KNC-SRV-SMK80D-0120 Servo Motor

FEATURES

- ***24-60VDC***
- ***1200W Power Rating***
- ***Rated Torque of 541 oz-in***
- ***Maximum Speed of 3500 RPM***
- ***16/17 Bit Multi-Turn Magnetic Encoder***
- ***IP54 Protection Level***
- ***Insulation Class F***
- ***Brake Option Available***

DESCRIPTION

The SMK80D-0120 Series Servo Motor offers a low-cost solution for motion control applications requiring position and speed control. With the 16/17 Bit Single-Turn Magnetic Encoder, it allows for better cushioning ability and higher cost-performance ratio. These Servo Motors have Insulation Class F which is the best Insulation Class on the market. They are very quiet with high reliability and stability in high temperature environments. These Servo Motors boast peak torque values up to 1623 oz-in, provide excellent dynamic response, allow for 3 times the overload capacity, and has a rated torque of 541 oz-in. It is available in a 80mm square flange size, with a brake option.

ORDERING INFORMATION

SMK80D - 0120 - 30QAK - 5DCU

Flange Size (mm)	Inertia Type	Rated Power (Watts)	Rated Speed (rpm)	Encoder	Brake	Shaft Options	Voltage	Poles	Connector
80	D Medium Inertia	1200	3000	Q 16/17 Bit Multi-Turn Magnetic	A No Brake B Brake	K Keyed Shaft	D DC48V	5 Pole Pairs	U Communication Encoder Socket

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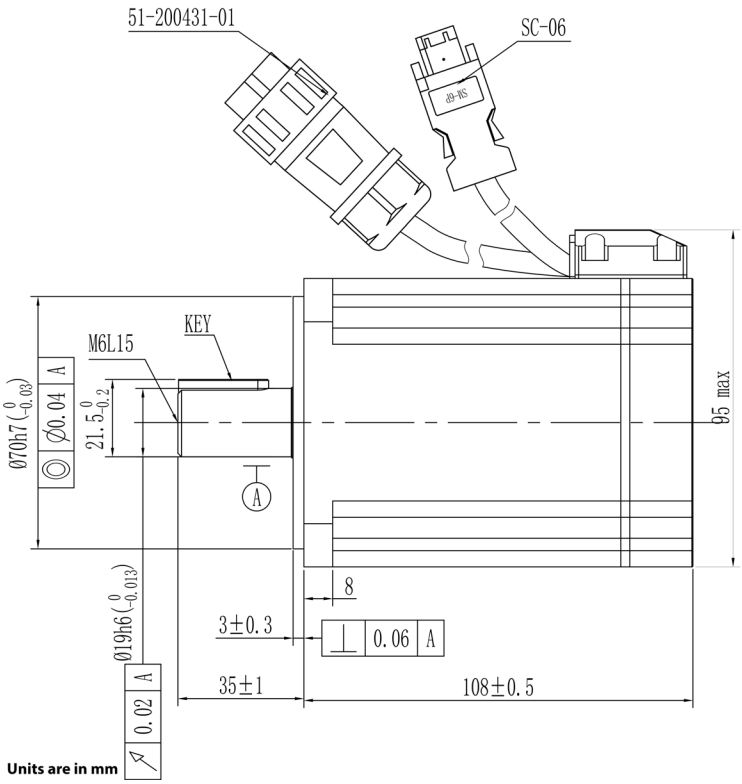
4985 E. Landon Dr. Anaheim, CA 92807 **Tel. (714) 992-6990** Fax. (714) 992-0471 **www.anaheimautomation.com**

