

# ATSEL - FD700

High Powered AC Drives

1HP 0.75KW to 30HP 22KW

**SELEC**<sup>®</sup>  
Creating Best Value

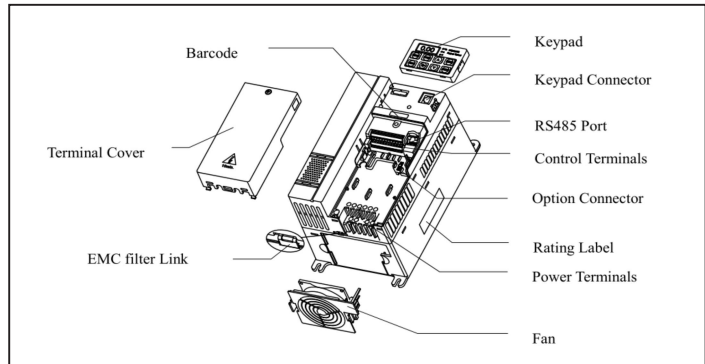
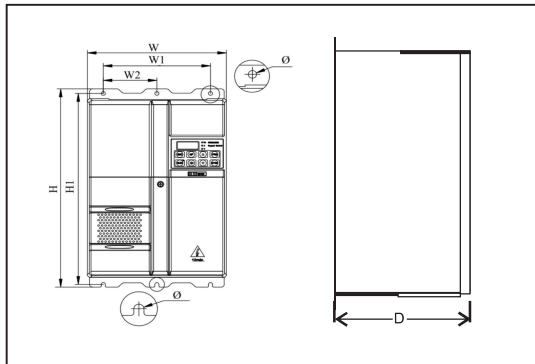


## Technical Specifications

<b>Power supply</b>	Input frequency	50/60 Hz(±2Hz)		
	Permissible voltage fluctuation	200V~240V(1/3PH); 380V~480V(3PH)		
	Permissible frequency fluctuation	±10%		
<b>Control characteristic</b>	Output frequency	0Hz~300Hz 0Hz~2000Hz(high speed mode)		
	Carrier frequency	1kHz~15kHz (The carrier frequency is automatically adjusted based on the load features.)		
	Reference resolution	Digital setting: 0.01 Hz Analogue setting: maximum frequency x 0.1%		
	Control mode	Voltage/ Frequency (V/F) control Open loop vector control		
	Startup torque	0.5Hz: 100% rated torque; 1Hz: 150% rated torque		
	Torque accuracy	7%		
	Speed range	Open loop vector control -1:100	V/F mode -1:50	
	Acce. & Dece. rate	0.1s~3600min		
	Preset	16 preset speeds (decided by control terminals)		
	Build-in brake unit	Internal below 30kw; Optional beyond 30kw(included)		
	DC injection	Injection frequency: 0.0%~100.0% max. frequency; 0.0%~300.0% rated current		
	Overload capacity	E, G type: 150% rated output current, 1 minute; P type: 110% rated output current, 1 minute.		
	Dynamic braking	The utilization rate of dynamic braking: 0.0%~100.0%		
	V/F mode	4 types: V/F (user can program) and ramp (2.0 power, 1.7 power, 1.2 power)		
	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		

