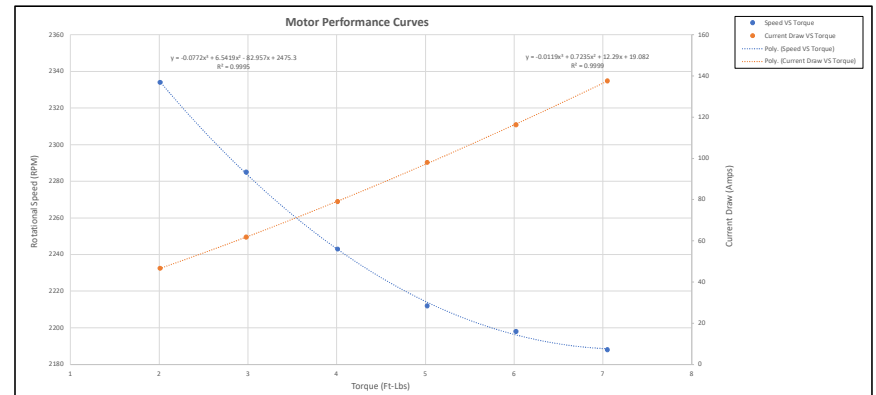
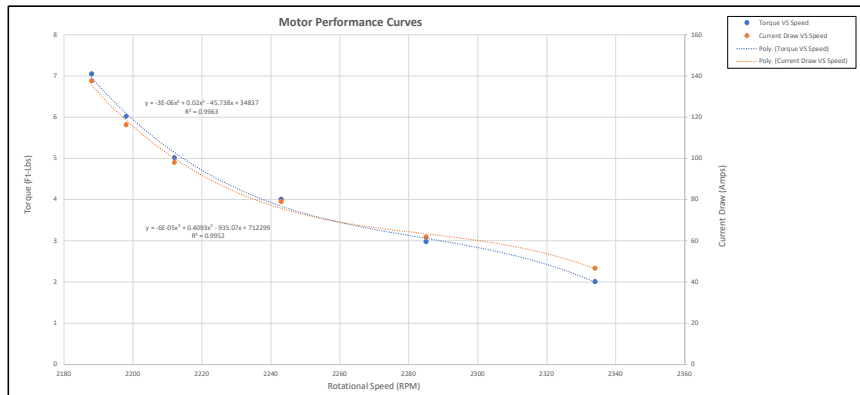
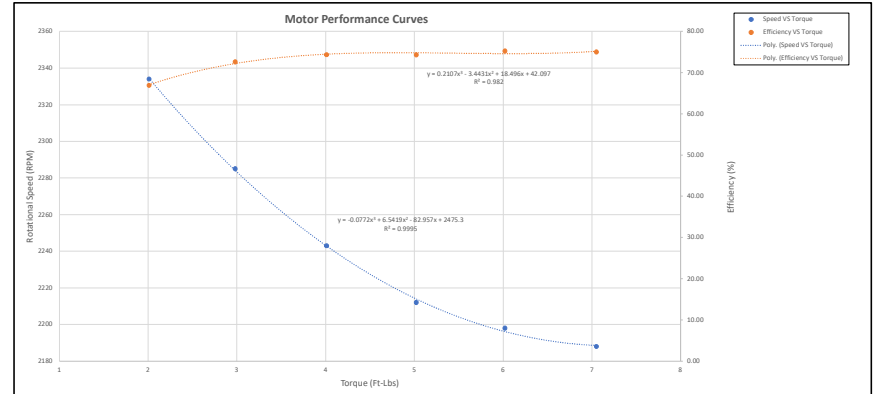
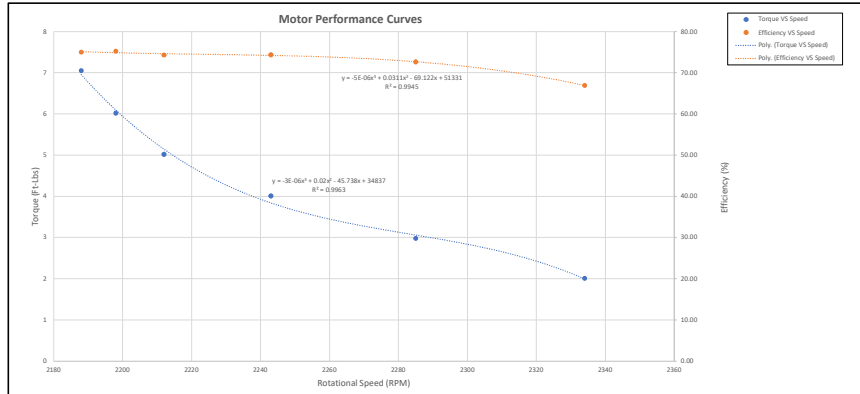


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 24 - (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2.01	2334	23.3	41.7	4.2	4.96	46.66	1.33	0.89	66.92
2.98	2285	23.1	56.8	4.3	4.95	51.75	1.70	1.3	72.63
4.01	2243	22.8	74.1	4.3	4.93	79.03	2.3	1.71	74.35
5.02	2212	22.5	93.1	4.3	4.94	98.04	2.84	2.11	74.30
6.02	2198	22.2	111.3	4.3	4.96	116.26	3.35	2.52	75.22
7.05	2188	21.9	132.6	4.3	5.03	137.63	3.92	2.94	75.00

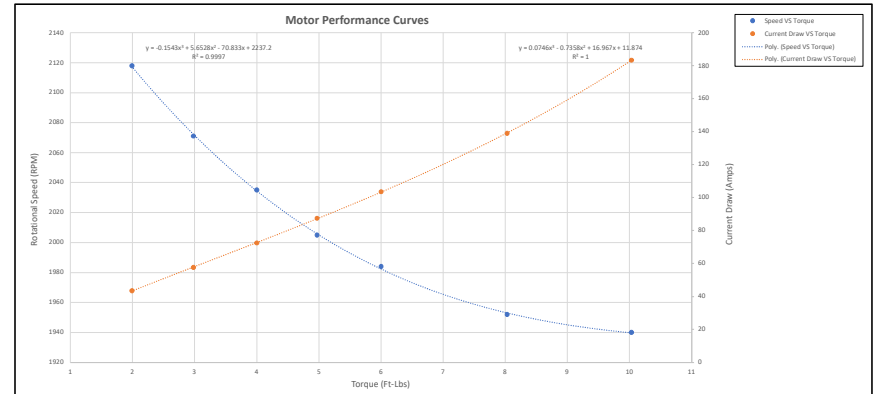
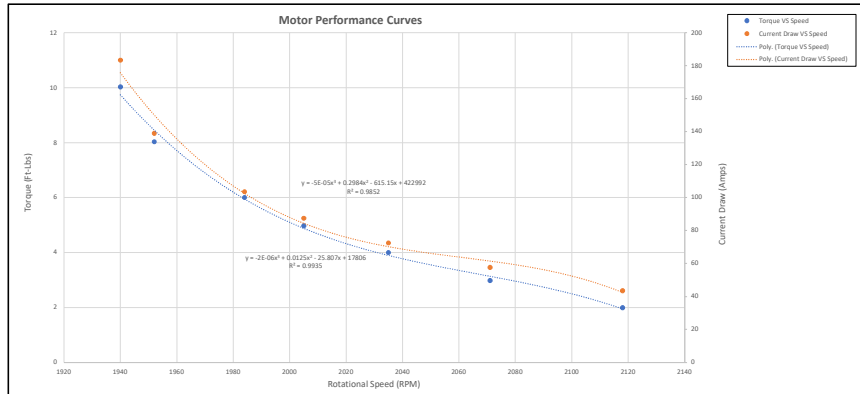
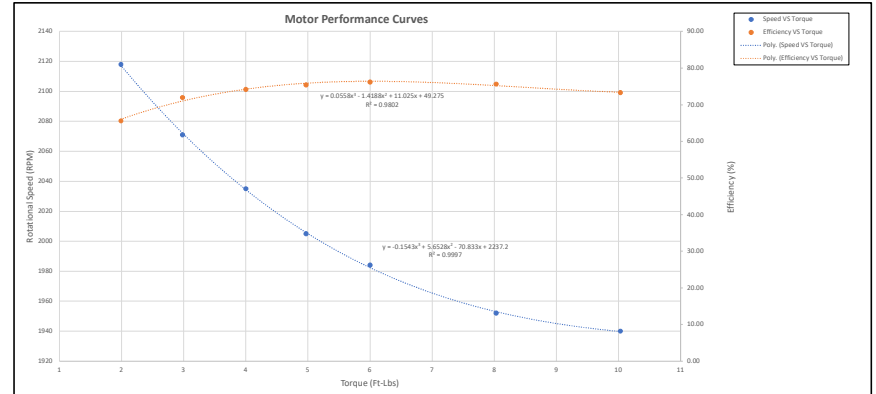
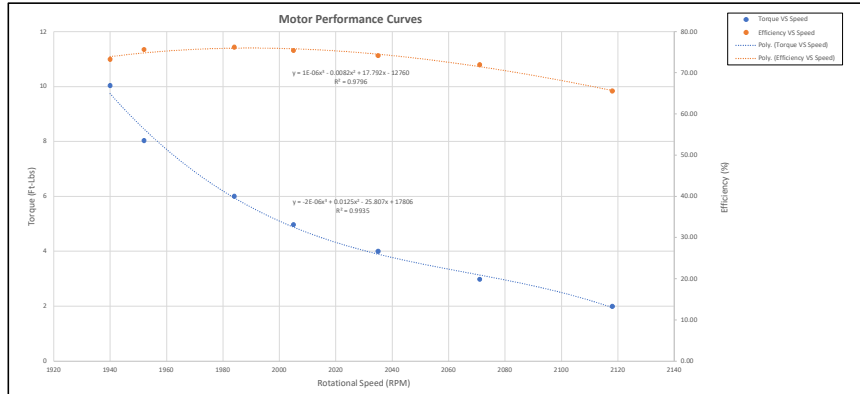


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 24 - (V ± 0.015)

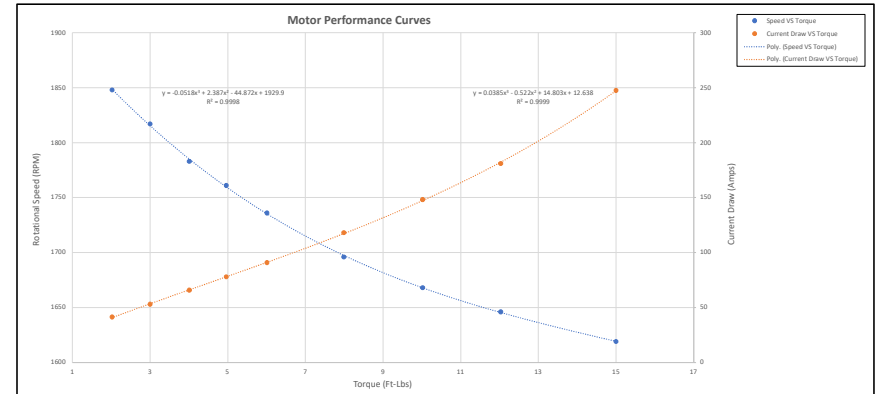
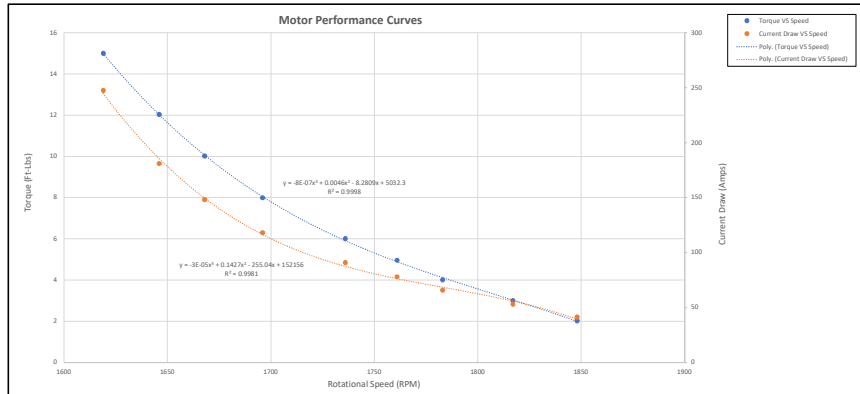
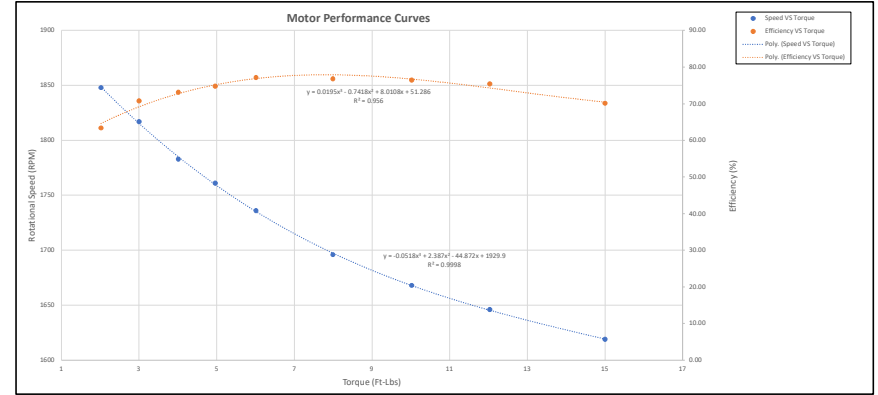
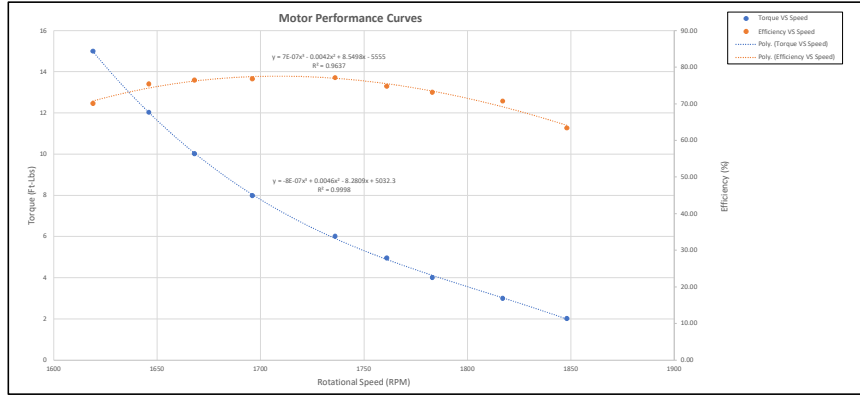
Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
1.99	2118	23.4	37.5	5.1	6	43.5	1.22	0.8	65.57
2.98	2071	23.2	31.6	5.1	6	37.6	1.54	1.18	71.95
4	2035	23	66.5	5.1	5.99	72.49	2.09	1.55	74.16
4.97	2005	22.7	81.5	5.1	5.97	87.47	2.52	1.9	75.40
6	1984	22.4	97.6	5.1	5.94	103.54	2.98	2.27	76.17
8.03	1952	21.9	133	5.2	5.98	138.98	3.94	2.98	75.63
10.03	1940	21.2	177.4	5.2	5.94	183.34	5.09	3.73	73.28



Engineering Performance Test Report

Performance Spec (PS) Number: 38
 System Voltage (V): 24 (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2.02	1848	23.4	33.3	7	8.04	41.34	1.12	0.71	63.39
3	1817	23.3	44.8	7	8.05	52.85	1.47	1.04	70.75
4.01	1783	23.1	57.7	7	8.03	65.73	1.86	1.36	73.12
4.96	1761	22.9	69.9	7	7.99	77.89	2.22	1.66	74.77
6.01	1736	22.6	82.7	7.1	8.07	90.77	2.58	1.99	77.13
7.99	1696	22.3	110	7.1	8.04	118.04	3.36	2.58	76.29
10.02	1668	21.8	140	7.1	8.08	148.08	4.16	3.18	76.44
12.03	1646	21.3	172.9	7.1	8.05	180.95	5	3.77	75.40
15	1619	20.3	239.4	7.1	8.14	247.54	6.59	4.62	70.11

