



Automation for a Changing World

## **Delta IP55 Fan and Pump Drive CFP2000 Series**



[www.deltaww.com](http://www.deltaww.com)

 **DELTA**  
Smarter. Greener. Together.

# CFP2000

Delta's CFP2000 series is an AC motor drive specially designed for HVAC, fans & pumps, with an IP55 enclosure to provide effective protection from dust and other particles and to offer a wide range of many outstanding features and built-in functions that reduce setup and tuning time in operation.

The CFP2000 is equipped with a built-in EMC filter and a DC choke. This design replaces the need for external filters, saving valuable space for other devices, while providing the benefits of harmonic suppression and better performance. Various built-in functions are also included, which allow you to simply select the needed application in the parameter setting menu. If a higher level of safety standard is required, an optional main switch function is also available upon selection. With the addition of a keypad, IM/PM motors, real time clock, built-in 10k steps PLC capacity and various optional extensions, the CFP2000 can meet all your needs into one drive, it is your friendliest and smartest choice available in the industry.



and water treatment applications. It is designed with an good level of protection to water. In addition, it includes operation and provide higher efficiency.

The need for an electrical distribution cabinet and saves power quality to the system. Various parameter groups per group setting and the system setup is ready. If a higher ion. Other outstanding features include support for both vision cards. The CFP2000 series integrates all of your

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## Highlights



## Standard Models

Power range: AC 380 to 480V/3 phase

kW	0.75	1.5	2.2	3.7	4	5.5	11	15	18.5	22	30	37	45	55	75	90
HP	1	2	3	5	5	7.5	15	20	25	30	40	50	60	75	100	125
Frame Size	A					B				C		D0		D		

## Application



HVAC



Fans



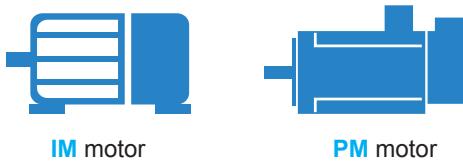
Chiller



Water treatment

# Features

## ► Motor controls



## ► Overload ability

Light duty:  
120% for 60sec  
Normal duty:  
120% for 60sec  
160% for 3sec



## ► I/O terminals

- 10 MI
- 3 AI
- Optional I/O extension cards
- 2 AO
- 3 relay



## ► Built-in STO SIL2



## ► Mains Switch (Optional)

- Available for all IP55 models 0.75kW to 90kW
- Allows users to turn off the power easily during daily maintenance and does not require an additional breaker box



## ► LCD Keypad

- Quick setting for frequent use modes and facilitates the installation process
- Multi-row display, Intuitive operation, user friendly operation interface
- Parameter management and copy
- Real time clock
- Multi-language: English, Spanish, Portuguese, French, Russian, Turkish, Polish
- TP Editor for users to define the display on the screen of the keypad



Create homepage logo



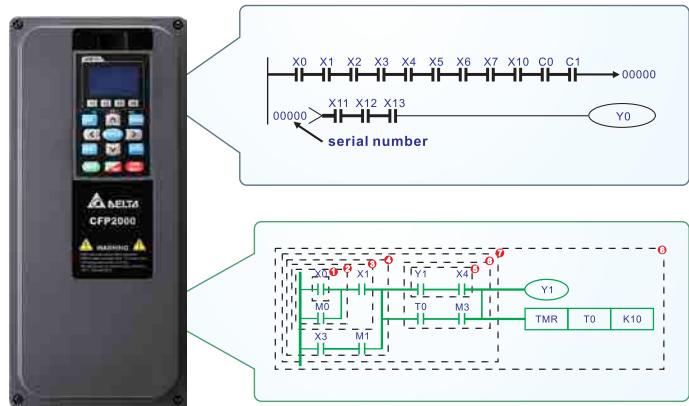
Editable message display



# Features

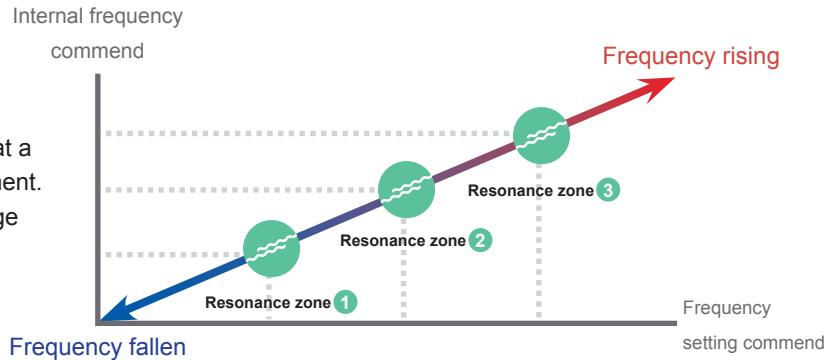
## ► Built-in PLC Function

- Built-in 10k steps PLC function supports independent and distributed control when connecting to a network system for high operation flexibility.
- Real Time Clock (RTC) function facilitates the PLC program writing process for ON/OFF chronology, daylight savings operation and many other settings.



## ► Skip Frequency

- Skip Frequency function avoids motor vibration at a specific frequency band and protects the equipment. User can restrict up to 3 zones of frequency range



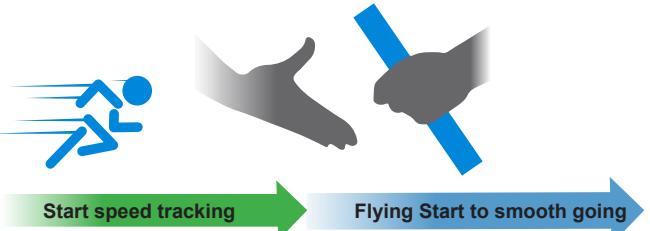
## ► Fire Mode

- Application: ventilation of buildings, tunnels, subways and more
- The drive will bypass the alarm warning in fire mode. When a fire occurs, it forces the drive to continue to operate to extract smoke or supplies water until the drive fails or runs out of emergency power
  - » Preset speed mode: set the drive to continue to operate under a preset speed
  - » BYPASS mode: the AC Mains Bypass breaker will bypass the drive and connect to the emergency power
- Fire mode with PID control: it balances the pressure between the stairwell and fire location to ensure the fire door can be easily opened



## ► Flying Start

- Ensures the drive runs smoothly under high inertial load without triggering the alarm, does not require the motor to stop
- When the drive restarts after momentary power loss (within 5s on LV), the speed searching allows the drive to activate flying start immediately and ensure a stable operation of the system without requiring the motor to fully stop in order to save time

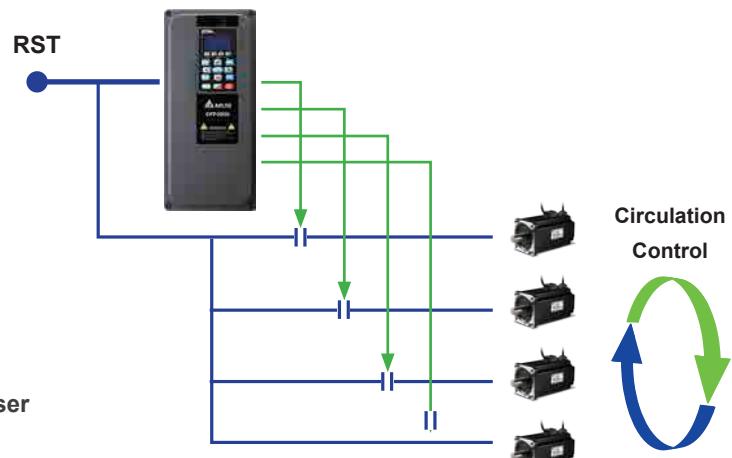


## ► Multi-pumps control

Built-in various modes for multi-pump control

- Fixed time circulation (by time)
- Fixed amount circulation (by PID)
- Fixed amount control (by PID)
- Fixed time circulation + fixed amount circulation
- Fixed time circulation + fixed amount control

Built-in 10k steps PLC function and RTC for user to program a time sequence control



## ► Parameter groups

Without parameter group.....



