

SME60S Servo Motor

Kinco

FEATURES

- **60mm Frame Size**
- **70 VDC or 220 VAC**
- **Power Rating up to 200 Watts**
- **Rated Torque up to 1.27 Nm**
- **Rated Speed of 3000 RPM**
- **2500PPR Incremental Encoder Included**
- **Totally Enclosed, Non-Ventilated**
- **IP65 Protection for Body, IP54 Shaft Sealing**
- **CE Certified**



DESCRIPTION

The SME60S Series Servo Motor offers a solution to servo applications requiring position and speed control. This servo motor series comes standard with a 2,500 Pulses per Revolution (PPR) Incremental Encoder, runs at a rated speed of 3000 RPM, provides peak values up to 300% of the rated torque and current values, and has a rated torque up to 1.27 Nm with a 200 Watt power rating. This servo motor series enables industrial motion control applications to attain a great combination of position and speed functionality.

SPECIFICATIONS

Model	SME60S-0020-30AAK-3DKH	SME60S-0020-30ABK-3LKH SME60S-0020-30AAK-3LKH
Compatible Driver	FD122-CA-000	FD412-CA-000
DC Link Voltage	60 VDC	300 VDC
Rated Power (W)	200	200
Rated Torque T_N (Nm)	0.64	0.64
Rated Speed (RPM)	3000	3000
Max Speed (RPM)	3000	3000
Rated Current (A)	4.6	1.6
Maximum Torque T_N (Nm)	1.92	1.92
Maximum Current (A)	13.8	4.8
Standstill Torque T_N (Nm)	0.70	0.70
Standstill Current (A)	5.06	1.76
Resistance Line-Line (Ω)	0.7	10.4
Inductance Line-Line (mH)	1.55	25.4
Electrical Time Constant (ms)	2.21	2.44
Mechanical Time Constant (ms)	2.05	2.93
Reverse Voltage Constant K_e (V/krpm)	9	29
Torque Constant K_t (Nm/A)	0.48	0.48
Rotor Moment of Inertia J_m (Kg-cm ²)	0.375 0.379 (with brake)	0.375 0.379 (with brake)
Pole Pair Number	4	3
Maximum Voltage Rising du/dt (KV/ μ s)	8	8
Insulation Class	F	F
Maximum Radical Force F (N)	180	180
Maximum Axial Force F (N)	90	90
Weight G(Kg)	1.3 1.8 (with brake)	1.3 1.3 (with brake)

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*Note: Part Numbers with -30ABK are equipped with a brake

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- **60mm Frame Size**
- **220 VAC**
- **Power Rating up to 400 Watts**
- **Rated Torque up to 1.27 Nm**
- **Rated Speed of 3000 RPM**
- **2500PPR Incremental Encoder Included**
- **Totally Enclosed, Non-Ventilated**
- **IP65 Protection for Body, IP54 Shaft Sealing**
- **CE Certified**



SPECIFICATIONS (CONTINUED)

Model	SME60S-0040-30AAK-3LKH SME60S-0040-30ABK-3LKH
Compatible Driver	FD412-CA-000
DC Link Voltage (VDC)	300
Rated Power (W)	400
Rated Torque (Nm)	1.27
Rated Speed (RPM)	3000
Rated Current (A)	3.1
Maximum Torque (Nm)	3.81
Maximum Current (A)	9.3
Standstill Torque (Nm)	1.4
Standstill Current (A)	3.41
Resistance Line-Line (Ω)	5.8
Inductance Line-Line (mH)	15
Electrical Time Constant (ms)	2.59
Mechanical Time Constant (ms)	1.93
Reverse Voltage Constant K_e (V/krpm)	29
Torque Constant K_t (Nm/A)	0.48
Rotor Moment of Inertia J_m (Kg-cm ²)	0.443 0.447 (with brake)
Pole Pair Number	3
Maximum Voltage Rising du/dt (KV/ μ s)	8
Insulation Class	F
Maximum Radical Force F (N)	180
Maximum Axial Force F (N)	90
Weight (lbs)	3.5 4.6 (with brake)

