



Digitized Automation for a Changing World

Delta Textile Vector Control Drive CT2000 Series



www.deltaww.com



The Delta Textile Vector Control Drive CT2000 Series carries over the versatile and high-performance features of the C2000 Series, and comes in three designs: plate mount, flange mount, and wall mount. The CT2000 Series provides durable protection to meet the demands of harsh environments such as heavy dust, high pollution, and voltage fluctuations. Ideal for textile machinery like fine and coarse yarn machines, as well as heavily polluted industries such as machine tools, ceramics, and glass.



Plate-Mounting



Flange-Mounting



Wall-Mounting

Features

- Plate-mount design, different types of heat sink according to field conditions for better heat dissipation (fin type or water cooling plate heat dissipation) (*1)
- Fanless design with high-efficiency dissipation, prevents fiber and dust from clogging and enhances heat dissipation (*2)
- Supports external fan connection (*2)
- Wall mount installation model with a large fan (*3)
- Deceleration Energy Backup (DEB) function for smooth motor deceleration control
- Supports both asynchronous and synchronous motors
- Common DC bus design
- Enhanced drive durability with Printed Circuit Board (PCB) coating standard IEC 60721-3-3 CLASS 3C3
- Built-in 10K steps PLC programming capability and RS-485 (MODBUS), no need for an additional host controller and communication module; a simple network with high performance and cost-efficiency
- Optional communication cards are available

*1 : For model names ending with code A

*2 : For model names ending with code B

*3 : For model names ending with code C

Deceleration Energy Backup (DEB)

The CT2000 Series features a Decelerate Energy Backup (DEB) function to prevent thread or yarn breakage when a sudden power outage or abnormal operation interruption occurs. It uses the regenerative energy that is produced during braking to facilitate the motor deceleration process. It also supports a common DC bus connection allowing multiple drives to control multiple motors decelerating to a stop smoothly and synchronously at the same speed ratio which is a perfect solution for spinning machines and other applications that require synchronous deceleration control of motors via DC bus.

Standard Model

Power Range 460 V 11~90kW

460 V (kW)	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
460 V (HP)	7.5	10	15	20	25	30	40	50	60	75	100	125
Frame (Plate Mount)	A		B			C			D			
Frame (Flange Mount)			B			C			D			
Frame (Wall Mount)			B			C			D			

Plate-mount Type Flange-mount Type Wall-mount Type

In response to different textile environments, liquid cooling is sometimes used to reduce the impact of harsh environments on air-cooled heat dissipation. Plate-mount design can be applied to the liquid cooling plate heat dissipation, suitable for customer's requirements.

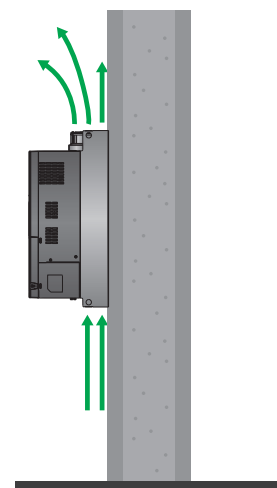
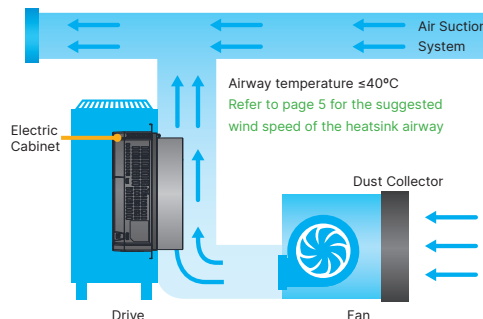
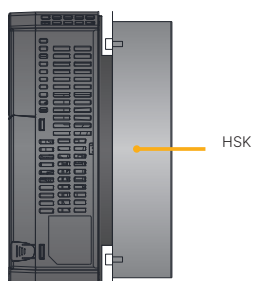
**Available for models with names ending in A*

Flange-mount installation for the fanless model. Prevents overheating problems caused by fiber or dust clogging the fan or entering the drive. Suitable for spaces with cooling ducts.

**Available for models with names ending in B*

Large fan design for wall-mount installation, fulfills general textile applications.

**Available for models with names ending in C*

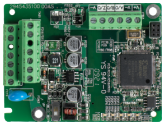


Modular Design

- Various accessories options, such as I/O extension cards, encoder feedback cards, communication cards, hot pluggable LCD keypad, removable terminals and removable fans.

▶ PG Card

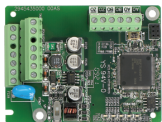
EMC-PG010 / EMC-PG020



EMC-PG01U / EMC-PG02U



EMC-PG01L / EMC-PG02L

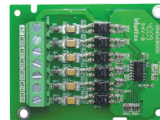


EMC-PG01R

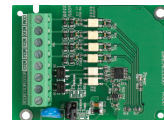


▶ I/O Extension Card

EMC-D611A



EMC-D42A



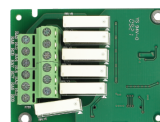
▶ 24V Power Shift Card

EMC-BPS01



▶ Relay Extension Card

EMC-R6AA



▶ Communication Card

CMC-PD01



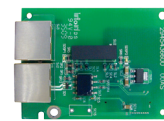
CMC-DN01



CMC-MOD01
CMC-EIP01



EMC-COP01

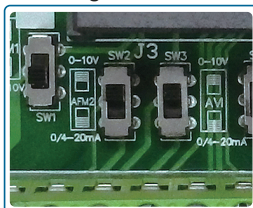


* ▶: Optional accessories available upon purchase

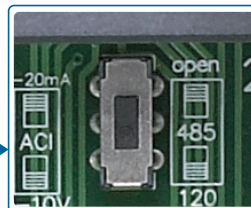
■ Removable terminal blocks

Safe and easy to install

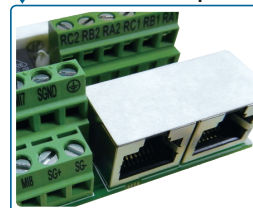
Analog I/O switches



RS-485 communication

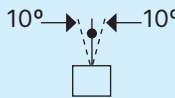


RJ45 serial communication port



Environment for Operation, Storage and Transportation

DO NOT expose the AC motor drive to harsh environments, such as with dust, direct sunlight, corrosive/flammable gasses, humidity, liquid or vibrations. The salts in the air must be less than 0.01mg/cm² per year.