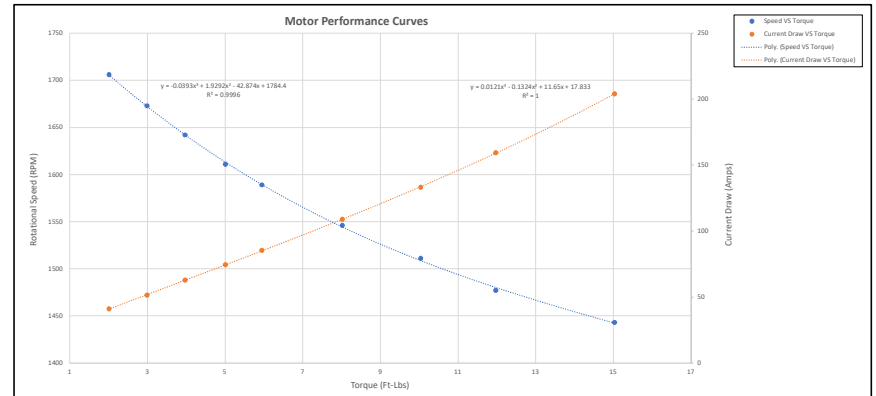
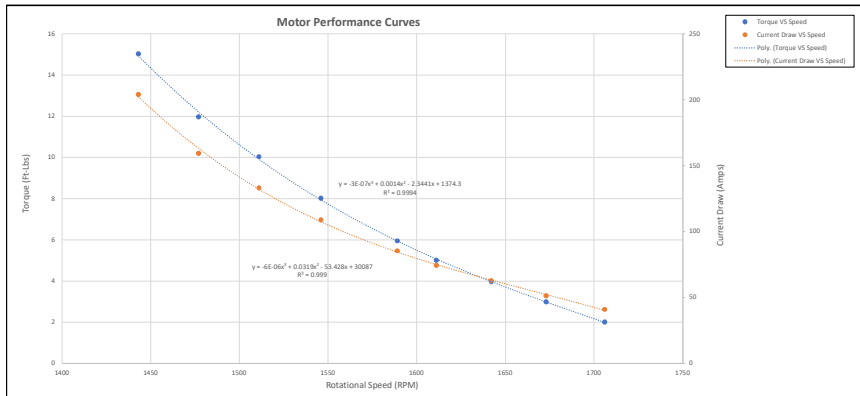
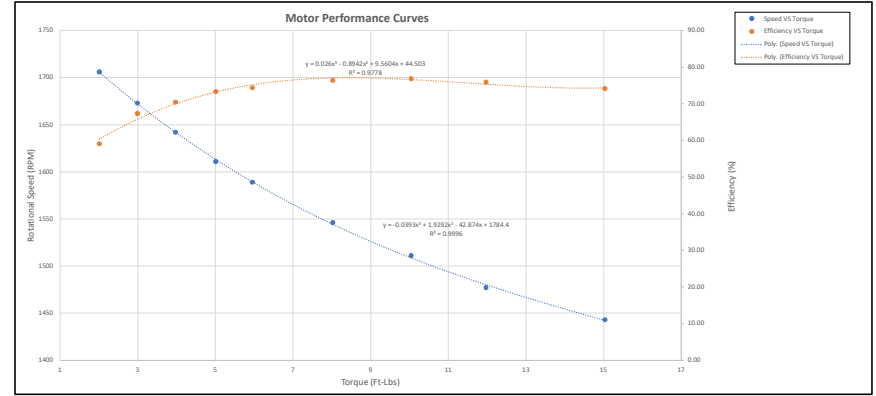
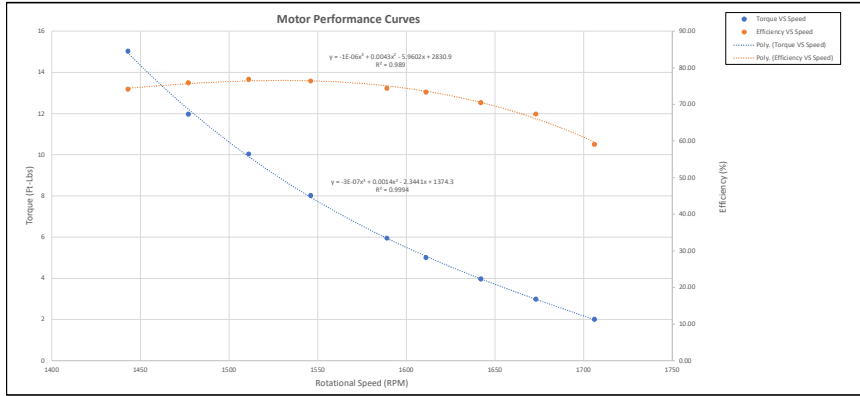


Engineering Performance Test Report

Performance Spec (PS) Number: 38

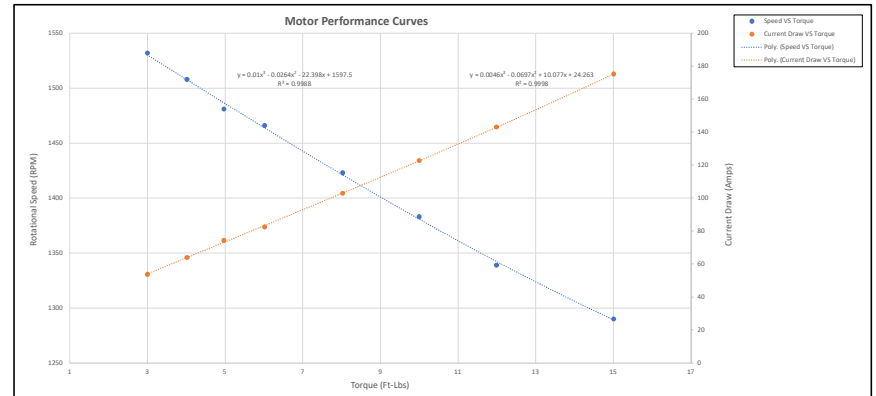
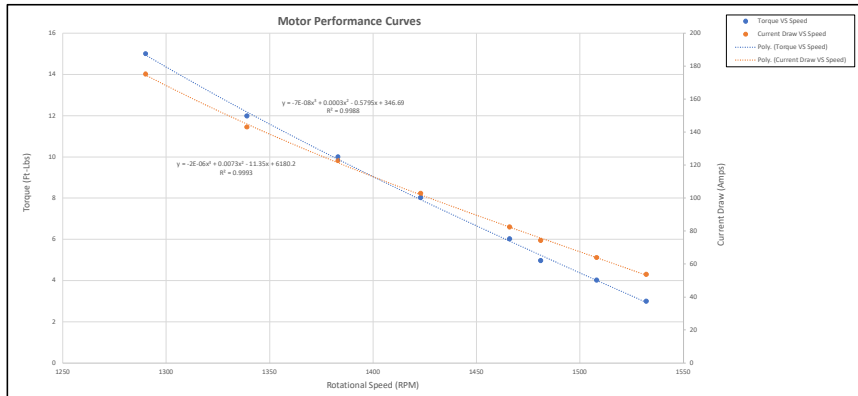
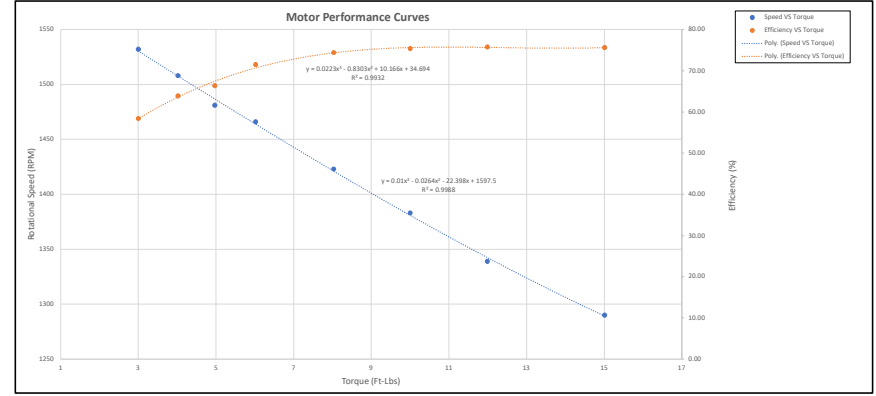
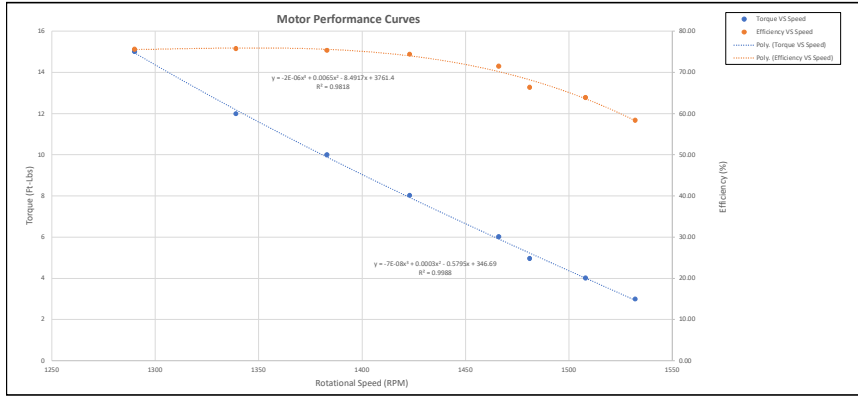
System Voltage (V): 24 - (I * 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2.01	1706	23.5	31	8.9	10.05	41.05	1.1	0.65	59.09
2.99	1673	23.3	41.3	8.9	10.05	51.35	1.41	0.95	67.38
3.97	1642	23.2	52.7	8.9	10.05	62.75	1.76	1.24	70.45
5.01	1611	23	64.4	8.9	10.02	74.42	2.1	1.54	73.33
5.95	1589	22.8	75.4	9	10.04	85.44	2.42	1.8	74.38
8.02	1546	22.4	98.9	9	10.01	108.91	3.09	2.36	76.38
10.04	1511	22	123.1	9	10.1	133.2	3.76	2.89	76.86
11.97	1477	21.6	149.6	9	9.82	159.42	4.44	3.37	75.90
15.03	1443	21	194	9	9.99	203.99	5.57	4.13	74.15
17.97	1405	20.2	244.7	9.1	10.16	254.86	6.74	4.81	71.36



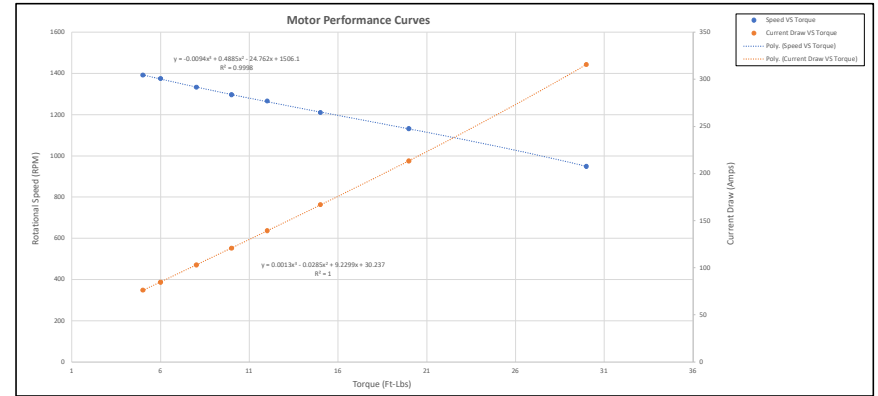
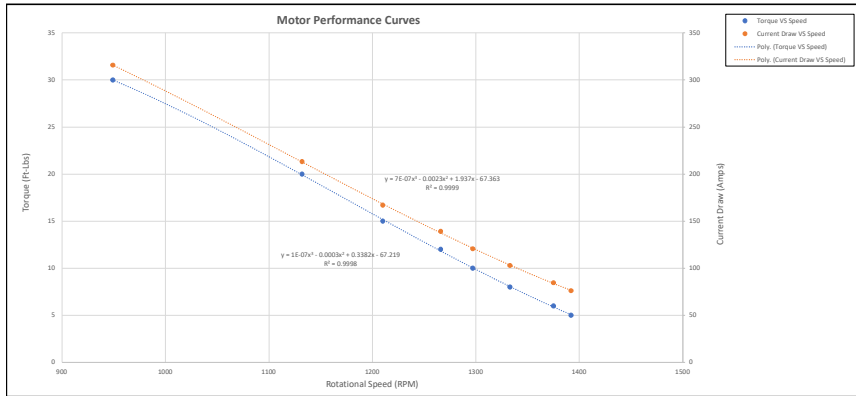
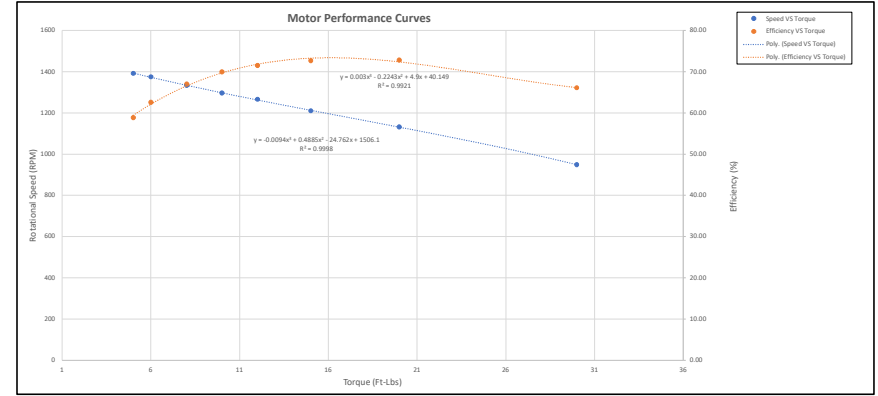
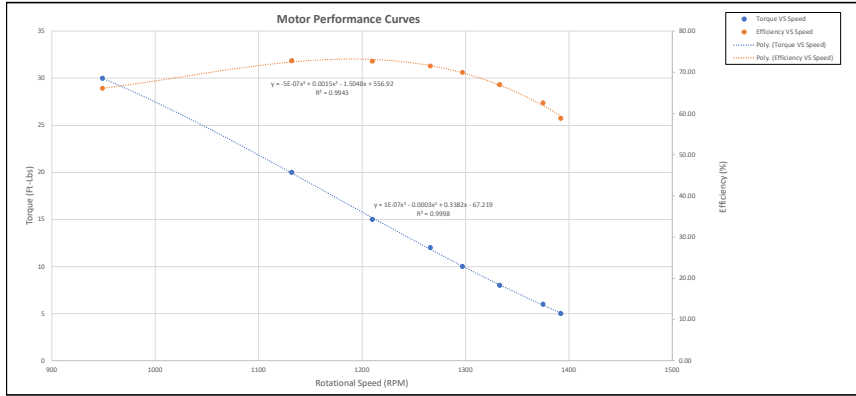
Engineering Performance Test Report
 Performance Spec (PS) Number: 38
 System Voltage (V): 24 - (1 ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
3	1532	23.4	38.6	13.9	15.1	53.7	1.49	0.87	58.39
4.02	1508	23.2	48.9	13.8	15.08	63.98	1.6	1.15	62.89
4.97	1481	23.1	59.3	13.7	15.04	74.34	2.11	1.4	66.35
6.02	1466	22.9	67.4	13.6	15.07	82.47	2.35	1.68	71.49
8.03	1423	22.6	87.9	13.5	15.05	102.95	2.93	2.18	74.40
10	1383	22.3	107.7	13.5	15.01	122.71	3.49	2.63	75.36
11.99	1339	22	128.1	13.4	15.02	143.12	4.04	3.06	75.74
15.01	1290	21.5	160.2	13.3	15.06	175.26	4.88	3.69	75.61
20	1198	20.6	216	13.2	15.17	231.17	6.24	4.56	73.08
25.01	1100	19.7	279.7	13.1	14.83	294.53	7.64	5.24	68.99



Engineering Performance Test Report
 Performance Spec (PS) Number: 38
 System Voltage [V]: 24 (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
5.01	1392	23.1	56.1	19.5	20.08	76.18	2.26	1.33	58.85
6	1375	23	66.6	19.4	20.07	84.67	2.51	1.57	62.55
8.02	1333	22.6	82.9	19.2	20.05	102.99	3.03	2.03	67.00
10	1297	22.4	100.6	19	20.12	120.72	3.53	2.47	69.97
12.01	1266	22.1	119.2	18.7	20.07	139.27	4.04	2.89	71.53
15.01	1210	21.6	147	18.5	20.03	167.03	4.76	3.46	72.69
19.99	1132	21	193.3	18.3	19.97	213.27	5.92	4.31	72.80
29.99	949	19.5	295.7	18	19.97	315.67	8.2	5.42	66.10

