

690V												
Frame Size			C				D		E			
Model VFD-□□□CP63A-□□			185	220	300	370	450	550	750	900	1100	1320
Output *	LIGHT DUTY	Rated Output Capacity (kVA)	29	36	43	54	65	80	103	124	149	179
		Applicable Motor Output (690V, kW)	18.5	22	30	37	45	55	75	90	110	132
		Applicable Motor Output (690V, HP)	25	30	40	50	60	75	100	125	150	175
		Applicable Motor Output (575V, HP)	20	25	30	40	50	60	75	100	125	150
		Rated Output Current (A)	24	30	36	45	54	67	86	104	125	150
		Overload Tolerance	120% of rated current for 1 minute during every 5 minutes									
		Max. Output Frequency (Hz)	599.00									
	NORMAL DUTY	Rated Output Capacity (kVA)	24	29	36	43	54	65	80	103	124	149
		Applicable Motor Output (690V, kW)	15	18.5	22	30	37	45	55	75	90	110
		Applicable Motor Output (690V, HP)	20	25	30	40	50	60	75	100	125	150
		Applicable Motor Output (575V, HP)	15	20	25	30	40	50	60	75	100	125
		Rated Output Current (A)	20	24	30	36	45	54	67	86	104	125
		Overload Tolerance	120% of rated current for 1 minute during every 5 minutes; 160% of rated current for 3 seconds during every 25 seconds									
		Max. Output Frequency (Hz)	599.00									
	Carrier Frequency (kHz)		2~9 (default setting 4)									
Input	Input Current (A) Light Duty		29	36	43	54	65	81	84	102	122	147
	Input Current (A) Normal Duty		24	29	36	43	54	65	66	84	102	122
	Rated Voltage/Frequency		3-Phase, 525~690V _{AC} (-15% ~+10%), 50/60Hz									
	Operating Voltage Range		446~759V _{AC}									
	Frequency Tolerance		47~63Hz									
Efficiency (%)			97									
Power Factor			>0.98									
AC Drive Weight (Kg)			10±1.5				39±1.5			61±1.5		
Cooling Method			Fan cooling									
Braking Chopper			Frame C (built-in)				Frame D and above (optional)					
DC Choke			Frame C (optional)				Frame D and above (built-in)					

690V												
Frame Size			F		G		H					
Model VFD-□□□CP63A-□□			1600	2000	2500	3150	4000	4500	5600	6300		
Output *	LIGHT DUTY	Rated Output Capacity (kVA)	215	263	347	418	494.5	534.7	678.5	776		
		Applicable Motor Output (690V, kW)	160	200	250	315	400	450	560	630		
		Applicable Motor Output (690V, HP)	215	270	335	425	530	600	750	850		
		Applicable Motor Output (575V, HP)	150	200	250	350	400	450	500	750		
		Rated Output Current (A)	180	220	290	350	430	465	590	675		
		Overload Tolerance	120% of rated current for 1 minute during every 5 minutes									
		Max. Output Frequency (Hz)	599.00									
	NORMAL DUTY	Rated Output Capacity (kVA)	179	215	239	347	402.5	442.7	534.7	776		
		Applicable Motor Output (690V, kW)	132	160	200	250	315	355	450	630		
		Applicable Motor Output (690V, HP)	175	215	270	335	425	475	600	850		
		Applicable Motor Output (575V, HP)	150	150	200	250	350	400	450	750		
		Rated Output Current (A)	150	180	220	290	350	385	465	675		
		Overload Tolerance	120% of rated current for 1 minute during every 5 minutes; 160% of rated current for 3 seconds during every 25 seconds									
		Max. Output Frequency (Hz)	599.00									
	Carrier Frequency (kHz)		2~9 (default setting 4)									2~9 (default setting 3)
Input	Input Current (A) Light Duty		178	217	292	353	454	469	595	681		
	Input Current (A) Normal Duty		148	178	222	292	353	388	504	681		
	Rated Voltage/Frequency		3-Phase, 525~690V _{AC} (-15% ~+10%), 50/60Hz									
	Operating Voltage Range		446~759V _{AC}									
	Frequency Tolerance		47~63Hz									
Efficiency (%)			97		98							
Power Factor			>0.98									
AC Drive Weight (Kg)			88±1.5		135±4		243±5					
Cooling Method			Fan cooling									
Braking Chopper			Frame D and above (optional)									
DC Choke			Frame D and above (built-in)									

Note : 1. When a load is a surge load, use a higher level model.

2. For Frame A, B and C, Model VFXXXXCPXXX-21, the enclosure type is IP20/ UL OPEN TYPE.

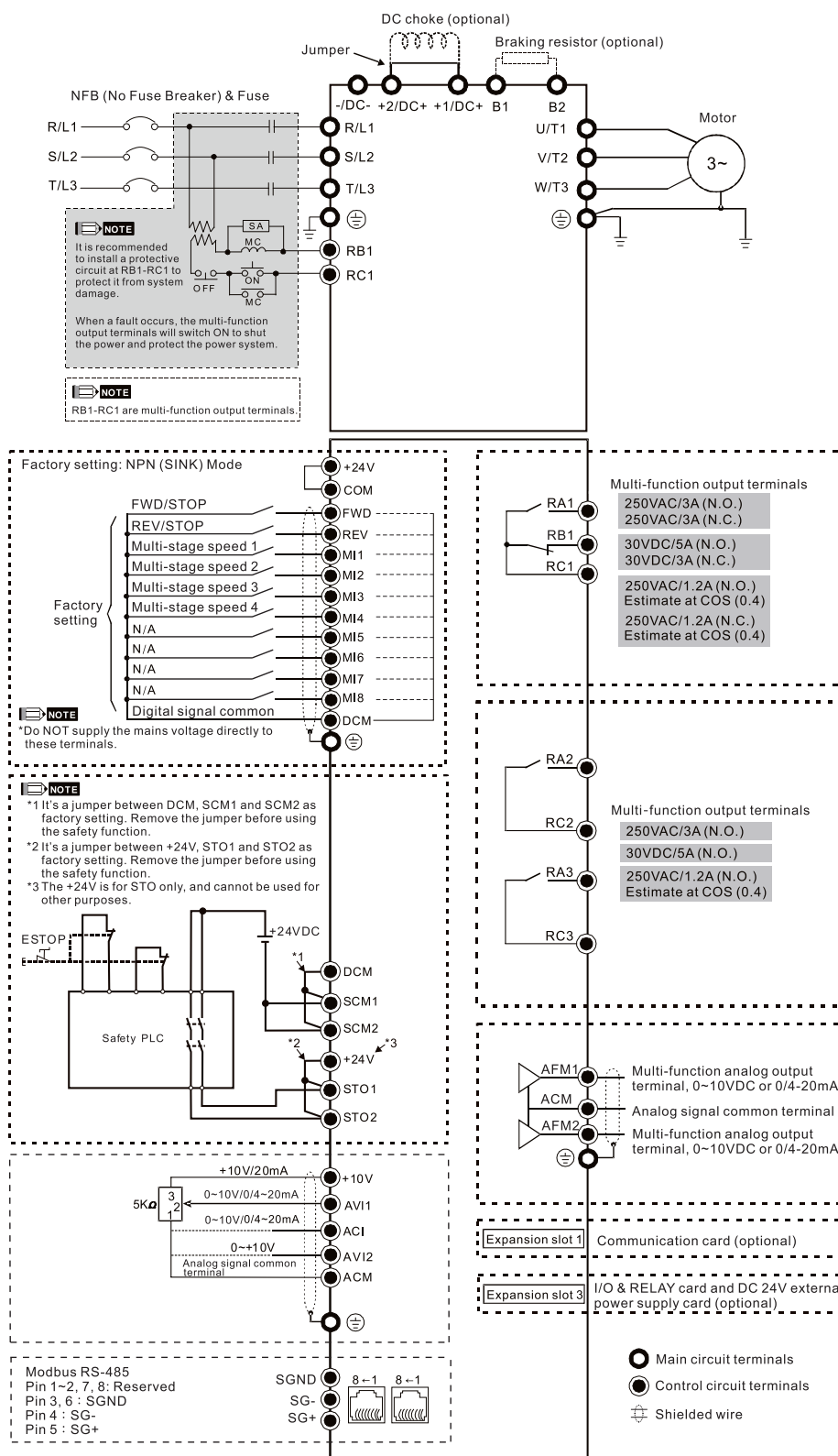
3. For Frame D and above, if the last two characters of the model are 00, then the enclosure type is IP00/ IP20/ UL OPEN TYPE; if the last two characters of the model are 21, the enclosure type is IP20/NEMA1/ UL TYPE1.

