

NHDM105A10

Brushless DC/AC Servomotors

Technical Data

Parameter	Unit	-89S	-44S	-31S
General				
Voltage Gradient No Load	Volts	89	44	31
Max. Motor EMF Line-Line	Volts	530	260	190
Max. Speed (300 V DC link)	RPM	1400	3000	4400
Max. Speed (560 V DC link) ¹	RPM	2800	-	-
Continuous Stall Torque	Nm	2.4	2.4	2.4
Peak Stall Torque	Nm	5.3	5.3	5.3
Continuous Stall Current	Amps	2.3	4.7	6.6
Peak Current	Amps	9	18	26
Rated Torque ²	Nm	2.2	2.2	2.2
Rated Current ²	Amps	2.1	4.3	6.1
Rotor Polar Moment of Inertia	kgcm ²	1.4	1.4	1.4
Cogging Torque	Nm	0.12	0.12	0.12
Torque Constant K _T ^{3,4}	Nm/Amp	1.05	0.51	0.36

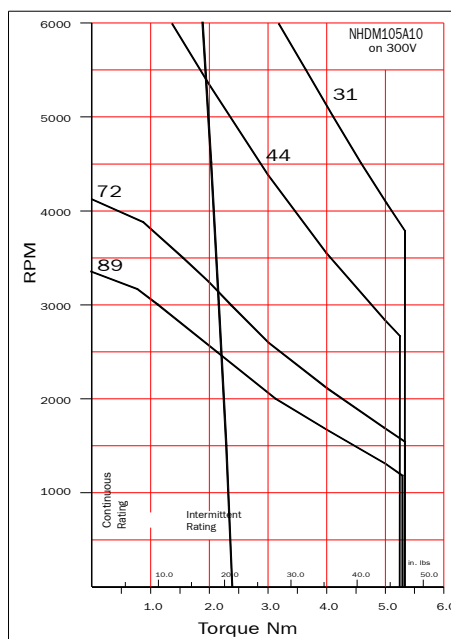
Winding

Resistance Line-Line ³	Ohms	8.6	2.1	1.07
Inductance Line-Line	Millihenrys	38	9.2	4.6
Insulation Class		F	F	F
Max. Ambient Temperature	°C	40	40	40
Thermal Time Constant	Minutes	30	30	30
Thermal Resistance	°C/Watt	1.05	1.05	1.05
Static Friction Torque	Nm	0.11	0.11	0.11
Motor Weight	kg	3	3	3

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.

NHDM105A10 on 300V



NHDM105A10 on 560V

