 400 VAC, 3~ input, max. output freq. 400 Hz
J1-A4007-E	J1 AC Drive, 0.75 kW, 2.5 A, 400 VAC, 3~ input, max. output freq. 400 Hz
J1-A4015-E	J1 AC Drive, 1.5 kW, 4.3 A, 400 VAC, 3~ input, max. output freq. 400 Hz
J1-A4022-E	J1 AC Drive, 2.2 kW, 6.3 A, 400 VAC, 3~ input, max. output freq. 400 Hz
J1-A4037-E	J1 AC Drive, 3.7 kW, 10.5 A, 400 VAC, 3~ input, max. output freq. 400 Hz
J1-AB004-E	J1 AC Drive, 0.4 kW, 3.5 A, 200 VAC, 1~ input, max. output freq. 400 Hz
J1-AB007-E	J1 AC Drive, 0.75 kW, 4.2 A, 200 VAC, 1~ input, max. output freq. 400 Hz
J1-AB015-E	J1 AC Drive, 1.5 kW, 9.2 A, 200 VAC, 1~ input, max. output freq. 400 Hz
J1-AB022-E	J1 AC Drive, 2.2 kW, 10 A, 200 VAC, 1~ input, max. output freq. 400 Hz

Notes

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Would you like to know more?

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