

NHDM58A6

Brushless DC/AC Servomotors

Technical Data

| Parameter | Unit | -42S | -29S | -16S |
|---|-------------------|-------------|-------------|-------------|
| General | | | | |
| Voltage Gradient No Load | Volts | 42 | 29 | 16 |
| Max. Motor EMF Line-Line | Volts | 340 | 230 | 128 |
| Max. Speed (300 V DC link) | RPM | 4700 | 7000 | 8000 |
| Max. Speed (560 V DC link) ¹ | RPM | 8000 | 8000 | - |
| Continuous Stall Torque | Nm | 0.48 | 0.48 | 0.48 |
| Peak Stall Torque | Nm | 1.15 | 1.15 | 1.15 |
| Continuous Stall Current | Amps | 0.98 | 1.4 | 2.6 |
| Peak Current | Amps | 4.1 | 6 | 10.9 |
| Rated Torque ² | Nm | 0.46 | 0.46 | 0.46 |
| Rated Current ² | Amps | 0.96 | 1.35 | 2.4 |
| Rotor Polar Moment of Inertia | kgcm ² | 0.103 | 0.103 | 0.103 |
| Cogging Torque | Nm | 0.03 | 0.03 | 0.03 |
| Torque Constant K _T ^{3,4} | Nm/A | 0.48 | 0.34 | 0.19 |

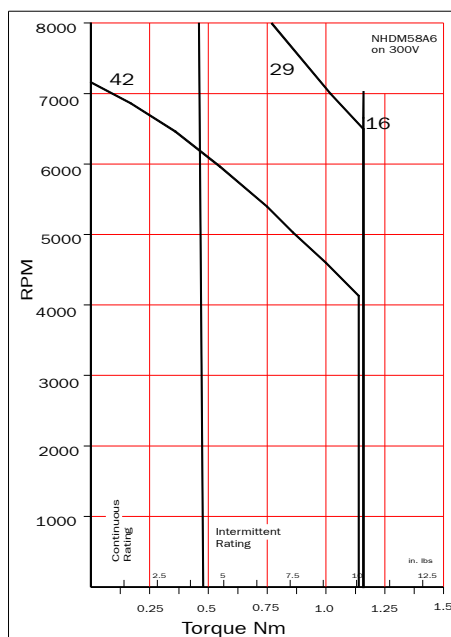
Winding

| | | | | |
|-----------------------------------|-------------|------|------|------|
| Resistance Line-Line ³ | Ohms | 25 | 12.2 | 3.7 |
| Inductance Line-Line | Millihenrys | 48 | 23 | 6.9 |
| Insulation Class | | F | F | F |
| Max. Ambient Temperature | °C | 40 | 40 | 40 |
| Thermal Time Constant | Minutes | 19 | 19 | 19 |
| Thermal Resistance | °C/Watt | 2.2 | 2.2 | 2.2 |
| Static Friction Torque | Nm | 0.02 | 0.02 | 0.02 |
| Motor Weight | kg | 0.81 | 0.81 | 0.81 |

Notes:

- Where no motor speed is specified, optimal performance may not be achieved on 560V DC link.
- Motors are tested on an aluminium heatsink with dimensions 255x255x6mm and with a temperature rise dT of 100K on the windings. The maximum temperature of the windings is therefore 140 °C.
- At 25 °C.
- At rated values Torque = K_T x rms current.

NHDM58A6 on 300V



NHDM58A6 on 560V

