

# Totally enclosed box type

Possible to bring into compliance with IP55 specifications!

- Operation panel
- Frequency setting potentiometer
- Operation switch
- Slots for additional switches (Two)
- Power switch for motor circuit breaker



<UL compliant type>

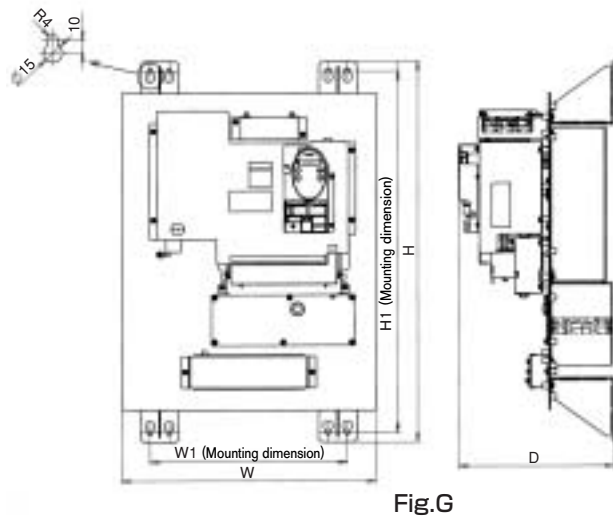
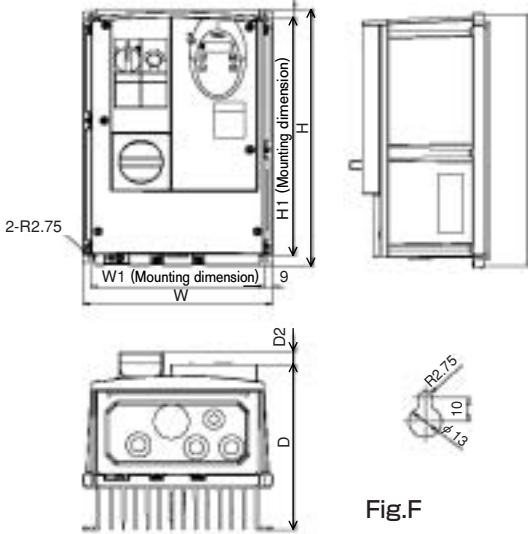


## Line-up

Input voltage class	Applicable motor (kW)									
	0.2	0.4	0.75	1.5	2.2	4.0	5.5	7.5	11	15
1-phase 240V	IP54									
3-phase 240V	IP54									
3-phase 500V	IP54					IP00				

- Totally enclosed structure compliant with IP54
- Built-in noise filter
- Equipped with all control devices as standard (Control devices compliant with IP55 specifications / All-in-one)
- Built-in motor circuit breaker
- Minimum wiring
- Cooling structure: Self-cooling type

## External dimensions



## External dimensions

Input voltage class	Applicable motor (kW)	Inverter type	Dimensions (mm)						Cabling hole	Drawing	Approx. weight (kg)
			W	H	D	W1	H1	D2			
3ph-240V	0.4	VFS11-2004PME	210	240	163.3	192	218	13.7	φ 19x3 φ 21x1	F	3.9
	0.75	VFS11-2007PME									
	1.5	VFS11-2015PME	215	297	192.3	197	277	13.7	φ 19x1 φ 23x3	F	5.9
	2.2	VFS11-2022PME									
3ph-500V	4.0	VFS11-2037PME	230	340	208.3	212	320	13.7	φ 19x1 φ 23x3	F	7.6
	0.75	VFS11-4007PLE	215	297	192.3	197	277	13.7			
	1.5	VFS11-4015PLE									
	2.2	VFS11-4022PLE	230	340	208.3	212	320	13.7			
	4.0	VFS11-4037PLE									
	5.5	VFS11-4055PLU	400	600	243	310	570	-			
	7.5	VFS11-4075PLU									
11	VFS11-4110PLU	450	700	267	340	670	-				
15	VFS11-4150PLU										
1ph-240V	0.2	VFS11S-2002PLE	210	240	163.3	192	218	13.7	φ 19x3 φ 21x1	F	4.0
	0.4	VFS11S-2004PLE									
	0.75	VFS11S-2007PLE									
	1.5	VFS11S-2015PLE	215	297	192.3	197	277	13.7	φ 19x1 φ 23x3	F	6.0
	2.2	VFS11S-2022PLE									
		230	340	208.3	212	320	13.7			7.6	

## Standard specifications \* Other specifications are the same as those of the standard type. See common specification on page 6.

