

KNC-SRV-SMH110D Servo Motor



FEATURES

- 110mm Frame Size
- Power Rating up to 1260 Watts
- Rated Torque up to 849 oz-in
- Rated Speed of 3000 RPM
- Brake Option Available
- 2500PPR Incremental Encoder
- Totally Enclosed, Non-Ventilated
- IP65 Protection for Body, IP54 Shaft Sealing
- CE Certified

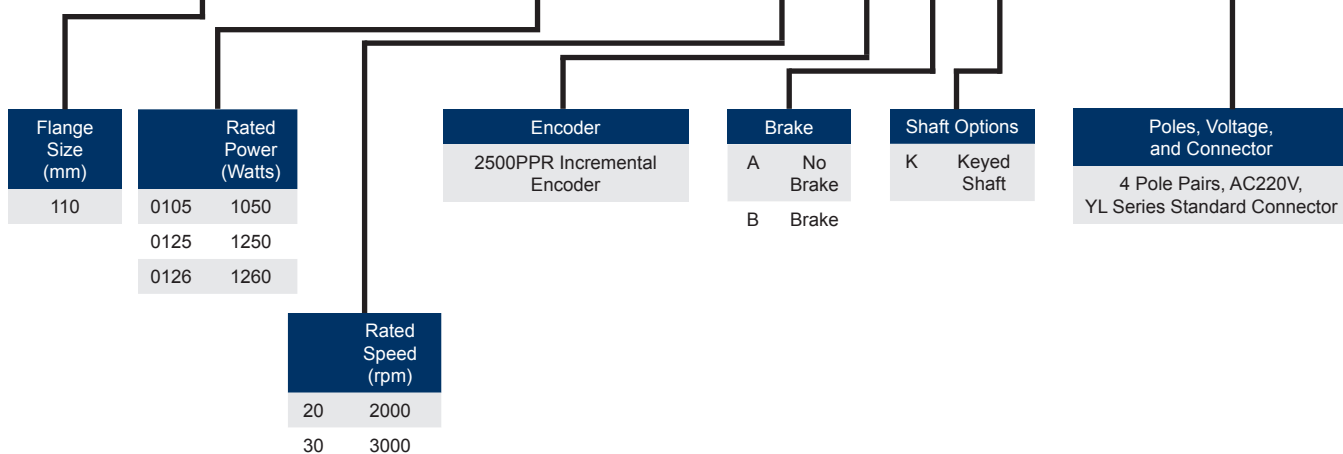


DESCRIPTION

The KNC-SRV-SMH110D 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 849 oz-in with a 1050-1260 Watt power rating. This servo motor series enables industrial motion control applications to attain a great combination of position and speed functionality.

