

# KNC-SRV-SMC130D-0200 Servo Motor



## FEATURES

- 220 VAC
- 2000 W Power Rating
- Rated Torque of 1416 oz-in
- Maximum Speed of 2900 RPM
- 2500 PPR Incremental Encoder
- IP65 for Body, IP54 Shaft Seal
- 130mm Frame Size
- CE Certified

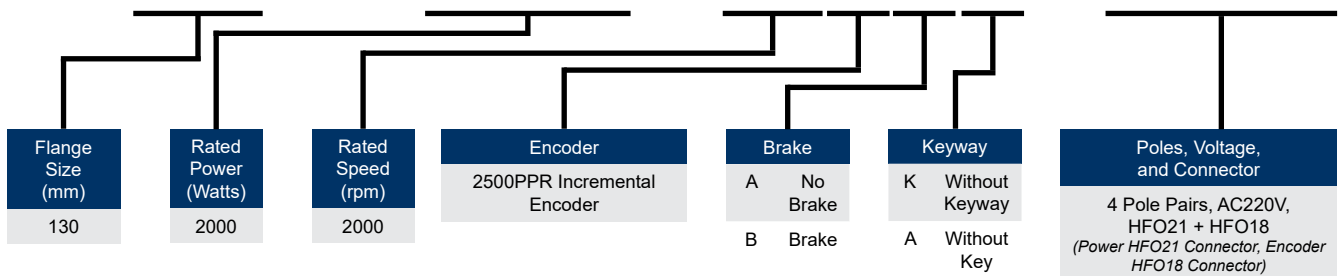


## DESCRIPTION

The KNC-SRV-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 1416 oz-in 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.