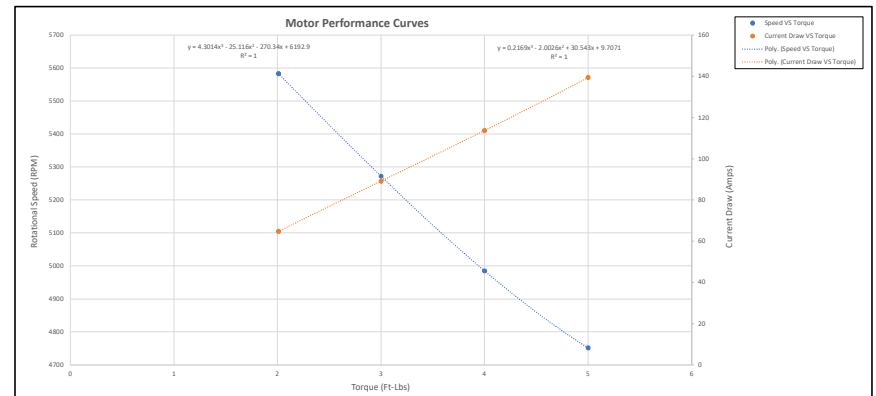
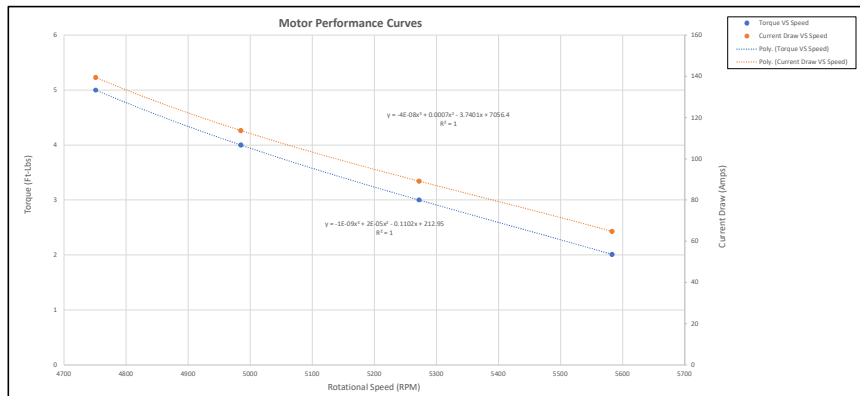
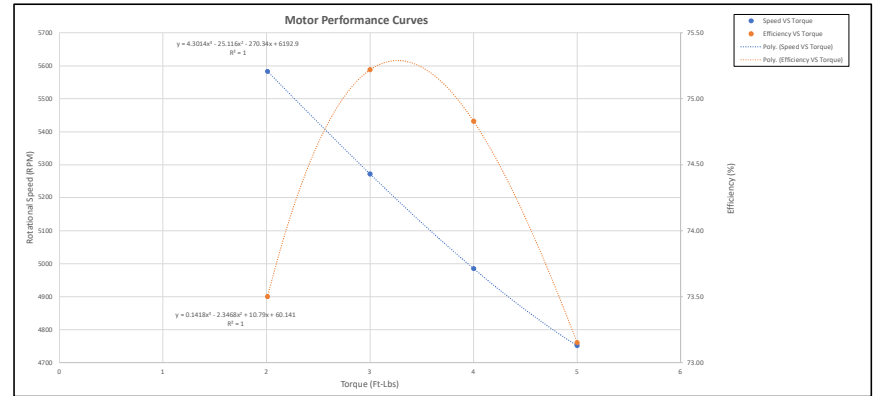
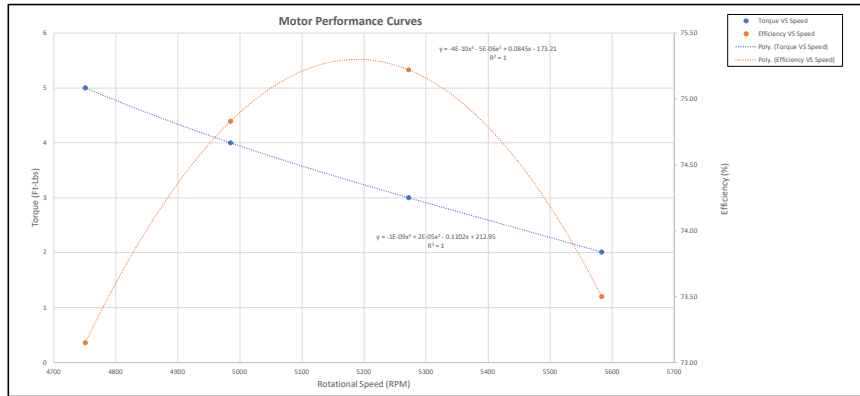


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 36 - (I * 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2.01	5583	34.91	61.7	2.86	3.07	64.77	2.9	2.13	73.50
3	5272	34.93	65.8	2.86	3.07	69.17	4	3.01	75.22
4	4985	34.31	110.7	2.87	3.02	113.72	5.08	3.8	74.83
5	4751	33.73	136.4	2.87	3.07	139.47	6.18	4.52	73.15

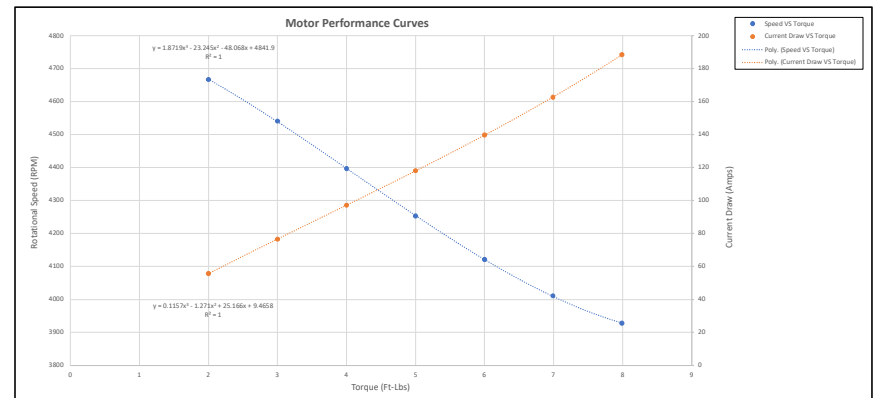
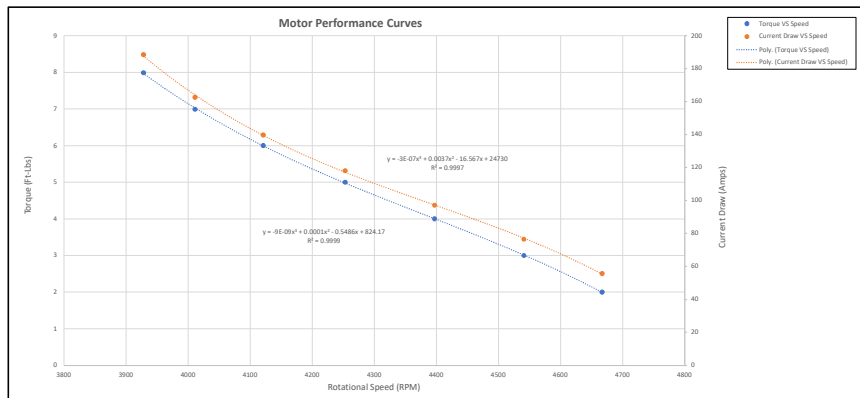
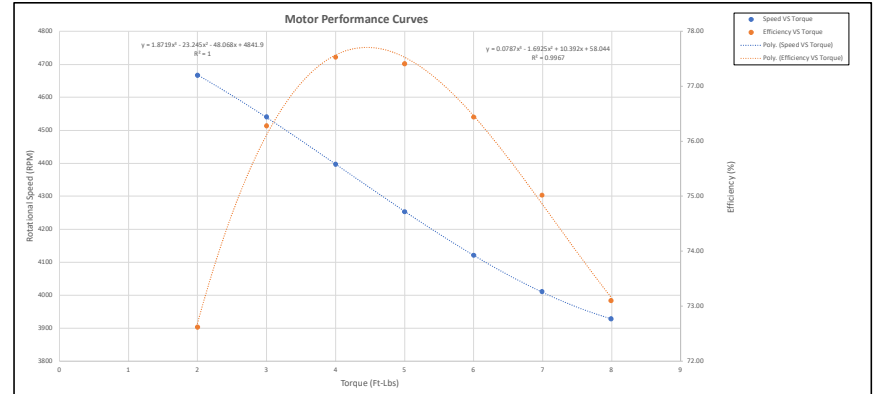
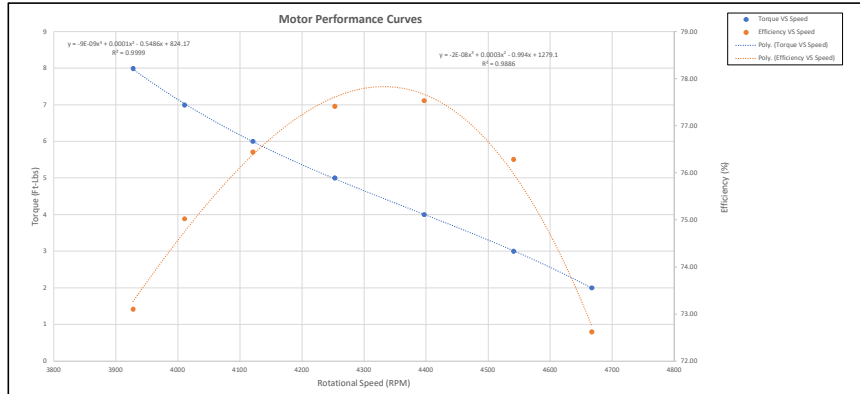


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 36 - (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2	4667	35.07	51.6	3.79	4.08	55.68	2.45	1.78	72.62
3	4541	34.75	72.5	3.8	4.07	76.57	3.4	2.59	76.28
4	4397	34.61	93.1	3.8	4.08	97.16	4.32	3.35	77.53
5	4253	34.09	114	3.81	4.07	118.07	5.23	4.05	77.41
6	4121	33.76	135.7	3.81	4.08	139.78	6.16	4.71	76.44
6.99	4011	33.39	158.6	3.82	4.04	162.64	7.12	5.34	75.02
7.99	3928	33	184.4	3.83	4.09	188.49	8.18	5.98	73.10

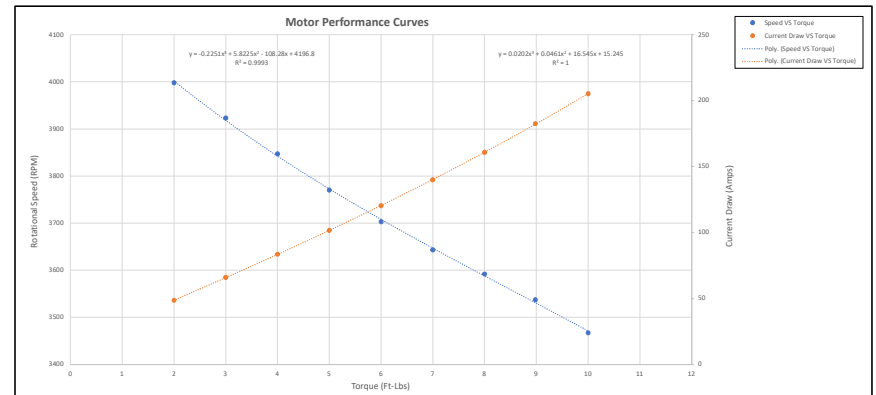
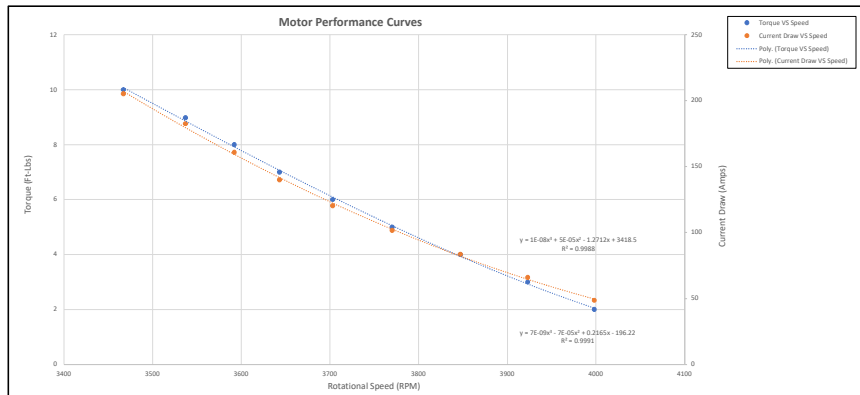
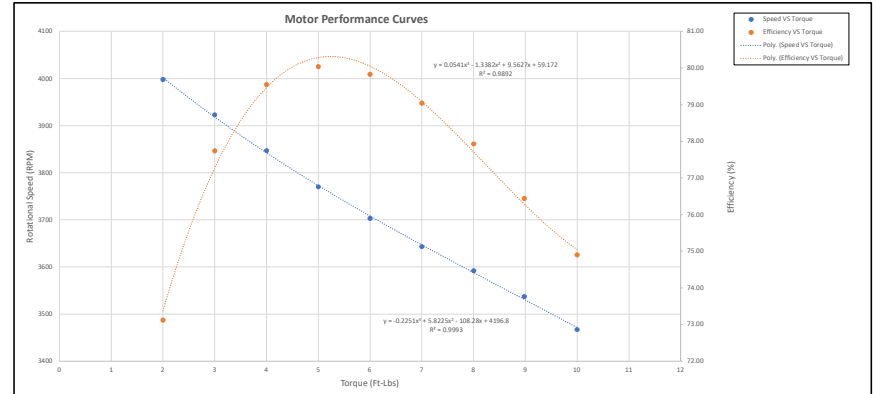
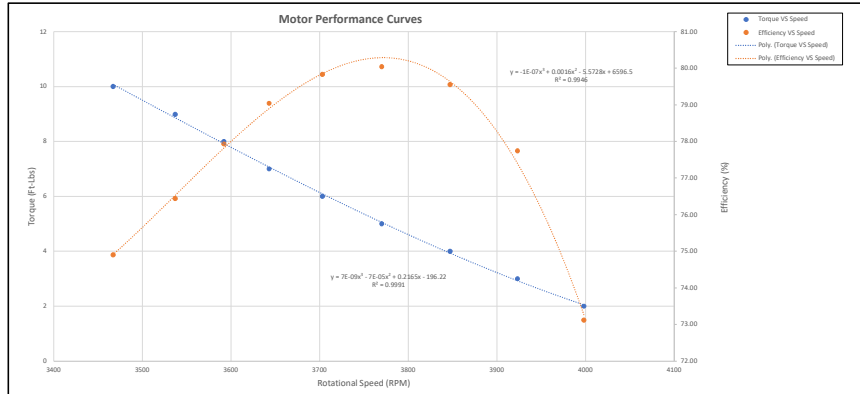


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 36 - (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2	3998	35.19	43.5	4.75	5.07	48.57	2.08	1.52	73.12
3	3923	34.93	60.9	4.76	5.07	65.97	2.86	2.24	77.74
4	3847	34.66	78.5	4.76	5.07	83.57	3.68	2.93	79.55
5	3770	34.38	96.6	4.77	5.07	101.67	4.48	3.59	80.04
6	3703	34.09	115.3	4.78	5.06	120.36	5.3	4.23	79.83
7	3643	33.79	135	4.79	5.06	140.06	6.14	4.86	79.04
8	3592	33.46	155.8	4.79	5.07	160.87	7.02	5.47	77.93
8.98	3537	33.11	177.5	4.8	5.07	182.57	7.91	6.05	76.44
10	3467	32.73	200.2	4.82	5.07	205.27	8.82	6.61	74.90

