

SIZE CONSTANTS **

Parameter	Symbol	Unit	VALUE
Maximum Rated Torque	Tr	lbft Nm	17.171 23.281
Maximum Continuous Stall Torque @Temperature Rise 110.000 °C	Tc	lbft Nm	3.059 4.147
Motor Constant [Sqw. drive]	Km	lbft/sqrt.w Nm/sqrt.w	0.390 0.529
Electrical Time Constant	Te	msec	1.966
Mechanical Time Constant	Tm	msec	5.064
Angular Acceleration (theoretical)		rad/sec ²	16425.275
Thermal Resistance *	TPR	°C/watts	1.250
Maximum Cogging Torque	Tf	lbft Nm	0.245 0.332
Viscous Damping (Infinite Source Impedance)	Fi	lbft/rpm Nm/rpm	7.173E-05 9.725E-05
Hysteresis Drag Torque	Th	lbft Nm	0.029 0.039
Rotor Inertia Frameless	Jm	lbfts ² kg.m2	1.045E-03 1.417E-03
Motor Weight Frameless	Wt	lb kg	2.578 1.169
No. of Poles		P	24

* TPR Assumes motor mounted to aluminium heat sink
 10.000 10.000 0.250 inches (Still air)

** @ Ambient Temperature , 20.000°C

Winding Constants *

Parameter	Symbol	Unit	VALUE
Design Voltage	Vp	volt	50.000
Peak Torque, +/-25%	Tp	lbft Nm	17.171 23.281
Peak Current, +/-15%	Ip	amps LIMIT	193.166
Torque Sensitivity +/-10%	Kt	lbft/amp Nm/Amp	0.089 0.121
No Load Speed	Snl	rpm rad/sec	3760.086 393.755
Voltage Constant +/-10%	Kb	v/Krpm v/rad/sec	12.621 0.121
Terminal Resistance +/-12%	Rm	ohms	0.052
Terminal Inductance +/-30%	Lm	mH	0.102

* Performance @ 20.000°C
RMS TORQUE PERFORMANCE

Design Voltage	Vp	volt	50.000
Continuous Power Output @	Power	watt Horsepower	532.105 0.714
Temperature Rise: 110.568°C	Torque	lbft Nm	1.874 2.541
COOLING : { Still air}	Speed	rpm	2000.000
Ambient temperature 20.000°C	Iphase	A [peak]	25.400
	I (dc-link)	amperes	12.411
	Efficiency	%	85.746

UNHOUSED	MECHANICAL	
Stator Stack OD	6.693 inch	170.002 mm
Stator Stack Length (UNmachined)	0.390 inch	9.906 mm
Stator ID	4.366	
No. Of Phases	3	
Phase Connection	WYE	
Length Over Coil (Maximum)	1.240 inch	31.496 mm
End Turns OD (Maximum)	5.750 inch	146.050 mm
End Turns ID (Maximum)	4.440 inch	112.776 mm
Lead Wire Gage	20 AWG	
Lead Wire Length	12.000 inch	304.800 mm
ROTOR OD	4.326 inch	109.880 mm
Rotor ID	3.701 inch	94.000 mm
Rotor Axial Length "B"	0.515 inch	13.081 mm
No. Of Poles	24	