

SMC60S-0020 Servo Motor

Kinco

FEATURES

- 220 VAC
- 200 W Power Rating
- Rated Torque of 0.64 Nm
- Maximum Speed of 6000 RPM
- 2500 PPR Incremental Encoder
- IP65 for Body, IP54 Shaft Seal
- 60mm Frame Size
- CE Certified



DESCRIPTION

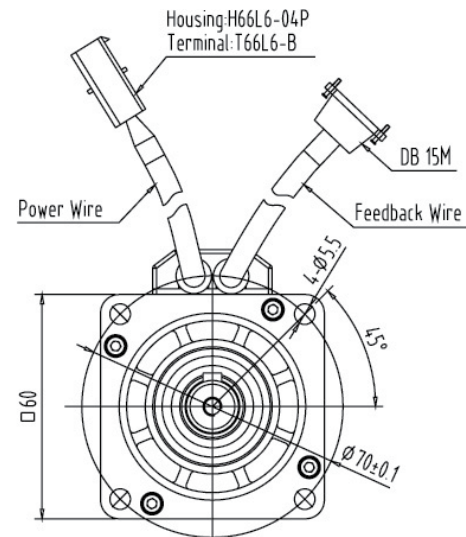
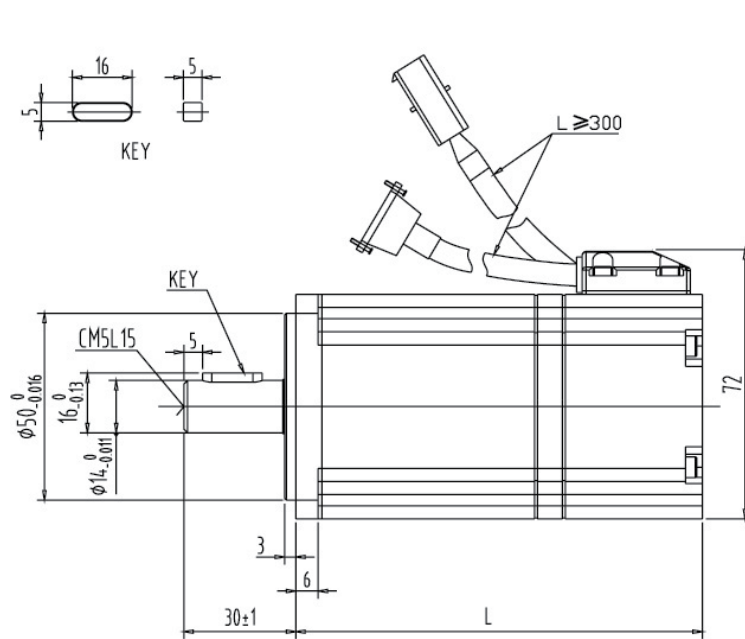
The SMC60S-0020 Series Servo Motor offers a solution to servo applications requiring position and speed control. This servo motor series comes standard with a 2,500 Pulses per Revolution (PPR) Incremental Encoder, runs at a rated speed of 3000 RPM, provides peak values up to 300% of the rated torque and current values, and has a rated torque of 0.64 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.

DIMENSIONS

Model	SMC60S-0020-30AAK-3LKH SMC60S-0020-30ABK-3LKH
Compatible Driver	FD422S-CA-000 FD422S-AA-000 FD422S-LA-000
DC Link Voltage (VDC)	300
Rated Power (W)	200
Rated Torque (Nm)	0.64
Rated Speed (RPM)	3000
Max Speed (RPM)	6000
Rated Current (A)	1.4
Maximum Torque (Nm)	1.92
Maximum Current (A)	4.2
Rated Standstill Torque (Nm)	0.7
Rated Standstill Current (A)	1.5
Resistance Line-Line (Ω)	11.2
Inductance Line-Line (mH)	20.9
Electrical Time Constant (ms)	1.87
Mechanical Time Constant (ms)	1.8
Torque Constant Kt (Nm/A)	0.48
Rotor Moment of Inertia Jm (Kg-cm ²)	0.214 0.218 (with brake)
Pole Pair Number	3
Maximum Voltage Rising du/dt (KV/ μ s)	8
Insulation Class	F
Maximum Radial Force F (N)	180
Maximum Axial Force F (N)	90
Weight (Kg)	1.1 1.6 (with brake)

L011655 *Note: Part Numbers with -30ABK are equipped with a brake.

