

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

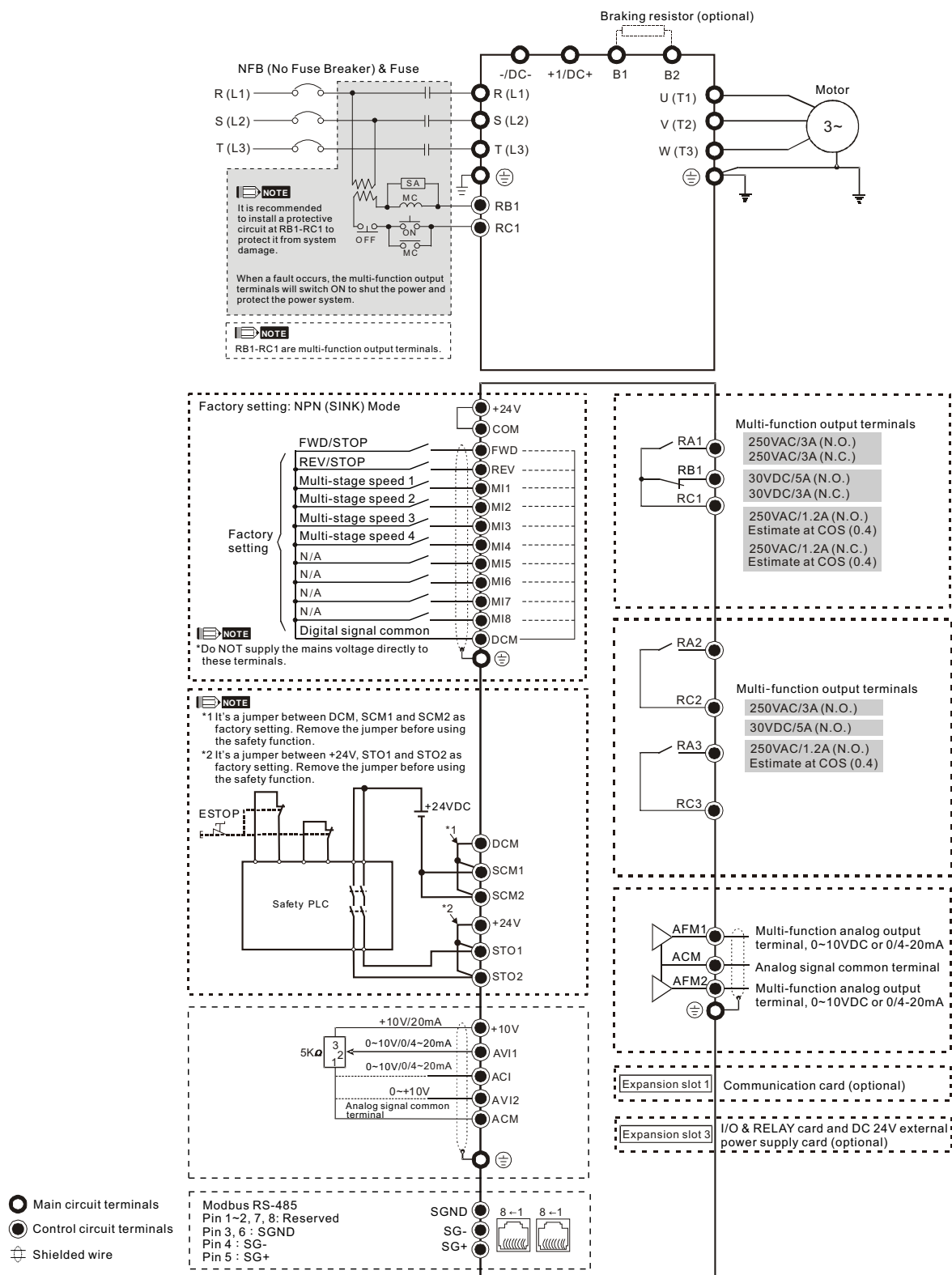
*1 The carrier frequency range of VFD900FP4EA-xx is 2~9 kHz, default setting 6 kHz

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

CONTROL CHARACTERISTICS	Control Method	Pulse Width Modulated (PWM)				
	Control Mode	1: V/F (V/F control), 2: SVC (Sensorless Vector Control), 3: PMSVC				
	Starting Torque	V/F and SVC: starting torque 150% at 0.5Hz PMSVC: starting torque 100% at rated frequency* 1/20				
	V/F Curve	4 point adjustable V/F curve and square curve				
	Speed Response Ability	5 Hz				
	Torque Limit	Light Duty: Max. 130% torque current; Normal Duty: Max. 160% torque current				
	Torque Accuracy	±5%				
	Max. Output Frequency (Hz)	599.00 Hz				
	Frequency Output Accuracy	Digital command: ±0.01%, Analog command: ±0.1%				
	Output Frequency Resolution	Digital command: 0.01 Hz; Analog command: Max. output frequency x 0.03 / 60 Hz (±11-bit)				
	Overload Tolerance	Light duty: 120% of rated current for 1 minute Normal duty: 120% of rated current for 1 minute; 160% of rated current for 3 seconds				
	Frequency Setting Signal	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	Fault restart	Torque limit	Smart stall	Dwell	3-wire sequence
Speed search		Parameter copy	JOG frequency	Slip compensation	Torque compensation	
S-curve accel / decel		Energy saving control	Accel / Decel. Time switch	Frequency / lower limit settings	Momentary power loss ride thru	
PID control (with sleep function)		Auto-Tuning (rotational, stationary)	DC injection braking at start/stop	BACnet communication	16-step speed (max.)	
Over-torque detection		MODBUS communication (RS-485 RJ45, Max. 115.2 kbps)				
Fan Control	VFD300FP4E and above are PWM control VFD220FP4E and below are on/off switch control					
PROTECTION CHARACTERISTICS	Motor Protection	Electronic thermal relay protection				
	Over-Current Protection	Light duty: Over-current protection for 200% rated current, Normal duty: Over-current protection for 240% rated current, Current clamp (Light duty: 130~135%) (Normal duty: 170~175%)				
	Over-Voltage Protection	Drive will stop when DC-BUS voltage exceeds 820 V				
	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				
International Certifications		CEULUS				

