

SMC130D-0200 Servo Motor

Kinco

FEATURES

- 220 VAC
- 2000 W Power Rating
- Rated Torque of 10 Nm
- Maximum Speed of 2900 RPM
- 2500 PPR Incremental Encoder
- IP65 for Body, IP54 Shaft Seal
- 130mm Frame Size
- CE Certified



DESCRIPTION

The SMC130D-0200 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 2000 RPM, provides peak values up to 300% of the rated torque and current values, and has a rated torque of 10 Nm with a 2000 Watt power rating. This servo motor series enables industrial motion control applications to attain a great combination of position and speed functionality.

DIMENSIONS

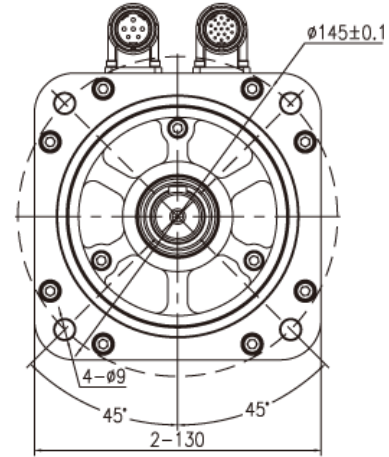
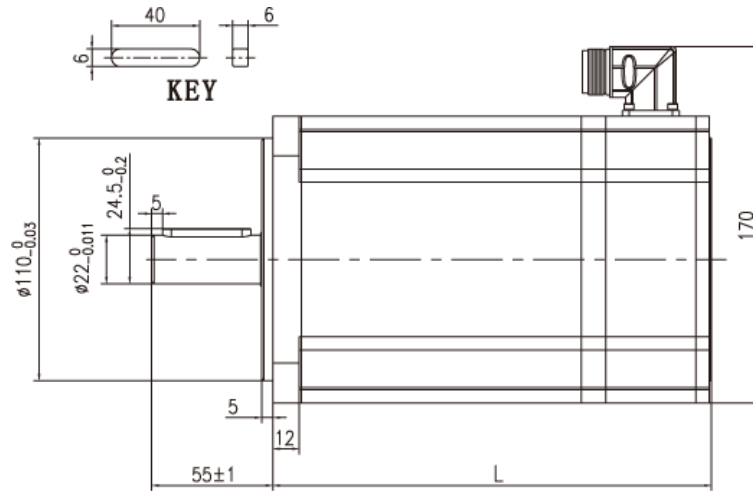
Model	SMC130D-0200-20AAK-4LKP SMC130D-0200-20ABK-4LKP
Compatible Driver	FD432S-CA-000 FD432S-AA-000 FD432S-LA-000
DC Link Voltage (VDC)	300
Rated Power (W)	2000
Rated Torque (Nm)	10
Rated Speed (RPM)	2000
Max Speed (RPM)	2900
Rated Current (A)	8.5
Maximum Torque (Nm)	25
Maximum Current (A)	21.1
Rated Standstill Torque (Nm)	11
Rated Standstill Current (A)	9.3
Resistance Line-Line (Ω)	1.93
Inductance Line-Line (mH)	8.8
Electrical Time Constant (ms)	9.46
Mechanical Time Constant (ms)	1.85
Torque Constant Kt (Nm/A)	1.24
Rotor Moment of Inertia Jm (kg cm ²)	17.7 17.8 (with brake)
Brake Holding Torque (Nm)	10
Pole Pair Number	4
Maximum Voltage Rising du/dt (KV/ μ s)	8
Insulation Class	F
Maximum Radial Force F (N)	900
Maximum Axial Force F (N)	450
Weight (Kg)	9.1 11.4 (with brake)

L011659

*Note: Part Numbers with -20ABK are equipped with a brake.