*Note: Part Numbers with -30ABK are equipped with a brake

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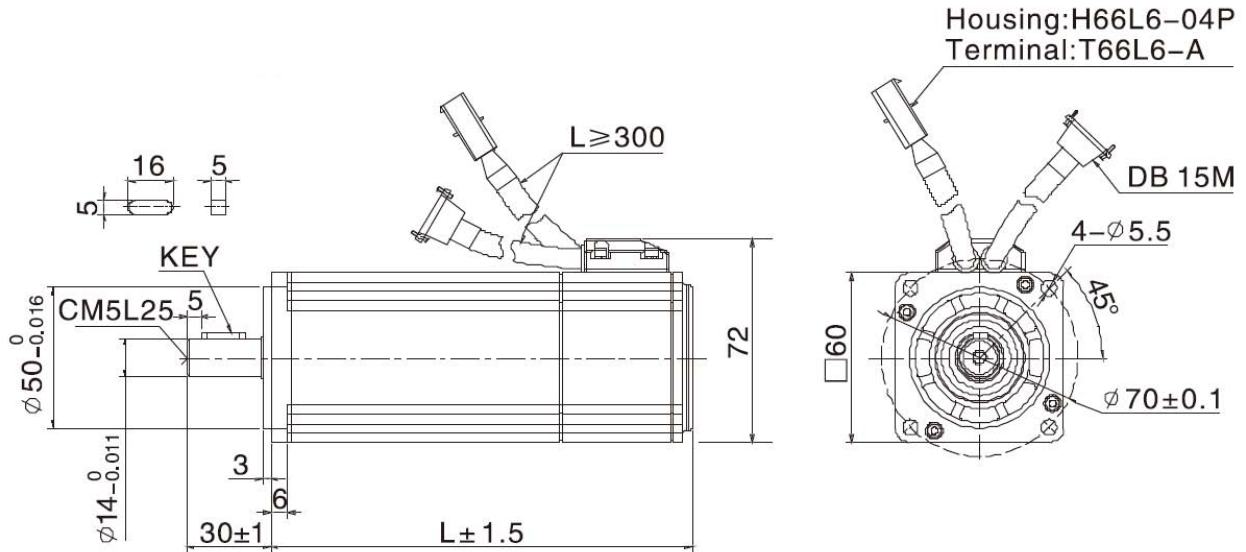
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www.kincoautomation.com

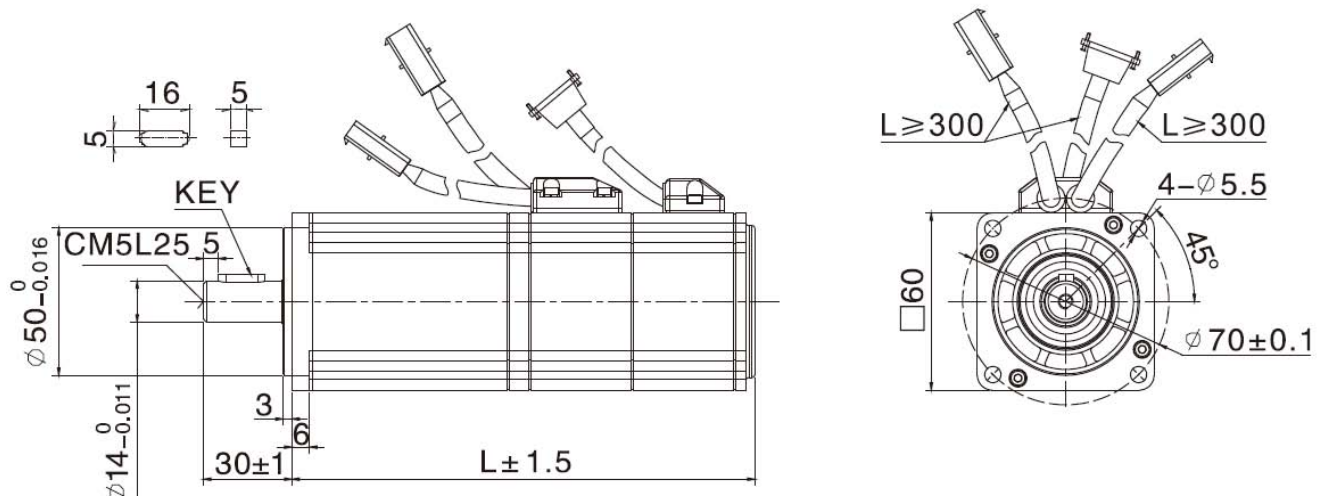
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SME60S-0020-30AAK-3LKH, SME60S-0020-30AAK-3DKH, and SME60S-0040-30AAK-3LKH



SME60S-0020-30ABK-3LKH and SME60S-0040-30ABK-3LKH



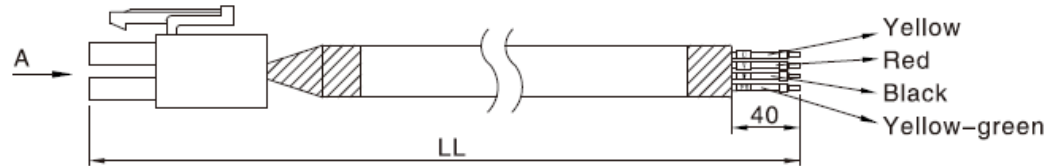
Model	SME60S-0020-30AAK-3LKH SME60S-0020-30ABK-3LKH SME60S-0020-30AAK-3DKH	SME60S-0040-30AAK-3LKH SME60S-0040-30ABK-3LKH
Length of Motor L (mm)	120±1 159±1.5 (with brake)	135±1 174±1.5 (with brake)