Control Characteristics	Control Method	Pulse Width Modulated (PWM)				
	Control Mode	1: V/F (V/F control), 2: SVC (Sensorless Vector Control), 3: PM (Permanent Magnet Motor)				
	Starting Torque	Reach up to 150% or above at 0.5Hz				
	V/F Curve	4 point adjustable V/F curve and square curve				
	Speed Response Ability	5Hz				
	Torque Limit	Light Duty: Max. 130% torque current; Normal Duty: Max. 160% torque current				
	Torque Accuracy	±5%				
	Max. Output Frequency (Hz)	230 V model: 599.00 (55kW and above: 400.00) 460 V model: 599.00 (90kW and above: 400.00) 575 V/690 V model: 599.00				
	Frequency Output Accuracy	Digital command: ±0.01%, -10°C~+40°C, Analog command: ±0.1%, 25 ±10°C				
	Output Frequency Resolution	Digital command: 0.01 Hz; Analog command: Max. output frequency×0.03/60Hz (±11 bit)				
	Overload Tolerance	Light duty: 120% of rated current for 1 minute during every 5 minutes Normal duty: 120% of rated current for 1 minute during every 5 minutes; 160% of rated current for 3 seconds during every 25 seconds				
	Frequency Setting Signal	0~+10V, 4~20mA, 0~20mA				
	Accel./decel. Time	0.00~600.00/0.0~6000.0 seconds				
Protection Characteristics	Main Control Function	Fault restart	Torque limit	High-Slip braking	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 upper/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	17-step speed (max.)
		Over-torque detection Modbus communication (RS-485 RJ45, Max. 5.2Kbps)				
	Fan Control	230 V model: Model with spec higher than VFD185CP23 (included) are PWM control; Model with spec lower than VFD150CP23 (not included) are on/off switch control. 460 V model: Model with spec higher than VFD220CP43/4E (included) are PWM control; Model with spec lower than VFD185CP43/4E (not included) are on/off switch control. 575 V/690 V model: PWM control				
	Motor Protection	Electronic thermal relay protection				
	Over-Current Protection	230V/460V model: Light duty: Over-current protection for 185% rated current, Normal duty: Over-current protection for 240% rated current, Current clamp (Light duty: 130~135%) ; (Normal duty: 170~175%) 575V/690V model: Over-current protection for 225% rated current Current clamp (Light duty: around 128~141%) ; (Normal duty: around 170~175%)				
	Over-Voltage Protection	230V model: drive will stop when DC bus voltage exceeds 410V 460V model: drive will stop when DC bus voltage exceeds 820V 575V model: drive will stop when DC bus voltage exceeds 1016V 690V model: drive will stop when DC bus voltage exceeds 1189V				
	Over-Temperature Protection	Built-in temperature sensor				
	Stall Prevention	Stall prevention during acceleration, deceleration and running independently				
	Restart After Instantaneous Power Failure	Parameter setting up to 20 seconds				
	Grounding Leakage Current Protection	Leakage current is higher than 50% of rated current of the AC motor drive				
	Short-circuit Current Rating (SCCR)	Per UL508C, the drive is suitable for use on a circuit capable of delivering not more than 100kA symmetrical amperes (rms) when protected by fuses given in the fuse table				
	International Certifications*	CE UL EAC GBT SEMI F47, GB/T12668.3				

Note : 1. EAC Certification is for 230 V and 460 V models only
2. No UL certification for models above 500 kW

