

## NHDM82A8

### Brushless DC/AC Servomotors

#### Technical Data

Parameter	Unit	-47S	-30S	-15S
<b>General</b>				
Voltage Gradient No Load	Volts	47	30	15
Max. Motor EMF Line-Line	Volts	380	240	120
Max. Speed (300 V DC link)	RPM	2800	4500	8000
Max. Speed (560 V DC link) <sup>1</sup>	RPM	5200	-	-
<b>Continuous Stall Torque</b>	<b>Nm</b>	<b>0.84</b>	<b>0.84</b>	<b>0.84</b>
Peak Stall Torque	Nm	2.2	2.2	2.2
<b>Continuous Stall Current</b>	<b>Amps</b>	<b>1.5</b>	<b>2.4</b>	<b>4.8</b>
<b>Peak Current</b>	<b>Amps</b>	<b>7.1</b>	<b>11.2</b>	<b>22</b>
Rated Torque <sup>2</sup>	Nm	0.8	0.8	0.8
Rated Current <sup>2</sup>	Amps	1.5	2.3	4.7
Rotor Polar Moment of Inertia	kgcm <sup>2</sup>	0.35	0.35	0.35
Cogging Torque	Nm	0.028	0.028	0.028
Torque Constant K <sub>T</sub> <sup>3,4</sup>	Nm/Amp	0.54	0.35	0.17

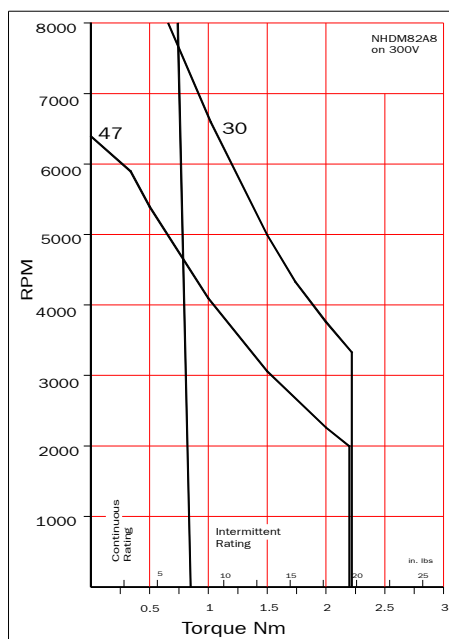
#### Winding

Resistance Line-Line <sup>3</sup>	Ohms	11.2	4.5	1.13
Inductance Line-Line	Millihenrys	40	16	4
Insulation Class		F	F	F
Max. Ambient Temperature	°C	40	40	40
Thermal Time Constant	Minutes	20	20	20
Thermal Resistance	°C/Watt	1.8	1.8	1.8
Static Friction Torque	Nm	0.04	0.04	0.04
Motor Weight	kg	1.7	1.7	1.7

#### 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.

NHDM82A8 on 300V



NHDM82A8 on 560V