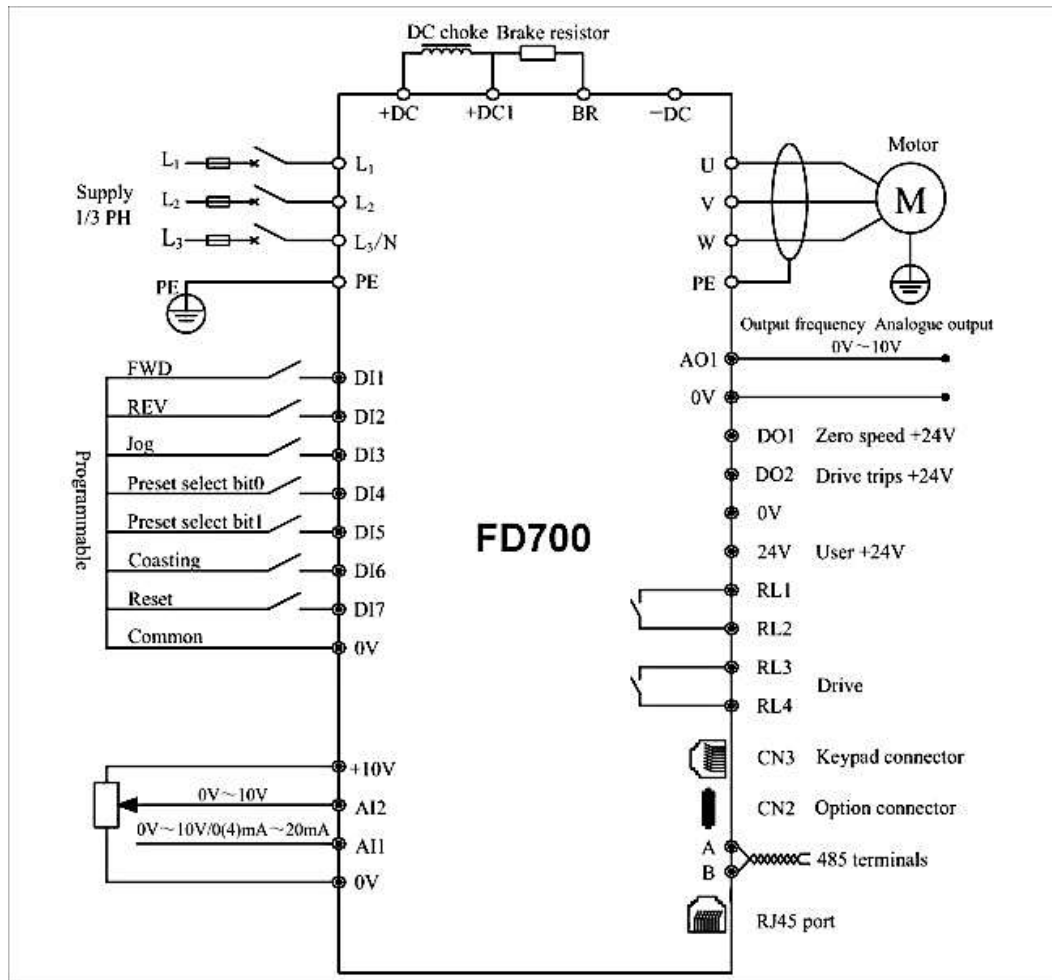
<b>Operation function</b>	Operating mode	Keypad, Control terminal, Serial comms.
	Frequency setting	Digit: Keypad, motorized pot (E-Pot), pulse, comms; Analogue(AI1, AI2)
	Digital input	FWD/REV, Jog forward, Preset speed, PLC reset indicator, Advanced functions, etc.
	Output signal	Fault alarm, Brake logic, Zero speed, PLC recycle running, Advanced functions etc.
<b>Protection functions</b>		Over current, over load, over voltage, under voltage, over heat, phase loss, etc.
<b>Display</b>		Parameters setting, Running status and fault display
<b>Operating conditions</b>	Operating environment	-10°C~+40°C, <=90%RH, no-condensing, IP20, IP21(by adding optional device)
	Running area	Indoor, non-flammable, no corrosive gasses, no contamination, avoiding dust
	Storage temperature	-40°C~+70°C
	Vibration	<5.9 m/s <sup>2</sup> (0.6g)

### Dimensions (All are in mm)



Size	Product Code	Mounting dimension		Dimension			Pore	N.W	G.W
		W1(mm)	W2(mm)	W(mm)	H(mm)	D(mm)	Ø(mm)	(kg)	
A	FD700-1-005-EB-CU-220V	80	-	97.4	202.4	148.8	5	1.4	1.9
	FD700-1-010-EB-CU-220V								
	FD700-1-020-EB-CU-220V								
	FD700-3-010-EB-CU-460V								
	FD700-3-020-EB-CU-460V								
B	FD700-1-030-EB-CU-220V	123.5	-	142.4	220.4	155.5	5	2.2	2.8
	FD700-3-030-EB-CU-460V								
	FD700-3-050-EB-CU-460V								
C	FD700-1-050-EB-CU-220V	142	-	163.1	300	176.8	6	4.5	6
	FD700-3-075-EB-CU-460V								
	FD700-3-100-EB-CU-460V								
D	FD700-3-150-EB-CU-460V	184	92	238.5	370	189	7	8.8	12
	FD700-3-200-EB-CU-460V								
E	FD700-3-250-EB-CU-460V	210	92	320	435.5	200.3	7	12.1	14
	FD700-3-300-EB-CU-460V								

