



EL-W Introduction



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2019.08.06



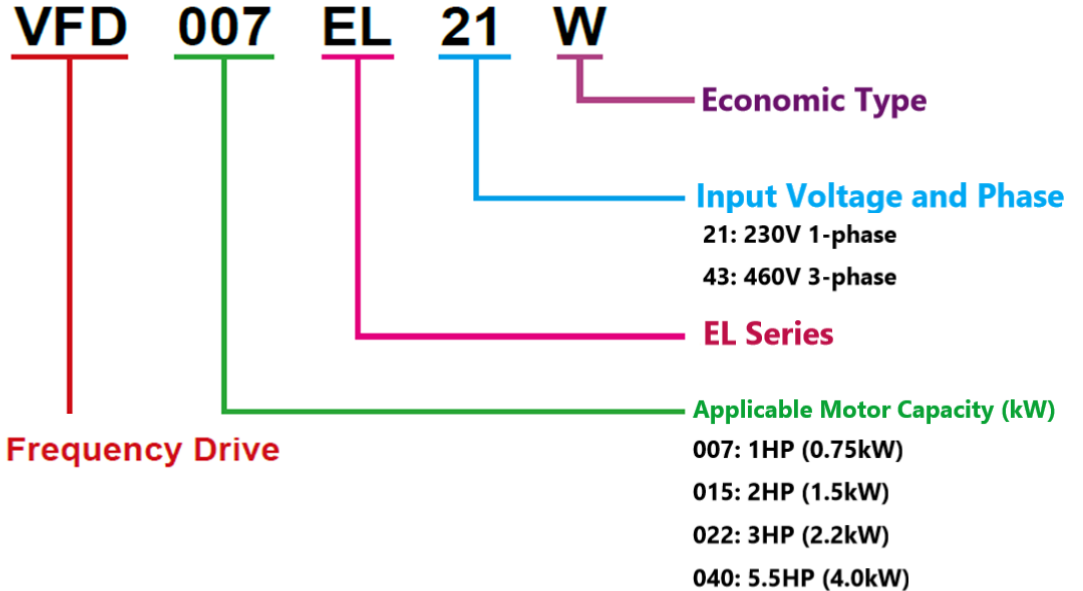
EL-W design principle: Minimal size & durable

- **Simple & flexible control**
 - ✓ External terminal control
 - ✓ Communication (RS485) control
- **Excellent performance**
 - ✓ IGBT adopts IPM module, which is more reliable than discrete IGBT
 - ✓ Professional motor control chip
- **12 pcs per carton**
 - ✓ Economical and environmental friendly

EL-W Naming rule



Variable Frequency Drive



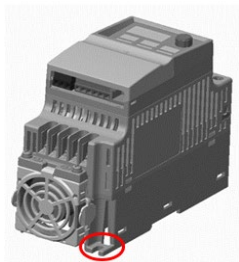
Power rating

- 230V, single phase
0.75~2.2kW (1.0~3.0HP)
- 460V, 3 phase
0.75~4.0kW (1.0~5.5HP)

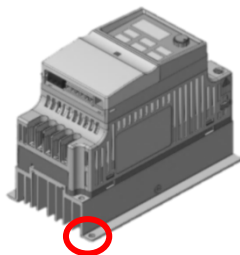
EL-W/ frame size/ power rating

Frame		Power Range	Model Name	
Frame A		230V: 0.75kW	Frame A1 VFD007EL21W VFD007EL43W	Frame A2 VFD015EL43W
		460V: 0.75 ~ 1.5kW		
Frame B		230V: 1.5 ~ 2.2kW 460V: 2.2 ~ 4.0kW	VFD015EL21W VFD022EL21W VFD022EL43W VFD040EL43W	

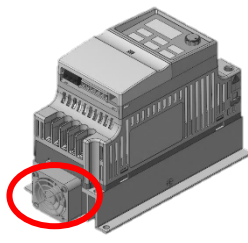
- Frame A dimension is different from EL Frame A
- Frame B dimension is same as EL



