KNC-SRV-SMK80D-0100 Servo Motor

FEATURES

- ***24-60VDC***
- ***1000W Power Rating***
- ***Rated Torque of 450 oz-in***
- ***Maximum Speed of 3500 RPM***
- ***16/17 Bit Multi-Turn Magnetic Encoder***
- ***IP65 & IP54 Protection Level***
- ***Insulation Class F***
- ***Brake Option Available***

DESCRIPTION

The SMK80D-0100 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 1351 oz-in, provide excellent dynamic response, allow for 3 times the overload capacity, and has a rated torque of 450 oz-in. It is available in a 80mm square flange size, with a brake option.

ORDERING INFORMATION

SMK80D - 0100 - 30QAK - 5DCU

Flange Size (mm)	Inertia Type	Rated Power (Watts)	Rated Speed (rpm)	Encoder	Brake	Shaft Options	Voltage	Poles	Connector
80	D Medium Inertia	1000	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 A Special Socket for Common Body Motor

L012084

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

SPECIFICATIONS

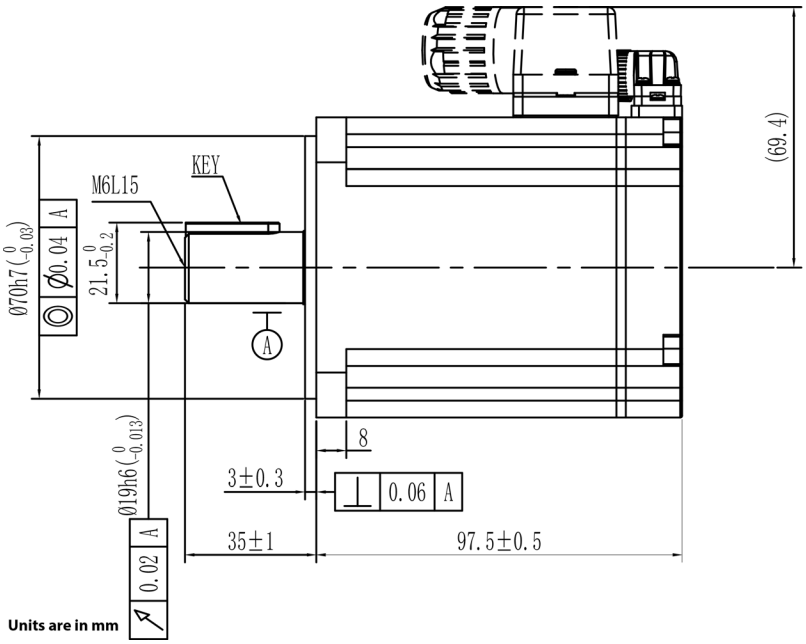
Model	KNC-SRV-SMK80D-0100-30QAK-5DCA KNC-SRV-SMK80D-0100-30QBK-5DCA
Compatible Driver	KNC-SRV-FD135S-AS-000 KNC-SRV-FD135S-ES-000
DC Link Voltage (VDC)	48
Rated Power (W)	1000
Rated Torque (oz-in)	450
Rated Speed (RPM)	3000
Max Speed (RPM)	3500
Rated Current (A)	24
Maximum Torque (oz-in)	1351
Maximum Current (A)	73
Rated Standstill Torque (oz-in)	496
Rated Standstill Current (A)	26.7
Resistance Line-Line (Ω)	0.058
Inductance Line-Line (mH)	0.175
Electrical Time Constant (ms)	3.02
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)	0.02888 0.03115 (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)	5.95 6.61 (with brake)
Length of Motor (mm)	97.5 ± 0.5 131.5 ± 0.5 (with brake)

