

EC044A Series with Two Wire Drive

Salient Characteristics

The EC044A series brushless motor is available with an integrated drive for direct operation off a 12 or 24 VDC supply. The EC044A is an excellent choice for both power transmission and simple velocity control applications. It is offered in 2 rated voltages with continuous torque of 0.042 Nm in a 44 mm diameter.



Features:

- Speeds up to 15,000 RPM possible
- DC bus voltage up to 12 or 24VDC Vdc
- Drop in brush motor replacement for single direction applications
- Metric mounting
- Two standard windings - Special windings available

Assembly Options:

- Feedback devices:** Incremental 2 & 3 ch., 200 – 8000 CPR
- Standard Encoders:** E30C & D ready
- Gearbox:** Gearbox ready – bolt on PLG42 gearing

Drive Options:

- Discrete input settings from 5.0 Vdc to 48 Vdc
- Digital tach output

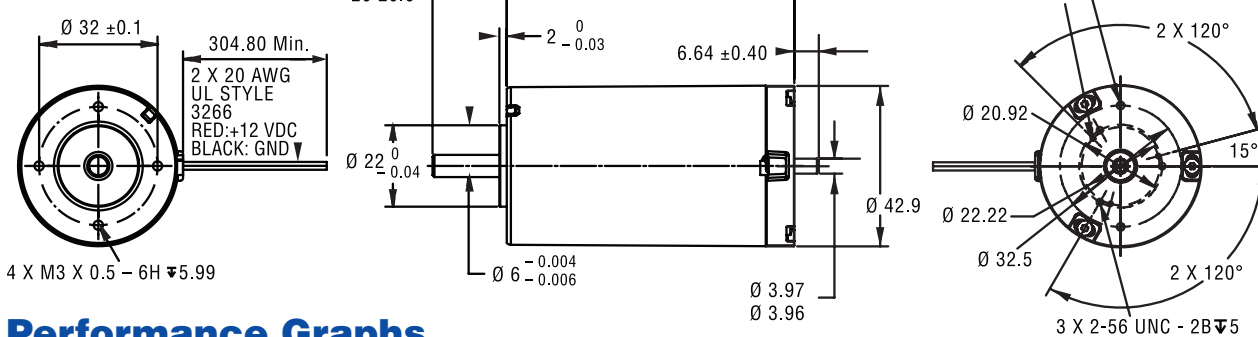
MOTOR DATA	SYMBOL	UNITS	EC044A-20D0-803	EC044A-20D0-804
Rated Voltage	V_r	V	12	24
Minimum Voltage	V_{MAX}	V	10	18
Maximum Voltage	V_T	V	15	27
Rated Torque ¹	T_r	Nm	0.042	0.042
		oz-in	6.0	6.0
Speed at Rated Torque ¹	ω_r	rpm	2375	3500
Current at Rated Torque ¹	I_r	Amps	1.9	1.2
Rated Power ¹	P_r	Watts	10.5	15.5
Peak Torque (2 sec.)	T_{pk}	Nm	0.071	0.071
		oz-in	10.0	10.0
Peak Current (2 sec.)	I_{pk}	Amps	3.0	2.0
No-Load Speed	ω_{nl}	rpm	4200	5500
No-Load Current	I_{nl}	Amps	0.30	0.18
Rotor Inertia	J_r	kg m ²	3.0E-06	3.0E-06
		oz-in-s ²	4.2E-04	4.2E-04
Max. Winding Temp	Θ_{MAX}	°C	110	120
Direction of Rotation	SE	Shaft End	CW	CCW
Weight	W_m	kg	0.37	0.37
		oz	13	13

OPTIONS	Gearboxes	PLG42S, PLG42K, G51A, PLG52
	Encoders	E30C, E30D, H, Z

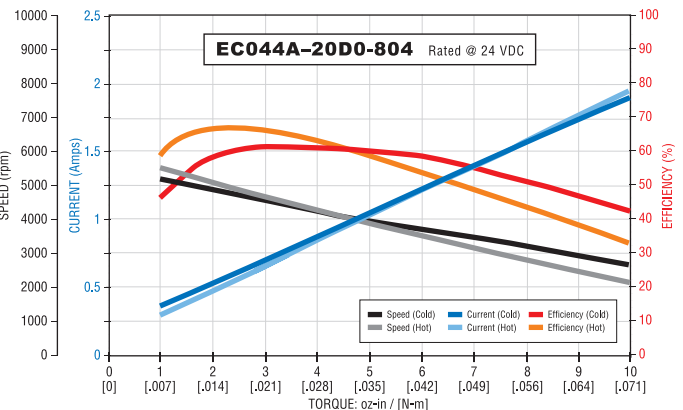
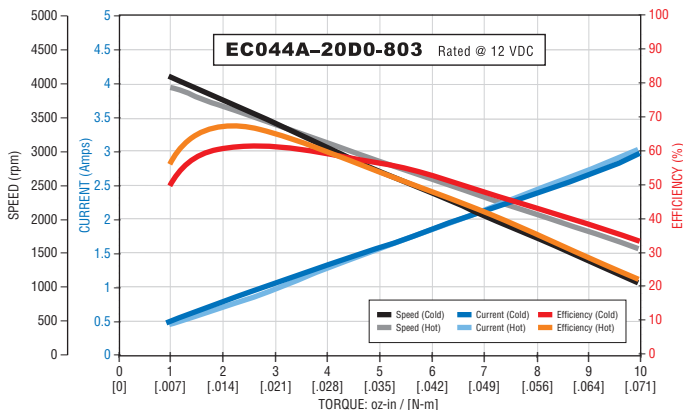
¹ Recorded as motor only without heatsink at maximum winding temperature. Recorded at Rated Voltage. Recorded at 25°C.

Dimensional Drawings

Dimensions = metric [mm]



Performance Graphs



NOTE: All values specified at 25°C ambient temperature and without heatsink. Peak values are theoretical and for reference only.