FD432S Series Servo Driver

Kinco

FEATURES

- *Vsupní napětí 176-253VAC*
- *Proud (RMS) 11A*
- *pro mototory o výkonu 1000-1260 W*
- *poziční, rychlostní a momentové řízení*
- *RS485 (LA), CAN BUS (AA/CA) nebo EtherCAT (EA)*
- *Komunikační protokol: MODBUS, CANOpen, EtherCAT*
- *Pro enkoder 2500 impulzů na otáčku*
- *Obslužný software*
  - *º Nastavení parametrů*
  - *º I/O Monitoring*
  - *º Křivky*
  - *º úpravy parametrů motoru*
- *7 digitálních vsrupů, 5 digitálních výstupů*
- *2 Analogové vstupy*
- *CANopen a EtherCAT volitelné*
- *CE Certified*

DESCRIPTION

The FD432S Servo Drives jsou perfektním nástrojem v aplikacích vyžadujících rychlostní, polohové nebo momentové řízení. Napájení jednofázové 220VAC nebo třífázové. Drivery s verze 2S podporují motory s vyšším rozlišením enkoderu: 16-bit multi turn encoder, 17-bit single turn encoder, 20-bit 20-bit single turn encoder, a 17-bit mechanical encoder. Výhodou tohoto driveru je použití pro motory o výkonu 1000W - 1570W. Driver je navržen pro dynamické přepínání mezi řídícími metodami, což driver dělá velice flexibilním.

FD432S Servo Driver může být nápajen napětím v rozsahu 176-253VAC. Drivery je možné volitelně doplnit komunikačními rozhraními CANOpen, EtherCAT, Modbus RTU, které umožní flexibilní řízení po komunikační sběrnici s libovolným PLC. Všechny drivery jsou vybaveny portem RS232, který je možno použít pro připojení s parametrizačním softwarem nebo pro komunikaci free protokolem