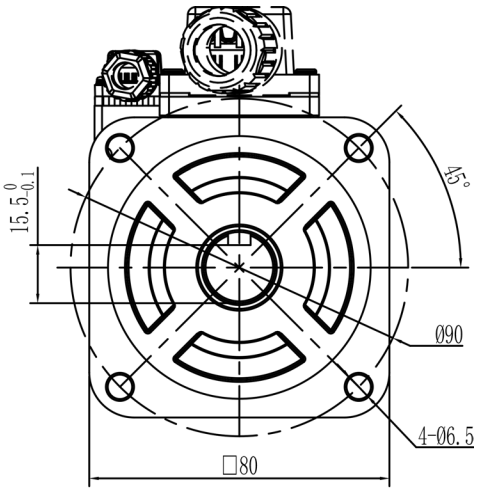
SPECIFICATIONS

Model	KNC-SRV-SMK80D-0100-30QAK-5DCU KNC-SRV-SMK80D-0100-30QBK-5DCU
Compatible Driver	KNC-SRV-FD135S-AS-000 KNC-SRV-FD135S-ES-000
DC Link Voltage (VDC)	48
Rated Power (W)	1000
Rated Torque (oz-in)	450
Rated Speed (RPM)	3000
Max Speed (RPM)	3500
Rated Current (A)	24
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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)	5.95 6.61 (with brake)
Length of Motor (mm)	94 ± 0.5 131.2 ± 0.5 (with brake)

