

PKS-FD123-02 Servo System

Kinco

FEATURES

- **24-70VDC**
- **Rated Torque of 0.64 Nm**
- **Power Ratings up to 200 Watts**
- **2,500 PPR Incremental Encoder**
- **Maximum Speed of 6000 RPM**
- **IP65 for Body, IP54 Shaft Seal**
- **Brake Option Available**
- **Position, Speed, and Torque Control**
- **RS232 and RS485 Port**



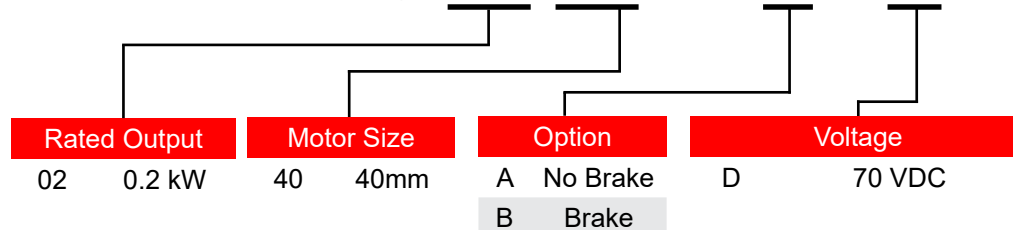
DESCRIPTION

The PKS-FD123-02 Servo System includes a 200 Watt SMC60S-0020-30AAK-3DKH Servo Motor or SMC60S-0020-30ABK-3DKH Servo Motor with Brake, operated by the FD123-LA-000 Servo Drive. These packages are ideal and provide easy start-ups, convenience, and performance. The Servo Motors included in these packages provide torque up to 0.64 Nm. The FD123-LA-000 Servo Drive offers current forward-feedback control, acceleration forward-feedback control, speed viewer and inertia viewer; providing for improved response performance. Each system includes a 5m Motor Power Cable and a 5m Encoder Cable. If purchasing the option with a Brake then a 5m Brake Cable will be included as well.

Item	Rated Voltage (VDC)	Rated Speed (RPM)	Rated Torque (Nm)	Rated Current (Arms)	Inertia (Kg-cm ²)	Torque Constant KT (Nm/A)	Resistance (ohms)	Inductance (mH)	Brake (24VDC)	Motor Length (mm)	Shaft Diameter (mm)
PKS-FD123-02-60S-AAK-DKH	24-70	3000	0.64	5.1	0.214	0.13	0.8	1.51	No	114	2.42
PKS-FD123-02-60S-ABK-DKH	24-70	3000	0.64	5.1	0.218	0.13	0.8	1.51	Yes	155	3.52

ORDERING INFORMATION

PKS-FD123-02-60S-AAK-DKH



L011755

SMC60S-0020 Motor Specifications

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FEATURES

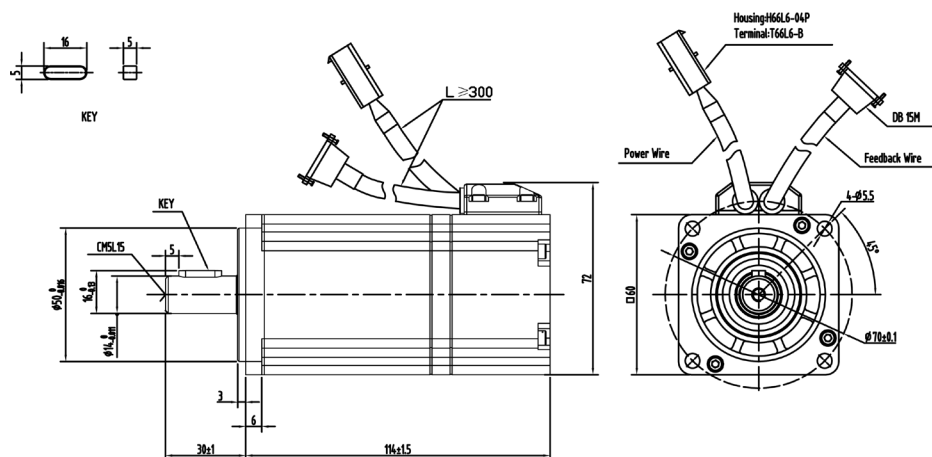
- 70VDC
- 200 W Power Rating
- Rated Torque of 0.64 Nm
- Maximum Speed of 6000 rpm
- 2500 PPR Incremental Encoder Attached
- IP65 for Body, IP54 Shaft Seal
- Brake Option Available
- CE Certified