Environment	Installation location	IEC60364-1/IEC60664-1 Pollution degree 2, Indoor use only	
	Surrounding Temperature (°C)	Storage	-25 ~ 70
		Transportation	-25 ~ 70
		Only allowed for non-condensation, non-frozen, non-conductive pollution environment.	
	Rated Humidity	Operation	Max. 95%
		Storage/ Transportation	Max. 95%
		Frozen water is prohibited	
	Air Pressure (kPa)	Operation/ Storage	86 ~ 106
		Transportation	70 ~ 106
	Pollution Level	IEC60721-3-3	
		Operation	Class 3C3
		Storage	Class 1C2
		Transportation	Class 2C2
		If the AC motor drive is to be used in a harsh environment with a high level of contamination (e.g. dew, water, dust), make sure it is installed in an environment qualified for IP54 such as in a cabinet.	
	Altitude	Operation	If the AC motor drive is installed at an altitude 0~1000m, follow normal operation restrictions. If it is installed at altitude 1000~2000m, decrease 1% of rated current or lower 0.5°C of temperature for every 100m increase in altitude. Maximum altitude for Corner Grounded TN system is 2000m; for applications higher than 2000m, please contact Delta for more details.
Vibration		0.075 mm, peak to peak value range from 10 Hz to 57 Hz; 1.0 G range from 57 Hz to 150 Hz; Complies with IEC 60068-2-6	
Impact		IEC/EN 60068-2-27	
Operation Position		Max. allowed offset angle ± 10° (under normal installation position)	

Operation Temperature and Protection Level

Model	Frame	Top cover	Conduit Box	Protection Level	Operation Temperature
VFDxxxCT43xxxxx	A	N/A	No conduit box	IP20	Plate mount models: -10~50 °C
	B, C	Top cover removed	Standard conduit box	IP20/UL Open Type	
	D	N/A	No conduit box	IP00 IP20/UL Open Type	Flange mount models: Drive body: -10~50 °C Heatsink side: -10~40 °C
				Protection degree for the circled area is IP00; other areas are IP20. 	Wall mount models: -10~50 °C

Specifications

Frame Size			A*		B			C			D			
Model VFD□□□CT43□□□□			055	075	110	150	185	220	300	370	450	550	750	900
Max. Applicable Motor Output (kW)			5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
Max. Applicable Motor Output (HP)			7.5	10	15	20	25	30	40	50	60	75	100	125
Output Rating	Heavy Duty	Rated Output Capacity (kVA)	7.6	9.6	14	18	24	29	34	45	55	69	84	114
		Rated Output Current (A)	9.5	11	17	23	30	36	43	57	69	86	105	143
		Carrier Frequency (kHz)	2~15		2~6									
	Normal Duty	Rate Output Capacity (kVA)	10.4	14.3	18	24	29	36	45	57	73	88	115	143
		Rated Output Current (A)	13	18	24	32	38	45	60	73	91	110	144	180
		Carrier Frequency (kHz)	2~15		2~15			2~10						2~9
Input Rating	Input Current (A) Heavy Duty		12	14	19	25	33	38	45	60	70	96	108	149
	Input Current (A) Normal Duty		16	22	25	33	40	50	62	79	91	110	150	180
	Rated Voltage/Frequency		3-phase AC 380V ~ 480V (-15% ~ +10%), 50/60Hz											
	Operating Voltage Range		323~528 Vac											
	Frequency Tolerance		47~63Hz											
Cooling method			Flange-mounted model uses natural cooling, it is suitable for air cooling and use with heat sink; Wall-mounted model uses fan cooling; Plate mounting models collaborate with the heat dissipation method of user's equipment											