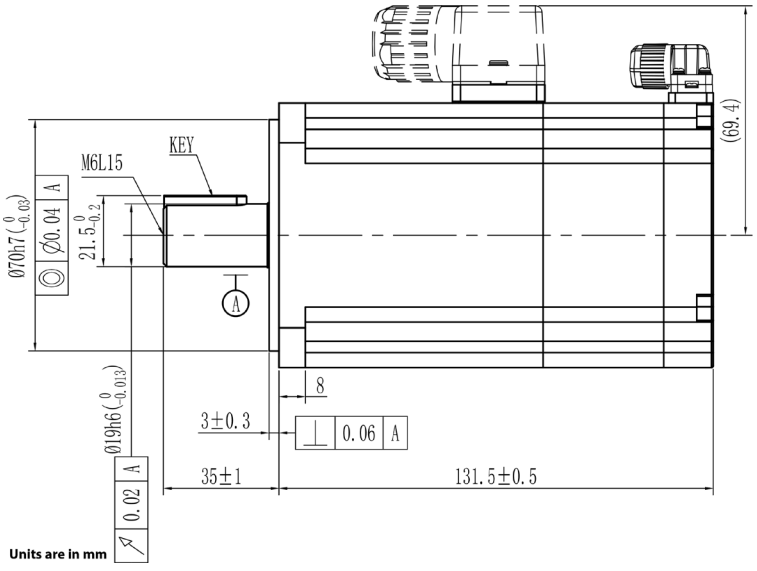
DIMENSIONS

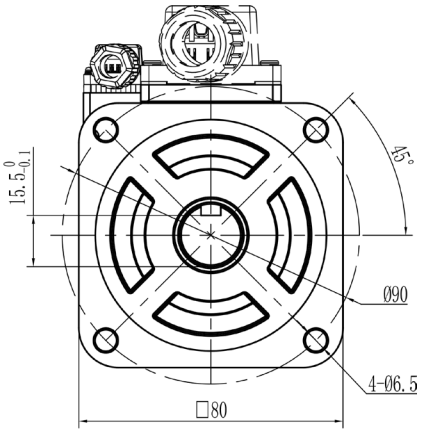
KNC-SRV-SMK80D-0100-30QAK-5DCA





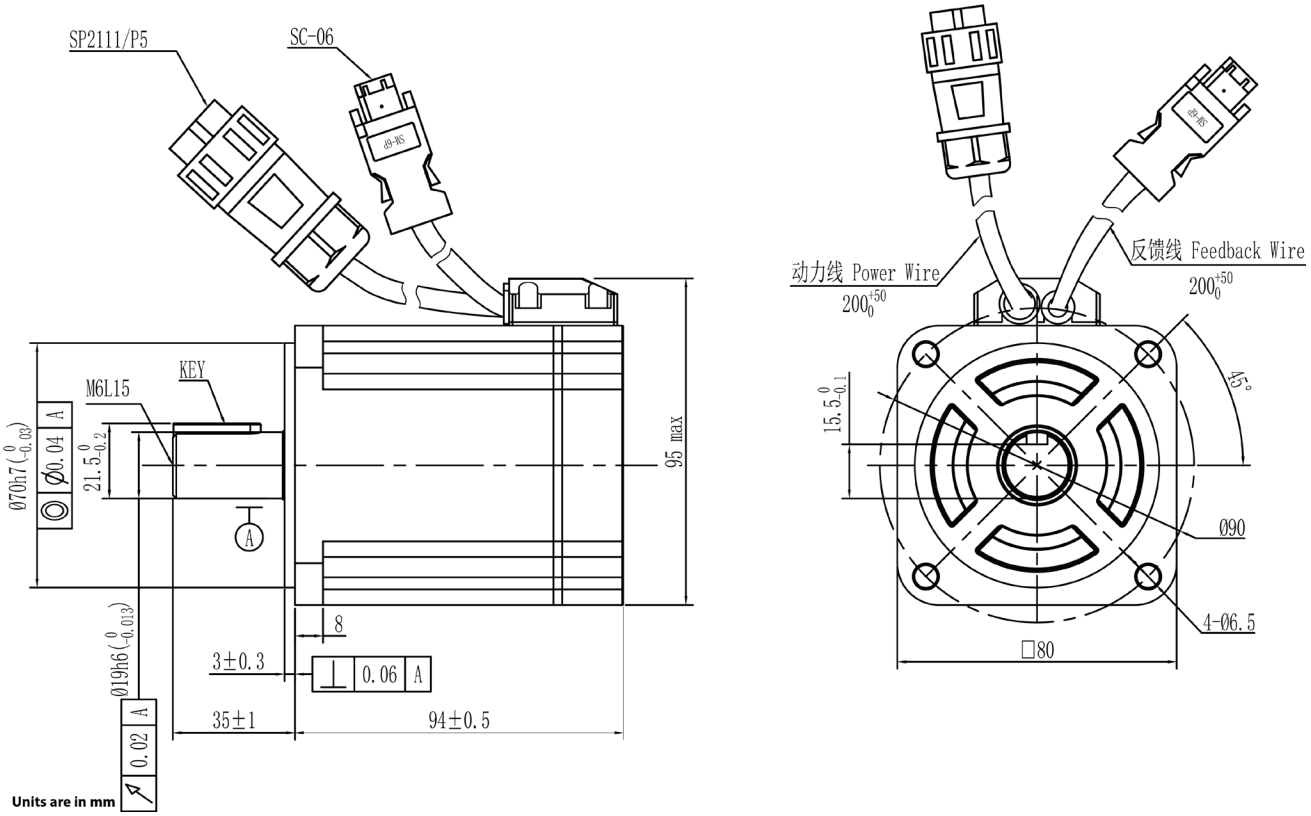
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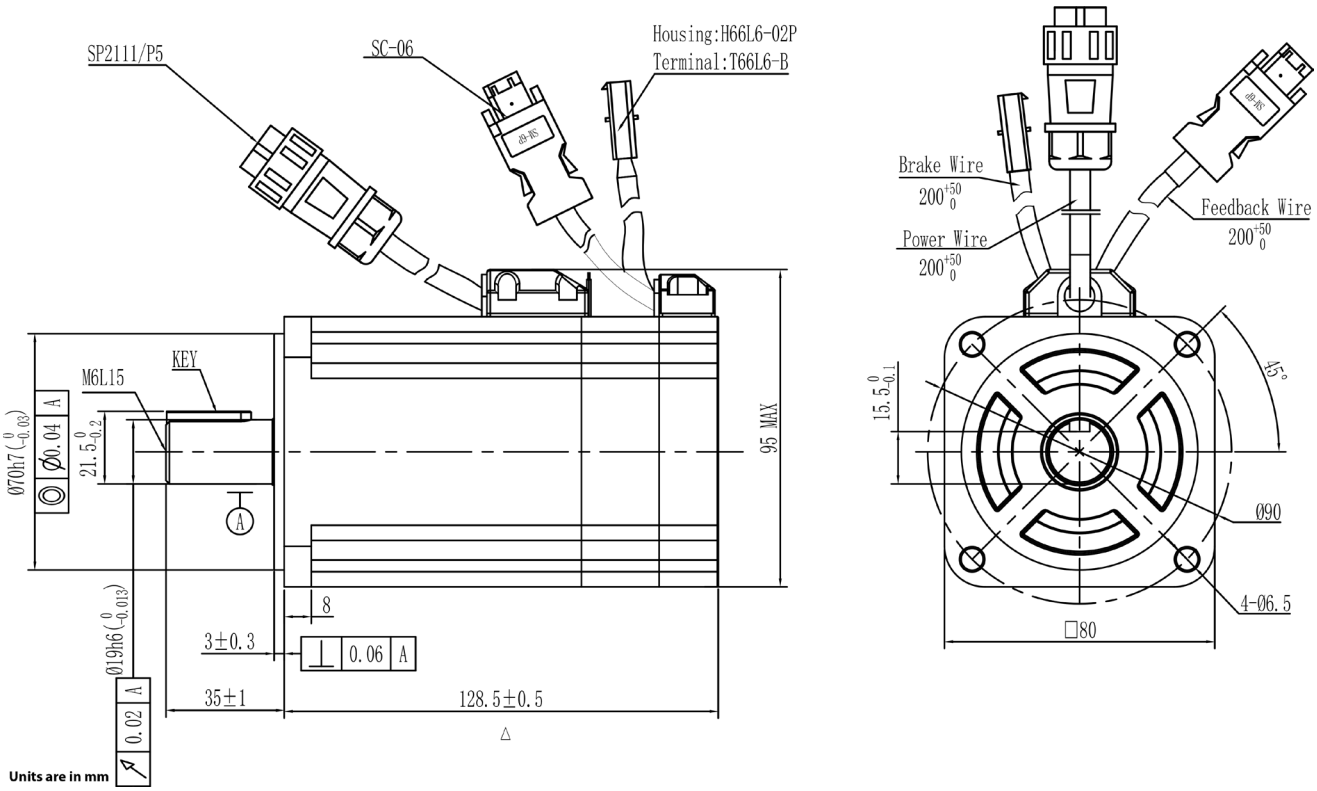


