



Digitized Automation for a Changing World

Delta Crane Solution

www.deltaww.com



Lift Better, Work Safer

Cranes are widely applied in numerous industrial working environments such as factories, harbors, and construction sites. Essential to heavy loads handling, cranes significantly reduce intensive physical labor and enhance productivity. In the process of lifting, safety and efficiency have always been the priorities, which impose higher standards on the lifting equipment as technology progresses.

Delta has launched the Crane Solution with robust functions for weight lifting and advanced motion control technology. It features high starting torque and overload capacity to satisfy heavy duty and high impact load applications.

Its high performance makes weight lifting fast, smooth and safe, and it will exceed your expectations.





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Specifications

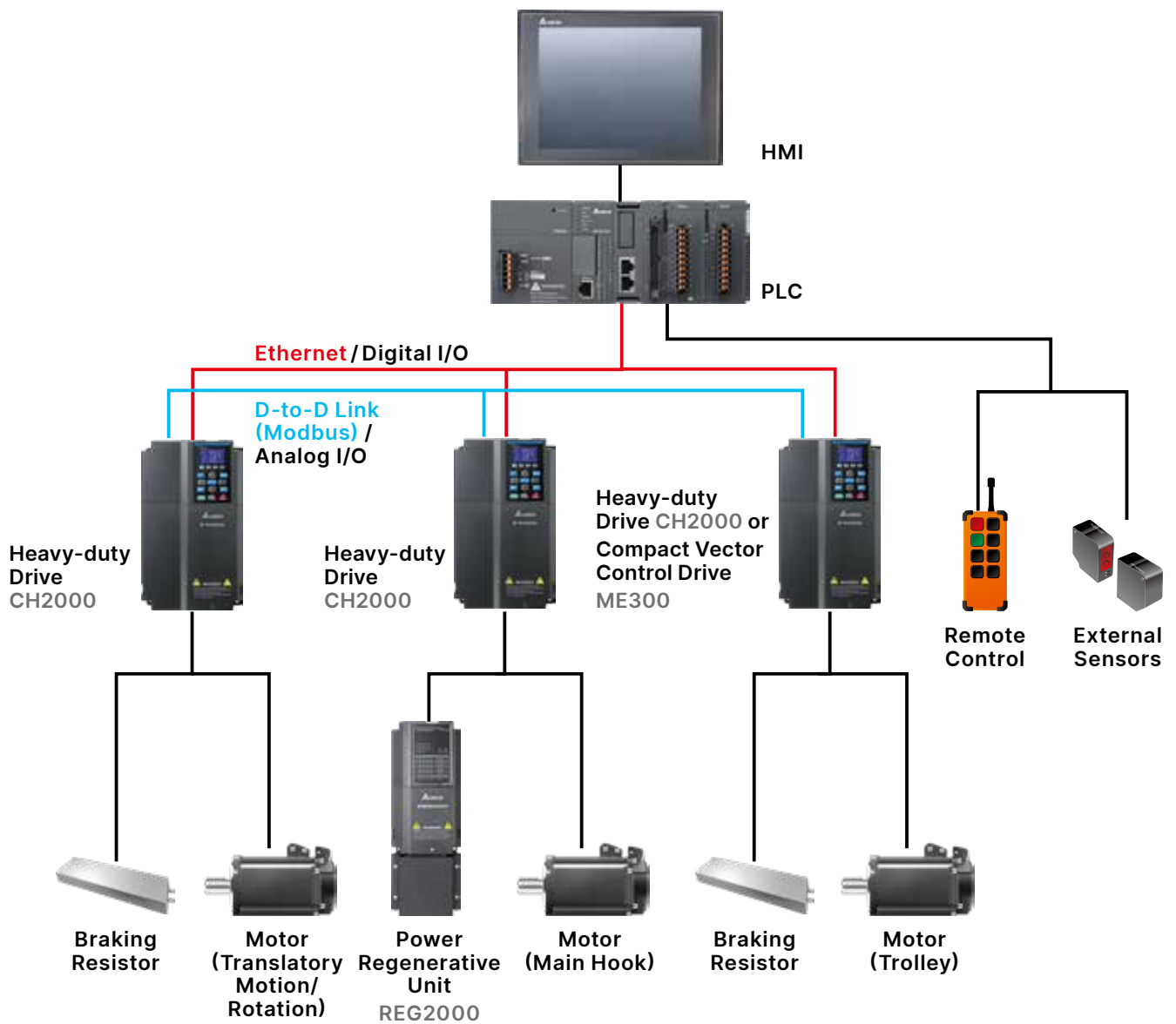
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System Structure



Overhead Crane



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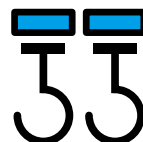


The Delta Crane Solution implements the Heavy-duty Vector Control Drive CH2000 Series, Compact Vector Control Drive ME300 Series, and Power Regenerative Unit REG2000 Series to meet the specific demands of the weight lifting industry.



Real-time Anti-sway Control

Reduces duty time with a streamlined mechanism to achieve higher safety and efficiency



Hoist Synchronization

Two drives can achieve position synchronization by the master-slave control hoisting the load simultaneously.



Efficient Lifting

Automatically detects the loading condition and adjusts speeds accordingly for smooth lifting



Safety Enhancement

Coordinated braking and torque output sequence prevents load slipping. A comprehensive set of protection functions further enhances work safety.



Anti-crab

Lowest the maintenance cost by reducing risks of skew and crab drift related with long spans



Easy Tuning

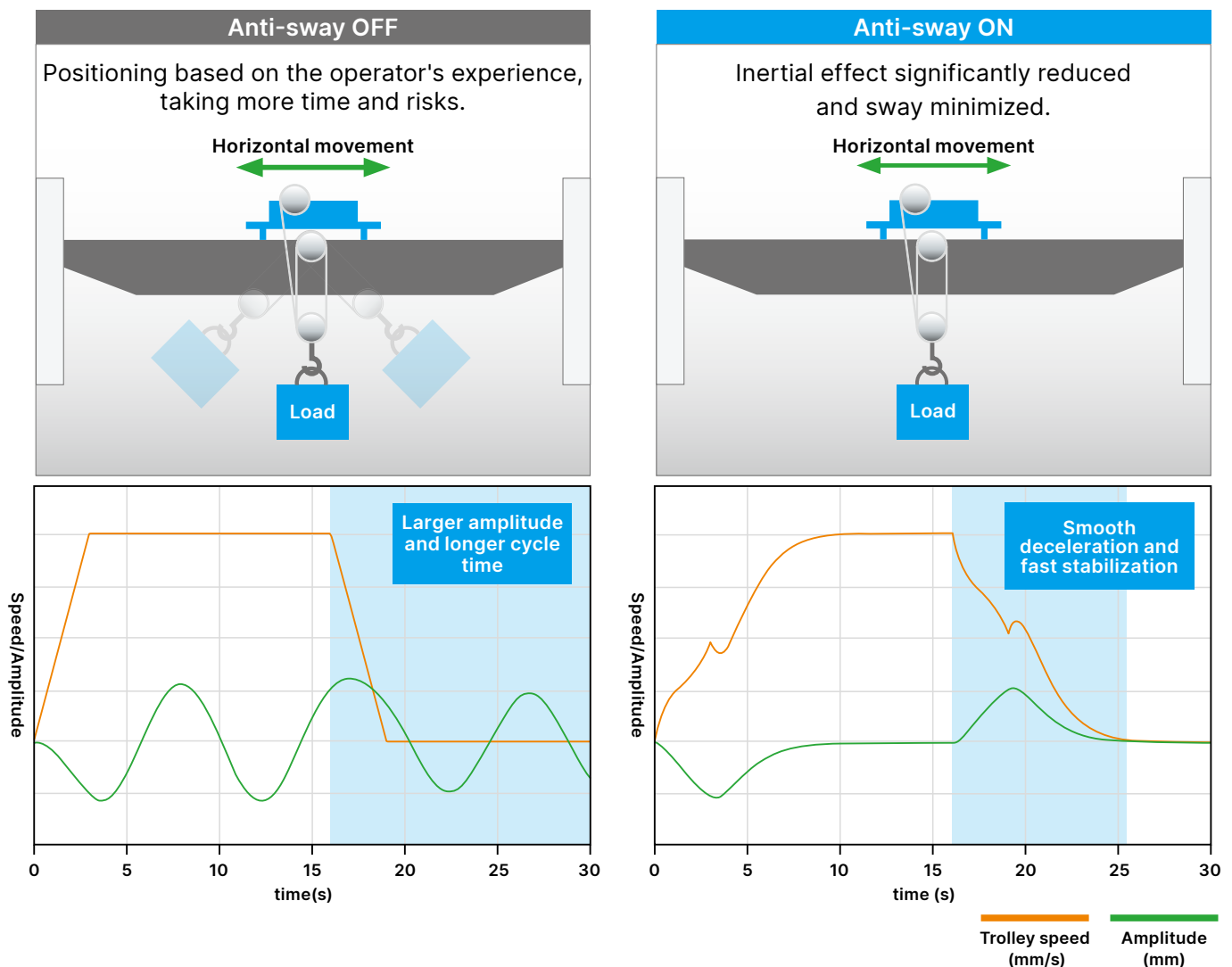
Simplifies the parameter setting process by grouping the parameters for different applications to use

Precise & Efficient

Real-time Anti-sway Control

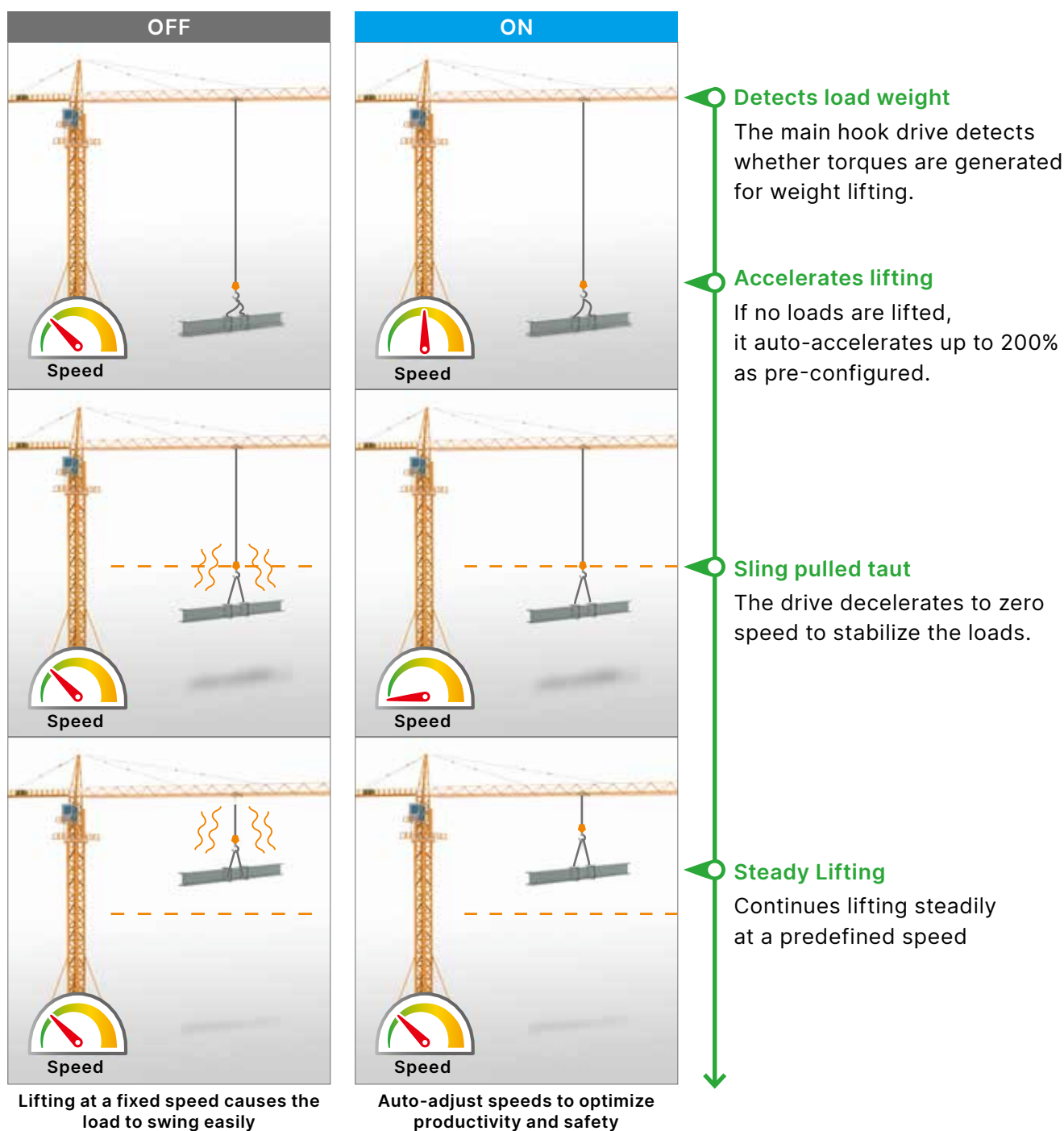
Delta's lifting solution does not require sensors, making it easier to **upgrade equipment, to shorten the waiting time of swing, and realize accurate and safe operation.** The effective algorithm reduces sway even in inching operations.

- Cease time shortened by 30 %
- Maximum amplitude < 2% of the sling length
- Reduces the inertial effect caused by speed changes throughout the whole operation, including inching
- Optimized auto-adjustment reduces human errors and extends equipment life



Efficient Lifting

The system **automatically adjusts to optimized speeds** during different stages of lifting. When no loads are attached, the system lifts at additional speeds to shorten the duty cycle. This feature **maximizes productivity and safety**.



Precise & Efficient

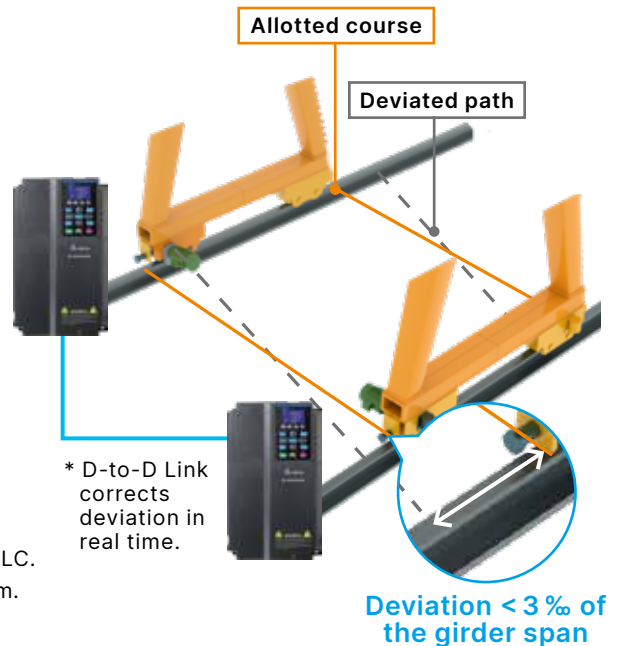
Anti-crab

The system corrects deviation in real time and synchronizes the moving parts of the girder via Delta's **Device-to-Device Link*** technology, which effectively reduces the risk of skew and crab drift related with long spans.

- The deviation is $< 3\%$ of the girder length, which conforms with regulation GB/T 3811-2008.**
- No monitoring devices or limit switches required.
- Easy maintenance: Load detection enabled by encoders and no monitoring devices or limit switches needed.
- Auto-correction ensures smooth operation and reduces manual corrections.

* Delta's Device-to-Device Link realizes internal communication between two AC drives for delicate movement control without a PLC.

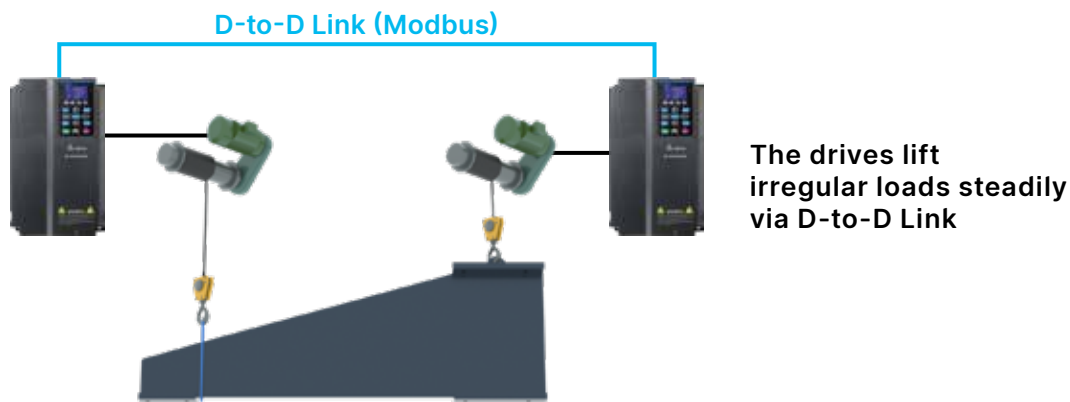
** Deviation correction is necessary for gantry cranes with a span $> 40\text{m}$.



Hoist Synchronization

Two drives can achieve **position synchronization** by the master-slave control hoisting the load simultaneously. The master-slave control functions via **Device-to-Device Link** and keeps the position difference at a constant value.

- Closed-loop system controls the positions of motors simultaneously without rigid connections, which is particularly essential for high duty applications.
- Simplifies operation and maintenance as the synchronization requires no PLC programming.
- Built-in single/dual hook parameter sets provide more operational flexibility.



Safe & Reliable

Brake and Torque Output Sequence Control for Lifting

The closed-loop control system continually monitors the mechanical brake status. This allows the drive to output torques before lifting to **prevent load slipping**. When a braking fault occurs, the drive continues to hold the load to ensure operation safety.

Multi-point Brake Status Check

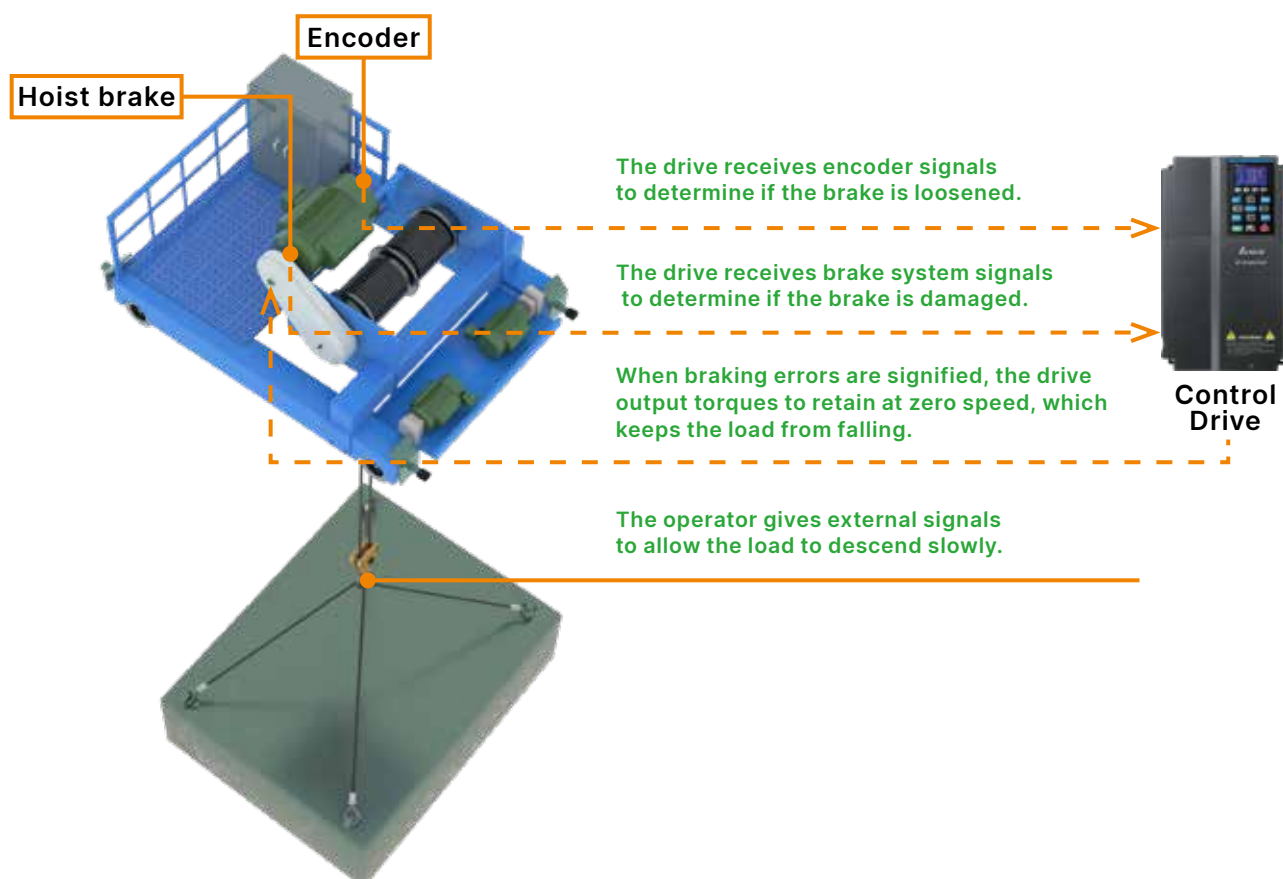
- Preoperational check on the braking force ensures the restraining torque keeps the loads from falling
- Continually checks braking signals before and during operation to prevent errors

Zero-speed Control

- Encoder feedback signals a loosened brake
- Automatically holds the load at zero speed when errors occur
- Operator can input orders to troubleshoot and allow the load to descend slowly.