Item		Specification										
Input voltage class		1 ph-240V input class / 3ph-240V input class / 3ph-500V input class						3ph-500V input class				
Applicable motor (kW)		0.2	0.4	0.75	1.5	2.2	4.0	5.5	7.5	11	15	
Model	Input voltage class	Form						Form				
	1 ph-240V class	VFS11S-	2002PLE	2004PLE	2007PLE	2015PLE	2022PLE	-	-	-	-	
	3ph-240V class	VFS11-	-	2004PME	2007PME	2015PLME	2022PME	2037PME	-	-	-	
3ph-500V class		VFS11-	-	-	4007PLE	4015PLE	4022PLE	4037PLE	4055PLU	4075PLU	4110PLU	4150PLU
Rating	Capacity(kVA) <small>Note 1)</small>	0.6		1.3	1.8	3.0/3.0/3.1	4.2	6.7/7.2	11	13	21	25
	Rated output current (A) <small>Note 2)</small>	1 ph-240V class	1.5 (1.5)	3.3 (3.3)	4.8 (4.4)	8.0 (7.9)	11.0 (10.0)	-	-	-	-	-
		3ph-240V class	-	3.3 (3.3)	4.8 (4.4)	8.0 (7.9)	11.0 (10.0)	17.5 (16.4)	-	-	-	-
		3ph-500V class	-	-	2.3 (2.1)	4.1 (3.7)	5.5 (5.0)	9.5 (8.6)	14.3 (13.0)	17.0 (17.0)	27.7 (25.0)	33 (30)
Output voltage <small>Note 3)</small>		240V class : 3ph-200V to 240V, 500V class : 3ph-380V to 500V						3ph-380V to 500V				
Overload current rating		150% -60 seconds, 200% -0.5 second						150% -60 seconds, 200% -0.5 second				
Power supply	Voltage-frequency	240V class : 1ph/3ph-200V to 240V -50/60Hz, 500V class : 3ph-380V to 500V -50/60Hz						3ph-380V to 500V -50/60Hz				
	Allowable fluctuation	Voltage +10%, -15% <small>Note4)</small> , frequency ±5%						Voltage +10%, -15% <small>Note4)</small> , frequency ±5%				
Protective method		IP54 Totally enclosed type (JEM1030) / Possible to bring into compliance with IP55						IP00 Open type (JEM1030) / Cooling fin mountable out side				
Cooling method		Self-cooling						Forced air-cooling				
Color		Munsel 5Y-8/0.5						Not painted				
Built-in filter		1ph and 500V class : High-attenuation EMI filter, 3ph-240V class : Basic filter						High-attenuation EMI filter				
Environments	Service environments <small>Note 6)</small>	Indoor, altitude 1000m or less. Place not exposed to direct sunlight and free from of corrosive and explosive gases.										
	Ambient temperature	-10 to +40°C						-10 to +40°C				
	Storage temperature	-25 to +70°C						-25 to +70°C				
	Relative humidity	20 to 93%						20 to 93%				
	Vibration	5.9 m/s <sup>2</sup> or less (10 to 55Hz)						5.9 m/s <sup>2</sup> or less (10 to 55Hz)				

Note 1: Capacity is calculated at 220V for the 240V class and at 440V for the 500V class.

Note 2: Indicates rated output current setting when the PWM carrier frequency (Parameter F300) is 4kHz or less. When exceeding 4kHz, the rated output current setting is indicated in the parenthesis.

Note 3: The maximum output voltage is equal to the input supply voltage.

Note 4: ±10% when the inverter is operated continuously (under a load of 100%).

Note 5: The factory default settings of the following parameters are different from those of the standard type.

The factory default settings of all other parameters are the same as those of the standard type.

For parameter settings, see the tables of parameters on page 10. periodically.