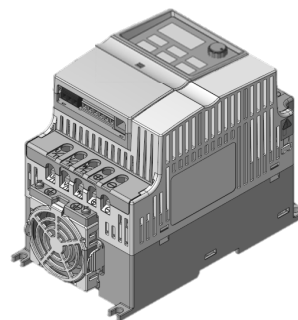
EL Frame A



EL-W Frame A1
without Fan



EL-W Frame A2
with Fan



EL-W Frame B
with Fan

	Functions	EL	EL-W (update version)
Hardware	EMI(choke)	√	X
	GFF	√	X
	AFM	√	X
	AVI/ACI	√	√
	Keypad VR	√	√
	NPN/PNP Mode	√	√
	Fan	√	Frame A1: Natural cool (Hsk is different with EL) Frame A2: Forced cool (Hsk is different with EL) Frame B : Forced cool (Hsk is same as EL)
	P/N Terminals	√	X
	MI Terminals	Include 2 start terminals & 4 programmable terminals	Mode1 : 1 Start terminal · 2 programmable terminals Mode2 : 2 Start terminal · 1 programmable terminals (same as EL)
	RS485	RJ45	One RJ45 connect, two screw terminals
Spec	Operational Temp.	-10°C~+50°C	-10°C~+40°C (apply to VFD007EL21W) -10°C~+50°C(except VFD007EL21W)
	Parallel installation	√	Frame A unsupported, Frame B supported
	Output Frequency Range	0-599Hz	0-400Hz
	Multi-Speed	16 steps(with main frequency cmd)	4 steps(with main frequency cmd)
Certification	CE\UL\C-tick	√	CE only
Others	Manual	With the shipment	Detail manual web download · concise manual on board