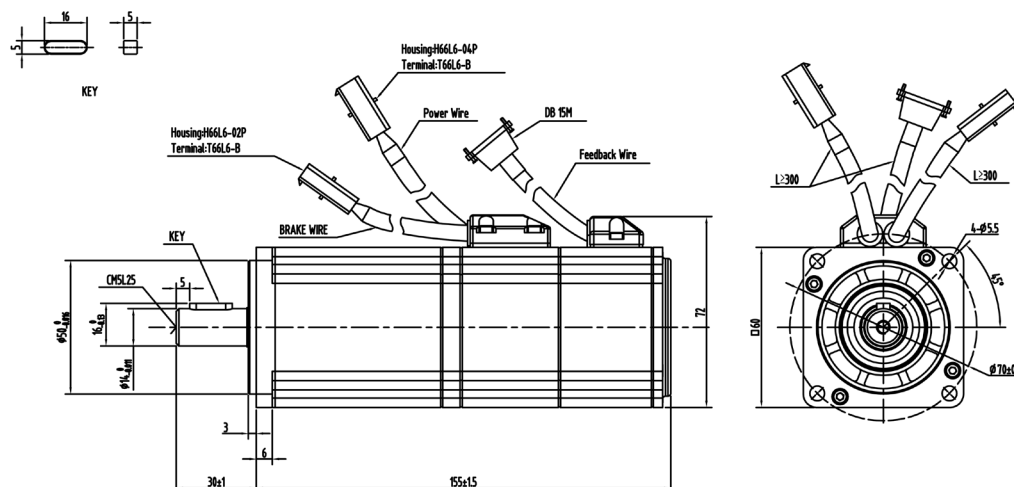
SPECS

Item	Rated Torque (Nm)	Rated Power (Watts)	Rated Speed (rpm)	Rated Current (Arms)	Inertia (Kg-cm ²)	Torque Constant KT (Nm/A)	Resistance (ohms)	Inductance (mH)	Length (mm)	Weight (lbs)
SMC60S-0020-30AAK-3DKH	0.64	200	3000	5.1	0.214	0.13	0.8	1.51	114	2.42
SMC60S-0020-30ABK-3DKH	0.64	200	3000	5.1	0.218	0.13	0.8	1.51	155	3.52

KNC-SRV-SMC60S-0020-30AAK-3DKH



KNC-SRV-SMC60S-0020-30ABK-3DKH



Dimensions are in mm

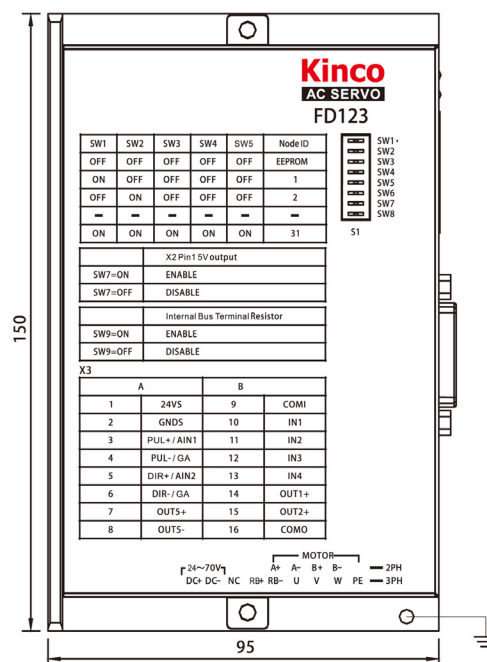
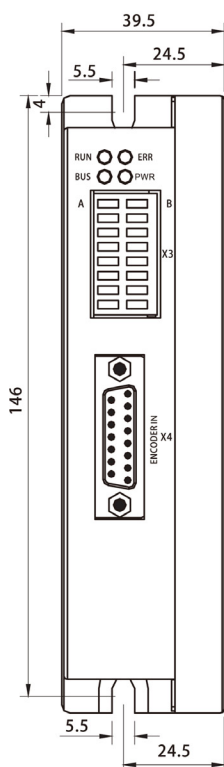
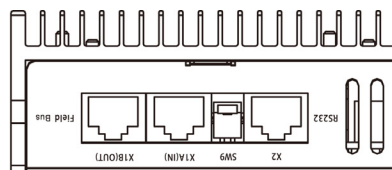
DIMENSIONS

FD123-LA-000 Driver Specifications

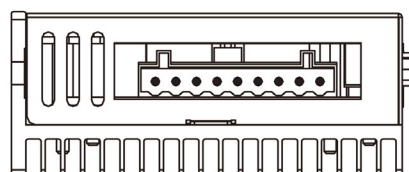
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FEATURES

- 24-70VDC
- 50-200 Watt Power Range
- Position, Speed and Torque Control
- RS232 and RS485 Port
- CANopen and MOD BUS Standard
- Requires 2500 PPR Encoder Input
- 4 Inputs, 3 Outputs
- CE Certified