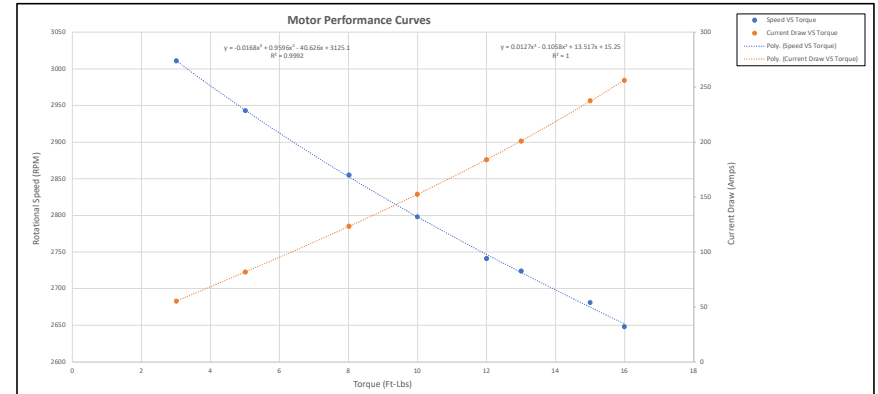
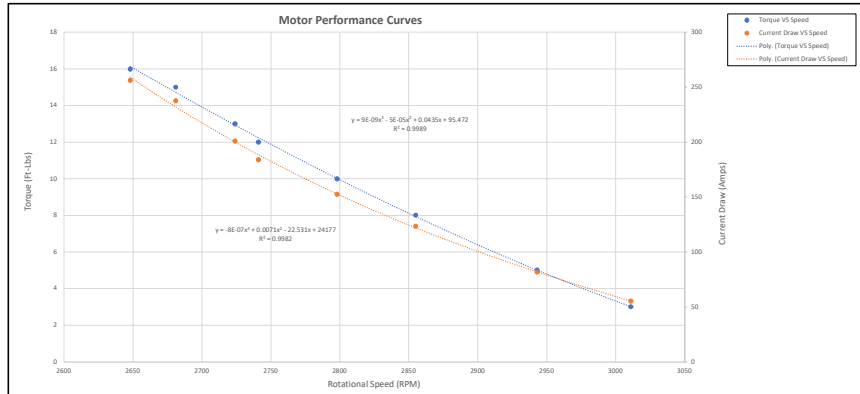
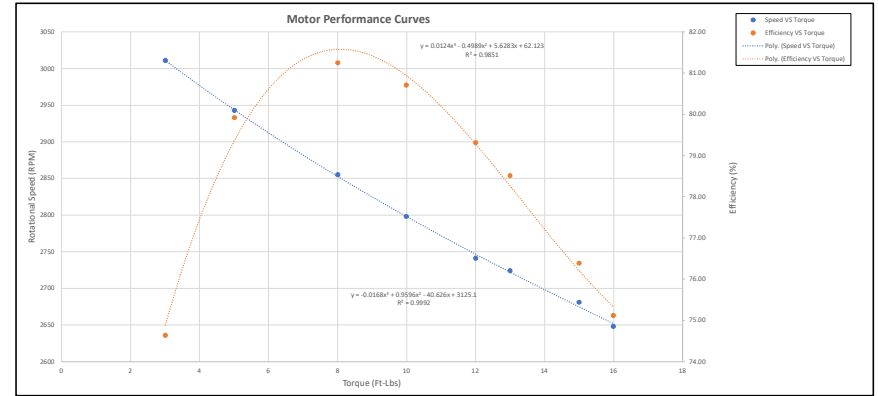
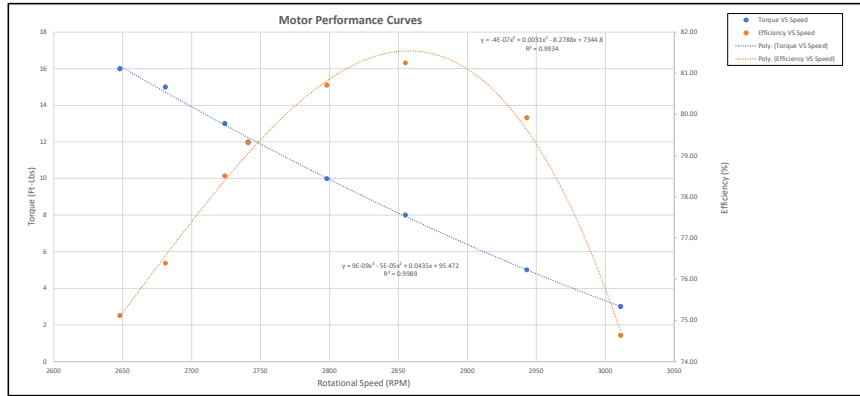


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 36 - (I + 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
3.01	3011	35.13	47.3	7.69	8.07	55.37	2.31	1.72	74.64
5.01	2948	34.72	73.7	7.7	8.07	81.77	3.52	2.81	79.92
8.01	2855	34.09	115.4	7.72	8.09	123.49	5.36	4.35	81.25
9.99	2798	33.65	144.4	7.74	8.07	152.47	6.6	5.32	80.71
12	2741	33.14	175.9	7.75	8.07	183.97	7.9	6.26	79.31
13	2724	32.88	192.8	7.78	8.09	200.99	8.59	6.74	78.51
15	2681	32.29	229.6	7.8	8.08	237.68	10.03	7.66	76.39
15.99	2648	32.01	248.1	7.82	8.07	256.17	10.73	8.06	75.12

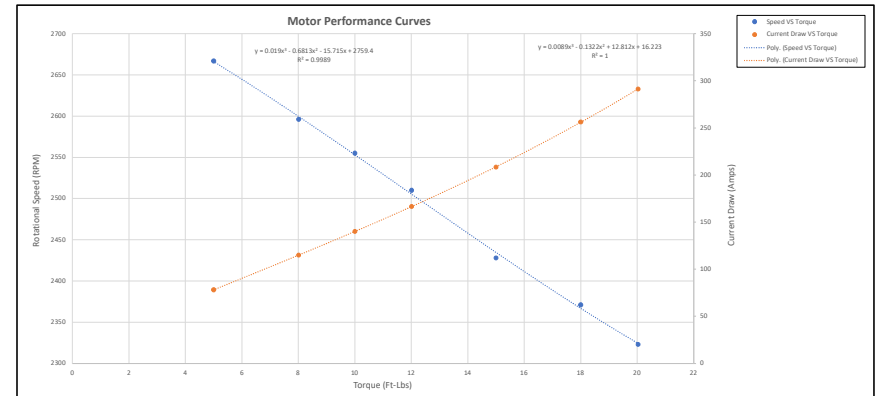
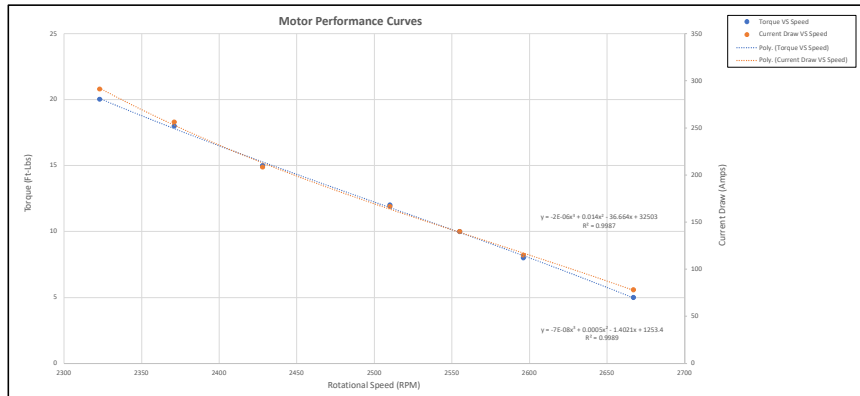
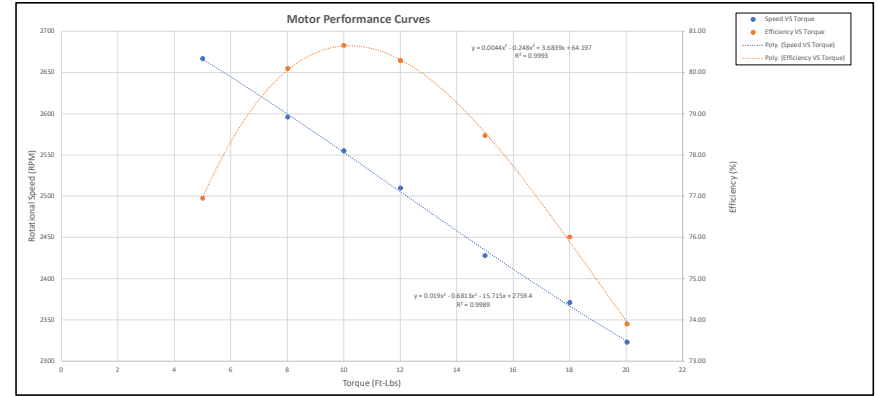
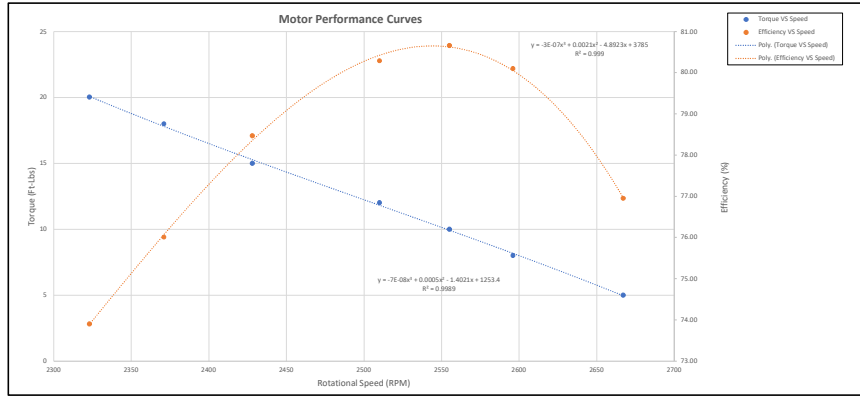


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 36 - (V ± 0.015)

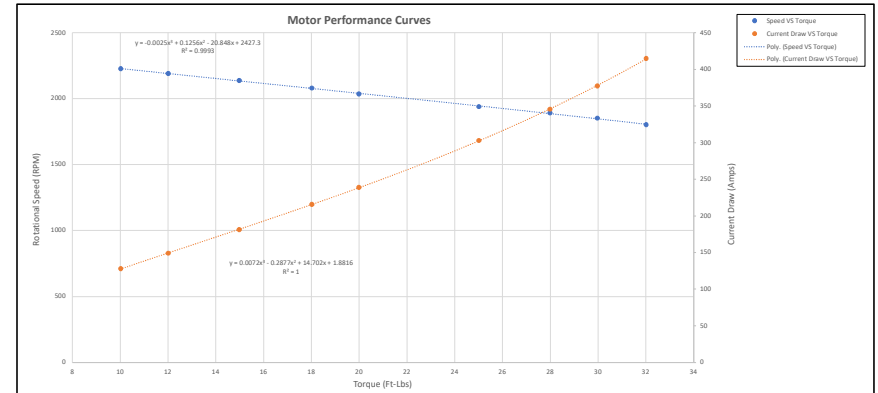
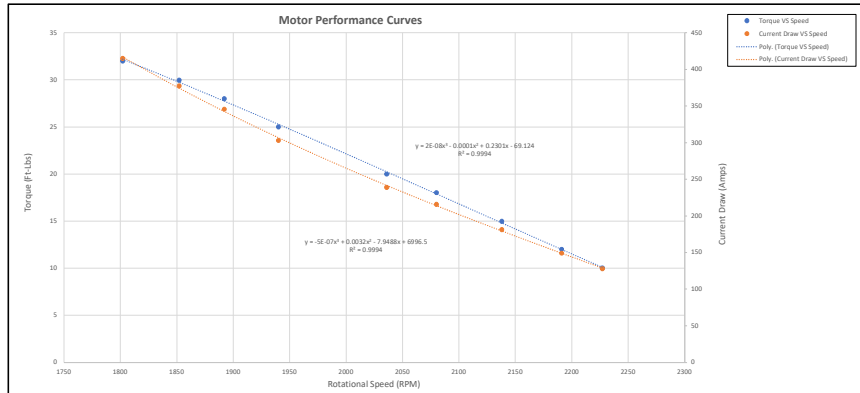
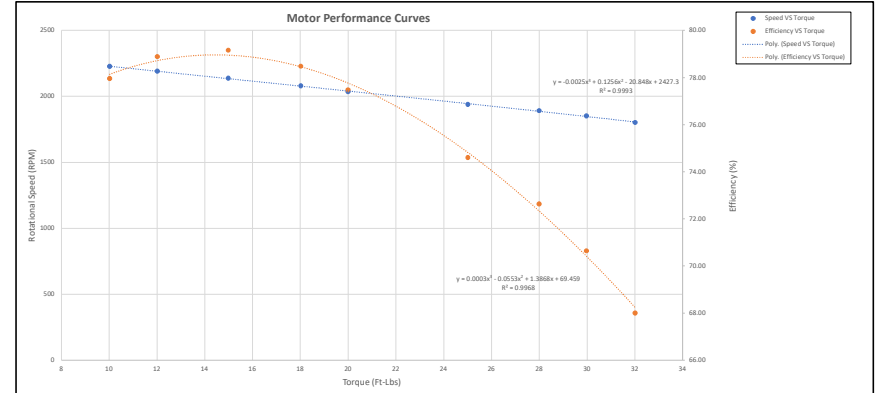
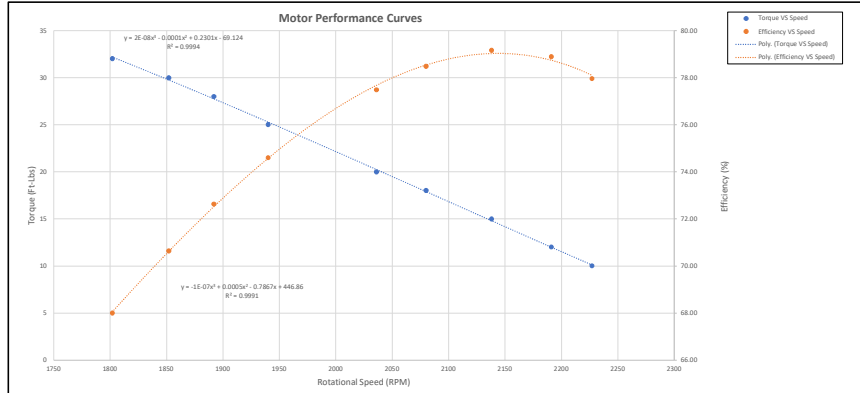
Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
5	2667	34.82	68	9.34	10.09	78.09	3.3	2.54	76.95
8.01	2596	34.26	104.8	9.38	10.4	114.9	4.94	3.96	80.10
10	2555	33.87	130	9.41	10.1	140.1	6.03	4.86	80.66
12.01	2510	32.46	156.5	9.44	10.09	166.59	7.15	5.74	80.29
15	2428	32.76	198.3	9.48	10.08	208.38	8.84	6.93	78.47
18	2371	32	246.2	9.51	10.1	256.3	10.69	8.12	76.01
20.03	2323	31.46	281.2	9.55	10.08	291.28	11.99	8.86	73.90



Engineering Performance Test Report

Performance Spec (PS) Number: 38
 System Voltage (V): 36 - (1 + 0.015)