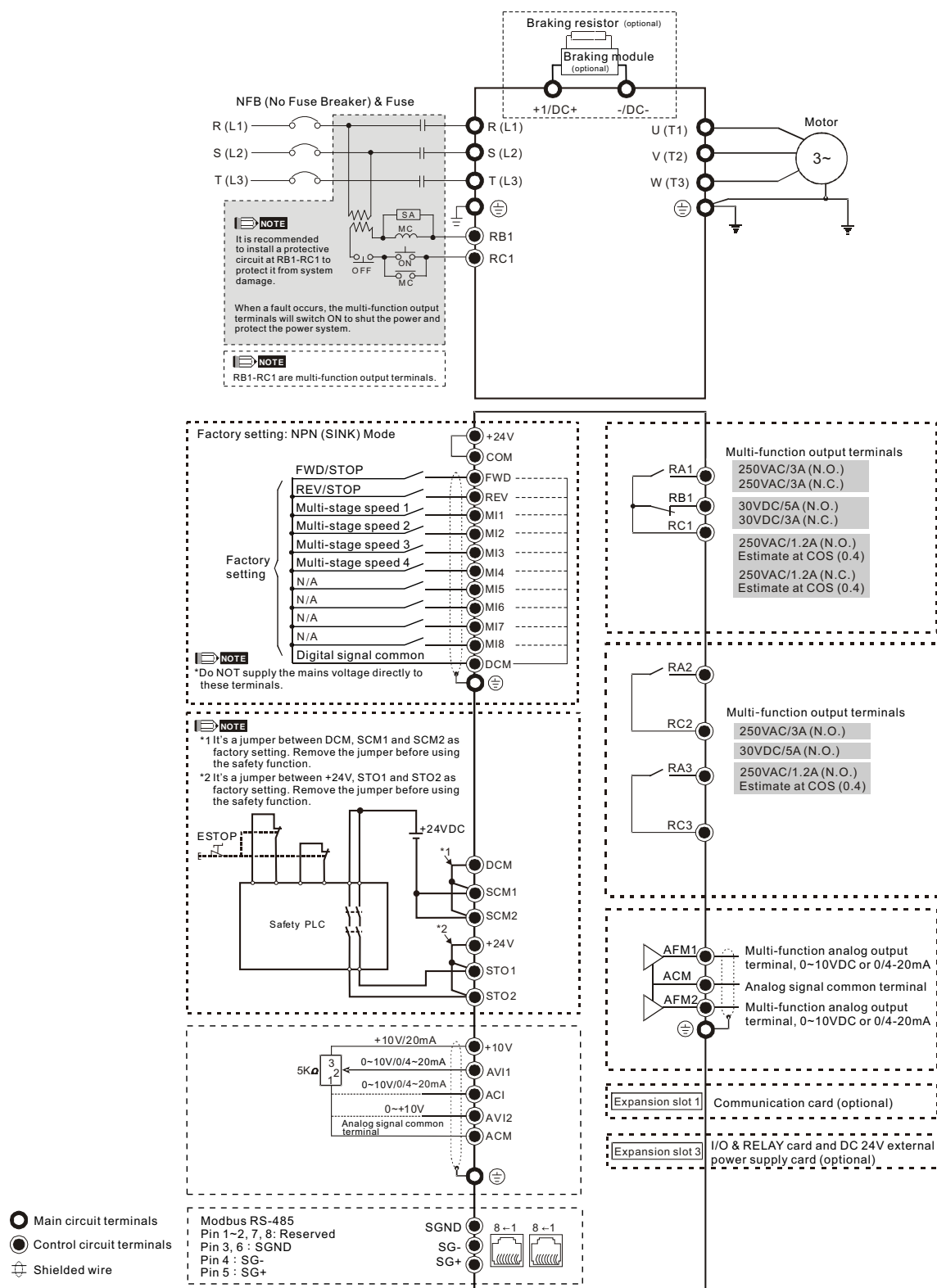
Wiring Diagram for Frame A ~ C

*Input: 3-phase power

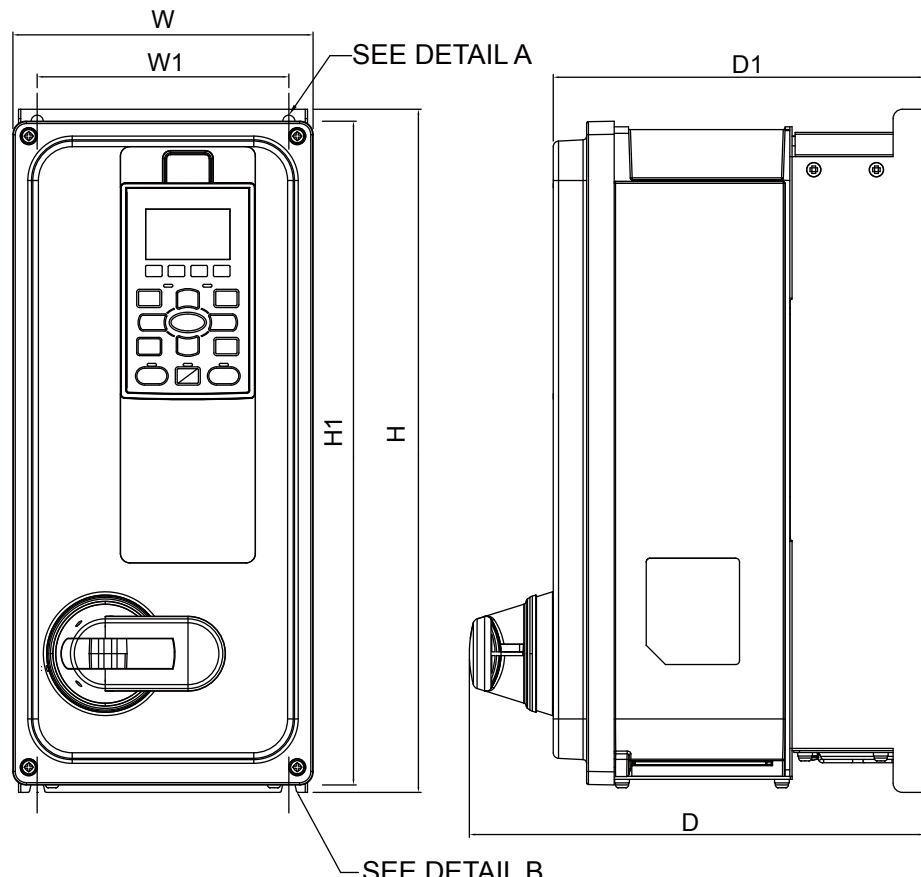


Wiring Diagram for Frame D0 ~ D

*Input: 3-phase power



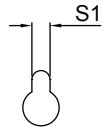
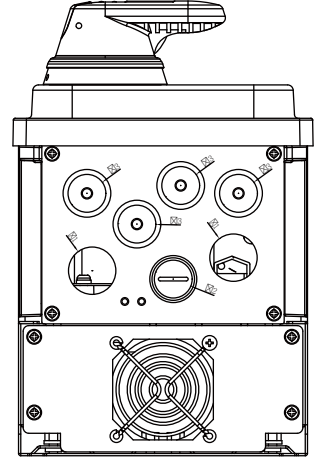
FRAME A (IP55)