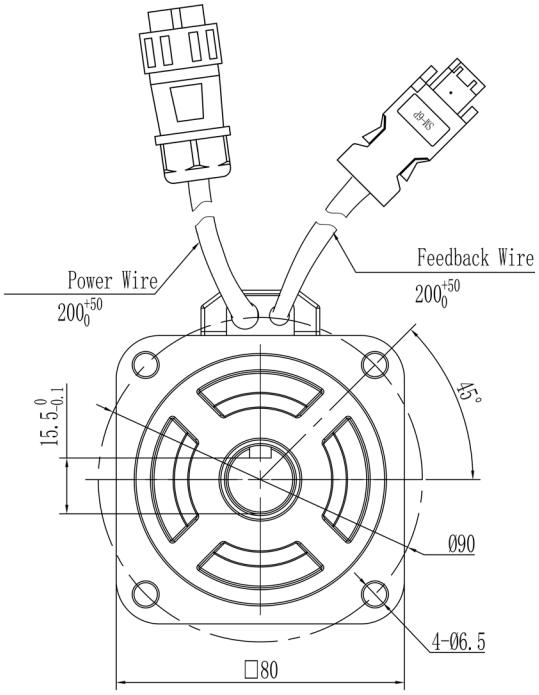
SPECIFICATIONS

Model	KNC-SRV-SMK80D-0120-30QAK-5DCU KNC-SRV-SMK80D-0120-30QBK-5DCU
Compatible Driver	KNC-SRV-FD145S-AS-000 KNC-SRV-FD145S-ES-000
DC Link Voltage (VDC)	48
Rated Power (W)	1200
Rated Torque (oz-in)	541
Rated Speed (RPM)	3000
Max Speed (RPM)	3500
Rated Current (A)	29.2
Maximum Torque (oz-in)	1623
Maximum Current (A)	87.5
Rated Standstill Torque (oz-in)	595
Rated Standstill Current (A)	31.8
Resistance Line-Line (Ω)	0.045
Inductance Line-Line (mH)	0.13
Electrical Time Constant (ms)	2.89
Mechanical Time Constant (ms)	0.93 (1 with brake)
Torque Constant Kt (oz-in/A)	21
Rotor Moment of Inertia Jm (oz-in-s^2)	0.03582 0.03823 (with brake)
Brake Holding Torque (oz-in)	566
Pole Pair Number	5
Insulation Class	F
Maximum Radial Force F (N)	270
Maximum Axial Force F (N)	90
Weight (lbs)	6.61 7.05 (with brake)
Length of Motor (mm)	108 ± 0.5 143.3 ± 0.5 (with brake)