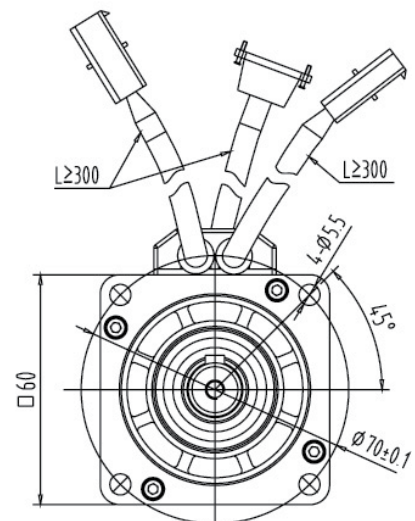
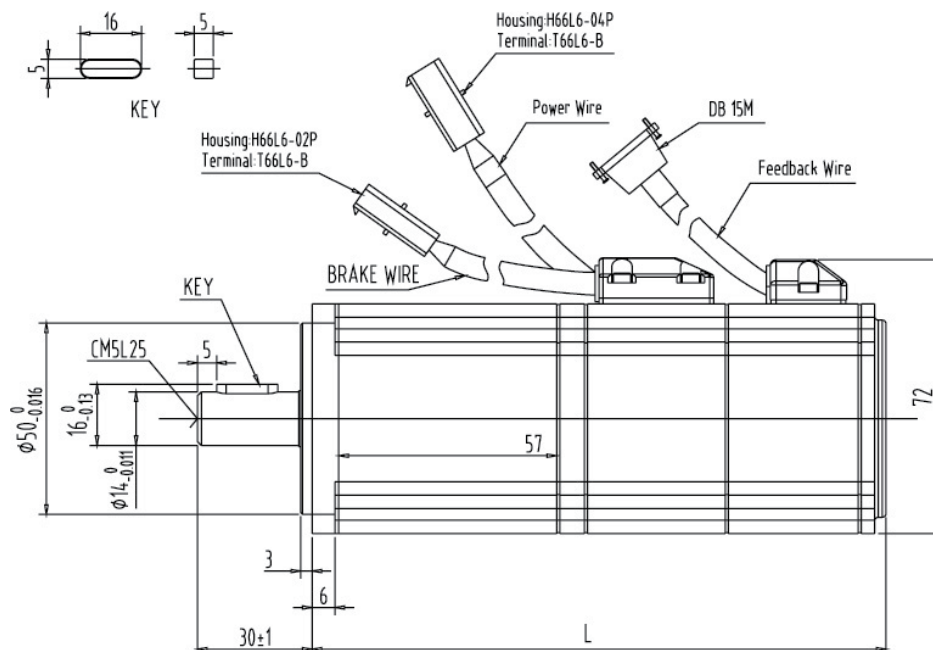
SMC60S-0020-30AAK-3LKH



Model	SMC60S-0020-30AAK-3LKH SMC60S-0020-30ABK-3LKH
Length of Motor L (mm)	109 ± 1.5 150 ± 1.5 (with brake)

