

Dimensions

Model	W	W1	H	H1	D	Fan cooled	Unit mm (inch)
VFD007F23A VFD007F43A VFD015F23A VFD015F43A VFD022F23A VFD022F43A VFD037F23A VFD037F43A	150.0(5.91)	135.0(5.32)	200.0(10.24)	244.3(9.63)	160.2(6.31)	Yes Yes Yes Yes Yes Yes Yes Yes	A
VFD055F23A VFD055F43B VFD075F23A VFD075F43B VFD110F23A VFD110F43A	200.0(7.88)	185.6(7.31)	323.0(12.72)	303.0(11.93)	183.2(7.22)	Yes Yes Yes Yes Yes Yes	A
VFD150F23A VFD150F43A	250.0(9.84)	226.0(8.90)	430.8(15.90)	384.0(15.12)	205.4(8.08)	Yes Yes	A
VFD180F23A VFD180F43A VFD220F23A VFD220F43A	250.0(9.84)	226.0(8.90)	403.8(15.90)	384.0(15.12)	205.4(8.08)	Yes Yes Yes Yes	A
VFD300F23A VFD300F43A	370.0(14.57)	335.0(13.19)	589.0(23.19)	560.0(22.05)	260.0(10.24)	Yes Yes	B
VFD370F23A VFD370F43A VFD400F43A VFD500F43A	370.0(14.57)	335.0(13.19)	589.0(23.19)	560.0(22.05)	260.0(10.24)	Yes Yes Yes Yes	B
VFD750F43A VFD900F43C	370.0(14.57)	335.0(13.19)	595.0(23.43)	560.0(22.05)	260.0(10.24)	Yes Yes	B
VFD900F43A VFD1100F43A	425.0(16.73)	385.0(15.16)	850.0(33.46)	631.0(24.84)	264.0(10.39)	Yes Yes	C
VFD1100F43C VFD1300F43A VFD1600F43A	425.0(16.73)	381.0(15.00)	850.0(33.46)	819.5(32.26)	264.0(10.39)	Yes Yes Yes	D
VFD1600F43A VFD2000F43A	547(21.54)	480(18.90)	1357.6(53.45)	1119(44.06)	360(14.17)	Yes Yes	E

*We reserve the right to change the information in this catalogue without prior notice



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VFD

Delta VFD-F Series

High Performance User-friendly Multi-function Fan & Pump AC Motor Drives

Features

- ▶ 16-bit microprocessor controlled PWM output
- ▶ Automatic torque boost & slip compensation
- ▶ Output frequency 0.1~120Hz
- ▶ 16-step speed control & 15-step preset speed
- ▶ PID feedback control
- ▶ 2 accel./decel. times & S-curve settings
- ▶ Pump control & automatic energy-saving
- ▶ Communication interface RS-485 (Baud rate 38400)
- ▶ Free run or ramp stop. Controlled reversing
- ▶ Adjustable V/F curve. Automatic voltage regulation



Voltage Range:

3 Phase 230V Series : 0.75~37KW (1~50HP)
3 Phase 430V Series : 0.75~220KW (1~300HP)

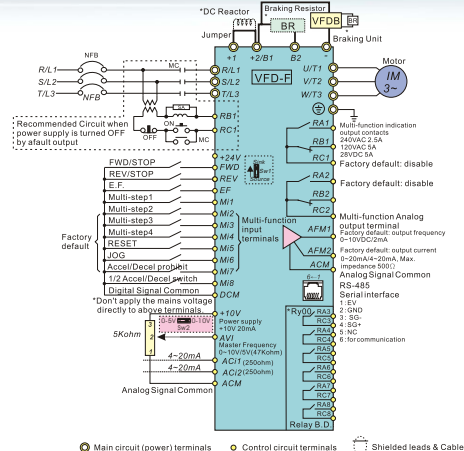


VFD-F series have been approved by CE and UL

www.delta.com.tw/industrialautomation

External Dimensions

Note*is ptional



230V Series 3-Phase

[illegible]