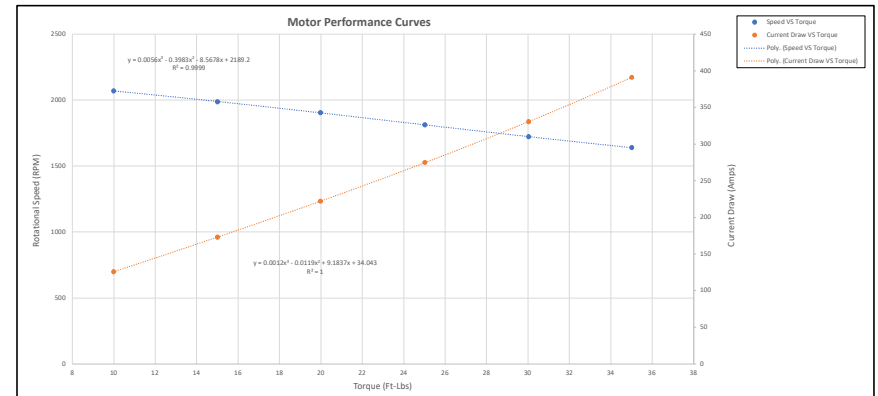
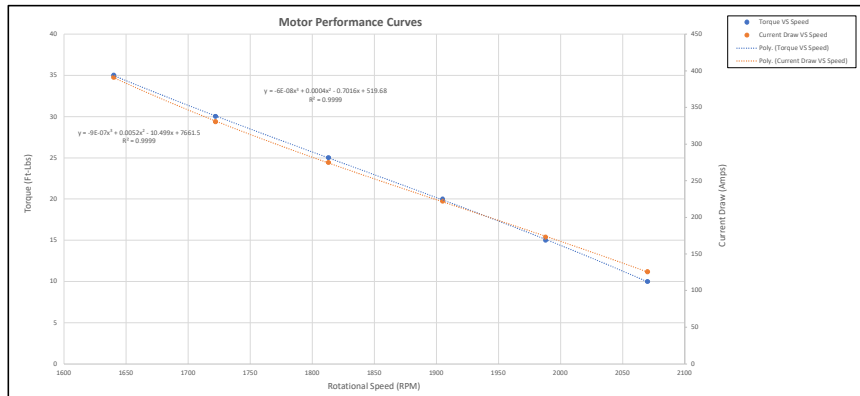
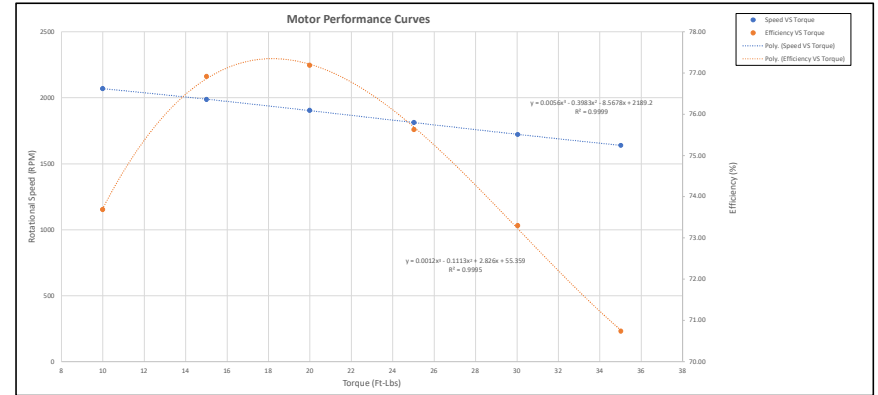
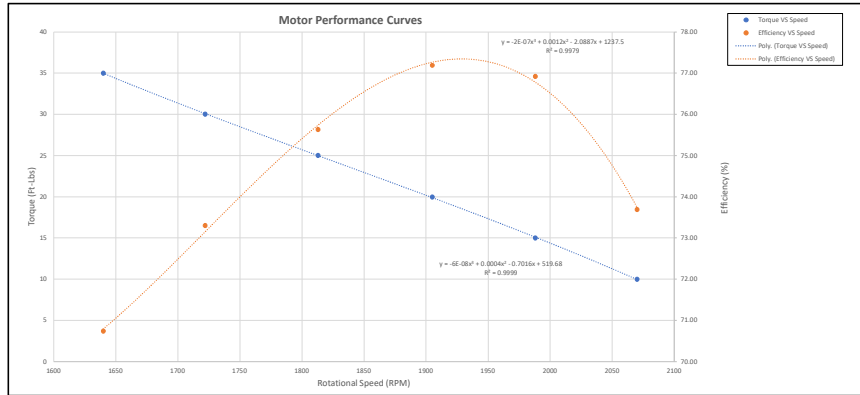
Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amper)	Field Voltage (Volts)	Field Current (Amper)	Total Current (Amper)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
10.02	2227	34.14	132.9	13.8	15.08	127.98	5.45	4.25	77.96
12.01	2191	33.82	134	13.9	15.07	149.07	6.35	5.01	78.89
14.98	2138	33.32	166.2	14	15.08	181.26	7.71	6.1	79.16
18.02	2080	32.76	200.6	14.1	15.07	215.67	9.09	7.13	78.48
19.99	2036	32.37	223.9	14.19	15.08	238.98	10	7.75	77.48
25.01	1940	31.34	287.8	14.29	15.07	302.87	12.38	9.24	74.66
27.99	1892	30.68	330.5	14.38	15.16	345.66	13.88	10.08	72.63
29.97	1852	30.19	362.4	14.47	15.07	377.47	14.96	10.57	70.64
32.01	1802	29.59	399.7	14.58	15.1	414.8	16.15	10.98	68.00



Engineering Performance Test Report

Performance Spec (PS) Number: 38
 System Voltage (V): 36 - (I² * 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
9.99	2070	34.25	195.7	18.65	20.09	125.79	5.35	3.94	73.69
15	1998	33.54	152.9	18.88	20.1	123	7.30	5.68	76.92
19.98	1905	32.77	202	19.11	20.08	222.08	9.39	7.25	77.25
25.02	1813	31.93	254.7	19.33	20.09	274.79	11.42	8.64	75.63
30.03	1722	31.01	310.5	19.54	20.06	330.56	13.43	9.85	73.30
35.01	1640	30.01	371	19.75	20.09	391.09	15.46	10.94	70.74

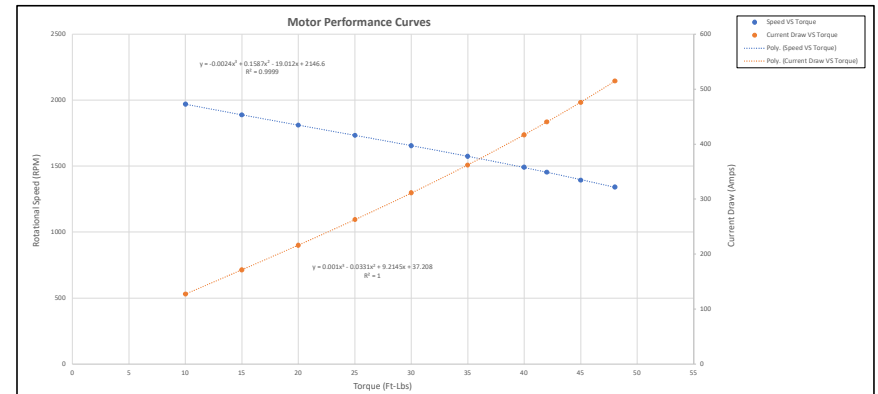
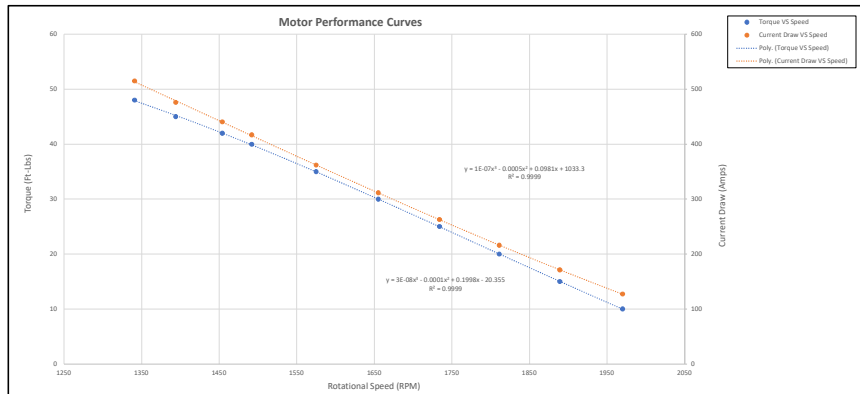
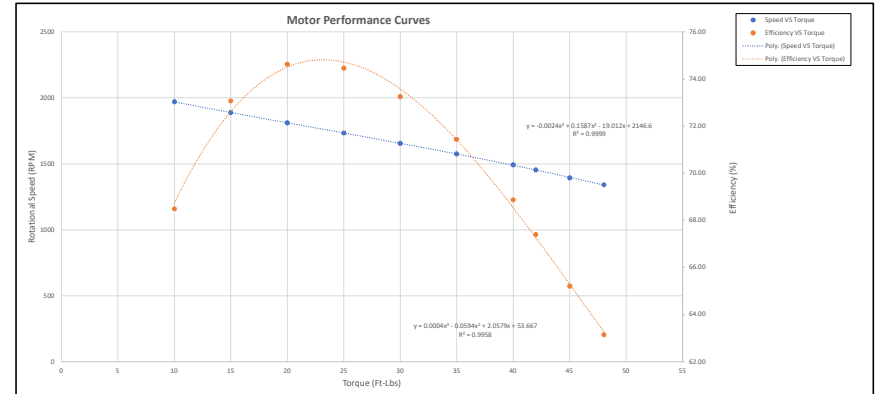
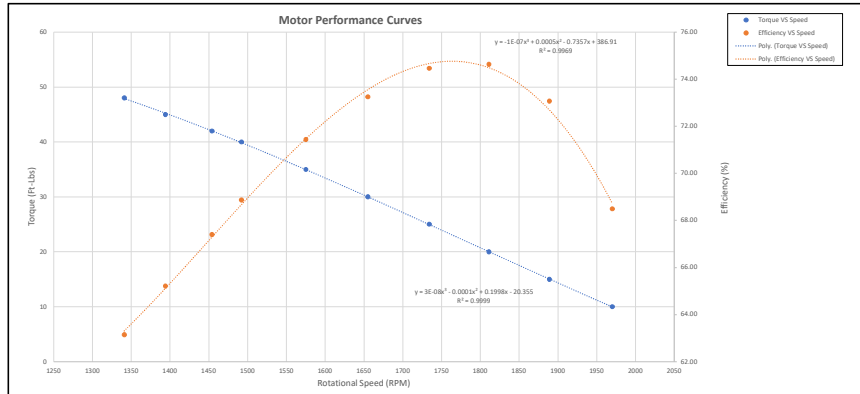


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 36 - (V ± 0.015)

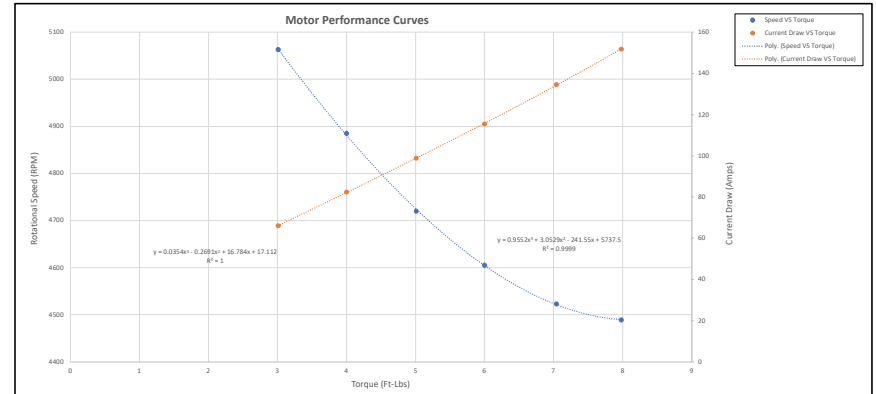
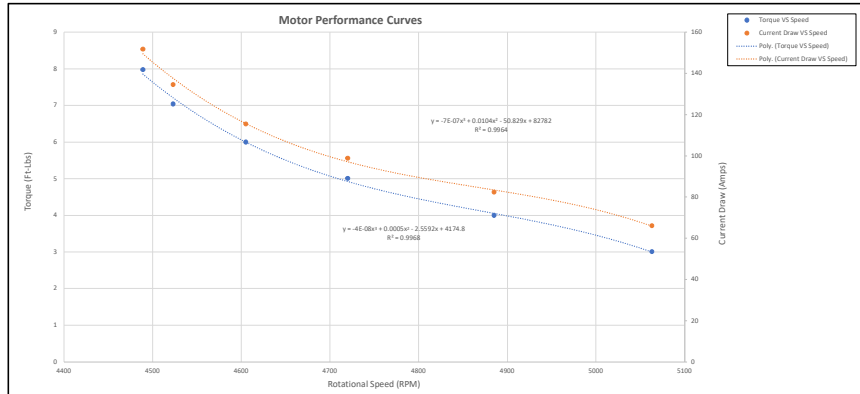
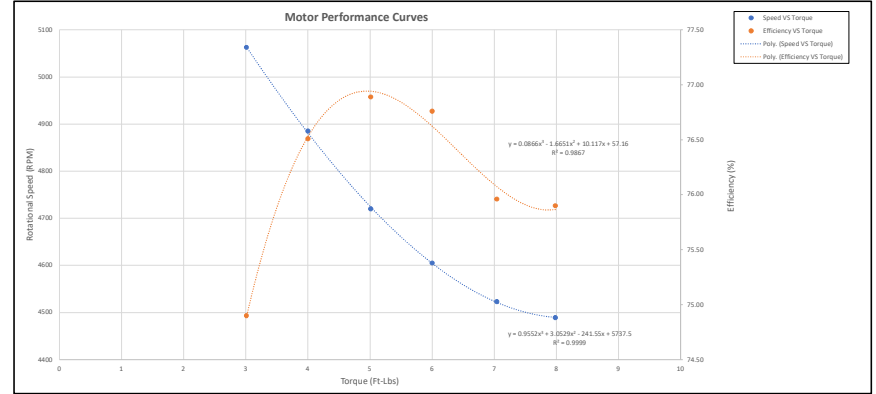
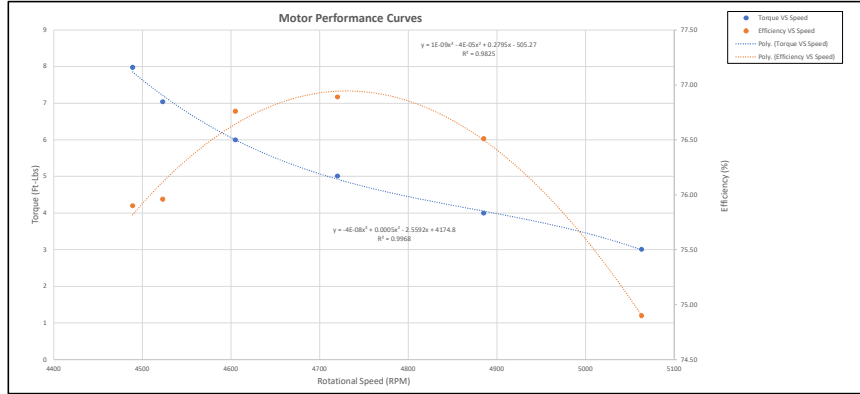
Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
10.01	1970	34.3	192.2	23.24	25.11	127.31	5.48	3.75	68.49
14.99	1898	33.64	146	23.68	25.1	174.1	7.36	5.39	73.07
19.99	1811	32.95	190.8	24.12	25.09	215.89	9.24	6.9	74.63
25.01	1734	32.21	237.8	24.54	25.08	262.88	11.09	8.26	74.46
29.99	1655	31.43	286.3	24.94	25.09	311.39	12.9	9.45	73.25
34.98	1575	30.63	336.9	25.34	25.09	361.99	14.69	10.49	71.44
39.99	1492	29.78	391.7	25.74	25	416.7	16.5	11.36	68.87
41.99	1454	29.38	414.4	26.13	25.14	440.54	17.24	11.62	67.40
45	1394	28.81	450.9	26.51	25.12	476.62	18.31	11.94	65.21
48.02	1341	28.18	489.9	26.9	25.13	515.03	19.41	12.26	63.14



Engineering Performance Test Report

Performance Spec (PS) Number: 38
 System Voltage (V): 48 - (I² * 0.015)