DIMENSIONS

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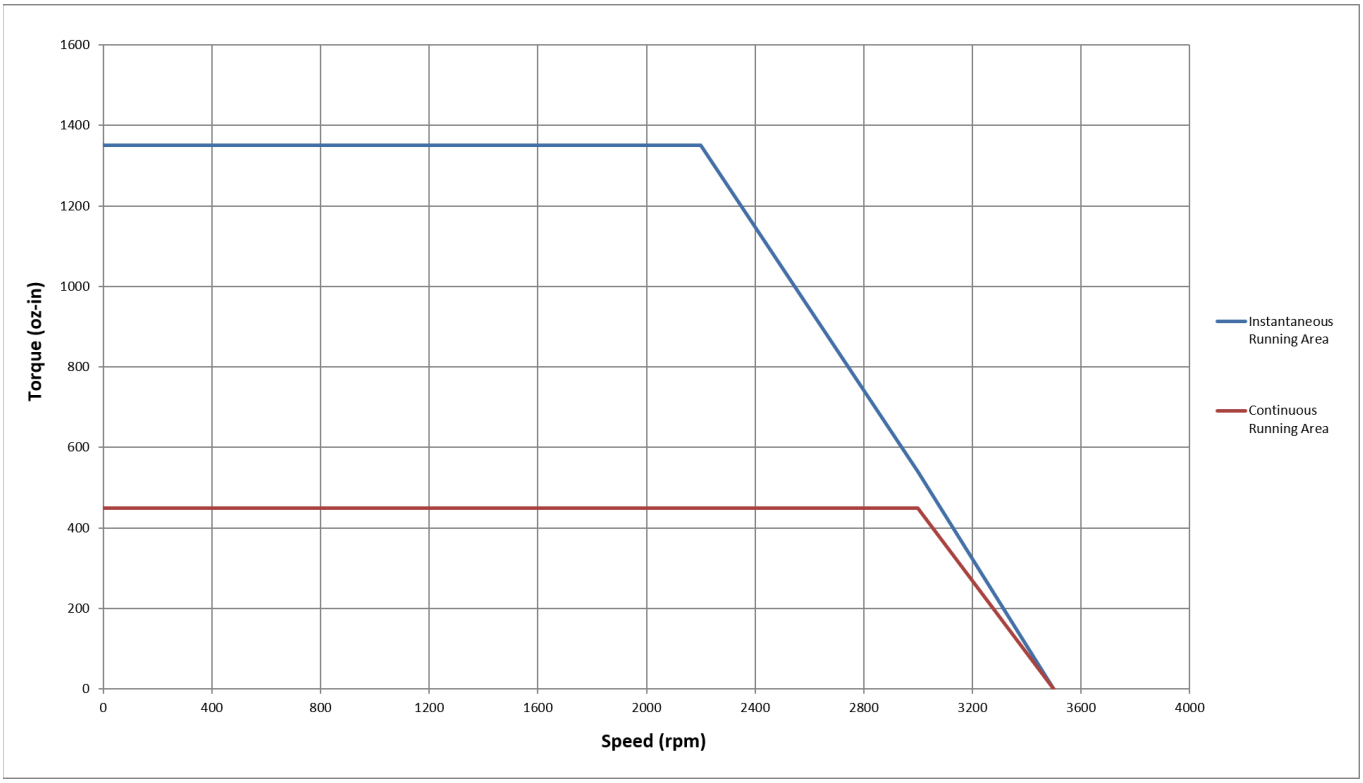


