NMS-E Series Datasheet

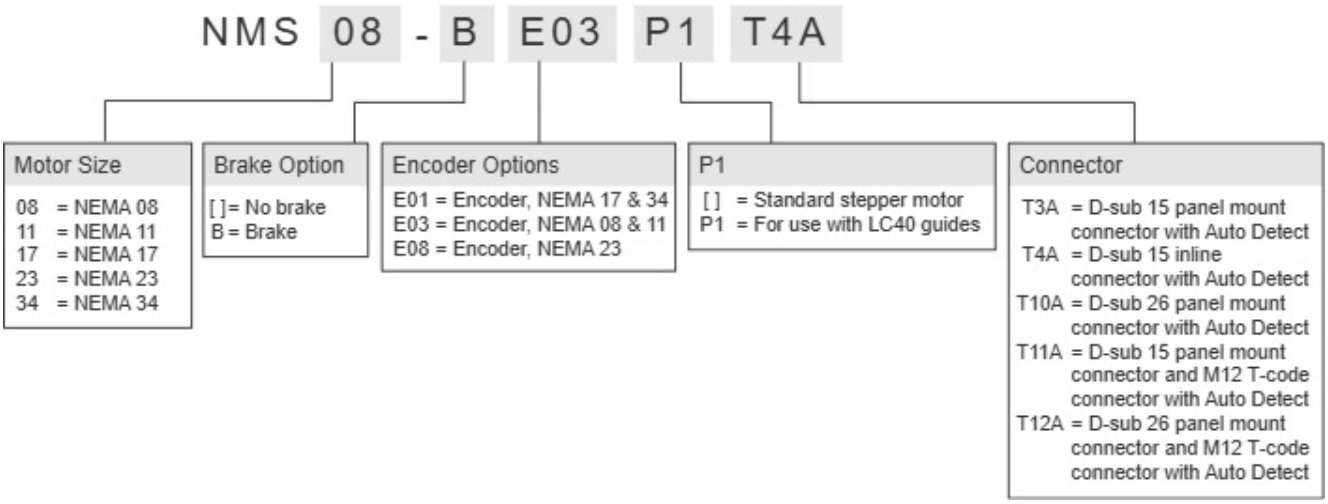
- NEMA size 08 to 34 stepper motors offer a range of size and torque
- Up to 3000 rpm speed and 5.25 N-m torque
- HS02 home sensor and magnet included
- Built-in encoders provide slip/stall detection and recovery
- Optional integrated power-off brake
- Designed for use with an X-MCC Series stepper motor controller or any 2-phase stepper motor controller
- With AutoDetect, the X-MCC controller configures its settings automatically for the connected peripheral

NMS-E Series Overview

These NEMA stepper motors are designed to connect directly to our MCC family of controllers.. Set-up is easy with AutoDetect. Once connected, the MCC controller will automatically detect and configure the motor. The built-in encoder allows closed-loop operation and slip/stall recovery features. A detachable home sensor (HS02) and magnet are included. An optional power-off brake is available on NEMA 23 and NEMA 34 sized steppers to secure the payload across power cycles.

For more information visit: https://www.zaber.com/products/stepper-motors/NMS-E

NMS-E Series Part Numbering & Options



NMS-E Series Drawings

- NMS08-E.png (Drawing for the NMS08-E)
- NMS11-E.png (Drawing for the NMS11-E)
- NMS17-E.png (Drawing for the NMS17-E)
- NMS23-E.png (Drawing for the NMS23-E)
- NMS23-ET3A.png (Drawing for the NMS23-ET3A)
- NMS23-BE.png (Drawing for the NMS23-BE)
- NMS34-E.png (Drawing for the NMS34-E)
- NMS34-BE.pdf (Drawing for the NMS34-BE01T12A)