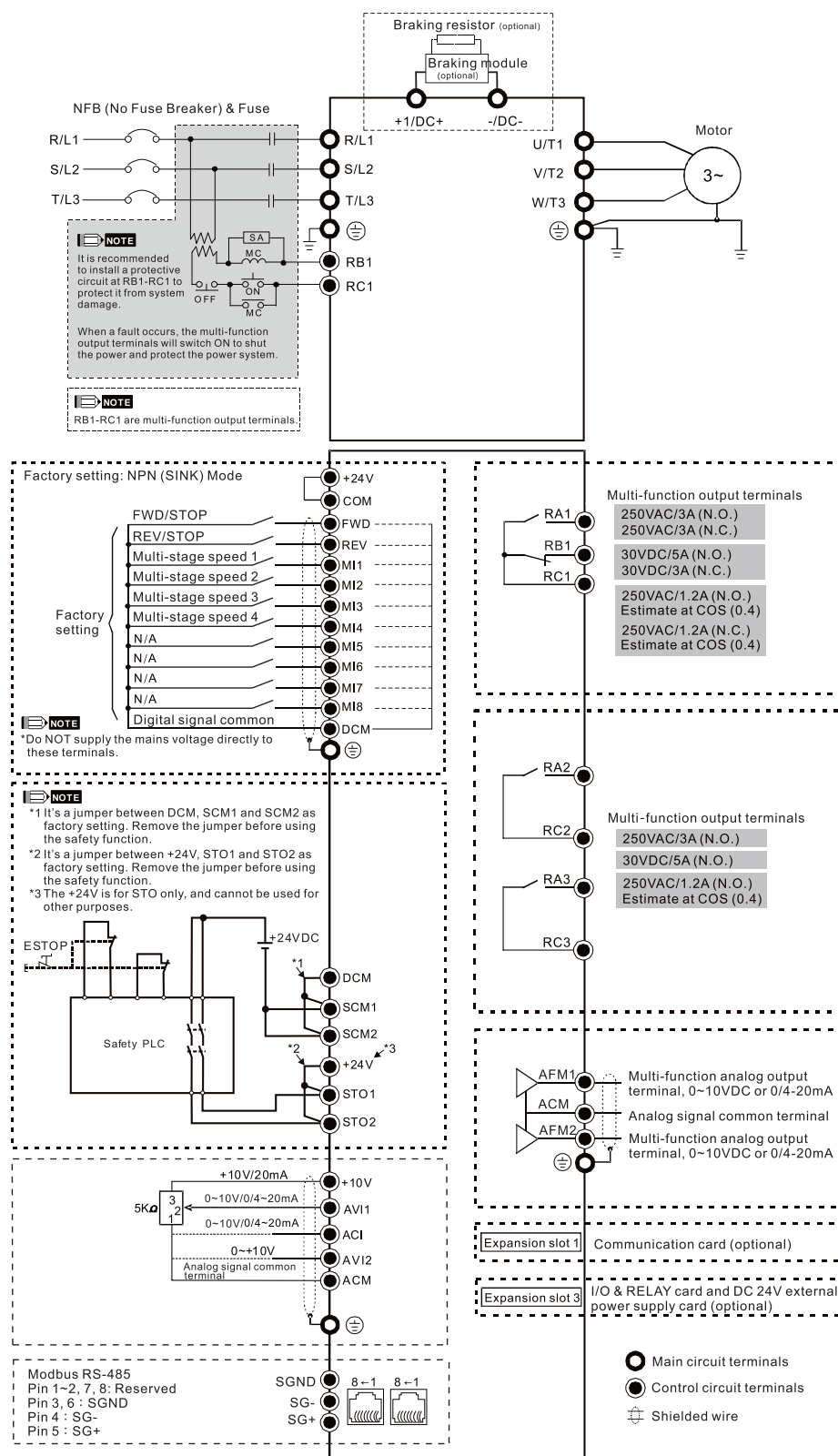
Wiring Diagram for Frame A ~ C

*Input: 3-phase power



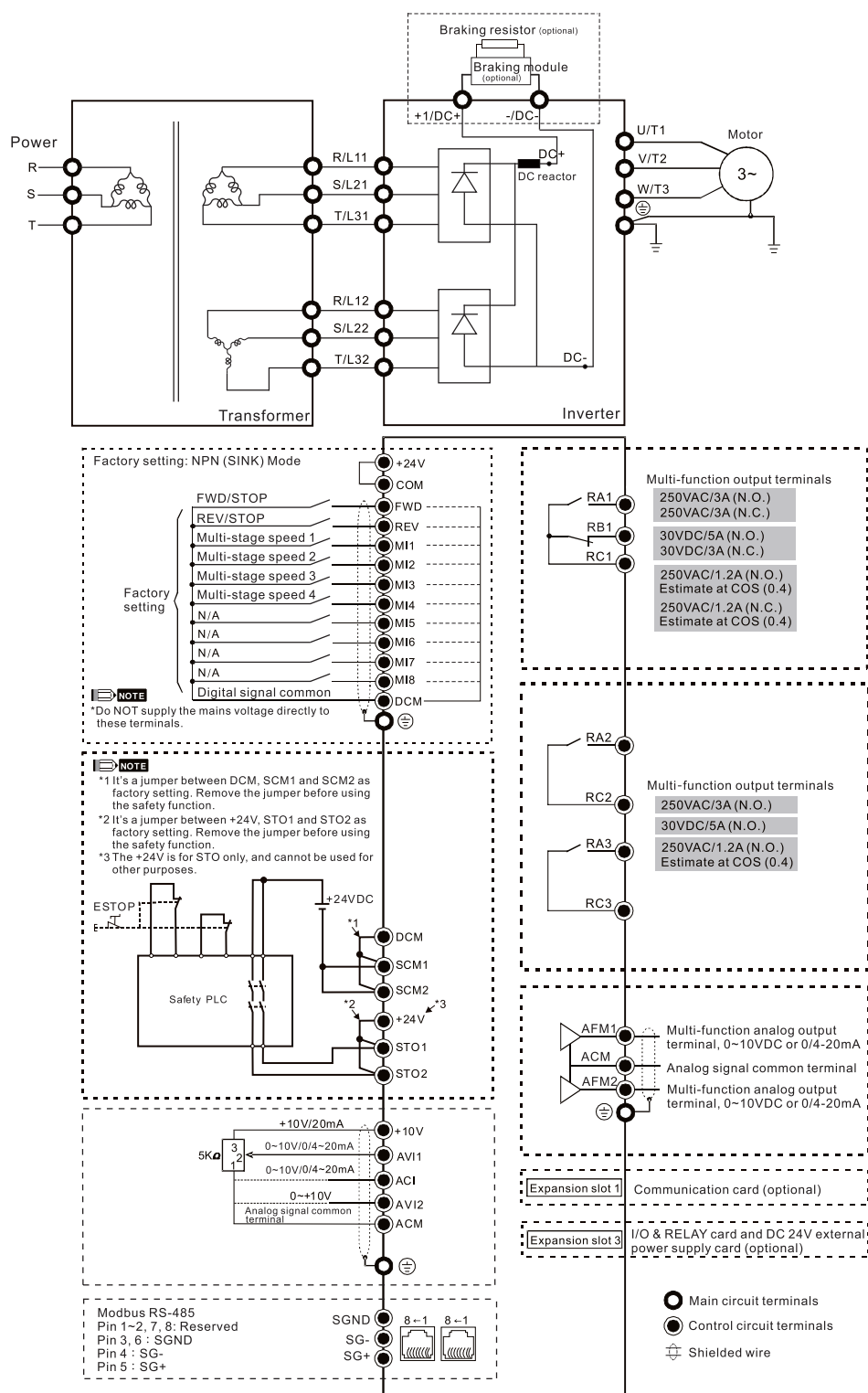
Wiring Diagram for Frame D ~ F

*Input: 3-phase power

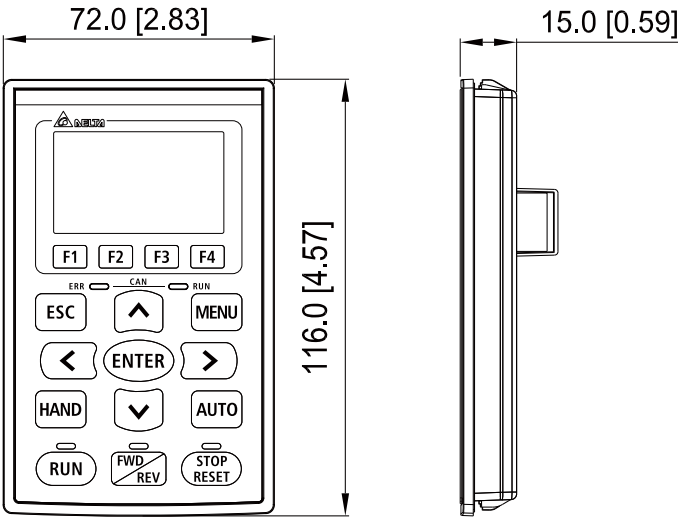


Wiring Diagram for Frame G ~ H

*Input: 3-phase power



Digital Keypad Unit: mm [inch]



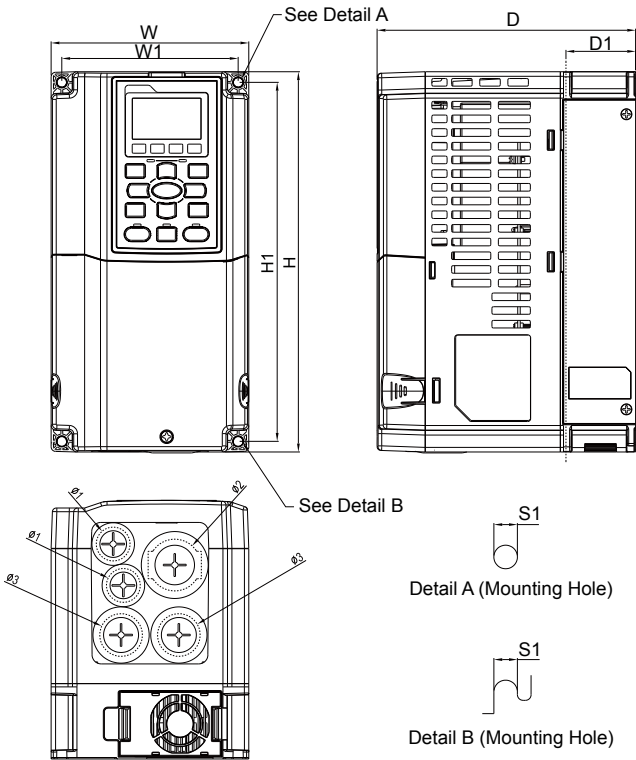
KPC-CC01

Standard LCD keypad

Frame A

MODEL

VFD007CP23A-21	VFD007CP4EA-21
VFD015CP23A-21	VFD015CP4EB-21
VFD022CP23A-21	VFD022CP4EB-21
VFD037CP23A-21	VFD037CP4EB-21
VFD055CP23A-21	VFD040CP4EA-21
VFD007CP43A-21	VFD055CP4EB-21
VFD015CP43B-21	VFD075CP4EB-21
VFD022CP43B-21	VFD015CP53A-21
VFD037CP43B-21	VFD022CP53A-21
VFD040CP43A-21	VFD037CP53A-21
VFD055CP43B-21	
VFD075CP43B-21	



