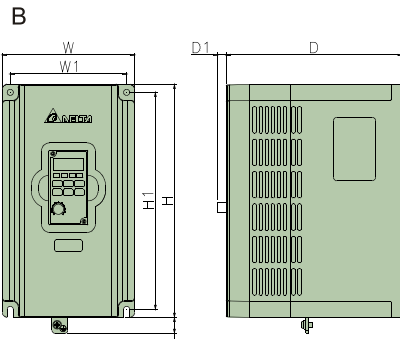
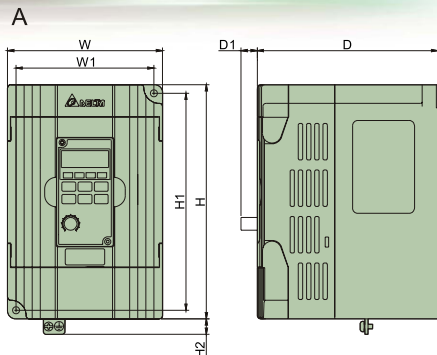


VFD-M

External Dimensions



unit:mm

VFD-M

External Dimensions

Dimensions

Model	W	W1	H	H1	D	D1	Fan	Fig
VFD002M11A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD004M11A	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD006M21A	85(3.35)	74(2.91)	141.5(5.57)	130.5(5.14)	113.0(4.45)	10.0(0.39)	Yes	A
VFD008M21B	100(3.94)	89(3.50)	151(5.94)	140(5.51)	116.5(4.59)	10.5(0.41)	Yes	A
VFD010M23A	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
VFD007M43B	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
VFD015M43B	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
VFD022M43B	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
VFD037M43A							Yes	B
VFD037M53A							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
VFD055M43A							Yes	B
VFD055M53A							Yes	B
VFD075M43A	125(4.92)	110(4.33)	220(8.66)	205(8.07)	166.3(6.55)	8.2(0.32)	Yes	B
VFD075M53A							Yes	B

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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)



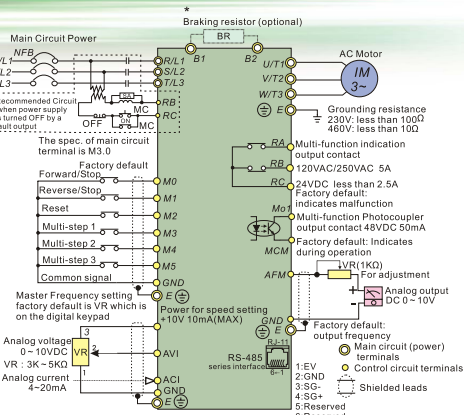
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VFD-M

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.

VFD-M

Standard specifications

230V Series 1-Phase/3-Phase

	004	007	015	022	037	055
Model Number VFD- 1 1M	004	007	015	022	037	055
Max. Applicable Motor Output (kW)	0.4	0.75	1.5	2.2	3.7	5.5
Max. Applicable Motor Output (HP)	0.5	1.0	2.0	3.0	5.0	7.5
Rated Output Capacity (kVA)	1.0	1.9	2.7	3.8	6.5	9.5
Rated Output Current (A)	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)	6.3 / 2.9	11.5 / 7.6	15.7 / 8.8	27 / 12.5	19.6	28
Single (3-phase Input Current)	3.2	6.3	9.0	12.5		
Rated Voltage , Frequency	Single / 3-Phase 200-240V , 50 / 60Hz					
Voltage Tolerance	± 10% (100~264V)					
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 VFD- 3 1M	007	015	022	037	055	075
Max. Applicable Motor Output (kW)	0.75	1.5	2.2	3.7	5.5	7.5
Max. Applicable Motor Output (HP)	1.0	2.0	3.0	5.0	7.5	10
Rated Output Capacity (kVA)	2.3	3.1	3.8	6.2	9.9	13.7
Rated Output Current (A)	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)						
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 VFD- 3 1M	007	015	022	037	055	075
Max. Applicable Motor Output (kW)	0.75	1.5	2.2	3.7	5.5	7.5
Max. Applicable Motor Output (HP)	1.0	2.0	3.0	5.0	7.5	10
Rated Output Capacity (kVA)	1.7	3.0	4.2	6.6	9.9	12.2
Rated Output Current (A)	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)						
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

Standard specifications

115V Series 1-Phase

	002	004	007
Model Number VFD- 1 1M	002	004	007
Max. Applicable Motor Output (kW)	0.2	0.4	0.75
Max. Applicable Motor Output (HP)	0.25	0.5	1.0
Rated Output Capacity (kVA)	0.6	1.0	1.6
Rated Output Current (A)	1.6	2.5	4.2
Maximum Output Voltage (V)	3-Phase proportional to twice the Input Voltage		
Output Frequency (Hz)	0.1~400Hz		
Carrier Frequency (kHz)	1~15		
Rated Input Current (A)	6	9	16
Single (3-phase Input Current)			
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

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VFD-M

Standard specifications

Control System		SPWM (Sinusoidal Pulse Width Modulation) control (V/F or sensorless vector control)
Freq. Setting Resolution		0.1Hz
Output Frequency Resolution		0.1Hz
Torque Characteristics		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)
Stall Prevention Level		20%~200%, Setting of Rated Current
Frequency Setting		Operation frequency 0.60Hz, output 100% rated current Start time 0-5 seconds, stop time 0-25 seconds
DC Injection Braking		Approx. 20% (up to 125% possible with option braking resistor or braking unit externally mounted)
Braking Torque		Adjustable V/F pattern
V/F Pattern		Set by [A] [V]
Operating Characteristics	Frequency Setting	Keypad External Signal
	Operation Setting Signal	Keypad External Signal
	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, ACI/AVI selections, drive reset, UP/DOWN key settings, sink/source selection
	Multi-Function Output Indication	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
Analog Output Signal		Analog frequency/current signal output.
Alarm Output Contact		1 Form C contact or open collector output.
Operation Functions		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/reval function, 1 st/2nd frequency source selections
Protective Functions		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
Environmental Conditions	Protection Level	IP20
	Pollution Degree	2
	Installation Location	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
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		CE, UL, VDE

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