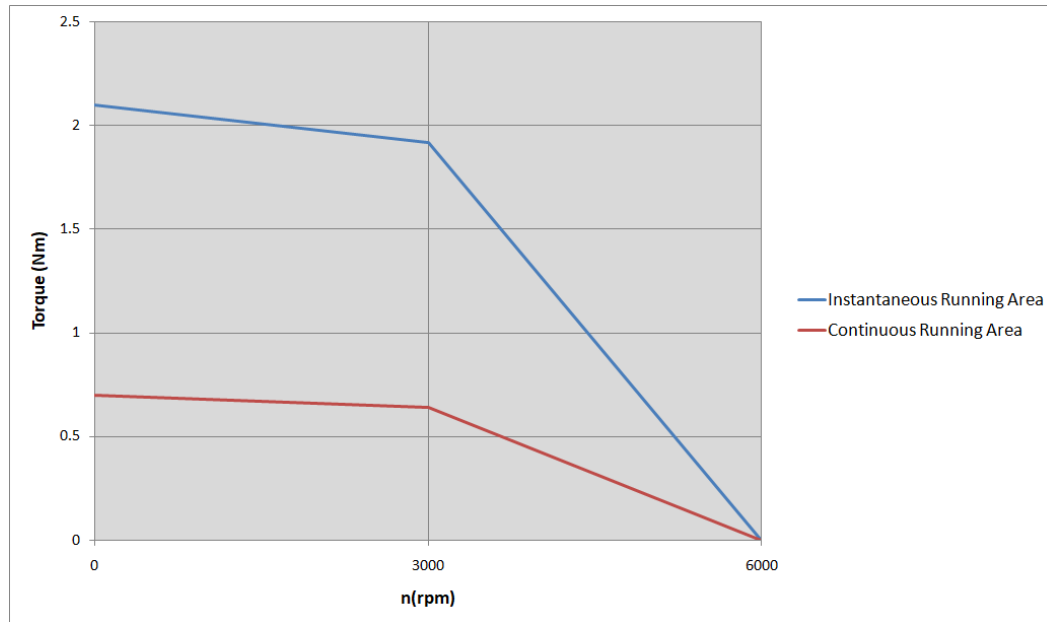
Dimensions are in mm

SMC60S-0020-30ABK-3LKH

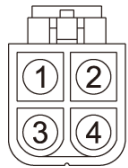


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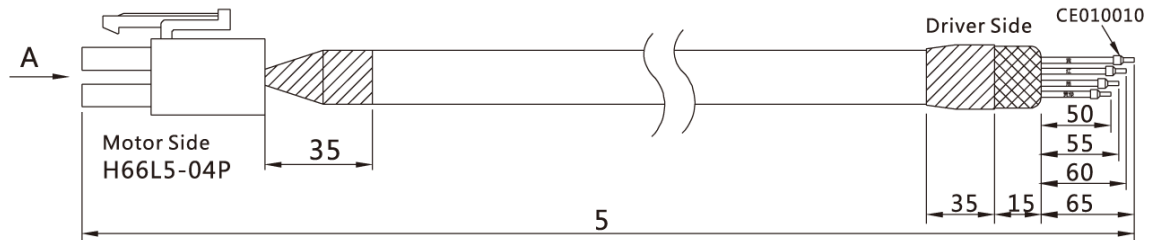
TORQUE CURVE



Motor Cable: MOT-005-05-KL for SMC60S-0020-30AAK-3LKH and SMC60S-0020-30ABK-3LKH

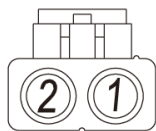


A
4PIN

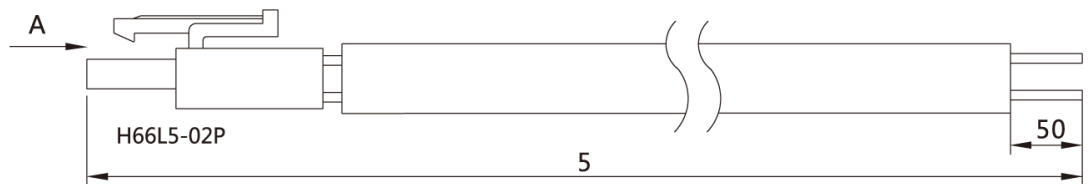


MOT-005-05-KL		
Cable Color	Signal	PIN #
Yellow	U	PIN 1
Red	V	PIN 2
Black	W	PIN 3
Yellow-green	PE	PIN 4

Brake Cable: BRA-05-KL for SMC60S-0020-30ABK-3LKH



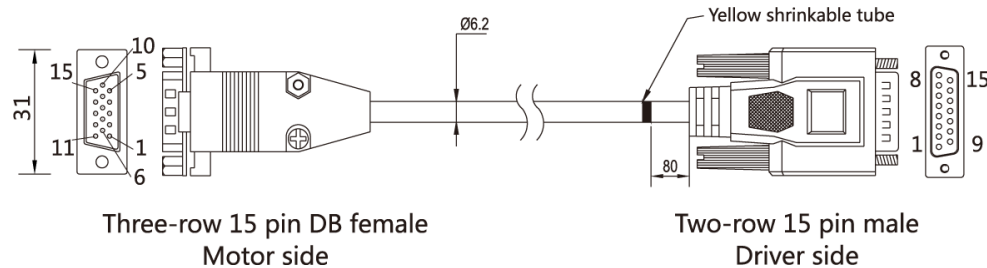
A
2PIN



BRA-05-KL		
Cable Color	Signal	PIN #
Red	Brake +	PIN 1
Blue	Brake -	PIN 2

WIRING PINOUTS

Encoder Cable: ENCCF-05-FH for SMC60S-0020-30AAK-3LKH and SMC60S-0020-30ABK-3LKH



ENCCF-05-FH				
Three-Row Motor Side 15 PIN DB	Two-Row Driver Side 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	n/a	n/a	n/a
Shell	Shell	Shield	Shield	Shield

Model	Motor Cable	Encoder Cable	Brake Cable
SMC60S-0020-30AAK-3LKH			-
SMC60S-0020-30ABK-3LKH	MOT-005-05-KL	ENCCF-05-FH	BRA-005-05-KL

Model	SMC60S-0020-30AAK-3LKH SMC60S-0020-30ABK-3LKH	
Length of Motor L(mm)	109 ± 1.5 150 ± 1.5 (with brake)	
Cooling Method	Totally Enclosed, Non-Ventilated	
Protection Level	IP65 for Body, Shaft Sealing IP54	
Environmental Conditions of Operation	Temperature	-20°C~40°C (Non-freezing)
	Humidity	Below 90% RH (Non-condensing)
	Ambient Environment	Away from active gas, combustible gas, oil drops and dust
	Altitude	Maximum Altitude 4000m, Rated Power at 1000m or Below, Above 1000m: Decreasing 1.5% per 100m Rise