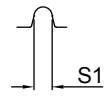
MODEL
FRAME_A

- FRAME_A-1
VFD007FP4EA-52
VFD015FP4EA-52
VFD022FP4EA-52
VFD037FP4EA-52
VFD040FP4EA-52
VFD055FP4EA-52
VFD075FP4EA-52

- FRAME_A-2
VFD007FP4EA-52S
VFD015FP4EA-52S
VFD022FP4EA-52S
VFD037FP4EA-52S
VFD040FP4EA-52S
VFD055FP4EA-52S
VFD075FP4EA-52S



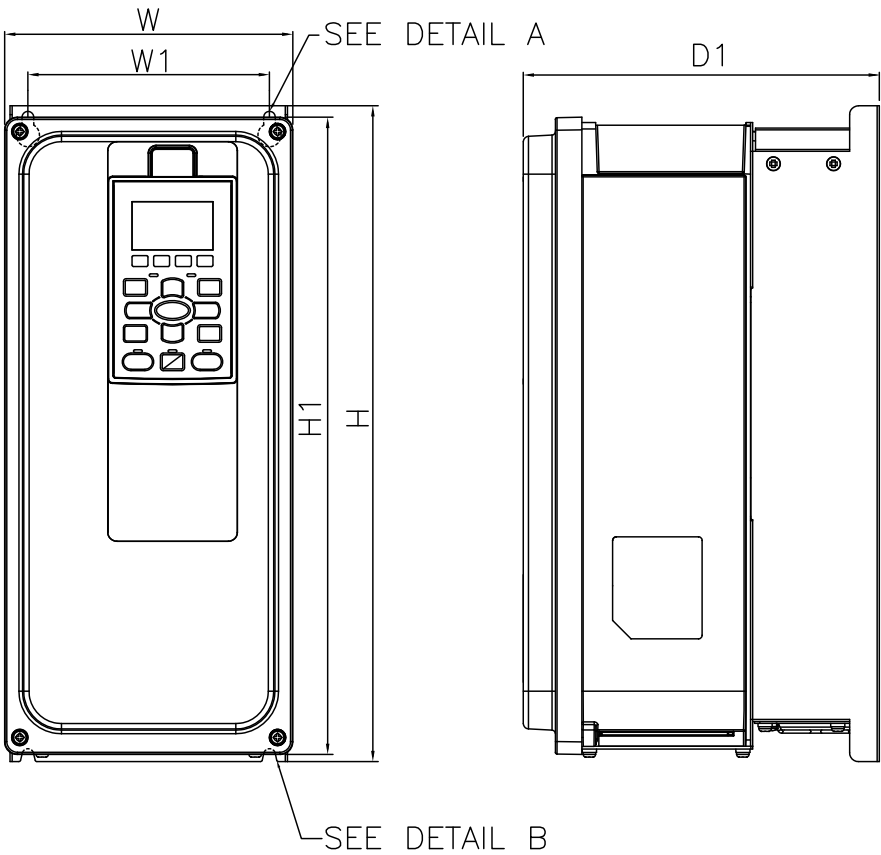
DETAIL A
(MOUNTING HOLE)



DETAIL B
(MOUNTING HOLE)

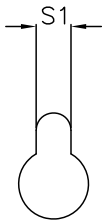
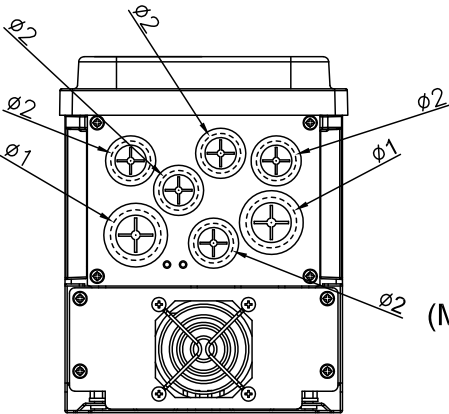
FRAME		W	H	D	W1	H1	D1	S1	Ø1	Ø2	Ø3
A-1	mm	161.0	336.4	-	135.0	356.0	199.0	6.5	25.4	20.3	20.3
	inch	6.34	14.43	-	5.31	14.02	7.83	0.26	1.00	0.80	0.80
A-2	mm	161.0	336.4	244.0	135.0	356.0	199.0	6.5	25.4	20.3	20.3
	inch	6.34	14.43	9.61	5.31	14.02	7.83	0.26	1.00	0.80	0.80

FRAME A (IP41)

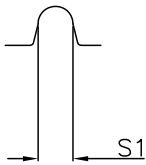


MODEL
FRAME_A

FRAME_A-3
VFD007FP4EA-41
VFD015FP4EA-41
VFD022FP4EA-41
VFD037FP4EA-41
VFD040FP4EA-41
VFD055FP4EA-41
VFD075FP4EA-41



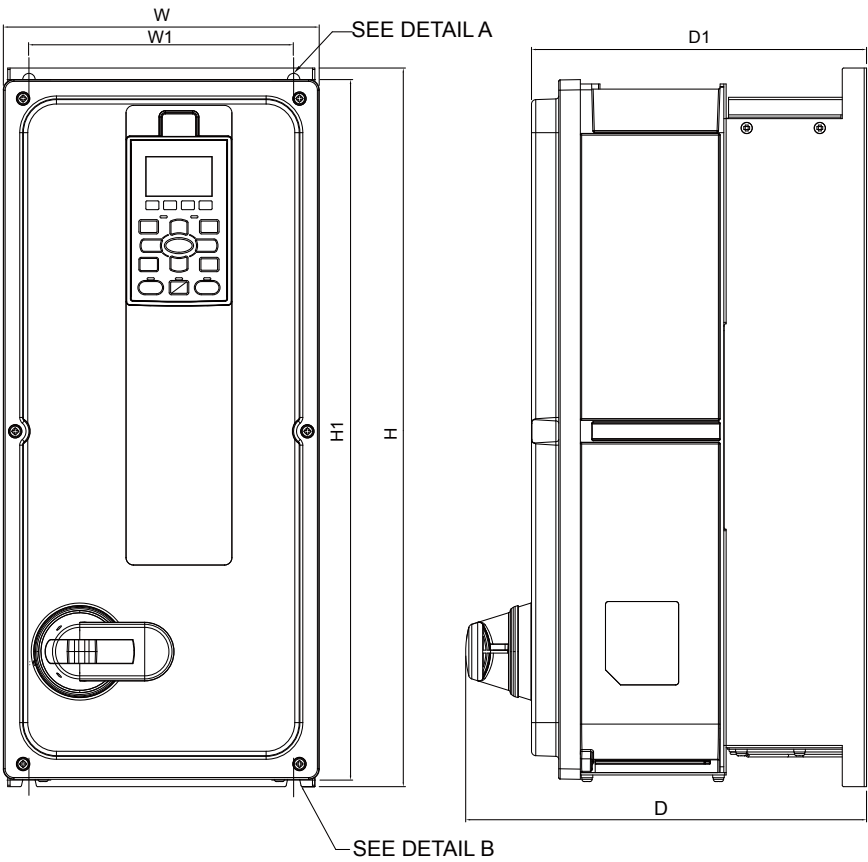
DETAIL A
(MOUNTING HOLE)



