



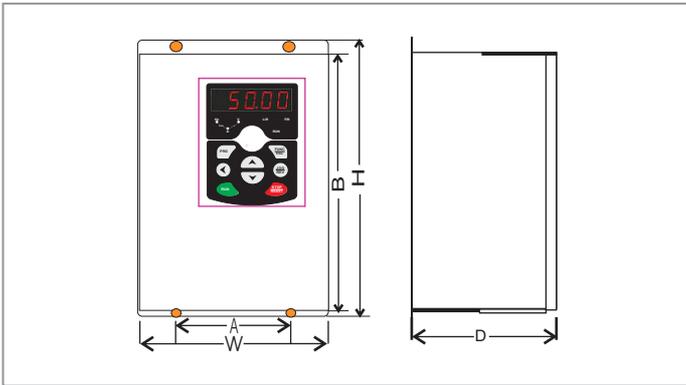
Features :

- ▶ **Control mode:** Sensor-less flux vector control, Closed-loop vector control (+PG cad), V/f control.
- ▶ **Automatic voltage regulation**
- ▶ **Overload capacity:**
G Type: 1 min. for 150% of the rated current
P Type: 1 min. for 120% of the rated current
- ▶ **PID Control**
- ▶ **Provides protection against Over voltage, Under voltage, Over current and Short circuit**
- ▶ **MODBUS RTU Protocol over RS485 communication**