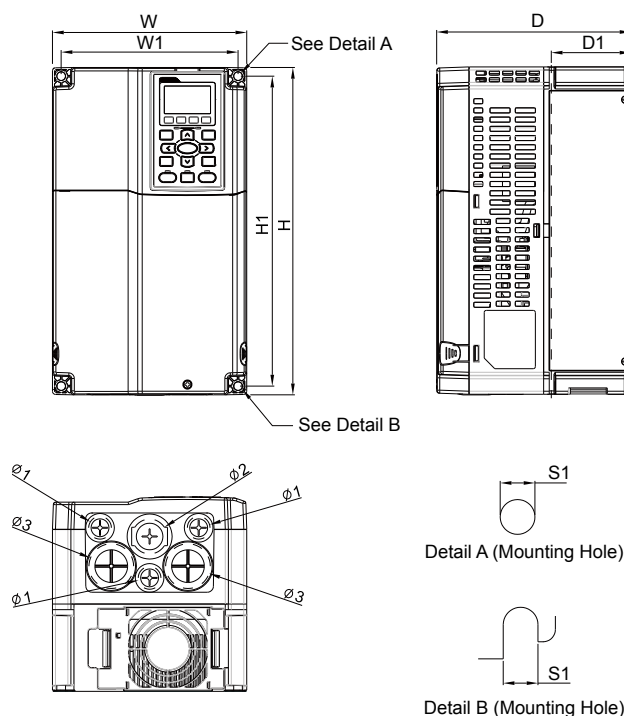
Frame		W	H	D	W1	H1	D1*	Ø	Ø1	Ø2	Ø3
A	mm	130.0	250.0	170.0	116.0	236.0	45.8	6.2	22.2	34.0	28.0
	inch	5.12	9.84	6.69	4.57	9.29	1.80	0.24	0.87	1.34	1.10

*D1: Flange mount.

Frame B

MODEL

VFD075CP23A-21
VFD110CP23A-21
VFD150CP23A-21
VFD110CP43B-21
VFD150CP43B-21
VFD185CP43B-21
VFD110CP4EB-21
VFD150CP4EB-21
VFD185CP4EB-21
VFD055CP53A-21
VFD075CP53A-21
VFD110CP53A-21
VFD150CP53A-21



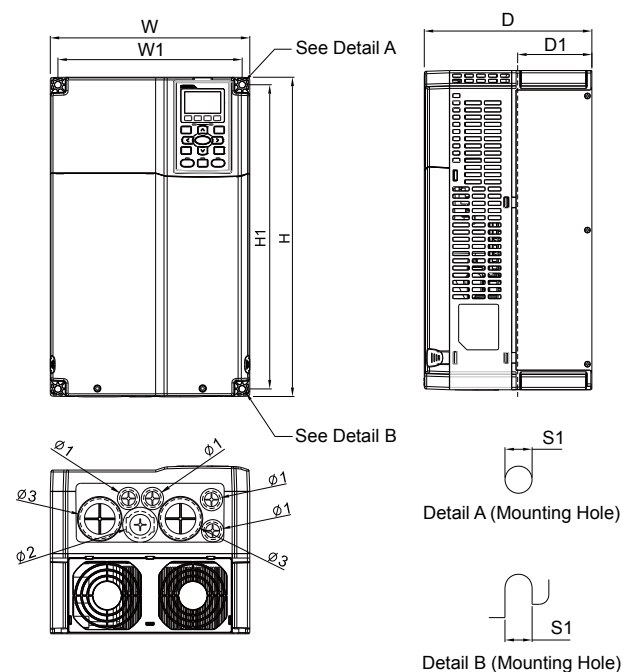
Frame		W	H	D	W1	H1	D1*	S1	Ø1	Ø2	Ø3
B1	mm	190.0	320.0	190.0	173.0	303.0	77.9	8.5	22.2	34.0	43.8
	inch	7.48	12.60	7.48	6.81	11.93	3.07	0.33	0.87	1.34	1.72

*D1: Flange mount.

Frame C

MODEL

VFD185CP23A-21
VFD220CP23A-21
VFD300CP23A-21
VFD220CP43A-21
VFD300CP43B-21
VFD370CP43B-21
VFD220CP4EA-21
VFD300CP4EB-21
VFD370CP4EB-21
VFD185CP63A-21
VFD220CP63A-21
VFD300CP63A-21
VFD370CP63A-21



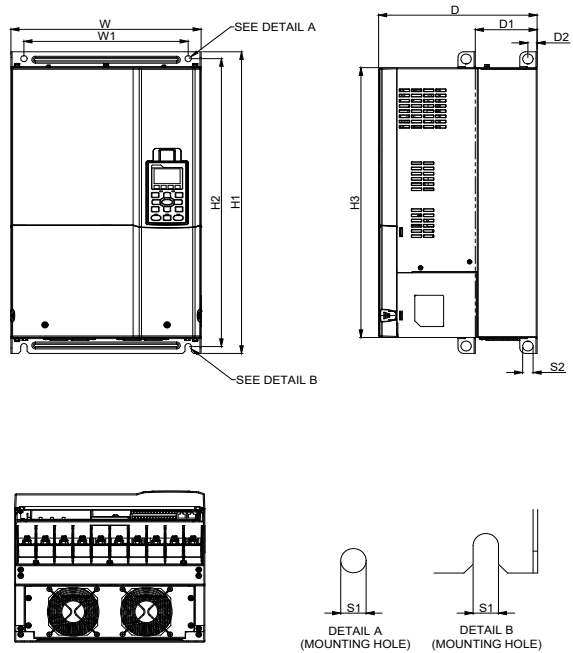
Frame		W	H	D	W1	H1	D1*	S1	Ø1	Ø2	Ø3
C1	mm	250.0	400.0	210.0	231.0	381.0	92.9	8.5	22.2	34.0	50.0
	inch	9.84	15.75	8.27	9.09	15.00	3.66	0.33	0.87	1.34	1.97

*D1: Flange mount.

Frame D1

MODEL
FRAME_D1

- VFD370CP23A-00
- VFD450CP23A-00
- VFD750CP43B-00
- VFD900CP43A-00
- VFD450CP63A-00
- VFD550CP63A-00



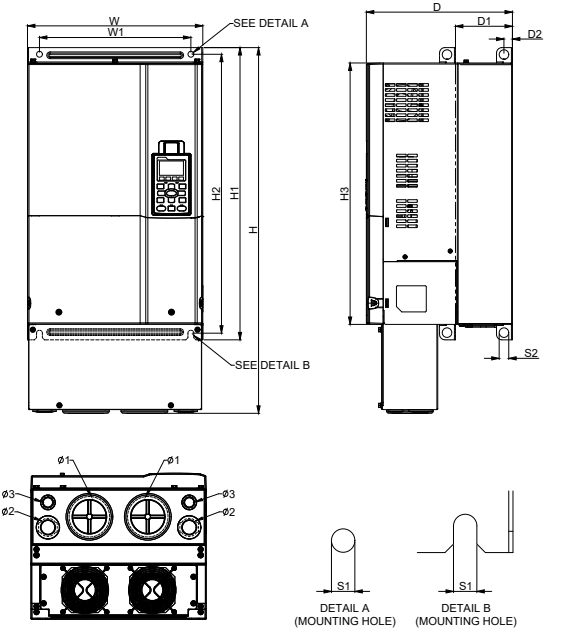
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D1	mm	330.0	-	275.0	285.0	550.0	525.0	492.0	107.2	16.0	11.0	18.0	-	-	-
	inch	12.99	-	10.83	11.22	21.65	20.67	19.37	4.22	0.63	0.43	0.71	-	-	-

*D1: Flange mount.