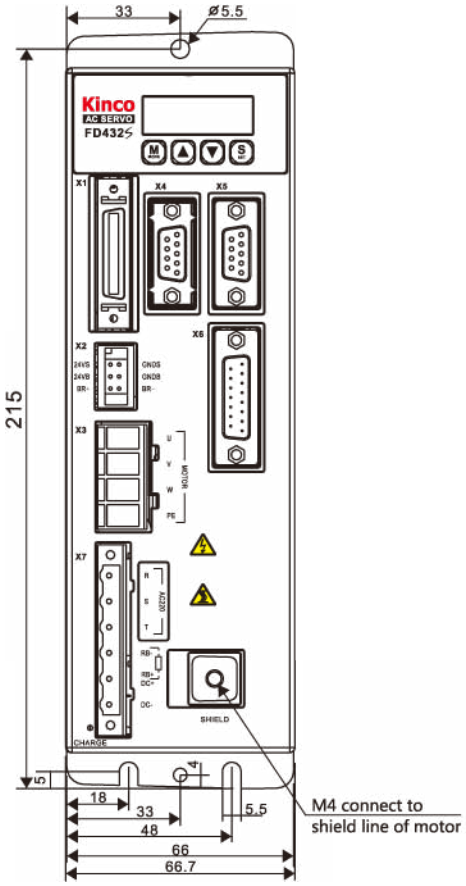
SPECIFICATIONS

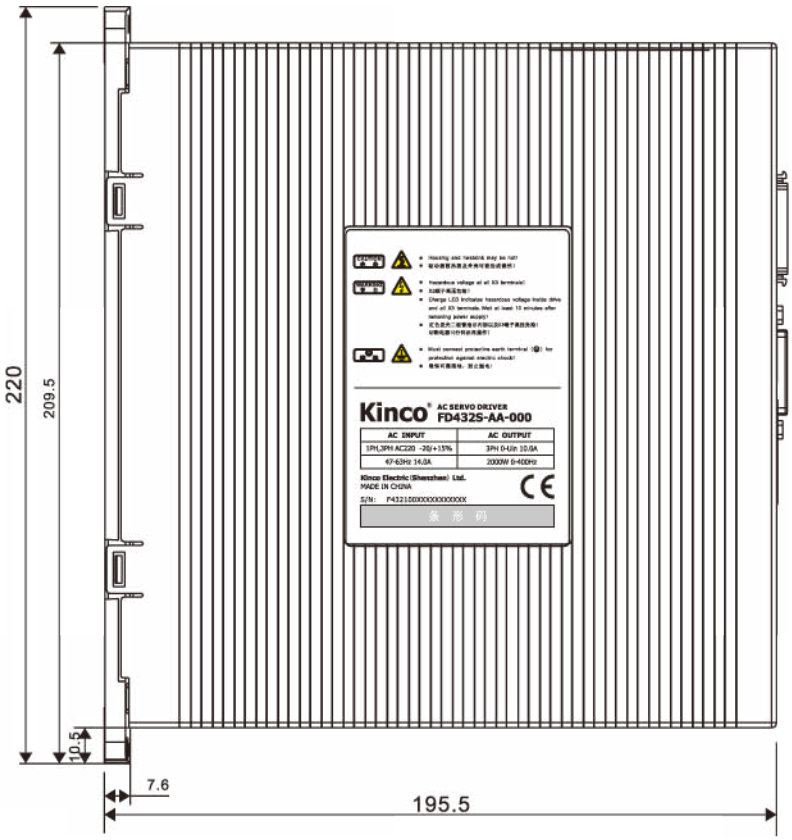
Servo Driver	Servo Motor	Description	Silový/Brzda Kabel	Enkoder Kabel	Rychlost/Moment/Proud
FD432S-LA-000 FD432S-CA-000 FD432S-AA-000 FD432S-EA-000	SMH80S-0100-30AAK-3LKH	YL22 Standard Connector	MOT-008-05-KL	ENCCA-05-KH	3000rpm/3.18Nm/6.3A
	SMH80S-0100-30ABK-3LKH	YL24 Standard Connector w/Brake	BRA-05-KL		
	SMH110D-0105-20AAK-4LKC	YL22 Standard Connector	MOT-008-05-KC1	ENCCA-05-KC1	2000rpm/5Nm/5.9A
	SMH110D-0105-20ABK-4LKC	YL24 Standard Connector w/Brake	MOT-008-05-KC2-B		
	SMH110D-0125-30AAK-4LKC	YL22 Standard Connector	MOT-008-05-KC1		3000rpm/4Nm/6.5A
	SMH110D-0125-30ABK-4LKC	YL24 Standard Connector w/Brake	MOT-008-05-KC2-B		
	SMH110D-0126-20AAK-4LKC	YL22 Standard Connector	MOT-008-05-KC1		3000rpm/4Nm/6.2A
	SMH110D-0126-20ABK-4LKC	YL24 Standard Connector w/Brake	MOT-008-05-KC2-B		

SPECIFICATIONS

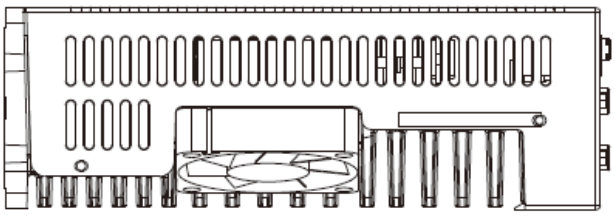
Servo Driver	Servo Motor	Description	Power/Brake Cable	Encoder Cable	Rateed Speed/ Rated Torque/Rated Current
FD432S-LA-000	SMH130D-0105-20AAK-4HKC	YL24 Standard Connector	MOT-008-05-KC2	ENCCA-05-KC1	2000rpm/ 5Nm/ 4.3A
FD432S-CA-000	SMH130D-0105-20ABK-4HKC	YL24 Standard Connector w/Brake	MOT-008-05-KC2-B		
FD432S-AA-000	SMH130D-0157-20AAK-4HKC	YL24 Standard Connector	MOT-008-05-KC2		2000rpm/ 7.5Nm/ 6.3A
FD432S-EA-000	SMH130D-0157-20ABK-4HKC	YL24 Standard Connector w/Brake	MOT-008-05-KC2-B		

DIMENSIONS





Note: All Dimensions in (mm)