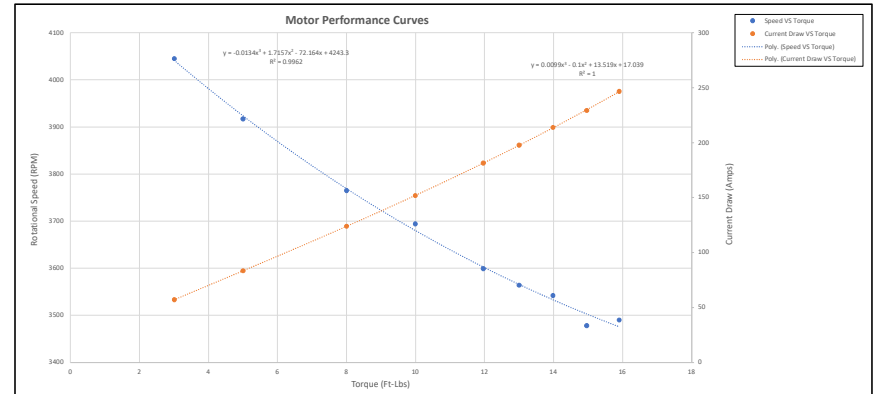
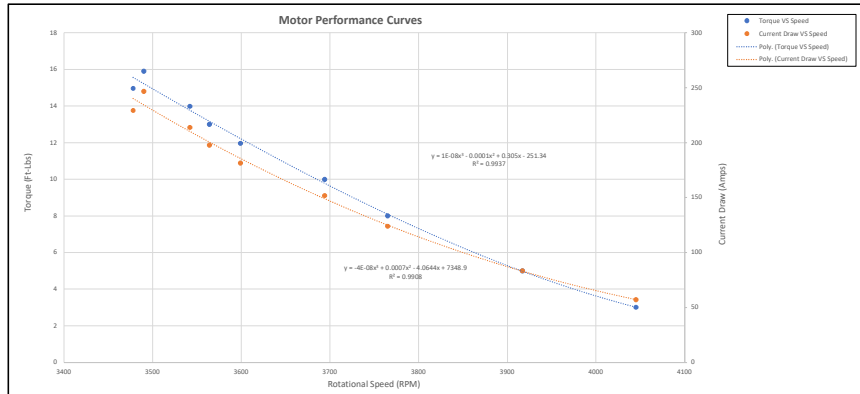
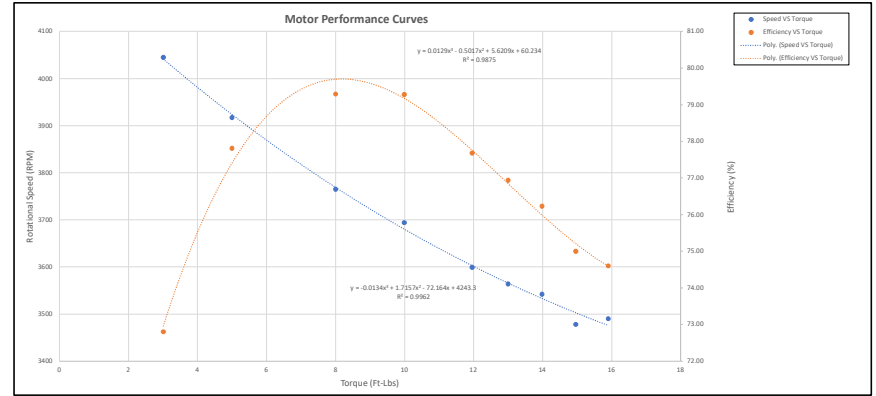
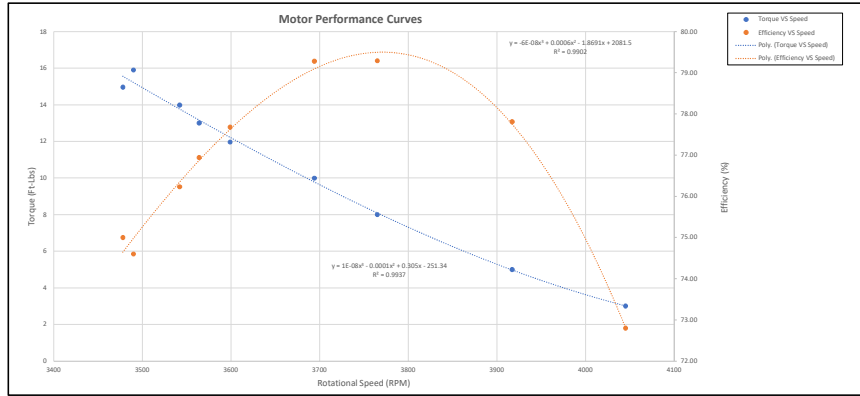
Torque (Ft-Lbs)	Speed (RPM)	Analog Voltage (Volts)	Amature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
3.01	5063	46.9	61	4.65	5.09	66.09	3.87	2.9	74.90
4	4885	46.63	77.3	4.66	5.09	82.39	4.87	3.72	76.51
5.01	4720	46.38	93.8	4.67	5.06	98.86	5.86	4.51	76.89
6	4605	46.1	110.4	4.68	5.09	115.49	6.85	5.26	76.76
7.04	4523	45.8	129.5	4.68	5.09	134.59	7.98	6.06	75.96
7.98	4489	45.52	146.7	4.7	5.09	151.79	8.98	6.82	75.90



Engineering Performance Test Report

Performance Spec (PS) Number: 38
 System Voltage (V): 48 (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
3.01	4045	47.12	49	7.51	8.09	57.09	3.18	2.31	72.80
5	3917	46.71	75.3	7.54	8.08	82.36	4.9	3.73	72.81
8	3765	46.06	115.8	7.56	8.09	123.89	7.23	5.73	79.28
9.99	3694	45.61	143.7	7.58	8.08	151.78	8.86	7.03	79.28
11.96	3599	45.07	173.3	7.62	8.09	181.99	10.55	8.2	77.68
13	3564	44.81	189.6	7.63	8.1	197.7	11.47	8.82	76.94
13.98	3542	44.56	205.7	7.67	8.09	213.79	12.37	9.43	76.23
14.96	3478	44.27	221.2	7.7	8.07	229.27	13.21	9.91	75.00
15.9	3490	44.03	238.6	7.75	8.09	246.69	14.17	10.57	74.60

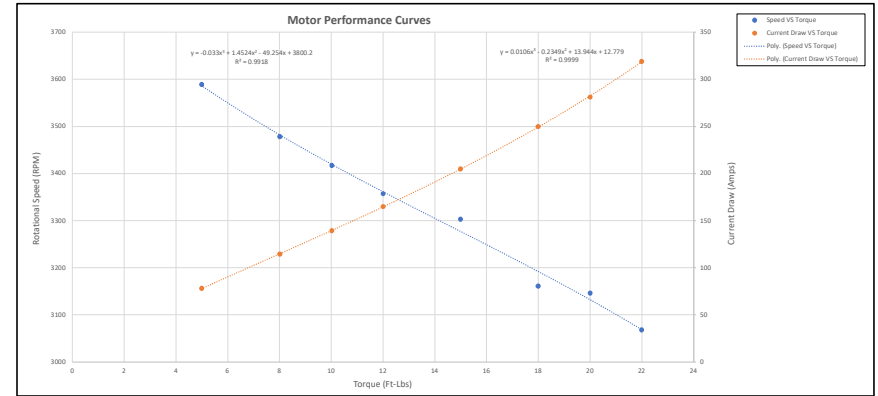
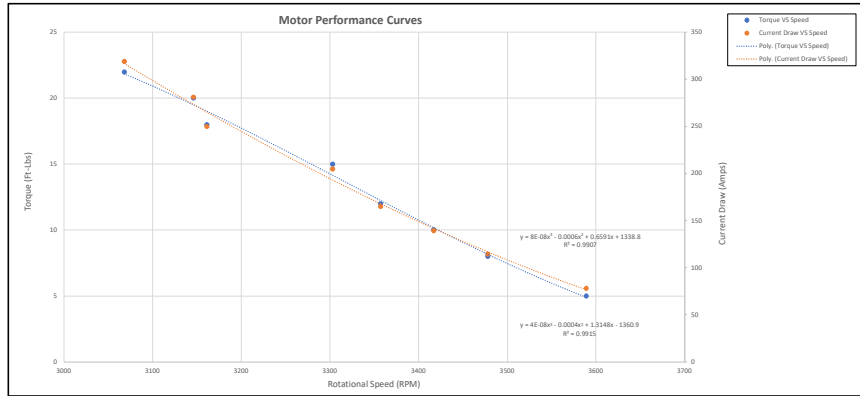
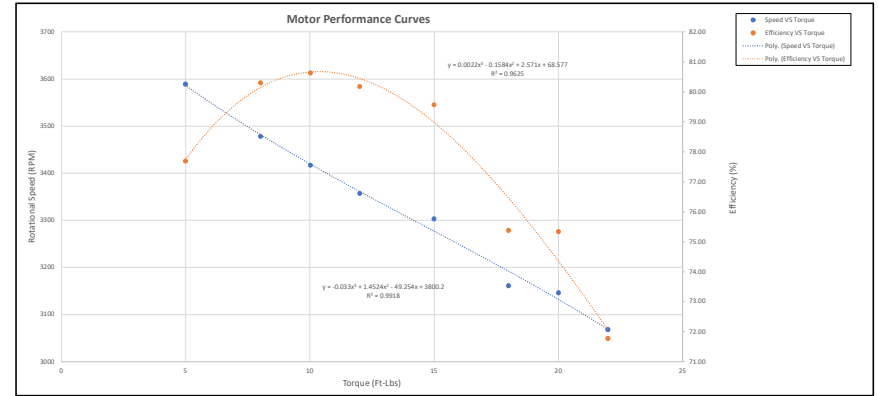
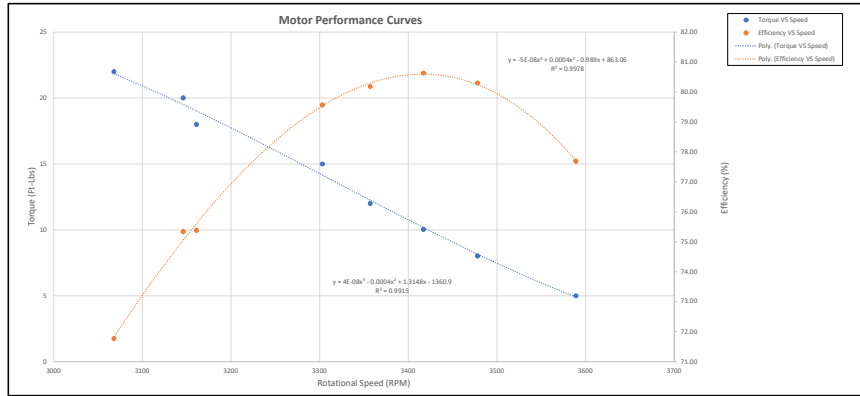


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 48 - (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
4.99	3589	46.84	67.9	9.7	10.11	78.01	4.39	3.41	77.69
8.01	3478	46.27	104.4	9.74	10.11	114.51	6.6	5.3	80.30
10.02	3417	45.89	139.2	9.78	10.11	139.31	8.08	6.52	80.63
12	3357	45.48	154.8	9.82	10.1	164.9	9.57	7.67	80.18
14.99	3303	44.86	194.8	9.85	10.11	204.91	11.85	9.43	79.57
17.99	3161	44.07	230.2	9.88	10.12	249.82	14.2	10.78	75.38
20	3146	43.63	271	9.92	10.13	281.13	15.98	12.04	75.34
21.99	3068	42.9	308.9	9.99	10.1	319	17.9	12.84	71.77

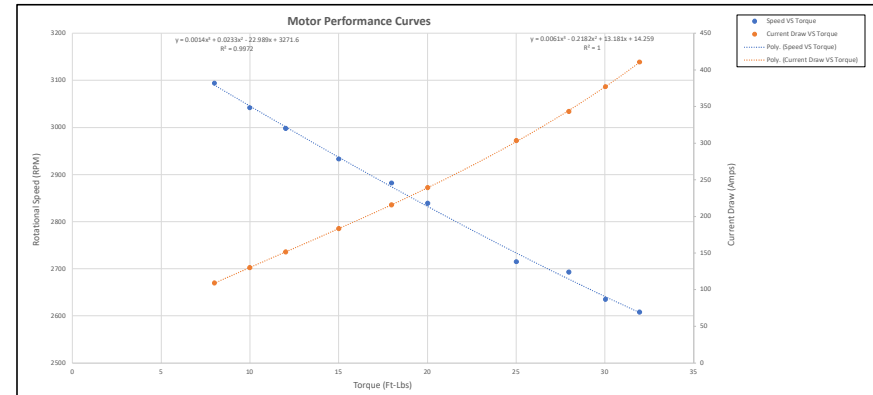
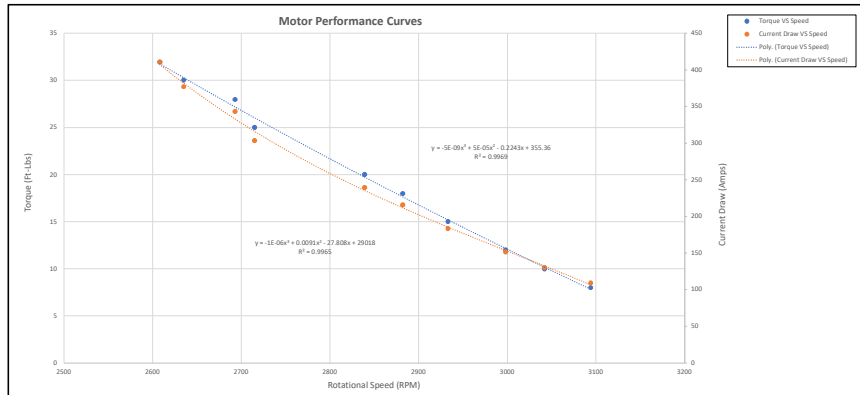
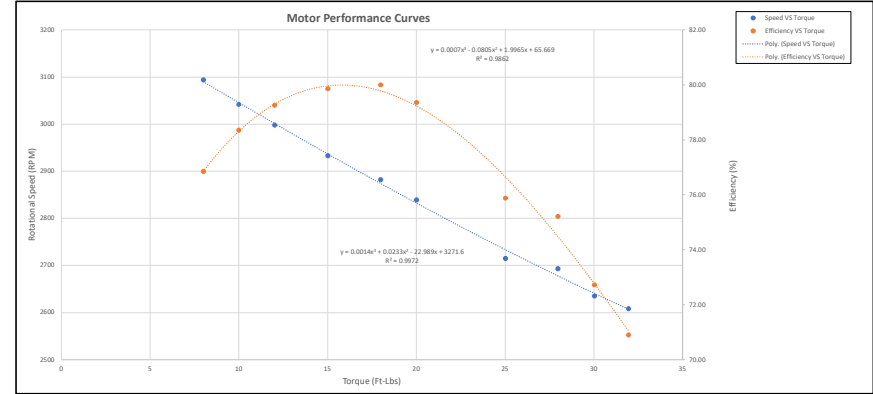
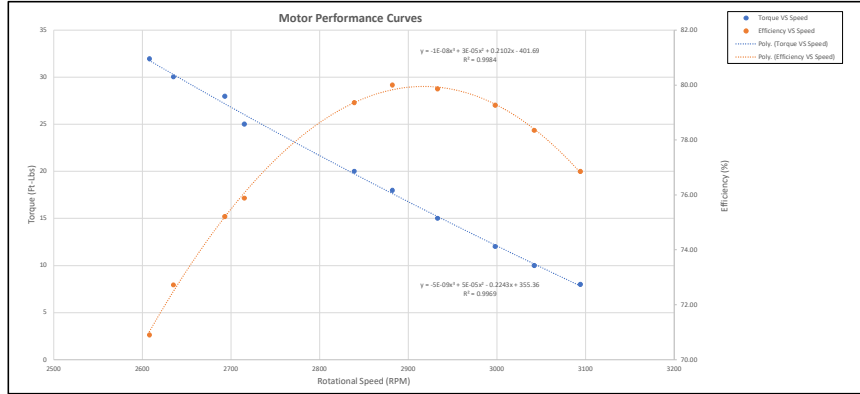


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 48 - (1 ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
8	3094	46.44	94	14.04	15.1	109.1	6.14	4.72	76.85
9.99	3042	46.1	114.9	14.15	15.09	129.99	7.30	5.79	78.35
12.01	2998	45.76	136.3	14.26	15.1	151.4	8.65	6.65	79.26
15.01	2933	45.25	168.3	14.37	15.09	183.39	10.5	8.38	79.86
17.98	2882	44.77	200.7	14.47	15.09	215.79	12.34	9.87	80.00
20.01	2839	44.37	234.2	14.57	15.1	239.3	13.62	10.82	79.36
25.01	2715	43.34	288.3	14.66	15.09	303.39	17.04	12.93	75.88
27.97	2693	42.68	328.2	14.76	15.11	343.31	19.07	14.34	75.21
30.03	2635	42.08	362	14.87	15.09	377.09	20.72	15.07	72.72
33.95	2608	41.62	395.6	14.99	15.08	410.68	22.38	15.86	70.90

