

NHDM142A10

Brushless DC/AC Servomotors

Technical Data

Parameter	Unit	-107S	-75S	-54S
General				
Voltage Gradient No Load	Volts	107	75	54
Max. Motor EMF Line-Line	Volts	540	380	270
Max. Speed (300 V DC link)	RPM	1200	1700	2500
Max. Speed (560 V DC link) ¹	RPM	2300	3300	-
Continuous Stall Torque	Nm	9.1	9.1	9.1
Peak Stall Torque	Nm	20	20	20
Continuous Stall Current	Amps	7.3	10.4	14
Peak Current	Amps	28	41	56
Rated Torque ²	Nm	8	8	8
Rated Current ²	Amps	6.3	9.2	12.7
Rotor Polar Moment of Inertia	kgcm ²	6.6	6.6	6.6
Cogging Torque	Nm	0.2	0.2	0.2
Torque Constant K _T ^{3,4}	Nm/Amp	1.26	0.87	0.63

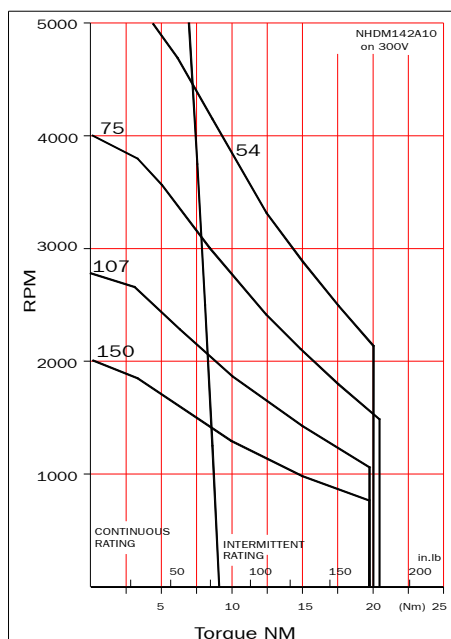
Winding

Resistance Line-Line ³	Ohms	2.1	1.06	0.55
Inductance Line-Line	Millihenrys	21	10.2	5.3
Insulation Class		F	F	F
Max. Ambient Temperature	°C	40	40	40
Thermal Time Constant	Minutes	30	30	30
Thermal Resistance	°C/Watt	0.42	0.42	0.42
Static Friction Torque	Nm	0.12	0.12	0.12
Motor Weight	kg	6.2	6.2	6.2

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.

NHDM142A10 on 300V



NHDM142A10 on 560V