**CFP2000 parameter group function simplifies the drive setting procedures. Various applications are provided:**

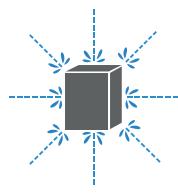
- 01 : User Defined
- 02 : AHU
- 03 : Fan
- 04 : Pump
- 05 : Compressor



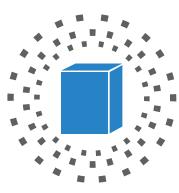
# Operating Environment

## ► Protection class

IP55 NEMA12



Water  
Resistant



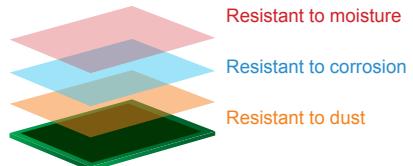
Dust  
Resistant

## ► Enhanced PCB coating

Standard:

**IEC 60721-3-3 class 3C3**

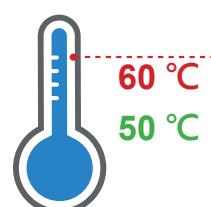
Protects PCB from gases such as salt, SO<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>S, and others to extend the product life when used in a water treatment application



## ► Operation temperature

Up to **50 °C** without derating

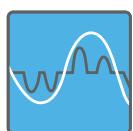
Up to **60 °C** with derating



## ► Built-in DC choke

Suppress harmonics

**THDi < 48%**



EN61000-3-12

## ► Built EMC filter

EN61800-3 C2 & C1\*



\*A zero phase reactor is required to fulfill EMC category C1

# Environment for Operation, Storage and Transportation

**DO NOT** expose the AC motor drive to harsh environments, such as dust, direct sunlight, corrosive/inflammable gasses, humidity, liquid or vibrations. The salts in the air must be less than  $0.01 \text{ mg/cm}^2$  every year.

<b>Ambient Conditions</b>	<b>Installation Location</b>	IEC60364-1 / IEC60664-1 Pollution degree 2, indoor use only			
	<b>Surrounding Temperature</b>	Storage / Transportation	-25 °C ~ +70 °C		
		Only allowed at non-condensation, non-frost, non-conductive environment.			
	<b>Rated Humidity</b>	Operation	Max. 95%		
		Storage / Transportation	Max. 95%		
		Only allowed at non-condensation, non-frost, non-conductive environment.			
	<b>Air Pressure</b>	Operation / Storage	86 to 106 kPa		
		Transportation	70 to 106 kPa		
	<b>Environment</b>	IEC60721-3-3			
		Operation	Class 3C3; Class 3S2		
		Storage	Class 1C2; Class 1S2		
		Transportation	Class 2C2; Class 2S2		
		Only allowed at non-condensation, non-frost, non-conductive environment.			
<b>Altitude</b>	Operation	If the AC motor drive is installed at altitude 0 ~ 1000 m, follow normal operation restrictions. If it is installed at an altitude of 1000 ~ 3000 m, decrease 1% of rated current or lower 0.5 °C of temperature for every 100m increase in altitude. Maximum altitude for Corner Grounded is 2000 m.			
<b>Package Drop</b>	Storage / Transportation	IEC60068-2-64			
<b>Vibration</b>	IEC 60068-2-6				
<b>Impact</b>	IEC/EN 60068-2-27				
<b>Operation Position</b>	Max. allowed offset angle $\pm 10^\circ$ (under normal installation position)				

## Specifications for Operation Temperature and Protection Level

<b>Model</b>	<b>Frame</b>	<b>Protection Level</b>	<b>Operation Temperature</b>
VFDxxxxFPxxx-52	Frame A ~ D: 0.75 ~ 90 kW	IP55/NEMA12	-10 °C ~ 50 °C

# Specifications

Frame Size		A							B					C		D0		D																													
Models VFD-____FP4E-__		007	015	022	037	040	055	075	110	150	185	220	300	370	450	550	750	900																													
OUTPUT RATING	LIGHT DUTY	Rated Output Capacity (kVA)	2.4	3.3	4.4	6.8	8.4	10.4	14.3	19	25	30	36	48	58	73	88	120	143																												
	LIGHT DUTY	Rated Output Current (A)	3	4.2	5.5	8.5	10.5	13	18	24	32	38	45	60	73	91	110	150	180																												
	LIGHT DUTY	Applicable Motor Output (kW)	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90																												
	LIGHT DUTY	Applicable Motor Output (HP)	1	2	3	5	5	7.5	10	15	20	25	30	40	50	60	75	100	125																												
	OVERLOAD TOLERANCE	Overload Tolerance	120% for 60 seconds in every 5 minutes																																												
	NORMAL DUTY	Rated Output Capacity (kVA)	1.4	2.4	3.2	4.8	7.2	8.4	10	14	19	25	30	36	48	58	73	88	120																												
	NORMAL DUTY	Rated Output Current (A)	1.7	3.0	4.0	6.0	9.0	10.5	12	18	24	32	38	45	60	73	91	110	150																												
	NORMAL DUTY	Applicable Motor Output (kW)	0.4	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55	75																												
	NORMAL DUTY	Applicable Motor Output (HP)	0.5	1	2	3	5	5	7.5	10	15	20	25	30	40	53	60	75	100																												
	OVERLOAD TOLERANCE	Overload Tolerance	120% for 60 seconds in every 5 minutes 160% for 3 seconds in every 25 seconds																																												
INPUT RATING	Max. Output Frequency (Hz)		599.00Hz																																												
	Carrier Frequency (kHz)		2 ~ 15kHz (8kHz)										2 ~ 10 kHz (6 kHz)																																		
	Input Current (A) Light Duty		3.0	4.2	5.5	8.5	10.5	13	18	24	32	38	45	60	73	91	110	150	180																												
	Input Current (A) Normal Duty		1.7	3.0	4.0	6.0	9.0	10.5	12	18	24	32	38	45	60	73	91	110	150																												
	Rated Voltage/Frequency		3-phase AC 380V ~ 480V (-15% ~ +10%), 50/60Hz																																												
	Operating Voltage Range		323 ~ 528V <sub>AC</sub>																																												
	Frequency Tolerance		47 ~ 63Hz																																												
Drive Weight		6.8kg							14.5kg					26.5kg		42kg		59.5kg																													
Cooling Method		Natural cooling	Fan cooling																																												
Braking Chopper		Frame A, B, C, Built-in																																													
DC Choke		Built-in DC choke meets EN6100-3-12																																													
EMC Filter		Built-in EMC filter meets EN61800-3 C2 & C1*																																													

