

## N8WQ118 Series Brushless Servomotors

Model	Cont. Stall Torque oz-in (Nm)	Max. Peak Stall Torque oz-in (Nm)	Max. Recommended Speed RPM	Rated Power Watts	Motor Inertia oz-in-sec <sup>2</sup> (Kg-cm <sup>2</sup> )	Length "L" in. (mm)	Weight Lb. (Kg)
N8WQ118-08	680 (4.80)	2040 (14.4)	6000	1500	0.0481 (3.4)	5.13 (130.3)	9.3 (4.2)
N8WQ118-12	900 (6.36)	2700 (19.1)	6000	2000	0.0722 (5.1)	6.13 (155.7)	12.8 (5.8)
N8WQ118-16	1200 (8.47)	3600 (25.4)	6000	2500	0.0963 (6.8)	7.13 (181.1)	16.3 (7.4)
N8WQ118-20	1400 (9.89)	4000 (28.3)	6000	3000	0.1189 (8.4)	8.13 (206.5)	20.1 (9.1)

**Typical Motor Characteristics**      These represent a sample of our motor offerings please contact Torkmotion for custom specifications available for OEM solutions (508-786-9928)

Symbol		Unit	Model			
			N8WQ118-08D	N8WQ118-12C	N8WQ118-16E	N8WQ118-20D
<b>Ke</b>	<b>Back E.M.F</b>	<b>Volts/KRPM</b>	56.3	67.2	70.5	69.8
<b>Kt</b>	<b>Torque Constant</b>	<b>oz-in/Amp (mNm/Amp)</b>	76.1 (537.7)	90.9 (641.8)	95.3 (673.3)	94.4 (666.6)
<b>Rt</b>	<b>Terminal Resistance</b>	<b>Ohms</b>	1.30	1.07	0.86	0.68
<b>L</b>	<b>Inductance</b>	<b>mH</b>	5.44	5.10	4.27	3.36
<b>Rth</b>	<b>Thermal Resistance</b>	<b>Deg C/Watt</b>	0.49	0.45	0.42	0.38
<b>Vt</b>	<b>Voltage Terminal</b>	<b>V dc</b>	185	220	220	220
<b>n<sub>o</sub></b>	<b>No load Speed @ Vt</b>	<b>RPM</b>	3286	3274	3121	3152
<b>I<sub>o</sub></b>	<b>No load Current @ Vt</b>	<b>Amp</b>	0.30	0.29	0.25	0.23
<b>T<sub>c</sub></b>	<b>Cont. Torque</b>	<b>oz-in (Nm)</b>	680 (4.80)	900 (6.36)	1200 (8.47)	1400 (9.89)
<b>n<sub>c</sub></b>	<b>Speed @ Vt &amp; Tc</b>	<b>RPM</b>	3080	3116	2967	3007
<b>I<sub>c</sub></b>	<b>Current @ Vt &amp; Tc</b>	<b>Amp</b>	9.23	10.19	12.84	15.06
<b>P<sub>o</sub></b>	<b>Power Out @ Vt &amp; Tc</b>	<b>Watts</b>	1549	2074	2633	3114
<b>T<sub>p</sub></b>	<b>Peak Torque</b>	<b>oz-in (Nm)</b>	1360 (9.60)	1800 (12.71)	2400 (16.95)	2800 (19.77)
<b>n<sub>p</sub></b>	<b>Speed @ Vt &amp; Tp</b>	<b>RPM</b>	2874	2958	2814	2863
<b>I<sub>p</sub></b>	<b>Current @ Vt &amp; Tp</b>	<b>Amp</b>	18.2	20.1	25.4	29.9