Wind Speed at Heatsink Airway	Wind Speed at Carrier Frequency 2kHz (m/s)		-		3.5			3.5		7	3.5	4.5	6	8.5
	Wind Speed at Default Carrier Frequency (m/s)		-		3.5	6.5	8.5	3.5	7.0	9.5	5.5	6	8.5	9.5
Braking Chopper			Frame A to C (built-in); Frame D (optional)											
DC Reactor			Frame A to C (optional); Frame D (built-in)											
EMC Filter					Optional									

*Applicable for model name ending with A only.

General Specifications

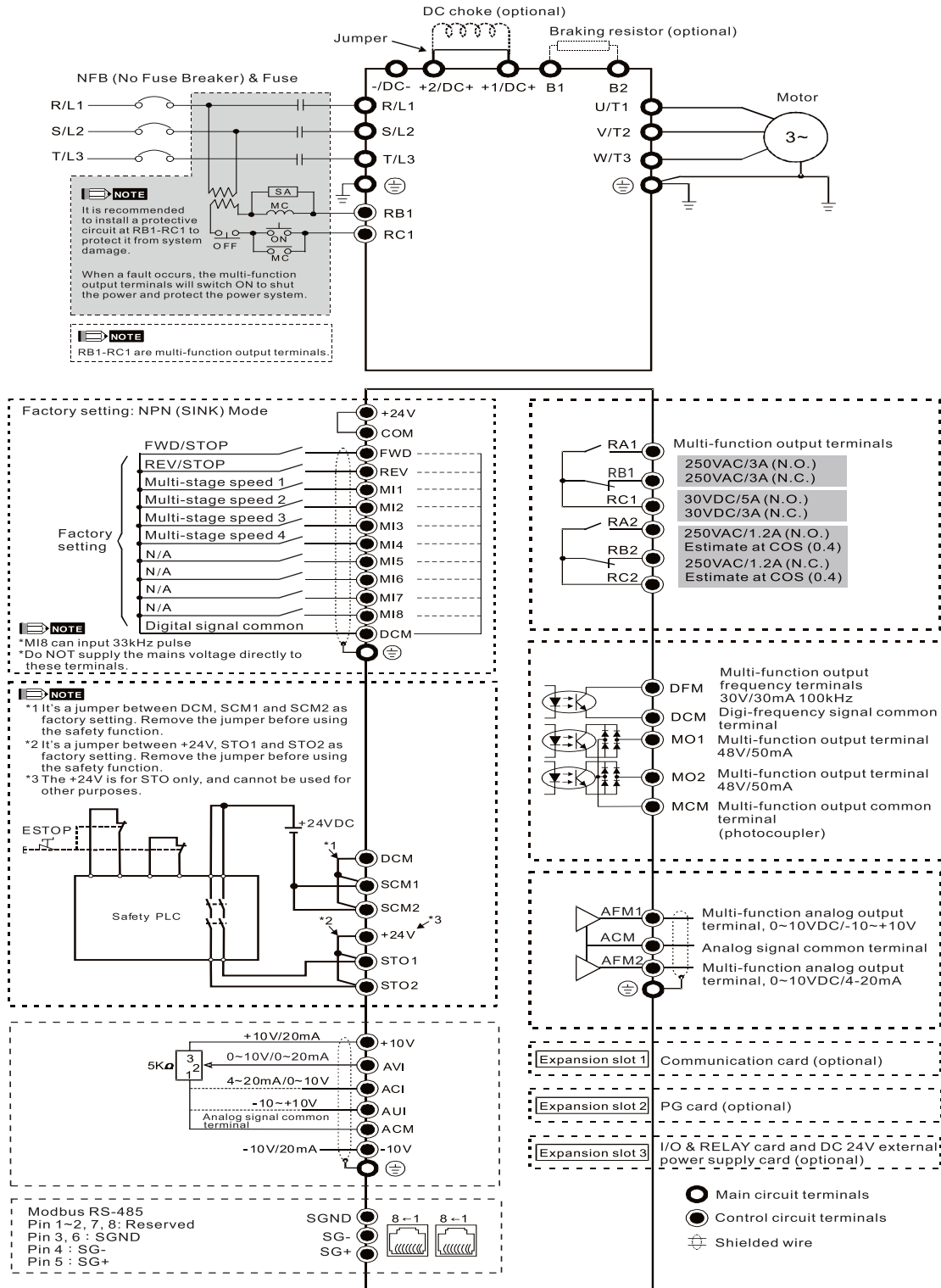
Control Characteristics	Control Method	1: V/F, 2: SVC, 3: VF+PG, 4: FOC+PG, 5: TQC+PG
	Starting Torque	Reach up to 150% or above at 0.5Hz. Under FOC+PG mode, starting torque can reach 150% at 0Hz.
	V/F Curve	4 point adjustable V/F curve and square curve
	Speed Response Ability	5Hz (vector control can reach up to 40Hz)
	Torque Limit	Light duty 130%, Heavy duty 175% torque current.
	Torque Accuracy at TQC Mode	± 5%
	Max. Output Frequency (Hz)	Light duty: 0.01 ~ 599.00 Hz; Heavy duty: 0.00 ~ 300.00 Hz
	Frequency Output Accuracy	Digital command: ± 0.01%, -10~+40°C , Analog command: ± 0.1%, 25 ± 10°C
	Output Frequency Resolution	Digital command: 0.01Hz , Analog command: 0.03*max. output frequency / 60 Hz (± 11bit)
	Overload Tolerance	Light duty: 120% of rated current for 1 minute per every 5 minutes Heavy duty: 150% of rated current for 1 minute per every 5 minutes
	Frequency Setting Signal	+10 V~-10 , 0~+10 V , 4~20 mA , 0~20 mA , Pulse input
	Accel./decel. Time	0.00~600.00/0.0~6000.0 seconds
	Main Control Functions	Torque control, Droop control, Speed/torque control switching, Feed forward control, Zero-servo control, Momentary power loss ride thru, Speed search, Over-torque detection, Torque limit, 17-step speed (max), Accel/decel time switch, S-curve accel/decel, 3-wire sequence, Auto-Tuning (rotational, stationary), Dwell, Cooling fan on/off switch, Slip compensation, Torque compensation, JOG frequency, Frequency upper/lower limit settings, DC injection braking at start/stop, High slip braking, PID control (with sleep function), Energy saving control, MODBUS communication (RS-485 RJ45, max. 115.2 kbps), Fault restart, Parameter copy
Protection Characteristics	Fan Control	Version B: no fan; Model VFD185CT43 and above: PWM control; Model VFD150CT43 and below: ON/OFF switch
	Motor Protection	Electronic thermal relay protection
	Over-current Protection	Over-current protection for 200% rated current current clamp 『Light duty: 130~140%』 ; 『Heavy duty: 180~185%』
	Over-voltage Protection	Drive operation stops when DC bus voltage exceeds 820V
	Over-temperature Protection	Built-in temperature sensor
	Stall Prevention	Stall prevention during acceleration, deceleration and in operation
	Restart After Instantaneous Power Failure	Up to 20 seconds (parameter setting)
	Grounding Leakage Current Protection	Leakage current is higher than 50% of rated current of the AC motor drive
Certifications		Model name ending in A: CE, TUV* Model name ending in B: UL, CE, TUV, SEMI F47, GB12668.3 Model name ending in C: TUV, SEMI F47