\*A zero phase reactor is required to fulfill EMC category C1

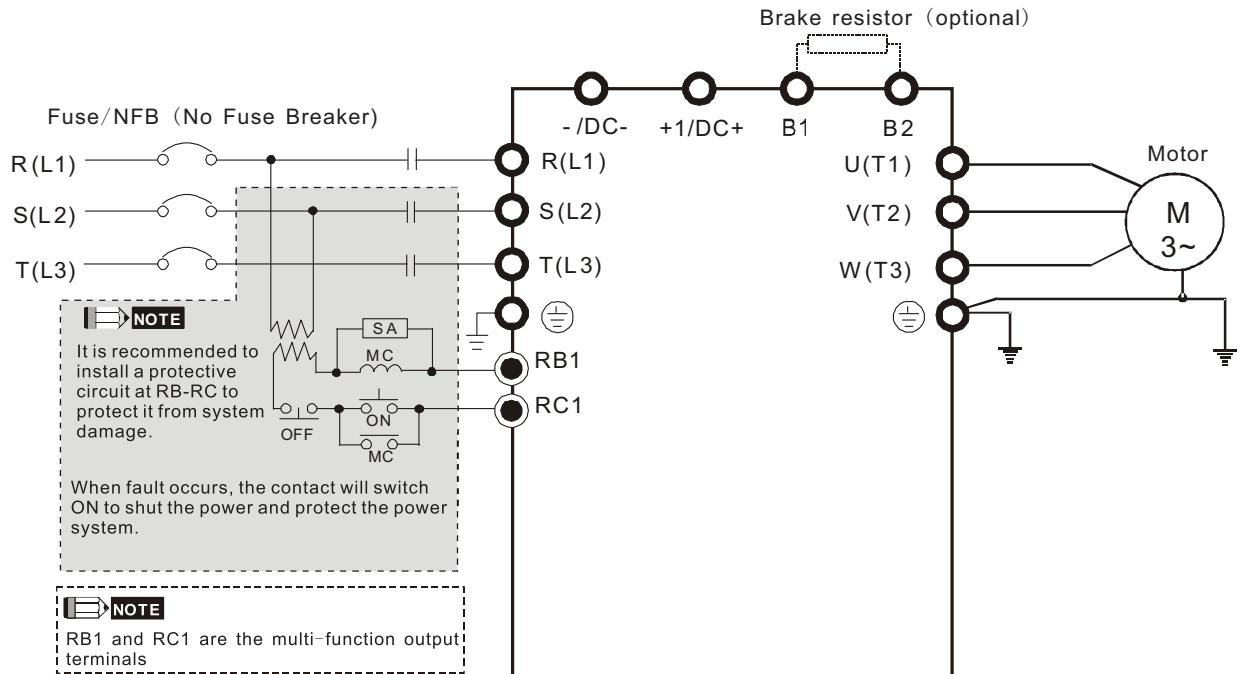
# General Specifications

CONTROL CHARACTERISTICS	<b>Control Method</b>	Pulse Width Modulated (PWM)										
	<b>Control Mode</b>	1: V/F (V/F control), 2: SVC (Sensorless Vector Control), 3: PMSVC										
	<b>Starting Torque</b>	V/F and SVC: starting torque 160% at 0.5Hz PMSVC: starting torque 100% at rated frequency* 1/20										
	<b>V/F Curve</b>	4 point adjustable V/F curve and square curve										
	<b>Speed Response Ability</b>	5Hz										
	<b>Torque Limit</b>	Light Duty: Max. 130% torque current; Normal Duty: Max. 160% torque current										
	<b>Torque Accuracy</b>	$\pm 5\%$										
	<b>Max. Output Frequency (Hz)</b>	599.00Hz										
	<b>Frequency Output Accuracy</b>	Digital command: $\pm 0.01\%$ , Analog command: $\pm 0.1\%$										
	<b>Output Frequency Resolution</b>	Digital command: 0.01 Hz; Analog command: Max. output frequency $\times 0.03 / 60$ Hz ( $\pm 11$ -bit)										
	<b>Overload Tolerance</b>	Light duty: 120% of rated current for 1 minute Normal duty: 120% of rated current for 1 minute; 160% of rated current for 3 seconds										
	<b>Frequency Setting Signal</b>	0~+10V, 4~20mA, 0~20mA, pulse input										
	<b>Accel./decel. Time</b>	0.00 ~ 600.00/0.0 ~ 6000.0 seconds										
Main Control Function	Fault restart	Torque limit	Smart stall	Dwell	3-wire sequence							
	Speed search	Parameter copy	JOG frequency	Slip compensation	Torque compensation							
	S-curve accel/decel	Energy saving control	Accel/Decel. Time switch	Frequency/lower limit settings	Momentary power loss ride thru							
	PID control (with sleep function)	Auto-Tuning (rotational, stationary)	DC injection braking at start/stop	BACnet communication	16-step speed (max.)							
	Over-torque detection		MODBUS communication (RS-485 RJ45, Max. 115.2 kbps)									
	<b>Fan Control</b>	VFD300FP4E and above are PWM control VFD220FP4E and below are on/off switch control										
PROTECTION CHARACTERISTICS	<b>Motor Protection</b>	Electronic thermal relay protection										
	<b>Over-Current Protection</b>	Light duty: Over-current protection for 200% rated current, Normal duty: Over-current protection for 240% rated current, Current clamp (Light duty: 130~135%) (Normal duty: 170~175%)										
	<b>Over-Voltage Protection</b>	Drive will stop when DC-BUS voltage exceeds 820V										
	<b>Over-Temperature Protection</b>	Built-in temperature sensor										
	<b>Stall Prevention</b>	Stall prevention during acceleration, deceleration and running independently										
	<b>Restart After Instantaneous Power Failure</b>	Parameter setting up to 20 seconds										
	<b>Grounding Leakage Current Protection</b>	Leakage current is higher than 50% of rated current of the AC motor drive										
<b>International Certifications</b>		  										