Enhanced Slippage Prevention

- Drive outputs torques in coordination with a braking sequence. Before lifting, the drive generates torques to ensure enough force.
When the brake is released, the drive still has control over the load to prevent slipping.



Safe & Reliable

Comprehensive Safety Protection

This solution provides robust capabilities to improve safety and reliability, including **overspeed**, **overload** and **collision prevention**. The drives are also equipped with essential protection functions, such as short circuit and overheat protection.



Collision Prevention



Overspeed Control



Pre-operational brake force check



Overload Detection



Braking signal feedback



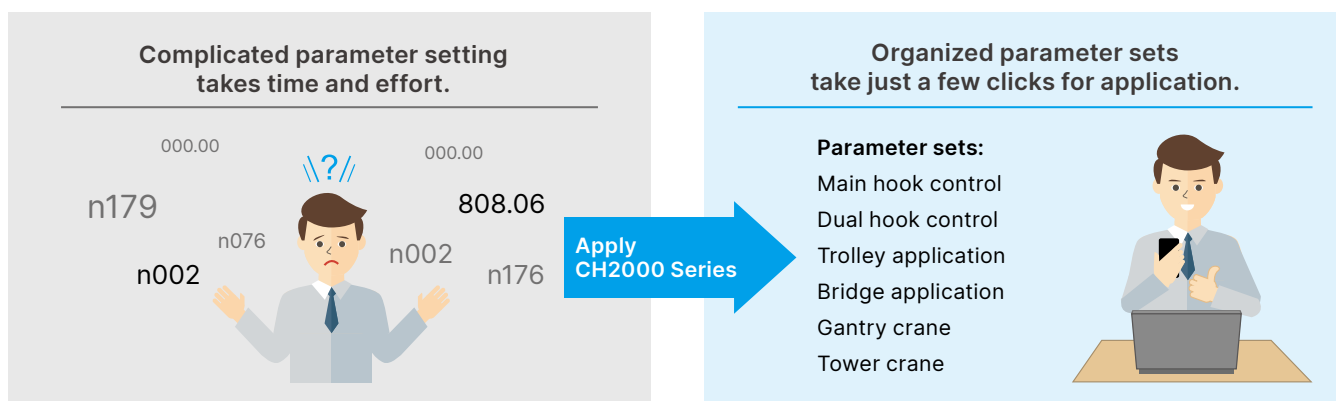
Operational brake status check

User-friendly

Simplifies the parameter setting process by grouping the parameters for different applications to use. Complete **industry-specific functions** reduce the PLC programming effort required.

- Tuning parameters for main hook, rotation and luffing are categorized by application scenarios to enable fast and convenient implementation.
- Mechanical parameters are pre-configured according to site experience to save time for tuning and searching.
- The drives directly communicate in real time to replace the need for PLCs.

Built-in Parameter Sets



Heavy Duty Vector Control Drive CH2000

Excellent High Overload Capability for Impact Loading Applications

Applications: Main hook | Bridge/Rotation | Trolley

- Fast response to impact loads
- Super Heavy Duty (SHD) setting for high overload capability:
150 % / 60 secs, 200 % / 3 secs
- Large starting torque: Over 200 % at 0.5Hz /
200 % at 0Hz in FOC+PG mode
- Supports both induction and permanent magnet motors
- Dedicated functions for crane application to enhance
safety and positioning, including real-time anti-sway,
deviation correction and torque detection
- Modular design for easy installation and maintenance
- Built-in PLC with 10k steps program capacity
- Built-in braking unit (up to 75 kW)
- Built-in Modbus, optional communication cards: PROFIBUS DP, DeviceNet,
Modbus TCP, EtherNet/IP, EtherCAT and CANopenEtherNet/IP, EtherCAT and CANopen



Basic Compact Drive ME300

Compact and Low Power Range for Basic Applications

Application: Trolley

- V/F and SVC control modes
- Supports both induction and permanent magnet motors
- High torque of 200 % at low speed (3Hz)
- Built-in braking chopper
- Built-in anti-sway control
- Pulse/PWM input as frequency command
- Built-in EMC filter (optional) and Safe Torque Off (STO) SIL2/PL d (optional)
- Operating temperature: Max. 60°C/50°C at rated current
- PCB with 100 % conformal coating; compliant with IEC 60721-3-3 Class 3C3
- Built-in Modbus protocol

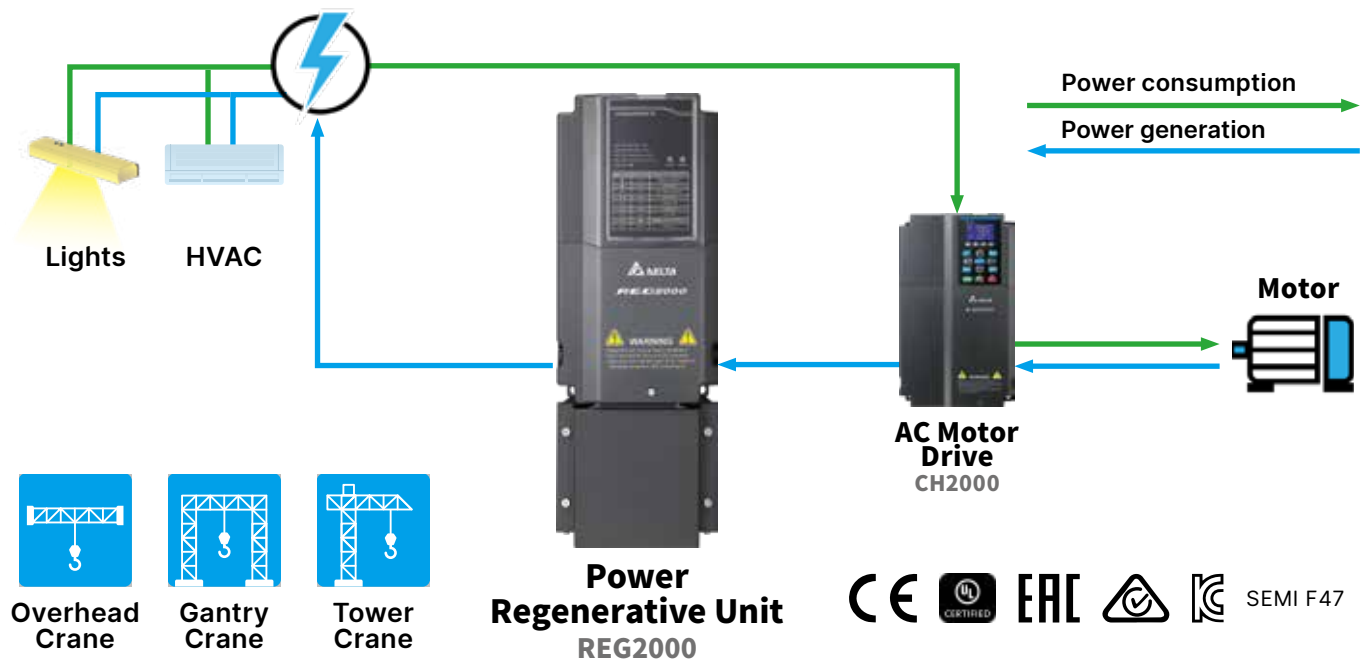


Power Regenerative Unit REG2000

Replaces Traditional Brake Resistor and
Features Power Regeneration

Application: Main hook

- Compact design with a built-in reactor for easy installation
- No need for parameter setting, suitable for general applications and installation to existing systems
- Outstanding energy-saving performance with more than 95 % power regeneration efficiency
- Supports 4 parallel connections* for large power applications
* Derate current by 20 %.
- Compatible with the drives and servo drives that have DC terminals
- Improves motor braking capability up to 150 % from 125 % of braking resistors
- Built-in RS-485 (Modbus) communication and real-time monitoring of energy-saving performance and cost

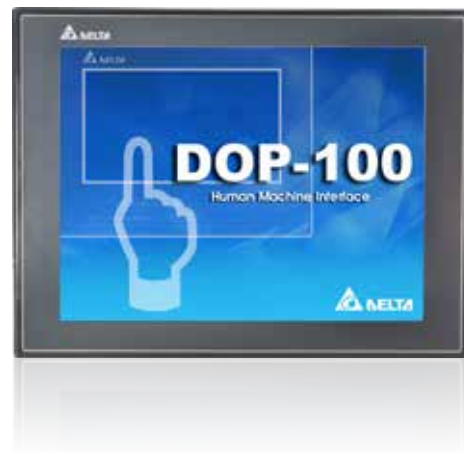


Additional Products

Human Machine Interface DOP-100 Series

Application: [Panel operation](#)

- Basic, standard and advanced types satisfy different needs.
- New generation Cortex-A8/dual core 1GHz high-speed processor
- High brightness, high contrast 65,535 colors LED screen



Compact Modular Mid-range PLC AS Series

Applications: [Main hook](#) | [Bridge](#) | [Trolley](#)

- 32-bit SoC CPU, max. extension to 32 modules or 1,024 I/O points
- Max. 8 axes control via CANopen motion network/
max. 6 axes control via pulse control (200 kHz)
- Built-in CANopen and EtherNet/IP industrial network protocol



High Performance PLC DVP-EH3 Series

Applications: [Main hook](#) | [Bridge](#) | [Trolley](#)

- Max. 4-axis control via high-speed pulse (200 kHz)
with the execution speed at 0.24 μ s
- 32-bit CPU+ASIC dual processor supports floating-point operation
- Extension modules and cards for more functions, including
additional single-axis motion control and high-speed counting
- Addable third serial port or EtherNet card
- Automatically back up programs



Heavy Duty Vector Control Drive CH2000

Specifications

230 V																	
Frame		A				B			C		D			E		F	
Model	VFD----CH23A-XX	007	015	022	037	055	075	110	150	185	220	300	370	450	550	750	
Output Rating	Super Heavy Duty	Rated Output Capacity (kVA)	2.0	3.2	4.4	6.8	10	13	20	26	30	36	48	58	72	86	102
		Rated Output Current (A)	5	8	11	17	25	33	49	65	75	90	120	146	180	215	255
		Applicable Motor Output (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75
		Applicable Motor Output (HP)	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100
		Overload Tolerance	150 % of rated current: 60 seconds 200 % of rated current: 3 seconds														
		Max. Output Frequency (Hz)	0.00 ~ 599.00														
		Carrier Frequency (kHz)	5 ~ 15														
Input Rating	Input Current (A) Super Heavy Duty	6.4	12	16	20	28	36	52	72	83	99	124	143	171	206	245	
	Rated Voltage/Frequency	3-phase 200 ~ 240 V _{AC} (-15 ~ +10 %) , 50/60Hz															
	Operating Voltage Range	170 ~ 265 V _{AC}															
	Frequency Tolerance	47 ~ 63Hz															
	Power Supply Capacity (kVA)	2.1	3.3	4.6	7.1	10.4	13.7	20.4	27.0	31.2	37.4	43.6	60.7	74.8	89.4	106.0	
Efficiency (%)		97.8												98.2			
Displacement Power Factor (cosθ)		> 0.98															
Net Weight (kg)		2.6 ± 0.3				5.4 ± 1			9.8 ± 1.5		38.5 ± 1.5			64.8 ± 1.5		86.5 ± 1.5	
Cooling Method		Natural Air Cooling	Fan Cooling														
Braking Chopper		Frame A to C: built-in										Frame D to F: optional					
DC Reactor		Frame A to C: optional										Frame D to F: built-in					
EMC Filter		Optional															

Notes:

1. The carrier frequency shown in the table is the default setting. Operate with lower current when raising the carrier frequency. Refer to the derating curve graph in chapter 9-5 of the manual.
2. Lower the current when controlled by FOC Sensorless, TQC+PG, TQC Sensorless, PM+PG, PM Sensorless.
3. The rated input current will be influenced by transformer, input reactor and input impedance.

460 V													
Frame		A					B			C			
Model	VFD---CH43A-XX	007	015	022	037	055	075	110	150	185	220	300	
	VFD---CH4EA-XX												
Output Rating	Super Heavy Duty	Rated Output Capacity (kVA)	2.4	3.2	4.8	7.2	9.6	14	19	25	30	36	48
		Rated Output Current (A)	3	4	6	9	12	18	24	32	38	45	60
		Applicable Motor Output (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30
		Applicable Motor Output (HP)	1	2	3	5	7.5	10	15	20	25	30	40
		Overload Tolerance	150 % of rated current: 60 seconds 200 % of rated current: 3 seconds										
		Max. Output Current (Hz)	0.00~599.00										
		Carrier Frequency (kHz)	5~15										
Input Rating	Input Current (A) Super Heavy Duty	4.3	5.9	8.7	14	17	20	26	35	40	47	63	
	Rated Voltage/Frequency	3-phase 380~480 V _{AC} (-15 ~ +10 %) , 50/60 Hz											
	Operate Tolerance Range	323 ~ 528 V _{AC}											
	Frequency Tolerance	47 ~ 63 Hz											
	Power Supply Capacity (kVA)	2.5	3.3	5.0	7.5	10.0	15.0	20.0	26.6	31.6	37.4	49.9	
Efficiency (%)		97.8											
Displacement Power Factor (cosθ)		> 0.98											
Net Weight (kg)		2.6 ± 0.3					5.4 ± 1			9.8 ± 2			
Cooling Method		Natural Air Cooling	Fan Cooling										
Braking Chopper		Frame A to C: built-in											
DC Reactor		Frame A to C: optional											
EMC Filter		Frame A to C, VFD____CH4EA-21: built-in Frame A to C, VFD____CH43A-21: optional											

Notes:

1. The carrier frequency shown in the table is the default setting. Operate with lower current when raising the carrier frequency. Refer to the derating curve graph in chapter 9-5 of the manual.
2. Apply higher level model when having to take impact load

Heavy Duty Vector Control Drive CH2000



Specifications

460V																
Frame		D0	D			E		F	G			H				
Model	VFD---_CH43X-XX		370	450	550	750	900	1100	1320	1600	1850	2200	2800	3150	3550	4500
Output Rating	Super Heavy Duty	Rated Output Capacity (kVA)	58	73	88	120	143	175	199	247	295	359	438	491	544	690
		Rated Output Current (A)	73	91	110	150	180	220	250	310	370	450	550	616	683	866
		Applicable Motor Output (kW)	37	45	55	75	90	110	132	160	185	220	280	315	355	450
		Applicable Motor Output (HP)	50	60	75	100	125	150	175	215	250	300	375	420	475	600
		Overload Tolerance	150% of rated current: 1 minute for every 5 minutes; 200% of rated current: 3 seconds for every 30 seconds													
		Max. Output Current (Hz)	0.00 ~ 599.00													
		Carrier Frequency (kHz)	5~15 (Default: 6)					4 ~ 10 (Default: 4)								
Input Rating	Input Current (A) Super Heavy Duty		74	101	114	157	167	207	240	300	380	400	494	555	625	866
	Rated Voltage/Frequency		3-phase 380 ~ 480 V _{AC} (-15 ~ +10%) , 50/60Hz													
	Operate Tolerance Range		323 ~ 528 V _{AC}													
	Frequency Tolerance		47 ~ 63Hz													
	Power Supply Capacity (kVA)		60.7	75.7	91.4	124.7	149.6	182.9	207.8	257.7	307.6	365.8	457.2	512.1	567.8	720.0
Efficiency (%)			97.8				98.2									
Displacement Power Factor (cosθ)			> 0.98													
Net Weight (kg)			38.5 ± 1.5			64.8 ± 1.5		86.5 ± 1.5	134 ± 4			228				
			36 ± 1.5 *		46 ± 1.5 *											
Cooling Method			Fan Cooling													
Braking Chopper			Frame D/D0: optional Module VFD---CH43L-00: built-in				Frame E and above: optional									
DC Reactor			Frame D and above: built-in; module VFD370CH43L-00: optional													
EMC Filter			Frame D0 and above: optional													

Notes:

1. The carrier frequency shown in the table is the default setting. Operate with lower current when raising the carrier frequency.
Refer to the derating curve graph in chapter 9-5 of the manual.
2. Apply higher level model when having to take impact load
3. Calculation of rated output capacity is based on 460 V_{AC} as the reference for inverters of utility power
4. *marks the weight of model VFD---CH43L-00

General Specifications


CH2000		
Control Characteristics	Control Method	1: V/F, 2: SVC, 3: VF + PG, 4: FOC + PG, 5: TQC + PG
	Starting Torque	Reach up to 200 % or above at 0.5Hz. Under FOC + PG mode, starting torque can reach 200 % at 0Hz
	V/F Curve	4 point adjustable V/F curve and square curve
	Speed Response Ability	5 Hz (vector control can reach up to 40 Hz)
	Torque Limit	Max. 220 % torque current
	Torque Accuracy	± 5 %
	Max. Output Frequency (Hz)	0.00 ~ 599.00 Hz
	Frequency Output Accuracy	Digital command: ±0.01 % of max. output current (parameter 01-00). (-10 ~ +40 °C) Analog command: ±0.01 % of max. output current (parameter 01-00). (25 ±10 °C)
	Output Frequency Resolution	Digital command: 0.1Hz Analog command: 0.05 % of max. output frequency (parameter 01-00). (±11 bit)
	Overload Tolerance	150 % of rated current: 1 minute for every 5 minutes; 200 % of rated current: 3 seconds for every 30 seconds
Protection Characteristics	Frequency Setting Signal	-10 ~ +10 V, 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 Function	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
	Fan Control	230V model: VFD150CH23A-21 (include) and series above: PMW control VFD110CH23A-21 (include) and series below: on/off switch control 460V model: VFD185CH43A/4EA-21 (include) and series above: PMW control VFD150CH43A/4EA-21 (include) and series below: on/off switch control
	Motor Protection	Electronic thermal relay protection
	Over-current Protection	Output over-current protection Drive model 230V and 460V: over-current protection for 300 % rated current Current clamp (super heavy duty: 220 %) Brake over-current protection Over-current protection for 150 % rated current (Applicable models: VFD370CH43L-00, VFD450CH43L-00, VFD550CH43L-00, VFD750CH43L-00)
	Over-voltage Protection	230V: drive will stop when DC-BUS voltage exceeds 410V 460V: drive will stop when DC-BUS voltage exceeds 820V
	Over-temperature Protection	Built-in temperature sensors: capacitor, IGBT, braking chopper (Applicable for modules: VFD450CH43L-00, VFD550CH43L-00, VFD750CH43L-00)
	Stall Prevention	Stall prevention during acceleration, deceleration and running independently
	Restart after Instantaneous Power Failure	Parameter setting up to 20 seconds
Product Certifications	Grounding Leakage Current Protection	Leakage current is higher than 50 % of rated current of the AC motor drive
	Short Circuit Current Rating (SCCR)	Under the regulation UL508C, the fuse applies to power supply system with short circuit capacity under 100 kA
	Product Certifications	  GB/T12668-2
Safety Functions		Emergency stop (STO according to EN/IEC61800-5-2), TÜV Rheinland Certificate IEC62061/IEC61508, SIL CL2, EN ISO13849-1, Cat.3/PL d

Notes:

- Max. output current setting changes with the carrier wave and control mode.
Refer to detailed information about parameters 01-00 and 06-55 in manual.
- The following modules do not have UL and STO certificates:
VFD3150CH43A-00, VFD3150CH43C-21, VFD3550CH43A-00, VFD3550CH43C-21,
VFD4500CH43A-00, VFD4500CH43C-21, VFD370CH43L-00, VFD450CH43L-00, VFD550CH43L-00, VFD750CH43L-00



Heavy Duty Vector Control Drive CH2000

Environment for Operation, Storage and Transportation

DO NOT expose the AC motor drive to harsh environments, such as direct, direct sunlight, corrosive /flammable gas, humidity, liquid or vibrations. The salts in the air must be less than 0.01mg / cm2 per year.			
Operating Environment	Installation Location	IEC60364-1/IEC60664-1 Pollution degree 2, indoor use only	
	Surrounding Temperature (°C)	Storage/ Transportation	- 25 ~ + 70
		Only allowed at non-condensation, non-frost, non-conductive environment.	
	Rated Humidity (%)	Operation/Storage/ Transportation	Max. 95
		Only allowed at non-condensation, non-frost, non-conductive environment.	
	Air Pressure (kPa)	Operation/ Storage	86 ~ 106
		Transportation	70 ~ 106
	Pollution Level	IEC 60721-3-3	
		Operation	Class 3C3 ; Class 3S2
		Storage	Class 1C2 ; Class 1S2
		Transportation	Class 2C2 ; Class 2S2
If the product needs to operate under a hazardous frosty, humid or dusty industrial environment, please install the product in a IP54 environment such as a cabinet.			
Altitude	Operation	If the AC motor drive is installed at an altitude 0 ~ 1,000m, follow normal operation restrictions. If it is installed at altitude 1,000 ~ 2,000m, 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 2,000m; for application over 2,000m, please contact Delta for more details.	
Package Drop	Storage/ Transportation	ISTA procedure 1A (according to weight) IEC60068-2-31	
Vibration	1.0mm, peak to peak value ranges from 2Hz to 13.2Hz; 0.7G ~ 1.0G ranges from 13.2Hz to 55Hz; 1.0G ranges from 55Hz to 512Hz. Complies with IEC 60068-2-6.		
Impact	Compliant to IEC /EN 60068-2-27		
Operation Position	Max. allowed offset angle ±10° (under normal installation position)		



Operation Temperature and Protection Level

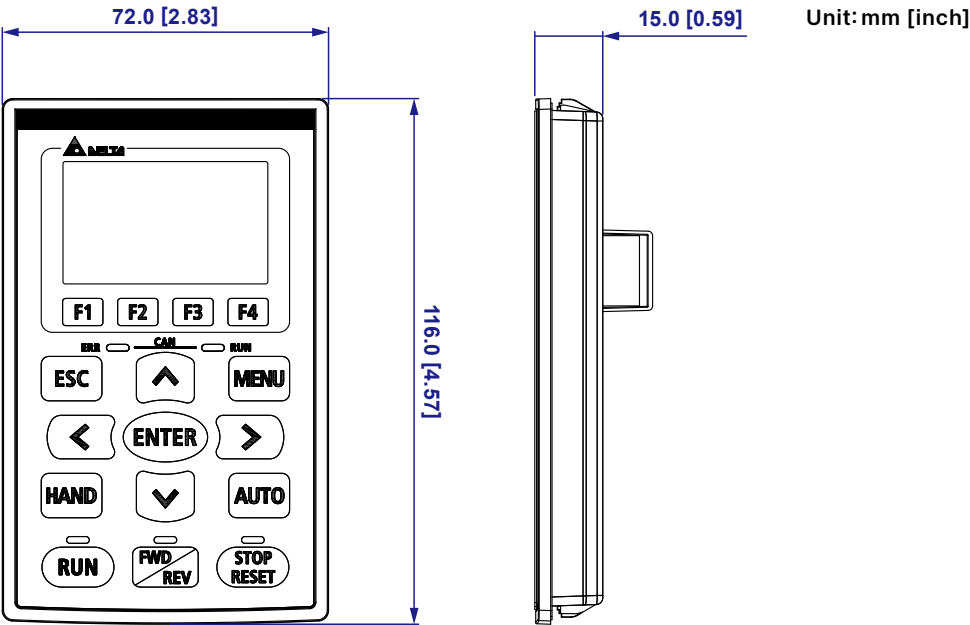
Model	Frame	Top Cover	Conduit Box	Protection Level	Operation Temperature
VFD----- CH-----21	Frame A~C 230 V: 0.75 ~ 18.5 kW 460 V: 0.75 ~ 30 kW	Remove top cover	Standard conduit plate	IP20 / UL Open Type	-10 ~ 50 °C
		Standard with top cover		IP20 / UL Type1 / NEMA1	-10 ~ 40 °C
	Frame D~H 230 V: 22 kW and above 460 V: 37 kW and above	N/A	Conduit Box	IP20 / UL Type1 / NEMA1	-10 ~ 40 °C
VFD----- CH-----00	Frame D~H 230 V: 22 kW and above 460 V: 37 kW and above	N/A	Without standard conduit box	IP00 IP20 / UL Open Type  Protection degree for the circled area is IP100; other areas are IP20	-10 ~ 50 °C
VFD----- CH--L-00	Frame D0-3 460 V: 37 kW	N/A	Without standard conduit box	IP20 / NEMA1	-10 ~ 50 °C
	Frame D3 460 V: 45, 55, 75 kW	N/A	Without standard conduit box	IP00  Protection degree for the circled area is IP100; other areas are IP20	-10 ~ 50 °C



Heavy Duty Vector Control Drive CH2000

Dimensions

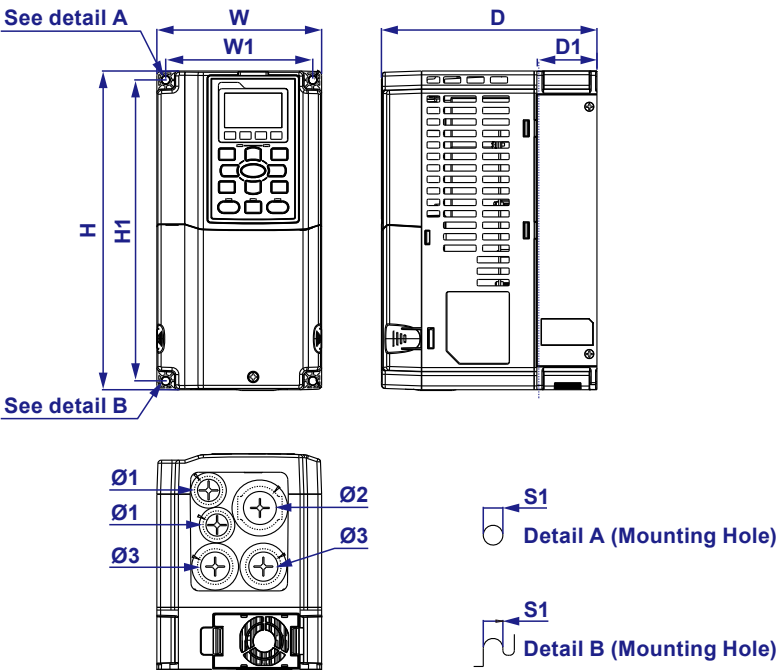
Digital Keypad
KPC-CC01



Frame A

Model

VFD007CH23A-21	VFD037CH43A-21
VFD015CH23A-21	VFD055CH43A-21
VFD022CH23A-21	VFD007CH4EA-21
VFD037CH23A-21	VFD015CH4EA-21
VFD007CH43A-21	VFD022CH4EA-21
VFD015CH43A-21	VFD037CH4EA-21
VFD022CH43A-21	VFD055CH4EA-21



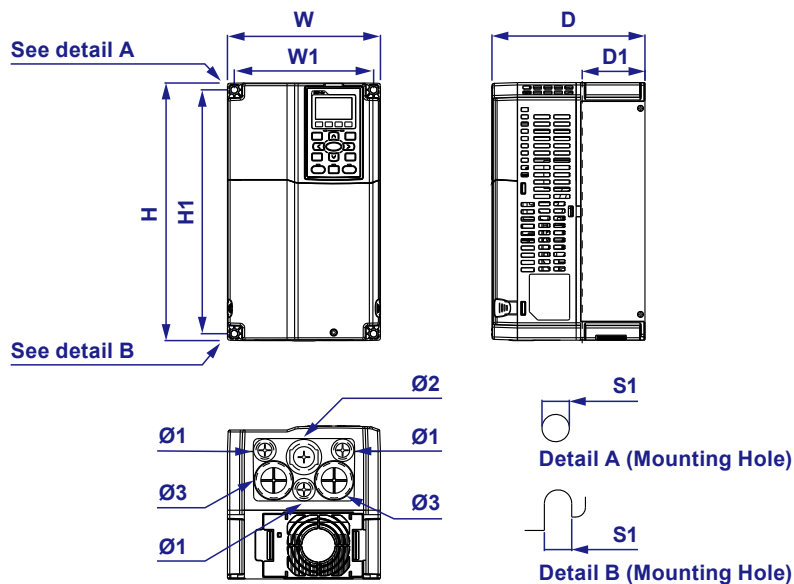
Frame		W	H	D	W1	H1	D1*	S1	Ø1	Ø2	Ø3
A1	mm	130.0	250.0	170.0	116.0	236.0	45.8	6.2	22.2	34.0	28.0
	inch	5.12	9.84	6.69	4.57	9.29	1.80	0.24	0.87	1.34	1.10

D1*: Flange mount

Frame B

Model

VFD055CH23A-21
VFD075CH23A-21
VFD110CH23A-21
VFD075CH43A-21
VFD110CH43A-21
VFD150CH43A-21
VFD075CH4EA-21
VFD110CH4EA-21
VFD150CH4EA-21



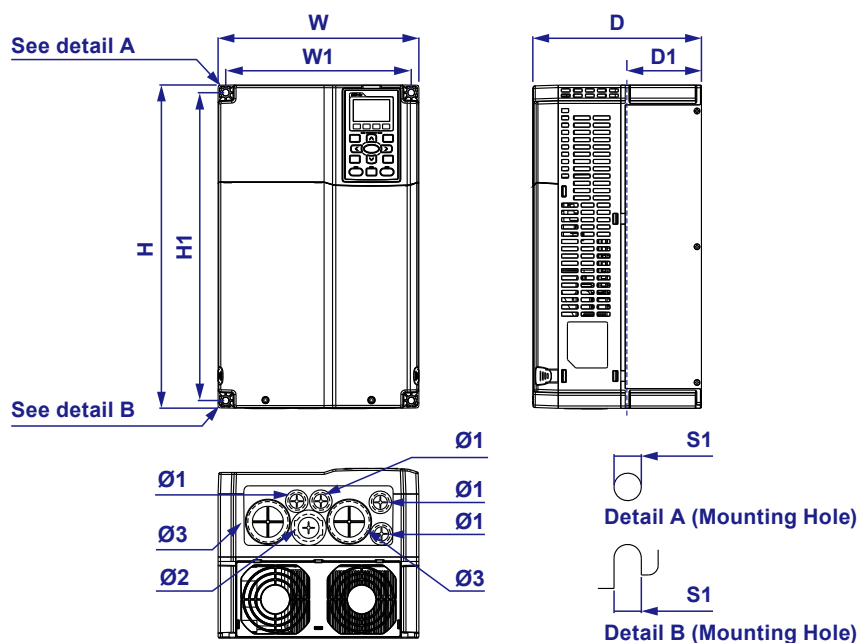
Frame		W	H	D	W1	H1	D1*	S1	Ø1	Ø2	Ø3
B1	mm	190.0	320.0	190.0	173.0	303.0	77.9	8.5	22.2	34.0	43.8
	inch	7.48	12.60	7.48	6.81	11.93	3.07	0.33	0.87	1.34	1.72

D1*: Flange mount

Frame C

Model

VFD150CH23A-21
VFD185CH23A-21
VFD185CH43A-21
VFD220CH43A-21
VFD300CH43A-21
VFD185CH4EA-21
VFD220CH4EA-21
VFD300CH4EA-21



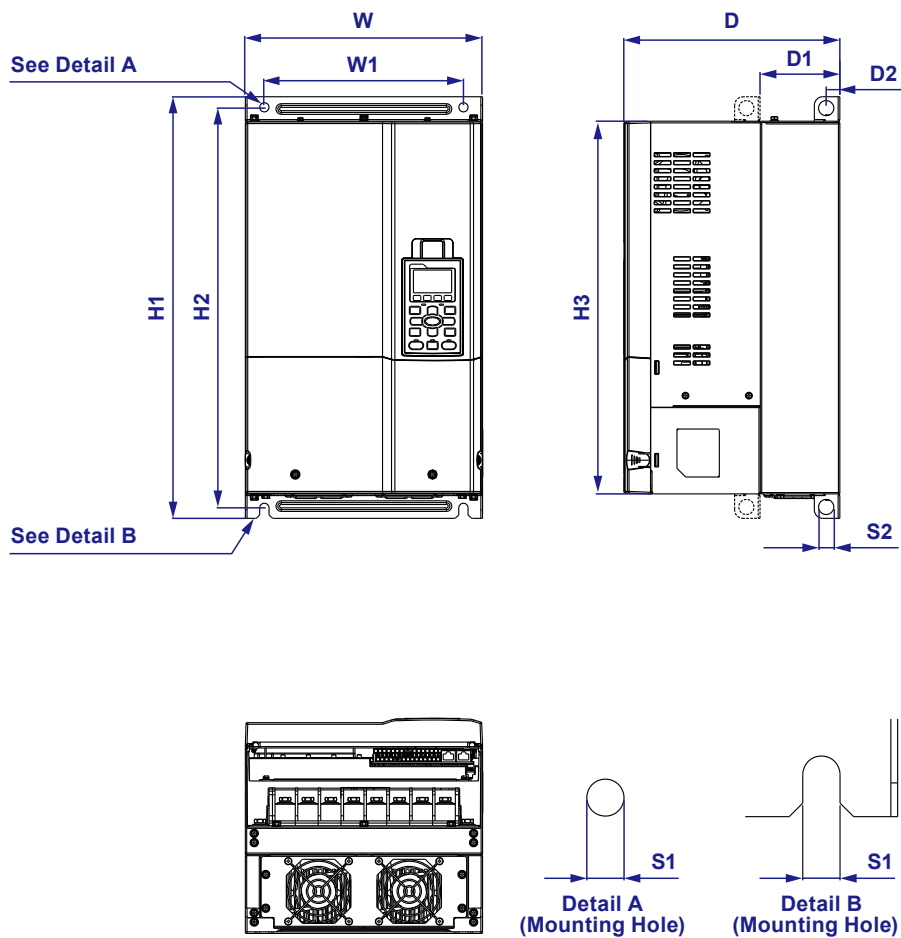
Frame C		W	H	D	W1	H1	D1*	S1	Ø1	Ø2	Ø3
C1	mm	250.0	400.0	210.0	231.0	381.0	92.9	8.5	22.2	34.0	50.0
	inch	9.84	15.75	8.27	9.09	15.00	3.66	0.33	0.87	1.34	1.97

D1*: Flange mount

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame D0-1



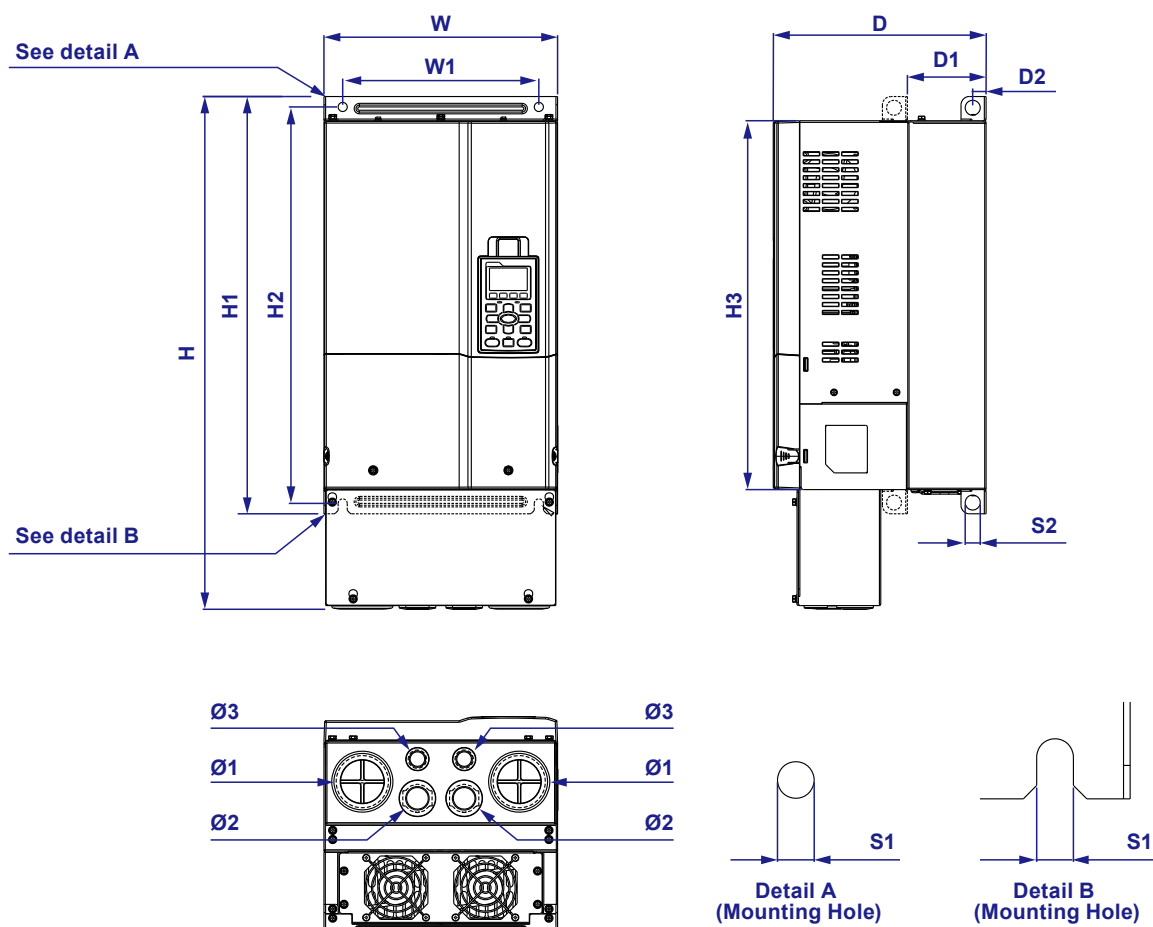
Model

VFD370CH43S-00

Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2
D0-1	mm	280.0	-	255.0	235.0	500.0	475.0	442.0	94.2	16.0	11.0	18.0
	inch	11.02	-	10.04	9.25	19.69	18.70	17.40	3.71	0.63	0.43	0.71

D1*: Flange mount

Frame D0-2



Model

VFD370CH43S-21

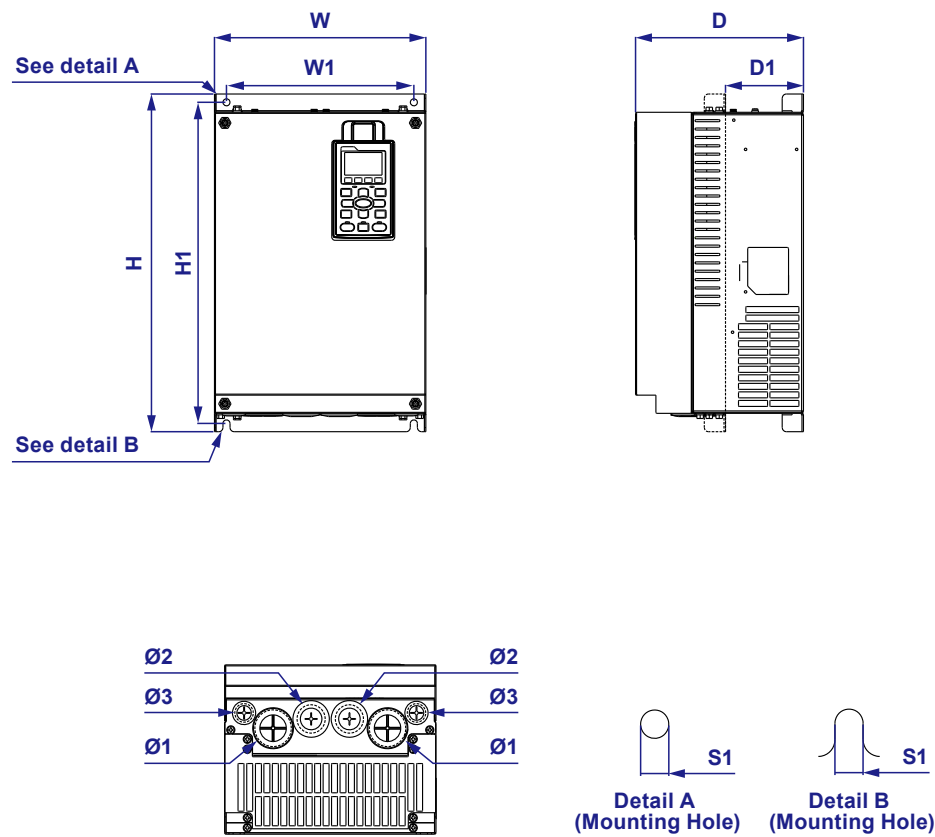
Frame	W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D0-2	mm	280.0	614.4	255.0	235.0	500.0	475.0	94.2	16.0	11.0	18.0	62.7	34.0	22.0
	inch	11.02	24.19	10.04	9.25	19.69	18.70	3.71	0.63	0.43	0.71	2.47	1.34	0.87