*Expected to obtain certification by June 2024.

Wiring

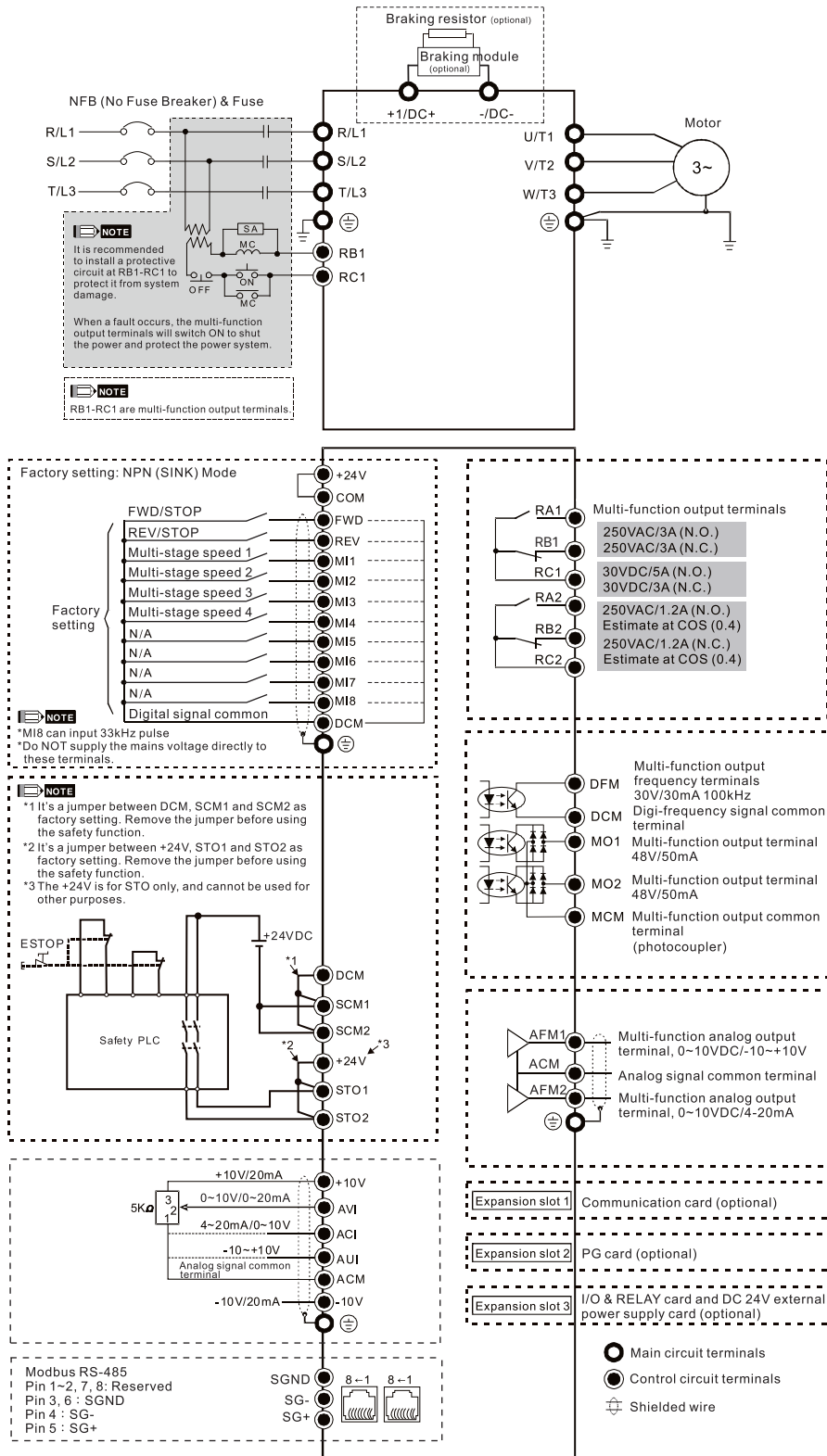
Frame A ~ C

Input: 3-phase power



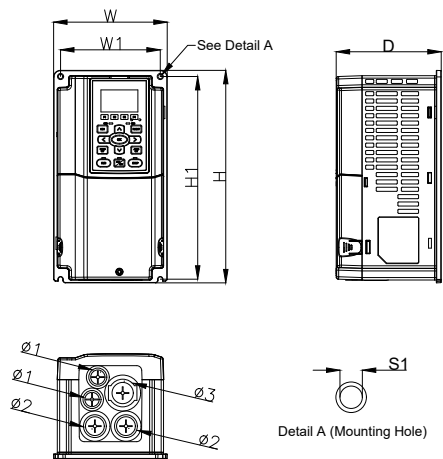
Frame D

Input: 3-phase power



Dimensions

■ Frame A (Plate mount)

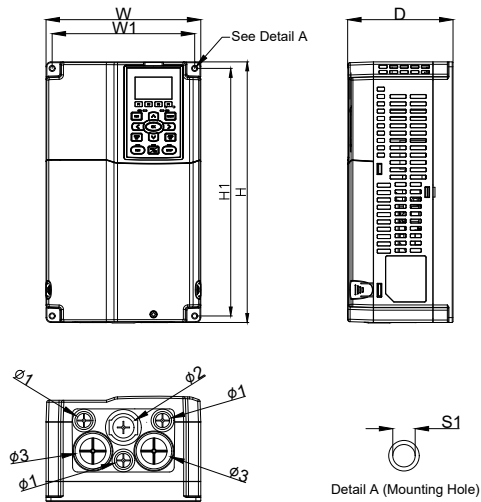


MODEL

VFD055CT43F21A3
VFD075CT43F21A3

Frame		W	W1	H	H1	D	S1	Ø1	Ø2	Ø3
A	mm	139.0	122.0	260.0	248.0	128.0	5.5	22.2	28.0	34.0
	inch	5.47	4.8	10.2	9.76	5.04	0.22	0.87	1.10	1.34

■ Frame B (Plate mount)

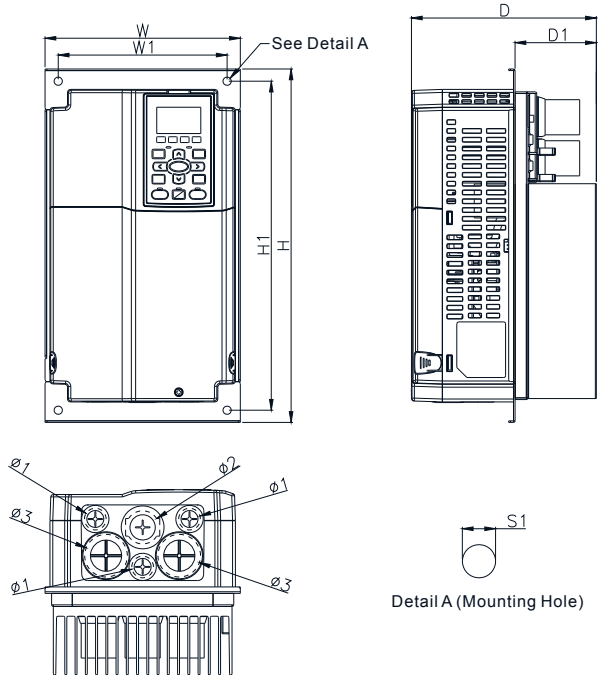


MODEL

VFD110CT43A21A3
VFD150CT43A21A3
VFD185CT43A21A3

Frame		W	W1	H	H1	D	S1	Ø1	Ø2	Ø3
B	mm	190.0	175.0	320.0	304.0	129.4	5.5	22.2	34.0	43.8
	inch	7.48	6.89	12.60	11.97	5.09	0.22	0.87	1.34	1.72

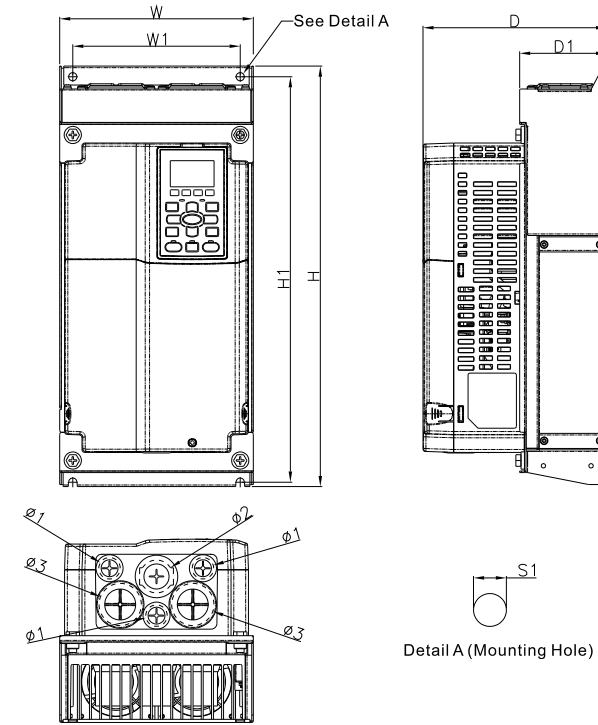
■ Frame B (Flange mount)



MODEL
VFD110CT43F00B
VFD150CT43F00B
VFD185CT43F00B

Frame		W	W1	H	H1	D	D1	S1	Ø1	Ø2	Ø3
B	mm	200.0	173.0	361.8	336.8	189.4	83.2	8.5	22.2	34.0	43.8
	inch	7.87	6.81	14.24	13.26	7.46	3.28	0.33	0.87	1.34	1.72

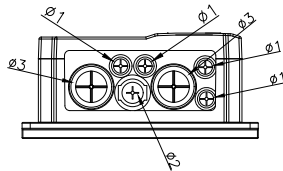
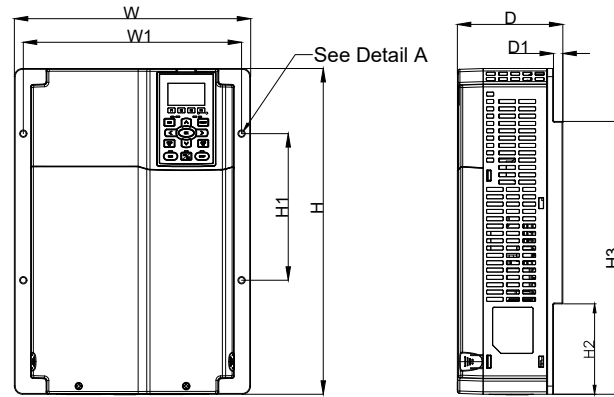
■ Frame B (Wall mount)