Wiring diagram



FD700 control terminal instruction

Class	Sign	Terminal Name	Terminal instruction and factory reset
Digital input	DI1	Multifunction input terminal 1	Default : Run forward(FWD)
	DI2	Multifunction input terminal 2	Default : Run reverse(REV)
	DI3	Multifunction input terminal 3	Default : Jog forward
	DI4	Multifunction input terminal 4	Default : Preset select bit 0
	DI5	Multifunction input terminal 5	Default : Preset select bit 1
	DI6	Multifunction input terminal 6	Default : Enable
	DI7	Multifunction input terminal 7	Default : Reset
Analogue input	AI1	Analog input 1	0~10V input, Minimum potentiometer resistance: 0.5kΩ, 0 (4) mA~20mA
	AI2	Analog input 2	0~10V input, Minimum potentiometer resistance: 0.5kΩ
	10V	Analogue reference rail	Accuracy: 2%, Maximum output current: 20mA
	0V	Common(3)	Common reference point for control signal
Digital output	DO1	Multifunction output terminal 1	Default: Running at zero speed
	DO2	Multifunction output terminal 2	Default: Drive is alarming
Relay	RL1, RL2	Programmable Relay1 output	Default : Relay1: closed when powered and healthy
	RL3, RL4	Programmable Relay2 output	Relay2: closed when drive is active

Class	Sign	Terminal Name	Terminal instruction and factory reset
Analog output	AO1	Analog output terminal	0~10V, maximum output current: 5mA
Analog output	24V	User supply (2)	Accuracy: ±15%, Maximum output current: 100mA
Communication	A	RS485 positive terminal	RS485 communication with MODBUS RTU Protocol
	B	RS485 negative terminal	

### Ordering information

Product Code	Description	Output Current	Certification
FD700-1-005-EB-CU-220V	1/3 phase input 3 phase output, 0.5HP/0.4KW	2.8A	CE 
FD700-1-010-EB-CU-220V	1/3 phase input 3 phase output, 1HP/0.75KW	5A	CE 
FD700-1-020-EB-CU-220V	1/3 phase input 3 phase output, 2HP/1.5KW	8A	CE 
FD700-1-030-EB-CU-220V	1/3 phase input 3 phase output, 3HP/2.2KW	11A	CE 
FD700-1-050-EB-CU-220V	1/3 phase input 3 phase output, 5HP/4KW	17.6A	CE 
FD700-3-010-EB-CU-460V	3 phase input 3 phase output, 1HP/0.75KW	2.5A	CE 
FD700-3-020-EB-CU-460V	3 phase input 3 phase output, 2HP/1.5KW	4.2A	CE 
FD700-3-030-EB-CU-460V	3 phase input 3 phase output, 3HP/2.2KW	5.8A	CE 
FD700-3-050-EB-CU-460V	3 phase input 3 phase output, 5HP/4KW	9.5A	CE 
FD700-3-075-EB-CU-460V	3 phase input 3 phase output, 7.5HP/5.5KW	13A	CE 
FD700-3-100-EB-CU-460V	3 phase input 3 phase output, 10HP/7.5KW	17A	CE 
FD700-3-150-EB-CU-460V	3 phase input 3 phase output, 15HP/11KW	25A / 32A	CE 
FD700-3-200-EB-CU-460V	3 phase input 3 phase output, 20HP/15KW	32A / 38A	CE 
FD700-3-250-EB-CU-460V	3 phase input 3 phase output, 25HP/18.5KW	38A / 46A	CE 
FD700-3-300-EB-CU-460V	3 phase input 3 phase output, 30HP/22KW	46A / 60A	CE 

### Applications :

Fans, Pumps, Conveyor, Mixer, Grinding machine, Textile machine, Bundling machine, Lithographic printing machine, Metal processing machine, Packaging machine, Industrial door machine etc.

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