

# NHR92C4

## Brushless DC/AC Servomotors

### Technical Data

Parameter	Unit	-130	-88	-64	-44	-32
<b>General</b>						
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
<b>Continuous Stall Torque TENV (110K)<sup>3</sup></b>	<b>Nm</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>
Continuous Stall Torque when fitted to Heatsink (Size 300 x 300 x 12 mm)	Nm	1.6	1.6	1.6	1.6	1.6
Peak Stall Torque	Nm	4.6	4.6	4.6	4.6	4.6
<b>Continuous Stall Current rms<sup>3</sup></b>	<b>Amps</b>	<b>1</b>	<b>1.45</b>	<b>2</b>	<b>2.9</b>	<b>4</b>
Rotor Polar Moment of Inertia	kgcm <sup>2</sup>	0.94	0.94	0.94	0.94	0.94
<b>Maximum Current (Peak)</b>	<b>Amp</b>	<b>5.5</b>	<b>8</b>	<b>11</b>	<b>16</b>	<b>22</b>
Cogging Torque	Nm	0.048	0.048	0.048	0.048	0.048
Torque Constant K <sub>T</sub> rms <sup>1,2</sup>	Nm/Amp	1.53	1.02	0.75	0.51	0.375

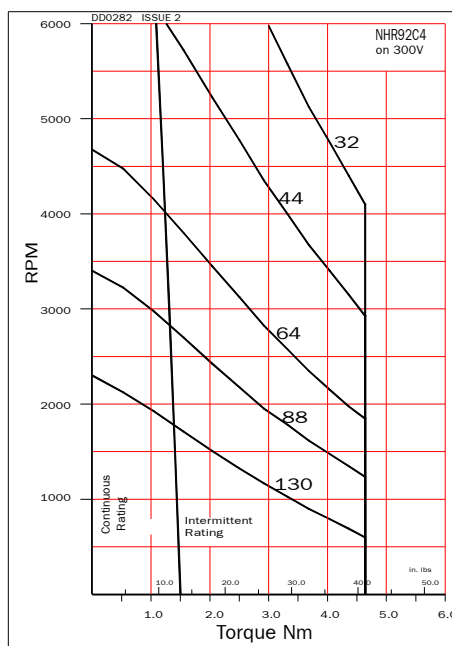
### Winding

Resistance Line-Line <sup>1</sup>	Ohms	41.6	18.4	10.4	4.6	2.6
Inductance Line-Line	Millihenrys	172	80	43	20	10.8
Insulation Class		F	F	F	F	F
Max. Ambient Temperature	°C	40	40	40	40	40
Thermal Time Constant	Minutes	28	28	28	28	28
Thermal Resistance	°C/Watt	1.25	1.25	1.25	1.25	1.25
Static Friction Torque	Nm	0.04	0.04	0.04	0.04	0.04
Motor Weight	kg	4.3	4.3	4.3	4.3	4.3

Tolerance All data is subject to a tolerance of ± 10% (except motor 'Voltage Gradient' and K<sub>T</sub> which are to +15%/-5%).

- At 25°C.
- Note that K<sub>T</sub> 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.

NHR92C4 on 300V



NHR92C4 on 560V