MODEL
VFD110CT43A21C
VFD150CT43A21C
VFD185CT43A21C

Frame		W	W1	H	H1	D	D1	S1	Ø1	Ø2	Ø3
B	mm	200.0	173.0	435.0	419.4	189.4	89.8	8.5	22.2	34.0	43.8
	inch	7.87	6.81	17.13	16.51	7.46	3.54	0.33	0.87	1.34	1.72

■ Frame C (Plate mount)



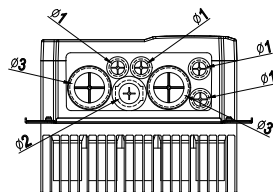
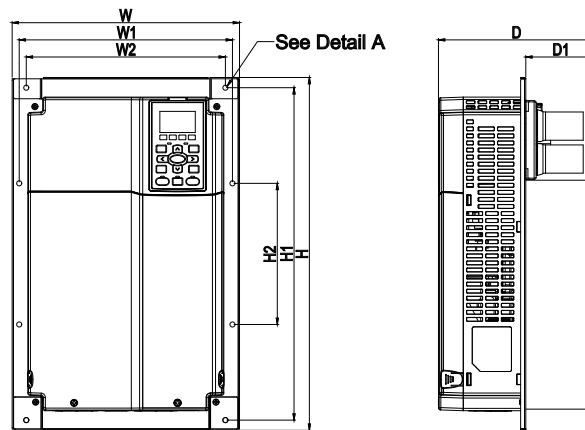
Detail A (Mounting Hole)

MODEL

VFD220CT43F21A3
VFD300CT43F21A3
VFD370CT43F21A7

Frame		W	W1	H	H1	H2	H3	D	D1	S1	Ø1	Ø2	Ø3
C	mm	290.0	268.0	400.0	180.0	111.0	335.0	129.5	11.5	7.0	22.2	34.0	50.0
	inch	11.42	10.55	15.75	7.09	4.37	13.19	5.10	0.45	0.28	0.87	1.34	1.97

■ Frame C (Flange mount)



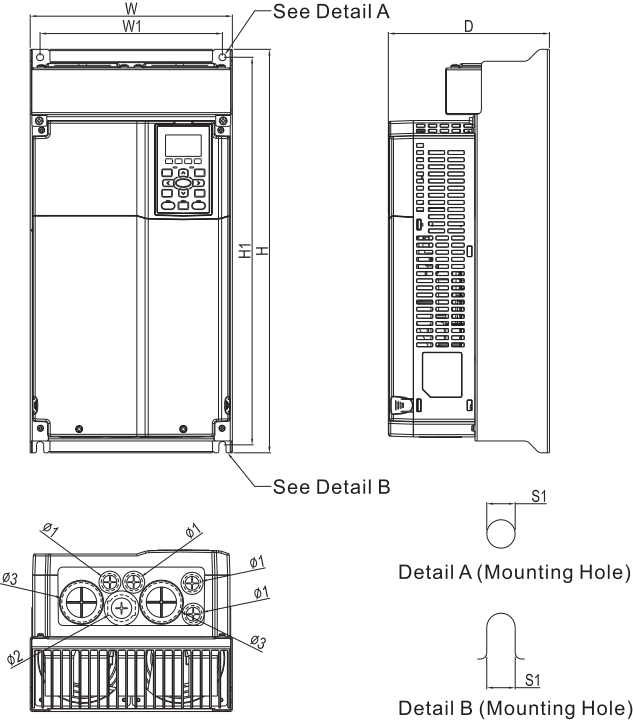
Detail A (Mounting Hole)

MODEL

VFD220CT43F00B
VFD300CT43F00B
VFD370CT43F00B

Frame		W	W1	H	H1	H2	D	D1	S1	Ø1	Ø2	Ø3
C	mm	290.0	272.0	450.0	424.0	180.0	199.5	88.2	6.5	22.2	34.0	50.0
	inch	11.42	10.71	17.72	16.69	7.09	7.86	3.47	0.26	0.87	1.34	1.97

■ Frame C (Wall mount)

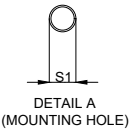
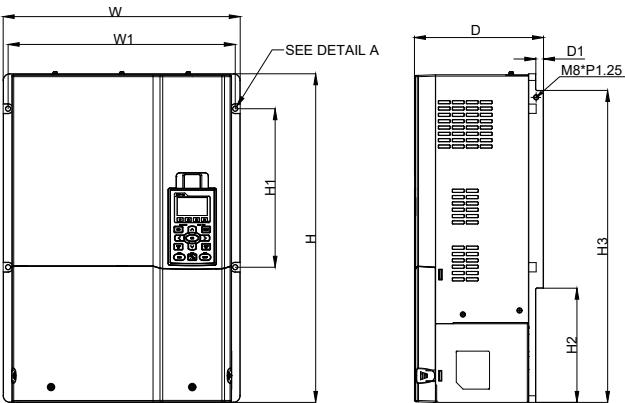


MODEL
VFD220CT43A21C
VFD300CT43A21C
VFD370CT43A21C

Frame		W	W1	H	H1	D	S1	$\phi 1$	$\phi 2$	$\phi 3$
C	mm	256.0	231.0	510.0	490.0	204.0	9.0	22.2	34.0	50.0
	inch	10.08	9.09	20.08	19.29	8.03	0.35	0.87	1.34	1.97

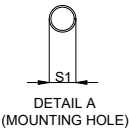
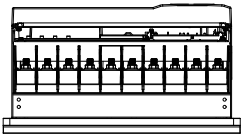
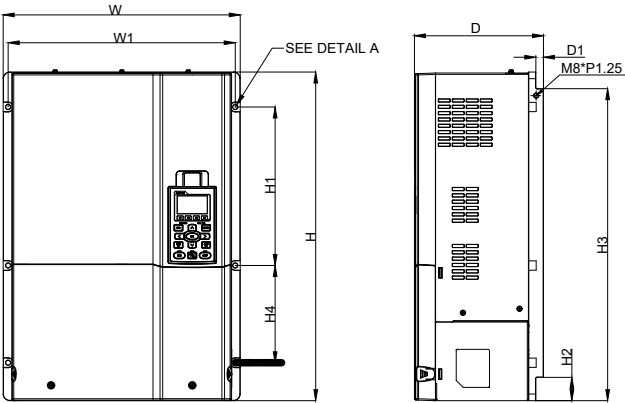


■ Frame D (Plate mount)