# Wiring

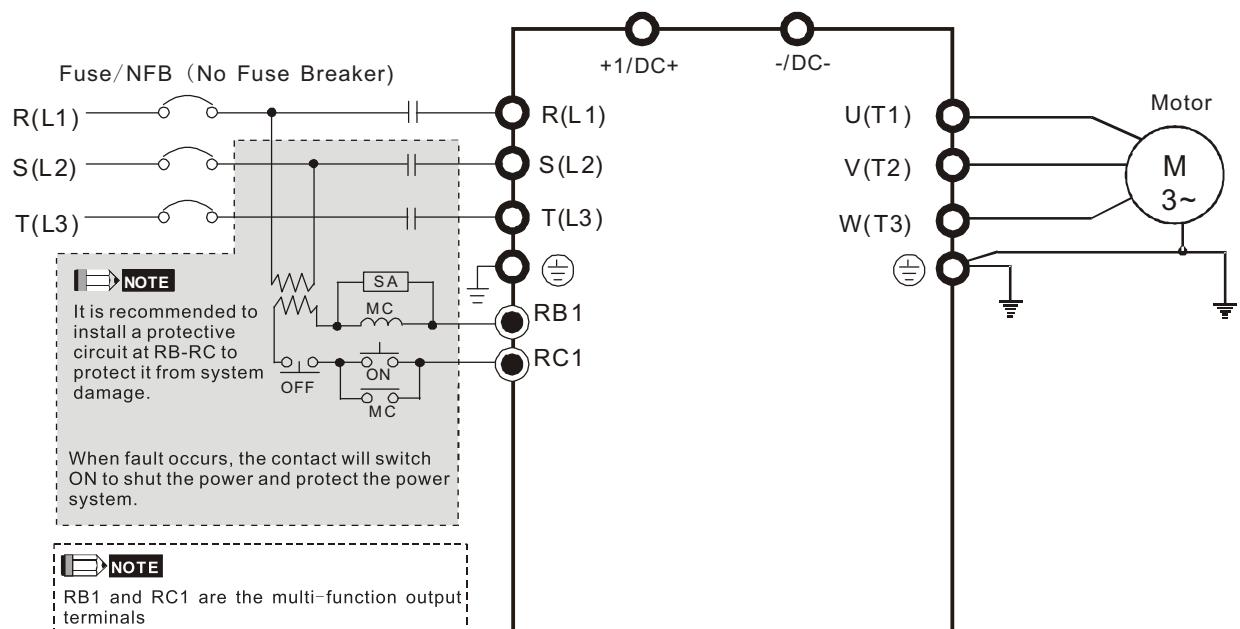
Wiring Diagram for Frame A~C

\*It provides 3-phase power

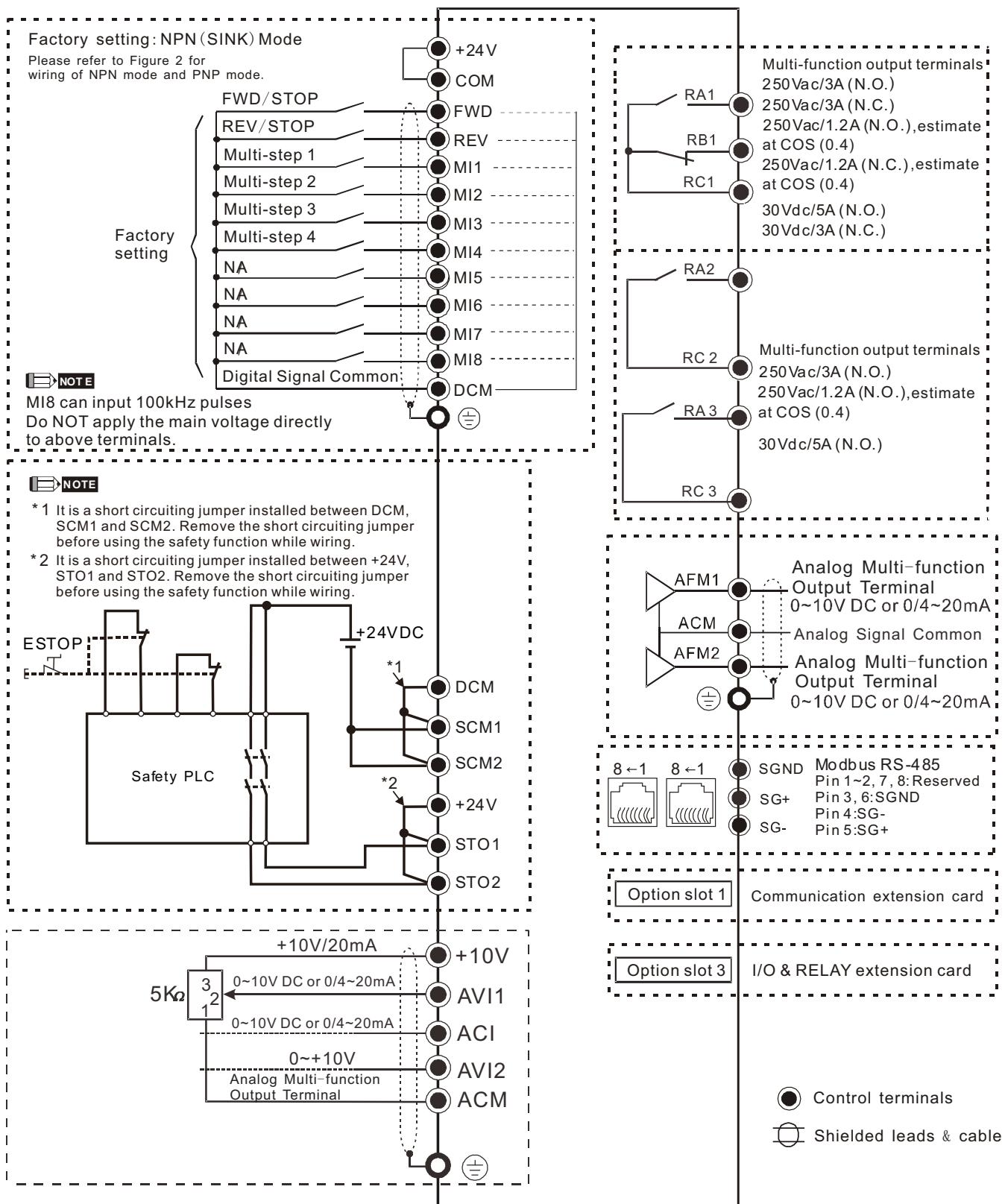


Wiring Diagram for Frame D0 and above

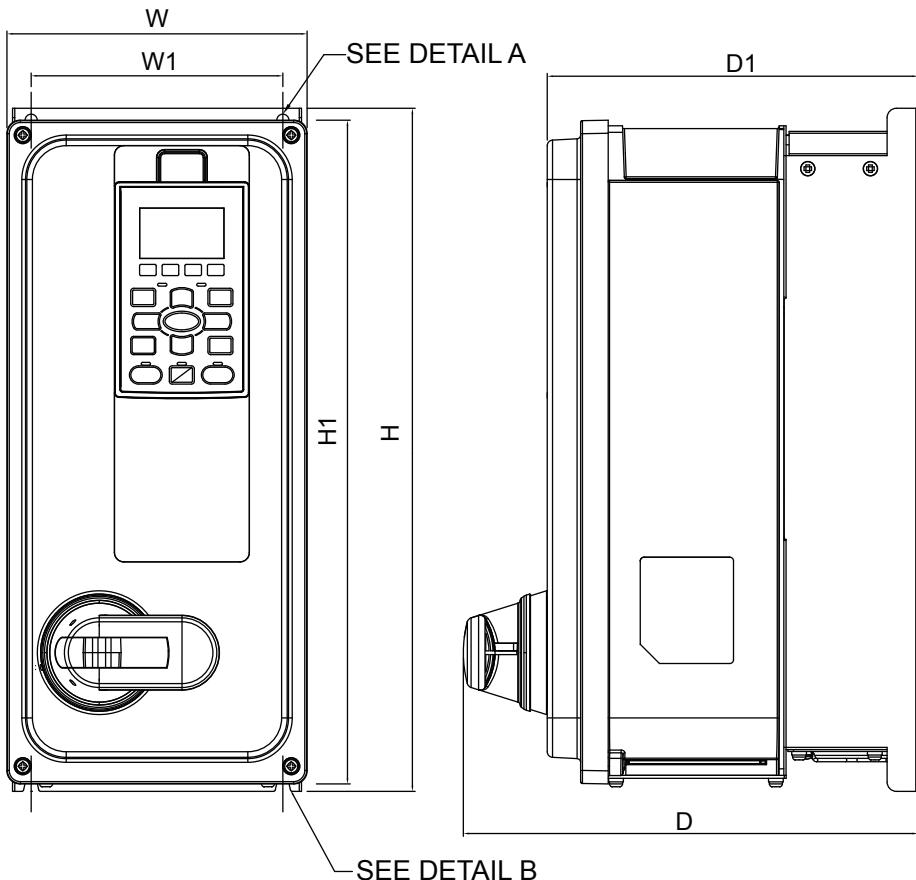
\*It provides 3-phase power



# Wiring



## Dimensions



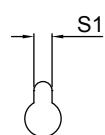
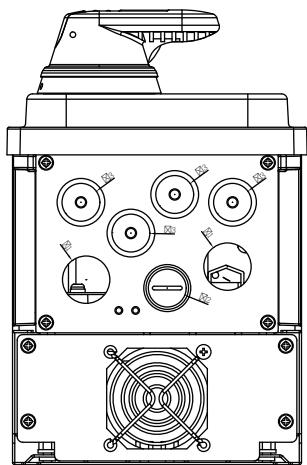
**MODEL  
FRAME\_A**

FRAME\_A-1

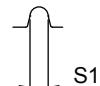
VFD007FP4EA-52  
VFD015FP4EA-52  
VFD022FP4EA-52  
VFD037FP4EA-52  
VFD040FP4EA-52  
VFD055FP4EA-52  
VFD075FP4EA-52

FRAME\_A-2

VFD007FP4EA-52S  
VFD015FP4EA-52S  
VFD022FP4EA-52S  
VFD037FP4EA-52S  
VFD040FP4EA-52S  
VFD055FP4EA-52S  
VFD075FP4EA-52S

