



DELTA ELECTRONICS, INC.

VFD

Delta VFD-G Series

*Specific AC Motor Drives for Plastic Molding
and Air Compressors Machinery*

Features:

- ▶ Great overload protection, 150% for 60 seconds
- ▶ High reliability and lower energy loss (the newest IGBT technology)
- ▶ Output frequency from 0.1-120Hz and auto voltage regulation
- ▶ 16-step preset speeds and 15-step speeds control
- ▶ Built-in PID feedback control
- ▶ Built-in DC reactor from 18.5kW-75kW
- ▶ Built-in 2 insulating and independent big current (1A) with programmable analog input
- ▶ Built-in serial communication interface (baud rate up to 38400)
- ▶ All I/O terminals are insulated with better interference suppression capability
- ▶ Adjustable V/F curve and cube power V/F curve
- ▶ Dual grounding terminals and complete protection
- ▶ Electric bill calculation function



Voltage Range:

- 3 Phase 460V Series : 5.5~30KW (7.5~40HP)
- 3 Phase 460V Series : 37~75KW (50~100HP) under development

ISO-9001
REGISTERED

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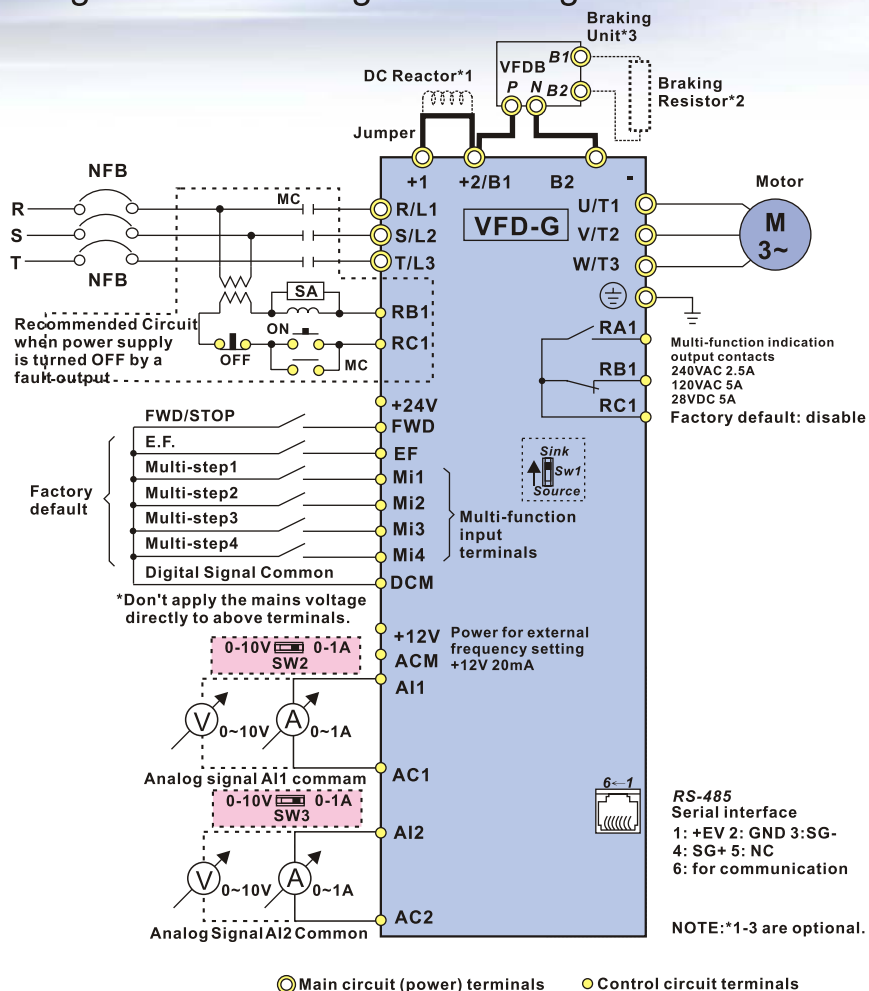


VFD-G

Basic wiring diagram

There is the main circuit and control circuit for AC drives.

User must wire according to the following circuit diagram shown below.



Model Explanation

VFD 075 F 43 A -G

- VFD-G series
- Version Type
- Input Voltage (43:Three phase 460V)
- Applicable motor capacity (075=7.5kW)
- Series Name

VFD-G

Standard specifications

460V Series 3-Phase

Model Number VFD-□□□G43A		055	075	110	150	185	220	300	370*	450*	550*	750*
Max. Applicable Motor Output (kW)		5.5	7.5	11	15	18.5	22	30	37	45	55	75
Max. Applicable Motor Output (HP)		7.5	10	15	20	25	30	40	50	60	75	100
Output Rating	Rated Output Capacity (KVA)	9.9	13.7	18.3	24.4	28.9	34.3	45.7	55.6	69.3	84	114
	Rated Output Current (A)	13	18	24	32	38	45	60	73	91	110	150
	Maximum Output Voltage (V)	Proportional to Input Voltage										
	Rated Frequency (Hz)	0.10-120.00Hz										
	Carrier Frequency (kHz)	4 ~ 6K		3 ~ 6K				2 ~ 6K				
Input Rating	Rated Input Current (A)	14	19	25	32	39	49	60	73	91	120	160
	Rated Voltage	3-phase 380 ~ 480 V										
	Frequency Tolerance	47 ~ 63Hz										
	Weight (Kg)	6	6	7.5	8.5	14	14	14	51	51	51	51