MODEL
VFD450CT43F00A3
VFD550CT43F00A4

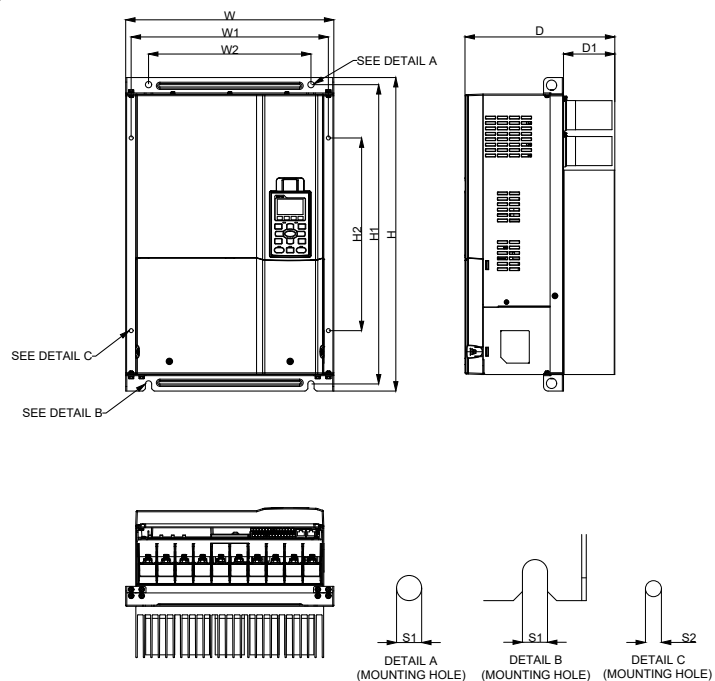
Frame		W	W1	H	H1	H2	H3	D	D1	S1
D-1	mm	356.0	341.0	493.5	238.0	171.5	468.5	193.8	11.5	7.0
	inch	14.02	13.43	19.43	9.37	6.75	18.44	7.63	0.45	0.28



MODEL
VFD750CT43F00A6
VFD900CT43F00A8

Frame		W	W1	H	H1	H2	H3	H4	D	D1	S1
D-2	mm	356.0	341.0	493.5	238.0	37.0	468.5	146.0	193.8	11.5	7.0
	inch	14.02	13.43	19.43	9.37	1.46	18.44	5.75	7.63	0.45	0.28

■ Frame D (Flange mount)



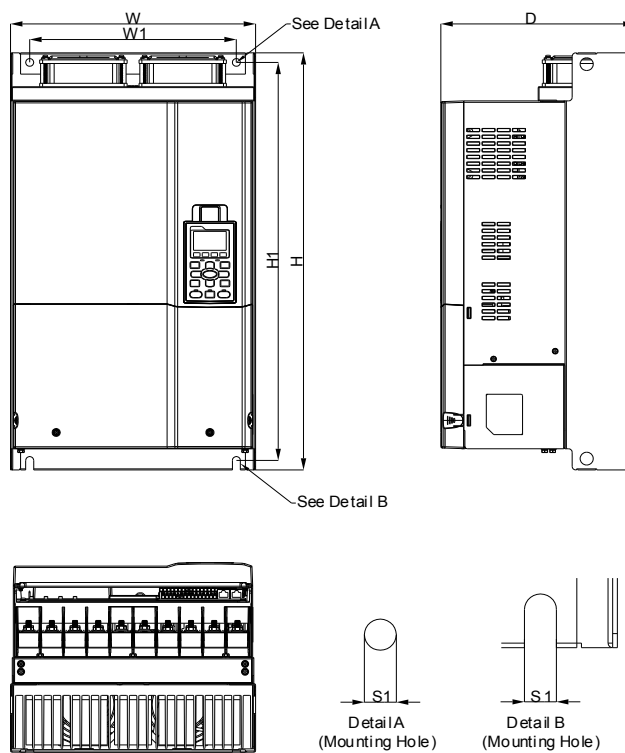
MODEL

VFD450CT43F00B

VFD550CT43F00B

Frame		W	W1	W2	H	H1	H2	D	D1	S1	S2
D	mm	365.2	346.0	285.0	550.0	525.0	338.0	262.8	90.0	11.0	7.0
	inch	13.38	13.62	11.22	21.65	20.67	13.31	10.35	3.54	0.43	0.28

■ Frame D (Wall mount)



MODEL

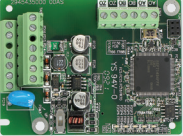
VFD450CT43A00C

VFD550CT43A00C

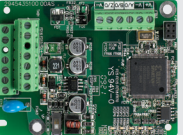
Frame		W	W1	H	H1	D	S1
D	mm	338.0	285.0	590.0	563.0	268.0	11.0
	inch	13.31	11.22	23.22	22.17	10.55	0.43

Accessories

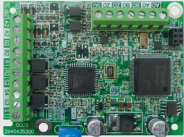
EMC-PG01L / EMC-PG02L

 Set by Pr.10-00 ~ 10-02	Terminals		Description
	PG1	VP	Output voltage for power: +5 V / +12 V $\pm$ 5% (use FSW3 to switch +5 V / +12 V) Max. output current: 200 mA
		DCM	Common for power and signal
		A1, /A1, B1, /B1, Z1, /Z1	Encoder input signal (Line Driver or Open Collector) Open collector input: +5 V / +24 V (Note1) 1-phase or 2-phase input Max. input frequency: EMC-PG01L: 300KHz; EMC-PG02L: 30KHz
	PG2	A2, /A2, B2, /B2	Pulse input signal (Line Driver or Open Collector) Open collector input: +5 V / +24 V (Note1) 1-phase or 2-phase input Max. input frequency: EMC-PG01L: 300KHz; EMC-PG02L: 30KHz
	PG OUT	AO, /AO, BO, /BO, ZO, /ZO, SG	PG card output signals. Division frequency function: 1 ~ 255 times Max. output voltage for Line driver: 5 V _{DC} Max. output current: 50 mA Max. output frequency: EMC-PG01L: 300KHz; EMC-PG02L: 30KHz SG: The GND of PG card is the same as the host controller or PLC, so a common output signal is attained.

EMC-PG01O / EMC-PG02O

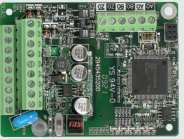
 Set by Pr.10-00 ~ 10-02	Terminals		Description
	PG1	VP	Output voltage for power: +5 V / +12 V $\pm$ 5% (use FSW3 to switch +5 V / +12 V) Max. output current: 200 mA
		DCM	Common for power and signal
		A1, /A1, B1, /B1, Z1, /Z1	Encoder input signal (Line Driver or Open Collector) Open collector input: +5 V / +24 V (Note1) 1-phase or 2-phase input Max. input frequency: EMC-PG01O: 300KHz; EMC-PG02O: 30KHz
	PG2	A2, /A2, B2, /B2	Pulse input signal (Line Driver or Open Collector) Open collector input: +5 V / +24 V (Note1) 1-phase or 2-phase input Max. input frequency: EMC-PG01O: 300KHz; EMC-PG02O: 30KHz
	PG OUT	V+, V+	Needs external power source for PG OUT circuit. Input voltage of power: +7 V ~ +24 V
		V-	Negative power supply input
		A/O, B/O, Z/O	PG card output signals. Division frequency function: 1 ~ 255 times Add a pull-up resistor to the open collector output signals to avoid signal interferences. [Three pull-up resistors are included in the package (1.8 K Ω / 1W)] Max. output current: 20 mA Max. output frequency: EMC-PG01O: 300KHz; EMC-PG02O: 30KHz

EMC-PG01R

 Set by Pr.10-00 ~ 10-02	Terminals		Description
	PG1	R1- R2	Resolver output power 7Vrms, 10kHz
		S1,S2, S3, S4	Resolver input signal 3.5 ± 0.175Vrms, 10kHz
	PG2	A2, /A2, B2, /B2	Pulse input signal (Line Driver or Open Collector) Open collector input: +5V / +24V (Note1) 1-phase or 2-phase input; Max. input frequency: 300 KHz
	PG OUT	AO, /AO, BO, /BO, ZO, /ZO, SG	PG card output signals. Division frequency function: 1 ~ 255 times Max. output voltage for Line driver: 5V _{DC} Max. output current: 50 mA Max. output frequency: 300 KHz SG: The GND of PG card is the same as the host controller or PLC, so a common output signal is attained.