DETAIL B
(MOUNTING HOLE)

FRAME		W	H	D	W1	H1	D1	S1	Ø1	Ø2
A-3	mm	161.0	336.4	-	135.0	356.0	199.0	6.5	28.0	22.0
	inch	6.34	14.43	-	5.31	14.02	7.83	0.26	1.10	0.87

FRAME B (IP55)



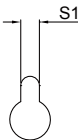
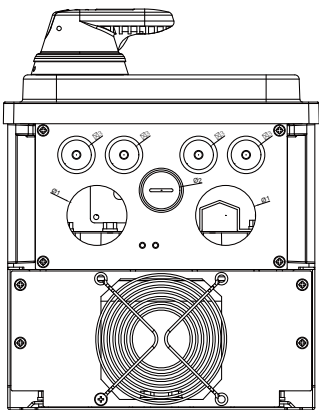
MODEL
FRAME_B

FRAME_B-1

VFD110FP4EA-52
VFD150FP4EA-52
VFD185FP4EA-52
VFD220FP4EA-52

FRAME_B-2

VFD110FP4EA-52S
VFD150FP4EA-52S
VFD185FP4EA-52S
VFD220FP4EA-52S



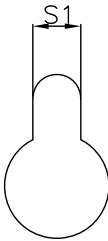
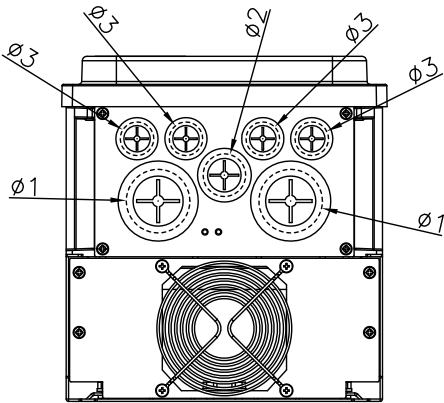
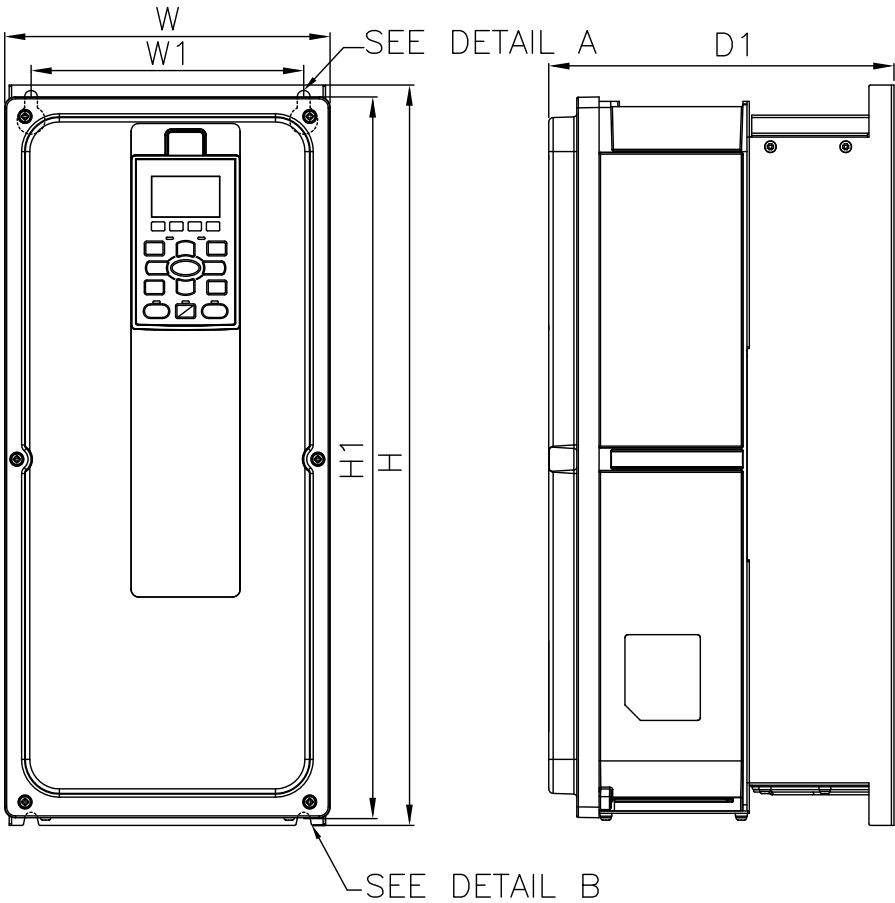
DETAIL A
(MOUNTING HOLE)



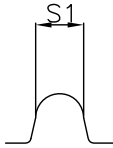
DETAIL B
(MOUNTING HOLE)

FRAME		W	H	D	W1	H1	D1	S1	Ø1	Ø2	Ø3
B-1	mm	216.0	491.4	-	181.0	479.0	229.0	8.5	41.0	25.4	20.3
	inch	8.50	19.35	-	7.13	18.86	9.02	0.33	1.61	1.00	0.80
B-2	mm	216.0	491.4	274.0	181.0	479.0	229.0	8.5	41.0	25.4	20.3
	inch	8.50	19.35	10.79	7.13	18.86	9.02	0.33	1.61	1.00	0.80

FRAME B (IP41)



DETAIL A
(MOUNTING HOLE)