D1*: Flange mount

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame D0-3



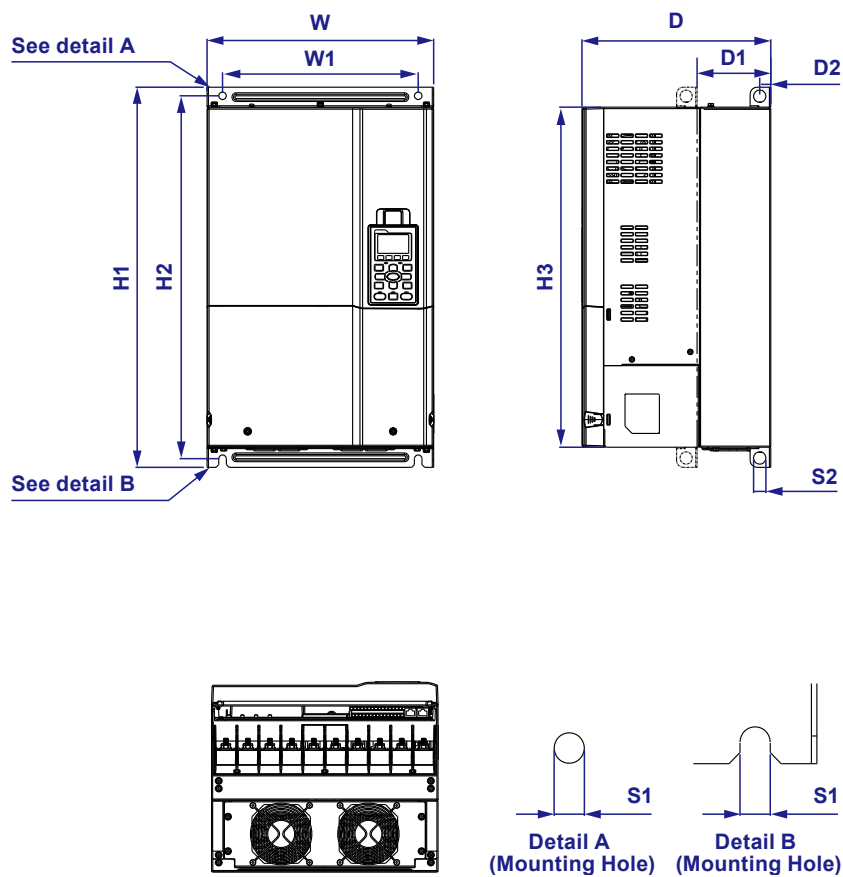
Model

VFD370CH43L-00

Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D0-3	mm	255.0	403.8	202.5	226.0	384.0	-	-	94.0	-	8.5	-	44.0	34.0	22.3
	inch	10.04	15.90	7.97	8.90	15.12	-	-	3.70	-	0.33	-	1.73	1.34	0.88

D1*: Flange mount

Frame D1



Model

VFD220CH23A-00
 VFD300CH23A-00
 VFD370CH23A-00
 VFD450CH43A-00
 VFD550CH43A-00
 VFD750CH43A-00

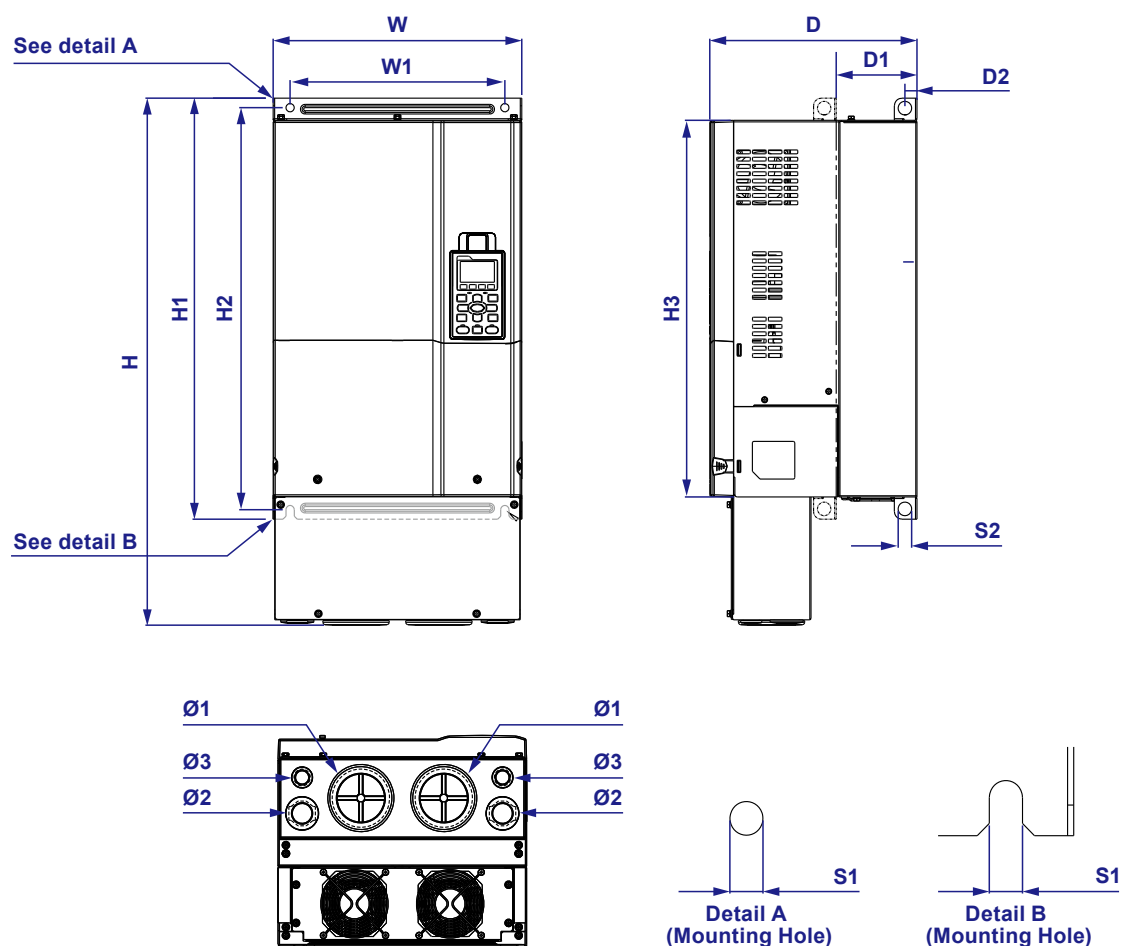
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2
D1	mm	330.0	-	275.0	285.0	550.0	525.0	492.0	107.2	16.0	11.0	18.0
	inch	12.99	-	10.83	11.22	21.65	20.67	19.37	4.22	0.63	0.43	0.71

D1*: Flange mount

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame D2



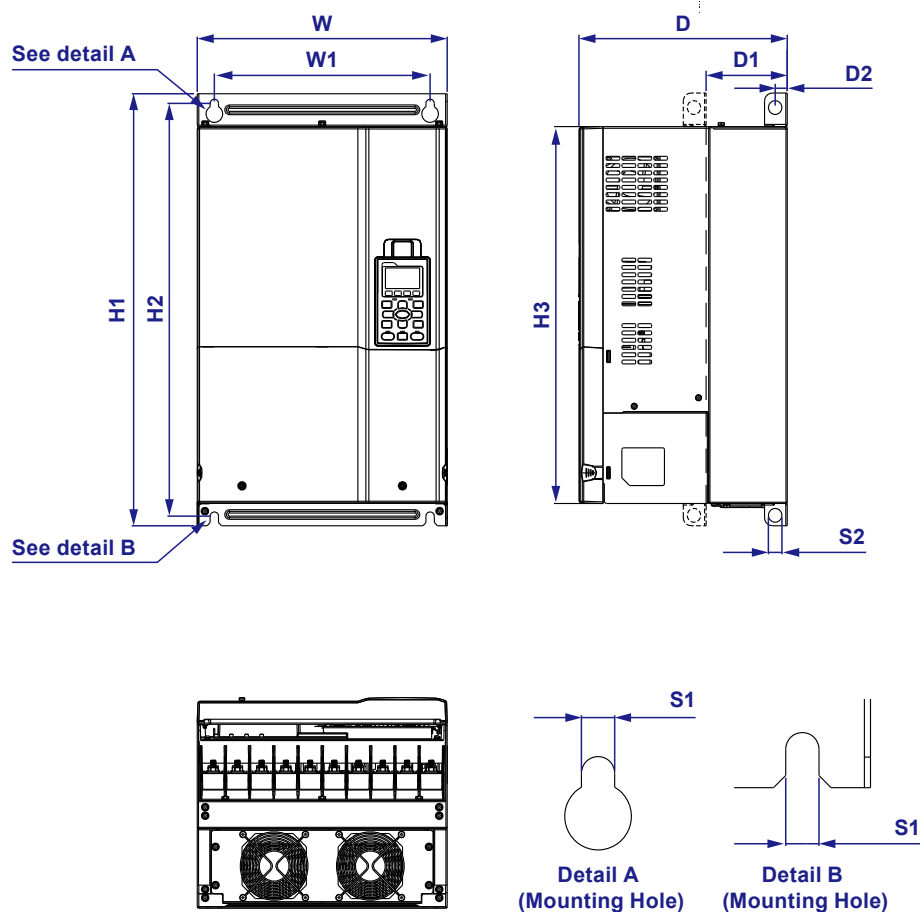
Model

VFD220CH23A-21 VFD450CH43A-21
VFD300CH23A-21 VFD550CH43A-21
VFD370CH23A-21 VFD750CH43A-21

Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D2	mm	330.0	688.3	275.0	285.0	550.0	525.0	492.0	107.2	16.0	11.0	18.0	76.2	34.0	22.0
	inch	12.99	27.10	10.83	11.22	21.65	20.67	19.37	4.22	0.63	0.43	0.71	3.00	1.34	0.87

D1*: Flange mount

Frame D3



Model

VFD450CH43L-00
VFD550CH43L-00
VFD750CH43L-00

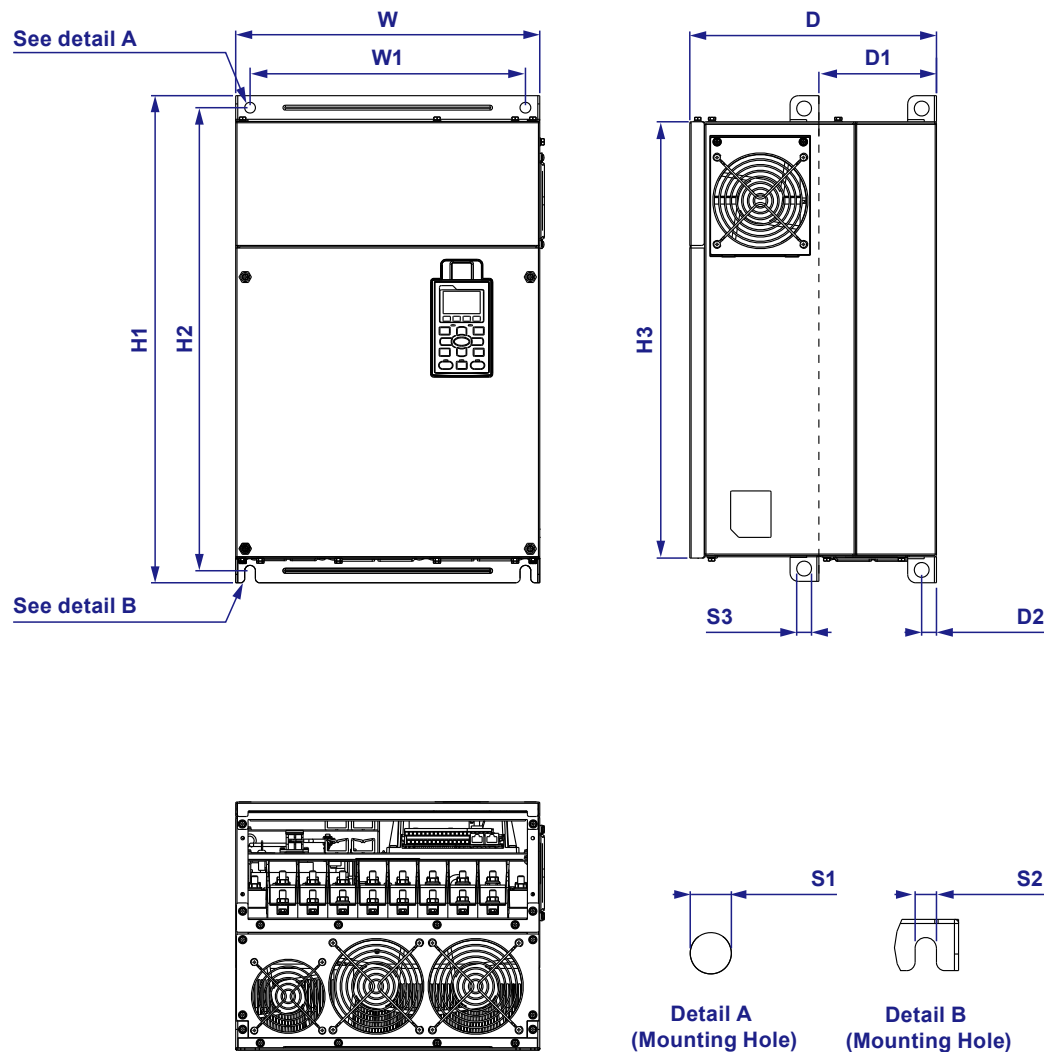
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D3	mm	330.0	-	275.0	285.0	565.0	540.0	492.0	107.2	16.0	11.0	18.0	-	-	-
	inch	12.99	-	10.83	11.22	22.24	20.67	19.37	4.22	0.63	0.43	0.71	-	-	-

D1*: Flange mount

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame E1



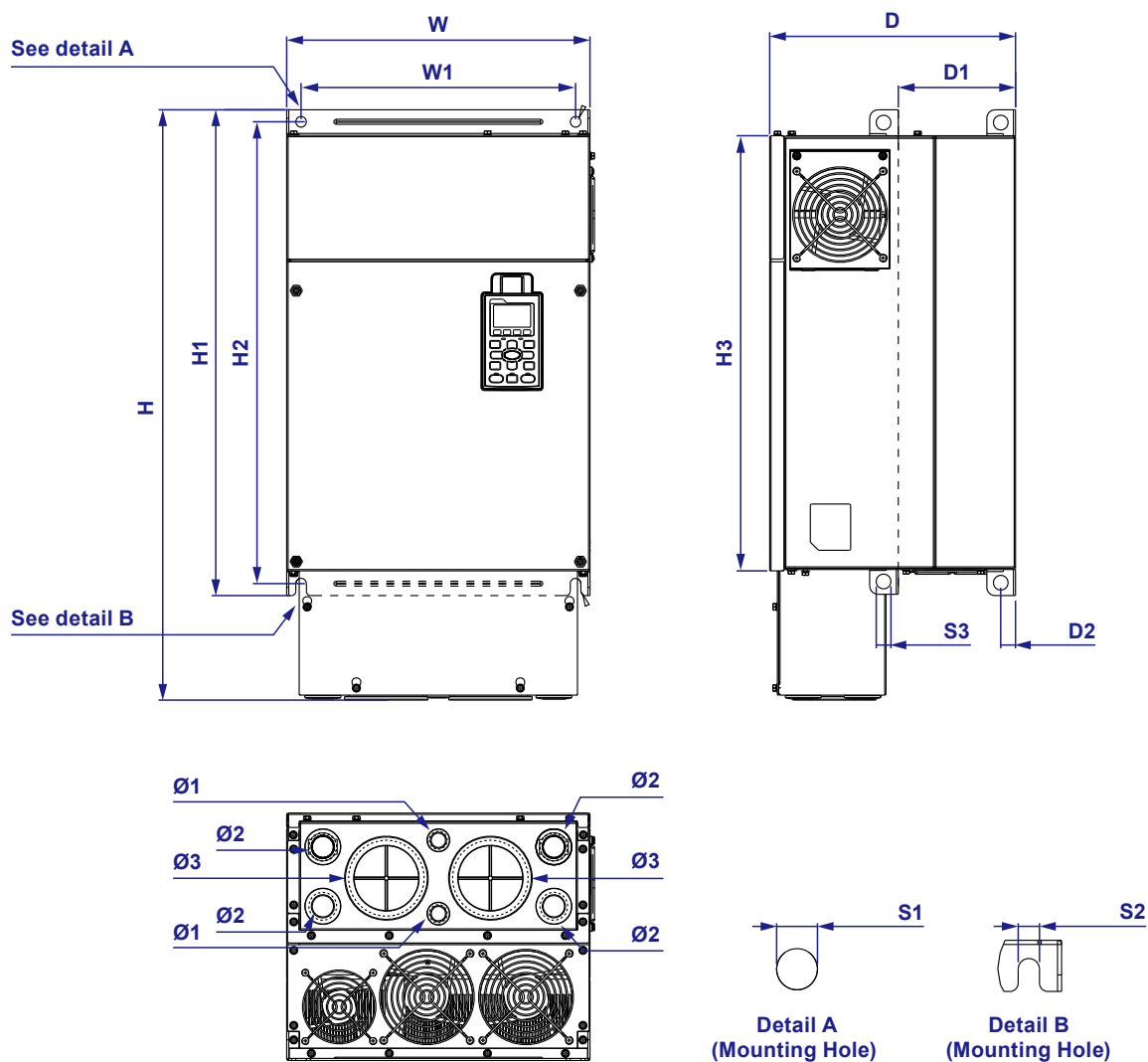
Model

VFD450CH23A-00
VFD550CH23A-00
VFD900CH43A-00
VFD1100CH43A-00

Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3	Ø1	Ø2	Ø3
E1	mm	370.0	-	300.0	335.0	589.0	560.0	528.0	143.0	18.0	13.0		18.0	-	-	-
	inch	14.57	-	11.81	13.19	23.19	22.05	20.80	5.63	0.71	0.51		0.71	-	-	-