KNC-SRV-SMK80D-0100-30QBK-5DCU



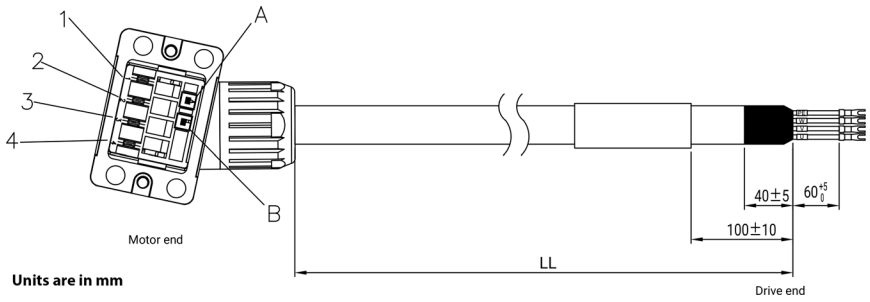
TORQUE CURVE

KNC-SRV-SMK80D-0100-30QAK-5DCA, KNC-SRV-SMK80D-0100-30QBK-5DCA,
KNC-SRV-SMK80D-0100-30QAK-5DCU & KNC-SRV-SMK80D-0100-30QBK-5DCU



WIRING PINOUTS

Motor Cable: KNC-SRV-M-Y-30A-KD0-LL-S for KNC-SRV-SMK80D-0100-30QAK-5DCA

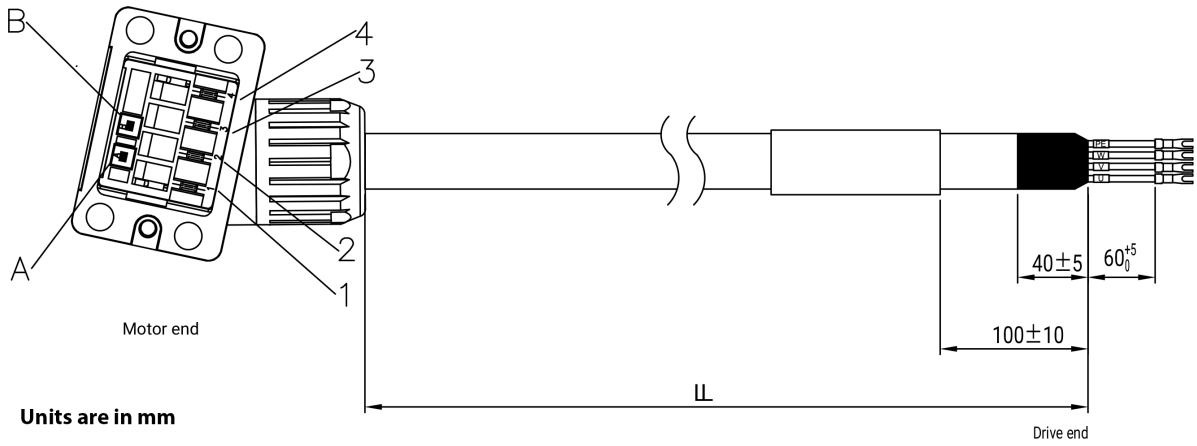


Signal	Motor end 353E-06S-AB-W00	Color
U	PIN1	White
W	PIN2	Black
V	PIN3	Red
PE	PIN4	yellow-green+shield

