

NHR92E4

Brushless DC/AC Servomotors

Technical Data

Parameter	Unit	-130	-88	-64	-44	-32
General						
Voltage Gradient No Load Line-Line	Volts/1000RPM	130	88	64	44	32
Max. Motor EMF Line-Line	Volts	700	520	380	260	190
Max. Speed	RPM	6000	6000	6000	6000	6000
Continuous Stall Torque TENV (110K) ³	Nm	2.2	2.2	2.2	2.2	2.2
Continuous Stall Torque when fitted to Heatsink (Size 300 x 300 x 12 mm)	Nm	2.4	2.4	2.4	2.4	2.4
Peak Stall Torque	Nm	6.7	6.7	6.7	6.7	6.7
Continuous Stall Current rms ³	Amps	1.5	2.1	2.9	4.3	5.9
Rotor Polar Moment of Inertia	kgcm ²	1.3	1.3	1.3	1.3	1.3
Maximum Current (Peak)	Amp	8	12	16	23	32
Cogging Torque	Nm	0.062	0.062	0.062	0.062	0.062
Torque Constant K _T rms ^{1,2}	Nm/Amp	1.53	1.02	0.75	0.51	0.375

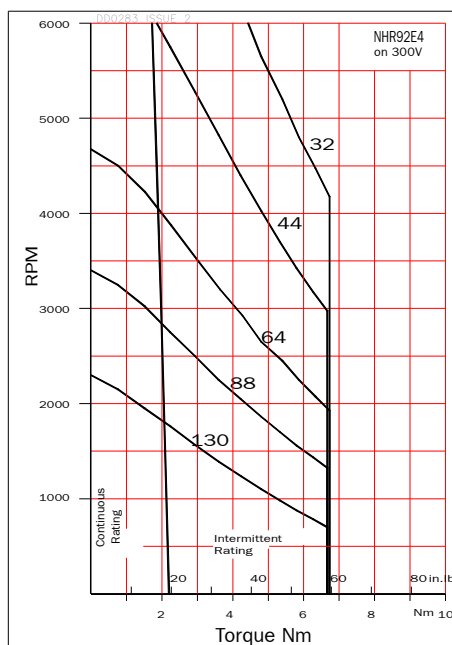
Winding

Resistance Line-Line ¹	Ohms	22	11.2	5.4	2.8	1.34
Inductance Line-Line	Millihenrys	120	56	30	14	7.5
Insulation Class		F	F	F	F	F
Max. Ambient Temperature	°C	40	40	40	40	40
Thermal Time Constant	Minutes	30	30	30	30	30
Thermal Resistance	°C/Watt	1.09	1.09	1.03	1.03	1.03
Static Friction Torque	Nm	0.04	0.04	0.04	0.04	0.04
Motor Weight	kg	5.2	5.2	5.2	5.2	5.2

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.

NHR92E4 on 300V



NHR92E4 on 560V

