

FD322S Series Servo Driver

FEATURES

- **88-126VAC Single Phase Input**
- **200-750 Watt Power Range**
- **Position, Speed, and Torque Control**
- **Communication Ports: RS232 and RS485**
- **Communication Protocol: MODBUS**
- **2500PPR Incremental Encoder**
- **Communication Software**
 - **Configure Parameters**
 - **I/O Signal Monitoring**
 - **Speed and Position Curves**
 - **Gain Adjustments**
- **Programmable Inputs and Outputs**
 - **7 Inputs**
 - **4 Outputs**
- **2 Analog Inputs**
- **CE Certified**



DESCRIPTION

The FD322S Series Servo Drive is a great fit for applications requiring position, speed and/or torque control methods. The uniqueness of this servo drive is the flexibility of using a single servo drive that can accommodate motors with power ratings ranging from 200-750W. Also it is designed to switch dynamically among different control methods for more flexible operation. The FD322S Series Servo Drive operates with single-phase 88-126VAC input. These drives come standard with an RS232 and RS485 which can be operated using MODBUS Protocol, or using our Free, Easy-to-Use Software. Please consult our Application Engineers for more information.

SPECIFICATIONS

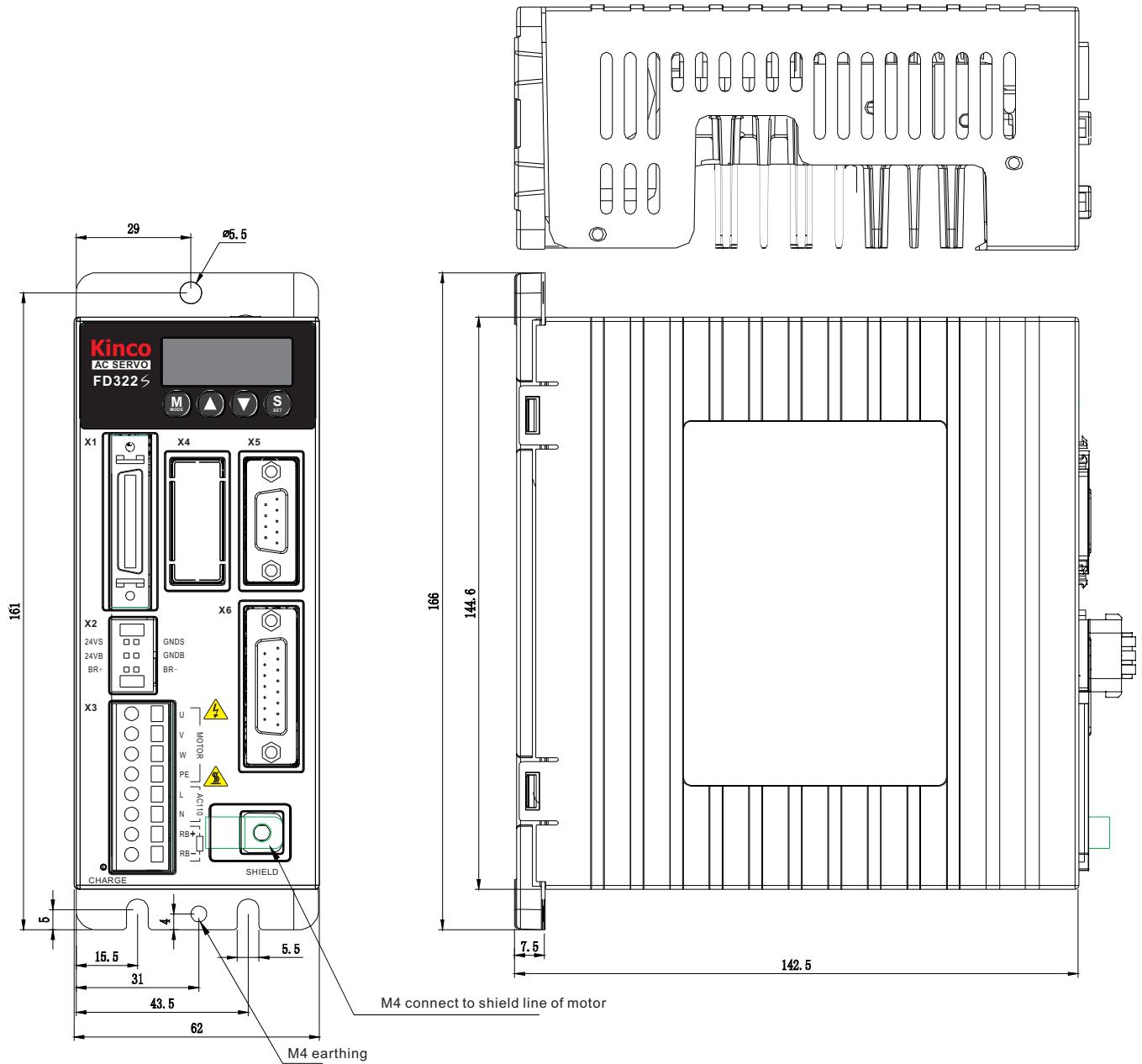
Category	Servo Driver	Servo Motor	Description	Power/Brake Cable	Encoder Cable	Rated Speed/ Rated Torque/ Rated Current
Small Inertia 120V	FD322S-LA-000	SMH60S-0020-30AAK-3AKH	Cable Connector	MOT-005-05-KL	ENCCA-05-KH	3000rpm/0.64Nm/ 2.7A
		SMH60S-0020-30ABK-3AKH	Cable Connector and Brake	MOT-005-LL-KL/ BRA-05-KL		
		SMH60S-0040-30AAK-3AKH	Cable Connector	MOT-005-05-KL		3000rpm/1.27Nm/ 4A
		SMH60S-0040-30ABK-3AKH	Cable Connector and Brake	MOT-005-05-KL/ BRA-05-KL		

