

NHR142E6 Brushless DC/AC Servomotors

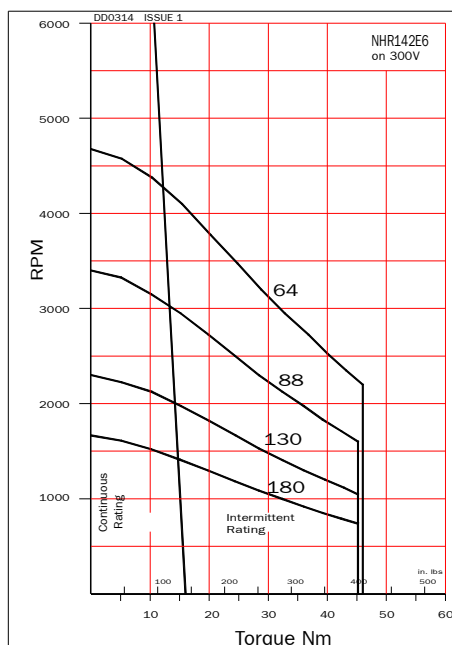
Technical Data

Parameter	Unit	-180	-130	-88	-64
General					
Voltage Gradient No Load Line-Line	Volts/1000RPM	180	130	88	64
Max. Motor EMF Line-Line	Volts	700	700	530	380
Max. Speed	RPM	3900	5400	6000	6000
Continuous Stall Torque TENV (110K) ³	Nm	16	16	16	16
Continuous Stall Torque when fitted to Heatsink (Size 300 x 300 x 12 mm)	Nm	17	17	17	17
Peak Stall Torque	Nm	45	45	45	45
Continuous Stall Current rms ³	Amps	7.6	10.5	16	21
Rotor Polar Moment of Inertia	kgcm ²	17	17	17	17
Maximum Current (Peak)	Amp	38	53	78	109
Cogging Torque	Nm	0.34	0.34	0.34	0.34
Torque Constant K _T rms ^{1,2}	Nm/Amp	2.1	1.53	1.02	0.75
Winding					
Resistance Line-Line ¹	Ohms	1.9	0.9	0.42	0.2
Inductance Line-Line	Millihenrys	22	11.8	5.3	2.8
Insulation Class		F	F	F	F
Max. Ambient Temperature	°C	40	40	40	40
Thermal Time Constant	Minutes	55	55	55	55
Thermal Resistance	°C/Watt	0.53	0.53	0.53	0.53
Static Friction Torque	Nm	0.12	0.12	0.12	0.12
Motor Weight	kg	18	18	18	18

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.

NHR142E6 on 300V



NHR142E6 on 560V