D1*: Flange mount

Frame E2



Model

VFD450CH23A-21
VFD550CH23A-21
VFD900CH43A-21
VFD1100CH43A-21

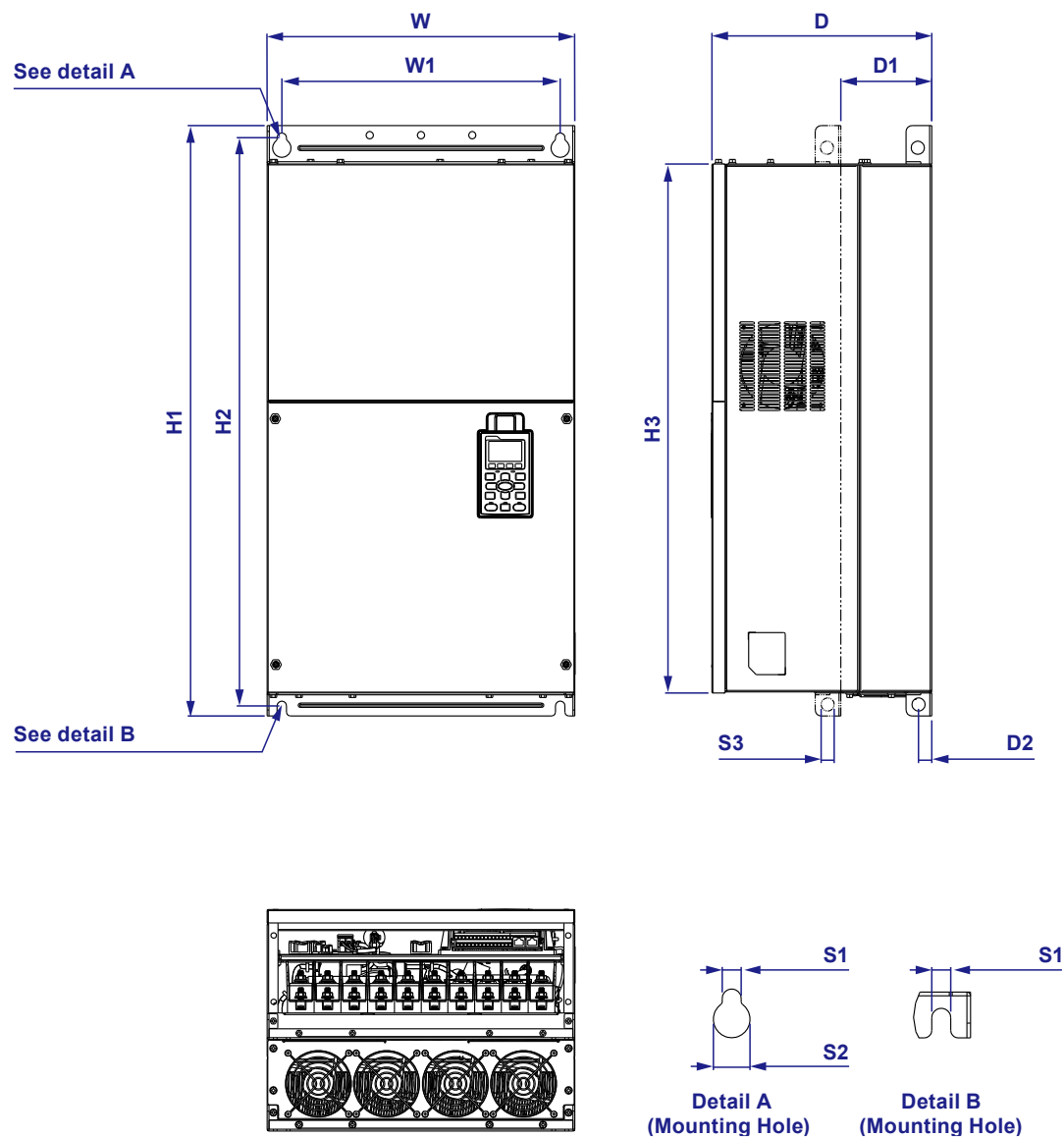
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3	Ø1	Ø2	Ø3
E2	mm	370.0	715.8	300.0	335.0	589	560.0	528.0	143.0	18.0	13.0		18.0	22.0	34.0	92.0
	inch	14.57	28.18	11.81	13.19	23.19	22.05	20.80	5.63	0.71	0.51		0.71	0.87	1.34	3.62

D1*: Flange mount

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame F1



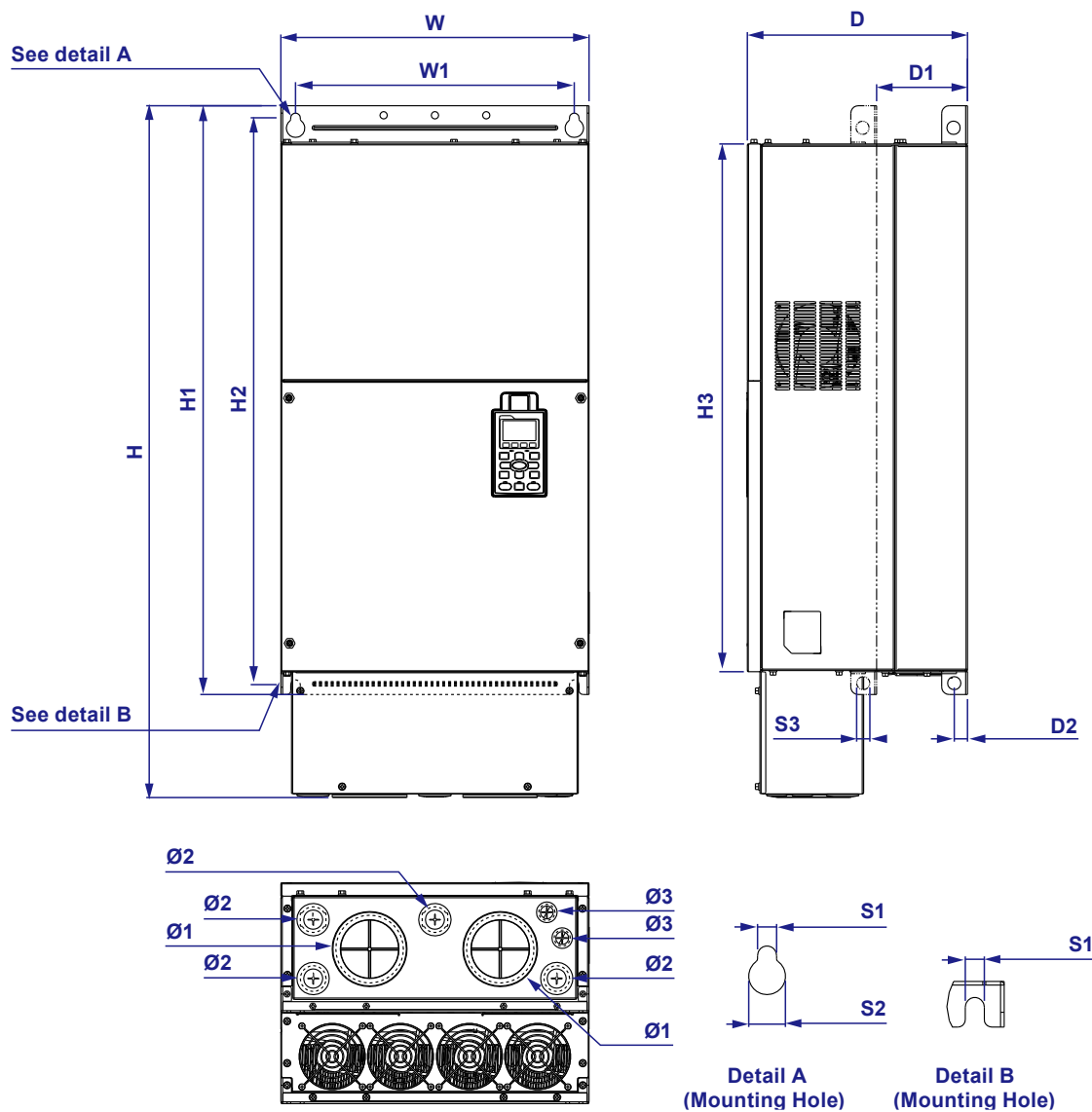
Model

VFD750CH23A-00
VFD1320CH43A-00

Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3
F1	mm	420.0	-	300.0	380.0	800.0	770.0	717.0	124.0	18.0	13.0	25.0	18.0
	inch	16.54	-	11.81	14.96	31.50	30.32	28.23	4.88	0.71	0.51	0.98	0.71

D1*: Flange mount

Frame F2



Model

VFD750CH23A-21
VFD1320CH43A-21

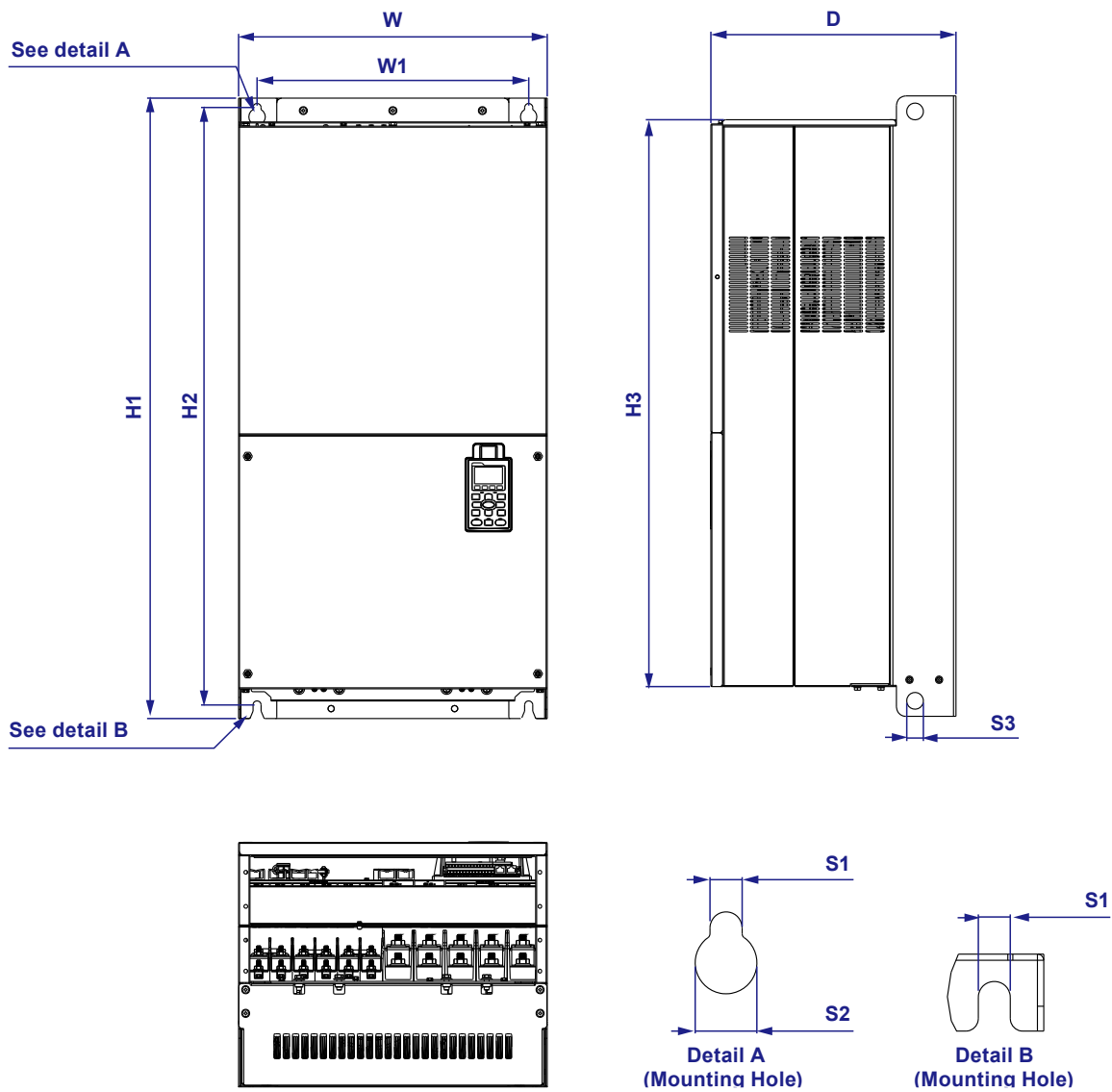
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3	Ø1	Ø2	Ø3
F2	mm	420.0	940.0	300.0	380.0	800.0	770.0	717.0	124.0	18.0	13.0	25.0	18.0	92.0	35.0	22.0
	inch	16.54	37.00	11.81	14.96	31.50	30.32	28.23	4.88	0.71	0.51	0.98	0.71	3.62	1.38	0.87

D1*: Flange mount

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame G1

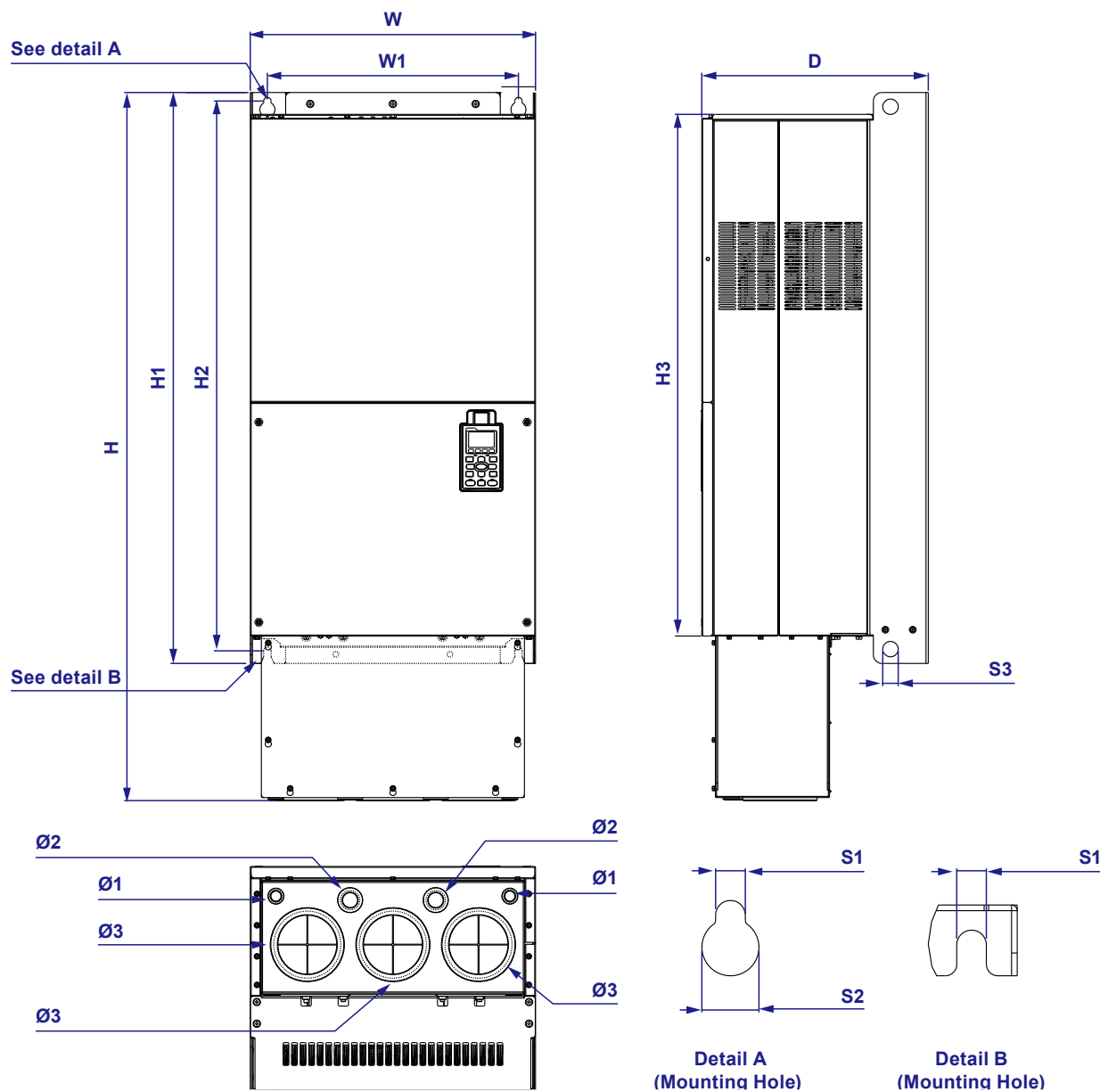


Model

VFD1600CH43A-00
VFD1850CH43A-00
VFD2200CH43A-00

Frame		W	H	D	W1	H1	H2	H3	S1	S2	S3	Ø1	Ø2	Ø3
G1	mm	500.0	-	397.0	440.0	1,000.0	963.0	913.6	13.0	26.5	27.0	-	-	-
	inch	19.69	-	15.63	217.32	39.37	37.91	35.97	0.51	1.04	1.06	-	-	-

Frame G2



Model

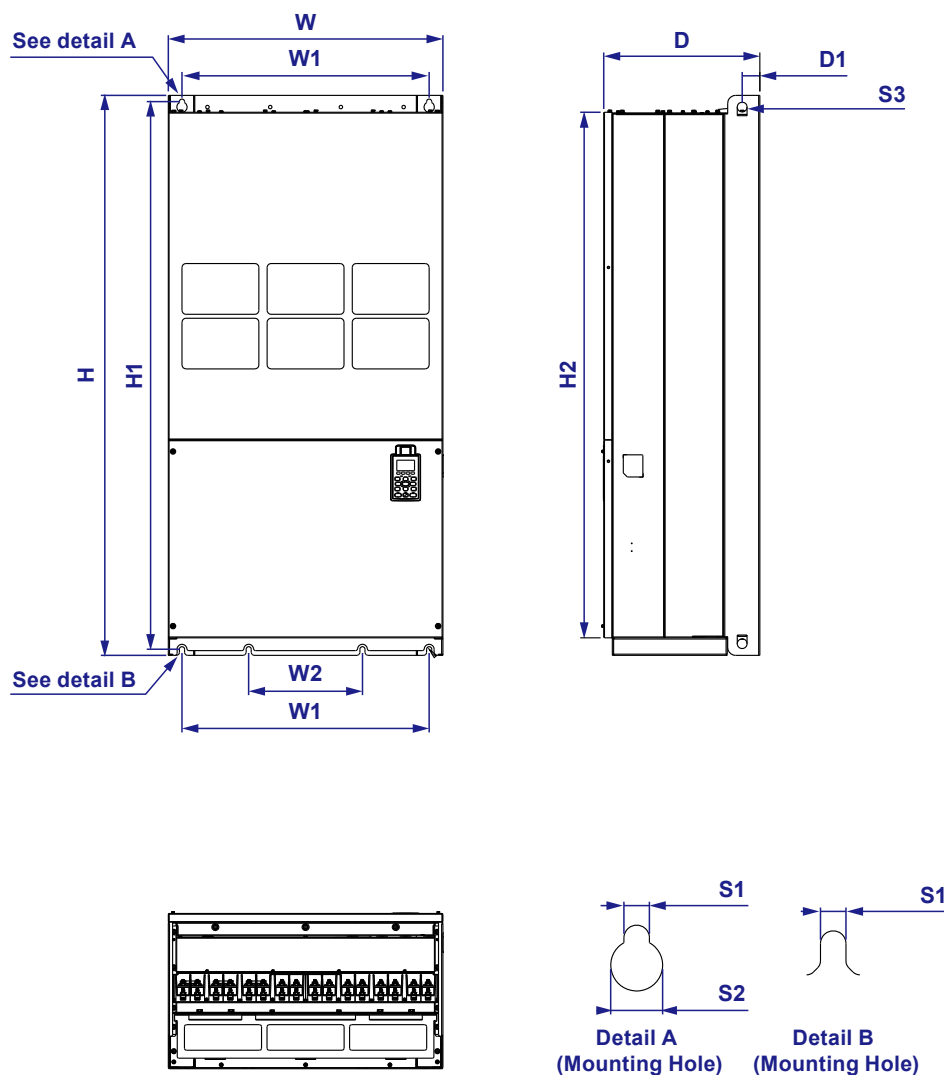
VFD1600CH43A-21
VFD1850CH43A-21
VFD2200CH43A-21

Frame		W	H	D	W1	H1	H2	H3	S1	S2	S3	Ø1	Ø2	Ø3
G2	mm	500.0	1,240.2	397.0	440.0	1,000.0	963.0	913.6	13.0	26.5	27.0	22.0	34.0	117.5
	inch	19.69	48.83	15.63	217.32	39.37	37.91	35.97	0.51	1.04	1.06	0.87	1.34	4.63