NMS-E Series Specifications

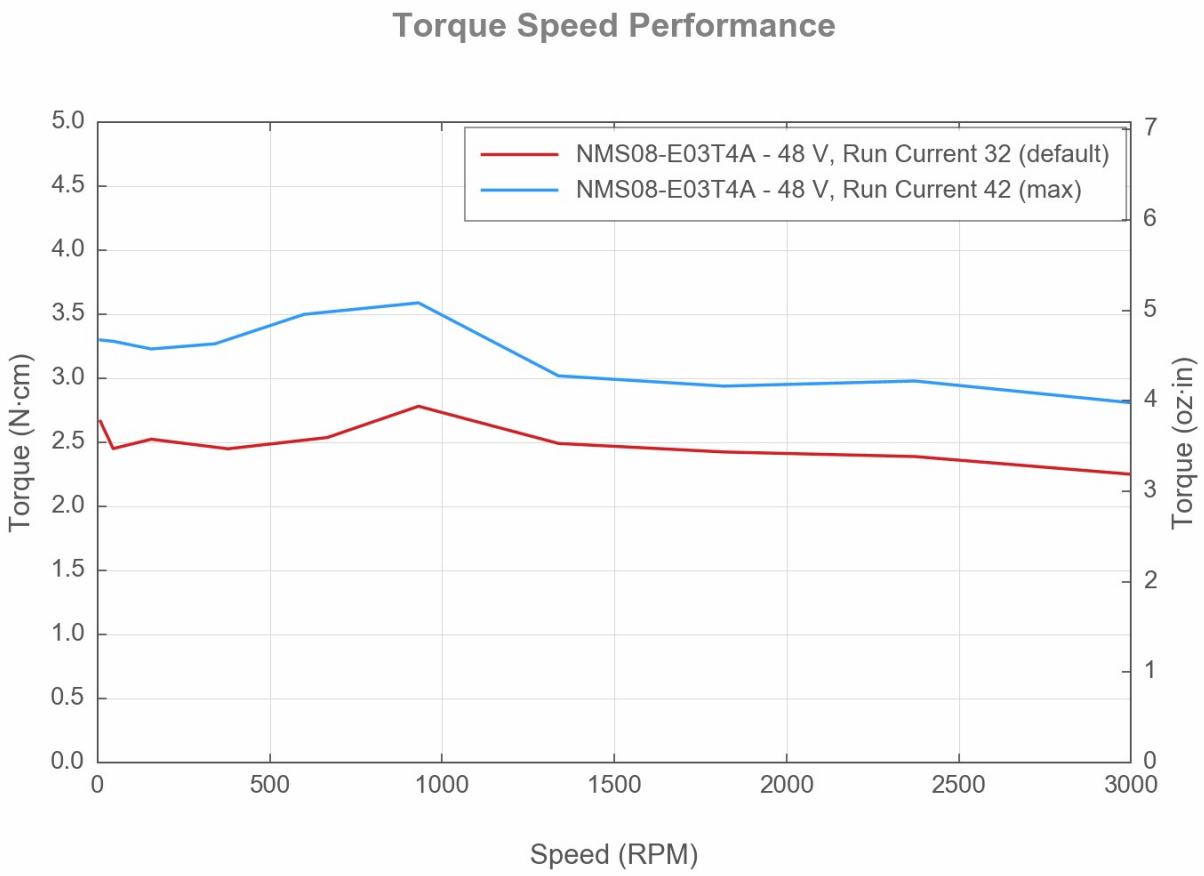
Microstep Size (Default Resolution)	**0.028125° (490.866 µrad)**
Built-in Controller	No
Recommended Controller	MCC (48 V) Recommended
AutoDetect	Yes
Maximum Speed	18000°/s (3000 rpm)
Minimum Speed	0.017172°/s (299.703 µrad/s)
Speed Resolution	0.017172°/s (299.703 µrad/s)
Encoder Type	Rotary quadrature encoder
Motor Steps Per Rev	200
Motor Type	Stepper (2 phase)
Limit or Home Sensing	Magnetic home sensor
Operating Temperature Range	0 to 50 °C
CE Compliant	Yes
Vacuum Compatible	No