Note：Cable diameter：12.5±1mm

KNC-SRV-M-Y-30A-KD0-LL-S		
Color	Signal	Motor End 353E-06S-AB-W00
White	U	PIN1
Black	W	PIN2
Red	V	PIN3
Yellow-Green+Shield	PE	PIN4

Motor Cable: KNC-SRV-M-Y-30A-KD1-LL-S for KNC-SRV-SMK80D-0100-30QAK-5DCA

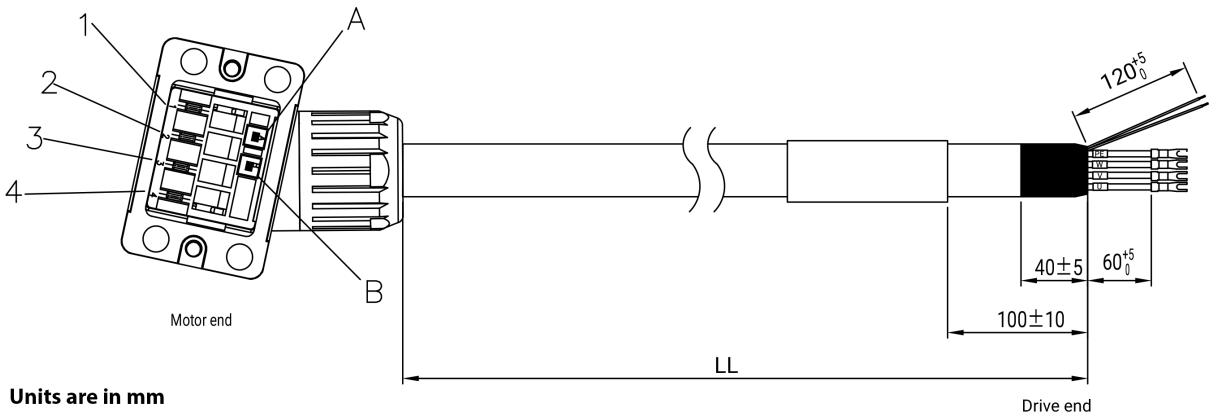


Units are in mm

KNC-SRV-M-Y-30A-KD1-LL-S		
Color	Signal	Motor End 353E-06S-AB-W00
White	U	PIN1
Black	W	PIN2
Red	V	PIN3
Yellow-Green+Shield	PE	PIN4

Note: Cable exits away from Shaft (Tail Out)

Motor and Brake Cable: KNC-SRV-M-Y-30A-KD0-LL-BS for KNC-SRV-SMK80D-0100-30QBK-5DCA

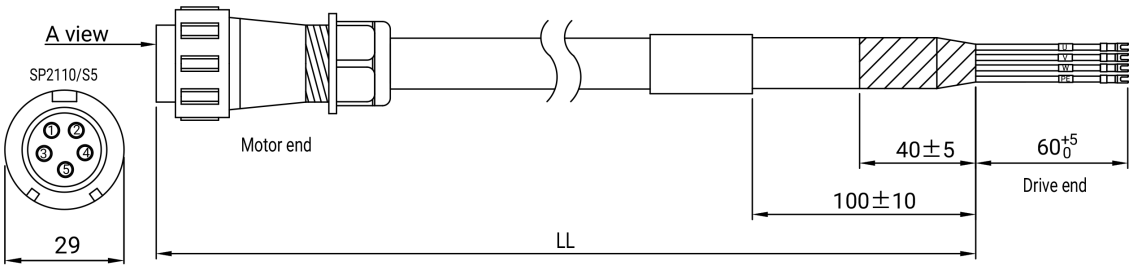


Units are in mm

KNC-SRV-M-Y-30A-KD0-LL-BS		
Color	Signal	Motor End 6353E-06S-AB-W00
White	U	PIN1
Black	W	PIN2
Red	V	PIN3
Yellow-Green+Shield	PE	PIN4
Brown	BR+	PINA
Blue	BR-	PINB