Heavy Duty Vector Control Drive CH2000

Dimensions

Frame H1

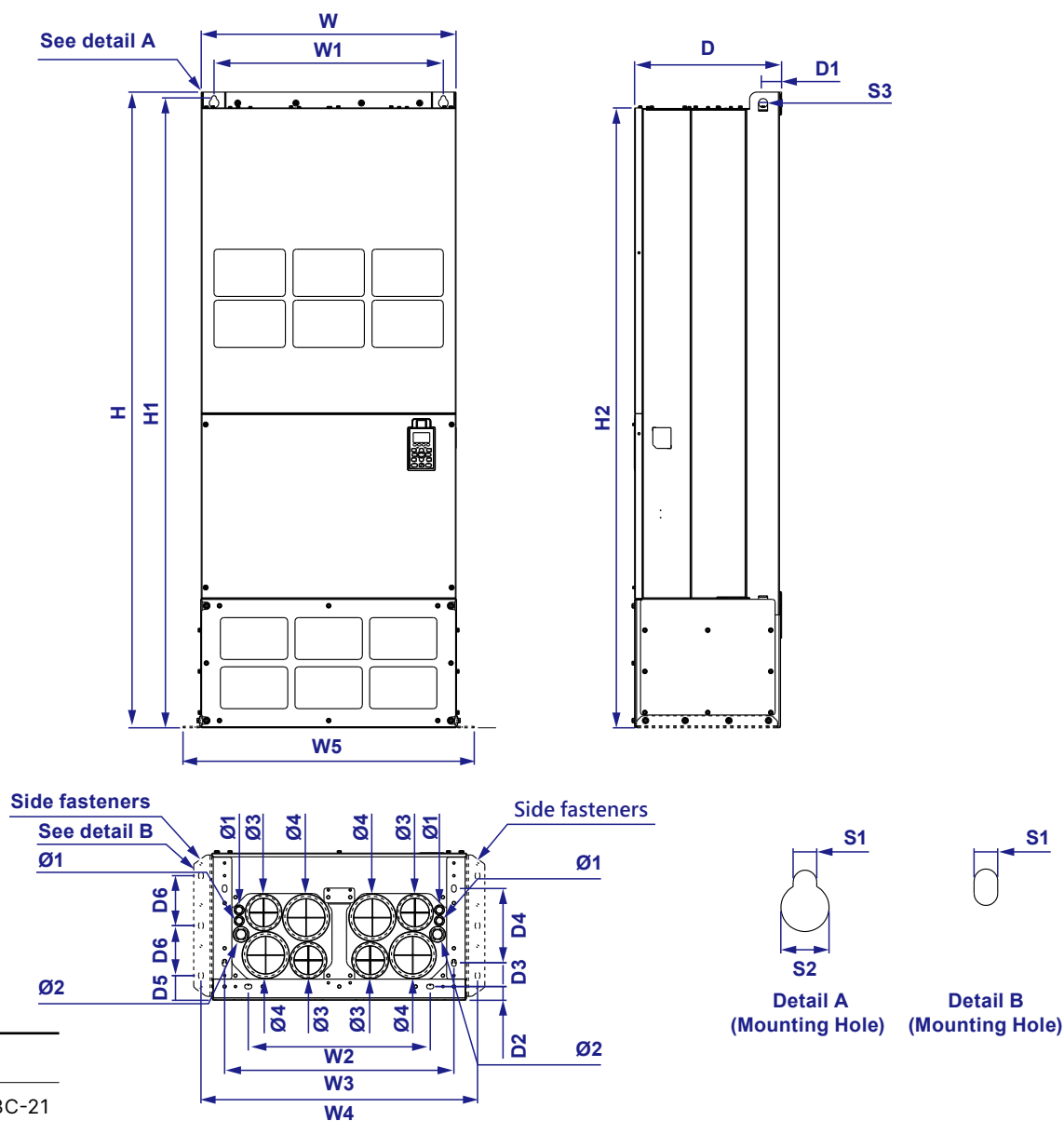


Model

VFD2800CH43A-00
VFD3150CH43A-00
VFD3550CH43A-00
VFD4500CH43A-00

Frame		W	H	D	W1	W2	W3	W4	W5	W6	H1	H2	H3	H4
H1	mm	700.0	1,435.0	398.0	630.0	290.0	-	-	-	-	1,403.0	1,346.6	-	-
	inch	27.56	56.5	15.67	24.8	11.42	-	-	-	-	55.24	53.02	-	-
Frame		H5	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ø1	Ø2	Ø3
H1	mm	-	45.0	-	-	-	-	-	13.0	26.5	25.0	-	-	-
	inch	-	1.77	-	-	-	-	-	0.51	1.04	0.98	-	-	-

Frame H3



Model

VFD2800CH43C-21
VFD3150CH43C-21
VFD3550CH43C-21
VFD4500CH43C-21

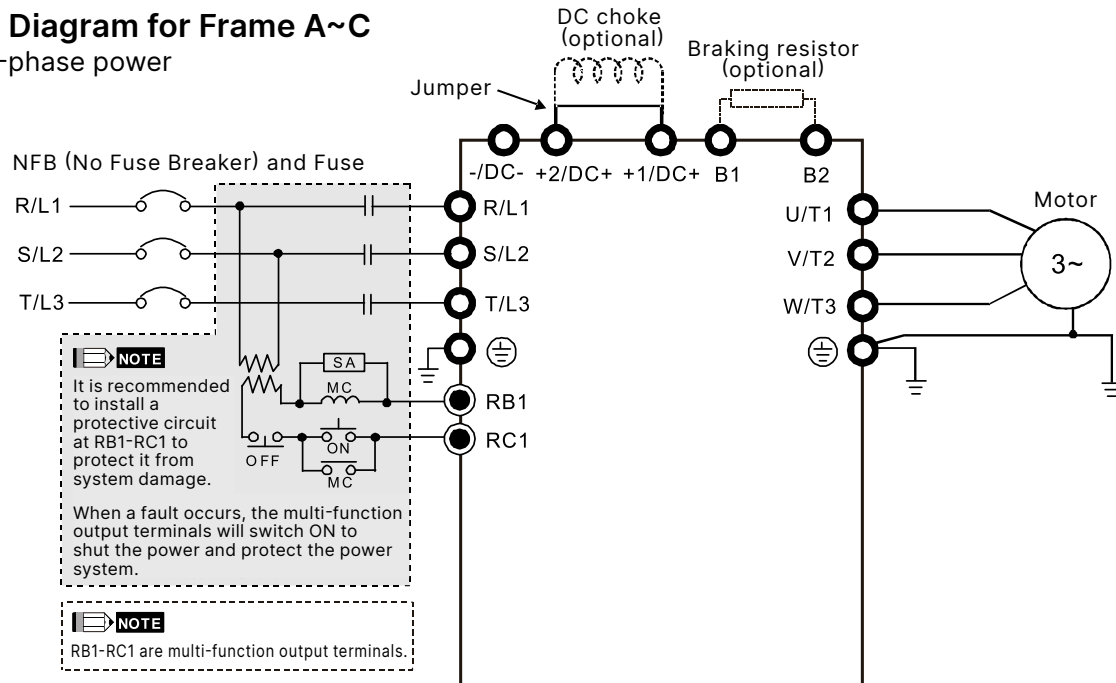
Frame		W	H	D	W1	W2	W3	W4	W5	W6	H1	H2	H3	H4
H3	mm	700.0	1,745.0	404.0	630.0	500.0	630.0	760.0	800.0	-	1,729.0	1,701.6	-	-
	inch	27.56	68.70	15.9	24.8	19.69	24.8	29.92	31.5	-	68.07	66.99	-	-
Frame		D1	D2	D3	D4	D5	D6	S1	S2	S3	Ø1	Ø2	Ø3	Ø4
H3	mm	51.0	38.0	65.0	204.0	68.0	137.0	13.0	26.5	25.0	22.0	34.0	91.5	117.5
	inch	2.0	1.5	2.56	8.03	2.68	5.4	0.51	1.04	0.98	0.87	1.34	3.60	4.63

Heavy Duty Vector Control Drive CH2000

Wiring

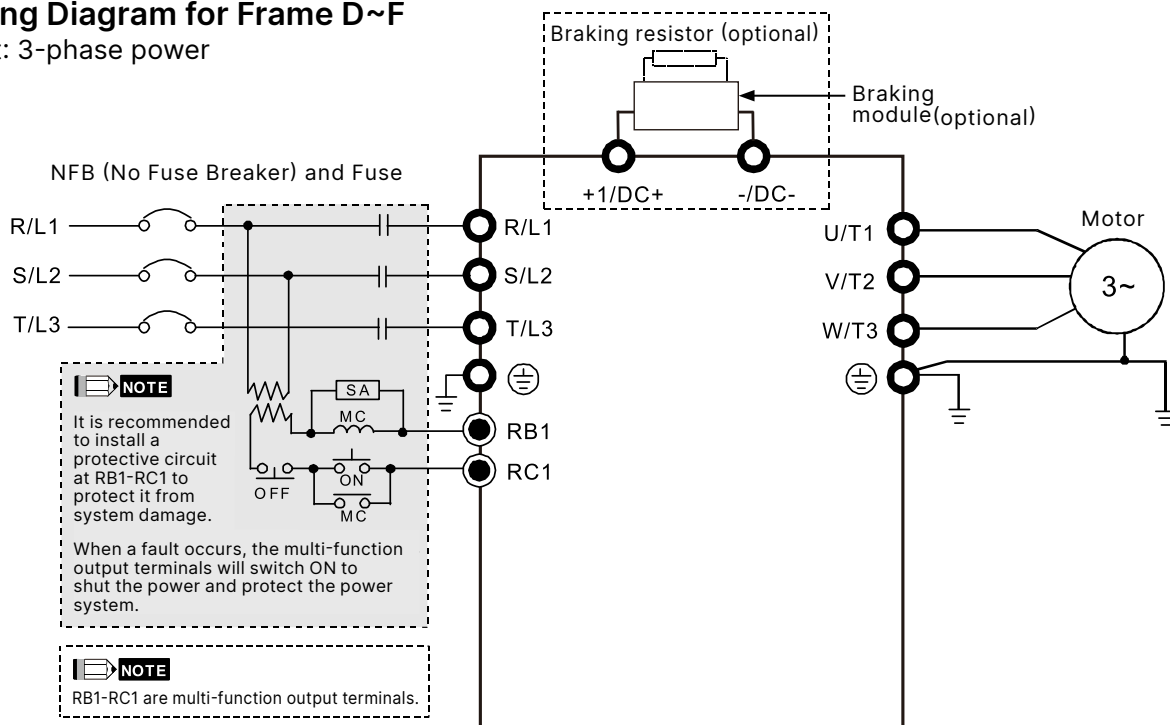
Wiring Diagram for Frame A~C

Input: 3-phase power



Wiring Diagram for Frame D~F

Input: 3-phase power

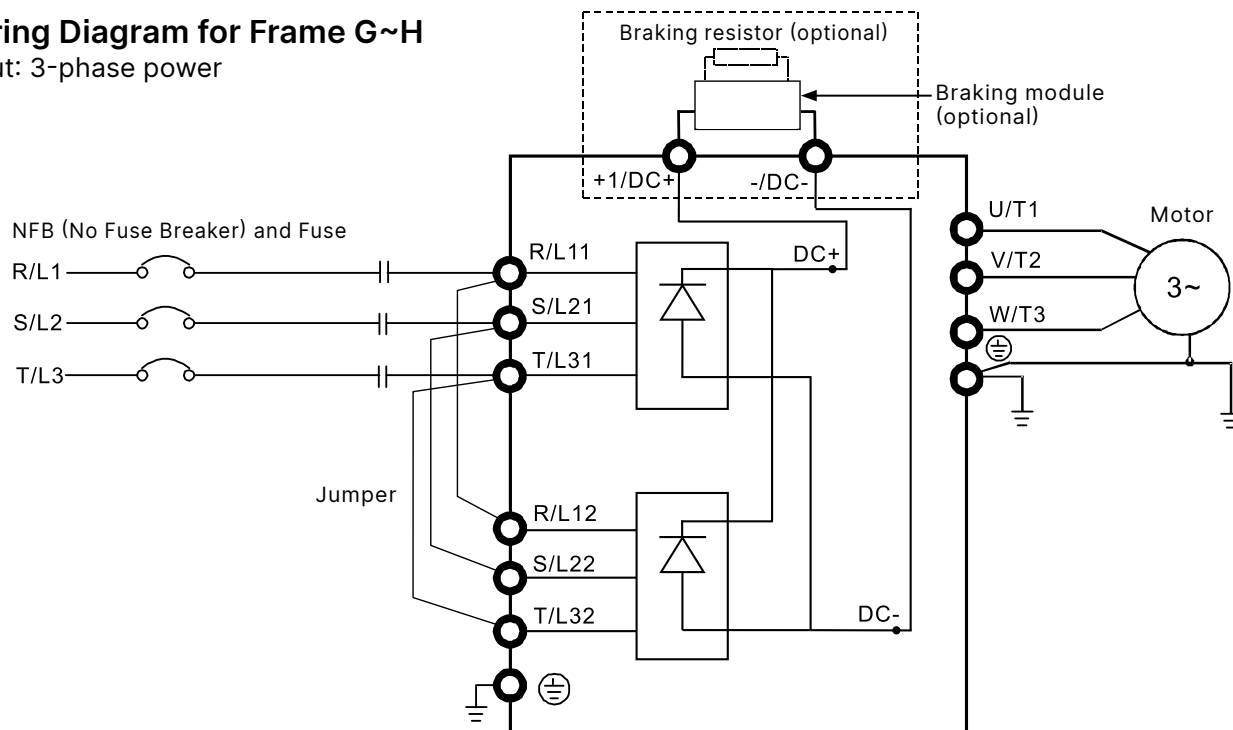


NOTE

It is recommended not to use a power capacitor or automatic power factor regulator (APFR) at the power input side. If the system requires such a device, please make sure a reactor is installed between the drive and the power capacitor or APFR.

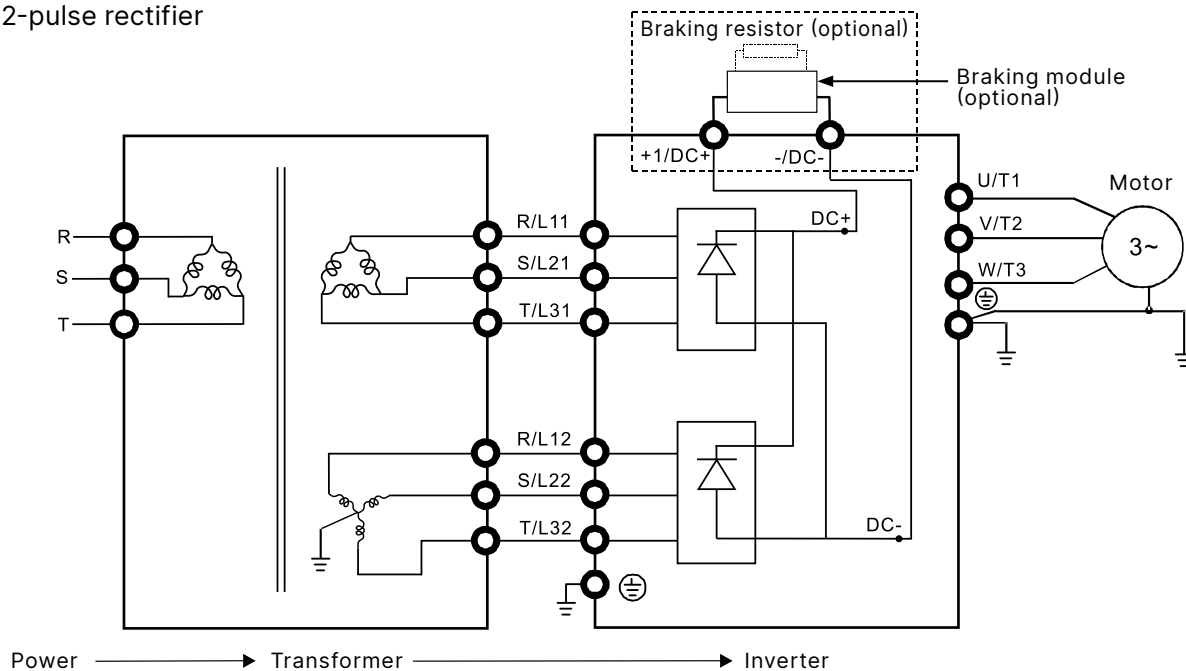
Wiring Diagram for Frame G~H

Input: 3-phase power



Wiring Diagram for Frame G~H

Input: 12-pulse rectifier



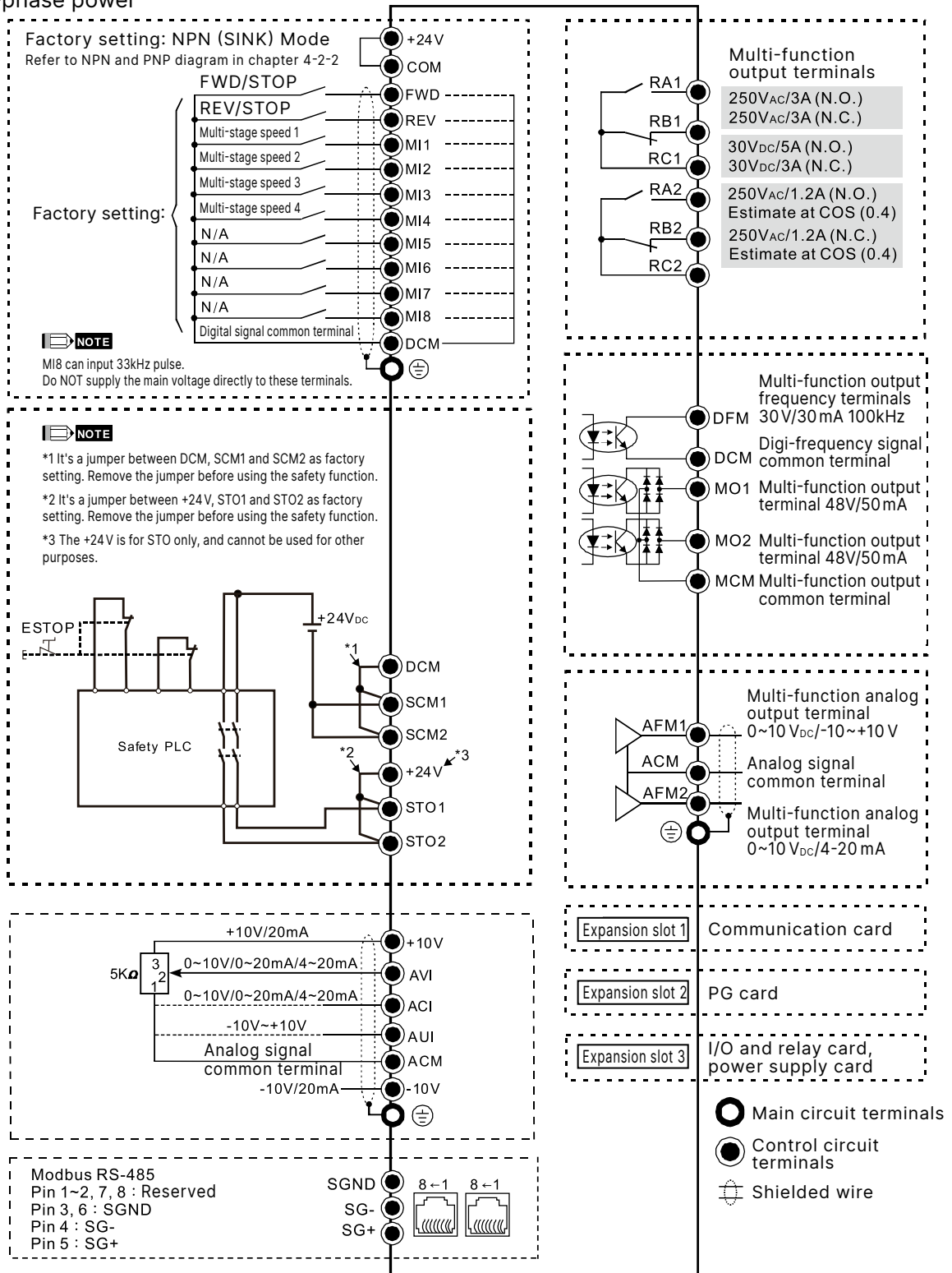
Note: Wiring must strictly follow the diagram above when having 12-pulse input.