Frame D2

MODEL
FRAME_D2

- VFD370CP23A-21
- VFD450CP23A-21
- VFD750CP43B-21
- VFD900CP43A-21
- VFD450CP63A-21
- VFD550CP63A-21



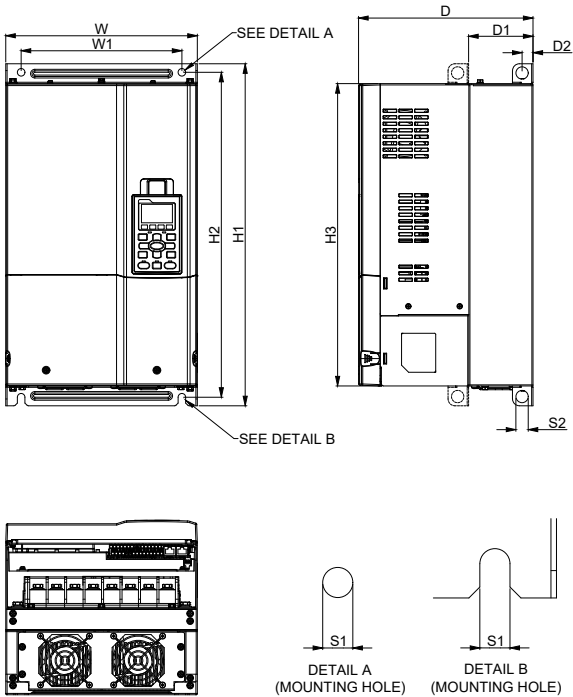
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D2	mm	330.0	688.3	275.0	285.0	550.0	525.0	492.0	107.2	16.0	11.0	18.0	76.2	34.0	22.0
	inch	12.99	27.10	10.83	11.22	21.65	20.67	19.37	4.22	0.63	0.43	0.71	3.00	1.34	0.87

*D1: Flange mount.

Frame D0-1

MODEL
FRAME_D0-1

VFD450CP43S-00
VFD550CP43S-00



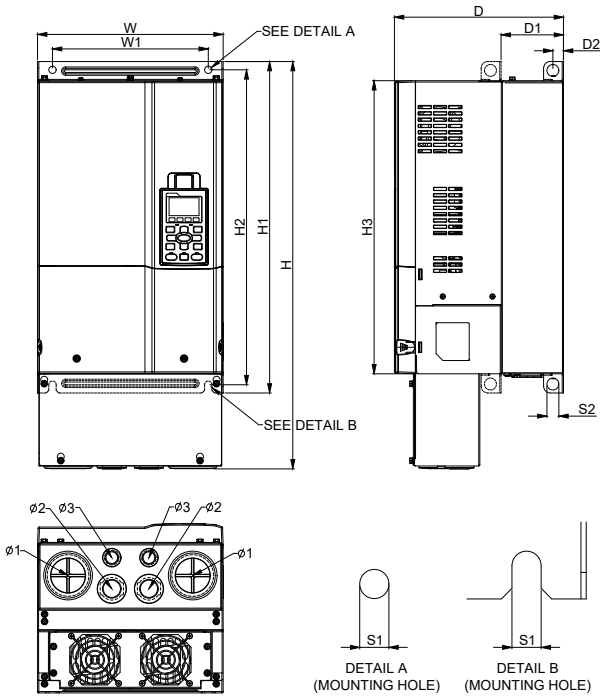
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2
D0-1	mm	280.0	-	255.0	235.0	500.0	475.0	442.0	94.2	16.0	11.0	18.0
	inch	11.02	-	10.04	9.25	19.69	18.70	17.40	3.71	0.63	0.43	0.71

*D1: Flange mount.

Frame D0-2

MODEL
FRAME_D0-2

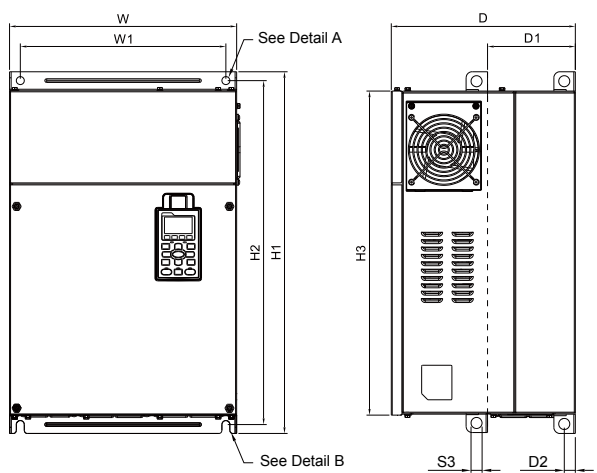
VFD450CP43S-21
VFD550CP43S-21



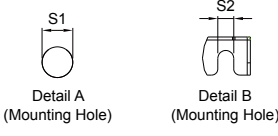
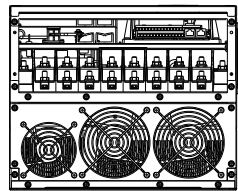
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	Ø1	Ø2	Ø3
D0-2	mm	280.0	614.4	255.0	235.0	500.0	475.0	442.0	94.2	16.0	11.0	18.0	62.7	34.0	22.0
	inch	11.02	24.19	10.04	9.25	19.69	18.70	17.40	3.71	0.63	0.43	0.71	2.47	1.34	0.87

*D1: Flange mount.

Frame E1



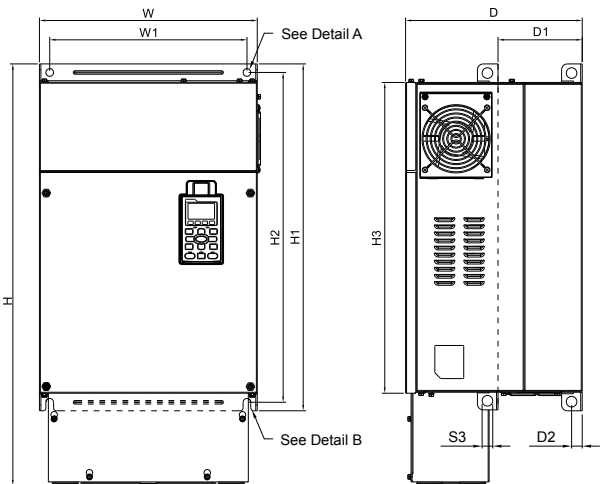
MODEL	
VFD550CP23A-00	VFD750CP63A-00
VFD750CP23A-00	VFD900CP63A-00
VFD900CP23A-00	VFD1100CP63A-00
VFD1100CP43A-00	VFD1320CP63A-00
VFD1320CP43B-00	



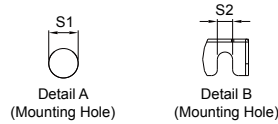
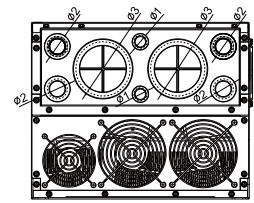
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3	Ø1	Ø2	Ø3
E1	mm	370.0	-	300.0	335.0	589.0	560.0	528.0	143.0	18.0	13.0	13.0	18.0	-	-	-
	inch	14.57	-	11.81	13.19	23.19	22.05	20.80	5.63	0.71	0.51	0.51	0.71	-	-	-

*D1: Flange mount.

Frame E2



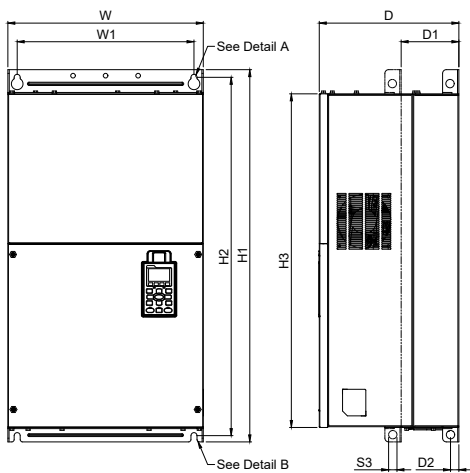
MODEL	
VFD550CP23A-21	VFD750CP63A-21
VFD750CP23A-21	VFD900CP63A-21
VFD900CP23A-21	VFD1100CP63A-21
VFD1100CP43A-21	VFD1320CP63A-21
VFD1320CP43B-21	



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	589.0	560.0	528.0	143.0	18.0	13.0	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	0.51	0.71	0.87	1.34	3.62

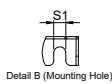
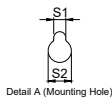
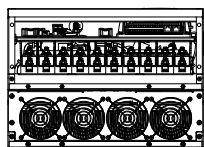
*D1: Flange mount.