WIRING PINOUTS

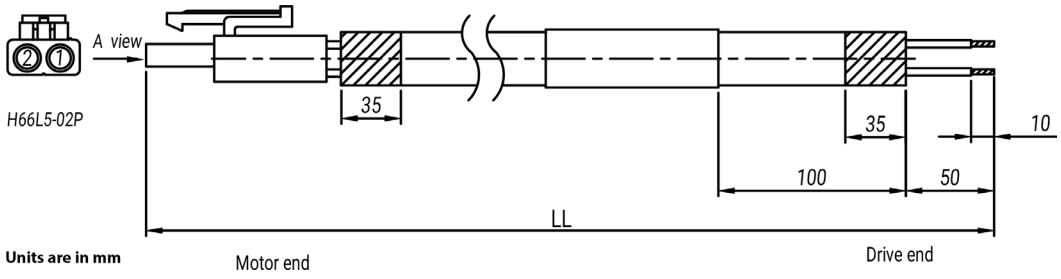
Motor Cable: KNC-SRV-M-Y-30A-SP-LL-S for KNC-SRV-SMK80D-0100-30QAK-5DCU & KNC-SRV-SMK80D-0100-30QBK-5DCU



Units are in mm

KNC-SRV-M-Y-30A-SP-LL-S		
Color	Signal	Motor End SP2110/S 5pole
White	U	PIN1
Black	W	PIN2
Red	V	PIN3
Yellow-Green	PE+Shielding	PIN4
NC	NC	PIN5

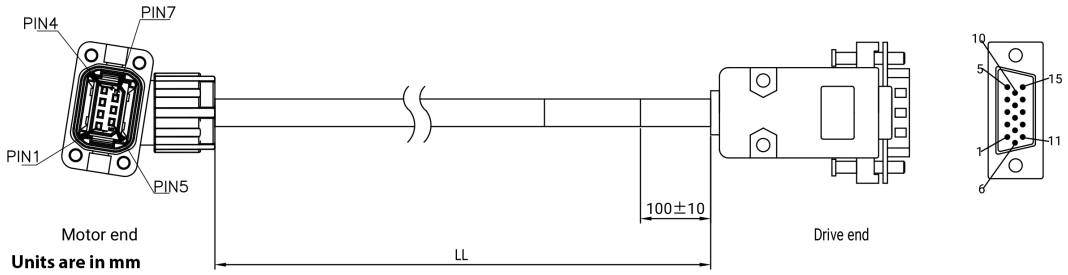
Brake Cable: KNC-SRV-BRA-LL-KL for KNC-SRV-SMK80D-0100-30QBK-5DCU



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

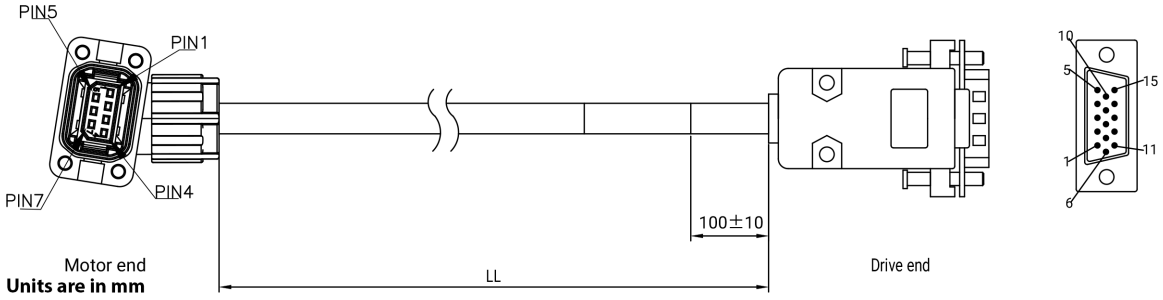
WIRING PINOUTS

Encoder Cable: KNC-SRV-E-H-MV-KA0-LL for KNC-SRV-SMK80D-0100-30QAK-5DCA & KNC-SRV-SMK80D-0100-30QBK-5DCA