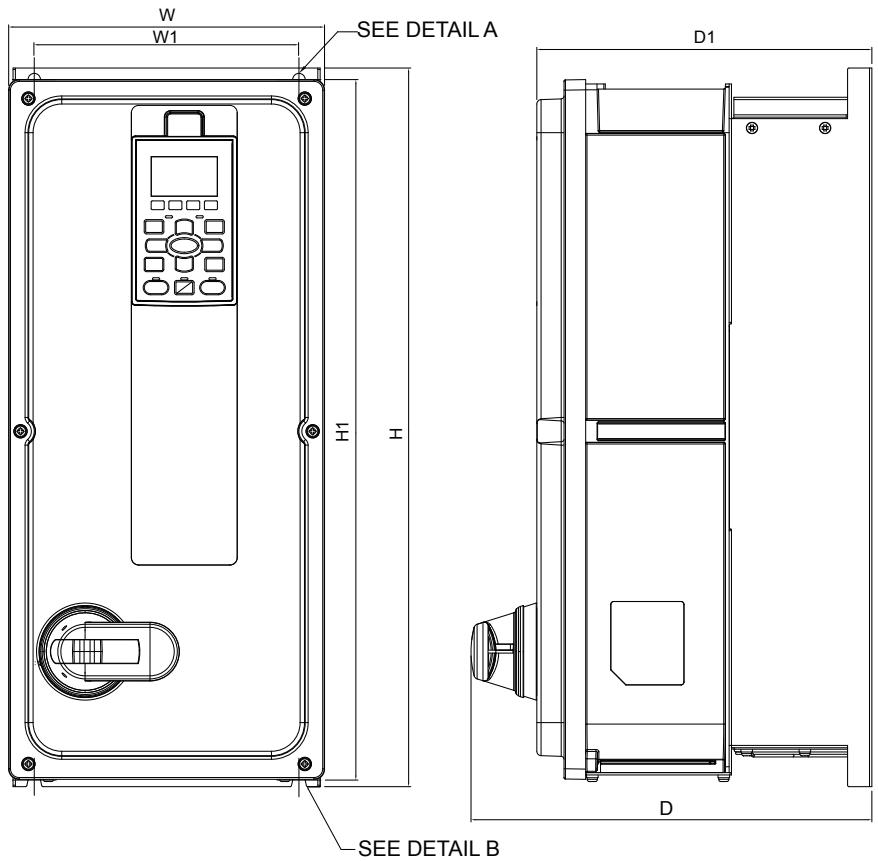


**DETAIL A**  
(MOUNTING HOLE)



**DETAIL B**  
(MOUNTING HOLE)

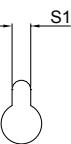
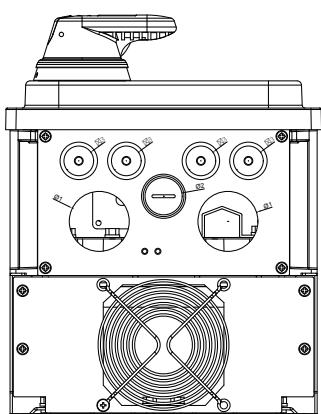
FRAME	W	H	D	W1	H1	D1	S1	Ø1	Ø2	Ø3	
A-1	mm	161.0	336.4	-	135.0	356.0	199.0	6.5	25.4	20.3	20.3
	inch	6.34	14.43	-	5.31	14.02	7.83	0.26	1.00	0.80	0.80
A-2	mm	161.0	336.4	244.0	135.0	356.0	199.0	6.5	25.4	20.3	20.3
	inch	6.34	14.43	9.61	5.31	14.02	7.83	0.26	1.00	0.80	0.80



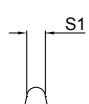
**MODEL  
FRAME\_B**

FRAME\_B-1  
VFD110FP4EA-52  
VFD150FP4EA-52  
VFD185FP4EA-52  
VFD220FP4EA-52

FRAME\_B-2  
VFD110FP4EA-52S  
VFD150FP4EA-52S  
VFD185FP4EA-52S  
VFD220FP4EA-52S



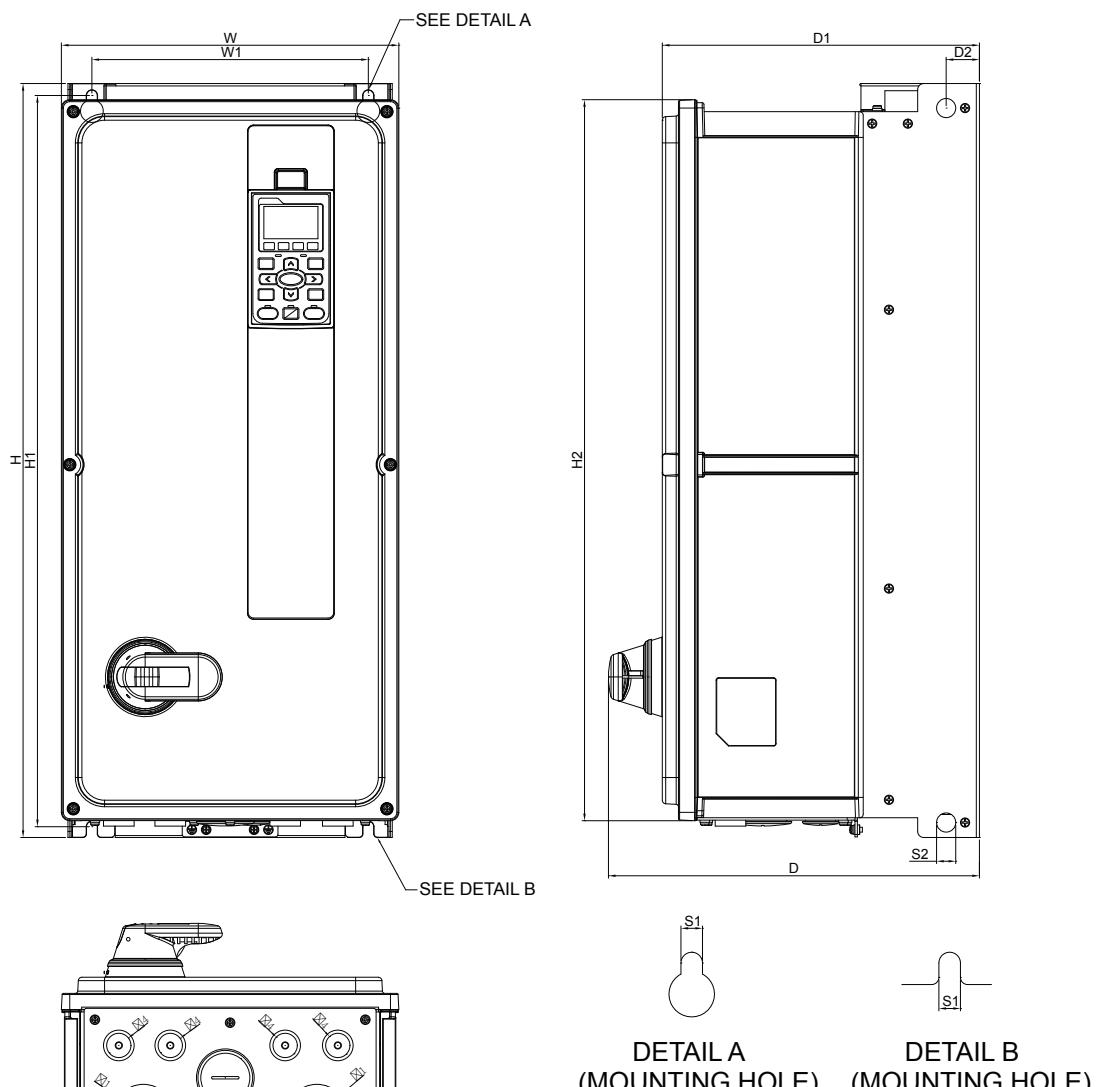
DETAIL A  
(MOUNTING HOLE)



DETAIL B  
(MOUNTING HOLE)

FRAME	W	H	D	W1	H1	D1	S1	Ø1	Ø2	Ø3
B-1	mm	216.0	491.4	-	181.0	479.0	299.0	8.5	41.0	25.4
	inch	8.50	19.35	-	7.13	18.86	9.02	0.33	1.61	1.00
B-2	mm	216.0	491.4	274.0	181.0	479.0	299.0	8.5	41.0	25.4
	inch	8.50	19.35	10.79	7.13	18.86	9.02	0.33	1.61	1.00

