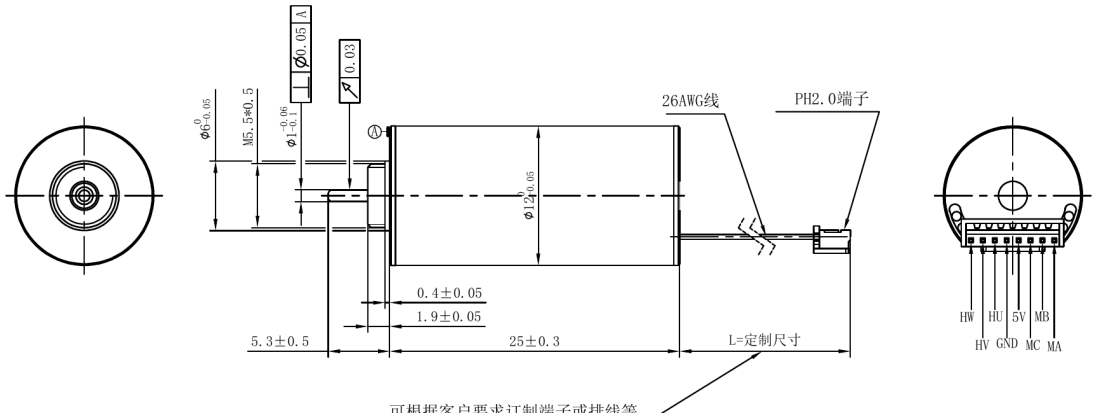
EC1225-01A | Ø12 mm Sensored Coreless BLDC Motor

MOTOR ONLY / PRODUCT TECHNICAL DATASHEET

SIGGEAR / EC1225-01A / SOURCE DRAWING EC1225-01A

REV 1.0 | 17 NOV 2026

01 MECHANICAL INTERFACE / SOURCE DRAWING



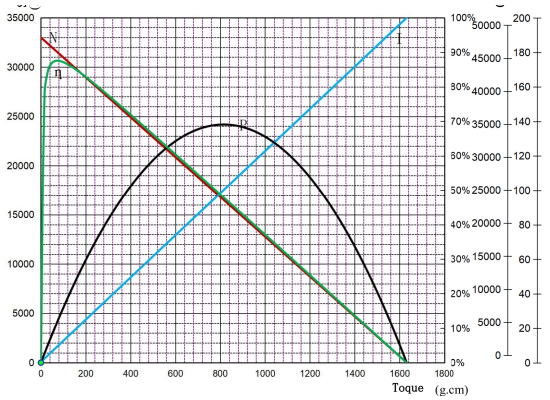
Source drawing: EC1225-01A | Motor body: Ø12 mm × 25 ±0.3 mm | Cable length L is customizable | PH2.0 connector | 26 AWG silicone wire

02 GENERAL TECHNICAL DATA

Motor type	**Sensored coreless BLDC**	Rated voltage	**12 VDC**
Motor body diameter	**Ø12 mm (0 / -0.05)**	Motor body length	**25 ±0.3 mm**
No-load speed	**33,000 ±15% rpm**	Rated speed	**31,500 ±15% rpm**
No-load current	**<=105 mA**	Rated torque	**7.2 mN·m**
Rotation direction	**CW / CCW**	Housing material	**Anodized aluminum alloy**
Lead wire	**26 AWG silicone wire**	Connector	**PH2.0**
Cable length	**Customizable**	Driver requirement	**Sensored driver required**
Validated gearhead pairing	**12P / Ø12 mm**	Pin labels	**HW / HU / 5V / MB / HV / GND / MC / MA**

03 PERFORMANCE CHARACTERISTICS

PARAMETER	NO-LOAD	MAX. EFF.	MAX. POWER	STALL
Torque (mN·m)	0	7.15	80.0	160.0
Speed (rpm)	33,000	31,526	16,500	0
Current (A)	0.105	2.245	24.05	48.0
Output power (W)	0	23.59	138.15	0
Efficiency (%)	0	87.6	47.9	0



Torque constant: 3.34 mN·m/A | Speed constant: 2,812 rpm/V | Test date: 26 Oct 2026

Performance test conditions: ambient temperature 25–30 °C. The source notes that the motor was tested rapidly to prevent significant temperature rise. Maximum-power and stall values are test-point data, not continuous thermal ratings. The table is converted to SI units; the original performance curve retains its g·cm torque axis.