Part Number	Encoder Resolution	Maximum Torque	Maximum Brake Torque	Motor Rated Current
NMS08-E03T4A	200 CPR (800 states/rev)	3.5 N-cm (5.0 oz-in)		600 mA/phase
NMS11-E03T4A	200 CPR (800 states/rev)	17 N-cm (24.1 oz-in)		1500 mA/phase
NMS17-E01T4A	500 CPR (2000 states/rev)	58 N-cm (82.1 oz-in)		2300 mA/phase
NMS23-E08T4A	400 CPR (1600 states/rev)	180 N-cm (254.9 oz-in)		3000 mA/phase
NMS23-E08P1T3A	400 CPR (1600 states/rev)	180 N-cm (254.9 oz-in)		3000 mA/phase
NMS23-BE08T10A	400 CPR (1600 states/rev)	180 N-cm (254.9 oz-in)	150 N-cm (212.4 oz-in)	3000 mA/phase
NMS23-BE08P1T10A	400 CPR (1600 states/rev)	180 N-cm (254.9 oz-in)	150 N-cm (212.4 oz-in)	3000 mA/phase
NMS34-E01T11A	500 CPR (2000 states/rev)	525 N-cm (743.5 oz-in)		9470 mA/phase
NMS34-BE01T12A	500 CPR (2000 states/rev)	525 N-cm (743.5 oz-in)	200 N-cm (283.2 oz-in)	9470 mA/phase

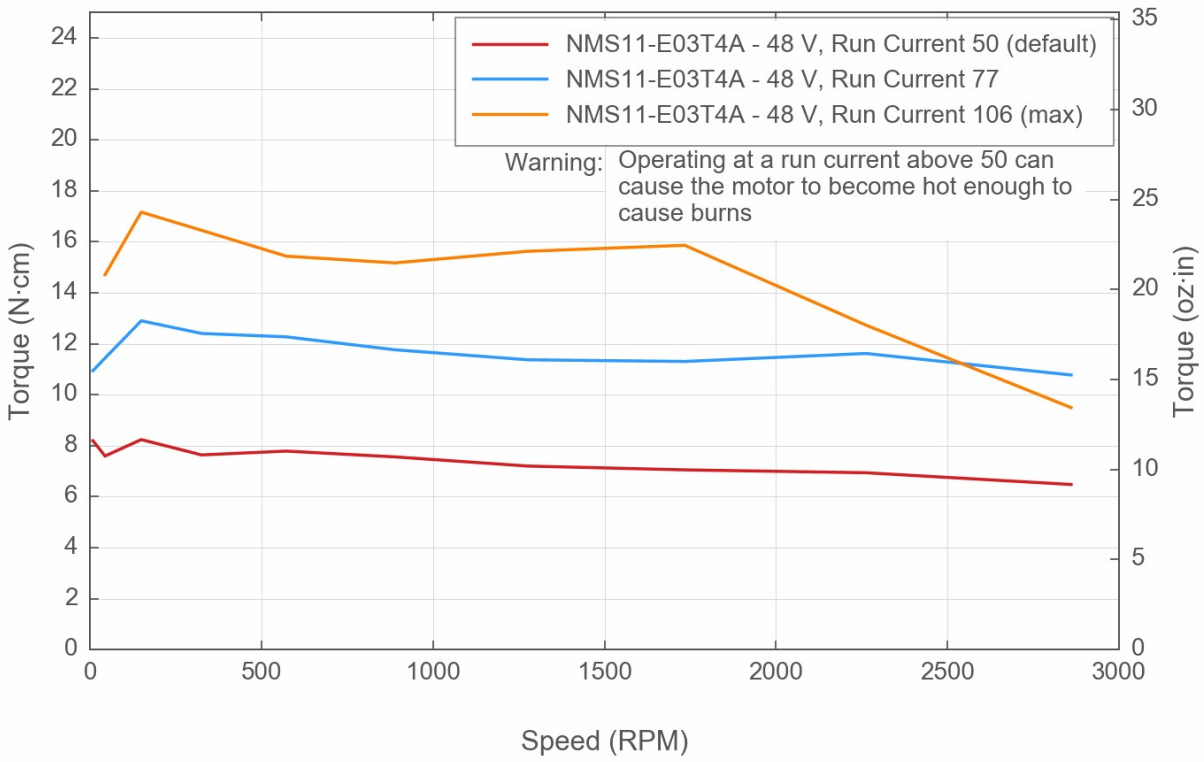
Part Number	Motor Winding Resistance	Inductance	Motor Connection	Motor Frame Size
NMS08-E03T4A	6.5 ohms/phase	3.5 mH/phase	D-sub 15	NEMA 8
NMS11-E03T4A	2.05 ohms/phase	1 mH/phase	D-sub 15	NEMA 11
NMS17-E01T4A	1 ohms/phase	2.2 mH/phase	D-sub 15	NEMA 17
NMS23-E08T4A	0.53 ohms/phase	2 mH/phase	D-sub 15	NEMA 23
NMS23-E08P1T3A	0.53 ohms/phase	2 mH/phase	D-sub 15	NEMA 23
NMS23-BE08T10A	0.53 ohms/phase	2 mH/phase	D-sub 26	NEMA 23
NMS23-BE08P1T10A	0.53 ohms/phase	2 mH/phase	D-sub 26	NEMA 23
NMS34-E01T11A	0.23 ohms/phase	2.1 mH/phase	M12 T-code (motor) and D-sub 15 (sensors)	NEMA 34
NMS34-BE01T12A	0.23 ohms/phase	2.1 mH/phase	M12 T-code (motor) and D-sub 26 (sensors)	NEMA 34