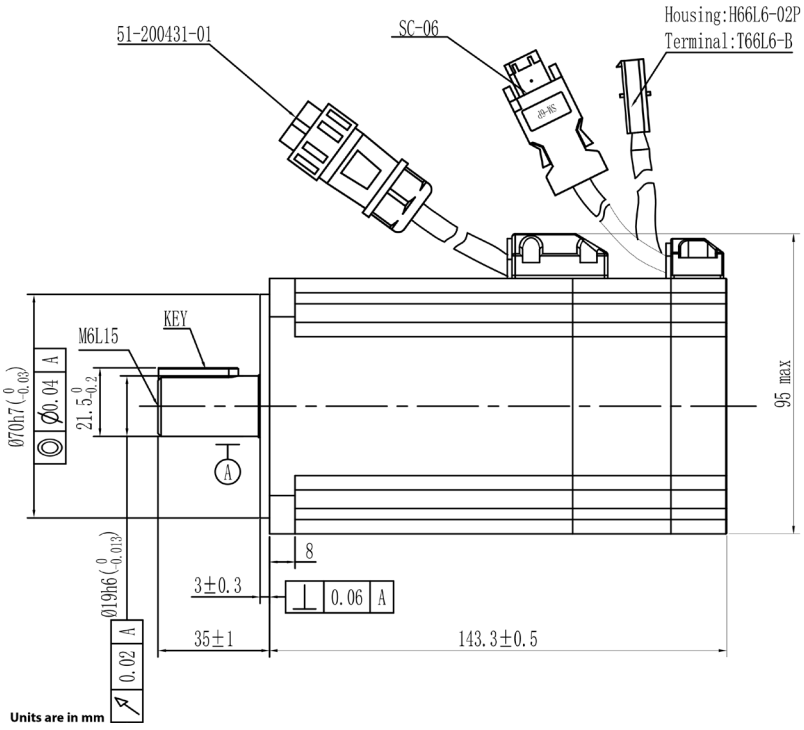
DIMENSIONS

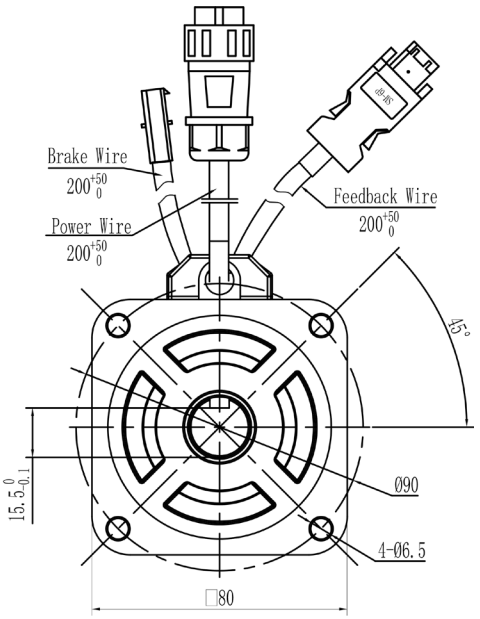
KNC-SRV-SMK80D-0120-30QAK-5DCU





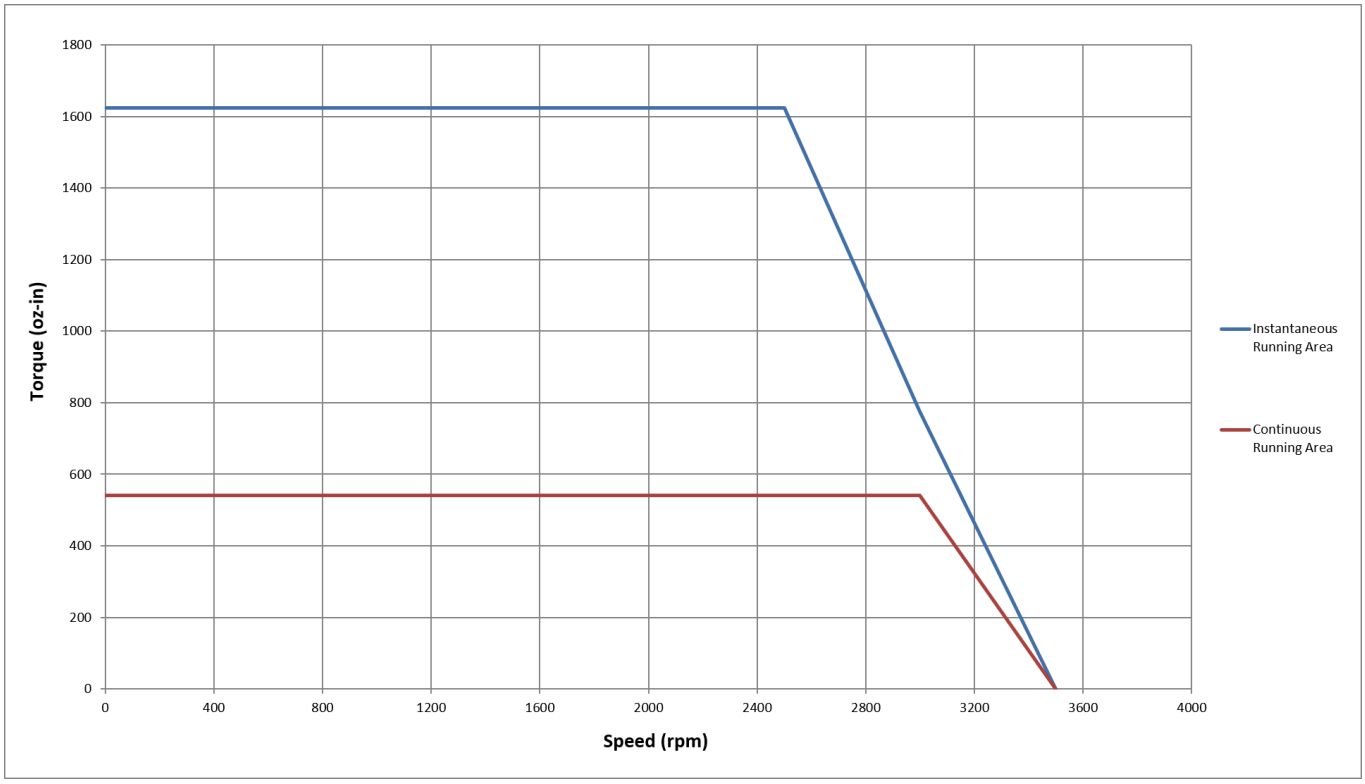
KNC-SRV-SMK80D-0120-30QBK-5DCU





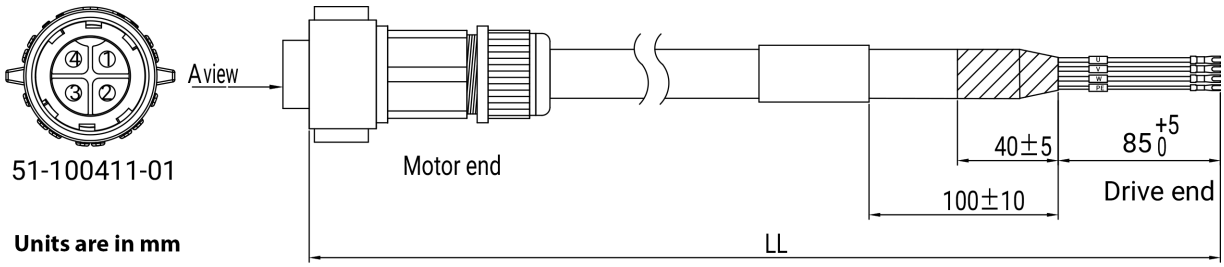
TORQUE CURVE

KNC-SRV-SMK80D-0120-30QAK-5DCU & KNC-SRV-SMK80D-0120-30QBK-5DCU



WIRING PINOUTS

Motor Cable: KNC-SRV-M-Y-40A-LJ51-LL-S for KNC-SRV-SMK80D-0120-30QAK-5DCU & KNC-SRV-SMK80D-0120-30QBK-5DCU

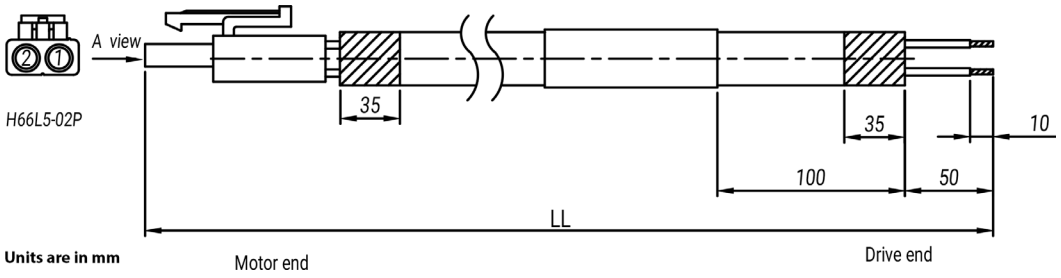


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Units are in mm

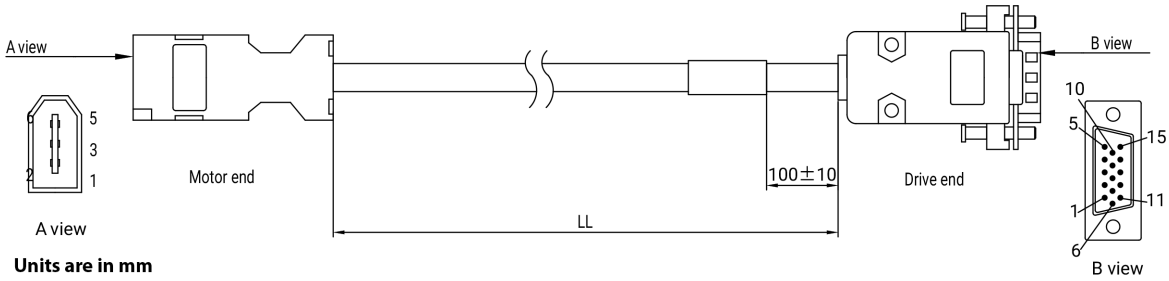
KNC-SRV-M-Y-40A-LJ51-LL-S		
Color	Signal	Motor End 51-100411-01
White	U	PIN1
Black	W	PIN3
Red	V	PIN4
Yellow-Green+Shield	PE+Shielding	PIN2

Brake Cable: KNC-SRV-BRA-LL-KL for KNC-SRV-SMK80D-0120-30QBK-5DCU



KNC-SRV-BRA-LL-KL		
Cable Color	Signal	PIN #
Red	BR +	PIN 1
Blue	BR -	PIN 2

Encoder Cable: KNC-SRV-E-H-MV-U-LL for KNC-SRV-SMK80D-0120-30QAK-5DCU & KNC-SRV-SMK80D-0120-30QBK-5DCU