Heavy Duty Vector Control Drive CH2000

Wiring


Wiring Diagram for Frame A~H

Input: 3-phase power




Accessories - PG card


EMC-PG01L: Differential output

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

EMC-PG01O: Open collector output

Set by	Terminals		Description
 Pr.10-00 ~ 10-02	PG1	VP	Output voltage for power: +5 V / +12 V $\pm 5\%$ (use FSW3 to switch +5 V / +12 V) Max. output current: 200mA
		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: 300 KHz; EMC-PG02O: 30 KHz
	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: 300 KHz; EMC-PG02O: 30 KHz
	PG OUT	V+, / V+	Needs external power source for PG OUT circuit. Input voltage of power: +12 V ~ +24 V
		V-	Negative power supply input
	PG OUT	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: 20mA Max output frequency: EMC-PG01O: 300 KHz; EMC-PG02O: 30 KHz

EMC-PG01R: Resolver signal input

Set by	Terminals		Description
 Pr.10-00 ~ 10-02	PG1	R1- R2	Resolver output power 7V _{rms} , 10kHz
		S1,S2, S3, S4	Resolver input signal 3.5 \pm 0.175V _{rms} , 10kHz (S2, / S4 = Sin; S1, / S3 = Cos)
	PG2	A2, / A2, B2, / B2	Pulse input signal (Line Driver or Open Collector) Open collector input: +5 V / +24 V*1 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: 50mA 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.

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

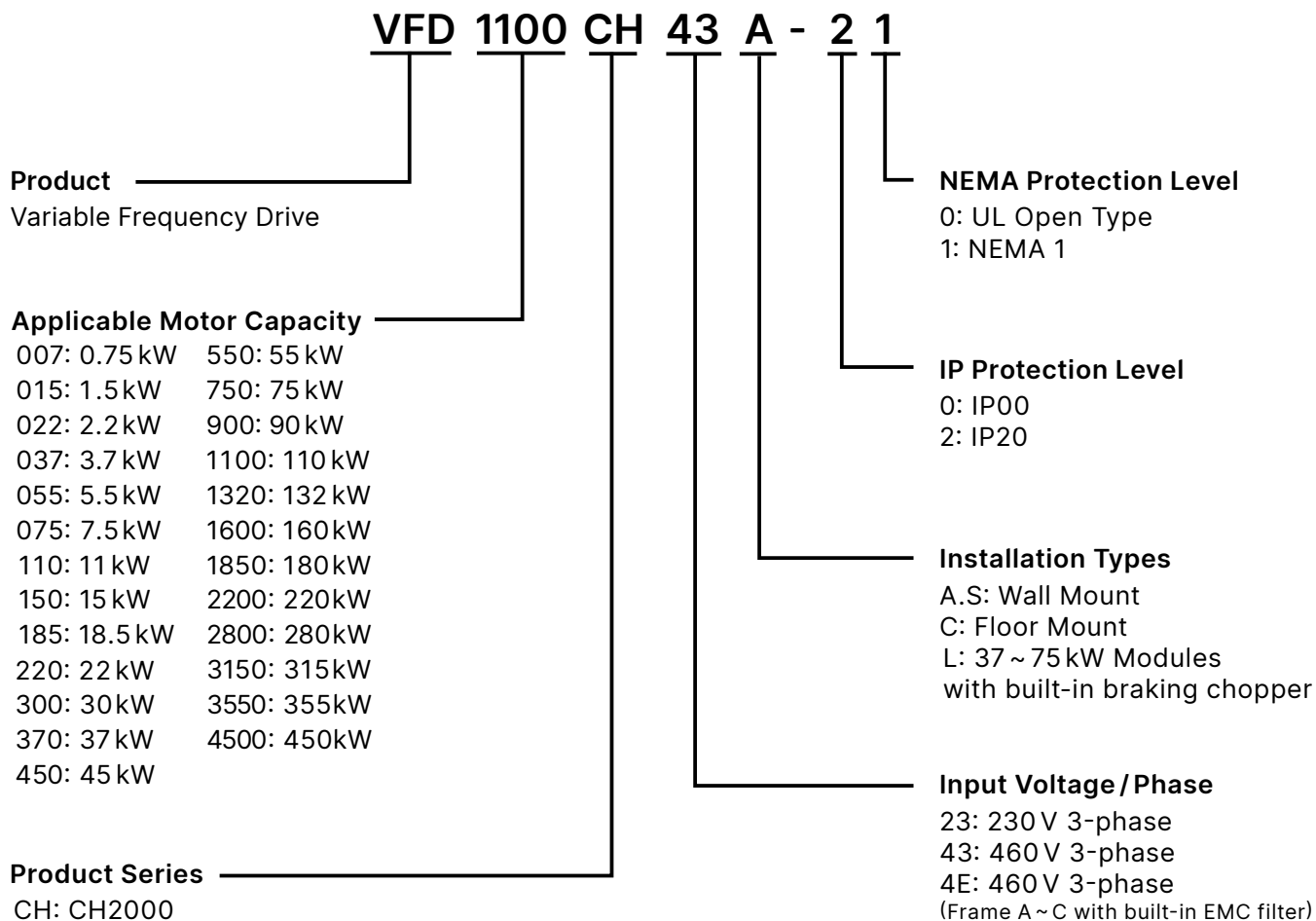
[5 V] Recommend pull-up resistor: 100 ~ 220 Ω , 1/2 W and above

[12 V] Recommend pull-up resistor: 510 ~ 1.35 k Ω , 1/2 W and above

[24 V] Recommend pull-up resistor: 1.8k ~ 3.3 k Ω , 1/2 W and above

Heavy Duty Vector Control Drive CH2000

Model Name Explanation



Basic Compact Drive ME300

Specifications

Single-phase 115 V / Without built-in EMC filter						
Frame			A			C
Model VFD----ME11			0A8	1A6	2A5	4A8
Applicable Motor Output (kW)			0.1	0.2	0.4	0.75
Applicable Motor Output (HP)			1/8	1/4	1/2	1
Inverter Output	Heavy Duty	Rated Output Current (A)	0.8	1.6	2.5	4.8
	Normal Duty	Rated Output Current (A)	1.0	1.8	2.7	5.5
Input Voltage / Frequency			Single-phase AC, 100 V~120 V (-15 % ~ + 10 %), 50 / 60Hz			
Carrier Frequency (kHz)			2 ~ 15 (Default: 4)			
Braking Chopper			Built-in			
Cooling Method			Natural Air Cooling			Fan Cooling
Size: W × H (mm)			68 × 128			87 × 157
Size: D (mm)			78	107	136	
Net Weight (kg)			0.4	0.5	1	

Single-phase 230 V / Built-in EMC filter						
Frame			B			C
Model VFD----ME21			0A8	1A6	2A8	4A8
Applicable Motor Output (kW)			0.1	0.2	0.4	0.75
Applicable Motor Output (HP)			1/8	1/4	1/2	1
Inverter Output	Heavy Duty	Rated Output Current (A)	0.8	1.6	2.8	4.8
	Normal Duty	Rated Output Current (A)	1.0	1.8	3.2	5
Input Voltage / Frequency			Single-phase AC, 200 V~240 V (-15 % ~ +10 %), 50 / 60 Hz			
Carrier Frequency (kHz)			2 ~ 15 (Default: 4)			
Braking Chopper			Built-in			
Cooling Method			Natural Air Cooling		Fan Cooling	
Size: W × H (mm)			72 × 142			87 × 157
Size: D (mm)			143			163
Net Weight (kg)			0.4	0.5	0.8	1
Single-phase 230 V / Without built-in EMC filter						
Frame			A		B	C
Cooling Method			Natural Air Cooling			Fan Cooling
Size: W × H (mm)			68 × 128		72 × 142	87 × 157
Size: D (mm)			78	107	127	136
Net Weight (kg)			0.9			1.5

Basic Compact Drive ME300

Specifications

3-phase 230 V / Without built-in EMC filter									
Frame			A				B	C	
Model VFD----ME23			0A8	1A6	2A8	4A8	7A5	11A	17A
Applicable Motor Output (kW)			0.1	0.2	0.4	0.75	1.5	2.2	3.7 / 4
Applicable Motor Output (HP)			1/8	1/4	1/2	1	2	3	5
Inverter Output	Heavy Duty	Rated Output Current (A)	0.8	1.6	2.8	4.8	7.5	11	17
	Normal Duty	Rated Output Current (A)	1.0	1.8	3.2	5.0	8.0	12.5	19.5
Input Voltage/Frequency			3-phase AC 200 V ~ 240 V (-15 % ~ +10 %), 50 / 60 Hz						
Carrier Frequency (kHz)			2 ~ 15 (Default: 4)						
Braking Chopper			Built-in						
Cooling Method			Natural Air Cooling				Fan Cooling		
Size: W × H (mm)			68 × 128				72 × 142	87 × 157	
Size: D (mm)			78	92	125	127	136	138	
Net Weight (kg)			0.4	0.5	0.6	0.8	1	2	

3-phase 460 V / Built-in EMC filter										
Frame			B			C			D	
Model VFD----ME43			1A5	2A7	4A2	5A5	7A3	9A0	13A	17A
Applicable Motor Output (kW)			0.4	0.75	1.5	2.2	3	3.7/ 4	5.5	7.5
Applicable Motor Output (HP)			1/2	1	2	3	4	5	7.5	10
Inverter Output	Heavy Duty	Rated Output Current (A)	1.5	2.7	4.2	5.5	7.3	9	13	17
	Normal Duty	Rated Output Current (A)	1.8	3	4.6	6.5	8	10.5	15.7	20.5
Input Voltage /Frequency			3-phase AC 380 V ~ 480 V (-15 % ~ +10 %) , 50/60 Hz							
Carrier Frequency (kHz)			2 ~ 15 (Default: 4)							
Braking Chopper			Built-in							
Cooling Method			Fan Cooling							
Size: W × H (mm)			72 × 142			87 × 157			109 × 207	
Size: D (mm)			143			163			171	
Net Weight (kg)			0.6	0.7	0.8	1			2	
3-phase 460 V /Without built-in EMC filter										
Frame			A		B	C			D	
Cooling Method			Natural Air Cooling			Fan Cooling				
Size: W × H (mm)			68 × 128		72 × 142	87 × 157			109 × 207	
Size: D (mm)			113	127	127	136			138	
Net Weight (kg)			0.9			1.5			2.7	

Environment for Operation, Storage and Transportation

ME300					
Operating Environment	Installation Location		IEC60364-1/IEC60664-1 Pollution degree 2, Indoor use only		
	Ambient Temperature (°C)	Operation	IP20/UL Open Type	-20 ~ 50 -20 ~ 60 (derating required)	
			NEMA 1/UL Type 1	-20 ~ 40	
			Zero stacking installation	-20 ~ 50 (derating required)	
		Storage		-40 ~ 85	
		Transportation		-20 ~ 70	
	Rated Humidity	Operation		Max. 90 %	
		Storage / Transportation		Max. 95 %	
	Air Pressure (kPa)	Operation		86 ~ 106	
		Storage / Transportation		70 ~ 106	
	Pollution Level		Compliant to IEC60721-3-3, 3C2		
Altitude		An altitude of 0~1,000 m for normal operation (derating is required for installation at an altitude above 1,000 m)			
Vibration		Compliant to IEC 60068-2-6			
Impact		Compliant to IEC/EN 60068-2-27			

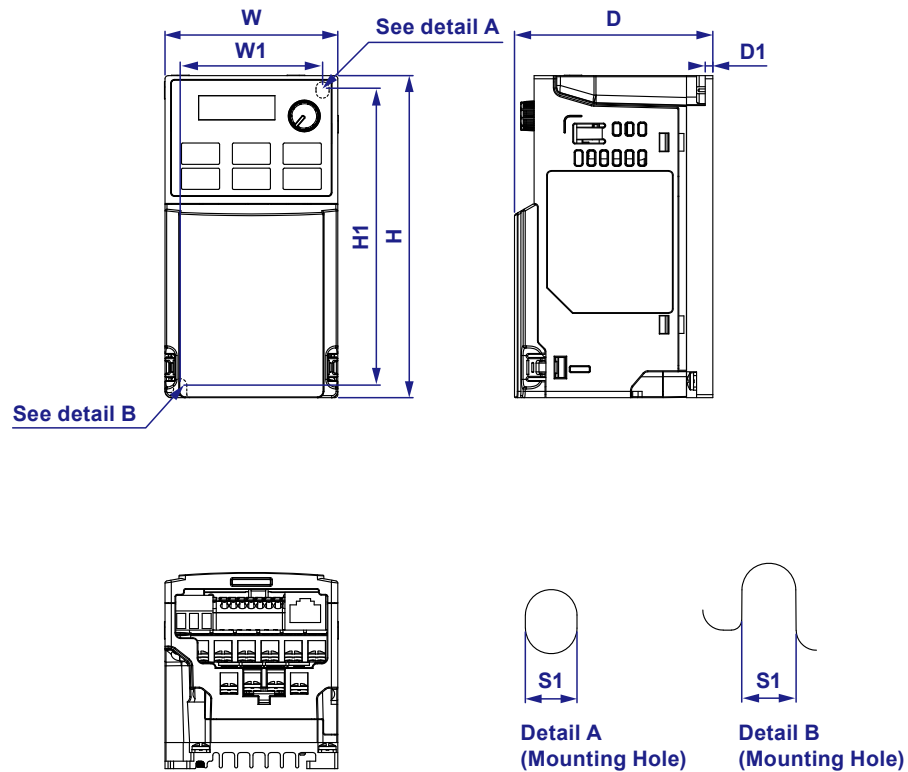
Note: Please refer to ME300 user manual for more details



Basic Compact Drive ME300

Dimensions

Frame A

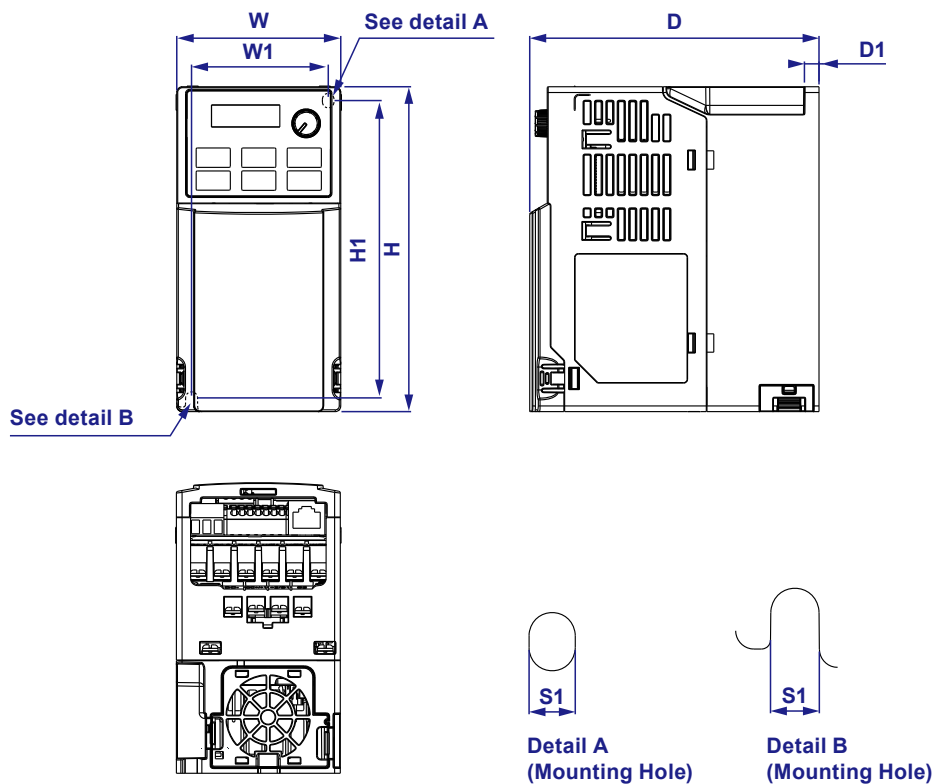


Model	Frame A1	Frame A2	Frame A3	Frame A4	Frame A5	Frame A6
VFD0A8ME11ANNAA	VFD2A8ME23ANNAA	VFD2A5ME11ANNAA	VFD1A5ME43ANNAA	VFD4A8ME23ANNAA	VFD2A7ME43ANNAA	
VFD0A8ME11ANSAA	VFD2A8ME23ANSAA	VFD2A5ME11ANSAA	VFD1A5ME43ANSAA	VFD4A8ME23ANSAA	VFD2A7ME43ANSAA	
VFD0A8ME21ANNAA		VFD2A8ME21ANNAA				
VFD0A8ME21ANSAA		VFD2A8ME21ANSAA				
VFD0A8ME23ANNAA						
VFD0A8ME23ANSAA						
VFD1A6ME11ANNAA						
VFD1A6ME11ANSAA						
VFD1A6ME21ANNAA						
VFD1A6ME21ANSAA						
VFD1A6ME23ANNAA						
VFD1A6ME23ANSAA						

Frame		W	H	D	W1	H1	D1	S1
A1	mm	68.0	128.0	78.0	56.0	118.0	3.0	5.2
	inch	2.68	5.04	3.07	2.20	4.65	0.12	0.20
Frame		W	H	D	W1	H1	D1	S1
A2	mm	68.0	128.0	92.0	56.0	118.0	3.0	5.2
	inch	2.68	5.04	3.62	2.20	4.65	0.12	0.20
Frame		W	H	D	W1	H1	D1	S1
A3	mm	68.0	128.0	107.0	56.0	118.0	3.0	5.2
	inch	2.68	5.04	4.21	2.20	4.65	0.12	0.20

Frame		W	H	D	W1	H1	D1	S1
A4	mm	68.0	128.0	113.0	56.0	118.0	3.0	5.2
	inch	2.68	5.04	4.45	2.20	4.65	0.12	0.20
Frame		W	H	D	W1	H1	D1	S1
A5	mm	68.0	128.0	125.0	56.0	118.0	3.0	5.2
	inch	2.68	5.04	4.92	2.20	4.65	0.12	0.20
Frame		W	H	D	W1	H1	D1	S1
A6	mm	68.0	128.0	127.0	56.0	118.0	3.0	5.2
	inch	2.68	5.04	5.00	2.20	4.65	0.12	0.20

Frame B



Model

Frame B1

Frame B2

Frame B3

VFD0A8ME11ANNAA
 VFD0A8ME11ANSAA
 VFD0A8ME21ANNAA
 VFD0A8ME21ANSAA
 VFD0A8ME23ANNAA
 VFD0A8ME23ANSAA
 VFD1A6ME11ANNAA
 VFD1A6ME11ANSAA
 VFD1A6ME21ANNAA
 VFD1A6ME21ANSAA
 VFD1A6ME23ANNAA
 VFD1A6ME23ANSAA

VFD4A8ME21ANNAA
 VFD4A8ME21ANSAA

VFD0A8ME21AFNAA
 VFD0A8ME21AFSAA
 VFD1A6ME21AFNAA
 VFD1A6ME21AFSAA
 VFD2A8ME21AFNAA
 VFD2A8ME21AFSAA
 VFD4A8ME21AFNAA

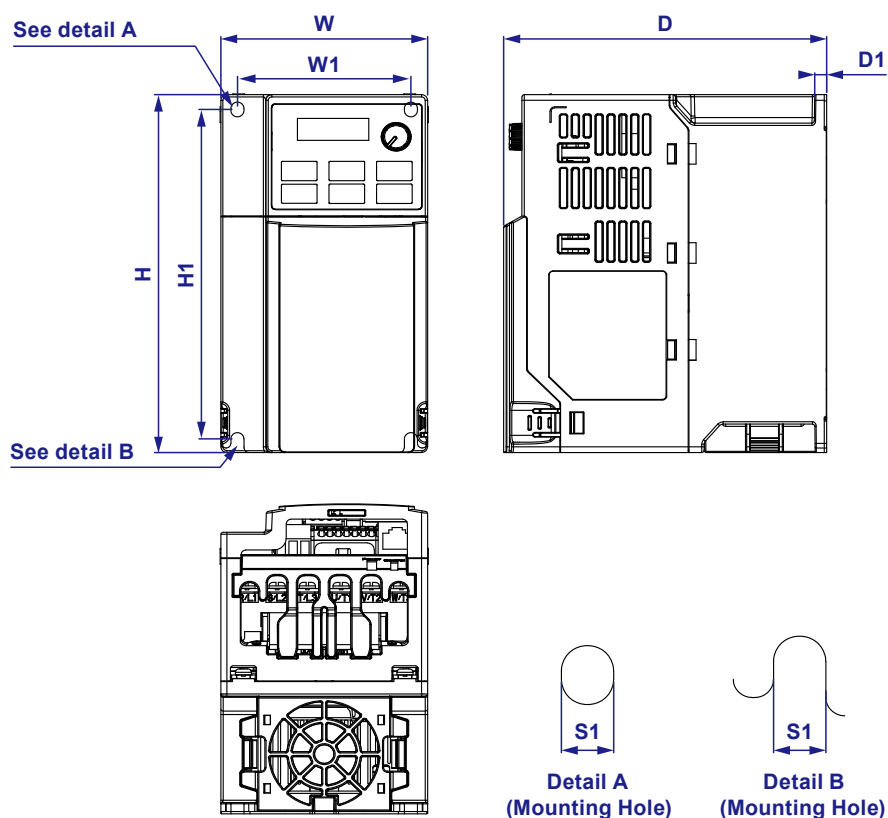
VFD4A8ME21AFSAA
 VFD1A5ME43AFNAA
 VFD1A5ME43AFSAA
 VFD2A7ME43AFNAA
 VFD2A7ME43AFSAA
 VFD4A2ME43AFNAA
 VFD4A2ME43AFSAA