Part Number	Weight
NMS08-E03T4A	0.07 kg (0.154 lb)
NMS11-E03T4A	0.21 kg (0.463 lb)
NMS17-E01T4A	0.36 kg (0.794 lb)
NMS23-E08T4A	1.01 kg (2.227 lb)
NMS23-E08P1T3A	1.3 kg (2.866 lb)
NMS23-BE08T10A	1.926 kg (4.246 lb)
NMS23-BE08P1T10A	1.926 kg (4.246 lb)
NMS34-E01T11A	3.10 kg (6.834 lb)
NMS34-BE01T12A	4.10 kg (9.039 lb)

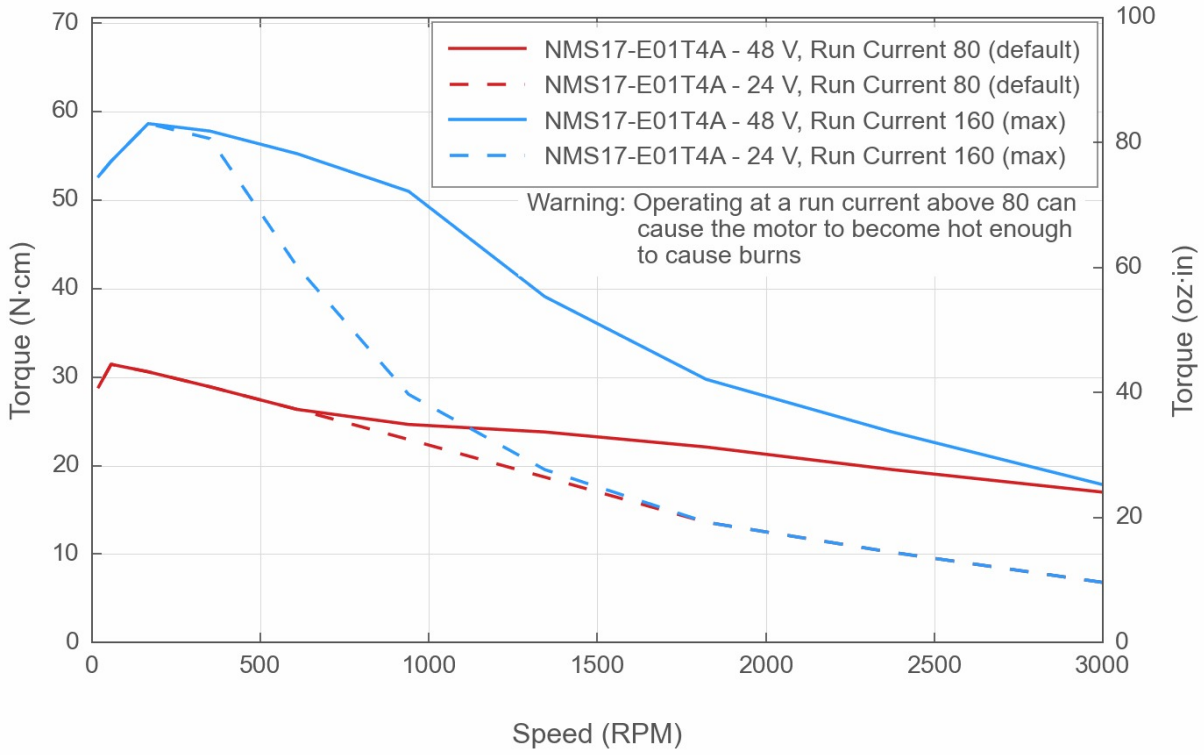
NMS-E Series Charts



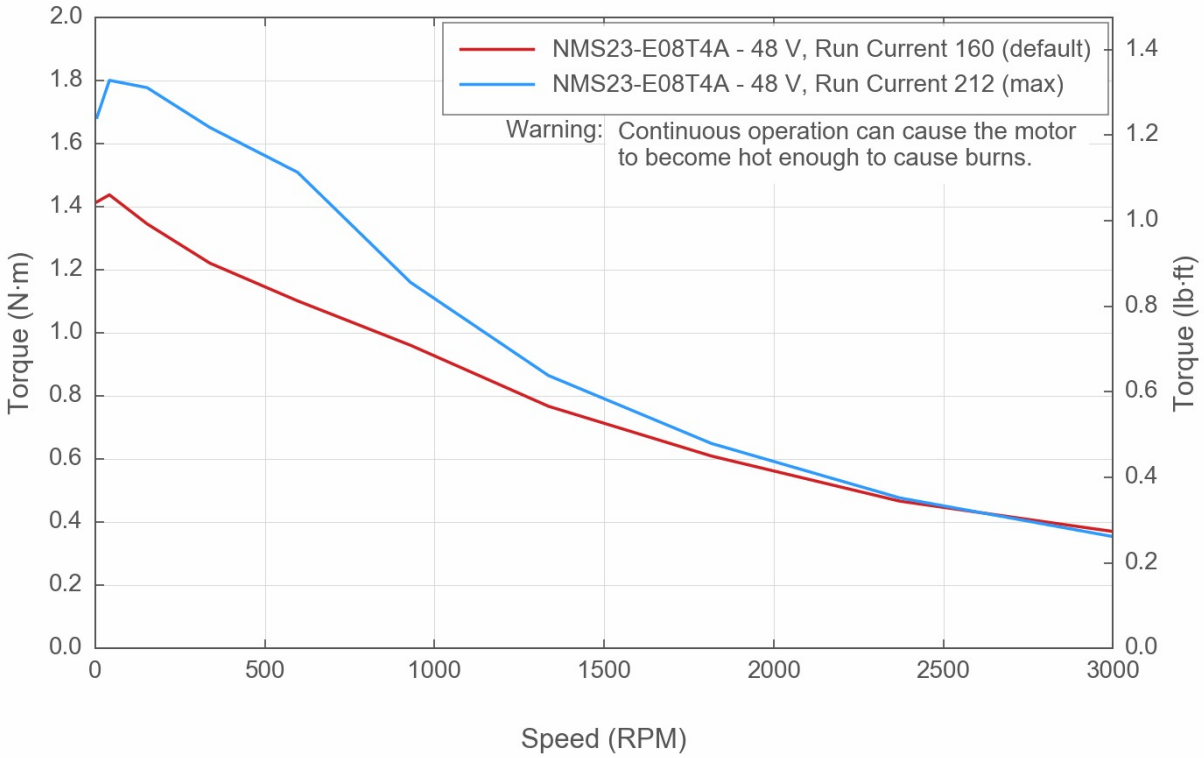
Torque Speed Performance

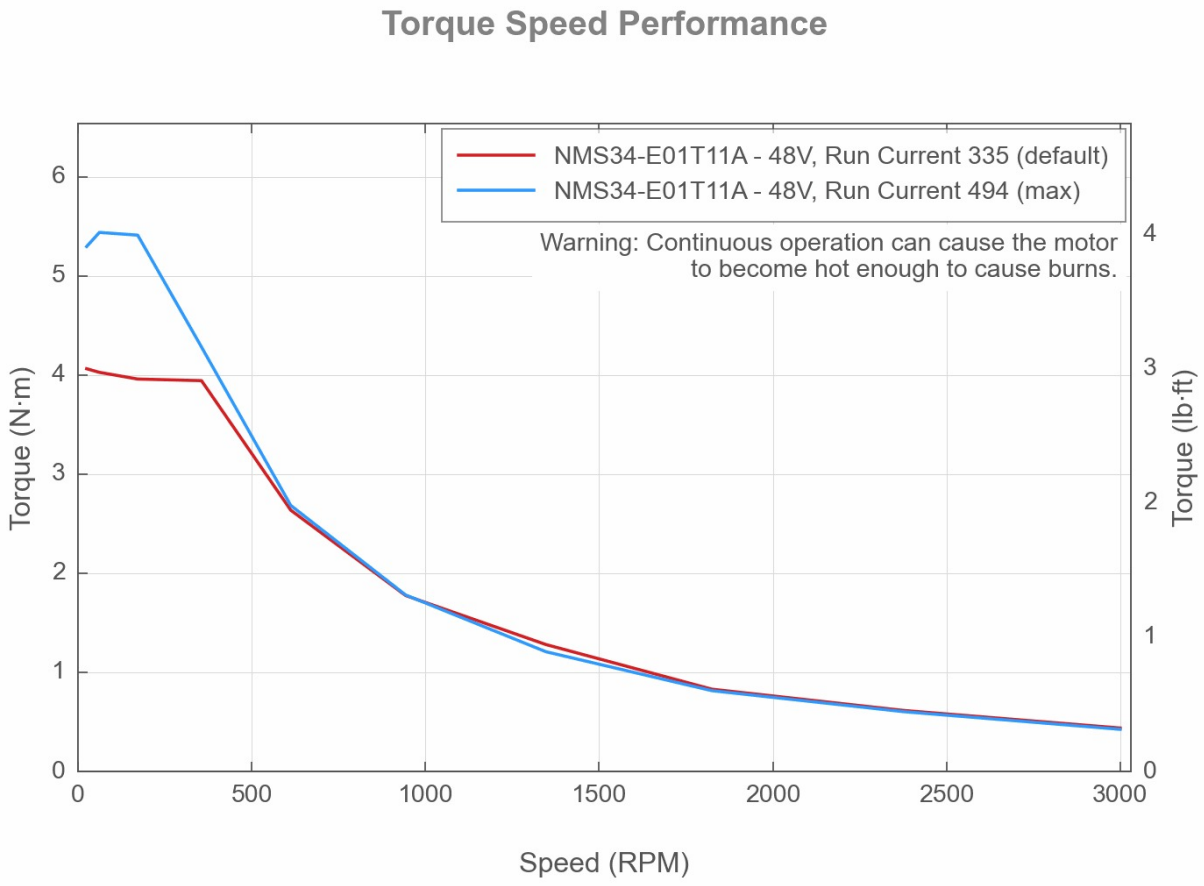


Torque Speed Performance



Torque Speed Performance





Contact

Email: contact@zaber.com
Phone (toll free Canada/USA): 1-888-276-8033
Phone (direct): 1-604-569-3780
Fax: 1-604-648-8033

Zaber Technologies Inc.
#2 - 605 West Kent Ave. N.
Vancouver, British Columbia
Canada, V6P 6T7
https://www.zaber.com