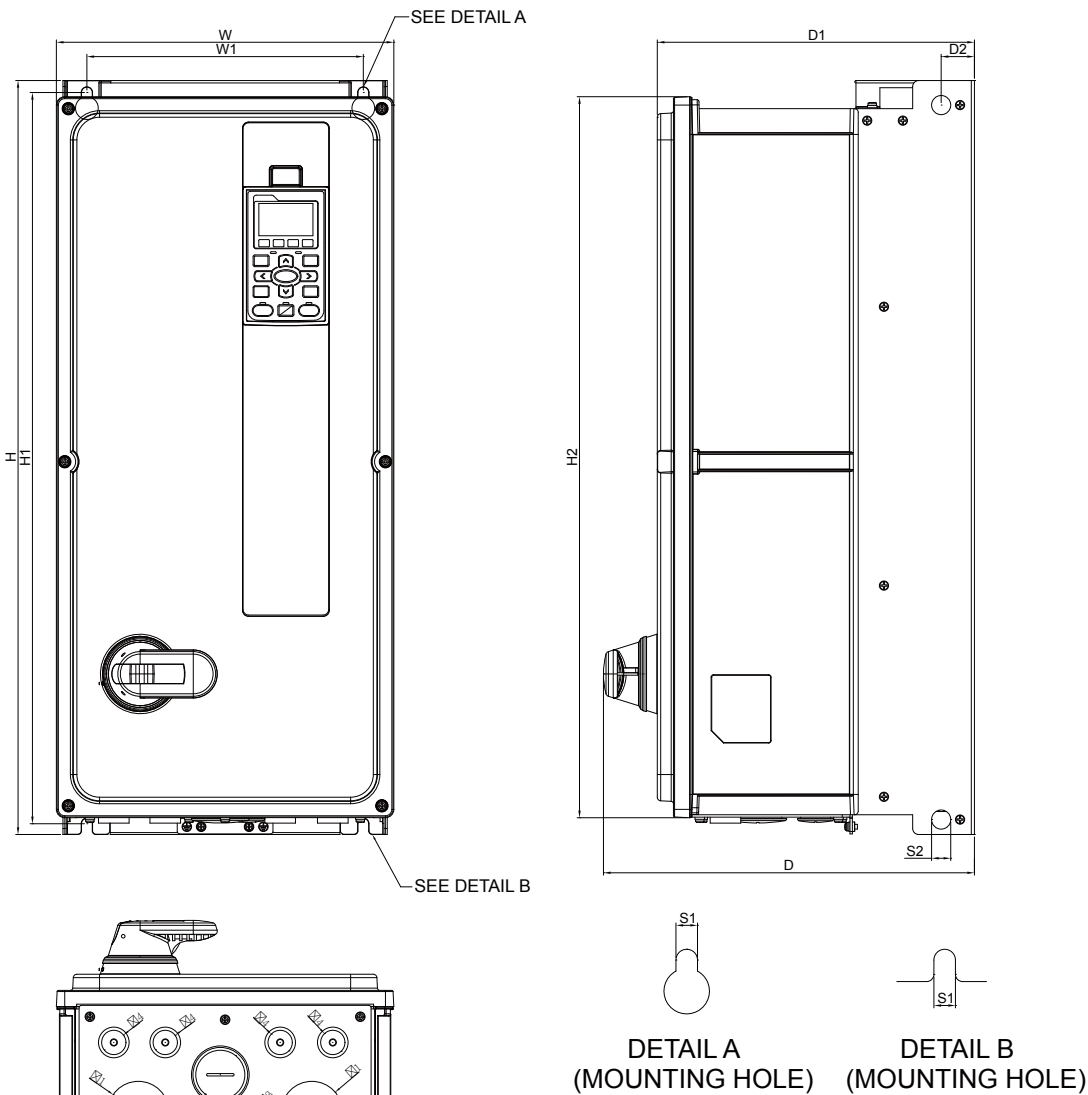
DETAIL B
(MOUNTING HOLE)

MODEL
FRAME_B

FRAME_B-3
VFD110FP4EA-41
VFD150FP4EA-41
VFD185FP4EA-41
VFD220FP4EA-41

FRAME		W	H	D	W1	H1	D1	S1	Ø1	Ø2	Ø3
B-3	mm	216.0	491.4	-	181.0	479.0	229.0	8.5	41.0	25.4	20.3
	inch	8.50	19.35	-	7.13	18.86	9.02	0.33	1.61	1.00	0.80

FRAME C (IP55)