## ORDERING INFORMATION

# SMC130D - 0200 - 20AAK - 4LKP

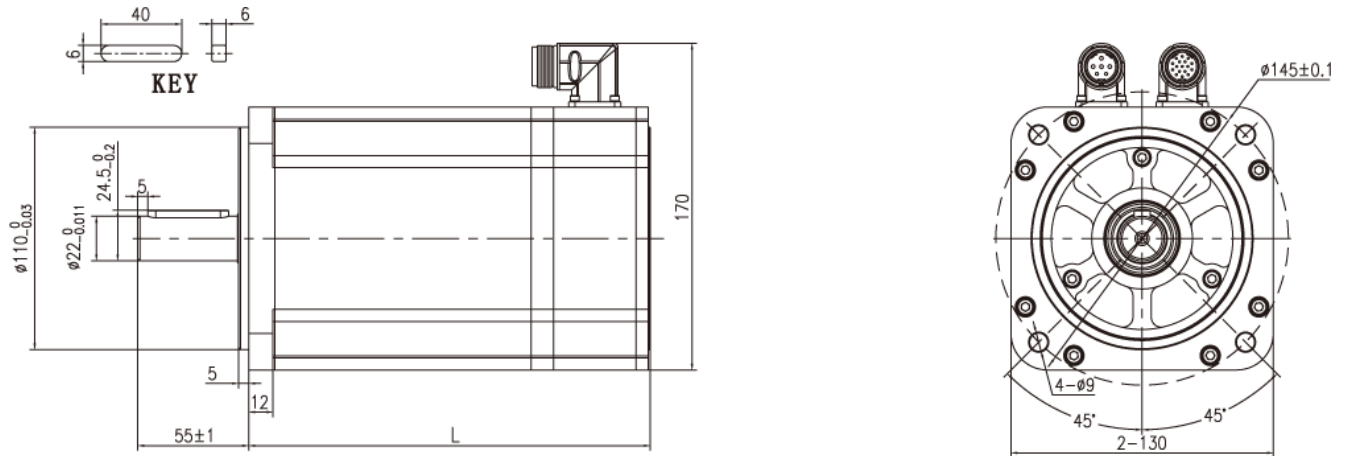


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Model	KNC-SRV-SMC130D-0200-20AAK-4LKP KNC-SRV-SMC130D-0200-20ABK-4LKP
Compatible Driver	KNC-SRV-FD432S-CA-000 KNC-SRV-FD432S-AA-000 KNC-SRV-FD432S-LA-000
DC Link Voltage (VDC)	300
Rated Power (W)	2000
Rated Torque (oz-in)	1416
Rated Speed (RPM)	2000
Max Speed (RPM)	2900
Rated Current (A)	8.5
Maximum Torque (oz-in)	3540
Maximum Current (A)	21.1
Rated Standstill Torque (oz-in)	1557
Rated Standstill Current (A)	9.3
Resistance Line-Line ( $\Omega$ )	1.93
Inductance Line-Line (mH)	8.8
Electrical Time Constant (ms)	9.46
Mechanical Time Constant (ms)	1.85
Torque Constant Kt (oz-in/A)	175
Rotor Moment of Inertia Jm (oz-in-s <sup>2</sup> )	0.25065 0.25206 (with brake)
Pole Pair Number	4
Maximum Voltage Rising du/dt (KV/ $\mu$ s)	8
Insulation Class	F
Maximum Radial Force F (N)	900
Maximum Axial Force F (N)	450
Weight (lbs)	20.06 25.13 (with brake)

DIMENSIONS

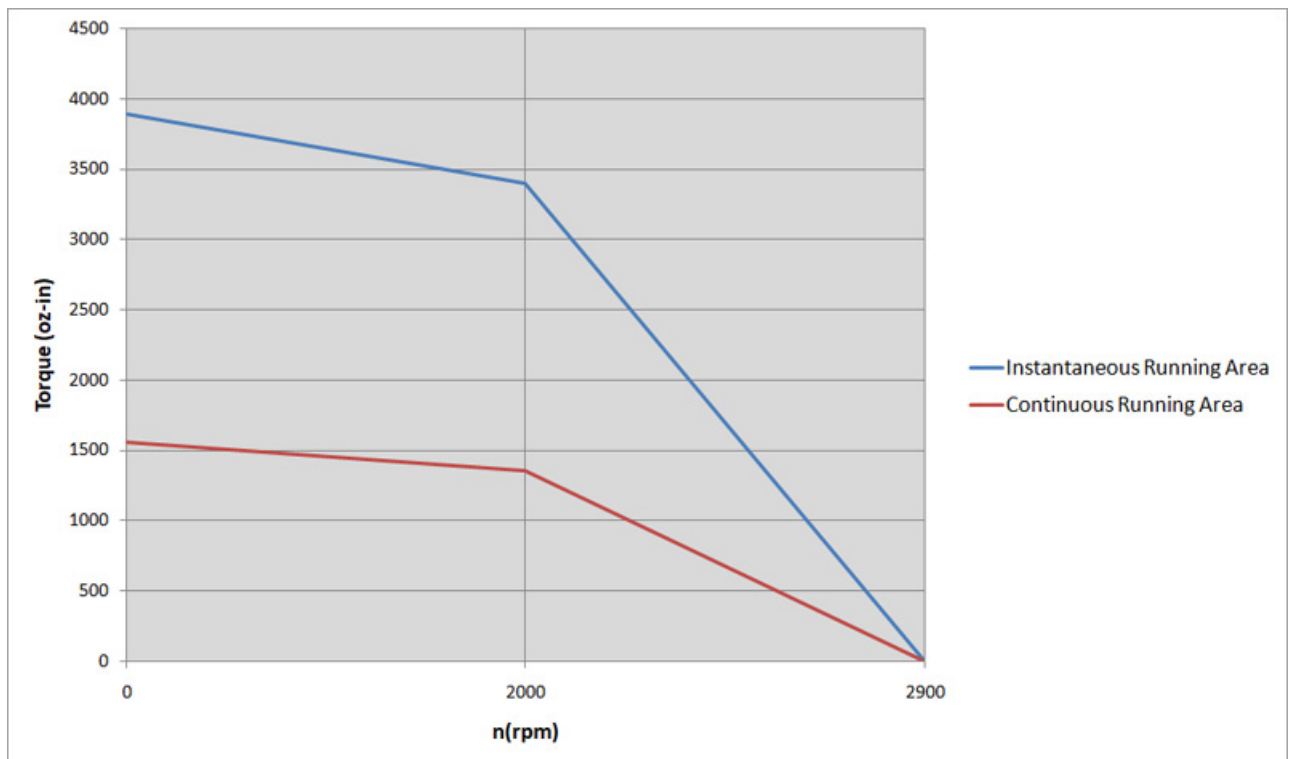
KNC-SRV-SMC130D-0200-20AAK-4LKP and KNC-SRV-SMC130D-0200-20ABK-4LKP