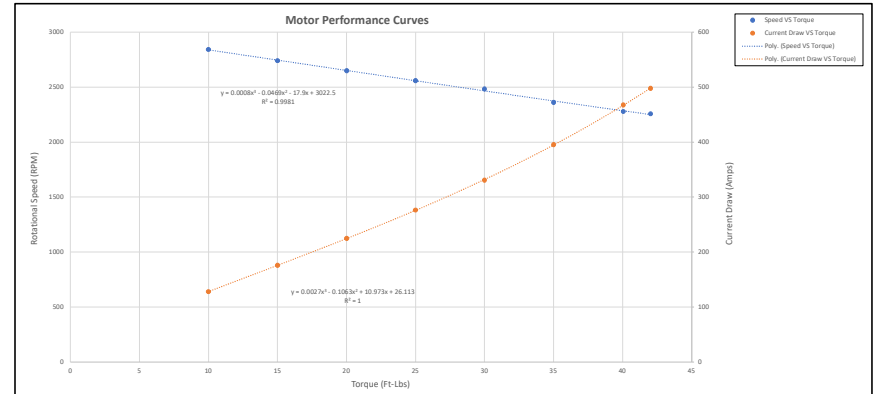
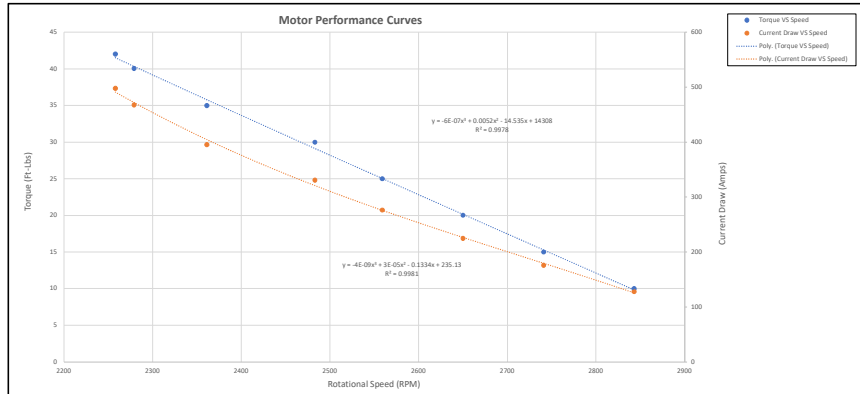
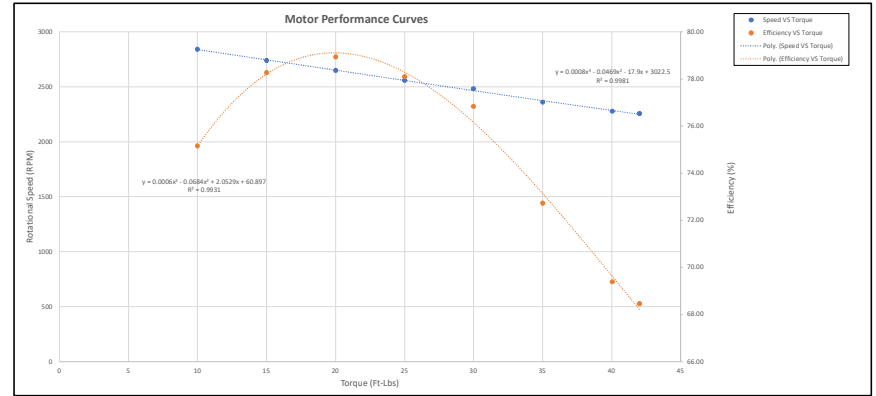
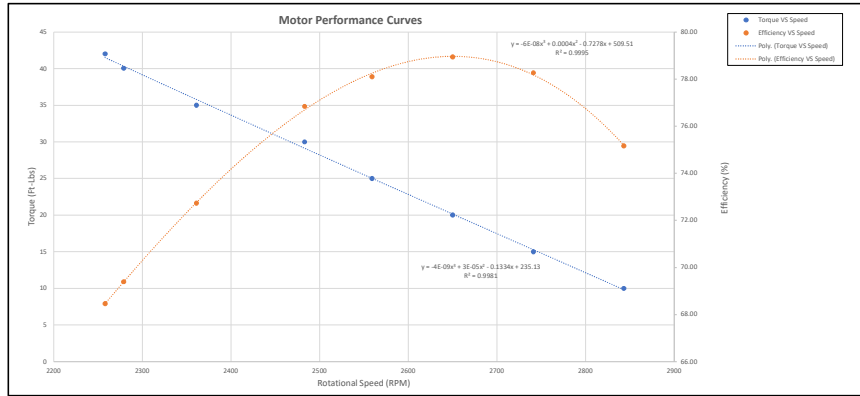


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 48 - (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
9.99	2843	46.22	197.7	19.27	20.1	127.8	7.19	5.41	75.16
15	2784	45.44	155.6	19.33	20.11	175.71	10	7.83	78.27
20.01	2650	44.68	204.6	19.76	20.12	224.72	12.79	10.1	78.94
25	2559	43.85	256.2	19.99	20.12	276.32	15.6	12.18	78.10
29.99	2483	42.99	310.8	20.22	20.1	330.9	18.45	14.18	76.84
35	2361	41.92	375.1	20.45	20.15	395.25	21.63	15.73	72.73
40.05	2279	40.83	447.5	20.67	20.15	467.65	25.05	17.38	69.39
42.02	2258	40.32	477.9	20.92	20.02	497.92	26.39	18.07	68.46

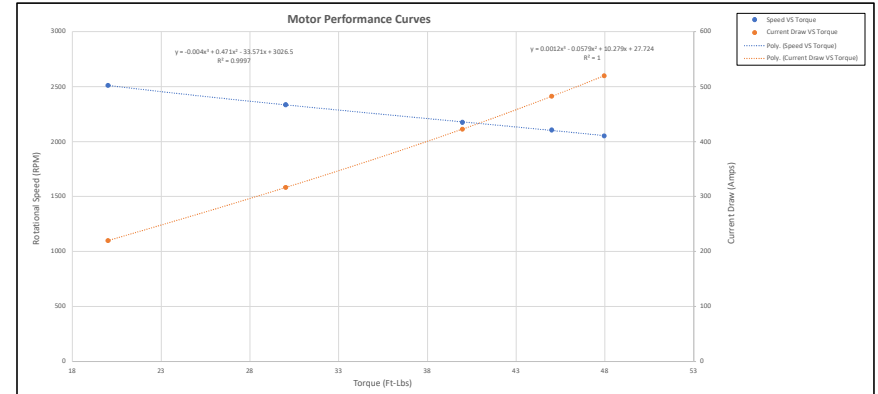
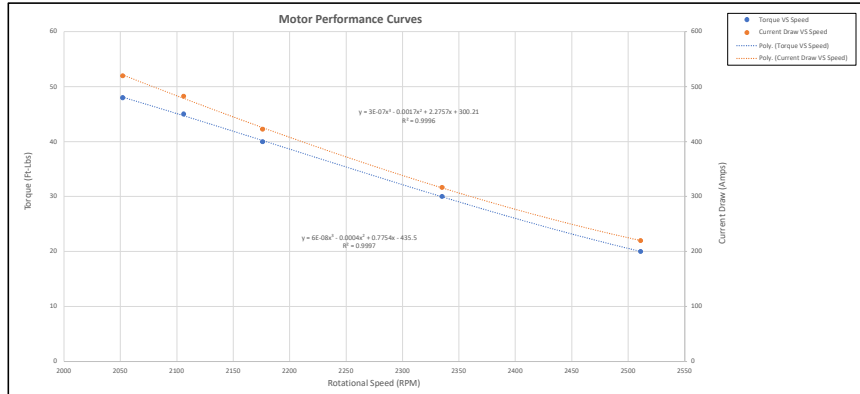
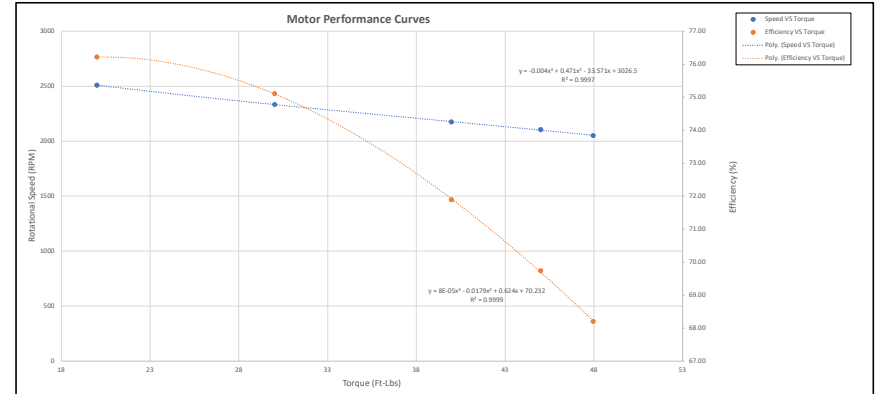
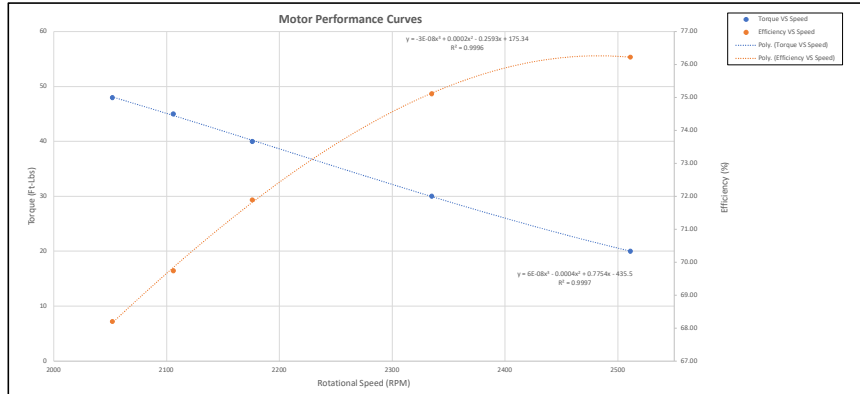


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 48 - (1 * 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
20	2511	44.81	194.6	25.45	25.12	219.72	12.54	9.56	76.22
30.01	2336	43.26	201.4	25.94	25.09	216.49	12.77	13.34	75.11
39.97	2176	41.57	397.4	26.42	25.1	422.5	23.03	16.56	71.89
45	2106	40.73	457.4	26.9	25.1	482.5	25.88	18.05	69.74
47.96	2052	40.07	494.6	27.38	25.12	519.72	27.48	18.74	68.20

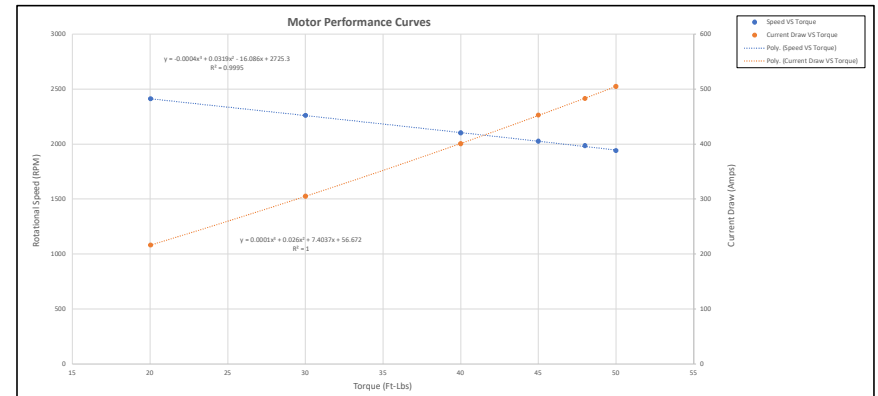
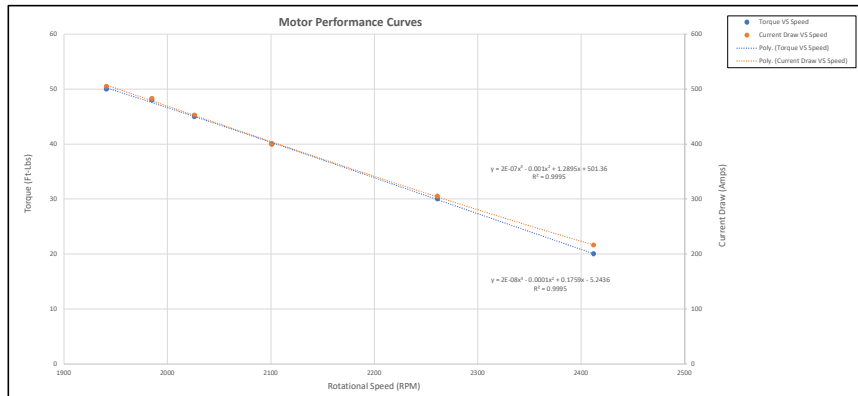
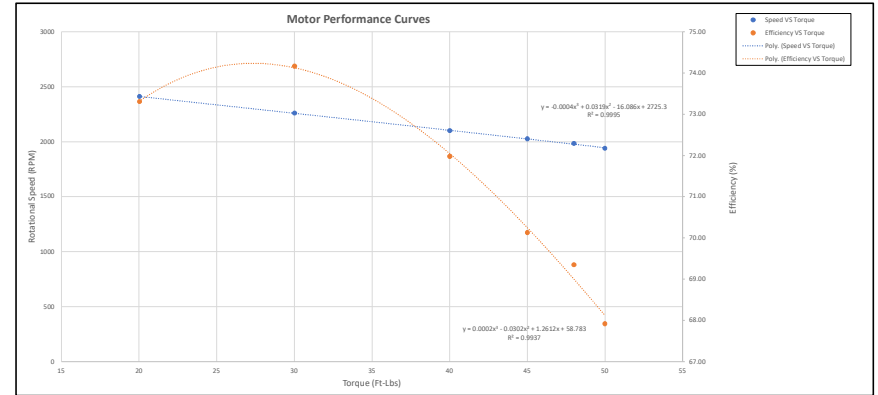
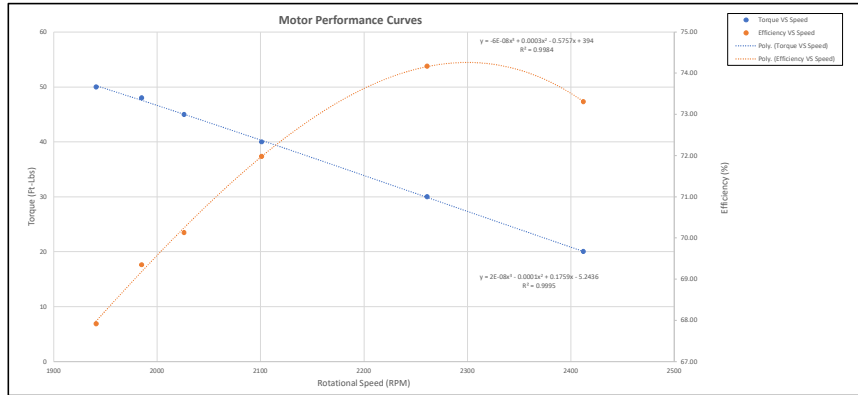


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 48 - (I * 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
20.03	2412	45	186.1	32.86	30.12	216.22	12.55	9.2	73.31
30.01	2261	43.54	225.1	33.7	30.1	255.2	17.42	12.91	74.17
40	2101	41.94	370.6	34.53	30.13	400.73	22.23	16	71.98
45	2026	41.16	422.7	35.34	30.11	452.81	24.75	17.35	70.13
48	1985	40.7	452.8	36.14	30.13	482.93	26.17	18.15	69.35
49.99	1941	40.38	474.9	36.94	30.15	505.05	27.2	18.47	67.92

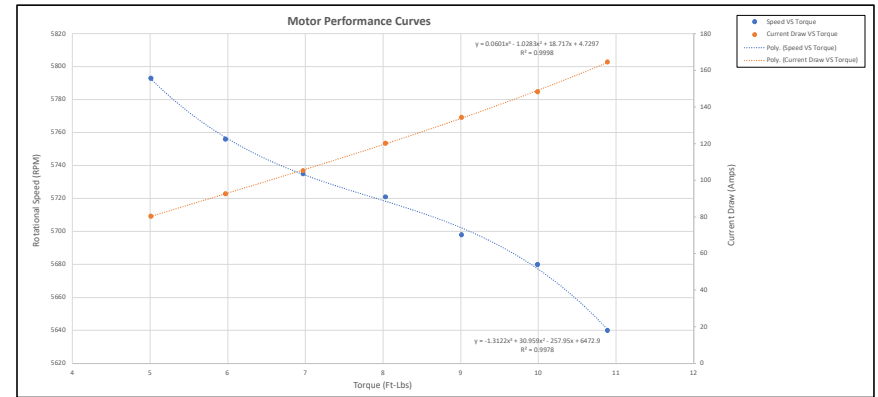
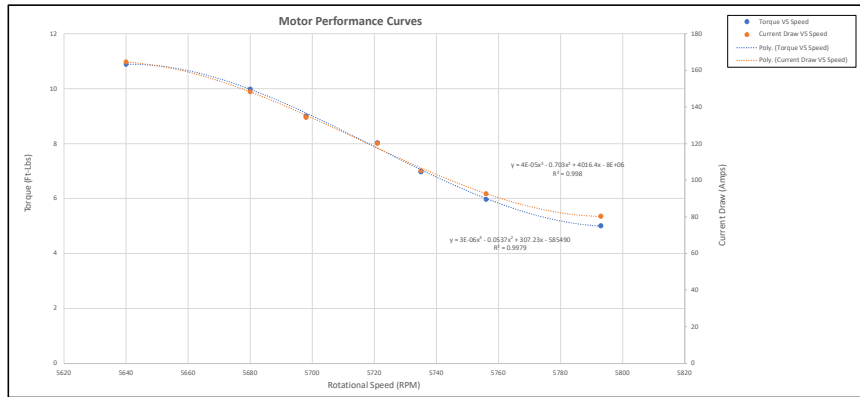
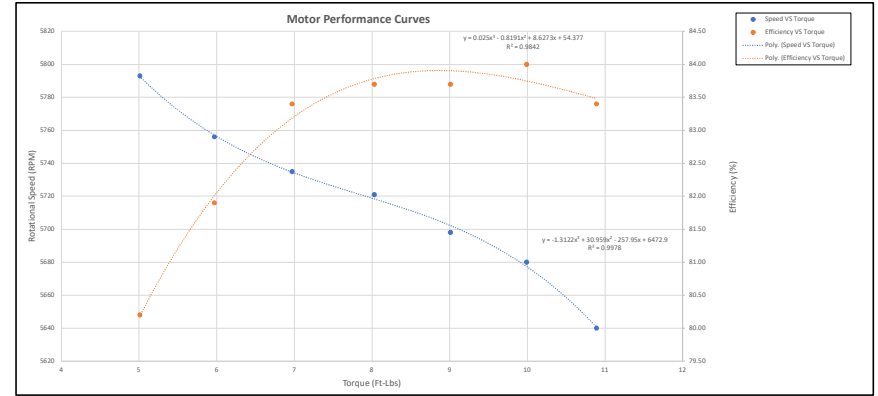
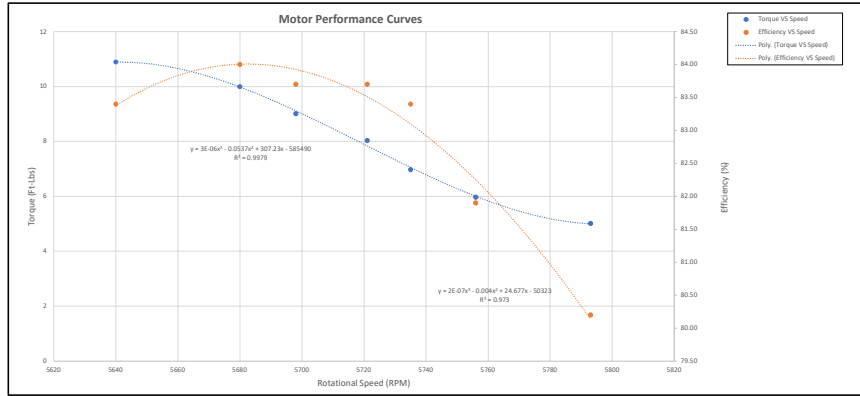