460V Series 3-Phase

Model Number VFD-		007	015	022	037	055	075	110	150	185	220	300	370	450	550	750	900	1100	1320	1600	1850	2200																		
Max. 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	90	110	132	160	185	220																		
Max. Applicable Motor Output (HP)		1.0	2.0	3.0	5.0	7.5	10	15	20	25	30	40	50	60	75	100	125	150	175	215	250	300																		
Rated Output Capacity (KVA)		2.3	3.2	4.2	6.5	10	14	18	25	29	34	45	56	69	84	114	137	168	198	236	282	328																		
Output Rating	Rated Output Current (A)	2.7	4.2	5.5	8.5	13	18	24	32	38	45	60	73	91	110	150	180	220	260	310	370	460																		
	Maximum Output Voltage (V)	3-Phase Proportional to Input Voltage																																						
	Output Frequency (Hz)	0.10~120Hz																																						
Input Rating	Carrier Frequency (KHz)	4~10			3~9			2~6																																
	Rated Input Current (A)	3-Phase																																						
	Rated Voltage, Frequency	3-phase 380 to 480V, 50/60Hz																																						
	Voltage Tolerance	±1% (342~528V)																																						
	Frequency Tolerance	±5% (47~63Hz)																																						
Cooling Method		Fan Cooled																																						
Control Characteristics	Control System	SPWM (Sinusoidal Pulse Width Modulation) control carrier (V/F control)																																						
	Freq. Setting Resolution	0.01Hz																																						
	Output Frequency Resolution	0.01Hz																																						
	Torque Characteristics	Including the auto-torque, auto-slip compensation; starting torque can be 150% at 1.0Hz																																						
	Overload Endurance	120% of rated current for 1 minute																																						
	Skip Frequency	Three zones, setting range 0.1~120Hz																																						
	Accel./Decel. Time	1~36000/0.1~3600.0/0.1~360.0 seconds (3 Independent settings for Accel/Decel Time)																																						
	Stall Prevention Level	20 to 150%, Setting of Rated Current Time																																						
	DC Injection Braking	Operation frequency 0~120Hz output 0~100% rated current Start time 0~6 seconds, stop time 0~60 seconds																																						
	Braking Torque	Approx. 20% (up to 125% possible with option braking resistor or braking unit externally mounted, 1~20HP braking transistor built-in)																																						
Operating Characteristics	V/F Pattern	Adjustable V/F pattern Setting by  																																						
	Frequency Setting	External Signal	Potentiometer 5k/10k 0 to +10V to +5VDC; 24sets of 4 to 20mA, RS-485 interface, Multi-Function Inputs 1 to 6 (15steps, JOP, up/down)																																					
	Operation Setting	Key Pad	Set by RUN, STOP and JOG																																					
	Setting Signal	External Signal	2 wires/3 wires (Fwd, Rev, EJP) JOG operation; RS-485 serial interface(MODBUS), Process Logic Control																																					
	Multi-Function Input Signal	Multi-step selection 0 to 15, JOG, accel/decel inhibit, first to form accel/decel switches, counter, PLC operation, external Base Block (NC, NO), auxiliary motor control is invalid, AC I/AN selections, driver reset, UP/DOWN key settings, sink/source selection																																						
	Multi-Function Output Indication	AC Drive Operating, Frequency Allocated, Non-zero, Base Block, Fault Indication, Local/Remote indication, PLC Operation indication, Auxiliary Motor Output, Driver is Ready, Overhaul Alarm, Emergency Stop																																						
	Analogue Output Signal	2 sets Analogue frequency/current/voltage, Command power factor signal output (0~10VDC/4~20mA)																																						
	Analogue Output contact1	2 Form C contact/1 common collector output																																						
	Other Functions	AVR, 5-Curve, Over-Voltage, Over-Current Limit Prevention, Fault Records, Adjustable Carrier Frequency, DC Braking, Momentary Power Loss restart, Auto Tuning, Frequency Limits, Parameter Lock/Reset, Vector Control, Counter, PID Control, FanPumpControl, PLC, MODBUS Communication, Reverse Inhibition, abnormal reset, abnormal re-start, digital frequency output, sleep/linear function																																						
	Protection Functions	Self-Testing, Over Voltage, Over Current, Under Voltage, Overload, Overheating, External Fault, Electronic thermal, Ground Fault																																						
Environmental Conditions	Display Keys	8-key, 5-digit, 7-segment LED, 8 status LEDs, master frequency, frequency, output frequency, output current, output voltage, parameter values for setup, revision, faults, RUN, STOP, RESET, FWD/REV, JOG, IP20																																						
	Protection Level	2																																						
	Pollution Degree	2																																						
	Installation Location	Altitude 1,000 m or lower, keep from corrosive gases, liquid and dust																																						
	Ambient Temperature	-10°C to 40°C Non-Condensing and not frozen																																						
	Storage/Transportation 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 (0.6G) at 20 to 50Hz																																							
Approvals	  																																							

unit:mm

