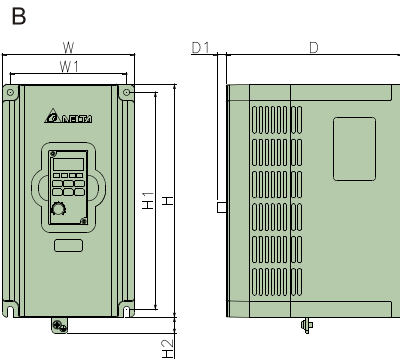
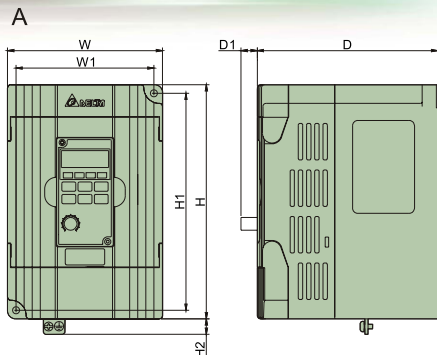


VFD-M

External Dimensions



unit:mm

Dimensions

Model	W	W1	H	H1	D	D1	Fan	Fig
VFD000M11A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD000M11A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD000M21A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD000M21B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD000M23A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD007M11A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD007M21A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD007M21B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD007M23A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD007M3B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD007M53A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD015M21A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD015M21B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD015M23A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD015M3B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD015M53A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD022M21A	125(4.92)	110(4.33)	220(8.66)	205(8.07)	166.3(6.55)	8.2(0.32)	Yes	B
VFD022M23B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD022M3B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD022M53A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD037M23A	125(4.92)	110(4.33)	220(8.66)	205(8.07)	166.3(6.55)	8.2(0.32)	Yes	B
VFD037M3A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	B
VFD037M53A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	B
VFD055M23A	125(4.92)	110(4.33)	220(8.66)	205(8.07)	166.3(6.55)	8.2(0.32)	Yes	B
VFD055M3A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	B
VFD055M53A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	B
VFD075M3A	125(4.92)	110(4.33)	220(8.66)	205(8.07)	166.3(6.55)	8.2(0.32)	Yes	B
VFD075M53A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	B

unit:mm (inch)

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



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DELTA ELECTRONICS, INC.

VFD

Delta VFD-M Series Variable Speed AC Motor Drives

Features:

- ▶ 16-bit microprocessor controlled PWM output
- ▶ Automatic torque boost & slip compensation
- ▶ Output frequency 0.1~400Hz
- ▶ 8-step speed control & 7-step process control
- ▶ Low-noise carrier frequency up to 15kHz
- ▶ 2 accel./decel. times & S-curve
- ▶ Process follower 0~10VDC, 4~20mA
- ▶ Communication interface RS-485 (Baud rate 38400)
- ▶ Energy saving & automatic voltage regulation
- ▶ Adjustable V/F curve & Simple vector control
- ▶ Automatic adjustment of accel./decel. times
- ▶ PID feedback control
- ▶ Simple position function
- ▶ 0 Speed Holding function
- ▶ Sleep / Revival function build-in



Voltage Range:

- 1 Phase 115V Series : 0.2~0.75KW (0.25~1HP)
- 1 Phase 230V Series : 0.4~2.2KW (0.5~3HP)
- 3 Phase 230V Series : 0.4~5.5KW (0.5~7.5HP)
- 3 Phase 460V Series : 0.75~7.5KW (1~10HP)
- 3 Phase 575V Series : 0.75~7.5KW (1~10HP)

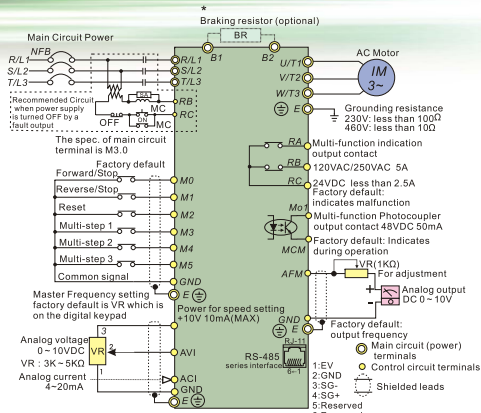


VFD-M series have been approved by CE and UL

www.delta.com.tw/industrialautomation

VFD-M

Standard wiring diagram



NOTE: Do not plug a Modem or telephone line to the RS-485 communication port, permanent damage may result. Terminal 1& 2 are the power sources for the optional copy keypad and should not be used while using RS-485 communication.