Title	Function	VF-S11 Standard type	VF-S11 Totally enclosed type
<b>F00d</b>	Command mode selection	1	0
<b>F00d</b>	Frequency setting mode selection	0	2

Note 6: Installation environment

• Install the inverter in a well-ventilated place and mount it on a flat metal plate in portrait orientation. Install the inverter so that it is not inclined more than ±10° from the vertical.

• Leave a space of 10 cm or more on the upper and lower sides of the inverter, and a space of 5 cm or more on each side.

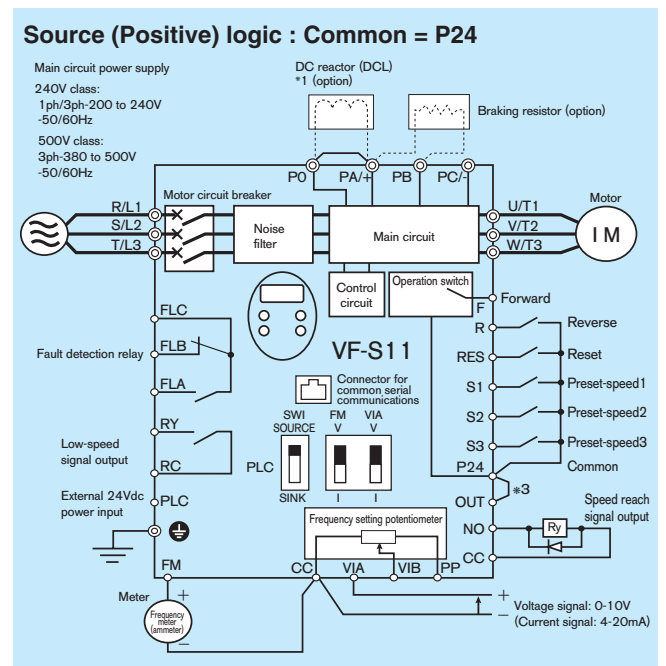
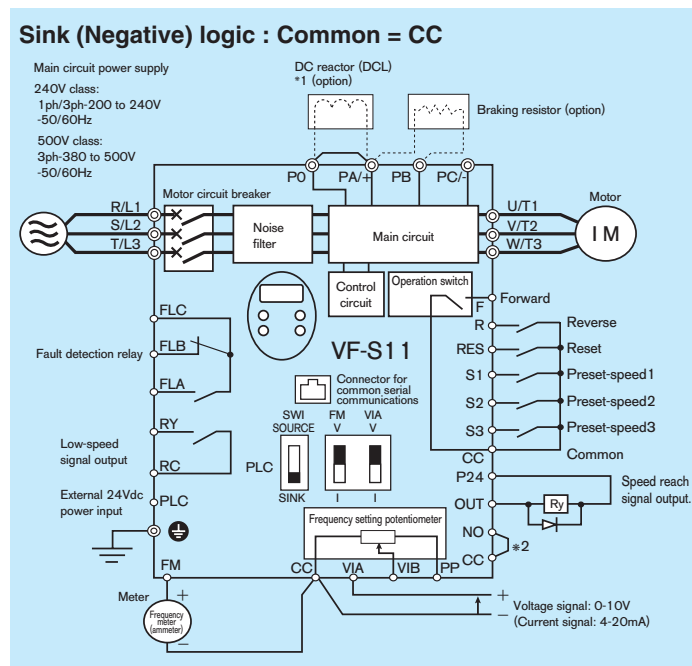
• The inverter has a cooling fan to circulate air in it. The cooling fan has a useful life of approximately 30,000 hours (2 to 3 years when operated continuously), so it needs to be replaced periodically.

## Compliance with IP55

IP54-compliant structures refer to structures that protect the contents from dust and harmful effects of water that drops from every direction. The inverter can be brought into compliance with IP55 specifications by making the wiring port watertight. (IP55-compliant structures refer to structures that protect the contents from dust and harmful effects of water that comes in a jet from every direction.)

Note) 500V class 5.5 to 15kW range are IP00 type.

## Standard connection diagram



\*1: The inverter comes with the PO and PA (positive) terminals short-circuited with a shorting bar. When connecting a DC reactor (DCL), detach the shorting bar.

\*2: When using the OUT output terminal in a sink logic configuration, do not short-circuit the NO and CC terminals.

\*3: When using the OUT output terminal in a sink logic configuration, do not short-circuit the P24 and OUT terminals.