

Delta
Economy enclosure IP44
VFD-S Series – Technical Specifications



■ **230V Series 1-Phase/3-Phase**

Model VFD □□□ S21A/23A		002	004	007	015	022
Input	Max. applicable motor output (kw)	0.2	0.4	0.75	1.5	2.2
	Max. applicable motor output (HP)	0.25	0.5	1	2	3
	Rated capacity (kVA)	0.6	1.0	1.6	2.8	4.2
	Rated current (A)	1.6	2.5	4.2	7.5	11.0
	Output Frequency Range	1.0~400Hz				
	Overload Endurance	150% of rated current of 60 seconds				
	Voltage	Proportional to input voltage				
Input	Phase • Voltage • Hz	1/3 Phase • 200~240Vac • 50/60Hz				3-Phase
	Voltage • Frequency Tolerance	Voltage: ±10% • Frequency: ±5%				
	Input current (A)	4.9/1.9	6.2/2.6	9.3/4.9	15.7/8.5	14
	Dimensions	fig. 15	fig. 16	fig. 17	fig. 18	fig.18
	Cooling system	Natural air-cooling				Forced

■ **460V Series 3-Phase**

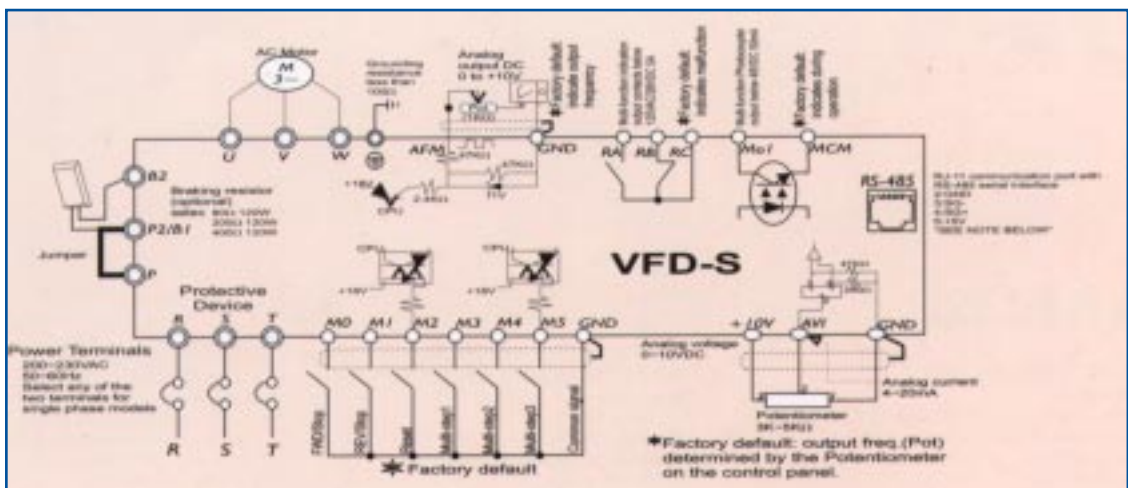
Model VFD □□□ S43a		004	007	015	022
Input	Max. applicable motor output (kw)	0.4	0.75	1.5	2.2
	Max. applicable motor output (HP)	0.5	1	2	3
	Rated capacity (kVA)	1.1	1.9	3.2	4.1
	Rated current (A)	1.5	2.5	4.2	5.5
	Output Frequency Range	1.0~400Hz			
	Overload Endurance	150% of rated current of 60 seconds			
	Voltage	Proportional to input voltage			
Input	Phase • Voltage • Hz	3 Phase • 380~480Vac • 50/60Hz			
	Voltage • Frequency Tolerance	Voltage: ±10% • Frequency: ±5%			
	Input current (A)	1.9	3.2	4.3	7.1
	Dimensions	fig. 18	fig. 18	fig. 18	fig. 18
	Cooling system	Natural air-cooling			Forced

VFD-S Series

Standard Specifications

Input	Control system		High carrier frequency sine-wave PWM control (V/F control)
	Output freq. range		1.0~400Hz
	Frequency setting resolution		0.1Hz
	Output freq. resolution		0.1Hz
	PWM carrier frequency		Adjustable between 3 and 10kHz
	Torque boost		Auto torque, auto slip compensation Start torque: 150% at 5Hz
	Skip frequency		Three zones, Setting range 0.1-400Hz
	Accel./Decel. time		0.1 to 600 seconds (2 independent setting for accel./decel. time)
	Stall prevention level		Set current limit from 20%-250%
	DC injection braking		Operation frequency 0-400Hz, 0-30% Max. output voltage Start time 0-60 seconds, stop time 0-60 seconds
Braking torque		Approx. 20% (up to 125% possible with option braking resistor braking transistor built in)	
V/F pattern		Adjustable V/F pattern	
Operation specification	Frequency setting	Keyboard	Set by ▲▼ or built potentiometer
		External	0-10VDC, 4-20mA DC, serial communication (RS-485)
	Operation Signals	Keypad	Set by (RUN) (STOP)
		External	Fwd/stop, Rev/stop (run/stop, fwd/rev) 3-wire control, Serial communication (RS485)
	Multi-function input terminal		Multi-speed selection 1 to 7, first/second accel./decel. time select Accel./Decel. inhibit, external baseblock, counter applications 8 step process control, jog operation, up/down frequency command
	Multi-function output terminal		Drive operational, frequency attained signal, zero speed Counter arrival, overtorque detection, external baseblock detection Undervoltage detection, keypad or external operational signal, alarm
	Analog output		Select output frequency or current monitor
	Alarm output contact		1 Form C contact or open collector output
	Operation functions		Frequency limit, momentary power failure restart, fault records External fault, fault retry, fault reset, 2 S-curve accel./decel., AVR Automatic adjustment of accel./decel. time, parameter lockout REV run inhibit, overvoltage and overcurrent stall prevention
	Protective functions		Overvoltage, overcurrent, undervoltage, external trip, motor overload Ground fault current, overload, overheat
Display keypads		6-key, 4-digit, 7-segment LED; 4 status LEDs, potentiometer Master frequency, output frequency, output current, custom units Parameter values for setup and review, faults RUN, STOP RESET, FWD/REV	
Environment	Ambient temperature		-10°C to +40°C (non-condensing and not frozen)
	Storage temperature		+20°C to +60°C
	Ambient humidity		90% RH or less (non-condensing)
	Installation location		Altitude 1,000m or less, keep from corrosive gas, liquid and dust
	Vibration		9.80665m/s ² (1G) less than 20Hz, 5.88m/s ² (0.6G) at 20 to 50Hz

Standard wiring diagram



■ External dimensions