Frame F1



MODEL

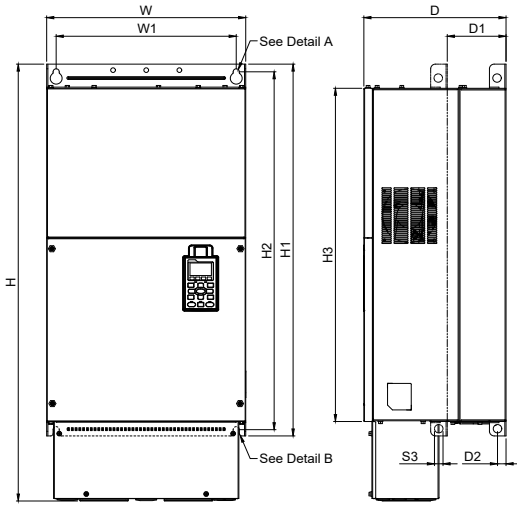
VFD1600CP43A-00
VFD1850CP43B-00
VFD1600CP63A-00
VFD2000CP63A-00



Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3	Ø1	Ø2	Ø3
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	-	-	-

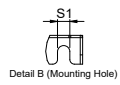
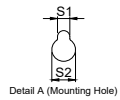
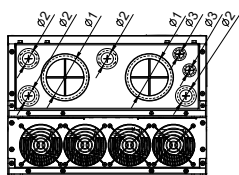
*D1: Flange mount.

Frame F2



MODEL

VFD1600CP43A-21
VFD1850CP43B-21
VFD1600CP63A-21
VFD2000CP63A-21



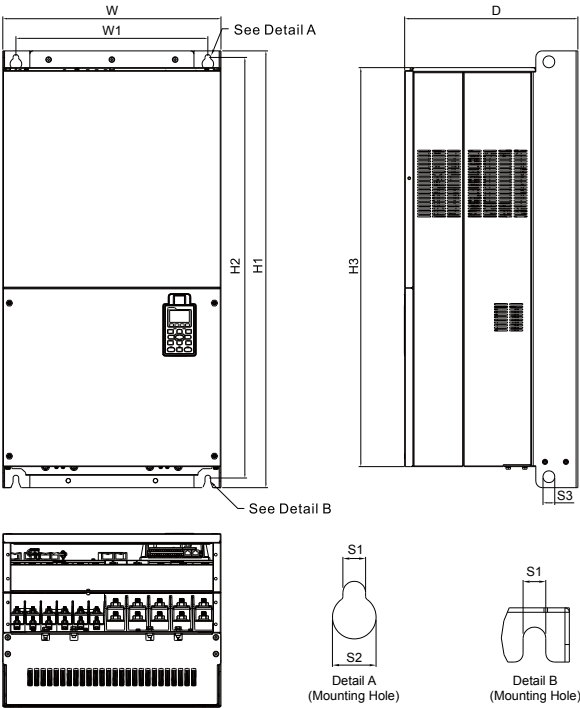
Frame		W	H	D	W1	H1	H2	H3	D1*	D2	S1	S2	S3	Ø1	Ø2	Ø3
F2	mm	420.0	940.0	300.0	380.0	800.0	770.0	717.0	124.0	18.0	13.0	25.0	18.0	92.0	35.0	22.0
	inch	16.54	37.00	11.81	14.96	31.50	30.32	28.23	4.88	0.71	0.51	0.98	0.71	3.62	1.38	0.87

*D1: Flange mount.

Frame G1

MODEL

VFD2000CP43A-00
VFD2200CP43A-00
VFD2500CP43A-00
VFD2800CP43A-00
VFD2500CP63A-00
VFD3150CP63A-00

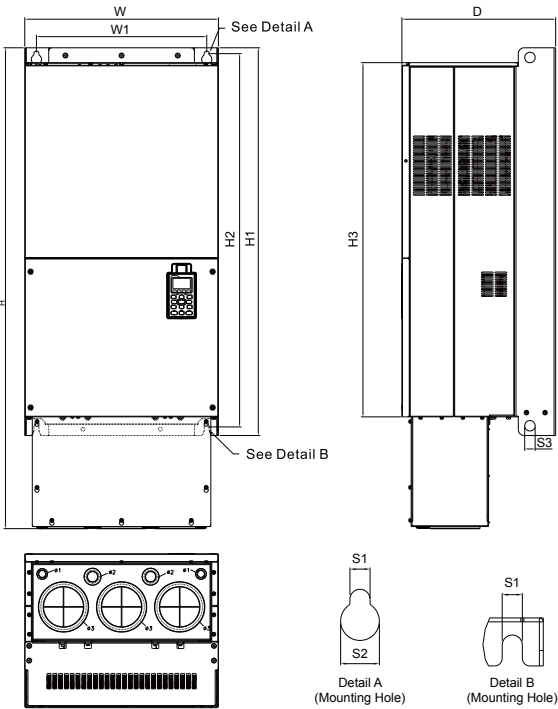


Frame		W	H	D	W1	H1	H2	H3	S1	S2	S3	Ø1	Ø2	Ø3
G1	mm	500.0	-	397.0	440.0	1000.0	963.0	913.6	13.0	26.5	27.0	-	-	-
	inch	19.69	-	15.63	217.32	39.37	37.91	35.97	0.51	1.04	1.06	-	-	-

