

N4SP80 Series Brushed 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 ² (Kg-cm ²)	Length "L" in. (mm)	Weight Lb. (Kg)
N4SP80-04	60 (0.42)	480 (3.39)	4000	89	0.010 (0.706)	3.24 (82.3)	4.0 (1.8)
N4SP80-08	100 (0.71)	850 (6.00)	4000	165	0.020 (1.412)	4.24 (107.7)	5.3 (2.4)
N4SP80-12	135 (0.95)	1199 (8.47)	4000	222	0.025 (1.766)	5.24 (133.1)	7.5 (3.4)
N4SP80-16	175 (1.24)	1250 (8.83)	4000	307	0.040 (2.825)	6.24 (158.5)	9.0 (4.1)

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			
			N4SP80-04I	N4SP80-08F	N4SP80-12E	N4SP80-16E
Ke	Back E.M.F	Volts/KRPM	12.7	12.1	13.3	17.4
Kt	Torque Constant	oz-in/Amp (mNm/Amp)	17.2 (121.3)	16.4 (115.6)	18.0 (127.0)	23.5 (166.2)
Rt	Terminal Resistance	Ohms	2.13	0.85	0.73	0.81
L	Inductance	mH	2.12	0.9	0.8	0.85
Rth	Thermal Resistance	Deg C/Watt	3.7	2.9	2.3	1.8
Vt	Voltage Terminal	V dc	48	48	48	60
n_o	No load Speed @ Vt	RPM	3780	3967	3609	3448
I_o	No load Current @ Vt	Amp	0.40	0.48	0.50	0.47
T_c	Cont. Torque	oz-in (Nm)	35 (0.25)	59 (0.42)	91 (0.64)	130 (0.92)
n_c	Speed @ Vt & Tc	RPM	3438	3709	3334	3191
I_c	Current @ Vt & Tc	Amp	2.4	4.1	5.5	6.0
P_o	Power Out @ Vt & Tc	Watts	89	165	222	307
T_p	Peak Torque	oz-in (Nm)	69 (0.49)	120 (0.85)	180 (1.27)	261 (1.84)
n_p	Speed @ Vt & Tp	RPM	3096	3452	3060	2934
I_p	Current @ Vt & Tp	Amp	4.5	7.8	10.5	11.5