DIMENSIONS



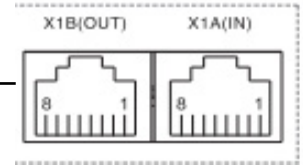
Dimensions are in mm

RS485

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

RS485
Communication
Port

X1

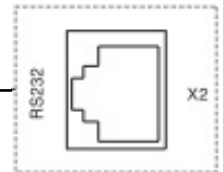


RS232

PIN Number	Signal
3	TXD
4	GND
6	RXD
Others	NC

RS232 Communication
Interface, Can be Used for
Debugging and Import/
Export Project Data Via PC

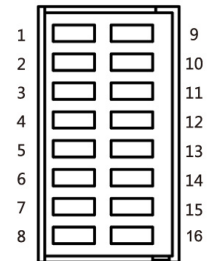
X2



PIN No.	Signal	PIN No.	Signal
1	+24V	9	COM1
2	GNDS	10	DIN1
3	PUL+	11	DIN2
4	PUL-	12	DIN3
5	DIR+	13	DIN4
6	DIR-	14	OUT1+
7	OUT5+	15	OUT2+
8	OUT5-	16	COMO

Digital Input/Output
Terminals

X3

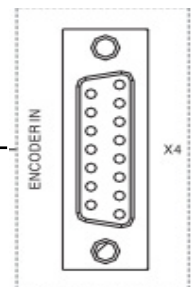


ENCODER IN

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

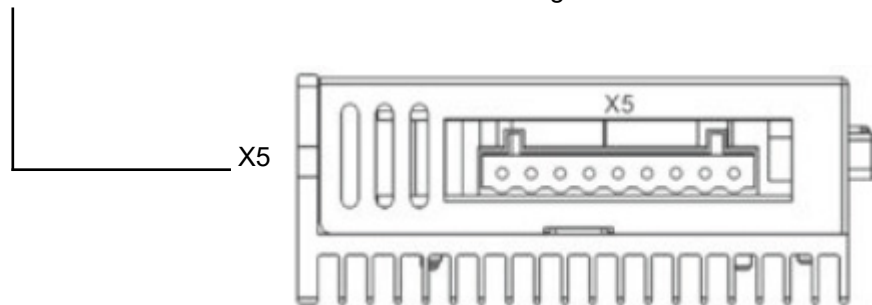
Motor Encoder Input
Interface

X4



Motor/Power Supply

PIN Name	PIN Function
DC+	Positive terminal of DC power supply and braking resistor
DC-	Negative terminal of DC power supply and 24VDC power supply
NC	No function
RB-	Negative terminal of braking resistor
RB+	Positive terminal for braking resistor
U	U phase of motor output, A- phase of motor output
V	V phase of motor output, B+ phase of motor output
W	W phase of motor output, B- phase of motor output
PE	Motor earthing



Model Parameter		FD123-LA-000 Series
Power	Main Supply Voltage	24VDC-70VDC
	Control Circuit Voltage	DC24V 1A (Optional)
Current	Rated Current (RMS)	10A
	Peak Current (PEAK)	45A
Feedback Signal		2500PPR Incremental Encoder
Brake Chopper		Via Wiring an External Braking Resistor (Mainly in Quick Start and Stop Application)
Brake Chopper Threshold		DC73V $\pm$ 2V (Default Value, Adjustable via Software)
Over-Voltage Alarming Threshold		DC86V $\pm$ 2V
Under-Voltage Alarming Threshold		18V $\pm$ 2V
Cooling Method		Natural Air Cooling
Weight		0.565 Kg
Digital Input	Input Specification	4 Digital Inputs, with COMI Terminal for PNP (High Level Valid 12.5-30V) or NPN (Low Level Valid 0-5V) 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	3 Digital Outputs: OUT1, OUT2 Current is 100mA; The Output Current of Brake Control Output Port (OUT5+/OUT5-) 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, Z Signal, Maximum Speed Obtained in Torque Mode, Motor Brake, Position Limiting, Reference Found.
	RS232	The Max. Baudrate is 115.2KHz, Use Kinco Software to Communicate with PC, or Via Free Protocol to Communicate with Controller.
	Protection Function	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 115.2KHz, use Modbus RTU Protocol to Communicate with Controller.
Operation Environment	Operating Temperature	0 ~ 40°C
	Storage Temperature	-10°C~70°C
	Humidity (Non-Condensing)	Below 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

Compatible Drivers

Part Number	Description
FD123-LA-000	Servo Driver



Compatible Motors

Part Number	Description
SMC60S-0020-30AAK-3DKH	Servo Motor
SMC60S-0020-30ABK-3DKH	Servo Motor



Compatible Cables

Part Number	Description
MOT-005-05-KL-D	Power Cable
ENCCA-05-KH	Encoder Cable
BRA-05-KL	Brake Cable