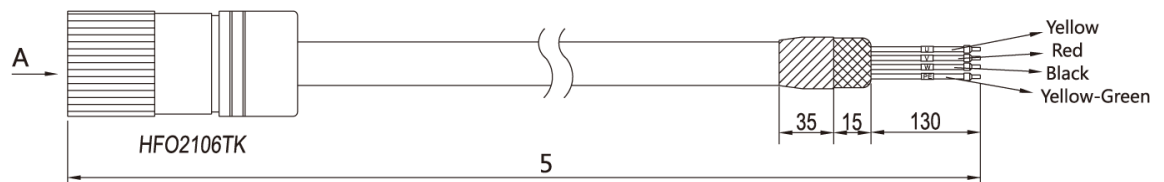
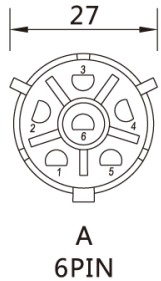
Dimensions are in mm

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

TORQUE CURVE

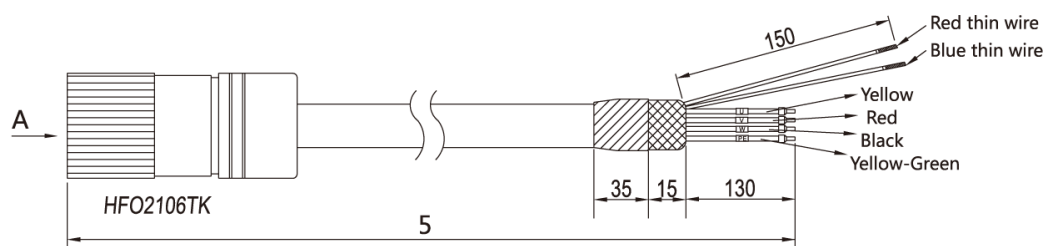
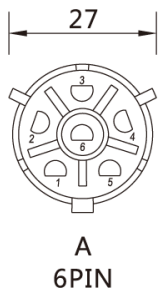


Motor Cable: KNC-SRV-MOT-008-05-KC4 for KNC-SRV-SMC130D-0200-20AAK-4LKP



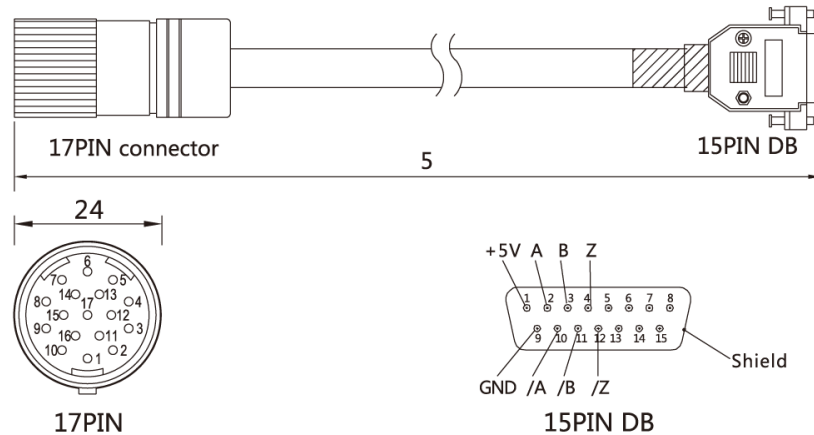
KNC-SRV-MOT-008-05-KC4		
Cable Color	Signal	PIN #
Yellow	U	PIN 2
Red	V	PIN 3
Black	W	PIN 4
Yellow-green	PE	PIN 6

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



KNC-SRV-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: KNC-SRV-ENCCF-05-FC0 for KNC-SRV-SMC130D-0200-20AAK-4LKP and KNC-SRV-SMC130D-0200-20ABK-4LKP



KNC-SRV-ENCCF-05-FC0				
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	Brown	Blue-Black
PIN 5	PIN 3	B	Yellow	Green
PIN 14	PIN 4	Z	Green	Yellow
PIN 2	PIN 9	GND	Black (thick)	Black
PIN 4	PIN 10	/A	Brown-white	Blue
PIN 6	PIN 11	/B	Yellow-white	Green-black
PIN 15	PIN 12	/Z	Green-white	Yellow-black
Other PINs Empty	Other PINs empty	n/a	n/a	n/a
Metal Coil	Shell	Shield	Shield	Shield

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

Model		KNC-SRV-SMC130D-0200-20AAK-4LKP KNC-SRV-SMC130D-0200-20ABK-4LKP
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
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