



VFD

Delta VFD-L Series Sub-Fractional General Purpose Drive



Voltage Range:
 1 Phase 110V Series : 200W~400W
 1 Phase 230V Series : 200W~0.75KW (200W~1HP)
 3 Phase 230V Series : 200W~1.5KW (200W~2HP)



VFD-L series have been approved by CE and UL

www.delta.com.tw/industrialautomation

ASIA
 DELTA ELECTRONICS, INC.
 Taoyuan Plant
 31-1, SHEN PAN ROAD, KUEI SAN
 INDUSTRIAL ZONE, TAOYUAN SHIEN,
 TAIWAN, R.O.C.
 TEL: 886-3-362-6301
 FAX: 886-3-362-7267
www.delta.com.tw/industrialautomation

NORTH/SOUTH AMERICA
 DELTA PRODUCTS CORPORATION
 Sales Office
 P.O. BOX 12173
 5101 DAVIS DRIVE
 RESEARCH TRIANGLE PARK,
 NC 27709, U.S.A.
 TEL: 1-919-707-3813
 FAX: 1-919-707-3969

EUROPE
 DELTRONICS (NETHERLANDS) B.V.
 DE WITBOOG 15
 NL-5652 AG EINDHOVEN
 THE NETHERLANDS
 TEL: 31-40 259-2800
 FAX: 31-40 259-2851

DELTA ELECTRONICS (JAPAN) INC.
 DELTA SHIBADAIKON BLDG.
 2-1-14 SHIBADAIKON, MINATO-KU,
 TOKYO, 105-0012, JAPAN
 TEL: 81-3-5733-1111
 FAX: 81-3-5733-1211

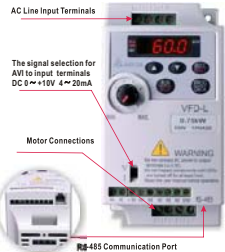
VFD-L

115V/200 400W, 230V/200W 2HP

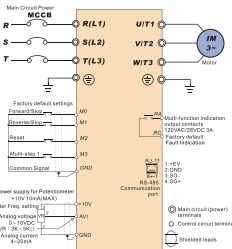
VFD-L

Standard Specifications

Function Display

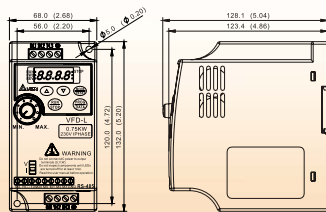


Wiring



NOTE: Do not plug in a Modem or telephone line to the RS-485 communication port, component damage may result. Terminals 1 & 2 are the power source for the optional copy keypad and should not be used when using RS-485 communication.
 *If the AC Drive model is VFD052L11A/B, VFD054L11A/B, VFD052L21B, VFD054L21B or VFD072L11B, please use power terminals R1 and S1.
 *If the AC Drive model is VFD052L21A, VFD054L21A or VFD072L21A, 3 phase power may be used on R1, S1, T1.
 *If the AC Drive model is VFD016L23A, single phase power is not recommended.

Dimensions



Voltage Class		115V			230V		
Model Number VFD-□□□□□□□□□□		002	004	002	004	007	015
Applicable Motor Output (kW)		0.2	0.4	0.2	0.4	0.7	1.5
Output Rating	Rated Output Capacity (KVA)	0.6	1.0	0.6	1.0	1.6	2.7
	Rated Output Current (A)	1.6	2.5	1.6	2.5	4.2	7.0
Power	Max. Output Voltage (V)	3phase double the input voltage			Proportional to input voltage		
	Rated Frequency (Hz)	1.0~400Hz					
	Rated Input Current (A)	6	9	4.9/1.9	6.5/2.7	9.7/5.1	*/9
Control Characteristics	Input Voltage Tolerance	Single phase 100~120V 50/60Hz			Single / 3-phase 200~240V 50/60Hz		
	Frequency Tolerance	±5%					
Operating Characteristics	Control System	SVPWM (Space Vector Pulse Width Modulation, carrier frequency 3kHz~10kHz)					
	Output Frequency Resolution	0.1Hz					
	Torque Characteristics	Including auto-torque and auto-slip compensation, the starting torque is 150% at 5 Hz					
	Overload Endurance	150% of rated current for 1 minute					
	Accel/Decel Time	0.1~600Sec. (can be set individually)					
	V/F Pattern	Adjustable V/F curve					
	Stall Prevention Level	20~200% of rated output current					
Frequency Setting	Keypad	Setting by ▲ ▼ keys or potentiometer					
	External Signal	Potentiometer-5K/0.5W, DC 0 ~ +10V (input impedance 100K), 4~20mA (output impedance 250 Ω), 3 multi-function inputs (3 preset speeds, JOG, UP/DOWN command), communication setting					
	Keypad	RUN/STOP keys					
	External Signal	M0, M1, M2, M3 can be combined to offer various modes of operation, RS-485 communication port					
Multi-function Input Signal	Multi-step speed selection 0 to 3, Jog, accel/decel inhibit, first/second accel/decel selector, counter, PLC operation, external base block (NC, NO) selection						
Multi-function Output Signal	AC Drive Operating, Frequency Attained, Non-zero speed, Base Block, Fault Indication, Local/Remote control indication, PLC Operation indication.						
Other Function	AVR, S-curve, Over-Voltage Stall Prevention, DC Braking, Fault Records, Adjustable Carrier Frequency, Over-Current Stall Prevention, Momentary Power Loss restart, Reverse Inhibit, Frequency Limits, Parameter Lock/Reset						
Protection	Over Voltage, Over Current, Under Voltage, Overload, Overheating, Self-testing, Ground fault						
Other	Built-in EMI Filter for Frame B (single phase)						
Cooling	Forced air-cooling						
Installation Location	Altitude 1,000 m or below, keep from corrosive gasses, liquid and dust						
Ambient Temperature	-10° C to +40° C (Non-Condensing and not frozen)						
Storage Temperature	-20° C to +60° C						
Ambient Humidity	Below 90%RH (non-condensing)						
Vibration	9.80665m/s ² (1G) less than 20Hz, 5.88m/s ² (0.6Gat) 20 to 50Hz						