EMC-PG01U / EMC-PG02U

FJMP1 : Standard UVW Output Encoder; : Delta Encoder

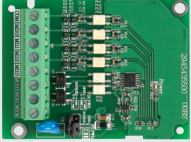
 Set by Pr.10-00 ~ 10-02	Terminals		Description
	PG1	VP	Output voltage for power: +5V / +12V ± 5% (use FSW3 to switch +5V / +12V) Max. output current: 200 mA
		DCM	Common for power and signal
		A1, /A1 ,B1, /B1, Z1, /Z1	Encoder input signal (Line Driver) 1-phase or 2-phase input. Max. input frequency: 300 KHz
		U1, /U1, V1, /V1, W1, /W1	Encoder input signal
	PG2	A2, /A2, B2, /B2	Pulse input signal Open collector input voltage: +5V / +24V (Note1) 1-phase or 2-phase input; Max. input frequency: 300KHz
	PG OUT	AO, /AO, BO, /BO, ZO, /ZO, SG	PG card output signals. Division frequency function: 1 ~ 255 times Max. output voltage for Line driver: 5V _{DC} Max. output current: 50 mA Max. output frequency: 300 KHz SG: The GND of PG card is the same as the host controller or PLC, so a common output signal is attained.

Note 1: For the Open Collector, set input voltage to 5 ~ 15mA and install a pull-up resistor

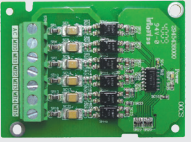
- [5V] Recommend pull-up resistor: 100 ~ 220 Ω , 1/2W and above
- [12V] Recommend pull-up resistor: 510 ~ 1.35k Ω , 1/2W and above
- [24V] Recommend pull-up resistor: 1.8k ~ 3.3k Ω , 1/2W and above



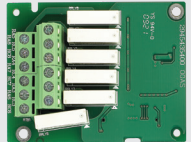
EMC-D42A

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

EMC-D611A

 I/O Extension Card	Terminals	Description
	AC	AC power common for multi-function input terminal (Neutral)
	MI10 ~ MI15	Refer to Pr. 02.26 ~ Pr. 02.31 for multi-function input selection Input voltage: 100 ~ 130 V _{AC} ; Input frequency: 47 ~ 63 Hz Input impedance: 27 Kohm Terminal response time: ON: 10 ms; OFF: 20 ms

EMC-R6AA

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

EMC-BPS01

 24V Power Shift Card	Terminals	Description
	24V GND	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 _{DC} ± 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.

CMC-EIP01



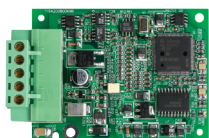
Features

- ▶ Supports EtherNet/IP and MODBUS TCP protocol
- ▶ User-defined parameter mapping
- ▶ IP Filter, basic firewall function

Network Interface

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

CMC-DN01



Features

- ▶ Based on the high-speed communication interface of Delta HSSP protocol, able to conduct immediate control of 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: 125Kbps, 250Kbps, 500Kbps and extendable serial transmission speed mode
- ▶ Node address and serial transmission speed can be set up on the AC motor drive
- ▶ Power supplied from the AC motor drive

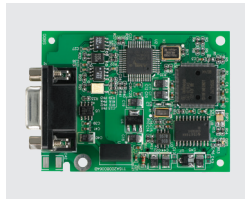
DeviceNet Connector

Interface	5-Pin 5.08mm pluggable connector
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

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. 12Mbps

PROFIBUS DP Connector

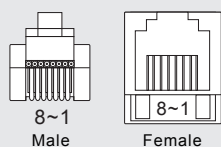
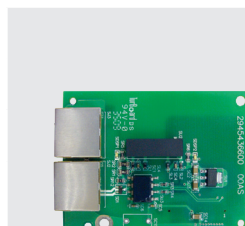
Interface	DB9 connector
Transmission method	High-speed RS-485
Transmission cable	Shielded twisted pair cable
Electrical isolation	500 V _{DC}

Communication

Message type	Cyclic data exchange
Module name	CMC-PD01
GSD document	DELA08DB.GSD
Company ID	08DB (HEX)
Serial transmission speed supported (auto-detection)	9.6 Kbps; 19.2 Kbps; 93.75 Kbps; 187.5 Kbps; 125 Kbps; 250 Kbps; 500Kbps; 1.5 Mbps; 3 Mbps; 6 Mbps; 12 Mbps (bits per second)

EMC-COP01

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-

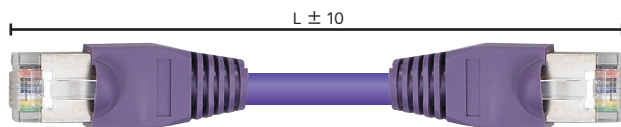
Network Interface

Interface	RJ-45
Number of ports	1 Port
Transmission method	CAN
Transmission cable	CAN standard cable
Transmission speed	1Mbps, 500 Kbps, 250 Kbps, 125 Kbps, 100 Kbps, 50 Kbps
Communication protocol	CANopen

