

ATSEL - FD300

High Powered AC Drives

5HP 3.75KW to 200HP 147KW

selec[®]
Creating Best Value

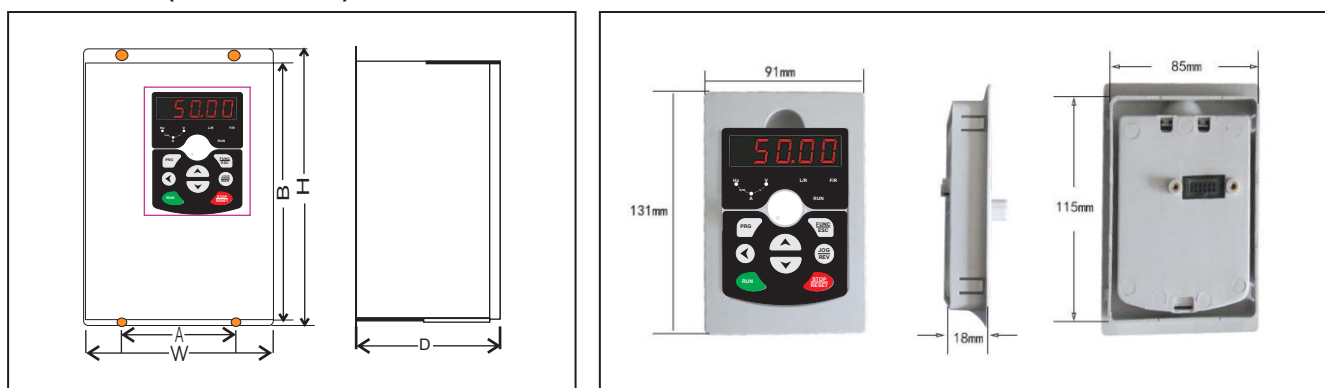


Technical Specifications

Power supply	Rated input voltage/ frequency	3 phase 415V, 50 / 60 Hz	
	Permissible voltage fluctuation	320 VAC to 460 VAC for 3 Phase	
	Permissible frequency fluctuation	±5%	
Control characteristic	Maximum frequency	Vector control : 0 ~ 3200Hz V/F control : 0 ~ 500Hz	
	Carrier frequency	0.5kHz~16kHz (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	0.5Hz / 150% (SVC); 0Hz/180% (FVC)	
	Speed range	1 : 100 (SVC)	1 : 1000 (FVC)
	Speed stability accuracy	±0.5% (SVC)	±0.02% (FVC)
	Accelerated / decelerated time	0.0 ~ 65000s, Four acceleration/deceleration time settings available	
	Multi speed running	Built-in program	
	Build-in PI	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	

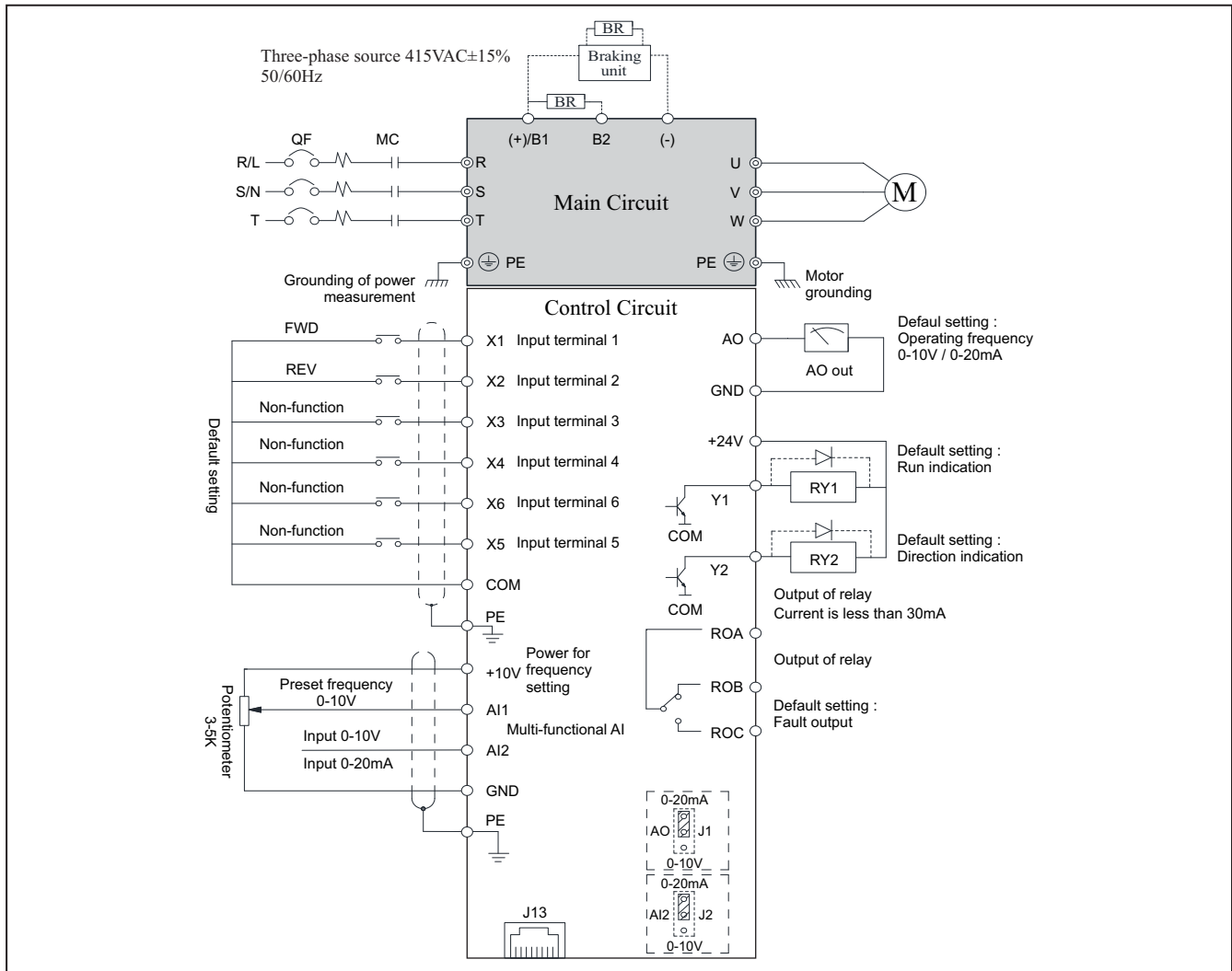
Operation function	Operation commands	Keypad and external terminals
	Frequency setting	Digital setting, Analog voltage setting, Analog current setting
	Input signal	Forward/ Reverse, Jogging selection, Multi speed control, Regular stopping
	Output signal	Fault alarm output (250V/2A Contact), Open collector output
Protection functions		Over current, Over voltage, Under voltage, Over heat, Overload, Phase loss
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 ² (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
FD300-3-2100-C-CE						