Specifications

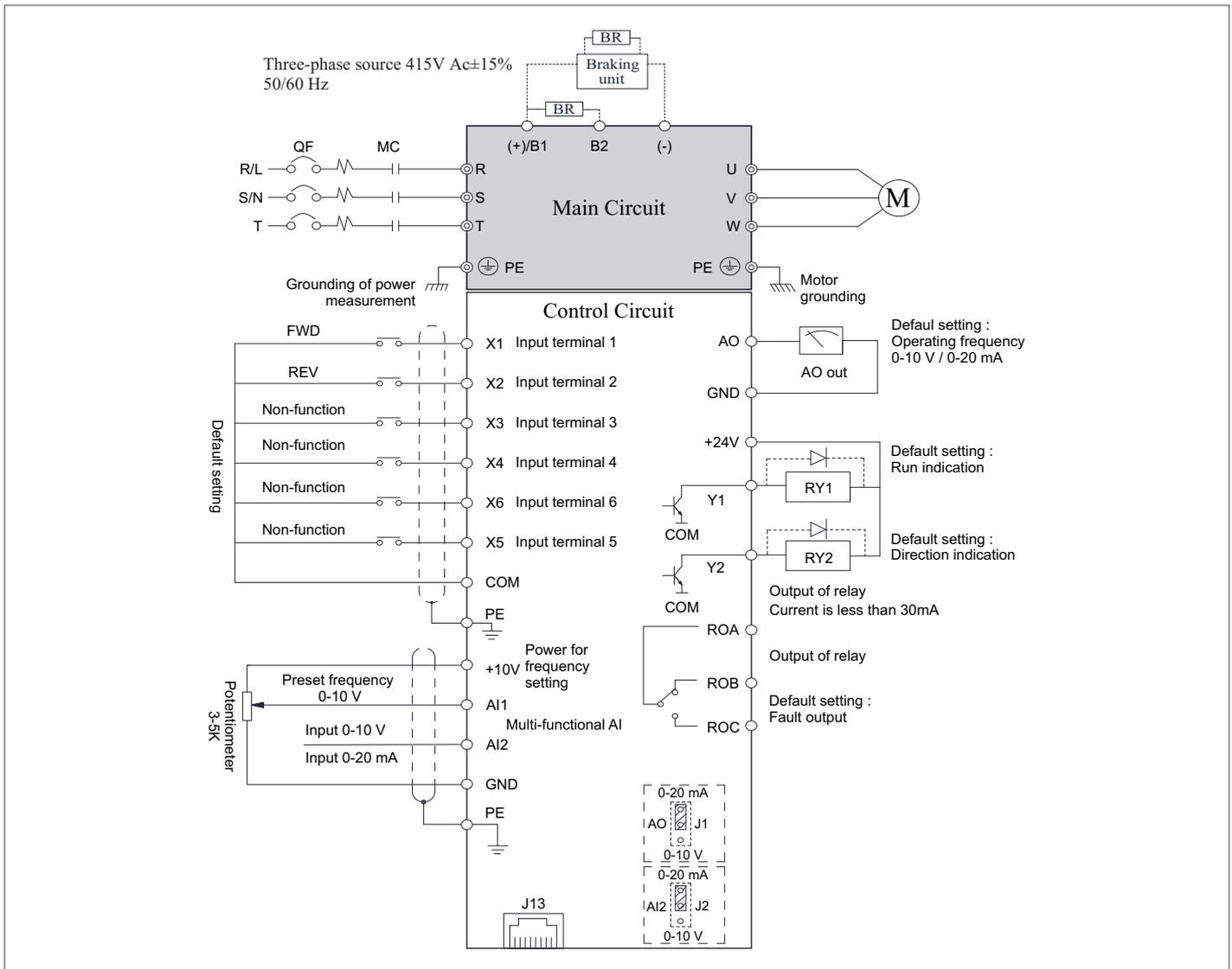
Power supply	
Rated input voltage / Frequency	3 phase 415 V, 50/60 Hz
Permissible voltage fluctuation	320V AC to 460V AC for 3 phase
Permissible frequency fluctuation	±5%
Control characteristic	
Maximum frequency	Vector control: 0 ~ 3200 Hz, V/f control: 0 ~ 500 Hz
Carrier frequency	0.5 kHz ~ 16 kHz (The carrier frequency is automatically adjusted based on the load features.)
Input frequency resolution	Digital setting: 0.01 Hz, Analog setting: maximum frequency x 0.025%
Control mode	Sensor-less flux vector control (SFVC), Closed-loop vector control (CLVC) (+PG Card), Voltage / Frequency (V/f) control
Startup torque	0.5 Hz / 150 % (SVC); 0 Hz / 180 % (FVC)
Speed range	1: 100 (SVC) 1: 1000 (FVC)
Speed stability accuracy	±0.5% (SVC) ±0.02% (FVC)
Accelerated / Decelerated time	0.0 ~ 65000 sec, Four acceleration / Deceleration time settings available
Multi speed running	It realises upto 16 speeds via the simple PLC function or combination of DI terminal states
Build-in PID	Closed loop control systems
Build-in counter	Automatically controlled production line can be achieved
Overload capacity	G Type - 150% rated current for 1 min. 180% rated current for 3 sec; P Type - 120% rated current for 1 min
Braking torque	About 20% (With brake resistor is about 150%)
V/f mode	3 preset V/f mode and V/f program
Automatic energy saving operation	Changes the V/f curve according to the load to save energy
Automatic voltage regulation	Regulates the voltage automatically when there is change in grid voltage
Operation function	
Operation commands	Keypad and external terminals
Frequency setting	Digital setting, Analog voltage setting, Analog current setting
Input signal	Forward / Reverse, Jogging selection, Multi speed control, Regular stopping
Output signal	Fault alarm output (250 V / 2 A Contact), Open collector output
Protection functions	
Display	Over current, Over voltage, Under voltage, Over heat, Overload
Display	Parameters setting, Running status and Fault display
Operating conditions	
Operating environment	Temperature: -10°C ~ +50°C, Humidity: < 90%, No condensation, IP20
Operations area	Indoor, <1000m altitude above sea level
Storage temperature	-20°C ~ +60°C
Vibration	<5.9 m/s (0.6g)

Dimensions (All are in mm)



