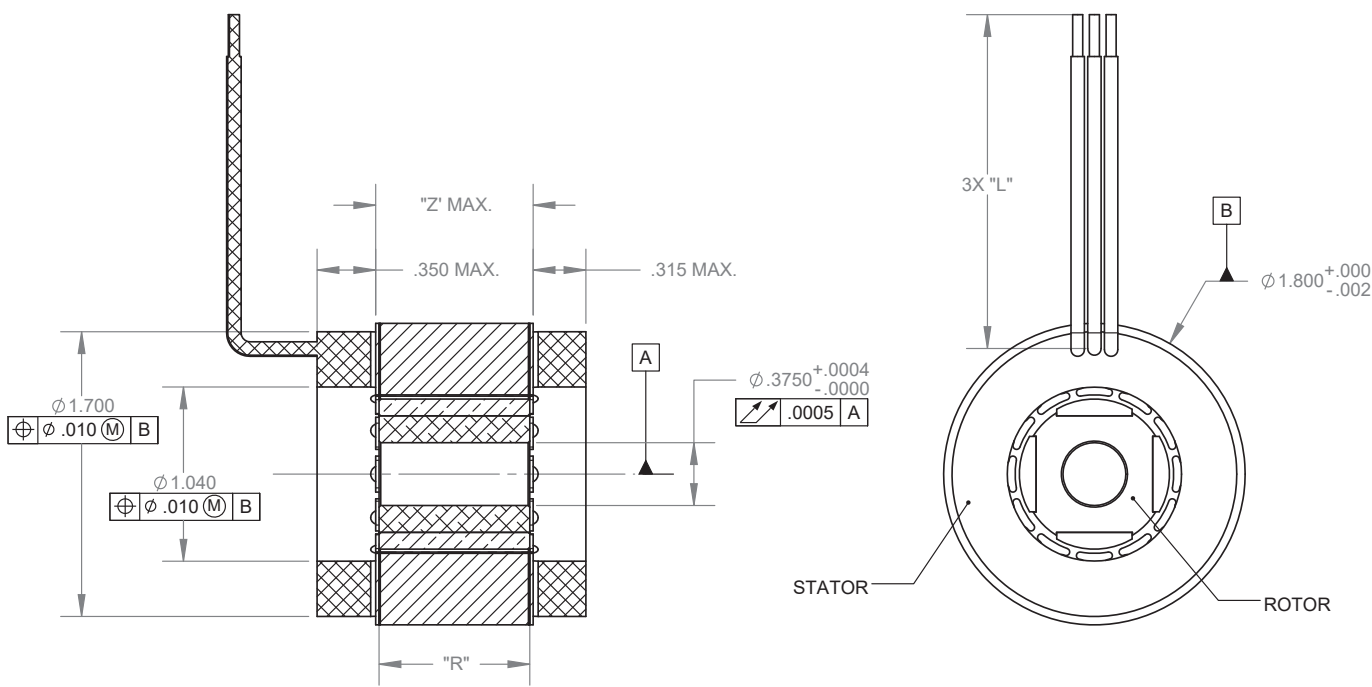
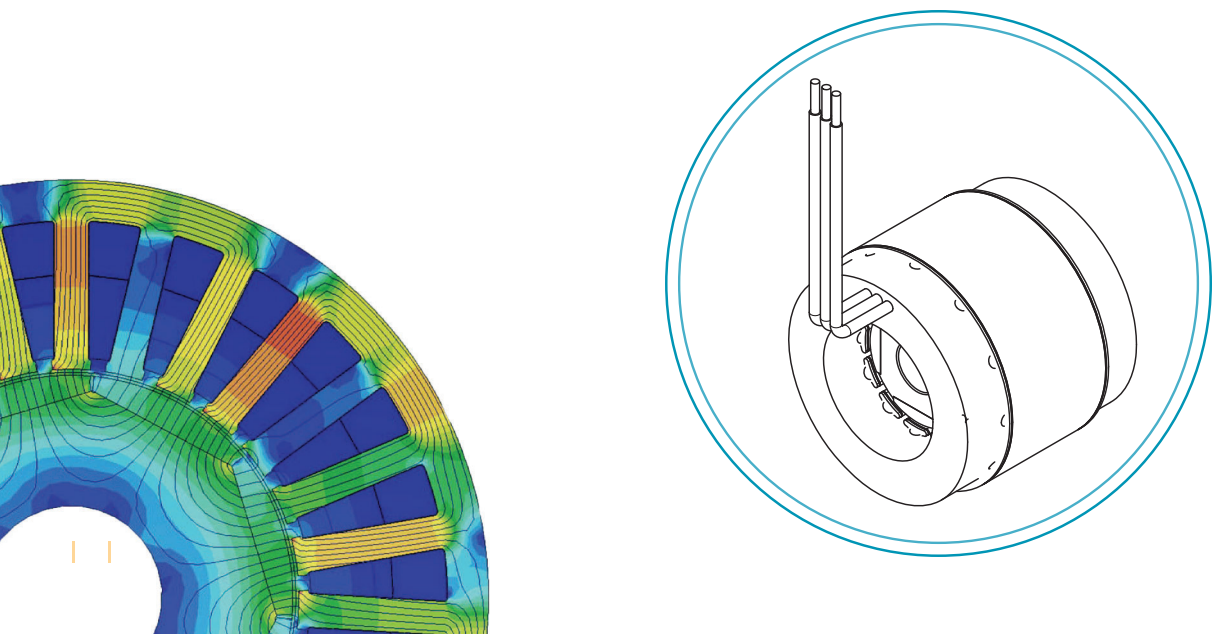


