

## NHDM58E6

### Brushless DC/AC Servomotors

#### Technical Data

Parameter	Unit	-100S	-70S	-40S
<b>General</b>				
Voltage Gradient No Load	Volts	100	70	40
Max. Motor EMF Line-Line	Volts	700	560	320
Max. Speed (300 V DC link)	RPM	2000	3200	6200
Max. Speed (560 V DC link) <sup>1</sup>	RPM	4300	6700	8000
<b>Continuous Stall Torque</b>	<b>Nm</b>	<b>1.15</b>	<b>1.15</b>	<b>1.15</b>
Peak Stall Torque	Nm	3.5	3.5	3.5
<b>Continuous Stall Current</b>	<b>Amps</b>	<b>0.98</b>	<b>1.4</b>	<b>2.5</b>
<b>Peak Current</b>	<b>Amps</b>	<b>5.2</b>	<b>7.5</b>	<b>13.1</b>
Rated Torque <sup>2</sup>	Nm	1.1	1.1	1.1
Rated Current <sup>2</sup>	Amps	0.94	1.36	2.3
Rotor Polar Moment of Inertia	kgcm <sup>2</sup>	0.2	0.2	0.2
Cogging Torque	Nm	0.045	0.045	0.045
Torque Constant K <sub>T</sub> <sup>3,4</sup>	Nm/Amp	1.17	0.81	0.48

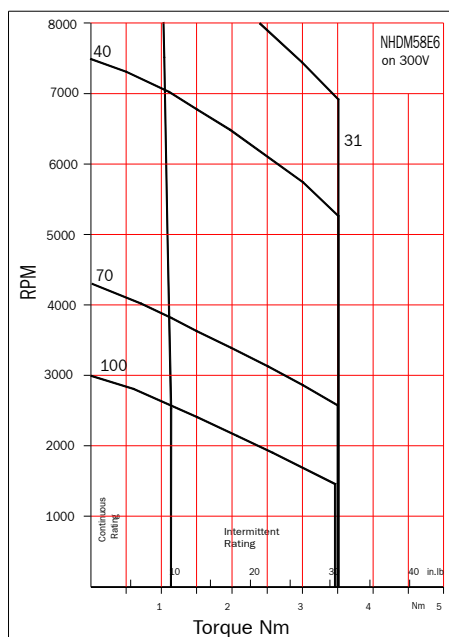
#### Winding

Resistance Line-Line <sup>3</sup>	Ohms	33	16	5.2
Inductance Line-Line	Millihenrys	76	37	12.1
Insulation Class		F	F	F
Max. Ambient Temperature	°C	40	40	40
Thermal Time Constant	Minutes	30	30	30
Thermal Resistance	°C/Watt	1.6	1.6	1.6
Static Friction Torque	Nm	0.02	0.02	0.02
Motor Weight	kg	1.4	1.4	1.4

#### 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<sub>T</sub> x rms current.

NHDM58E6 on 300V



NHDM58E6 on 560V