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 Rotate/ Stop
	X2	Multifunction input terminal 2	Default : Forward jog
	X3	Multifunction input terminal 3	Default : Fault reset
	X4	Multifunction input terminal 4	Default : Multi-step & Speed mode 1
	X5	Multifunction input terminal 5	Default : No function
	X6	Multifunction input terminal 6	Default : No function
	COM	Common terminal	Multi-functional input common terminal +24V Power reference ground
Analog input	AI1	Analog input 1	0~10V input
	AI2	Analog input 2	0~10V input / 0~20mA input (J2 switch for selection)
	+10V	Analog preset power source	10V DC 10mA (potentiometer 3~5KΩ)
	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		

Class	Sign	Terminal Name	Terminal instruction and factory reset
Analog output	AO	Analog output terminal	0~10V or 0~20mA output (J1 switch for selection) GND as reference ground
Analog output	+24V	+24V power supply	+24VDC 100mA. 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, 5HP 3.75 KW	9A / 13A	CE
FD300-3-075-C-CE	3 phase input 3 phase output, 7.5HP 5.5 KW	13A / 17A	CE
FD300-3-100-C-CE	3 phase input 3 phase output, 10HP 7.5 KW	17A / 25A	CE
FD300-3-150-C-CE	3 phase input 3 phase output, 15HP 11 KW	25A / 32A	CE
FD300-3-200-C-CE	3 phase input 3 phase output, 20HP 15 KW	32A / 38A	CE
FD300-3-250-C-CE	3 phase input 3 phase output, 25HP 18.5 KW	37A / 45A	CE
FD300-3-300-C-CE	3 phase input 3 phase output, 30HP 22.4 KW	45A / 60A	CE
FD300-3-400-C-CE	3 phase input 3 phase output, 40HP 30 KW	60A / 75A	CE
FD300-3-500-C-CE	3 phase input 3 phase output, 50HP 37.5 KW	75A / 90A	CE
FD300-3-600-C-CE	3 phase input 3 phase output, 60HP/45KW	90A / 110A	CE
FD300-3-750-C-CE	3 phase input 3 phase output, 75HP/55KW	110A / 150A	CE
FD300-3-1000-C-CE	3 phase input 3 phase output, 100HP/75KW	150A / 176A	CE
FD300-3-1200-C-CE	3 phase input 3 phase output, 120HP/90KW	176A / 210A	CE
FD300-3-1500-C-CE	3 phase input 3 phase output, 150HP/110KW	210A / 250A	CE
FD300-3-1750-C-CE	3 phase input 3 phase output, 175HP/132KW	250A / 300A	CE
FD300-3-2000-C-CE	3 phase input 3 phase output, 200HP/147KW	300A / 340A	CE
AC-FD200-0-1-1	Extension cable & mounting bracket	---	---

Applications :

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

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