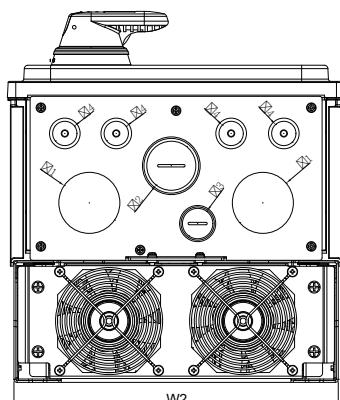
# Dimensions




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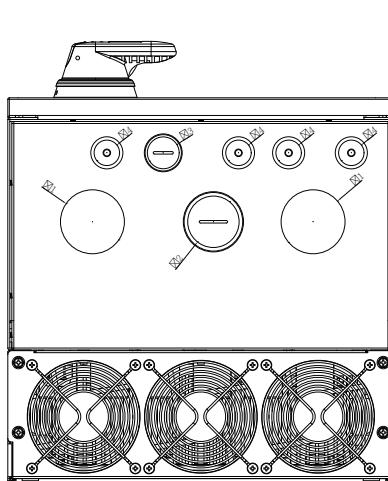
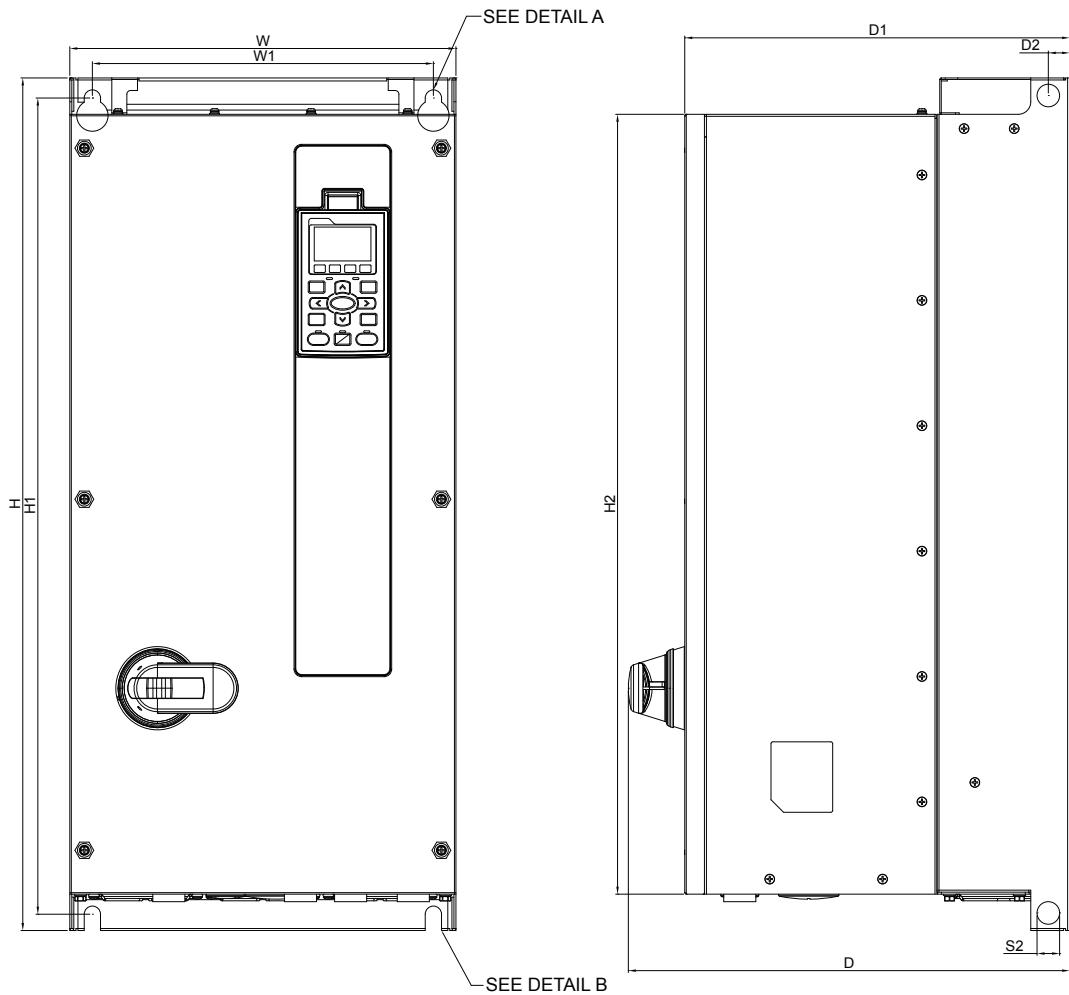
## MODEL FRAME\_C

FRAME\_C-1  
VFD300FP4EA-52  
VFD370FP4EA-52



FRAME\_C-2  
VFD300FP4EA-52S  
VFD370FP4EA-52S

FRAME	W	H	D	W1	H1	D1	S1	W2	H2	D2	S2	Ø1	Ø2	Ø3	Ø4	
C-1	mm	282.0	630.0	-	231.0	611.0	265.0	9.0	271.0	602.5	27.8	16.0	51.0	41.0	25.4	20.3
	inch	11.10	24.80	-	9.09	24.06	10.43	0.35	10.67	23.72	1.09	0.63	2.01	1.61	1.00	0.80
C-2	mm	282.0	630.0	310.0	231.0	611.0	265.0	9.0	271.0	602.5	27.8	16.0	51.0	41.0	25.4	20.3
	inch	11.10	24.80	12.20	9.09	24.06	10.43	0.35	10.67	23.72	1.09	0.63	2.01	1.61	1.00	0.80




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**MODEL  
FRAME\_D0**

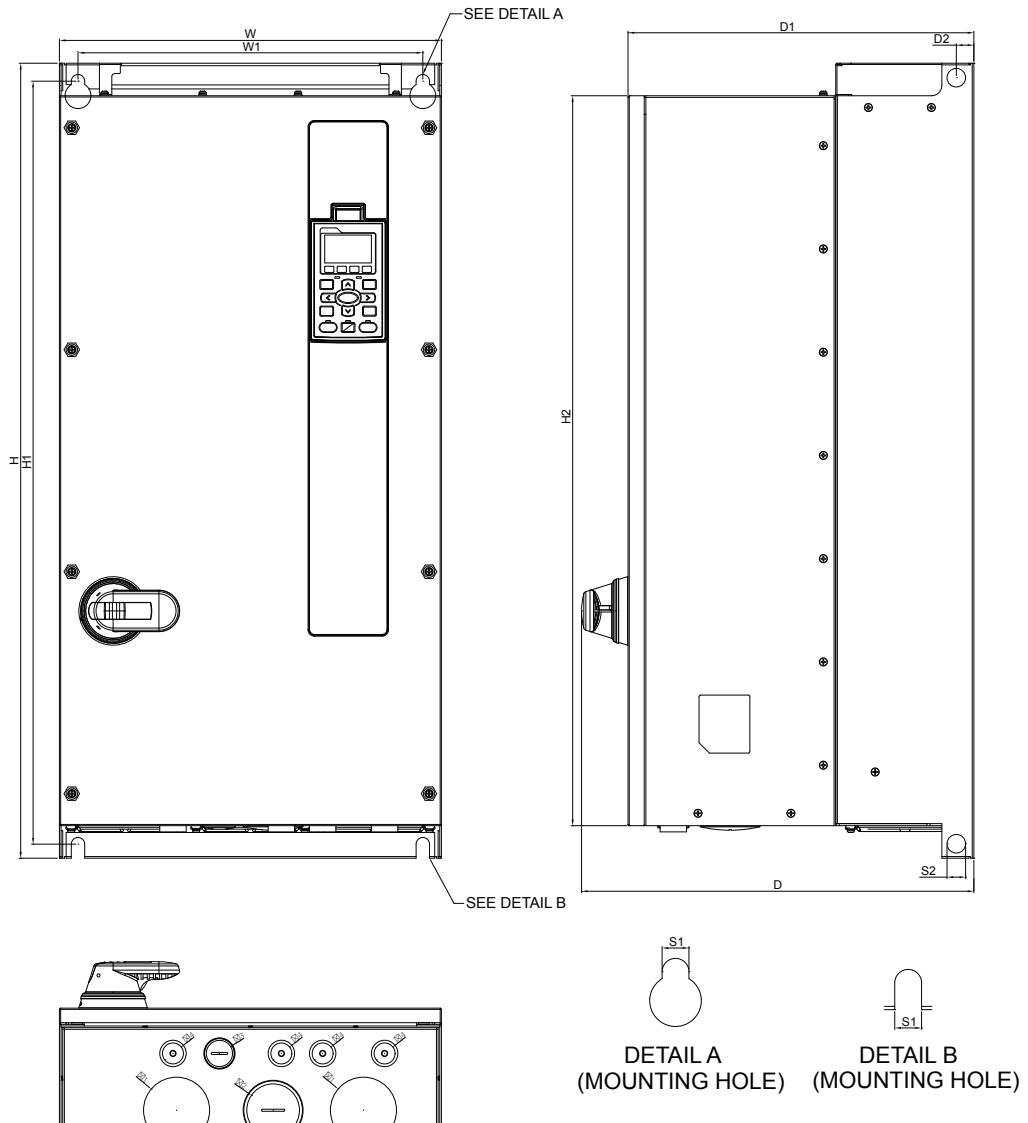
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FRAME\_D0-1  
VFD450FP4EA-52  
VFD550FP4EA-52