ORDERING INFORMATION

SMH110D - 0125 - 20AAK - 4LKC

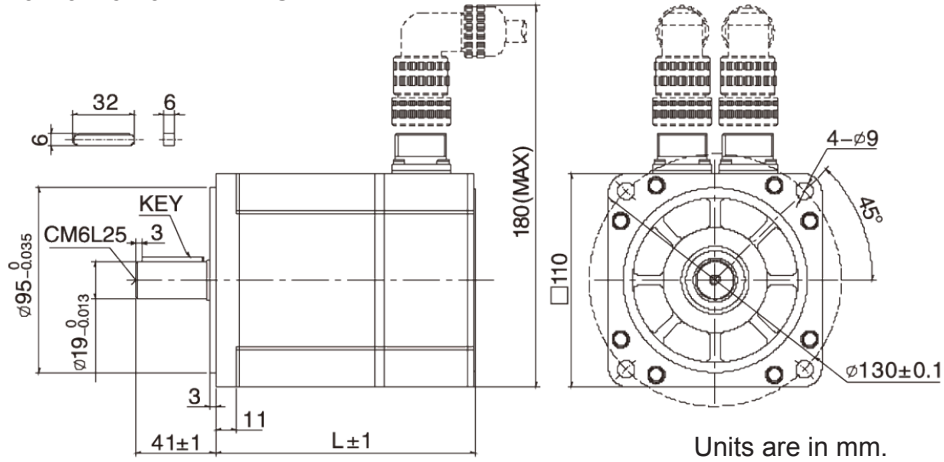


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Model	KNC-SRV-SMH110D-0105-20AAK-4LKC KNC-SRV-SMH110D-0105-20ABK-4LKC	KNC-SRV-SMH110D-0125-30AAK-4LKC KNC-SRV-SMH110D-0125-30ABK-4LKC	KNC-SRV-SMH110D-0126-20AAK-4LKC KNC-SRV-SMH110D-0126-20ABK-4LKC
Compatible Driver	KNC-SRV-FD432-(LA/AA/CA) KNC-SRV-FD422S-(LA/AA/CA) JD430-AA-000	KNC-SRV-FD432-(LA/AA/CA) KNC-SRV-FD422S-(LA/AA/CA) JD430-AA-000	KNC-SRV-FD432-(LA/AA/CA) KNC-SRV-FD422S-(LA/AA/CA) JD430-AA-000
DC Link Voltage (VDC)	300	300	560
Rated Power (W)	1050	1250	1260
Rated Torque (oz-in)	708	566	849
Rated Speed (RPM)	2000	3000	2000
Max Speed (RPM)	2850	5800	2850
Rated Current (A)	5.9	6.5	4.3
Maximum Torque (oz-in)	2124	1699	2549
Maximum Current (A)	17.7	19.5	18.6
Standstill Torque (oz-in)	778	623	934
Standstill Current (A)	6.49	6.82	6.76
Resistance Line-Line (Ω)	1.03	0.8	1.258
Inductance Line-Line (mH)	7.8	6.4	9.62
Electrical Time Constant (ms)	7.57	7.9	7.64
Mechanical Time Constant (ms)	1.55	1.4	1.65
Reverse Voltage Constant Ke (V/krpm)	55	45	64
Torque Constant Kt (oz-in/A)	128	105	149
Rotor Moment of Inertia Jm (Kg. cm ²)	7.20 7.25 (with brake)	5.80 5.85(with brake)	8.50 8.55 (with brake)
Pole Pair Number	4	4	4
Maximum Voltage Rising du/dt (KV/ μ s)	8	8	8
Insulation Class	F	F	F
Maximum Radical Force F (N)	630	630	630
Maximum Axial Force F (N)	315	315	315
Weight (lbs)	15.87 20.28 (with brake)	13.66 18.07 (with brake)	18.07 22.48 (with brake)

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

Dimension Drawing for
 KNC-SRV-SMH110D-0105-20AAK-4LKC, KNC-SRV-SMH110D-0125-30AAK-4LKC,
 KNC-SRV-SMH110D-0126-20AAK-4LKC



Model	KNC-SRV-SMH110D-0105-20AAK-4LKC KNC-SRV-SMH110D-0105-20ABK-4LKC	KNC-SRV-SMH110D-0125-30AAK-4LKC KNC-SRV-SMH110D-0125-30ABK-4LKC	KNC-SRV-SMH110D-0126-20AAK-4LKC KNC-SRV-SMH110D-0126-20AAK-4LKC
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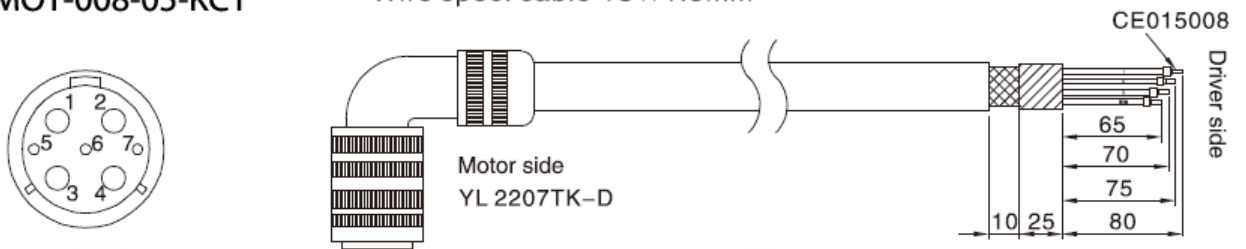
Length of Motor L (mm)	185 245±1 (with brake)	168 228±1 (with brake)	202 262±1 (with brake)
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Motor Cable: MOT-008-05-KC1 for KNC-SRV-SMH110D-0105-20AAK-4LKC, KNC-SRV-SMH110D-0125-30AAK-4LKC, and KNC-SRV-SMH110D-0126-20AAK-4LKC