KNC-SRV-E-H-MV-U-LL			
Signal	Motor Side SC-06 Female	Color	Driver Side 15PIN DB Male
VDD	PIN1	Red	PIN1
GND	PIN2	Orange	PIN2
MA_P+	PIN3	Brown	PIN10
MA_N-	PIN4	Black	PIN15
SLO_P+	PIN5	Blue	PIN9
SLO_N-	PIN6	Purple	PIN14
Shield	Shell	Shielding Wire	Shell

SPECIFICATIONS

Model	Motor Cable	Encoder Cable	Brake Cable
KNC-SRV-SMK80D-0120-30QAK-5DCU	KNC-SRV-M-Y-40A-LJ51-LL-S	KNC-SRV-E-H-MV-U-LL	-
KNC-SRV-SMK80D-0120-30QBK-5DCU			KNC-SRV-BRA-LL-KL

Model		KNC-SRV-SMK80D-0120-30QAK-5DCU KNC-SRV-SMK80D-0120-30QBK-5DCU
Length of Motor L(mm)		108 ± 0.5 143.3 ± 0.5 (with brake)
Cooling Method		Totally Enclosed, Self-Cooling
Protection Level		IP54
Environmental Conditions of Operation	Temperature	-20˚C~+40˚C
	Humidity	Below 90% RH (No condensation)
	Ambient Environment	Keep away from corrosion, flammable gases, oil droplets and dust
	Altitude	Maximum Altitude 2000m, From 1000 to 2000m, the power decreases by 1.5% per 100m increase.