Frame		W	H	D	W1	H1	D1	S1
B1	mm	72.0	142.0	127.0	60.0	130.0	6.4	5.2
	inch	2.83	5.59	5.00	2.36	5.12	0.25	0.20
Frame		W	H	D	W1	H1	D1	S1
B2	mm	72.0	142.0	127.0	60.0	130.0	3.0	5.2
	inch	2.83	5.59	5.00	2.36	5.12	0.12	0.20
Frame		W	H	D	W1	H1	D1	S1
B3	mm	72.0	142.0	143.0	60.0	130.0	4.3	5.2
	inch	2.83	5.59	5.63	2.36	5.12	0.17	0.20

Basic Compact Drive ME300

Dimensions

Frame C



Model

Frame C1

VFD4A8ME11ANNAA
VFD4A8ME11ANSAA
VFD7A5ME21ANNAA
VFD7A5ME21ANSAA
VFD11AME21ANNAA
VFD11AME21ANSAA
VFD11AME23ANNAA
VFD11AME23ANSAA
VFD17AME23ANNAA
VFD17AME23ANSAA

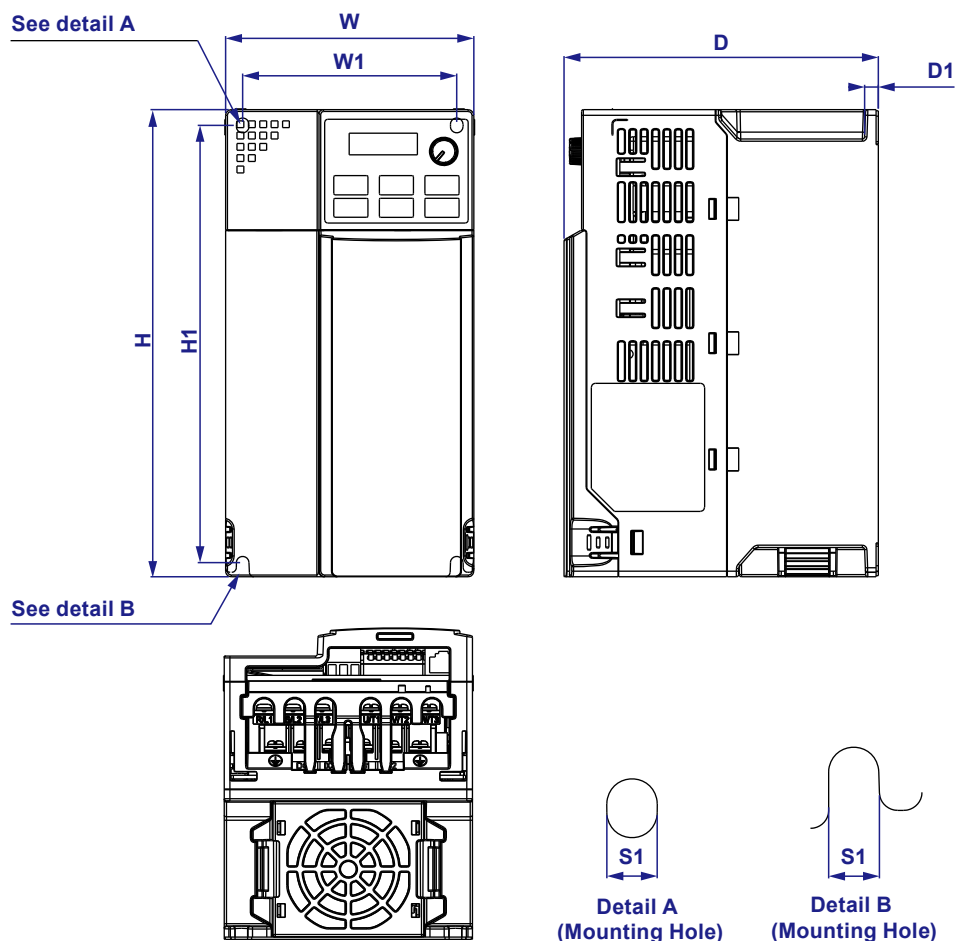
VFD5A5ME43ANNAA
VFD5A5ME43ANSAA
VFD7A3ME43ANNAA
VFD7A3ME43ANSAA
VFD9A0ME43ANNAA
VFD9A0ME43ANSAA

Frame C2

VFD7A5ME21AFNAA
VFD7A5ME21AFSAA
VFD11AME21AFNAA
VFD11AME21AFSAA
VFD5A5ME43AFNAA
VFD5A5ME43AFSAA
VFD7A3ME43AFNAA
VFD7A3ME43AFSAA
VFD9A0ME43AFNAA
VFD9A0ME43AFSAA

Frame		W	H	D	W1	H1	D1	S1
C1	mm	87.0	157.0	136.0	73.0	144.5	5.0	5.5
	inch	3.43	6.18	5.35	2.87	5.69	0.20	0.22
Frame		W	H	D	W1	H1	D1	S1
C2	mm	87.0	157.0	163.0	73.0	144.5	5.0	5.5
	inch	3.43	6.18	6.42	2.87	5.69	0.20	0.22

Frame D



Model

Frame D1

Frame D2

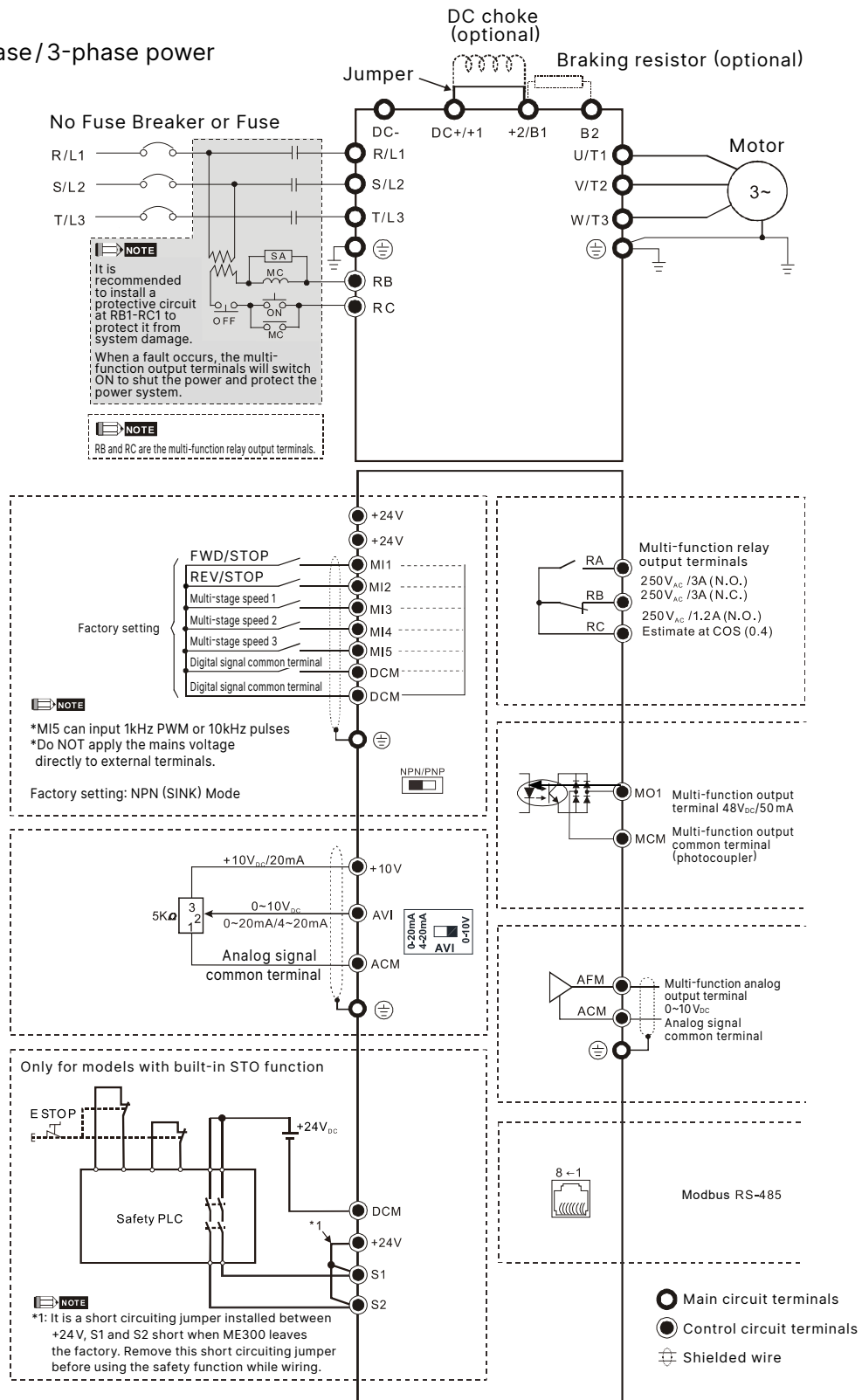
VFD25AME23ANNAA
VFD25AME23ANSAA
VFD13AME43ANNAA
VFD13AME43ANSAA
VFD17AME43ANNAA
VFD17AME43ANSAA

VFD13AME43AFNAA
VFD13AME43AFSAA
VFD17AME43AFNAA
VFD17AME43AFSAA

Frame		W	H	D	W1	H1	D1	S1
D1	mm	109.0	207.0	138.0	94.0	193.8	6.0	5.5
	inch	4.29	8.15	5.43	3.70	7.63	0.24	0.22
Frame		W	H	D	W1	H1	D1	S1
D2	mm	109.0	207.0	171.0	94.0	193.8	6.0	5.5
	inch	4.29	8.15	6.73	3.70	7.63	0.24	0.22

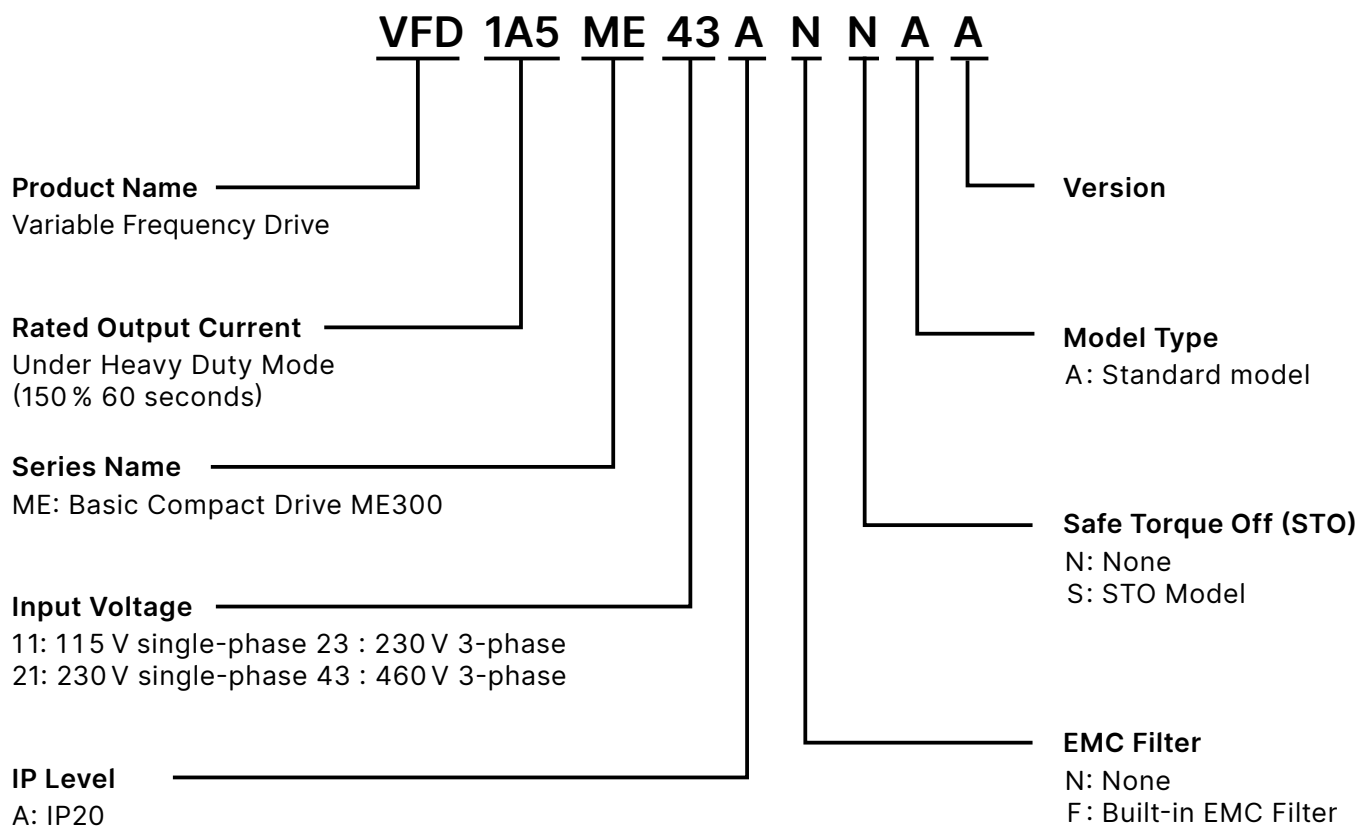
Wiring

Input: Single-phase/3-phase power



Basic Compact Drive ME300

Model Name Explanation



Ordering Information

Heavy Duty Vector Control Drive CH2000 Series				
Frame	Power Range	Models		
A	230 V: 0.75 ~ 3.7 kW 460 V: 0.75 ~ 5.5 kW	VFD007CH23A-21 VFD015CH23A-21 VFD022CH23A-21 VFD037CH23A-21	VFD007CH43A-21 VFD015CH43A-21 VFD022CH43A-21 VFD037CH43A-21 VFD055CH43A-21	VFD007CH4EA-21 VFD015CH4EA-21 VFD022CH4EA-21 VFD037CH4EA-21 VFD055CH4EA-21
B	230 V: 5.5 ~ 11 kW 460 V: 7.5 ~ 15 kW	VFD055CH23A-21 VFD075CH23A-21 VFD110CH23A-21	VFD075CH43A-21 VFD110CH43A-21 VFD150CH43A-21	VFD075CH4EA-21 VFD110CH4EA-21 VFD150CH4EA-21
C	230 V: 15 ~ 18.5 kW 460 V: 18.5 ~ 30 kW	VFD150CH23A-21 VFD185CH23A-21	VFD185CH43A-21 VFD220CH43A-21 VFD300CH43A-21	VFD185CH4EA-21 VFD220CH4EA-21 VFD300CH4EA-21
D0	460 V: 37 kW	D0-1: VFD370CH43S-00	D0-2: VFD370CH43S-21	D0-3: VFD370CH43L-00
D	230 V: 22 ~ 37 kW 460 V: 45 ~ 75 kW	D1: VFD220CH23A-00 VFD300CH23A-00 VFD370CH23A-00 VFD450CH43A-00 VFD550CH43A-00 VFD750CH43A-00	D2: VFD220CH23A-21 VFD300CH23A-21 VFD370CH23A-21 VFD450CH43A-21 VFD550CH43A-21 VFD750CH43A-21	D3: VFD450CH43L-00 VFD550CH43L-00 VFD750CH43L-00
E	230 V: 45 ~ 55 kW 460 V: 90 ~ 110 kW	E1: VFD450CH23A-00 VFD550CH23A-00 VFD900CH43A-00 VFD1100CH43A-00	E2: VFD450CH23A-21 VFD550CH23A-21 VFD900CH43A-21 VFD1100CH43A-21	
F	230 V: 75 kW 460 V: 132 kW	F1: VFD750CH23A-00 VFD1320CH43A-00	F2: VFD750CH23A-21 VFD1320CH43A-21	
G	460 V: 160 ~ 220 kW	G1: VFD1600CH43A-00 VFD1850CH43A-00 VFD2200CH43A-00	G2: VFD1600CH43A-21 VFD1850CH43A-21 VFD2200CH43A-21	
H	460 V: 280 ~ 450 kW	H1 VFD2800CH43A-00 VFD3150CH43A-00 VFD3550CH43A-00 VFD4500CH43A-00	H2 VFD2800CH43C-21 VFD3150CH43C-21 VFD3550CH43C-21 VFD4500CH43C-21	

Basic Compact Drive ME300 Series

Frame	Power Range	Models			
A	115 V single phase: 0.1-0.4 kW	VFD0A8ME11ANNAA VFD1A6ME11ANNAA VFD2A5ME11ANNAA	VFD0A8ME11ANSAA VFD1A6ME11ANSAA VFD2A5ME11ANSAA		
	230 V single phase: 0.1-0.4 kW	VFD0A8ME21ANNAA VFD1A6ME21ANNAA VFD2A8ME21ANNAA	VFD0A8ME21ANSAA VFD1A6ME21ANSAA VFD2A8ME21ANSAA		
	230 V single phase: 0.1-0.75 kW	VFD0A8ME23ANNAA VFD1A6ME23ANNAA VFD2A8ME23ANNAA	VFD0A8ME23ANSAA VFD1A6ME23ANSAA VFD2A8ME23ANSAA		
	460 V three phase: 0.4- 0.75 kW	VFD4A8ME23ANNAA VFD1A5ME43ANNAA VFD2A7ME43ANNAA	VFD4A8ME23ANSAA VFD1A5ME43ANSAA VFD2A7ME43ANSAA		
B	230 V single phase: 0.1-0.75 kW	VFD4A8ME21ANNAA VFD7A5ME23ANNAA VFD4A2ME43ANNAA	VFD4A8ME21ANSAA VFD7A5ME23ANSAA VFD4A2ME43ANSAA	VFD0A8ME21AFNAA VFD1A6ME21AFNAA VFD2A8ME21AFNAA	VFD0A8ME21AFSAA VFD1A6ME21AFSAA VFD2A8ME21AFSAA
	230 V three phase: 1.5 kW			VFD4A8ME21AFNAA VFD1A5ME43AFNAA VFD2A7ME43AFNAA	VFD4A8ME21AFSAA VFD1A5ME43AFSAA VFD2A7ME43AFSAA
	460 V three phase : 0.4- 1.5 kW			VFD4A2ME43AFNAA	VFD4A2ME43AFSAA
C	115 V single phase: 0.75 kW	VFD4A8ME11ANNAA VFD7A5ME21ANNAA VFD11AME21ANNAA	VFD4A8ME11ANSAA VFD7A5ME21ANSAA VFD11AME21ANSAA	VFD7A5ME21AFNAA VFD11AME21AFNAA VFD5A5ME43AFNAA	VFD7A5ME21AFSAA VFD11AME21AFSAA VFD5A5ME43AFSAA
	230 V single phase: 1.5-2.2 kW	VFD11AME23ANNAA VFD17AME23ANNAA VFD5A5ME43ANNAA	VFD11AME23ANSAA VFD17AME23ANSAA VFD5A5ME43ANSAA	VFD9A0ME43AFNAA	VFD9A0ME43AFSAA
	230 V three phase: 2.2-3.7 kW	VFD9A0ME43ANNAA	VFD9A0ME43ANSAA		
	460 V three phase: 2.2- 3.7 kW				
D	230 V three phase: 5.5 kW	VFD25AME23ANNAA VFD13AME43ANNAA VFD17AME43ANNAA	VFD25AME23ANSAA VFD13AME43ANSAA VFD17AME43ANSAA	VFD13AME43AFNAA VFD17AME43AFNAA	VFD13AME43AFSAA VFD17AME43AFSAA
	460 V three phase: 5.5-7.5 kW				



Smarter. Greener. Together.

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