

NHR55A4 Brushless DC/AC Servomotors

Technical Data

Parameter	Unit	-44	-32	-22	-16
General					
Voltage Gradient No Load Line-Line	Volts/1000RPM	44	32	22	16
Max. Motor EMF Line-Line	Volts	350	260	180	140
Max. Speed	RPM	8000	8000	8000	8000
Continuous Stall Torque TENV (110K) ³	Nm	0.2	0.2	0.2	0.2
Continuous Stall Torque when fitted to Heatsink (Size 150 x 150 x 6 mm)	Nm	0.22	0.22	0.22	0.22
Peak Stall Torque	Nm	0.74	0.74	0.74	0.74
Continuous Stall Current rms ³	Amps	0.39	0.53	0.78	1.1
Rotor Polar Moment of Inertia	kgcm ²	0.14	0.14	0.14	0.14
Maximum Current (Peak)	Amp	2.3	3.1	4.5	6.2
Cogging Torque	Nm	0.0125	0.0125	0.0125	0.0125
Torque Constant K _T rms ^{1,2}	Nm/Amp	0.51	0.375	0.258	0.187

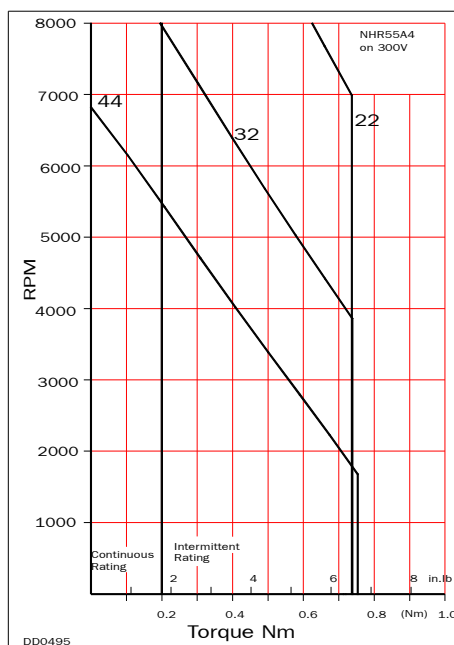
Winding

Resistance Line-Line ¹	Ohms	112	59	29	14.7
Inductance Line-Line	Millihenrys	67	36	17	9
Insulation Class		F	F	F	F
Max. Ambient Temperature	°C	40	40	40	40
Thermal Time Constant	Minutes	15	15	15	15
Thermal Resistance	°C/Watt	2.8	2.8	2.8	2.8
Static Friction Torque	Nm	0.0015	0.0015	0.0015	0.0015
Motor Weight	kg	1.2	1.2	1.2	1.2

Tolerance All data is subject to a tolerance of ± 10% (except motor 'Voltage Gradient' and K_t which are to +15%/−5%).

- At 25°C.
- Note that K_t is shown as a combined value for all **three phases**.
- The temperature rise Δ T on the windings is 110K and applies to all continuous torque values. The maximum ambient temperature is 40°C and therefore the temperature on the windings should not be more than 150°C. A value higher than 150°C would exceed the class F insulation temperature specification.

NHR55A4 on 300V



NHR55A4 on 560V