"Superior Torque" (ST) 1800 Series Technical Illustration



PART NO.	DESCRIPTION	"Z" MAX	LEAD WIRE GAGE	"L" $\pm$.500	"R" $\pm$.005
6100251-01	O&M DWG, 1809/8 STD ROTOR AND STATOR SET	0.970	16	12	0.900
6100251-02	O&M DWG, 1809/41 STD ROTOR AND STATOR SET	0.970	18	12	0.900
6100251-03	O&M DWG, 1815/5 STD ROTOR AND STATOR SET	1.570	14	12	1.500
6100251-04	O&M DWG, 1815/25 STD ROTOR AND STATOR SET	1.570	18	12	1.500
6100251-05	O&M DWG, 1825/3 STD ROTOR AND STATOR SET	2.570	14	12	2.500
6100251-06	O&M DWG, 1825/15 STD ROTOR AND STATOR SET	2.570	18	12	2.500



GENERIC PART NUMBER	1809/8	1809/41	1815/5	1815/25	1825/3	1825/15
STATOR OD (IN)	1.8	1.8	1.8	1.8	1.8	1.8
STATOR STACK LENGTH (IN)	0.9	0.9	1.5	1.5	2.5	2.5
ROTOR ID (IN)	0.375	0.375	0.375	0.375	0.375	0.375
ROTOR LENGTH (IN)	0.9	0.9	1.5	1.5	2.5	2.5
TURNS PER COIL	8	41	5	25	3	15
RESISTANCE (L-L)	0.175	4.54	0.0889	2.2	0.0419	1.06
INDUCTANCE (L-L)	0.2475	6.3	0.1565	3.795	0.08935	2.24
LEAD WIRE AWG	16	18	14	18	14	18
KE (V/1KRPM, PEAK)	2.82	15.2	2.94	15.4	3.09	15.4
KT (IN-OZ/A, PEAK)	4.66	25.1	4.86	25.5	5.1	25.5
KT (IN-OZ/ARMS), TIME-AVERAGED	3.94	20.9	4.11	21.2	4.24	21.2
KM (IN-OZ/SQRT(W))	11.14	11.78	16.30	17.19	24.92	24.77
WEIGHT (OZ)	9.37	9.41	14.5	14.5	23.3	23.3
ROTOR INERTIA (KG-M ²)	4.26E-06	4.26E-06	7.09E-06	7.09E-06	1.18E-05	1.18E-05
POLE COUNT	4	4	4	4	4	4
COGGING TORQUE, PEAK (IN-OZ)	3.71	3.71	6.18	6.18	9.95	9.95
HYSTERESIS DRAG TORQUE (IN-OZ)	0.332	0.35	0.552	0.585	0.977	0.978
ELECTROMAGNETICS VISCOUS DRAG (IN-OZ/RPM ²)	6.83E-10	7.35E-10	1.14E-09	1.23E-09	2.05E-09	2.05E-09
DESIGN CURRENT (RMS, SINE DRIVE)	8.12	1.50	12.70	2.55	21.50	4.34
DESIGN VOLTAGE	56	270	56	270	56	270
DESIGN RPM	14500	14500	14500	14500	14500	14500
NO-LOAD RPM	19895	17833	19099	17548	18198	17548
DESIGN TORQUE (IN-OZ)	32	31.3	52.2	54.1	91.2	92.1
DESIGN OUPUT POWER (W)	343	336	559	580	978	988
ELECTROMECHANICAL EFFICIENCY AT DESIGN OUTPUT POWER	93.8	94.1	94.8	94.9	95.6	95.5

