

Motor Winding	M4-4203				M4-4204				M4-4205				M4-4206				M4-4207				M4-4208				M4-4209			
	A	B	C	D	A	B	C	E	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Basic Motor Constants																												
Power, P (W)	1492	1678	1678	/	1716	1790	1865	1641	2051	2238	2238	2238	2238	2313	2313	2313	2089	2536	2536	2686	2387	2611	2835	2835	2238	2536	2686	2835
Max Speed, Nmax (rpm)	2,500	3,200	3,600	3,600	1,950	2,400	3,200	1,400	1,550	1,950	2,600	3,200	1,300	1,600	2,100	2,800	1,100	1,400	1,850	2,600	975	1,200	1,600	2,400	875	1,000	1,400	2,100
Cont. Torque Mo (Nm)	10.8	10.4	9.5	8.95	14.2	14.2	13.6	14.9	17.6	17	16.3	15.6	21	21	19.7	19	24.4	24.4	23.1	21.9	27	27	26	24	30	30	28	27
Peak Torque, Mmax (Nm)	52.9	44.7	33.9	23	72	60	46	74.6	88	75	57	38	107	90	69	46	125	104	80	54	142	119	92	62	161	129	103	69
Current @ Cont. Torque, Io (A)	21.30	25.70	31.10	44.00	21.00	26.30	33.30	15.70	20.80	25.00	32.00	46.00	20.70	25.80	32.20	46.70	20.60	25.70	32.40	46.30	20.00	25.00	31.70	44.90	19.50	24.40	31.10	44.40
Current @ Peak Torque, Ip (A)	120	120	120	120	120	120	120	90	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Max Terminal Voltage, Vt (V)	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
Back EMF Const, Ke (V/krpm)	53.2	42.6	31.9	21.3	71.0	56.8	42.6	99.4	88.9	71.0	53.2	35.5	106.5	85.2	63.9	42.6	124.2	99.4	74.5	49.7	142.0	113.1	85.2	56.8	160.0	127.9	95.8	63.9
Torque Const., Kt (Nm/A)	0.509	0.407	0.305	0.203	0.68	0.54	0.41	0.949	0.849	0.678	0.509	0.339	1.017	0.814	0.61	0.407	1.187	0.95	0.712	0.475	1.36	1.08	0.81	0.54	1.528	1.22	0.915	0.61
DC Resistance, R (Ω)	0.243	0.154	0.092	0.038	0.285	0.181	0.107	0.5	0.327	0.208	0.125	0.052	0.369	0.234	0.14	0.059	0.41	0.26	0.156	0.065	0.453	0.287	0.172	0.072	0.494	0.314	0.188	0.079
Inductance, L (mH)	1.03	0.66	0.37	0.16	1.37	0.88	0.49	2.68	1.71	1.1	0.62	0.275	2.06	1.32	0.74	0.33	2.39	1.53	0.86	0.38	2.73	1.75	0.98	0.44	308	1.97	1.11	0.49

Weight, M (kg)	23	26	30	33	37	41	44
Inertia, Jm (kg.m ²)	0.0085	0.011	0.014	0.016	0.186	0.0217	0.0241
Static Friction, Tf (Nm)	0.41	0.47	0.54	0.68	0.75	0.81	0.95
Viscous Damping, F1 (Nm/krpm)	0.11	0.14	0.16	0.19	0.23	0.26	0.3

Tachogenerator Option	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147
Tachogenerator Model	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147	TGF2030-147
Voltage, KG (V/krpm)	19v / 57v / 38v / 47v	19v / 57v / 38v / 47v	19v / 57v / 38v / 47v	19v / 57v / 38v / 47v	19v / 57v / 38v / 47v	19v / 57v / 38v / 47v	19v / 57v / 38v / 47v
Ripple (pk-pk/avg)	2%	2%	2%	2%	2%	2%	2%
Inertia, Jt (kg.cm ²)	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Weight, Mt (grams)	640	640	640	640	640	640	640

Encoder Option	Incremental (A quad B with index Z & complements)
Encoder Type	5V DC ± 5%, 200mA max
Power Supply	Line Driver, 20mA Max source/sink
Output	1024 / 2048 / 4096
Resolution (ppr)	200 kHz max
Frequency Response	

Brake Option	
Brake Open Voltage (Volts D.C.)	24
Power (Watts)	28
Brake Static Torque (Nm)	20
Weight (brake + housing) Kg	13