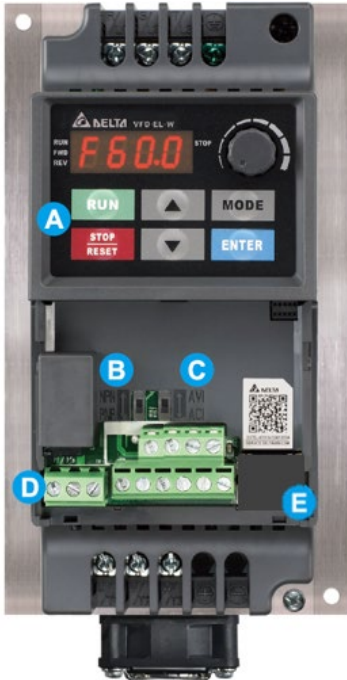


EL-W appearance and terminal

Frame A1



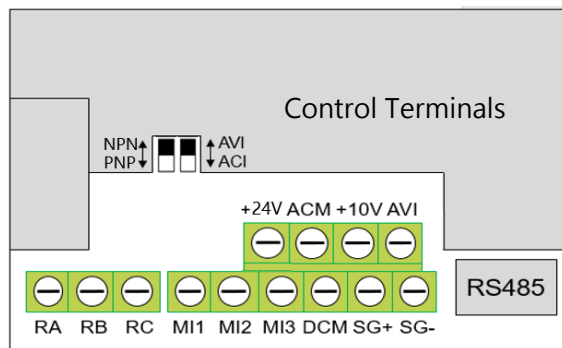
Frame A2



Frame B

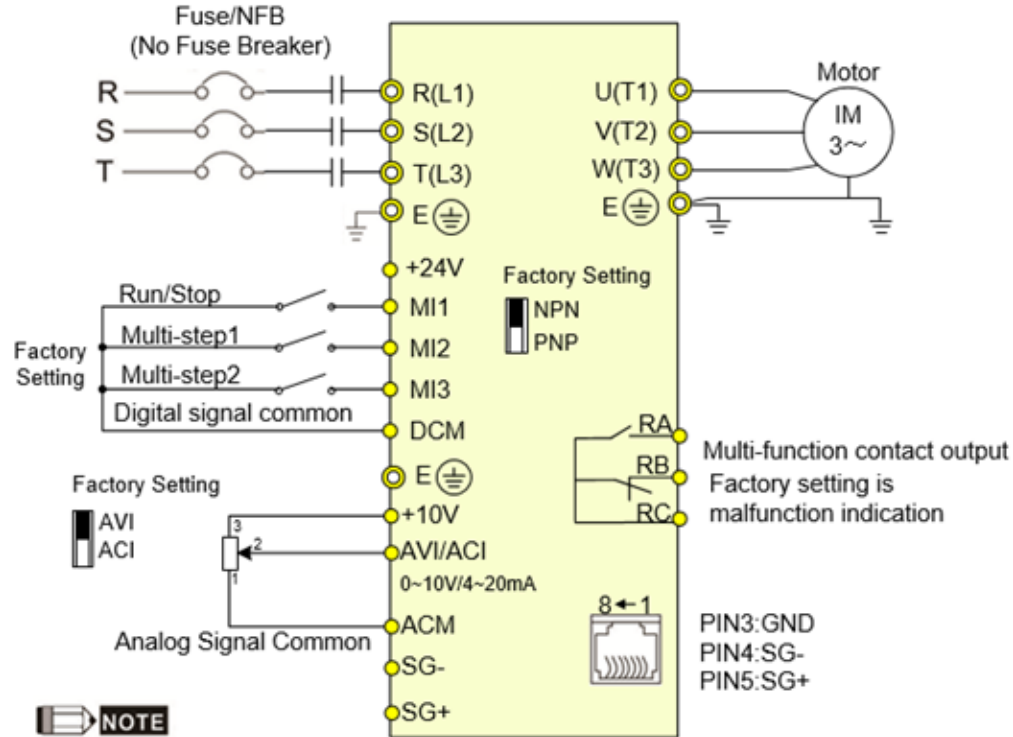


- A** Digital operator
- B** Operational NPN/PNP Mode
- C** Operational AVI/ACI Mode
- D** Control Terminals
- E** RS485 Connector(RJ45)



NOTE VFD007EL43W(Frame A1) without fan · VFD015EL43W(Frame A2) with fan.

Wiring Diagram (460V Models)



NOTE

Connect end SG+, SG- and end PIN5, PIN4 of RJ45.

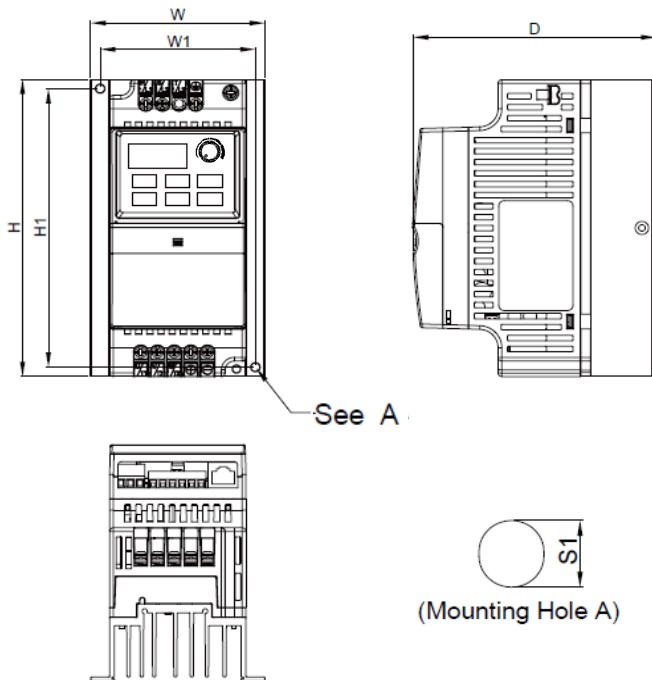
● Main circuit (power) terminals ● Control circuit terminals  Shielded leads & cable

