

SMH130D Servo Motor

Kinco

FEATURES

- 130mm Frame Size
- Power Rating up to 2100 Watts
- Rated Torque up to 10.0 Nm
- Rated Speed of 2000 RPM
- Maximum Speed 3250 RPM
- Brake Option Available
- 2500PPR Incremental Encoder
- Totally Enclosed, Non-Ventilated
- IP65 Protection for Body, IP54 Shaft Sealing
- CE Certified



DESCRIPTION

The SMH130D 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 10.0 Nm with a 1050-2100 Watt power rating. This servo motor series enables industrial motion control applications to attain a great combination of position and speed functionality.

CUSTOM ORDER LAYOUT

Model	SMH130D-0105-20AAK-4HKC SMH130D-0105-20ABK-4HKC	SMH130D-0157-20AAK-4HKC SMH130D-0157-20ABK-4HKC	SMH130D-0210-20AAK-4HKC SMH130D-0210-20ABK-4HKC
Compatible Driver	FD622S-(EA/LA/AA/CA) JD620-AA-000 CD622S-AA-000	FD622S-(EA/LA/AA/CA) JD620-AA-000 CD622S-AA-000	FD622S-(EA/LA/AA/CA) JD620-AA-000 CD622S-AA-000
DC Link Voltage (VDC)	540	540	540
Rated Power (W)	1050	1570	2100
Rated Torque T_N (Nm)	5.0	7.5	10.0
Rated Speed (RPM)	2000	2000	2000
Max Speed (RPM)	3250	3250	3150
Rated Current (A)	4.3	6.3	7.6
Maximum Torque (Nm)	12.5	18.75	25
Maximum Current (A)	10.75	15.75	19
Standstill Torque (Nm)	5.5	8.25	11
Standstill Current (A)	4.73	6.93	8.36
Resistance Line-Line (Ω)	1.85	1.17	0.98
Inductance Line-Line (mH)	23.7	16.2	14.3
Electrical Time Constant (ms)	12.81	13.846	14.592
Mechanical Time Constant (ms)	2.868	2.529	2.268
Reverse Voltage Constant K_e (V/krpm)	70	72	80
Torque Constant K_t (Nm/A)	1.1578	1.191	1.3232
Rotor Moment of Inertia J_m (Kg. cm ²)	12.00 12.04 (with brake)	17.70 17.74 (with brake)	23.40 23.44 (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)	900	900	900
Maximum Axial Force F (N)	450	450	450

L011537

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

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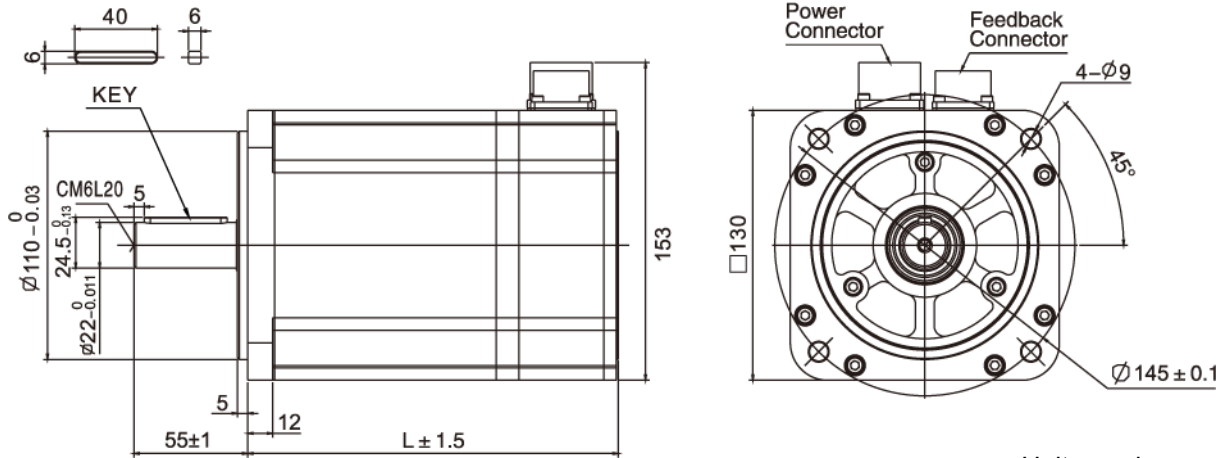
www.kincoautomation.com

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DIMENSIONS

SMH130D Dimension Drawing



Units are in mm.