L011542

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DIMENSIONS



Note: All Dimensions in (mm)

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TECHNICAL SPECIFICATIONS

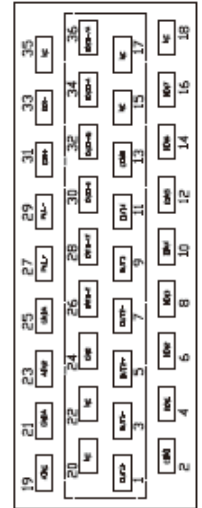
Model Parameter		FD322S Series
Power	Main Supply Voltage	88-126VAC 47~63Hz
	Control Circuit Voltage	18-30VDC 1A
Current	Rated Current (RMS)	5A
	Peak Current (PEAK)	15A
Feedback Signal		2500PPR (Incremental Encoder with 5V Supply)
Brake Chopper		Use an External Braking Resistor According to Application, Mainly in Occasion of Quick Stop.
Brake Chopper Threshold		DC190V ± 5V
Over-Voltage Alarming Threshold		DC200V ± 5V
Under-Voltage Alarming Threshold		DC100V ± 5V
Cooling Method		Natural Air Cooling
Weight		1.2 Kg
Digital Input	Input Specification	7 Digital Inputs, with COM1 Terminal for PNP (High Level Valid 12.5-30V) or NPN (Low Level Valid) Connection.
	Input Function	Define Freely According to Requirement, Supporting Following Functions: Driver Enable, Driver Fault Reset, Driver Mode Control, Proportional Control, Positive Limit, Negative Limit, Homing Signal, Reverse Command, Internal Speed Section Control, Internal Positive Section Control, Quick Stop, Start Homing, Active Command, Switch Electronic Gear Ratio, Switch Gain.
Digital Output	Output Specification	5 Digital outputs, OUT1~OUT4 Current is 100mA, BR+/BR- (Brake Control Output) Current is 800mA, Can Drive Brake Device Directly.
	Output Function	Define Freely According to Requirement, Supporting Following Functions: Driver Ready, Driver Fault, Positon Reached, Motor at Zero Speed, Motor Brake, Motor Speed Reached, Z Signal, Maximum Speed Obtained in Torque Mode, Motor Brake, Position Limiting, Reference Found, Multi-Position Reached
	Analog Input	2 Analog input, can be used to control speed and Torque, the input range is -10V~10V
	Encoder Signal Output	Output Encoder Signal is Optional, Used in Multiple Axis Synchronous Control, Supports 2MHz at Most
	RS232	The Max. Baudrate is 115.2KHz, Use Kinco Servo Software to Communicate with PC, or Via Free Protocol to Communicate with Controller.
	Protection Functions	Over-Voltage Protection, Under-Voltage Protection, Motor Over-Heat Protection (I ² T), Short-Circuit Protection, Drive Over-Heat Protection, Etc.
Operation Environment	Operating Temperature	0 ~ 40°C
	Storage Temperature	-10°C~70°C
	Humidity (Non-Condensing)	5~95%
	Protection Class	IP20
	Installation Environment	Installed in a Dust-Free, Dry and Lockable Environment (Such as in a Electrical Cabinet)
	Installation Mode	Vertical Installation
	Altitude	No Power Limitation Below 1000m
	Atmospheric Pressure	86kpa-106kpa

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Digital Input/Output Port

PIN No.	Signal	PIN No.	Signal	PIN No.	Signal	PIN No.	Signal
2	COM1	1	OUT1+	20	NC	19	AIN1
4	DIN1	3	OUT1-	22	NC	21	GNDA
6	DIN2	5	OUT2+	24	GND	23	AIN2
8	DIN3	7	OUT2-	26	ENCO-Z	25	GNDA
10	DIN4	9	OUT3	28	ENCO-/Z	27	PUL+
12	DIN5	11	OUT4	30	ENCO-B	29	PUL-
14	DIN6	13	COM0	32	ENCO-/B	31	DIR+
16	DIN7	15	NC	34	ENCO-A	33	DIR-
18	NC	17	NC	36	ENCO-/A	35	NC

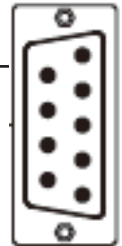
X1



Female: RS485

PIN Number	Signal
1	NC
2	RX+
3	TX+
4	NC
5	GND
6	+5V
7	RX-
8	TX-
9	NC

X4

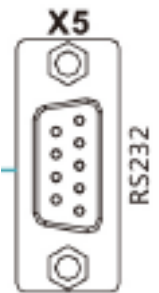


9 pin DB

Female: RS232

PIN Number	Signal
1	NC
2	TX
3	RX
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

X5



9 Pin DB Female

Female: Encoder Input

PIN No.	Incremental Encoder Signal	PIN No.	Incremental Encoder Signal	PIN No.	Communication Encoder Signal	PIN No.	Communication Encoder Signal
1	+5V	9	GND	1	+5V	9	GND
2	A	10	/A	2	NC	10	NC
3	B	11	/B	3	NC	11	NC
4	Z	12	/Z	4	NC	12	NC
5	U	13	/U	5	NC	13	NC
6	V	14	/V	6	NC	14	NC
7	W	15	/W	7	SD	15	/SD
8	PTC_IN			8	NC		

X6

Motor Encoder Input Port