Frame A1

Suitable Models

VFD007EL21W

VFD007EL43W

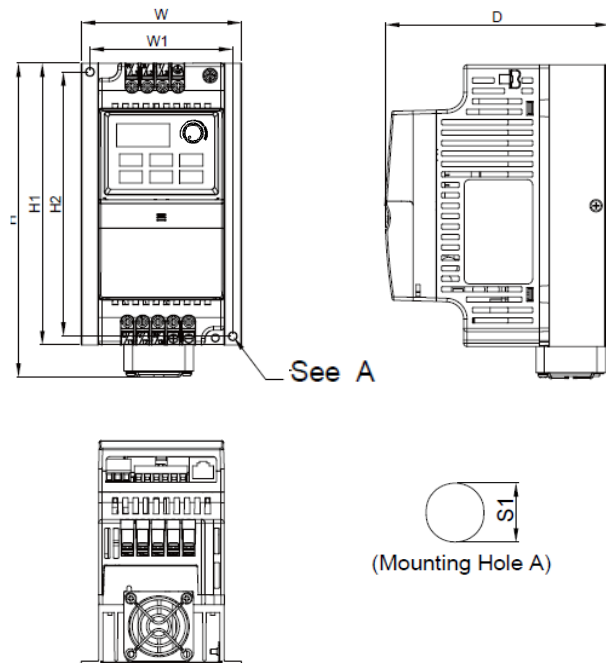


unit : mm[inch]

Frame		W	W1	H	H1	D	S1
A1	mm	92.0	82.0	162.0	152	128.7	5.4
	inch	3.62	3.23	6.38	5.98	5.07	0.21

Frame A2

Suitable Models:
VFD015EL43W



unit : mm[inch]

Frame		W	W1	H	H1	H2	D	S1
A2	mm	92.0	82.0	180.5	162.0	152	128.7	5.4
	inch	3.62	3.23	7.11	6.38	5.98	5.07	0.21

Frame B

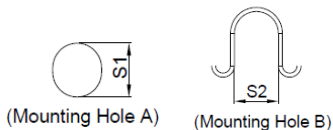
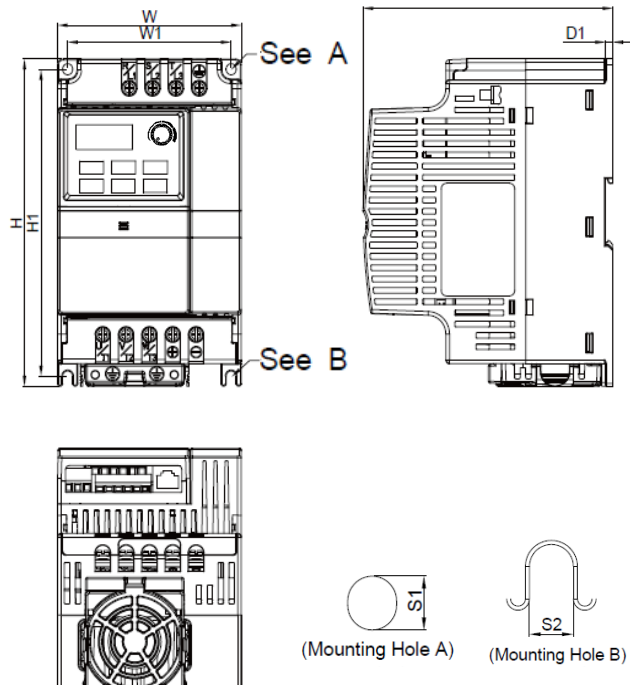
Suitable Models:

VFD015EL21W

VFD022EL21W

VFD022EL43W

VFD040EL43W



unit : mm[inch]