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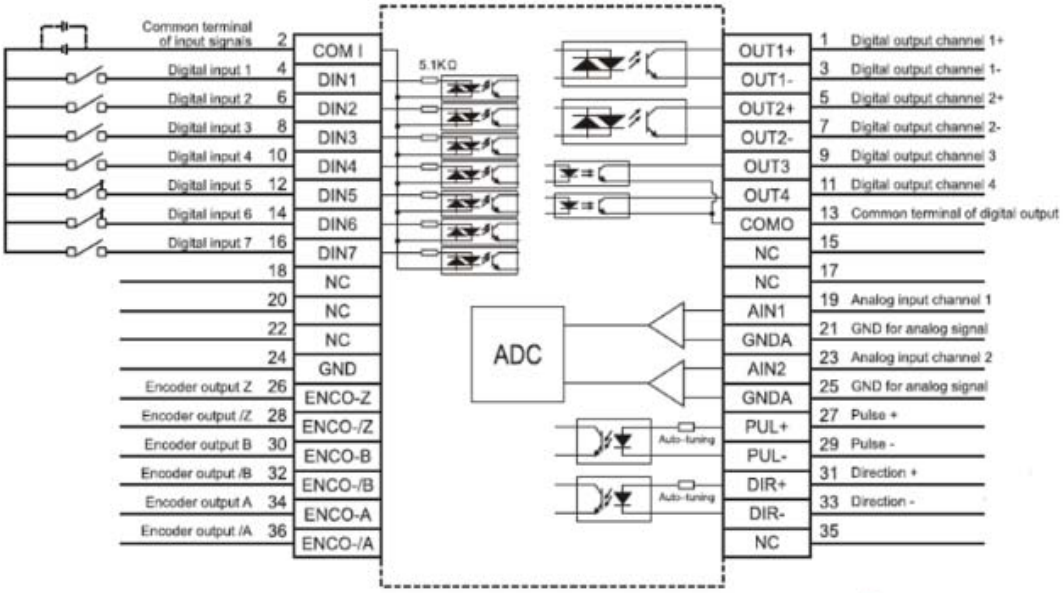
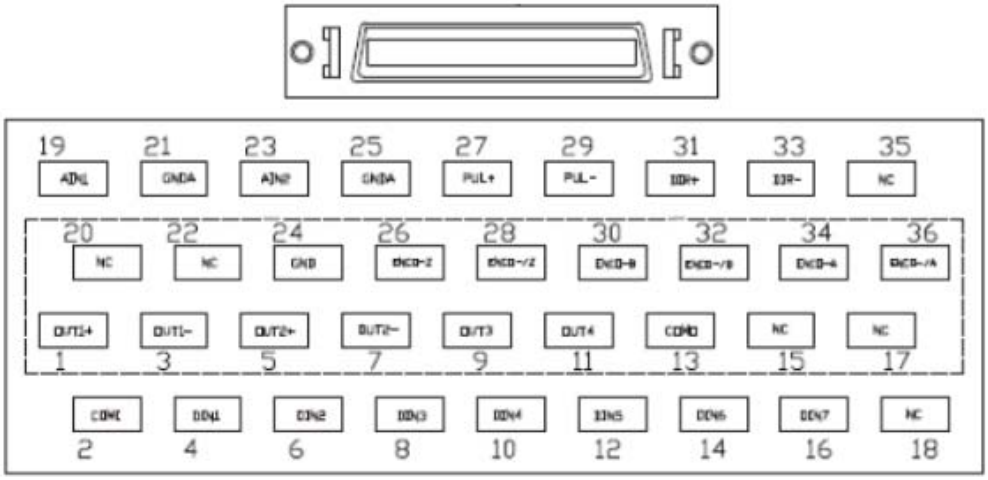




X1

Pin #	Signal	Pin #	Signal	Pin #	Signal	Pin #	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

INTERFACE DESCRIPTION

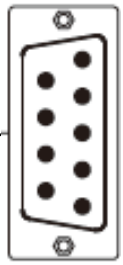
RS485

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

CAN

PIN Number	Signal
1	NC
2	CAN_L
3	GND
4	NC
5	NC
6	NC
7	CAN_H
8	NC
9	NC

X4

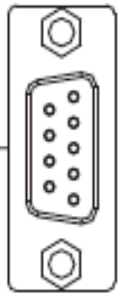


9 pin DB

RS232

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

X5



RS232

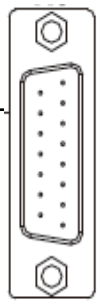
9 pin DB female

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

ENCODER IN

Motor Encoder Input Port



15 PIn DB Female

Model Parameter		FD432S Series
Operation Environment	Operating Temperature	0°C ~ 40°C (ice free)
	Storage Temperature	-10°C ~ 70°C (ice free)
	Humidity (Non-Condensing)	5 ~ 90% RH
	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

TECHNICAL SPECIFICATIONS

Model Parameter		FD432S Series
Power	Main Supply Voltage	Single-Phase or Three-Phase AC220V -20/+15% 47~63Hz
	Control Circuit Voltage	18VDC ~ 30VDC 1A
Current	Rated Current (RMS)	11A
	Peak Current (PEAK)	27.5A
Feedback Signal		2500PPR (Incremental Encoder with 5V Supply), 16 Bit Multi-Turn Absolute Encoder, 20 Bit Single-Turn Absolute Encoder.
Brake Chopper		Use an External Braking Resistor According to Application, Mainly in Occasion of Quick Stop.
Brake Chopper Threshold		DC380V ± 5V
Over-Voltage Alarming Threshold		DC400V ± 5V
Under-Voltage Alarming Threshold		DC200V ± 5V
Cooling Method		Fan
Weight		2.4 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 500mA, 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, N 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 Function	Output Encoder Signal is Optional, Used in Multiple Axis Synchronous Control, Supports 2MHz at Most
	RS232	The Max. Baudrate is 115.2Kb/s, Use JD-PC Software to Communicate with PC, or via free protocol to communicate with the Controller, Connections with PC (2-2, 3-3, 5-5) or Controller
	Protection Functions	Over-Voltage Protection, Under-Voltage Protection, Motor Over-Heat Protection (I^2T), Short-Circuit Protection, Drive Over-Heat Protection, Etc.
RS485		The Max. Baudrate is 115.2Kb/s, use Modbus RTU protocol to communicate with the controller.
CAN BUS		Supports 1M Baud Rate, Communicates with Controller via CANopen Protocol