■ Delta Standard Fieldbus Cables

Delta Cables	Part Number	Description	Length
CANopen Cable	UC-CMC003-01A	CANopen cable, RJ45 connector	0.3m
	UC-CMC005-01A	CANopen cable, RJ45 connector	0.5m
	UC-CMC010-01A	CANopen cable, RJ45 connector	1m
	UC-CMC015-01A	CANopen cable, RJ45 connector	1.5m
	UC-CMC020-01A	CANopen cable, RJ45 connector	2m
	UC-CMC030-01A	CANopen cable, RJ45 connector	3m
	UC-CMC050-01A	CANopen cable, RJ45 connector	5m
	UC-CMC100-01A	CANopen cable, RJ45 connector	10m
	UC-CMC200-01A	CANopen cable, RJ45 connector	20m
DeviceNet Cable	UC-DN01Z-01A	DeviceNet cable	305m
	UC-DN01Z-02A	DeviceNet cable	305m
EtherNet Cable	UC-EMC003-02A	EtherNet/EtherCAT cable, Shielding	0.3m
	UC-EMC005-02A	EtherNet/EtherCAT cable, Shielding	0.5m
	UC-EMC010-02A	EtherNet/EtherCAT cable, Shielding	1m
	UC-EMC020-02A	EtherNet/EtherCAT cable, Shielding	2m
	UC-EMC050-02A	EtherNet/EtherCAT cable, Shielding	5m
	UC-EMC100-02A	EtherNet/EtherCAT cable, Shielding	10m
	UC-EMC200-02A	EtherNet/EtherCAT cable, Shielding	20m
CANopen/DeviceNet TAP	TAP-CN01	1 in 2 out, built-in 121 Ω terminal resistor	1 in 2 out
	TAP-CN02	1 in 4 out, built-in 121 Ω terminal resistor	1 in 4 out
	TAP-CN03	1 in 4 out, RJ45 connector, built-in 121 Ω terminal resistor	1 in 4 out
PROFIBUS Cable	UC-PF01Z-01A	PROFIBUS DP cable	305m

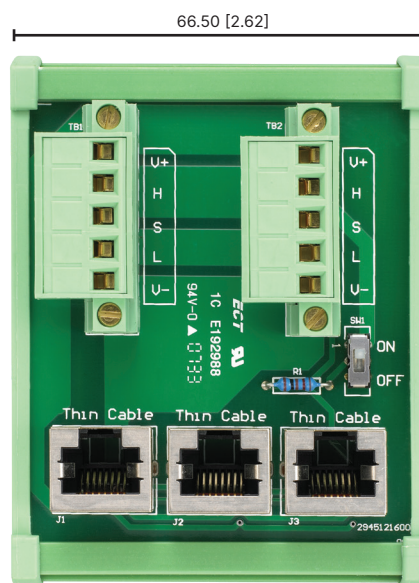
Unit: mm



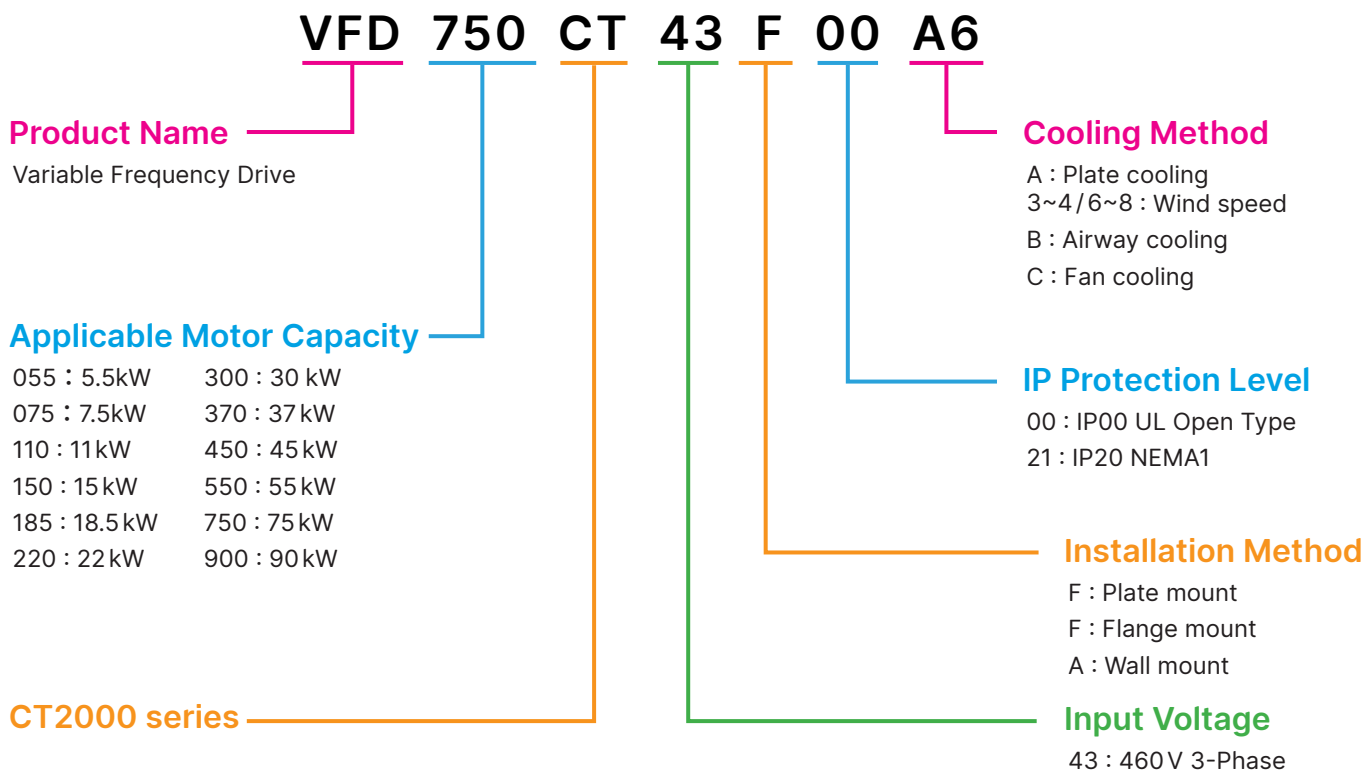
■ CANopen Breakout Box

Model: TAP-CN03

Unit: mm [inch]



Model Name



Ordering Information

- Plate mount models

Frame Size		Power Range	Models
Frame A		460V : 5.5kW~7.5kW	VFD055CT43F21A3 VFD075CT43F21A3
Frame B		460V: 11kW ~ 18.5 kW	VFD110CT43F21A3 VFD150CT43F21A3 VFD185CT43F21A3
Frame C		460V: 22 kW ~ 37 kW	VFD220CT43F21A3 VFD300CT43F21A3 VFD370CT43F21A7
Frame D		460V: 45 kW ~ 90 kW	VFD450CT43F00A3 VFD550CT43F00A4 VFD750CT43F00A6 VFD900CT43F00A8



Ordering Information

■ Flange mount models

Frame Size		Power Range	Models
Frame B		460 V: 11 kW ~ 18.5 kW	VFD110CT43F00B VFD150CT43F00B VFD185CT43F00B
Frame C		460 V: 22 kW ~ 37 kW	VFD220CT43F00B VFD300CT43F00B VFD370CT43F00B
Frame D		460 V: 45 kW ~ 90 kW	VFD450CT43F00B VFD550CT43F00B

■ Wall mount models

Frame Size		Power Range	Models
Frame B		460 V: 11 kW ~ 18.5 kW	VFD110CT43A21C VFD150CT43A21C VFD185CT43A21C
Frame C		460 V: 22 kW ~ 37 kW	VFD220CT43A21C VFD300CT43A21C VFD370CT43A21C
Frame D		460 V: 45 kW ~ 55 kW	VFD450CT43A00C VFD550CT43A00C



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