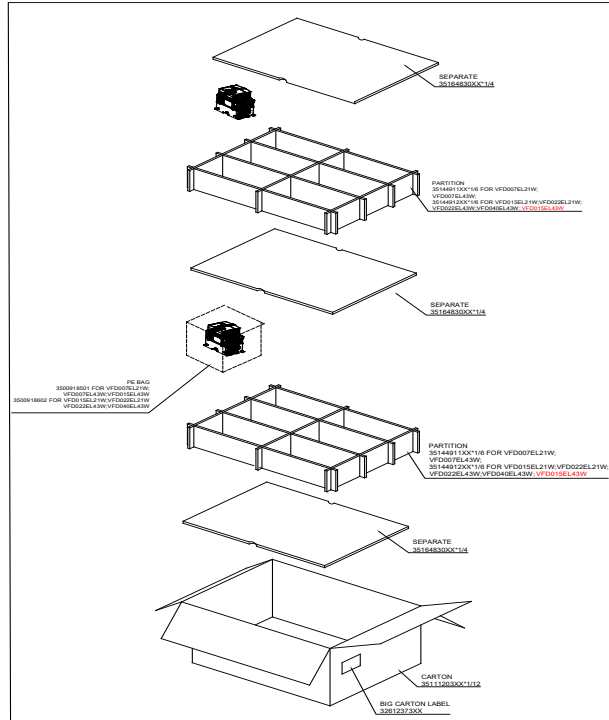
Frame		W	W1	H	H1	D	D1	S1	S2
B	mm	100.0	89.0	174.0	162.9	136.0	4.0	5.9	5.4
	inch	3.94	3.50	6.85	6.42	5.35	0.16	0.23	0.21



Packing

EL-W is sold in large packing (12 pcs per carton)

Ex: Order q' ty: 20 pcs → Please order 24 pcs instead of 20 pcs.





EL-W Target Audience / Focus Industries

Target Audience	Focus Industry	Application
<u>New OEM customers:</u> 1. Big volume. 2. Approached, but could not get in because of the price issue in other VFD series. 3. Re-approached with EL-W to overcome price issue. <u>Current OEM customers:</u> 1. Big volume. 2. With potential price pressure, don't promote initiative to avoid possible cannibalization happened between different series	● Banding Machine ● Conveyor ● Material Feeder ● Material Handling	● Simple Speed Control ● Horizontal Movement ● Fixed Load

Market Competitor

ME300 Market Competitor

Mitsubishi	D700
Danfoss	FC51
Siemens	V20
Yaskawa	J1000
Schneider	ATV12&310
Fuji	Mini
ABB	ACS150

...

EL-W Market Competitor

Inovance	MD200
INVT	GD10
Bosch	VFC3210
Shilin	SC3

...

Simple Application:

- Simple Speed Control
- Horizontal Movement
- Fixed Load

Machines

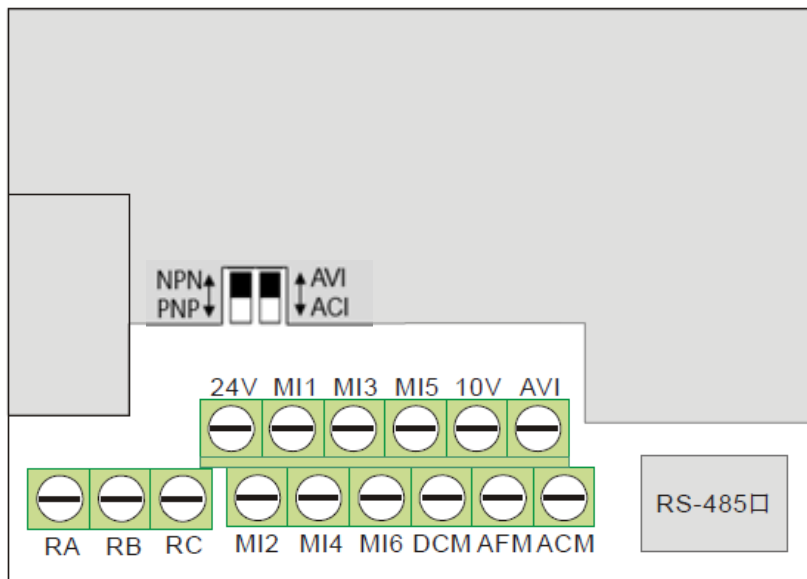
- ✓ Banding Machine
- ✓ Conveyor
- ✓ Material Feeder
- ✓ Material Handling
- ✓ ...