Dimensions are in mm

SME60S Servo Motor

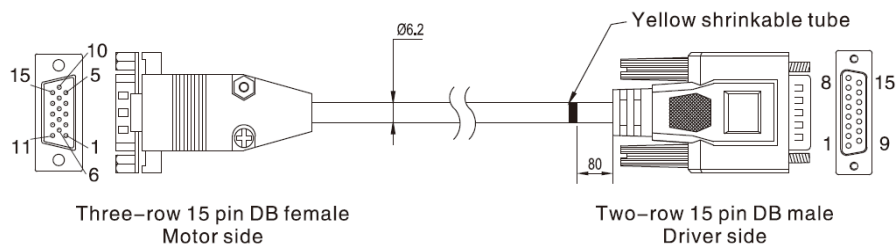
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Motor Cable: MOT-005-05-KL-D for SME60S-0020-30AAK-3DKH



MOT-005-05-KL-D		
Cable Color	Signal	PIN #
Yellow	U	PIN 1
Red	V	PIN 2
Black	W	PIN 3
Yellow-green	PE	PIN 4

Encoder Cable: ENCCF-05-FH for SME60S-0020-30AAK-3DKH, SME60S-0020-30AAK-3LKH, SME60S-0020-30ABK-3LKH, SME60S-0040-30AAK-3LKH, and SME60S-0040-30ABK-3LKH



ENCCF-05-FH				
Three-row 15 Pin DB	Two-row 15 pin DB	Signal	External Wire Color	Motor Wire Color
PIN 1	PIN 1	+5V	Red (thick)	Red
PIN 8	PIN 2	A	Brown	Blue-black
PIN 7	PIN 3	B	Yellow	Green
PIN 6	PIN 4	Z	Green	Yellow
PIN 2	PIN 9	GND	Black (thick)	Black
PIN 13	PIN 10	/A	Brown-white	Blue
PIN 12	PIN 11	/B	Yellow-white	Green-black
PIN 11	PIN 12	/Z	Green-white	Yellow-black
Other pins empty	Other pins empty	--	--	--
Shell	Shell	Shield	Shield	Shield

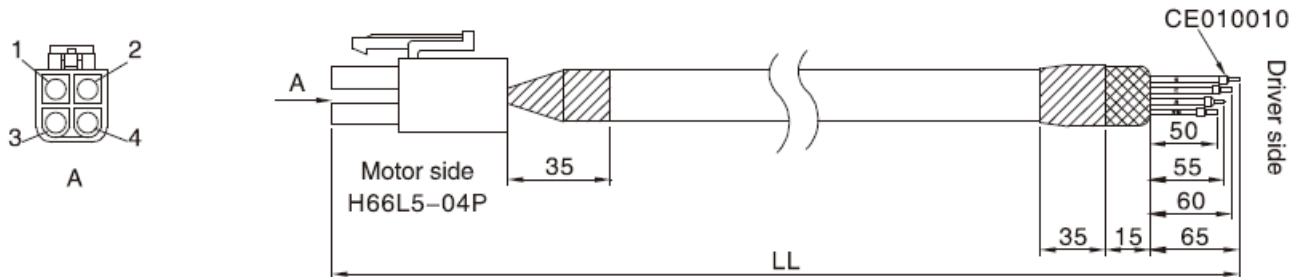
WIRING PINOUTS

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Motor Cable: MOT-005-05-KL for SME60S-0020-30AAK-3LKH, SME60S-0020-30ABK-3LKH, SME60S-0040-30AAK-3LKH, and SME60S-0040-30ABK-3LKH

Wire spec. UI20328 4C x 18AWG(41/0.16T) black



MOT-005-05-KL		
Cable Color	Signal	PIN #
Yellow	U	PIN 1
Red	V	PIN 2
Black	W	PIN 3
Yellow-green	PE	PIN 4

Model	Motor Cable	Encoder Cable	Brake Cable
SME60S-0020-30AAK-3LKH SME60S-0020-30ABK-3LKH	MOT-005-05-KL	ENCCF-05-FH	BRA-05-KL
SME60S-0020-30AAK-3DKH	MOT-005-05-KL-D	ENCCF-05-FH	--
SME60S-0040-30AAK-3LKH SME60S-0040-30ABK-3LKH	MOT-005-05-KL	ENCCF-05-FH	BRA-05-KL

Model	SME60S-0020-30AAK-3LKH SME60S-0020-30ABK-3LKH SME60S-0020-30AAK-3DKH	SME60S-0040-30AAK-3LKH SME60S-0040-30ABK-3LKH
Length of Motor L (mm)	120±1 159±1.5 (with brake)	135.8±1 174±1.5 (with brake)
Position Feedback Device	Incremental Encoder 2500PPR	
Cooling Method	Totally Enclosed, Non-Ventilated	
Protection Level	IP65 for Body, Shaft Sealing IP54	
Temperature	-20°C~40°C	
Humidity	Below 90% RH (No Condensing)	
Ambient Environment	Away from active gas, combustible gas, oil drops and dust	
Altitude	Maximum Altitude 4000m, Rated Power at 100m or Below, Above 1000m: Decreasing 1.5% per 100m Rise	