Frame G2

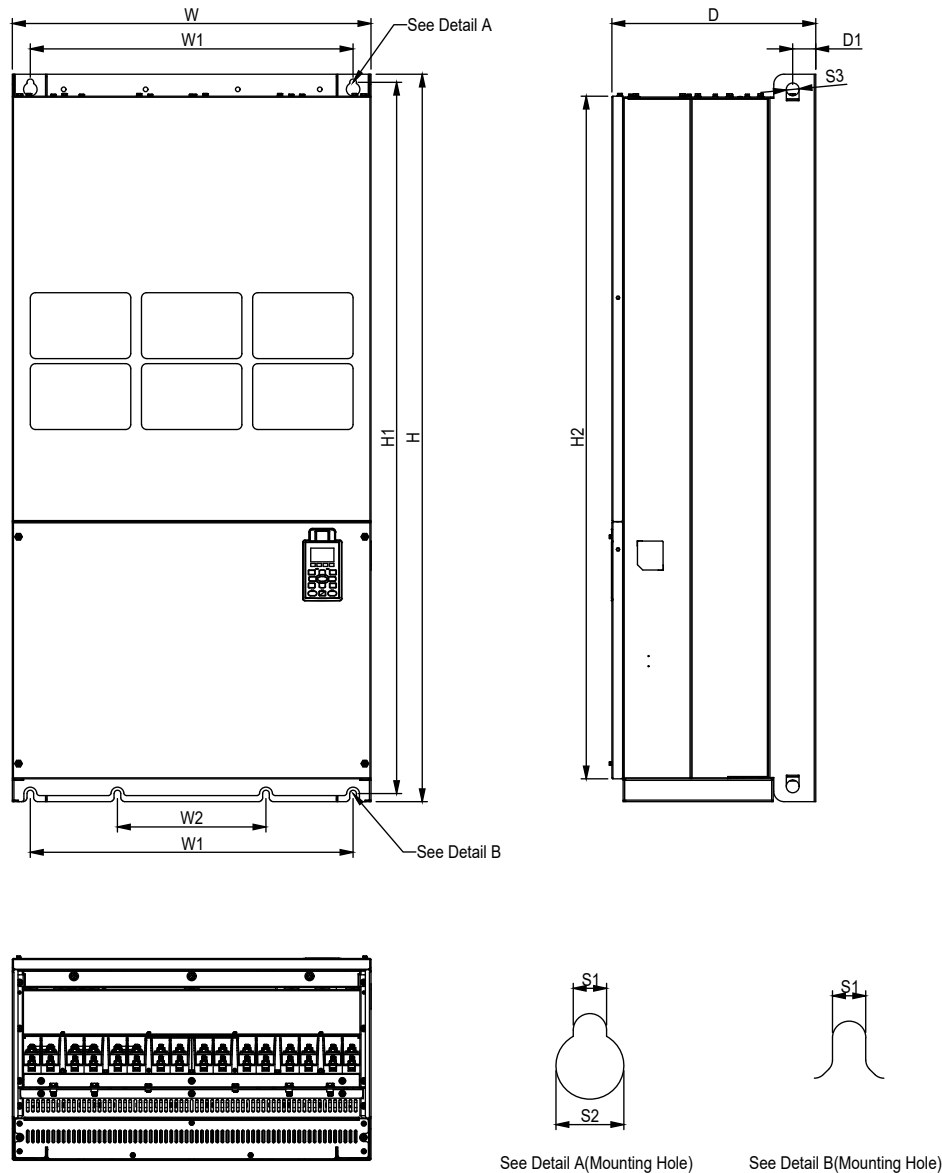
MODEL

VFD2000CP43A-21
VFD2200CP43A-21
VFD2500CP43A-21
VFD2800CP43A-21
VFD2500CP63A-21
VFD3150CP63A-21



Frame		W	H	D	W1	H1	H2	H3	S1	S2	S3	Ø1	Ø2	Ø3
G2	mm	500.0	1240.2	397.0	440.0	1000.0	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

Frame H1

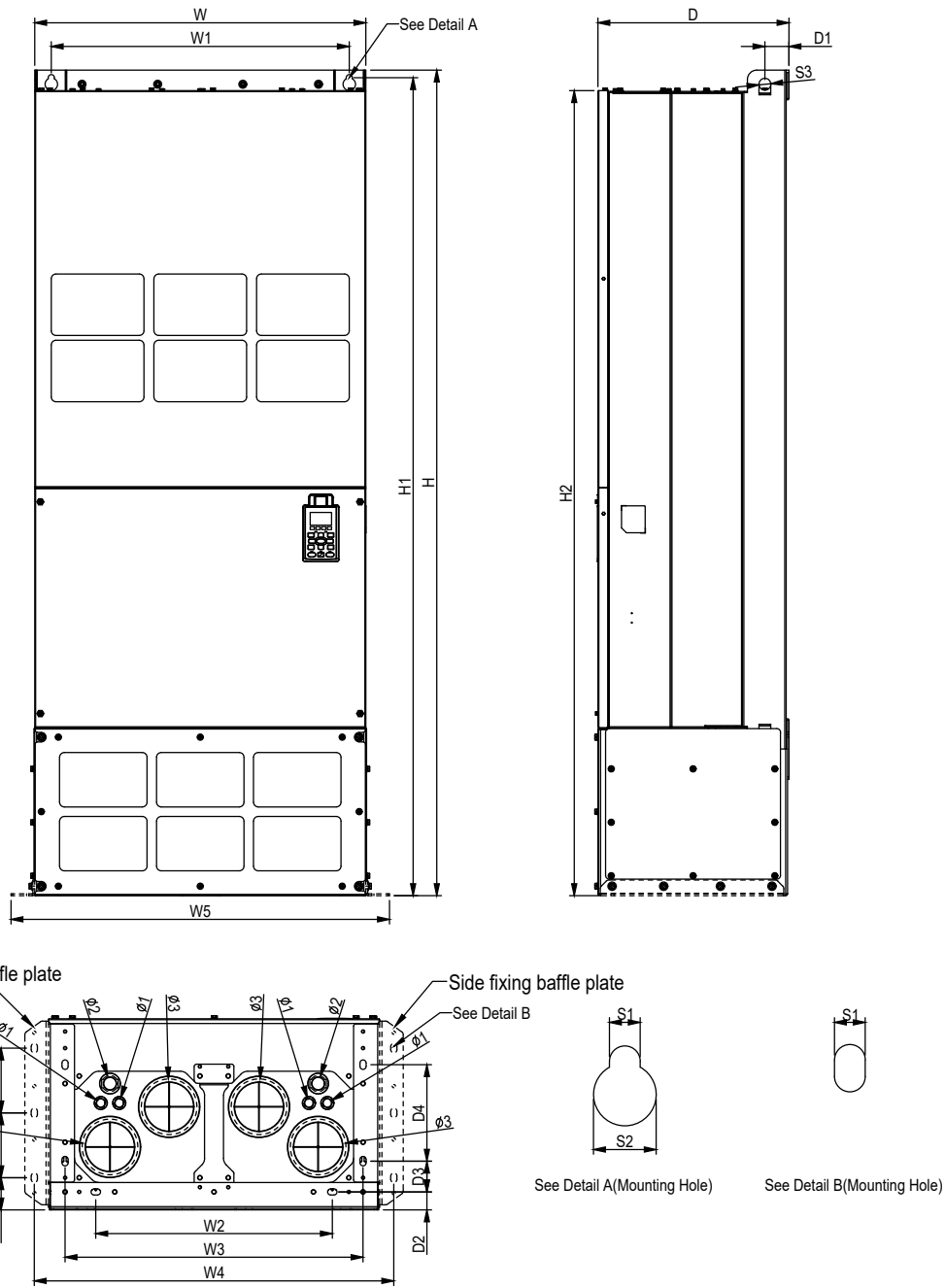


MODEL

- VFD3150CP43A-00
- VFD3550CP43A-00
- VFD4000CP43A-00
- VFD5000CP43A-00
- VFD5600CP43A-00
- VFD6300CP43A-00

Frame		W	H	D	W1	W2	W3	W4	W5	W6	H1	H2	H3	H4
H1	mm	700.0	1435.0	398.0	630.0	290.0	-	-	-	-	1403.0	1346.6	-	-
	inch	27.56	56.5	15.67	24.80	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