Product Code	Mounting dimension		Dimensions			Pore diameter (mm)
	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	
FD300-3-050-C-CE	107	175	185	118	167	φ4.5
FD300-3-075-C-CE						
FD300-3-100-C-CE	148	235	247	160	190	Φ5.5
FD300-3-150-C-CE						
FD300-3-200-C-CE	205	305	320	220	205	Φ5.5
FD300-3-250-C-CE						
FD300-3-300-C-CE						
FD300-3-400-C-CE	180	416	432	255	234.5	Φ7
FD300-3-500-C-CE						
FD300-3-600-C-CE	244	497	518	300	260	Φ9
FD300-3-750-C-CE						
FD300-3-1000-C-CE	300	598	620	390	300	Φ11
FD300-3-1200-C-CE						
FD300-3-1500-C-CE						
FD300-3-1750-C-CE	350	745	780	480	360	Φ12

Wiring diagram



FD300 control loop terminal instruction

Class	Sign	Terminal name	Terminal instruction and factory reset
Multi-functional inputs	X1	Multifunction input terminal 1	Default : Forward
	X2	Multifunction input terminal 2	Default : Reverse
	X3	Multifunction input terminal 3	Default : No function
	X4	Multifunction input terminal 4	Default : No function
	X5	Multifunction input terminal 5	Default : No function
	X6	Multifunction input terminal 6	Default : No function
	COM	Common terminal	Multi-functional input common terminal +24 V Power reference ground
Analog input	AI1	Analog input 1	0~10 V input
	AI2	Analog input 2	0~10 V input / 0~20 mA input (J2 switch for selection)
	+10V	Analog preset power source	10V DC 10mA (Potentiometer 3~5 kΩ)
	GND	Analog ground for reference	Analog input, output reference ground

Multi-functional output	Y1	Multifunction output terminal 1	Default : Running status
	Y2	Multifunction output terminal 2	Default : None
	ROA	Relay output ROA - ROB Normally closed ROA - ROC Normally open	Default : Fault output
	ROB		
ROC			
Analog output	AO	Analog output terminal	0~10 V or 0~20 mA output (J1 switch for selection) GND as reference ground
Analog output	+24V	+24 V power supply	+24 V DC 100 mA. COM is power from ground
Communication	485+	RS485 positive terminal	RS485 communication with MODBUS Protocol
	485-	RS485 negative terminal	

Ordering information

Product code	Description	Output current	Certification
FD300-3-050-C-CE	3 phase input 3 phase output, 5 HP / 3.75 kW	9 A	CE
FD300-3-075-C-CE	3 phase input 3 phase output, 7.5 HP / 5.5 kW	13 A	CE
FD300-3-100-C-CE	3 phase input 3 phase output, 10 HP / 7.5 kW	17 A	CE
FD300-3-150-C-CE	3 phase input 3 phase output, 15 HP / 11 kW	25 A	CE
FD300-3-200-C-CE	3 phase input 3 phase output, 20 HP / 15 kW	32 A	CE
FD300-3-250-C-CE	3 phase input 3 phase output, 25 HP / 18.5 kW	37 A	CE
FD300-3-300-C-CE	3 phase input 3 phase output, 30 HP / 22.4 kW	45 A	CE
FD300-3-400-C-CE	3 phase input 3 phase output, 40 HP / 30 kW	60 A	CE
FD300-3-500-C-CE	3 phase input 3 phase output, 50 HP / 37.5 kW	75 A	CE
FD300-3-600-C-CE	3 phase input 3 phase output, 60 HP / 45 kW	90 A	CE
FD300-3-750-C-CE	3 phase input 3 phase output, 75 HP / 55 kW	110 A	CE
FD300-3-1000-C-CE	3 phase input 3 phase output, 100 HP / 75 kW	150 A	CE
FD300-3-1200-C-CE	3 phase input 3 phase output, 120 HP / 90 kW	176 A	CE
FD300-3-1500-C-CE	3 phase input 3 phase output, 150 HP / 110 kW	210 A	CE
FD300-3-1750-C-CE	3 phase input 3 phase output, 175 HP / 132 kW	250 A	CE

Applications :

Fans, Pumps, Mixer, Textile machine, Dyeing machine, Lithographic printing machine, Metal working machine, Injection molding machine, Corrugated paper machine etc.