SMC130D-0200-20AAK-4LKP and SMC130D-0200-20ABK-4LKP

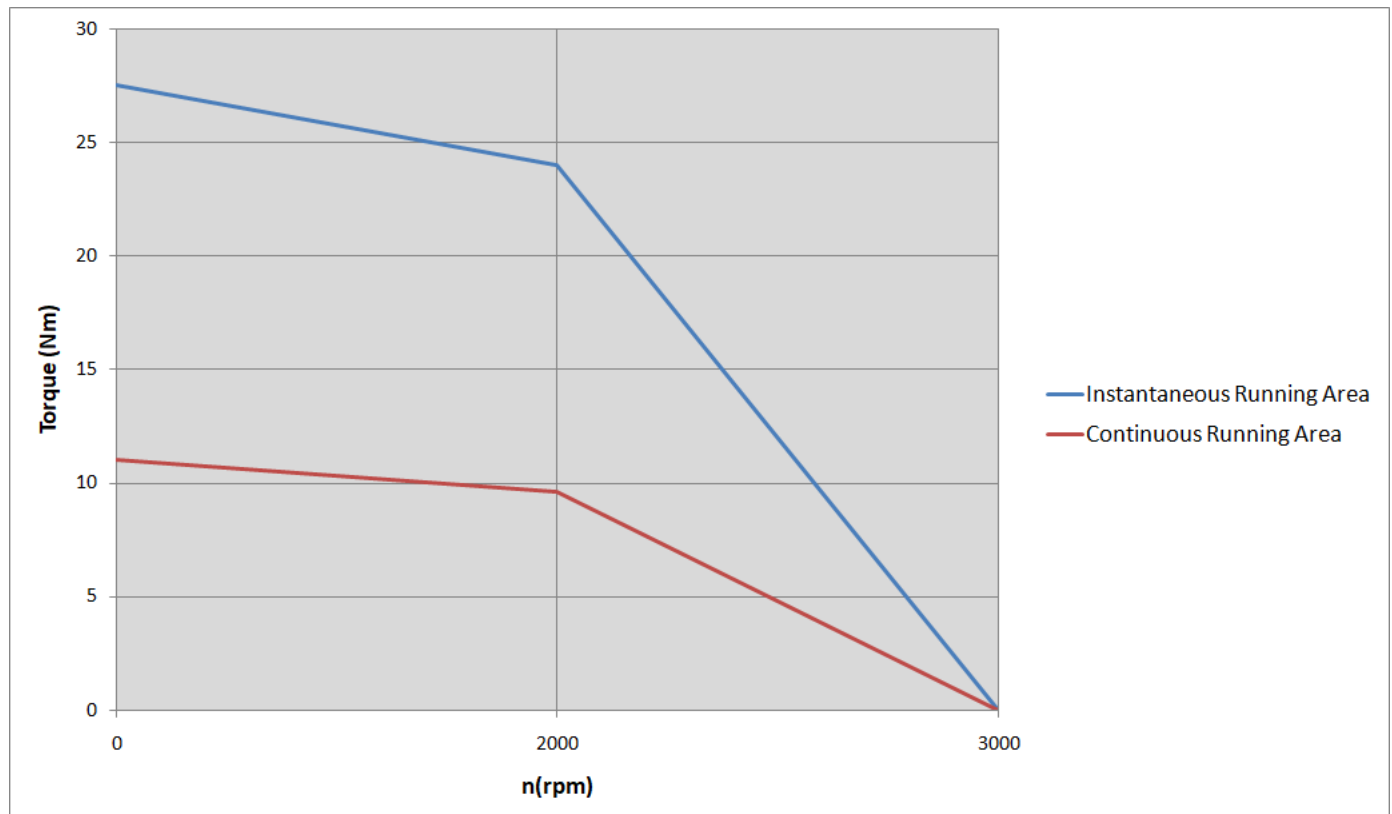
DIMENSIONS



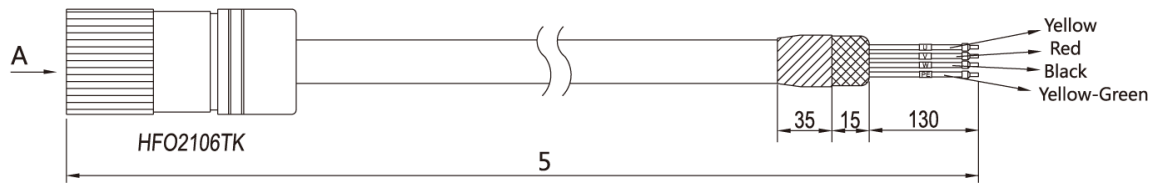
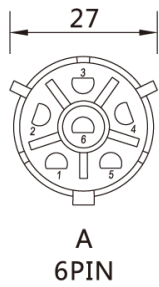
Model	SMC130D-0200-20AAK-4LKP SMC130D-0200-20ABK-4LKP
Length of Motor L (mm)	179 ± 1.5 240 ± 1.5 (with brake)