KNC-SRV-E-H-MV-KA0-LL			
Color	Signal	Motor End SC-MC7S-A820-P0	Drive End 15PIN DB Male
Red	VDD	PIN1	PIN1
Orange	GND	PIN2	PIN2
/	/	PIN3	/
/	/	PIN4	/
Blue	485+	PIN5	PIN9
Purple	485-	PIN6	PIN14
Shield	Shield	PIN7	Metal Button

Encoder Cable: KNC-SRV-E-H-MV-KA1-LL for KNC-SRV-SMK80D-0100-30QAK-5DCA & KNC-SRV-SMK80D-0100-30QBK-5DCA



KNC-SRV-E-H-MV-KA1-LL			
Color	Signal	Motor End SC-MC7S-A820-P0	Drive End 15PIN DB Male
Red	VDD	PIN1	PIN1
Orange	GND	PIN2	PIN2
/	/	PIN3	/
/	/	PIN4	/
Blue	485+	PIN5	PIN9
Purple	485-	PIN6	PIN14
Shield	Shield	PIN7	Metal Button

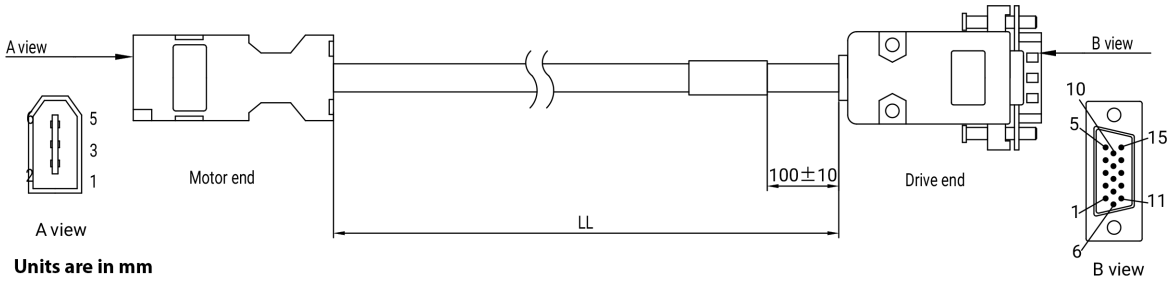
Note: Cable exits away from Shaft (Tail Out)

KNC-SRV-SMK80D-0100 Servo Motor

ANAHEIM AUTOMATION

WIRING PINOUTS

Encoder Cable: KNC-SRV-E-H-MV-U-LL for KNC-SRV-SMK80D-0100-30QAK-5DCU & KNC-SRV-SMK80D-0100-30QBK-5DCU



Units are in mm

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-0100-30QAK-5DCA	KNC-SRV-M-Y-30A-KD0-LL-S KNC-SRV-M-Y-30A-KD1-LL-S	KNC-SRV-E-H-MV-KA0-LL KNC-SRV-E-H-MV-KA1-LL	-
KNC-SRV-SMK80D-0100-30QBK-5DCA	KNC-SRV-M-Y-30A-KD0-LL-BS		-
KNC-SRV-SMK80D-0100-30QAK-5DCU	KNC-SRV-M-Y-30A-SP-LL-S	KNC-SRV-E-H-MV-U-LL	-
KNC-SRV-SMK80D-0100-30QBK-5DCU			KNC-SRV-BRA-LL-KL

Model		KNC-SRV-SMK80D-0100-30QAK-5DCA KNC-SRV-SMK80D-0100-30QBK-5DCA KNC-SRV-SMK80D-0100-30QAK-5DCU KNC-SRV-SMK80D-0100-30QBK-5DCU
Length of Motor L(mm) (5DCA)		97.5 ± 0.5 131.5 ± 0.5 (with brake)
Length of Motor L(mm) (5DCU)		94 ± 0.5 131.2 ± 0.5 (with brake)
Cooling Method		Totally Enclosed, Self-Cooling
Protection Level		IP65 & 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.

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