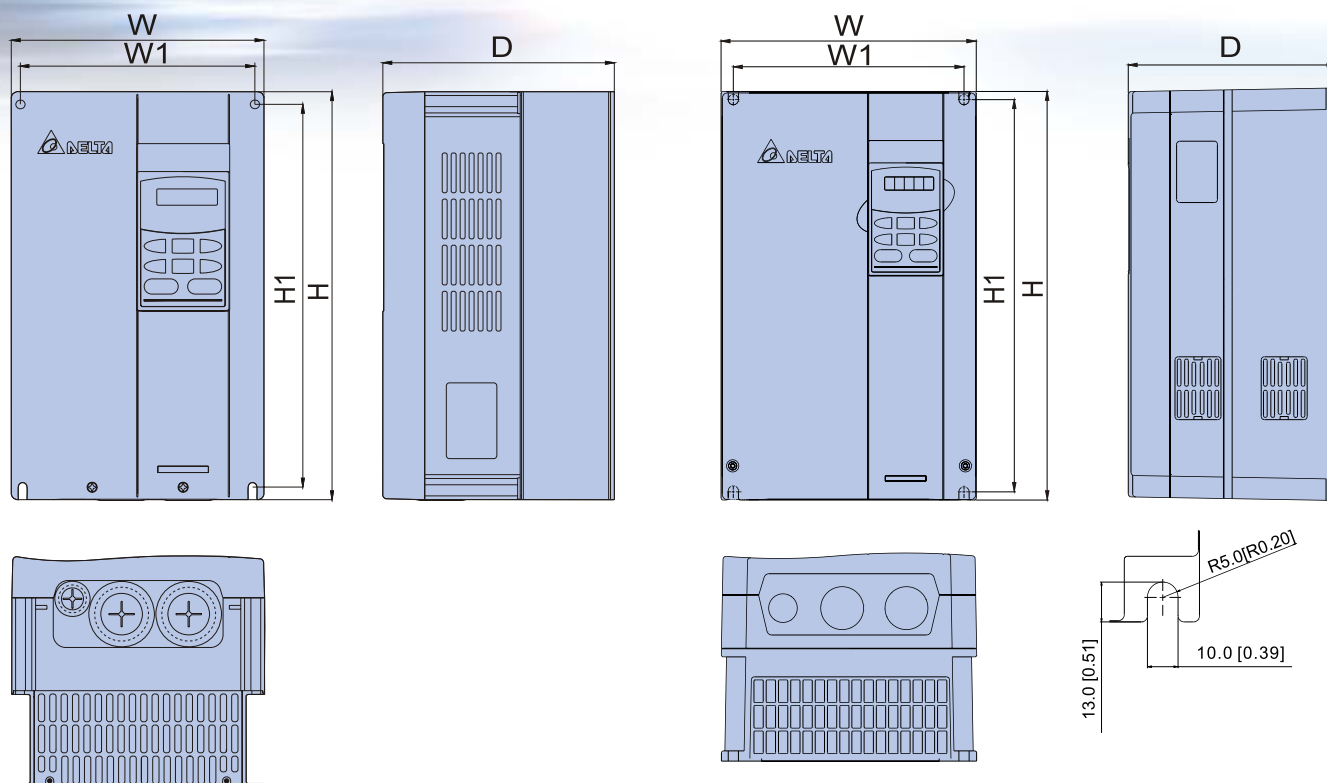
Control Characteristics	Control System		SPWM (Sinusoidal Pulse Width Modulation, carrier frequency 2-6kHz)									
	Output Frequency Resolution		0.01Hz									
	Torque Characteristics		Including the auto-torque, auto-slip compensation; starting torque can be 150% at 1.0Hz									
	Overload Endurance		15Hz above: 150% and 15 Hz below: 120% of rated current for 1 minute									
	Accel/Decel Time		1-36000/0.1-3600.0/0.01-360.00 seconds (3 Independent settings for Accel/Decel Time)									
	V/F Pattern		Adjustable V/F pattern									
	Stall Prevention Level		20 to 150%, Setting of Rated Current									
Operating Characteristics	Frequency Setting	Keypad	Setting by ▲ ▼									
		External Signal	2 sets of analog inputs, 15 Multi-Function Inputs, RS-485 interface (MODBUS), External terminals UP/DOWN Key									
	Operation Setting Signal	Keypad	Set by RUN, STOP and JOG									
		External Signal	Operation by FWD, REV, JOG and communication operation									
	Multi-Function Input Signal		Multi-step speed selection 0 to 15, Jog, accel/decel inhibit, first to forth accel/decel switches, counter, external Base Block (NC, NO), JOG									
	Multi-Function Output Indication		AC Drive Operating, Frequency Attained, Desired Frequency Attained, Zero speed, Base Block, Fault Indication and Local/Remote indication									
	Other Functions			AVR, 2 types of S-Curve, Over-Voltage, Over-Current Stall Prevention, Fault Records, Reverse inhibition, DC Braking, Momentary Power Loss restart, Auto torque and slip compensation, PID Control, Parameter Lock/Reset, Frequency Limits, Adjustable Carrier Frequency								
Protection			Self-testing, Over Voltage, Over Current, Under Voltage, Overload, Overheating, External Fault, Electronic thermal, Ground Fault, Phase-loss									
Cooling Methods			Forced Fan-cooled									
Environment	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/ 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									

*:Under development

VFD-G

External Dimensions

unit:mm



■ Dimensions

unit: mm (inch)

Model	W	W1	H	H1	D
VFD055F43B-G	200.0	185.6	323.0	303.0	183.2
VFD075F43B-G	(7.88)	(7.31)	(12.72)	(11.93)	(7.22)
VFD110F43A-G					
VFD150F43A-G					
VFD185F43A-G	250.0	226.0	403.8	384.0	205.4
VFD220F43A-G	(9.84)	(8.90)	(15.90)	(15.12)	(8.08)
VFD300F43A-G					

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



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