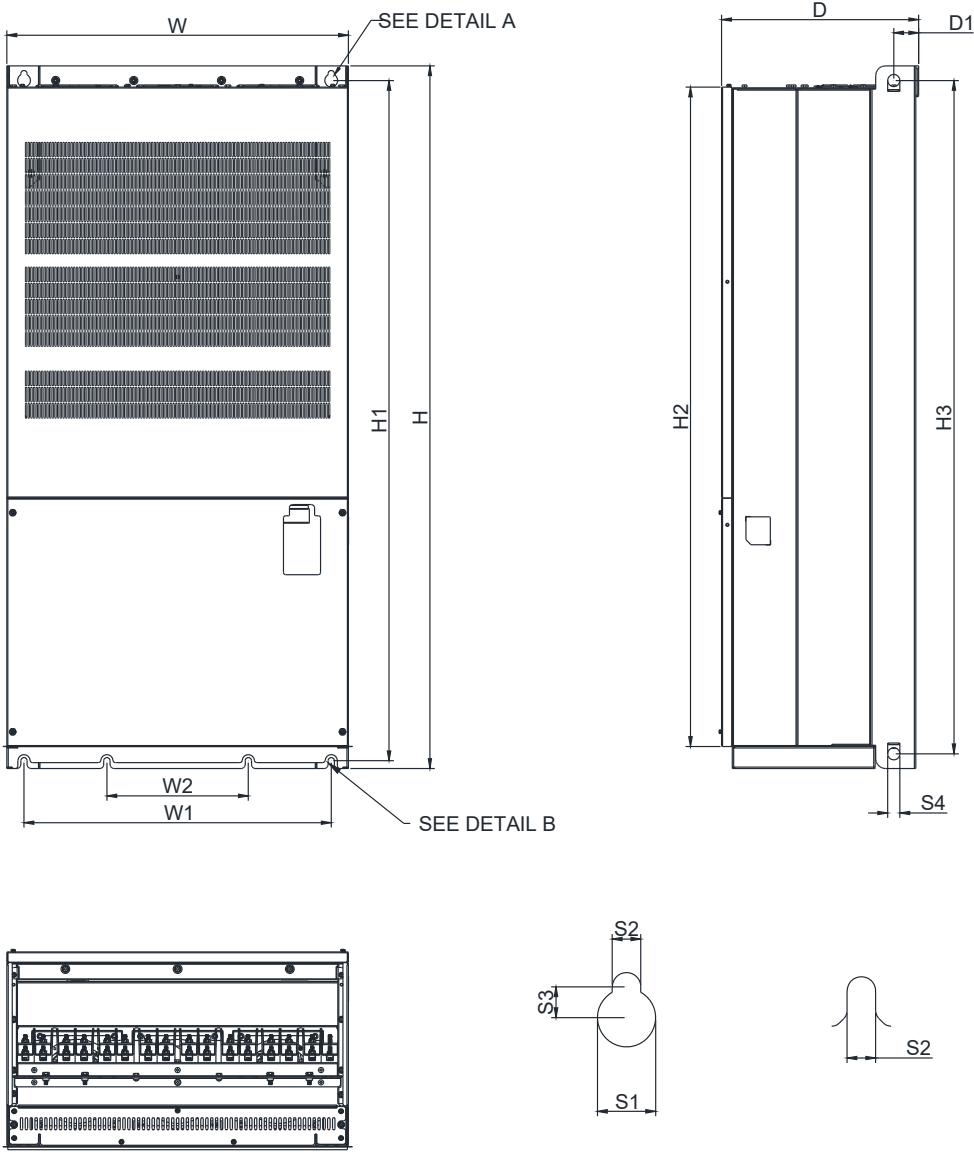


MODEL

VFD3150CP43C-21
VFD3550CP43C-21
VFD4000CP43C-21
VFD5000CP43C-21
VFD5600CP43C-21
VFD6300CP43C-21

Frame		W	H	D	W1	W2	W3	W4	W5	W6	H1	H2	H3	H4
H3	mm	700.0	1745.0	404.0	630.0	500.0	630.0	760.0	800.0	-	1729.0	1701.6	-	-
	inch	27.56	68.70	15.91	24.80	19.69	24.80	29.92	31.50	-	68.07	66.99	-	-
Frame		H5	D1	D2	D3	D4	D5	D6	S1	S2	S3	Ø1	Ø2	Ø3
H3	mm	-	51.0	38.0	65.0	204.0	68.0	137.0	13.0	26.5	25.0	22.0	34.0	117.5
	inch	-	2.0	1.50	2.56	8.03	2.68	5.4	0.51	1.04	0.98	0.87	1.34	4.63

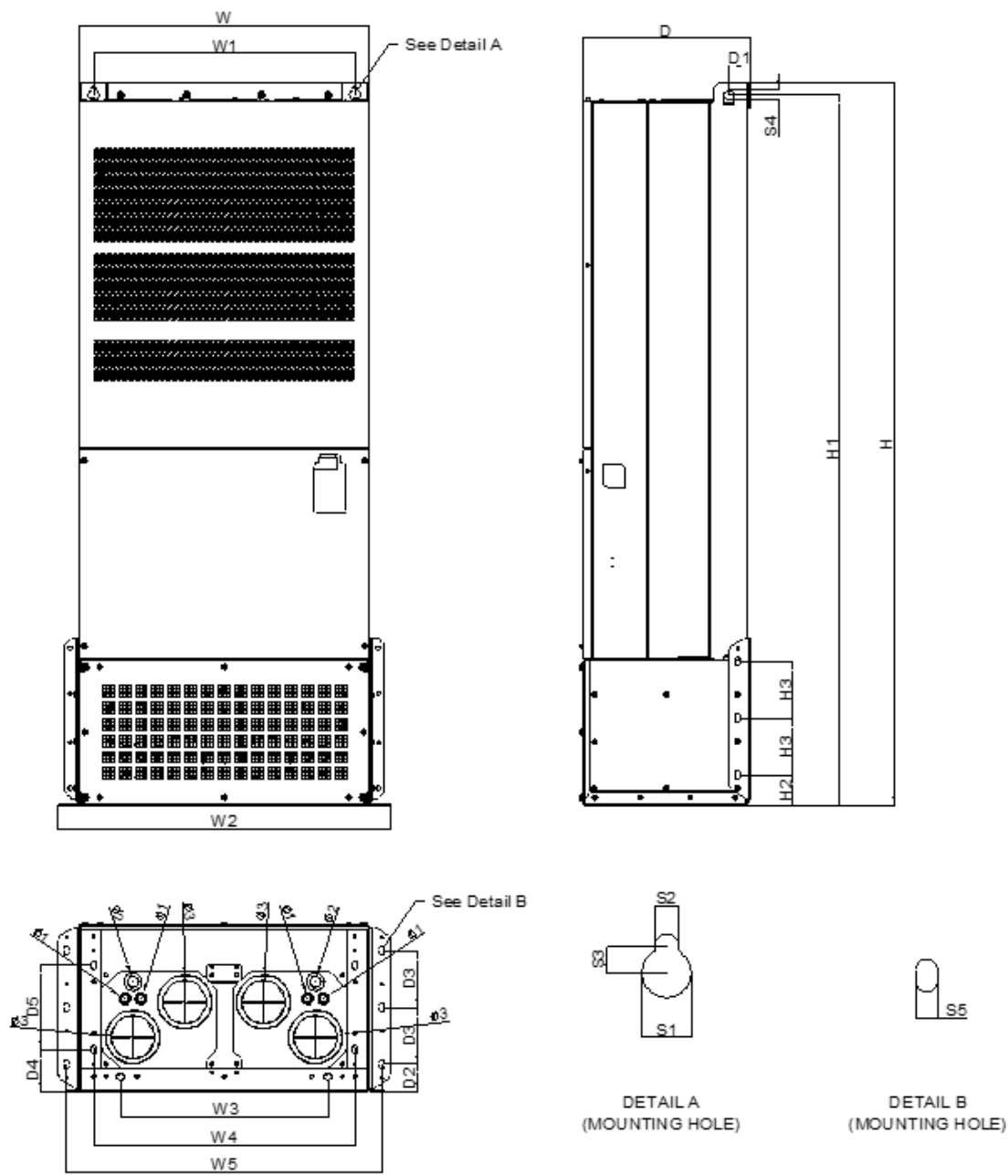
690 V Frame H1



MODEL
690V FRAME_H1
VFD4000CP63A-00
VFD4500CP63A-00
VFD5600CP63A-00
VFD6300CP63A-00

Frame		W	H	D	W1	W2	W3	W4	W5	W6	H1	H2	H3	H4
H1	mm	700.0	1435.0	398.0	630.0	290.0	-	-	-	-	1389.0	1346.6	1375.0	-
	inch	27.56	56.5	15.67	24.8	11.42	-	-	-	-	54.68	53.02	54.13	-
Frame		H5	D1	D2	D3	D4	D5	D6	S1	S2	S3	S4		
H1	mm	-	45.0	-	-	-	-	-	26.5	13.0	14.0	25.0		
	inch	-	1.77	-	-	-	-	-	1.04	0.51	0.55	0.98		

690 V Frame H2



MODEL
690V FRAME_H2
VFD4000CP63A-21
VFD4500CP63A-21
VFD5600CP63A-21
VFD6300CP63A-21

Frame		W	H	D	W1	W2	W3	W4	W5	W6	H1	H2	H3	H4	H5
H2	mm	700.0	1745.0	404.0	630.0	800.0	500.0	630.0	760.0	-	1715.0	74.5	137.0	-	-
	inch	27.56	68.70	15.91	24.8	31.5	19.69	24.8	29.92	-	67.52	2.93	5.39	-	-
Frame		D1	D2	D3	D4	D5	D6	S1	S2	S3	S4	S5	Ø1	Ø2	Ø3
H2	mm	51.0	68.0	137.0	103.0	204.0	-	26.5	13.0	14.0	25.0	13.0	22.0	34.0	117.5
	inch	2.01	2.68	5.39	4.06	8.03	-	1.04	0.51	0.55	0.98	0.51	0.87	1.34	4.63