

NHR142C6 Brushless DC/AC Servomotors

Technical Data

Parameter	Unit	-130	-88	-64	-44
General					
Voltage Gradient No Load Line-Line	Volts/1000RPM	130	88	64	44
Max. Motor EMF Line-Line	Volts	700	530	380	260
Max. Speed	RPM	5400	6000	6000	6000
Continuous Stall Torque TENV (110K) ³	Nm	11.3	11.3	11.3	11.3
Continuous Stall Torque when fitted to Heatsink (Size 300 x 300 x 12 mm)	Nm	12.1	12.1	12.1	12.1
Peak Stall Torque	Nm	30	30	30	30
Continuous Stall Current rms ³	Amps	7.4	11	15	22
Rotor Polar Moment of Inertia	kgcm ²	11.5	11.5	11.5	11.5
Maximum Current (Peak)	Amp	35	52	72	105
Cogging Torque	Nm	0.24	0.24	0.24	0.24
Torque Constant K _T rms ^{1,2}	Nm/Amp	1.53	1.02	0.75	0.51

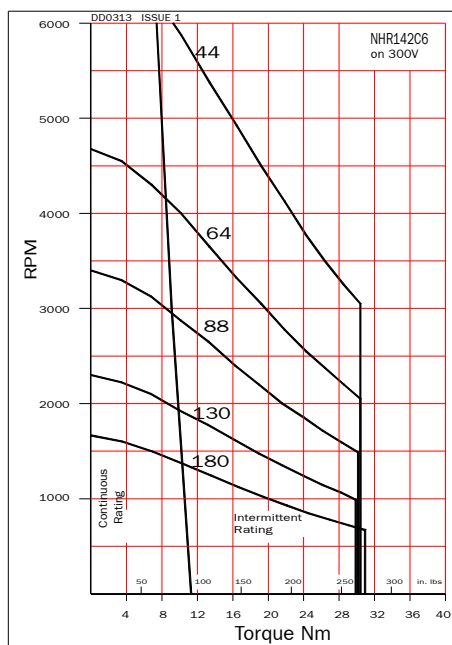
Winding

Resistance Line-Line ¹	Ohms	1.7	0.76	0.43	0.2
Inductance Line-Line	Millihenrys	19	8.9	4.7	2.2
Insulation Class		F	F	F	F
Max. Ambient Temperature	°C	40	40	40	40
Thermal Time Constant	Minutes	50	50	50	50
Thermal Resistance	°C/Watt	0.57	0.57	0.57	0.57
Static Friction Torque	Nm	0.12	0.12	0.12	0.12
Motor Weight	kg	14	14	14	14

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 ΔT 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.

NHR142C6 on 300V



NHR142C6 on 560V