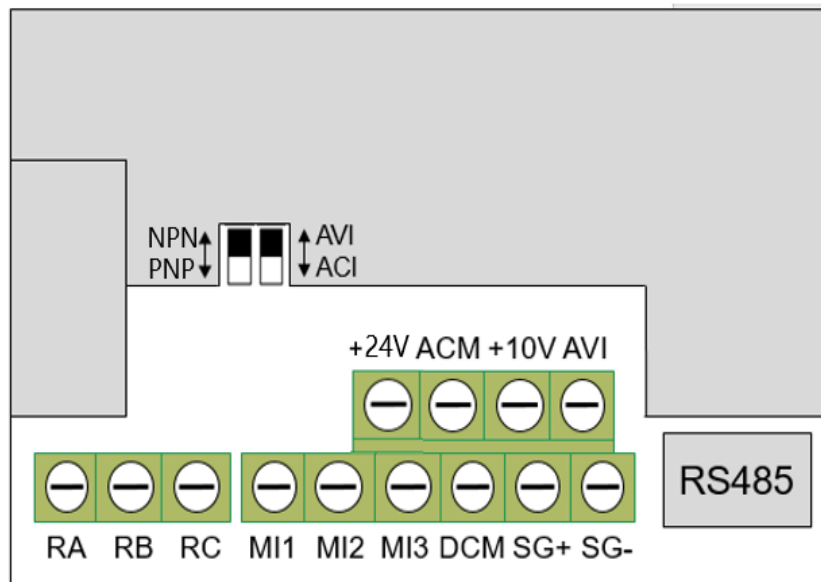


Difference between ME300 & VFD-EL/S/L/EL-W

Model Name	ME300	VFD-EL	VFD-S	VFD-L	VFD-EL-W
Motor	IM 、 PM	IM	IM	IM	IM
Control	V/F 、 SVC	V/F, SVC	V/F	V/F	V/F, SVC
Output Frequency (Hz)	0.1~599Hz	0.1~599Hz	0.1~400Hz	0.1~400Hz	0.1~400Hz
Carry Frequency (KHz)	2~15 KHz	2~12 KHz	3~10 KHz	3~10 KHz	2~12KHz
Built-in EMC Filter	Optional	O	X	X	X
Digital Input	MI1~MI5 (All programmable)	MI1~MI6 (4 programmable)	MI1~MI6 (5 programmable)	MI1~MI4 (All programmable)	MI1~MI3 (2 programmable)
Relay Output	RA/RB/RC	RA/RB/RC	RA/RB/RC	RA/RC	RA/RB/RC
Digital Output	1	x	1	x	x
Analog Input	1	1	1	1	1
Analog Output	1	1	1	x	x
Pulse in	1 (High speed pulse or PWM)	x	x	x	x



EL Terminals



EL-W Terminals

Terminal	EL	EL-W	Terminal	EL	EL-W
MI1	√	X	Ground(PE)	√	√
MI2	√	MI1	U/V/W	√	√
MI3	√	+24V	R/S input	√	√
MI4	√	MI2	P/N	√	X
MI5	√	ACM	Keypad/Button	√	√
MI6	√	MI3	VR valve	√	√
+24V	√	X	Digital display	√	√
+10V	√	√	Fault display	√	√
AVI	√	√	RS485	√	√
AFM	√	SG+	RA/RB/RC	√	√
ACM	√	SG-	NPN/PNP mode	√	√
DCM	√	√	Manual	With the shipment	Web download