



Motor Test Report

Data Date: 4/18/2017

BD7 IH* (24VDC 18April17

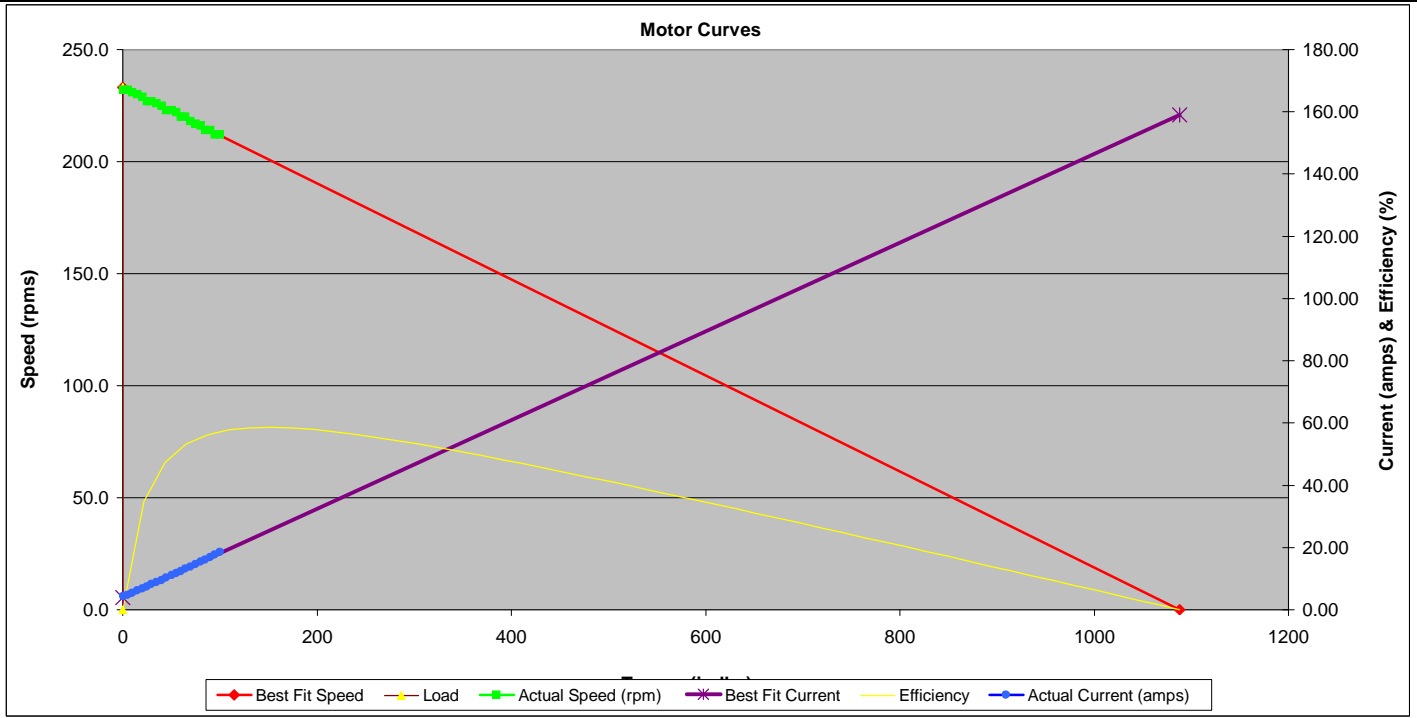
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Motor Constant Summary Table

Motor Test Voltage	24 Vdc	
Torque Constant: Kt	7.712	In.Oz./A
Voltage Constant: Ke	5.703	Volts/KRPM
Back EMF Constant: Kb	0.0540	Volts/rad/s
Polar Moment of Inertia: Jm	0.0010	In.Oz.s^2
Mechanical Time Constant: Tm	1.9910	milliseconds
Electrical Time Constant: Te	0.6150	milliseconds
Armature Resistance: Ra	0.76	ohms
Terminal Resistance: Rt	1.88	ohms
Terminal Inductance: La	0.0994	mH

Estimated Operating Data Using Constants

At Load Torque of	0	in-lbs
Load Speed	233.1	rpm
Load Current	3.96	amps
Load Power Out	0.0	watts
Load Horsepower	0.00	hp
Efficiency at Load	0.0%	
Stall Torque	1088	in-lbs
Stall Current	159.0	amps
Peak Horsepower	1.01	hp
No-Load Speed	233.1	rpm
No-Load Current	3.96	amps



Notes:



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Dyno Test Points

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	Actual Torque (in-lb):	Actual Speed (rpm)	Actual Current (amps)	Power Out (watts)	Hp	Efficiency (%)
1	0.43	232.00	4.23	1.18	0.002	1.2%
2	4.95	232.00	4.75	13.59	0.018	11.9%
3	9.94	231.00	5.41	27.14	0.036	20.9%
4	14.99	230.00	6.15	40.75	0.055	27.6%
5	20.12	229.00	6.77	54.46	0.073	33.5%
6	24.95	227.00	7.51	66.94	0.090	37.2%
7	29.88	227.00	8.18	80.17	0.108	40.9%
8	35.17	226.00	8.92	93.95	0.126	43.9%
9	39.95	225.00	9.55	106.25	0.142	46.4%
10	44.89	223.00	10.27	118.32	0.159	48.0%
11	50.69	223.00	11.10	133.61	0.179	50.2%
12	55.43	222.00	11.73	145.45	0.195	51.7%
13	59.92	220.00	12.36	155.82	0.209	52.5%
14	64.88	220.00	13.12	168.71	0.226	53.6%
15	69.65	218.00	13.81	179.47	0.241	54.2%
16	75.40	217.00	14.69	193.40	0.259	54.8%
17	80.16	216.00	15.45	204.66	0.274	55.2%
18	84.98	214.00	16.09	214.96	0.288	55.7%
19	90.01	214.00	16.97	227.68	0.305	55.9%
20	94.92	212.00	17.67	237.85	0.319	56.1%
21	100.20	212.00	18.54	251.09	0.337	56.4%
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