

specifications

MOTOR PARAMETERS		WINDING DATA		
		Tol.	Symbol	Unit
Horsepower		Rated	hp	hp
Max. Operating Speed		Max.	ω max.	rpm
Continuous Torque (stall) @ 40° C ambient		Nom	Tc	
Peak Torque		Nom	Tp	lb-ft N•m
Theoretical Acceleration		Nom	α M	rad/sec ²
Current @ Cont. Torque		Rated	Ic	amps
Current @ Peak Torque		Rated	Ip	amps
Max. Terminal Voltage		Max.	VT	volts
Torque Sensitivity		±10%	RT	lb-ft/amp N•m/amp
Back EMF Constant		±10%	KB	V/Krpm
DC Resistance @ 25° C		±12.5%	RM	ohms
Inductance		±30%	LM	mH
Time Constant mech @ 25° C elect		Nom Nom	τ M τ E	msec msec

TACHOMETER PARAMETERS				
Voltage Sensitivity	±10%	KG	V/krpm	
Volt Ripple @ 33 cy/rev	Max.	VR	% avg-pk	
DC Resistance	±12.5%	RT	ohms	
Load Resistance	Min.	RL	ohms	
Inductance	±30%	LG	mH	

BASIC MOTOR-TACH CONSTANTS	Symbol	Unit
Rotor Inertia	JM	lb-ft-sec ²
Weight	Wt.	lb kg (f)
Static Friction	TF	lb-ft N•m
Thermal Time Constant	TCT	minutes
Viscous Damping ∞Z source	Fi	lb-ft/krpm N•m/krpm

TT-5300			TT-5301	
A	B	C	A	B
3.5	3.5	3.0	3.0	3.0
3000	2000	1500	2000	1400
15.0	15.0	15.0	20.0	20.0
20.0	20.0	20.0	27.0	27.0
66.0	66.0	66.0	100	100
89.0	89.0	89.0	136	136
3000	3000	3000	3333	3333
45.0	30.0	22.6	40.0	26.6
200	133	100	200	133
150	150	150	150	150
0.33	0.50	0.67	0.50	0.75
0.45	0.68	0.91	0.68	1.02
47.0	71.2	91.0	71.2	107
0.10	0.24	0.50	0.17	0.40
0.38	0.85	1.50	0.76	1.7
14.6	15.6	18.3	15.0	15.0
3.8	3.5	3.0	4.5	4.5

18.9	18.9	18.9	18.9	18.9
2	2	2	2	2
20	20	20	20	20
2K	2K	2K	2K	2K
22	22	22	22	22

Value	TT-5301
0.022	0.030
0.030	0.041
115	138
52	63
1.0	1.1
1.4	1.5
75	110
0.136	0.209
0.184	0.283

The TT-5306 and TT-5326
current through the motor