* If it is single phase model, please select any of the two input power terminals in main circuit power.
* Single phase model can be input 3-phase power.

Standard specifications

115V Series 1-Phase

	002	004	007
Model Number VFD115M	0.2	0.4	0.75
Max. Applicable Motor Output (kW)	0.25	0.5	1.0
Max. Applicable Motor Output (HP)	0.6	1.0	1.6
Rated Output Capacity (kVA)	1.6	2.5	4.2
Rated Output Current (A)	3-Phase proportional to twice the Input Voltage		
Maximum Output Voltage (V)	0.1~400Hz		
Output Frequency (Hz)	1-15		
Carrier Frequency (kHz)	Single Phase		
Rated Input Current (A)	6	9	16
Rated Voltage , Frequency	Single phase 100-120V , 50/60Hz		
Voltage Tolerance	±10%(90~132V)		
Frequency Tolerance	±5%(47~63Hz)		
Cooling Method	Fan Cooled		
Weight(Kg)	1.5	1.5	1.5

Standard specifications

230V Series 1-Phase/3-Phase

		Output Rating					
		004	007	015	022	037	055
Input Rating	Model Number VFD230M	0.4	0.75	1.5	2.2	3.7	5.5
	Max. Applicable Motor Output (kW)	0.5	1.0	2.0	3.0	5.0	7.5
	Max. Applicable Motor Output (HP)	1.0	1.9	2.7	3.8	6.5	9.5
	Rated Output Capacity (kVA)	2.5	5.0	7.0	10	17	25
	Maximum Output Voltage (V)	3-Phase Proportional to input voltage					
	Output Frequency (Hz)	0.1~400Hz					
	Carrier Frequency (kHz)	1-15					
	Rated Input Current (A)	Single / 3-Phase				3-Phase	
	Single (3-phase Input Current)	6.3 / 2.9 3.2	11.5 / 7.6 6.3	15.7 / 8.8 9.0	27 / 12.5 12.5	19.6	28
	Rated Voltage , Frequency	Single / 3-Phase 200-240V , 50 / 60Hz				3-Phase 200-240V , 50 / 60Hz	
		Fan Cooled					
Voltage Tolerance		± 10%(180~264V)					
Frequency Tolerance		± 5%(47~63Hz)					
Cooling Method		Fan Cooled					
Weight (Kg)		2.2 / 1.5	2.2 / 1.5	2.2 / 1.5	2.2	3.2	3.2

460V Series 3-Phase

	007	015	022	037	055	075
Model Number VFD460M	0.75	1.5	2.2	3.7	5.5	7.5
Max. Applicable Motor Output (kW)	1.0	2.0	3.0	5.0	7.5	10
Max. Applicable Motor Output (HP)	2.3	3.1	3.8	6.2	9.9	13.7
Rated Output Capacity (kVA)	3.0	4.0	5.0	8.2	13	18
Maximum Output Voltage (V)	3-Phase Proportional to Input voltage					
Output Frequency (Hz)	0.1~400Hz					
Carrier Frequency (kHz)	1-15					
Rated Input Current (A)	4.2	5.7	6.0	8.5	14	23
Single (3-phase Input Current)	2.1	2.8	3.0	4.2	7.0	11.5
Rated Voltage , Frequency	3-Phase 380 to 480V , 50 / 60Hz					
Voltage Tolerance	±10%(342~528V)					
Frequency Tolerance	±5%(47~63Hz)					
Cooling Method	Fan Cooled					
Weight (Kg)	1.5	1.5	2.0	3.2	3.2	3.3