FRAME\_D0-2  
VFD450FP4EA-52S  
VFD550FP4EA-52S

FRAME		W	H	D	W1	H1	D1	S1	H2	D2	S2	Ø1	Ø2	Ø3	Ø4
D0-1	mm	308.0	680.0	-	272.0	651.0	307.0	13.0	622.0	17.0	18.0	51.0	41.0	25.4	20.3
	inch	12.13	26.77	-	10.71	25.63	12.09	0.51	24.49	0.67	0.71	2.01	1.61	1.00	0.80
D0-2	mm	308.0	680.0	352.0	272.0	651.0	307.0	13.0	622.0	17.0	18.0	51.0	41.0	25.4	20.3
	inch	12.13	26.77	13.86	10.71	25.63	12.09	0.51	24.49	0.67	0.71	2.01	1.61	1.00	0.80

# Dimensions

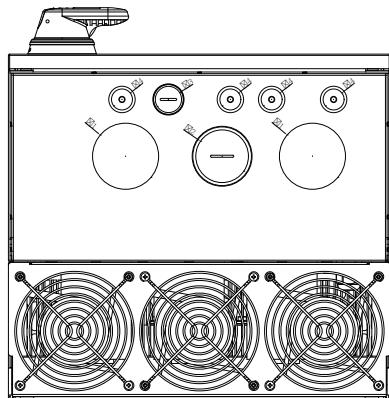



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## MODEL FRAME\_D

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FRAME\_D-1  
VFD750FP4EA-52  
VFD900FP4EA-52



FRAME\_D-2  
VFD750FP4EA-52S  
VFD900FP4EA-52S

---

FRAME		W	H	D	W1	H1	D1	S1	H2	D2	S2	Ø1	Ø2	Ø3	Ø4
D-1	mm	370.0	770.0	-	334.0	739.0	335.0	13.0	707.0	17.0	18.0	64.0	51.0	25.4	20.3
	inch	14.57	30.31	-	13.15	29.09	13.19	0.51	27.83	0.67	0.71	2.52	2.01	1.00	0.80
D-2	mm	370.0	770.0	380.0	334.0	739.0	335.0	13.0	707.0	17.0	18.0	64.0	51.0	25.4	20.3
	inch	14.57	30.31	14.96	13.15	29.09	13.19	0.51	27.83	0.67	0.71	2.52	2.01	1.00	0.80

# Accessories

## ▪ EMC-D42A

Terminals	Descriptions
 <b>I/O Extension Card</b>	<b>COM</b> Common for multi-function input terminals Select SINK (NPN)/SOURCE (PNP) in J1 jumper/external power supply
	<b>MI10 ~ MI13</b> Refer to parameters 02-26 ~ 02-29 to program the multi-function inputs MI10 ~ MI13. Internal power is applied from terminal E24: +24 V <sub>DC</sub> ± 5% 200 mA, 5W External power +24 V <sub>DC</sub> : max. voltage 30 V <sub>DC</sub> , min. voltage 19 V <sub>DC</sub> , 30 W ON: the activation current is 6.5 mA; OFF: leakage current tolerance is 10 µA
	<b>MO10 ~ MO11</b> Multi-function output terminals (photocoupler) Duty-cycle: 50%; Max. output frequency: 100 Hz Max. current: 50 mA; Max. voltage: 48 V <sub>DC</sub>
	<b>MXM</b> Common for multi-function output terminals MO10, MO11 (photocoupler) Max 48 V <sub>DC</sub> 50 mA

## ▪ EMC-D611A

Terminals	Descriptions
 <b>I/O Extension Card</b>	<b>AC</b> AC power common for multi-function input terminal (Neutral)
	<b>MI10 ~ MI15</b> Refer to Pr. 02.26 ~ Pr. 02.31 for multi-function input selection Input voltage: 100 ~ 130 V <sub>AC</sub> ; Input frequency: 57 ~ 63 Hz Input impedance: 27 KΩ Terminal response time: ON: 10 ms; OFF: 20 ms

## ▪ EMC-R6AA

Terminals	Descriptions
 <b>Relay Extension Card</b>	<b>RA10 ~ RA15</b> Refer to Pr. 02.36 ~ Pr. 02.41 for multi-function input selection Resistive load: 3A (N.O.) / 250 V <sub>AC</sub> 5A (N.O.) / 30 V <sub>DC</sub> <b>RC10 ~ RC15</b> Inductive load (COS 0.4) 2.0A (N.O.) / 250 V <sub>AC</sub> 2.0A (N.O.) / 30 V <sub>DC</sub> It is used to output each monitor signal, such as for drive in operation, frequency attained or overload indication.

## ▪ EMC-BPS01

Terminals	Descriptions
 <b>24V Power Shift Card</b>	<b>24V GND</b> When the AC motor drive power is off, the external power supply card provides external power to the network system, PLC function, and other functions to allow continued operations. Input power: 24 V ± 5% Maximum input current: 0.5 A Note: Do not connect the control terminal +24 V (Digital control signal common: SOURCE) directly to the EMC-BPS01 input terminal 24 V. Do not connect control terminal GND directly to the EMC-BPS01 input terminal GND.

# Screw Specifications for Option Card Terminals

<b>EMC-D42A/EMC-D611A</b> <b>EMC-BPS01</b>	<b>Wire gauge</b>	24 ~ 12 AWG (0.205 ~ 3.31 mm <sup>2</sup> )
	<b>Torque</b>	4 Kg-cm [3.47 lb-in]
<b>EMC-R6AA</b>	<b>Wire gauge</b>	24 ~ 16 AWG (0.205 ~ 1.31 mm <sup>2</sup> )
	<b>Torque</b>	6 Kg-cm [5.21 lb-in]

# Accessories

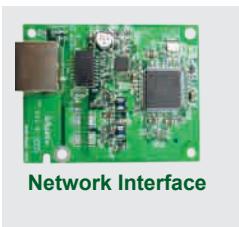
## ▪ EMC-COP01

Built-in EMC-COP01 cards are available for VFDXXXC23E and VFDXXXC43E

### RJ-45 Pin definition

Pin	Pin name	Definition
1	CAN_H	CAN_H bus line (dominant high)
2	CAN_L	CAN_L bus line (dominant low)
3	CAN_GND	Ground/0V/V-
6	CAN_GND	Ground/0V/V-

## ▪ CMC-MOD01



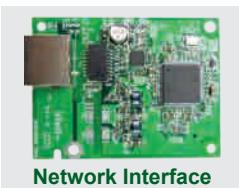
### Features

- ▶ MDI/MDI-X auto-detect
- ▶ Supports MODBUS TCP protocol
- ▶ AC motor drive keypad/Ethernet configuration
- ▶ E-mail alarm
- ▶ Baud rate: 10 / 100 Mbps auto-detect
- ▶ Virtual serial port

### Network Interface

Interface	RJ-45 with Auto MDI / MDIX	Transmission speed	10 / 100 Mbps Auto-Detect
Number of ports	1 Port	Network protocol	ICMP, IP, TCP, UDP, DHCP, SMTP, MODBUS OVER TCP/IP, Delta Configuration
Transmission method	IEEE 802.3, IEEE 802.3u		
Transmission cable	Category 5e shielding 100M		

## ▪ CMC-EIP01



### Features

- ▶ MDI/MDI-X auto-detect
- ▶ Supports MODBUS TCP and Ethernet/IP protocol
- ▶ Baud rate: 10 / 100 Mbps auto-detect
- ▶ AC motor drive keypad / Ethernet configuration
- ▶ Virtual serial port

### Network Interface

Interface	RJ-45 with Auto MDI / MDIX	Transmission speed	10 / 100 Mbps Auto-Detect
Number of ports	1 Port	Network protocol	ICMP, IP, TCP, UDP, DHCP, SMTP, MODBUS OVER TCP/IP, Delta Configuration
Transmission method	IEEE 802.3, IEEE 802.3u		
Transmission cable	Category 5e shielding 100M		

## ▪ CMC-PD01



### Features

- ▶ Supports PZD control data exchange
- ▶ Supports PKW polling AC motor drive parameters
- ▶ Supports user diagnosis function
- ▶ Auto-detects baud rates; supports Max. 12 Mbps