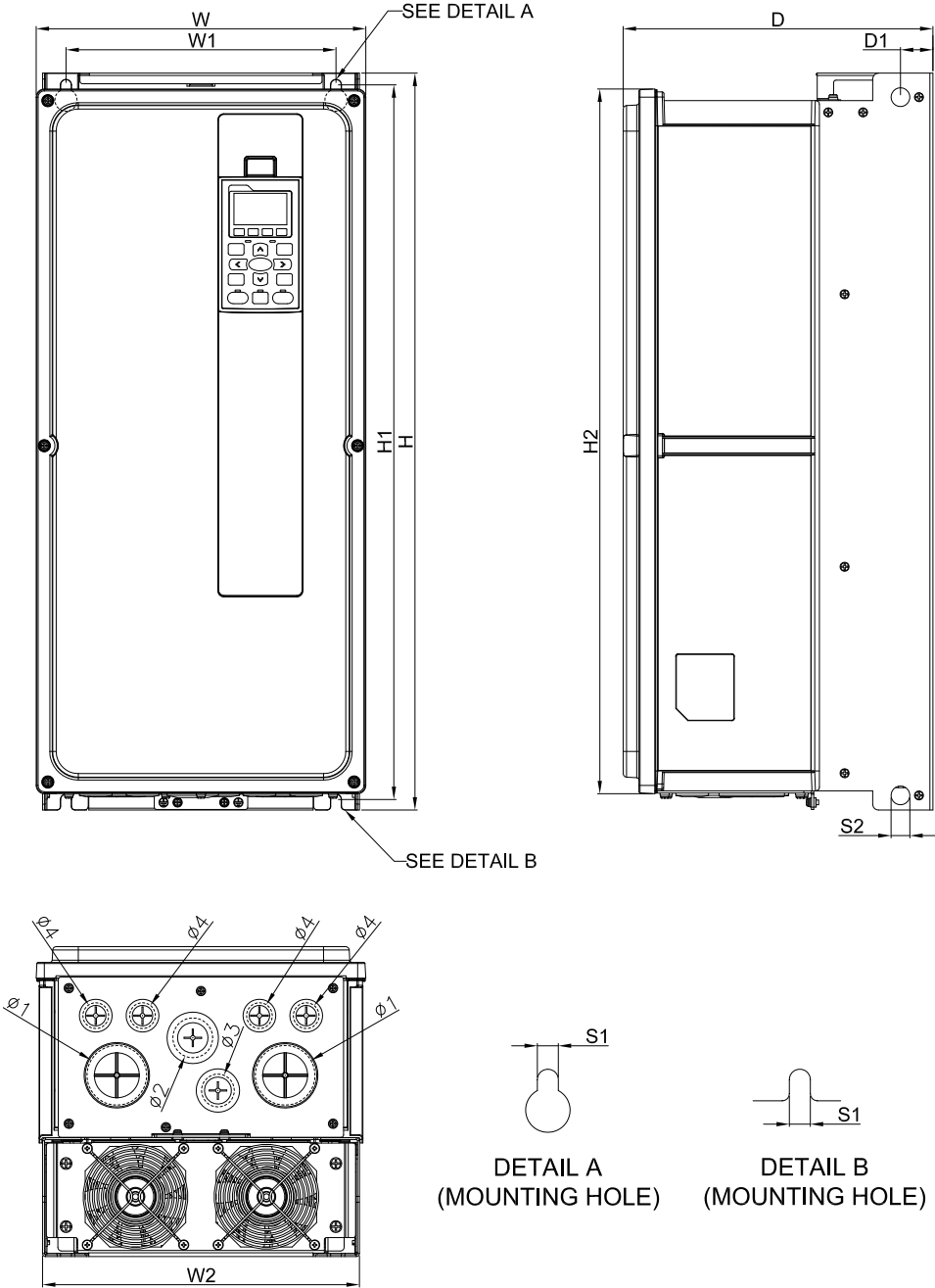
MODEL
FRAME_C

FRAME_C-1
VFD300FP4EA-52
VFD370FP4EA-52

FRAME_C-2
VFD300FP4EA-52S
VFD370FP4EA-52S

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

FRAME C (IP41)

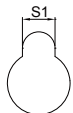
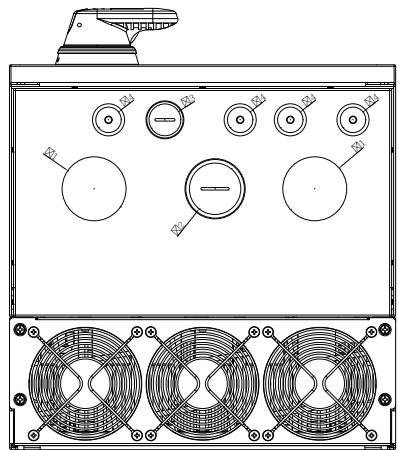
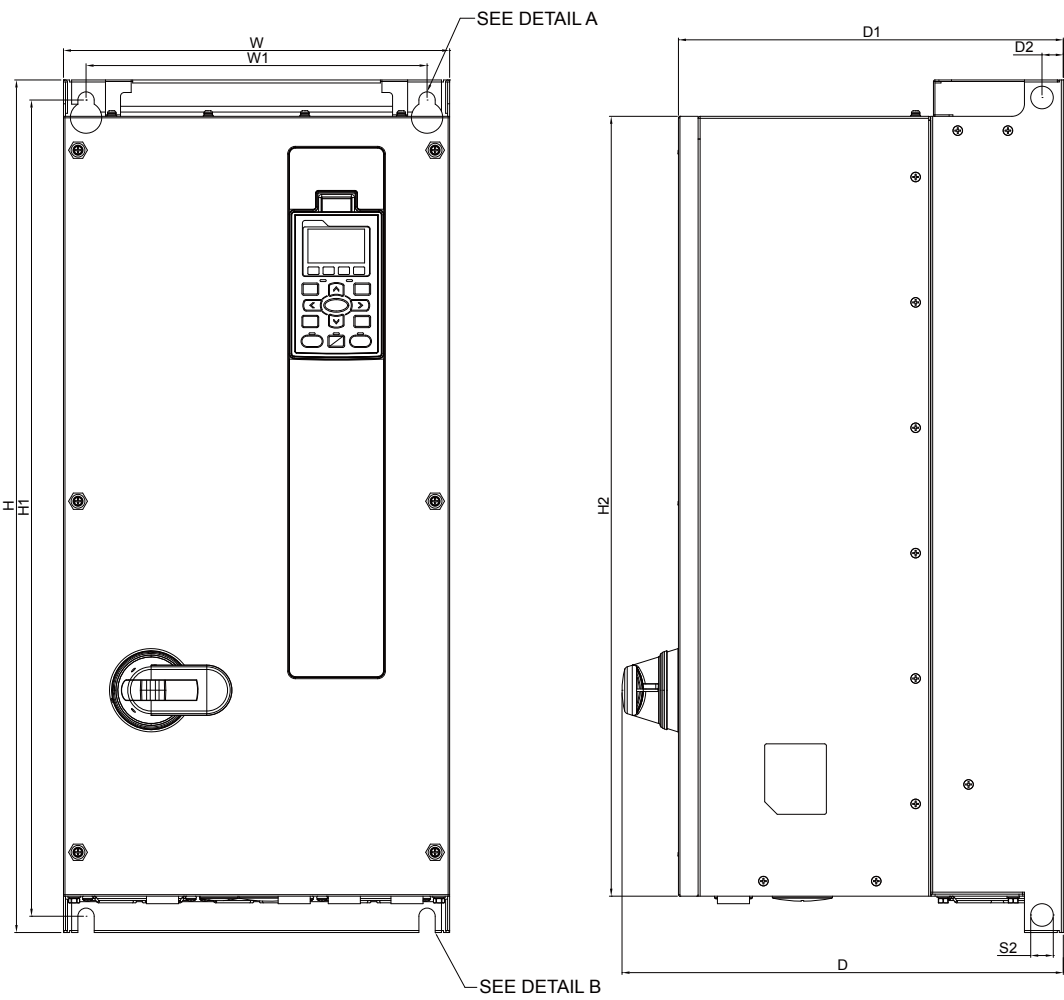


MODEL
FRAME_C

FRAME_C-3
VFD300FP4EA-41
VFD370FP4EA-41

FRAME		W	H	D	W1	H1	D1	S1	W2	H2	D2	S2	Ø1	Ø2	Ø3	Ø4
C-3	mm	282.0	630.0	265.0	231.0	611.0	27.8	9.0	271.0	602.5	27.8	16.0	51.0	34.0	28.0	22.0
	inch	11.10	24.80	10.43	9.09	24.06	1.09	0.35	10.67	23.72	1.09	0.63	2.01	1.34	1.10	0.87

FRAME D0 (IP55)