KNC-

MOT-008-05-KC1

Wire spec. cable 4C × 1.5mm²



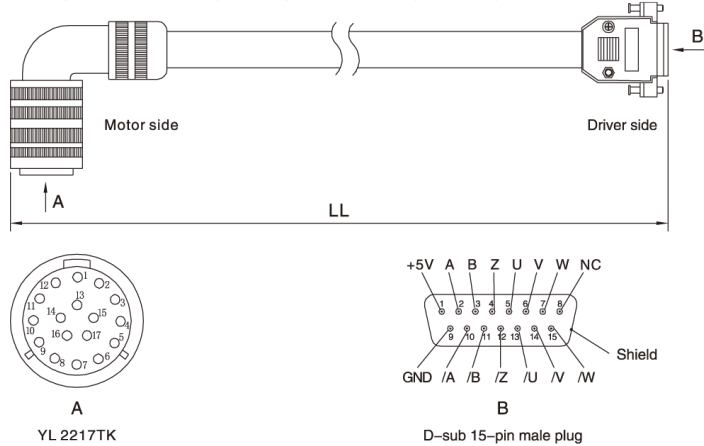
KNC-SRV-MOT-008-05-KC1		
Cable Color	Signal	PIN #
1	U	PIN 2
2	V	PIN 3
3	W	PIN 4
Yellow-Green	PE	PIN 1

Encoder Cable: ENCCA-05-KC1 for KNC-SRV-SMH110D-0105-20AAK-4LKC, KNC-SRV-SMH110D-0125-30AAK-4LKC, and KNC-SRV-SMH110D-0126-20AAK-4LKC

ENCODER PINOUT

ENCCA-05-KC1

Wire spec. 1P x 24AWG(7/0.20T)+7P x 28AWG(7/0.127T)



ENCCA-05-KC1				
Three-row 15 pin DB	Two-row 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

SPECIFICATIONS

Model	Motor Cable	Encoder Cable	Brake Cable
KNC-SRV-SMH110D-0105-20AAK-4LKC KNC-SRV-SMH110D-0125-30AAK-4LKC KNC-SRV-SMH110D-0126-20AAK-4LKC	MOT-008-05-KC1	ENCCA-05-KC1	--
KNC-SRV-SMH110D-0105-20ABK-4LKC KNC-SRV-SMH110D-0125-30ABK-4LKC KNC-SRV-SMH110D-0126-20ABK-4LKC	MOT-008-05-KC2-B	ENCCA-05-KC1	MOT-008-05-KC2-B

Model	KNC-SRV-SMH110D-0105-20AAK-4LKC KNC-SRV-SMH110D-0105-20ABK-4LKC	KNC-SRV-SMH110D-0125-30AAK-4LKC KNC-SRV-SMH110D-0125-30ABK-4LKC	KNC-SRV-SMH110D-0126-20AAK-4LKC KNC-SRV-SMH110D-0126-20ABK-4LKC
Length of Motor L (mm)	185 245±1 (with brake)	168 228±1 (with brake)	202 262±1 (with brake)
Position Feedback Device	Incremental Encoder 2500PPR		
Cooling Method	Totally Enclosed, Non-Ventilated		
Protection Level	IP65 for Body, Shaft Sealing IP54		
Temperature	-20°C~40°C		
Humidity	Below 90% RH (No Condensing)		
Environmental Conditions of Operation	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		