575V Series 3-Phase

	007	015	022	037	055	075
Model Number VFD575M	0.75	1.5	2.2	3.7	5.5	7.5
Max. Applicable Motor Output (kW)	1.0	2.0	3.0	5.0	7.5	10
Max. Applicable Motor Output (HP)	1.7	3.0	4.2	6.6	9.9	12.2
Rated Output Capacity (kVA)	1.7	3.0	4.2	6.6	9.9	12.2
Maximum Output Voltage (V)	3-Phase Proportional to Input voltage					
Output Frequency (Hz)	0.1~400Hz					
Carrier Frequency (kHz)	1-10					
Rated Input Current (A)	2.4	4.2	5.9	7.0	10.5	12.9
Single (3-phase Input Current)	1.2	2.1	2.9	3.5	5.2	6.4
Rated Voltage , Frequency	3-Phase 500 to 600V , 50 / 60Hz					
Voltage Tolerance	-15% , +10% (425~660V)					
Frequency Tolerance	±5%(47~63Hz)					
Cooling Method	Fan Cooled					
Weight (Kg)	1.5	1.5	2.0	3.2	3.2	3.3

VFD-M

Standard specifications

Control System	SPWM (Sinusoidal Pulse Width Modulation) control (V/F or sensorless vector control)	
	Freq. Setting Resolution	0.1Hz
Torque Characteristics	Output Frequency Resolution	0.1Hz
	Including the auto-torque, auto-slip compensation; starting torque can be 150% at 5.0Hz	
Overload Endurance	150% of rated current for 1 minute	
	Skip Frequency	Three zones, settings range 0.1~400Hz
Accel/Decel Time	0.1 to 600 seconds (2 independent settings for Accel/Decel Time)	
	Still Prevention Level	20%~200%, Setting of Rated Current
DC Injection Braking	Operation frequency 0~60Hz, output 0~100% rated current	
	Start time 0~5 seconds, stop time 0~25 seconds	
Braking Torque	Approx. 20% (up to 125% possible with option braking resistor or braking unit externally mounted)	
	V/F Pattern	Adjustable V/F pattern
Frequency Setting	Keypad	Set by [▲] [▼]
	External Signal	Potentiometer-5KΩ/0.5W, 0 to +10VDC; 4 to 20mA, RS-485 interface; Multi-Function Inputs 0 to 5 (7 steps, Jog, up/down)
Operation Setting Signal	Keypad	Set by RUN, STOP
	External Signal	2 wires / 3 wires (Run, Stop, Forward / Rev.), JOG operation, RS-485 serial interface (MODBUS)
Multi-Function Input Signal	Multi-step selection 0 to 7, Jog, accel/decel inhibit, first to fourth accel/decel switches, counter, PLC operation, external Base Block (NC, NO), auxiliary motor control is invalid, ACl/AVI selections, drive reset, UP/DOWN key settings, sink/source selection	
	AC Drive Operating, Frequency Attained, Non-zero, Base Block, Fault Indication, Local/Remote indication, PLC Operation indication, Auxiliary Motor Output, Driver is Ready, Overheat, Alarm, Emergency Stop	
Multi-Function Output Indication	Analog frequency/current signal output.	
	1 Form C contact or open collector output.	
Alarm Output Contact	AVR, S-Curve, Over-Voltage, Over-Current Stall Prevention, Fault Records, Adjustable Carrier Frequency, DC Braking, Momentary Power Loss restart, Auto Tuning, Frequency Limits, Parameter Lock/Reset, Vector Control, Counter, PID Control, PLC, MODBUS Communication, Reverse Inhibition, abnormal reset, abnormal re-start, digital frequency output, sleep/revival function, 1 st/2nd frequency source selections	
	Self-testing, Over Voltage, Over Current, Under Voltage, Overload, Overheating, External Fault, Electronic thermal, Ground Fault.	
Display Keypads	6-key, 4-digit, 7-segment LED, 4 status LEDs, master frequency, output frequency, Output current, custom units, parameter values for setup, review and faults, RUN, STOP, RESET, FWD/REV	
	IP20	
Protection Level	2	
	Altitude 1,000m or less, keep from corrosive gas, liquid and dust	
Ambient Temperature	-10°C to 40°C (-10°C to 50°C without blind plate) Non-Condensing and not frozen	
	-20°C to 60°C	
Storage / Transportation Temperature	Below 90% RH (non-condensing)	
	9.80665m/s ² (1G) less than 20Hz, 5.88m/s ² (0.6G) at 20 to 50Hz	
Ambient Humidity		
Vibration		
Approvals	CE, UL, VDE	