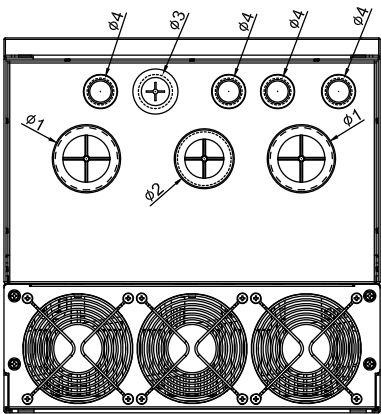
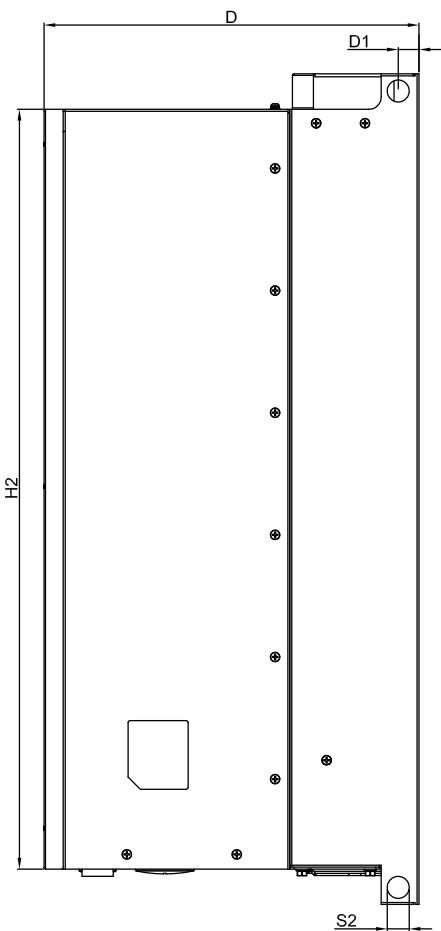
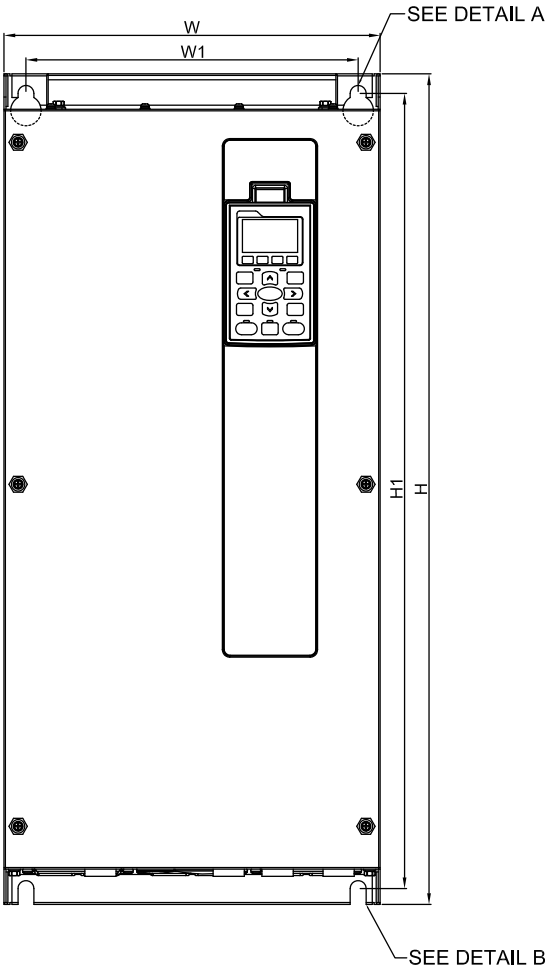
MODEL
FRAME_D0

FRAME_D0-1
VFD450FP4EA-52
VFD550FP4EA-52

FRAME_D0-2
VFD450FP4EA-52S
VFD550FP4EA-52S

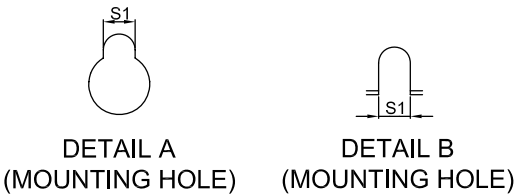
FRAME		W	H	D	W1	H1	D1	S1	H2	D2	S2	Ø1	Ø2	Ø3	Ø4
D0-1	mm	308.0	680.0	-	272.0	651.0	307.0	13.0	622.0	17.0	18.0	51.0	41.0	25.4	20.3
	inch	12.13	26.77	-	10.71	25.63	12.09	0.51	24.49	0.67	0.71	2.01	1.61	1.00	0.80
D0-2	mm	308.0	680.0	352.0	272.0	651.0	307.0	13.0	622.0	17.0	18.0	51.0	41.0	25.4	20.3
	inch	12.13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

FRAME D0 (IP41)