## PROFIBUS DP Connector

PROFIBUS DP Connector		Communication	
Interface	DB9 connector	Message type	Cyclic data exchange
Transmission method	High-speed RS-485	Module name	CMC-PD01
Transmission cable	Shielded twisted pair cable	GSD document	DELA08DB.GSD
Electrical isolation	500 V <sub>DC</sub>	Company ID	08DB (HEX)
		Serial transmission speed supported (auto-detection)	9.6 kbps; 19.2 kbps; 38.75 kbps; 76.5 kbps; 153 kbps; 300 kbps; 500 kbps; 1.5 Mbps; 3 Mbps; 6 Mbps; 12 Mbps (bits per second)

## ▪ CMC-DN01



### Features

- ▶ Based on the high-speed communication interface of Delta HSSP protocol, able to conduct immediate control of an AC motor drive
- ▶ Supports Group 2 only connection and polling I/O data exchange
- ▶ For I/O mapping, supports Max. 32 words of input and 32 words of output
- ▶ Supports EDS file configuration in DeviceNet configuration software
- ▶ Supports all baud rates on DeviceNet bus: 125 kbps, 250 kbps, 500 kbps and extendable serial transmission speed mode
- ▶ Node address and serial transmission speed can be set up on AC motor drive
- ▶ Power supplied from AC motor drive

## DeviceNet Connector

Interface	5-PIN open removable connector. Of 5.08 mm PIN interval
Transmission method	CAN
Transmission cable	Shielded twisted pair cable (with 2 power cables)
Transmission speed	125 kbps, 250 kbps, 500 kbps and extendable serial transmission speed mode
Network protocol	DeviceNet protocol

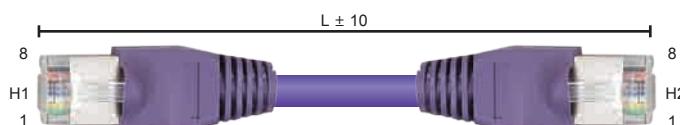
## DeviceNet Connector

Interface	50 PIN communication terminal
Transmission method	SPI communication
Terminal function	1. Communicating with AC motor drive 2. Transmitting power supply from AC motor drive
Communication protocol	Delta HSSP protocol

# Accessories

## ▪ CANopen Communication Cable

**Model: TAP-CB05, TAP-CB10**



Title	Part No.	L	
		mm	inch
1	UC-CMC003-01A	300	11.8
2	UC-CMC005-01A	500	19.6
3	UC-CMC010-01A	1000	39
4	UC-CMC015-01A	1500	59
5	UC-CMC020-01A	2000	78.7
6	UC-CMC030-01A	3000	118.1
7	UC-CMC050-01A	5000	196.8
8	UC-CMC100-01A	10000	393.7
9	UC-CMC200-01A	20000	787.4

## ▪ Digital Keypad Accessories: RJ45 Extension Leads and CMC-EIP01 Cables

**Applicable Models: CBC-K3FT, CBC-K5FT, CBC-K7FT, CBC-K10F, CBC-K16FT**

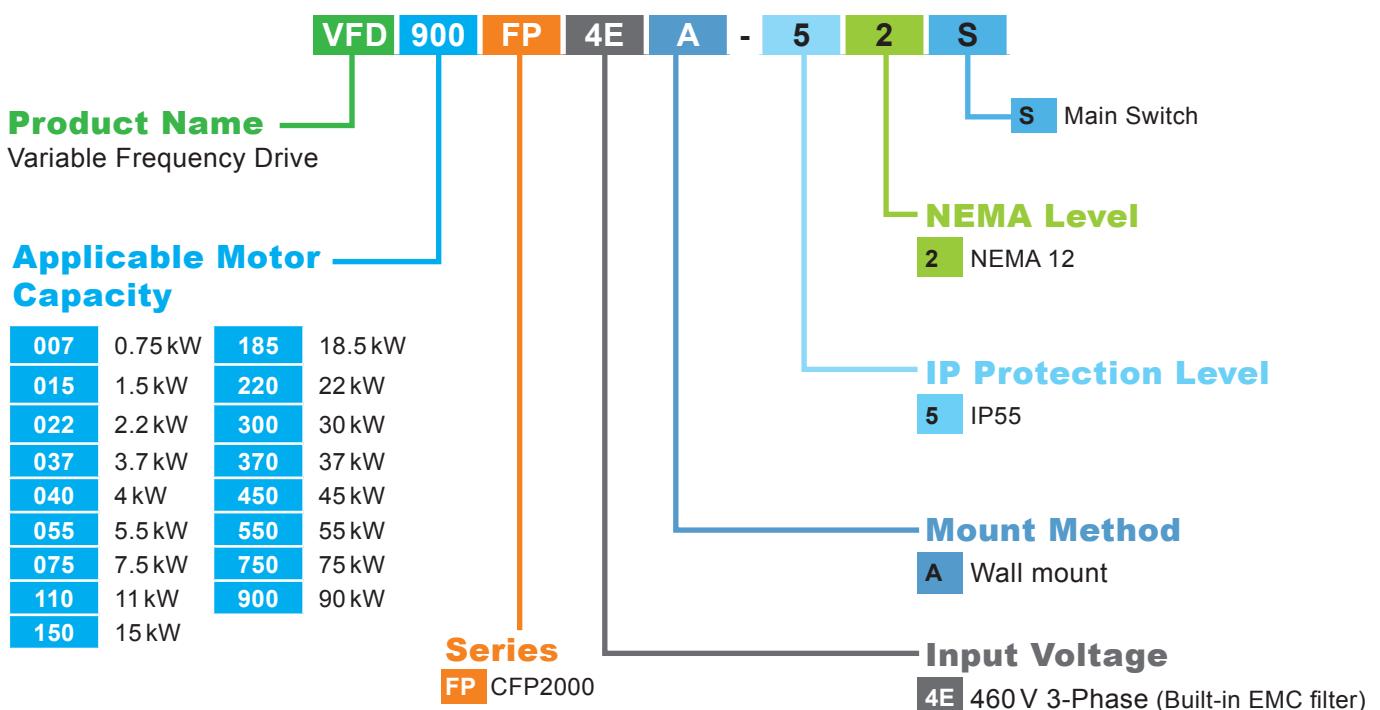
Title	Part No.	Explanation
1	CBC-K3FT	RJ45 extension lead, 3 feet (approximately 0.9 m)
2	CBC-K5FT	RJ45 extension lead, 5 feet (approximately 1.5 m)
3	CBC-K7FT	RJ45 extension lead, 7 feet (approximately 2.1 m)
4	CBC-K10FT	RJ45 extension lead, 10 feet (approximately 3 m)
5	CBC-K16FT	RJ45 extension lead, 16 feet (approximately 4.9 m)



## Ordering Information

Power Range	FRAME	IP55	IP55 with Mains Switch
0.75	A	VFD007FP4EA-52	VFD007FP4EA-52S
1.5		VFD015FP4EA-52	VFD015FP4EA-52S
2.2		VFD022FP4EA-52	VFD022FP4EA-52S
3.7		VFD037FP4EA-52	VFD037FP4EA-52S
4		VFD040FP4EA-52	VFD040FP4EA-52S
5.5		VFD055FP4EA-52	VFD055FP4EA-52S
7.5		VFD075FP4EA-52	VFD075FP4EA-52S
11	B	VFD110FP4EA-52	VFD110FP4EA-52S
15		VFD150FP4EA-52	VFD150FP4EA-52S
18.5		VFD185FP4EA-52	VFD185FP4EA-52S
22		VFD220FP4EA-52	VFD220FP4EA-52S
30	C	VFD300FP4EA-52	VFD300FP4EA-52S
37		VFD370FP4EA-52	VFD370FP4EA-52S
45	D0	VFD450FP4EA-52	VFD450FP4EA-52S
55		VFD550FP4EA-52	VFD550FP4EA-52S
75	D	VFD750FP4EA-52	VFD750FP4EA-52S
90		VFD900FP4EA-52	VFD900FP4EA-52S

## Model Name





Smarter. Greener. Together.

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