Model	SMH130D-0105-20AAK-4HKC SMH130D-0105-20ABK-4HKC	SMH130D-0157-20AAK-4HKC SMH130D-0157-20ABK-4HKC	SMH130D-0210-20AAK-4HKC SMH130D-0210-20ABK-4HKC
Length of Motor "L"(mm)	159 ± 1.5 220 ± 1.5 (with brake)	179 ± 1.5 240 ± 1.5 (with brake)	199 ± 1.5 260 ± 1.5 (with brake)

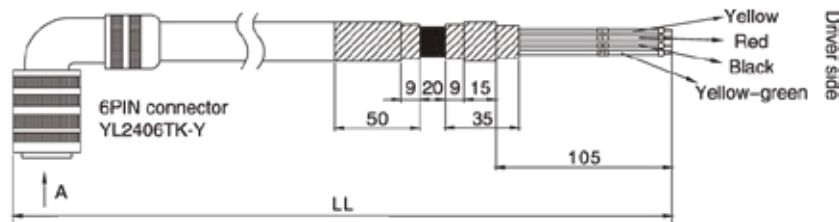
WIRING PINOUT

Motor Cable: MOT-008-05-KC2 for SMH130D-0105/0157/0210

MOT-008-05-KC2



Power cable O-2395 4C × 1.5mm² (30/0.25B)



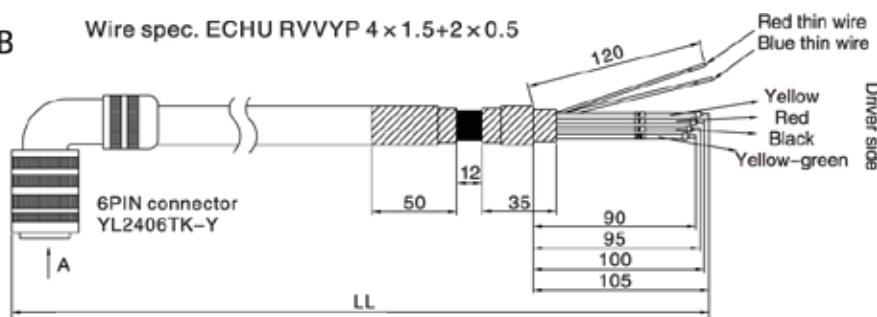
MOT-008-05-KC2		
Cable Color	Signal	PIN #
Yellow	U	PIN 1
Red	V	PIN 2
Black	W	PIN 3
Yellow-Green	PE	PIN 4

Motor Cable with Brake: MOT-008-05-KC2-B for SMH130D-0105/0157/0210

MOT-008-05-KC2-B



Wire spec. ECHU RVVYP 4 × 1.5+2 × 0.5



MOT-008-05-KC2-B		
Cable Color	Signal	PIN #
Yellow	U	PIN 1
Red	V	PIN 2
Black	W	PIN 3
Yellow-Green	PE	PIN 4
Red(thin)	brake+	PIN 5
Blue(thin)	Brake-	PIN 6
Shield Terminal	Shield	Metal Ring

All units are in mm

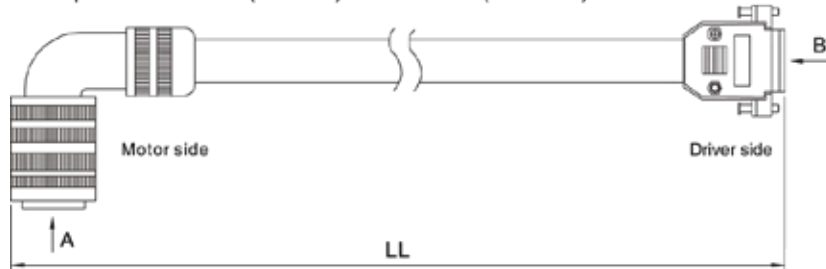
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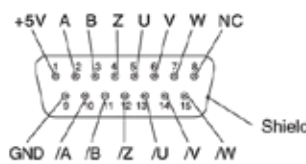
Encoder Cable: ENCCA-05-KC1 for SMH130D-0105/0157/0210

ENCCA-05-KC1

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



A
YL 2217TK



B
D-sub 15-pin male plug

ENCCA-05-KC1				
17 PIN	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	Motor Cable with Brake	Encoder Cable
SMH130D-0105-20AAK-4HKC SMH130D-0157-20AAK-4HKC SMH130D-0210-20AAK-4HKC	MOT-008-05-KC2	--	ENCCA-05-KC1
SMH130D-0105-20ABK-4HKC SMH130D-0157-20ABK-4HKC SMH130D-0210-20ABK-4HKC	--	MOT-008-05-KC2-B	ENCCA-05-KC1

Model	SMH130D-0105-20AAK-4HKC SMH130D-0105-20ABK-4HKC	SMH130D-0157-20AAK-4HKC SMH130D-0157-20ABK-4HKC	SMH130D-0210-20AAK-4HKC SMH130D-0210-20ABK-4HKC
Length of Motor L (mm)	159 ± 1.5 220 ± 1.5 (with brake)	179 ± 1.5 240 ± 1.5 (with brake)	199 ± 1.5 260 ± 1.5 (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 (Non-Freezing)		
Humidity	Below 90% RH (Non-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		