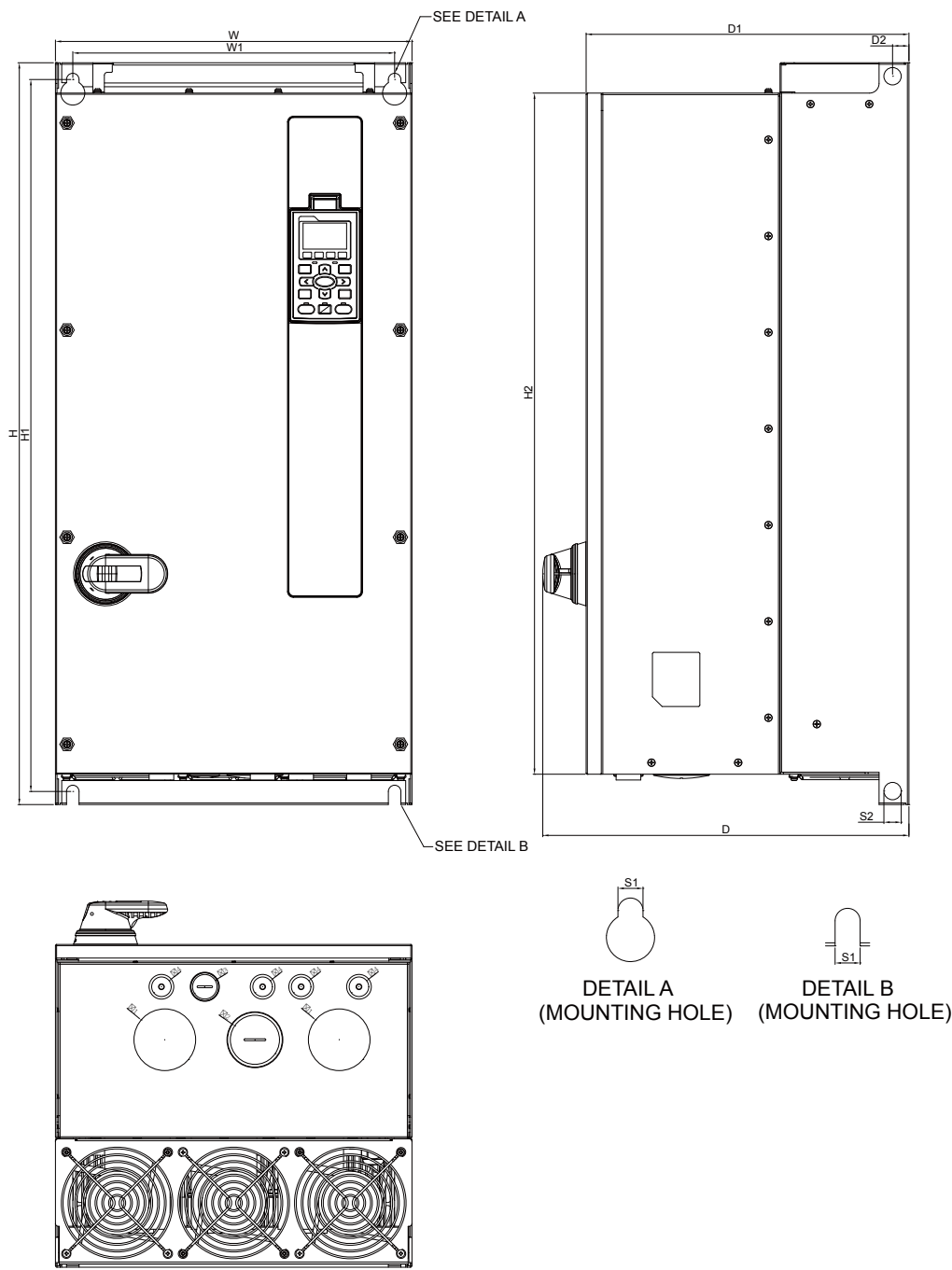
MODEL
FRAME_D0

FRAME_D0-3
VFD750FP4EA-41
VFD900FP4EA-41



FRAME		W	H	D	W1	H1	D1	S1	H2	D2	S2	Ø1	Ø2	Ø3	Ø4
D0-3	mm	308.0	680.0	307.0	272.0	651.0	17.0	13.0	622.0	17.0	18.0	51.0	44.0	28.0	22.0
	inch	12.13	26.77	12.09	10.71	25.63	0.67	0.51	24.49	0.67	0.71	2.01	1.73	1.10	0.87

FRAME D (IP55)



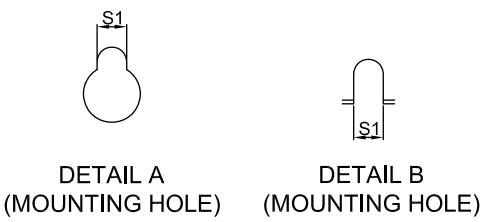
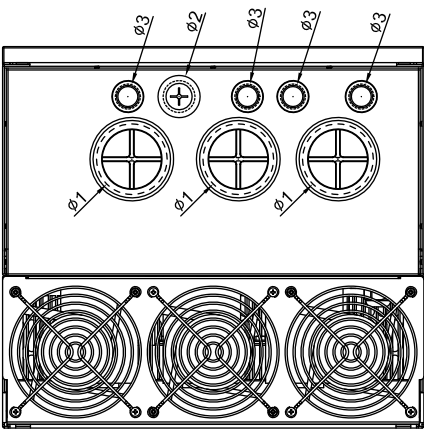
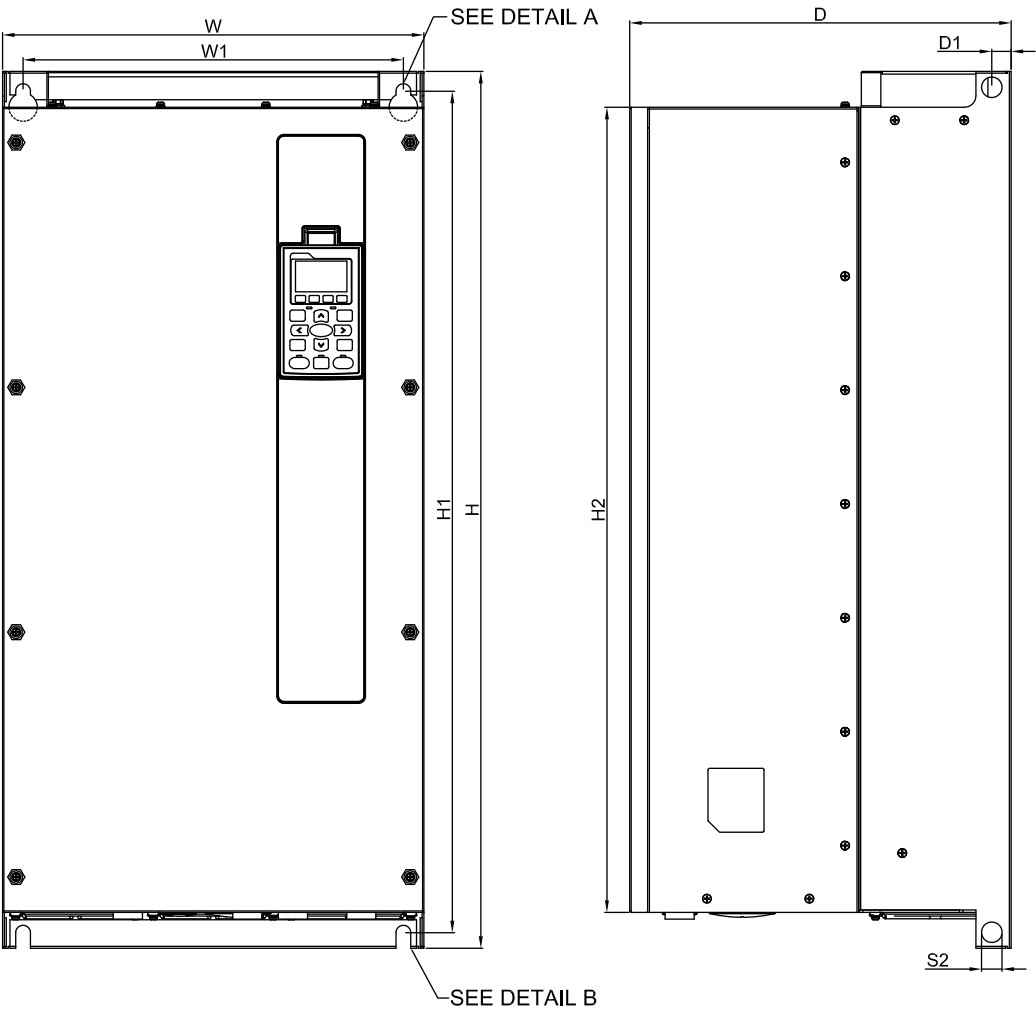
MODEL
FRAME_D

FRAME_D-1
VFD750FP4EA-52
VFD900FP4EA-52

FRAME_D-2
VFD750FP4EA-52S
VFD900FP4EA-52S

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

FRAME D (IP41)



MODEL
FRAME_D

FRAME_D-3
VFD450FP4EA-41
VFD550FP4EA-41

FRAME		W	H	D	W1	H1	D1	S1	H2	S2	Ø1	Ø2	Ø3
D-3	mm	370.0	770.0	335.0	334.0	739.0	17.0	13.0	707.0	18.0	62.0	28.0	22.0
	inch	14.57	30.31	13.19	13.15	29.09	0.67	0.51	27.83	0.71	2.44	1.10	0.87