*We reserve the right of this catalogue contained information change without prior notice.



Features:

- 1.16-bit microprocessor controlled SVPWM output.
- 2.Low noise ; carrier frequency up to 10kHz.
- 3.Controlled reversing.
- 4.2 inputs and 1 output terminal for external controls.
- 5.Adjustable V/F curve.
- 6.Adjustable accel / decel time.
- 7.RS-485 communication (Baud rate 9600).
- 8.Option: Programmable Keypad (VFD-PU02).



Suitable for under 100W/3-phase AC motor drive

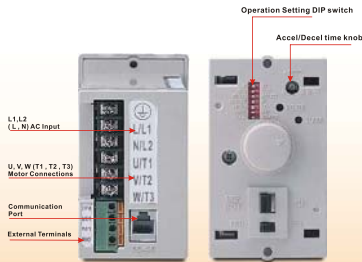


Compact with VFD-PU02 for running and monitoring AC motor drive (Optional)



Built-in Modbus Communication

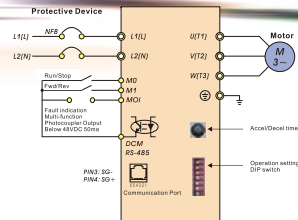
Function Display



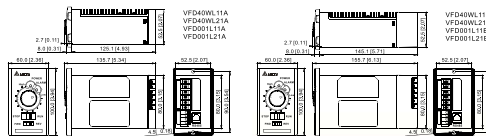
Installation Method



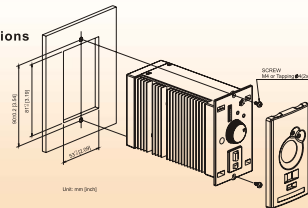
Wiring



Dimensions



Installation Dimensions



	115V		230V	
Voltage	115V		230V	
Model Number VFD-□□□□ LK1A/B	40W 001	60/100	40W 001	60/100
Max. Applicable Motor Output(w)	25/40	60/100	25/40	60/100
Output Rating	115V		230V	
Rated Output Capacity (VA)	106/152	212/303	106/152	212/303
Rated Output Current (A)	0.28/0.4	0.56/0.8	0.28/0.4	0.56/0.8
Max. Output Voltage (V)	3Phase Double the Input Voltage		Proportional to Input Voltage	
Rated Frequency (Hz)	1.00 to 120.00 Hz			
Input Rating	115V		230V	
Rated Voltage/Frequency	Single-phase 100 to 125 VAC, 50/60 Hz		Single-phase 200 to 240 VAC, 50/60 Hz	
Voltage/Freq. Tolerance	Voltage:±10%, Frequency:±5%			
Rated Current (A)	1.1A	1.5A	2.2A	3.0A
			0.5A	0.7A
			1.0A	1.4A
Control Characteristics	SVPWM (Space Vector Pulse Width Modulation, carrier frequency 10kHz)			
Control Systems	SVPWM (Space Vector Pulse Width Modulation, carrier frequency 10kHz)			
Torque Setting	High/Low, Switching			
Overload Endurance	150% of rated current for 1 minute			
Accel/Decel Time	0 to 30.0 seconds			
Operating Characteristics	Frequency Setting: Potentiometer			
Operation Setting Signal	Panel	RUN/STOP, FORWARD/REVERSE		
	Ext. Terminal	RUN/STOP, FORWARD/REVERSE, RS-485		
Output Indication	Panel	Fault Indication (LED Flash)		
	Ext. Terminal	Fault Indication (Open Collector)		
Protection	Self-testing, OverVoltage, OverCurrent, UnderVoltage, Overload, Overheating, Electronic thermal			
Other	EMI Filter Built in for Frame B			
Cooling	Natural air-cooling			
Environment	Altitude 1,000 m or lower, keep from corrosive gasses, liquid and dust			
Installation Location	Altitude 1,000 m or lower, keep from corrosive gasses, liquid and dust			
Ambient Temperature	-10°C TO 40°C (Non-Condensing and not frozen)			
Storage Temperature	-20°C TO 60°C			
Ambient Humidity	Below 90% RH (non-condensing)			
Vibration	0.060mm/s (1G) less than 20Hz, 0.06mm/s (0.6G) at 20 to 60Hz			

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