

10. Options

10-1 Built-in Options

The inverter supports two internally mounted cards. One option card is mounted under the main cover (Location A) and the other option card is mounted in a special adapter under the keypad (Location B). Only one card can be mounted in these locations. There are two different types of option cards, Type 1 and Type 2. You cannot use two Type 1 or Two Type 2 cards but you can mix any combination of Type 1 and Type 2 provided you only have one option per mounting location. Each option card must be mounted in the designated location. The chart below lists the option card, their types, and their mounting locations.

Name	Type	Loc	2nd Option Type/Loc	Function
OPC-G11S-RY (Relay output card)	1	A	2/B	<ul style="list-style-type: none"> Relay output card The transistor output from the inverter control output terminals Y1 and Y4 are converted to the relay output (1SPDT).
OPC-G11S-DIO (Digital interface card)	2	A	None	<ul style="list-style-type: none"> Frequency setting by binary code (max. 16 bits) Monitoring (8 bits) of frequency, output current, and output voltage
OPC-G11S-AIO (Analog interface card)	2	A	None	<ul style="list-style-type: none"> Auxiliary input for analog frequency setting (0 to +/-10 V) Monitoring of inverter output frequency, current, and torque in analog voltage, analog output 0-10 VDC and 4-20mA
OPC-G11S-PG (PG Feedback Card) (G11S only)	1	A	2/B	<ul style="list-style-type: none"> This will enable vector control by pulse generator feedback signal Proportional operation, tuning operation (12/15 V; A, B Signal)
OPC-G11S-PG2 (PG Feedback Card) (G11S only)	1	A	2/B	<ul style="list-style-type: none"> This will enable vector control by pulse generator feedback signal Proportional operation, tuning operation (5V; A, not A, B, not B Signals)
OPC-G11S-SY (Synchronized operation card) (G11S only)	1	A	2/B	<ul style="list-style-type: none"> Two motors are driven synchronously.
OPC-G11S-PDP (Communication card)	2	B	1/A	<ul style="list-style-type: none"> Serial communication card for Profibus-DP
OPC-G11S-DEV (Communication card)	2	B	1/A	<ul style="list-style-type: none"> Serial communication card for Device Net
OPC-G11S-COP (Communication card)	2	B	1/A	<ul style="list-style-type: none"> Serial communication card for CAN
OPC-G11S-MBP (Communication card)	2	B	1/A	<ul style="list-style-type: none"> Serial communication card for Modbus plus
OPC-G11S-IBS (Communication card)	2	B	1/A	<ul style="list-style-type: none"> Serial communication card for Interbus-S

10-2 Separately Installed Options

Name (Type)	Explanation	Installation Position
Arrester (CN2323Z) (CN2324E)	Absorbs power surges from the power source and protects the whole equipment connected to the power source.	
EMC compliance filter (FS5536-□□-07) (EFL-□□SP-2) (EFL-□□G11-4) (RF3□□□-F11)	An exclusive filter to conform to the EMC Directive (emissions) in European standard. Note: Refer to the "Installation Manual" when installing the filter.	
Output circuit filter (OFL-□□□-2) (OFL-□□□-4) (OFL-□□□-4A)	Connected to the output circuit of the low-noise type inverter (Carrier frequency :8kHz to 15kHz, 6kHz when exceeding 40HP) and used for the following purposes. ① Voltage vibration suppression at the motor terminals. Prevent damage to the motor insulation by surge voltage for the 460V series inverter. ② Leakage current reduction on the output side wiring. Reduce leakage current by parallel operation by multiple motors or long-distance wiring. - Length of wiring should be 1300ft (400m) or less. ③ To reduce induced noise and radiating noise from output wiring. Effective in long-distance wiring such as plant lines. Note 1 : When OFL-□□□-2 or OFL-□□□-4 is connected, the setting value of the carrier frequency (F26) should be set to 8kHz or more. (6kHz or more when exceeding 40HP.) Note 2 : There is no restriction of carrier frequency (F26) when connecting the OFL-□□□-4A.	
DC reactor (DCR2-□□□) (DCR4-□□□)	(For power coordination) ① Used when the capacity of the power supply transformer exceeds 500kVA and exceeds the rated capacity of the inverter tenfold. ② Used when a thyristor converter is connected as a common load on the same transformer. - If the commutating reactor is not used for the thyristor converter, an AC reactor is necessary at the inverter input side. Confirm. ③ Used to prevent an inverter OV trip from occurring when the phase advanced capacitor in the power line is switched on and off. ④ Used when the voltage imbalance exceeds 2%. $\text{Voltage unbalance [\%]} = \frac{(\text{Max. Voltage [V]} - \text{Min. Voltage [V]})}{3\text{-phase average voltage [V]}} \times 67\%$ <p>(For improving the input power-factor and reducing harmonics) Used to reduce the harmonic current (improvement of power-factor). * For details on the degree of reduction, see the materials attached to the guidelines, etc.</p>	
Surge suppressor (SZ-Z□)	For magnetic contactor [Product of Fuji Electric Technica Co., Ltd.]	
Frequency meter (TRM-45)(FM-60)	Analog frequency meter (45, 60 square) [Product of Fuji Electric Technica Co., Ltd.]	
Frequency setting device (VR) (RJ-13BA-2)(WA3W-1kΩ)	Frequency setting variable resistor [Product of Fuji Electric Technica Co., Ltd.]	