Dimensions are in mm

TORQUE CURVE

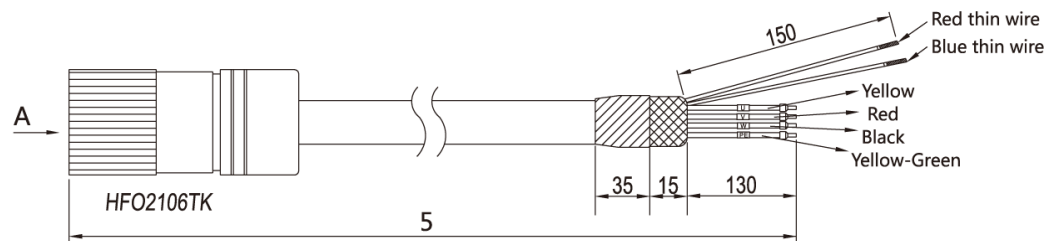
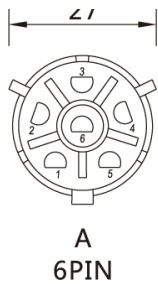


Motor Cable: MOT-008-05-KC4 for SMC130D-0200-20AAK-4LKP



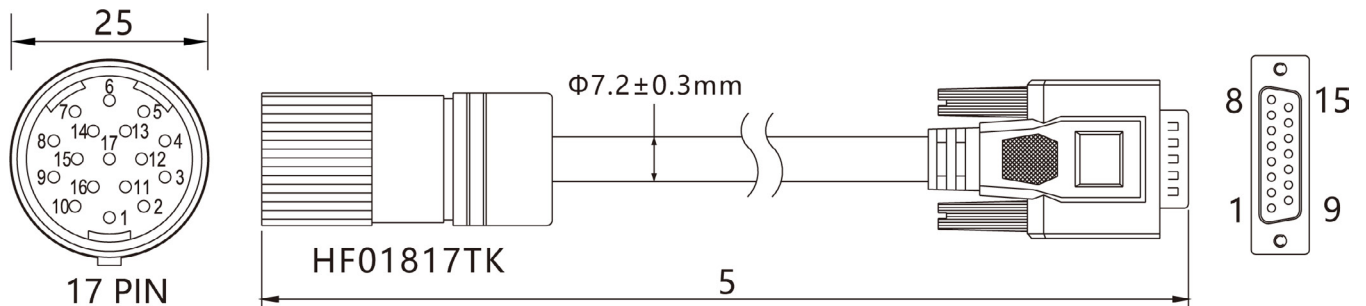
MOT-008-05-KC4		
Cable Color	Signal	PIN #
Yellow	U	PIN 2
Red	V	PIN 3
Black	W	PIN 4
Yellow-green	PE	PIN 6

Motor / Brake Cable: MOT-008-05-KC4-B for SMC130D-0200-20ABK-4LKP



MOT-008-05-KC4-B		
Cable Color	Signal	PIN #
Yellow	U	PIN 2
Red	V	PIN 3
Black	W	PIN 4
Yellow-green	PE	PIN 6
Red Thin Wire	Brake +	PIN 1
Blue Thin Wire	Brake -	PIN 5

Encoder Cable: ENCCA-05-KC0 for SMC130D-0200-20AAK-4LKP and SMC130D-0200-20ABK-4LKP



ENCCA-05-KC0				
17 PIN Connector	15 PIN DB	Signal	External Wire Color	Motor Wire Color
PIN 1	PIN 1	+5V	Red(thick)	Red
PIN 3	PIN 2	A	Orange	Blue
PIN 5	PIN 3	B	Yellow	Green
PIN 14	PIN 4	Z	Green	Yellow
PIN 9	PIN 5	U	Brown	Brown
PIN 11	PIN 6	V	Purple	Gray
PIN 16	PIN 7	W	Blue	White
PIN 2	PIN 9	GND	Black(thick)	Black
PIN 4	PIN 10	/A	Orange-White	Blue-Black
PIN 6	PIN 11	/B	Yellow-White	Green-Black
PIN 15	PIN 12	/Z	Green-White	Yellow-Black
PIN 10	PIN 13	/U	Brown-White	Brown-Black
PIN 12	PIN 14	/V	Purple-White	Gray-Black
PIN 17	PIN 15	/W	Blue-White	White-Black
Internal Metal Ring	DB Metal Shell	Shield	Shield	Shield

Model	Motor Cable	Encoder Cable	Brake Cable
SMC130D-0200-20AAK-4LKP			-
SMC130D-0200-20ABK-4LKP	MOT-008-05-KC4	ENCCA-05-KC0	MOT-008-05-KC4-B

Model		SMC130D-0200-20AAK-4LKP SMC130D-0200-20ABK-4LKP
Environmental Conditions of Operation	Length of Motor L(mm)	179 ± 1.5 240 ± 1.5 (with brake)
	Cooling Method	Totally Enclosed, Non-Ventilated
	Protection Level	IP65 for Body, Shaft Sealing IP54
	Temperature	-20°C~40°C (Non-freezing)
	Humidity	Below 90% RH (Non-condensing)
Ambient Environment	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