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 - (V ± 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
5.01	5793	70.2	72.3	7.4	8.04	80.34	6.88	5.52	80.20
5.97	5796	69.8	84.5	7.4	8.06	92.56	7.99	6.55	81.96
6.97	5795	69.4	97.2	7.5	8.04	105.04	9.13	7.61	83.40
8.03	5721	69	112.2	7.5	8.03	120.23	10.45	8.75	83.70
9.01	5698	68.5	126.3	7.5	8.01	134.31	11.68	9.78	83.70
9.99	5680	68	140.3	7.6	8	148.3	12.87	10.81	84.00
10.89	5640	67.4	156.5	7.6	8.07	164.57	14.22	11.87	83.40

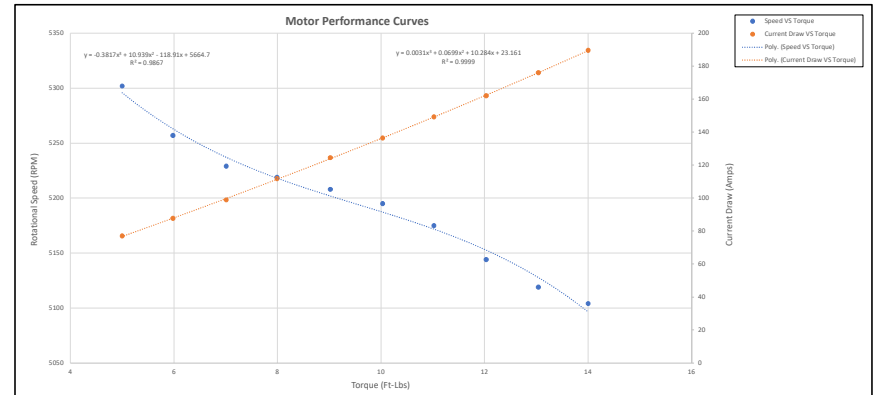
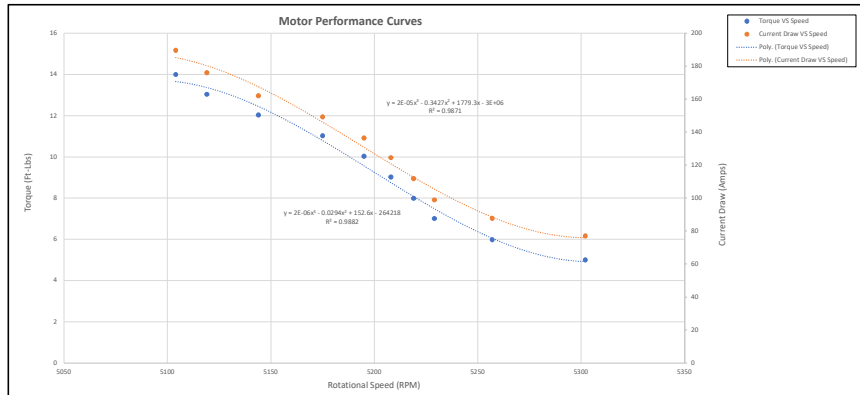
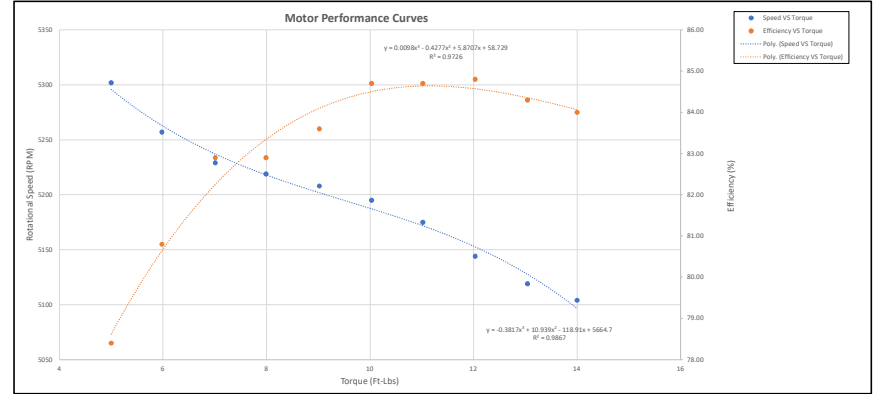
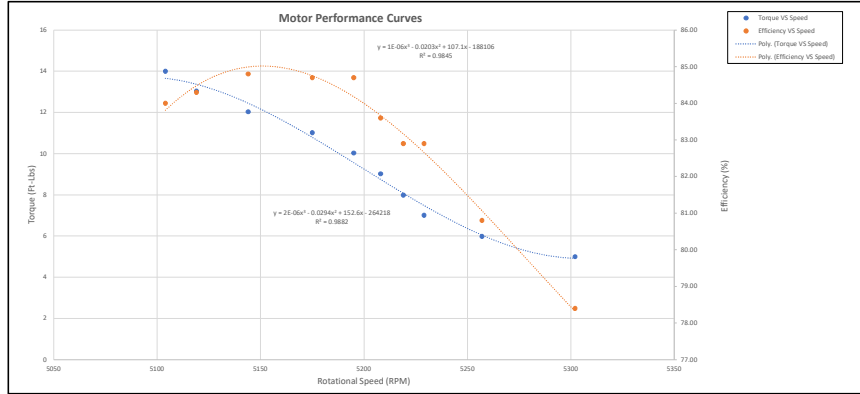


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 - (V ± 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
5	5302	70.4	67	9	10.02	77.02	6.44	5.05	78.40
5.98	5252	70	77.6	9	10.06	87.66	7.4	5.99	80.80
7.01	5229	69.6	88.9	9	10.03	98.91	8.42	6.98	82.90
7.99	5219	69.3	101.8	9.1	10.07	111.87	9.58	7.94	82.90
9.02	5208	68.8	114.6	9.1	9.95	124.55	10.7	8.94	83.60
10.03	5195	68.5	136.4	9.2	10.03	136.43	11.72	9.92	84.70
11.02	5175	68.1	159.2	9.2	10.03	149.23	12.82	10.86	84.70
12.03	5144	67.6	152	9.2	10.06	162.06	13.9	11.79	84.80
13.04	5119	67.2	166	9.3	10.1	176.1	15.07	12.71	84.30
14	5104	66.7	179.7	9.3	9.96	189.66	16.10	13.6	84.00

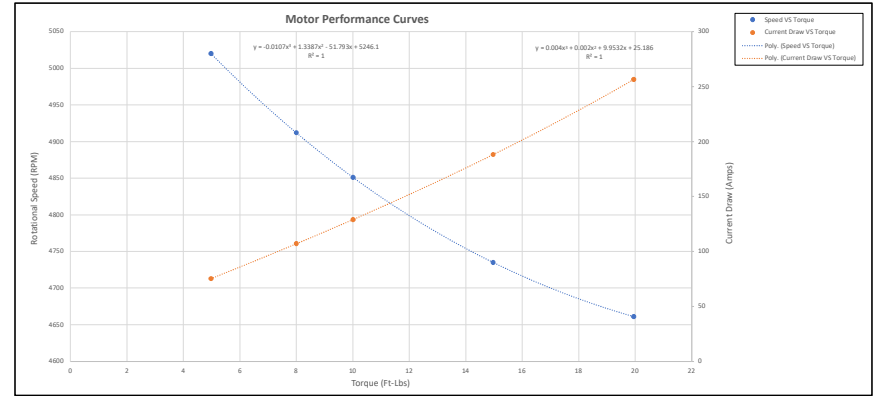
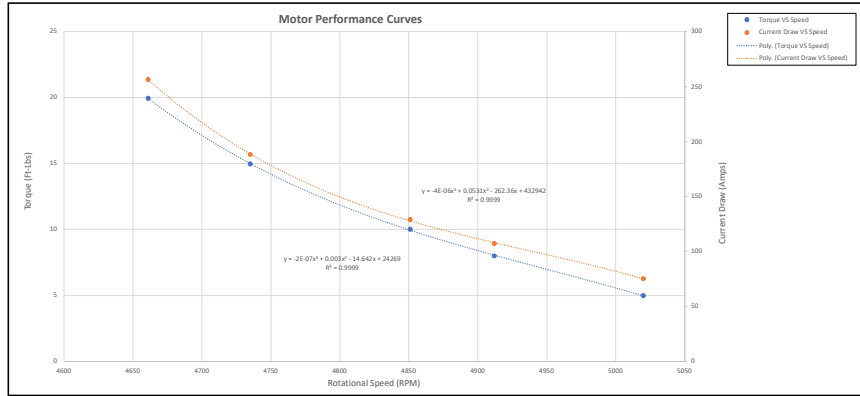
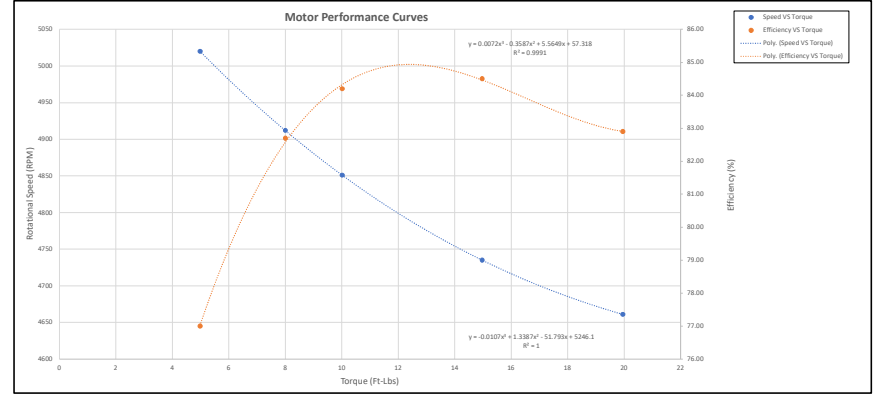
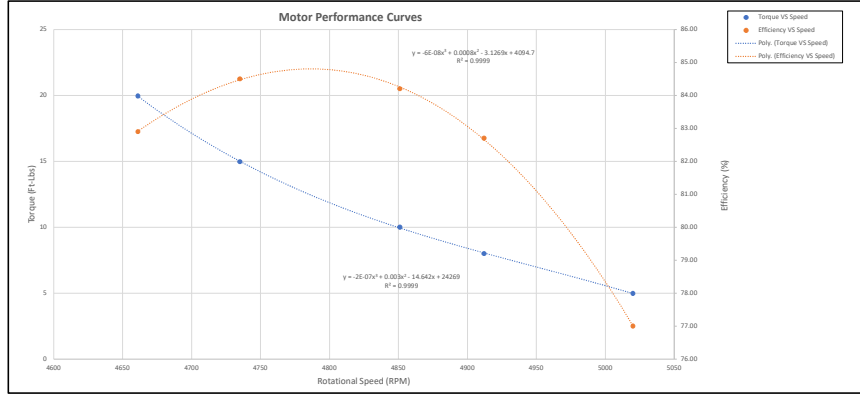


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 - (1 * 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
4.98	5020	70.5	63.2	12	12.07	75.27	6.17	4.76	77.00
8	4912	69.5	65.8	12.1	12.24	107.14	9.05	7.49	82.20
10.01	4851	68.8	136.9	12.2	12.02	128.92	10.98	9.25	84.20
14.97	4735	66.8	176.1	12.2	12.09	188.19	15.97	13.5	84.50
19.95	4661	64.6	244.5	12.3	12.03	256.53	21.37	17.71	82.90

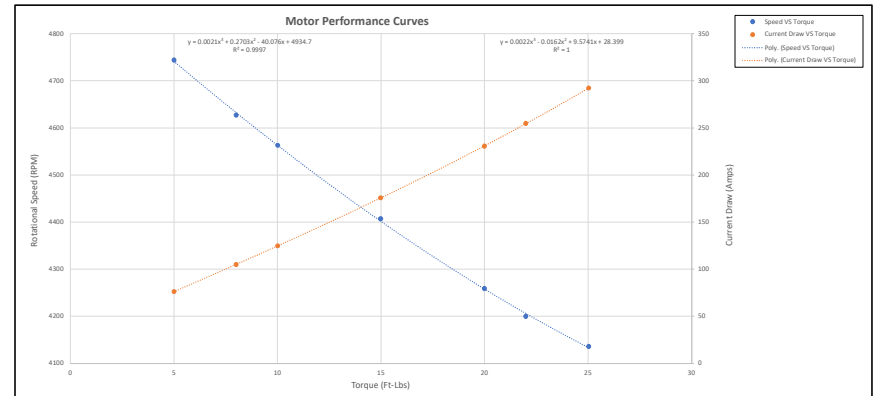
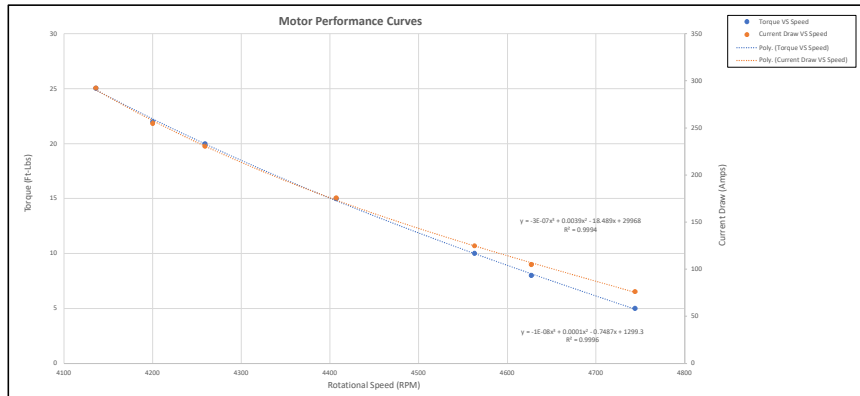
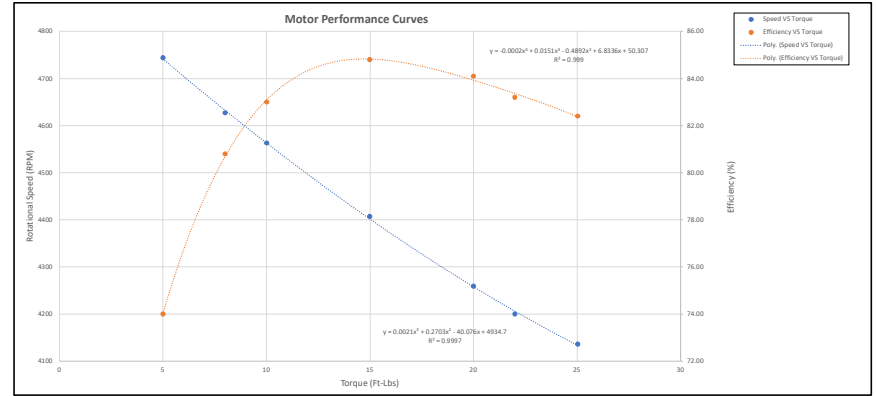
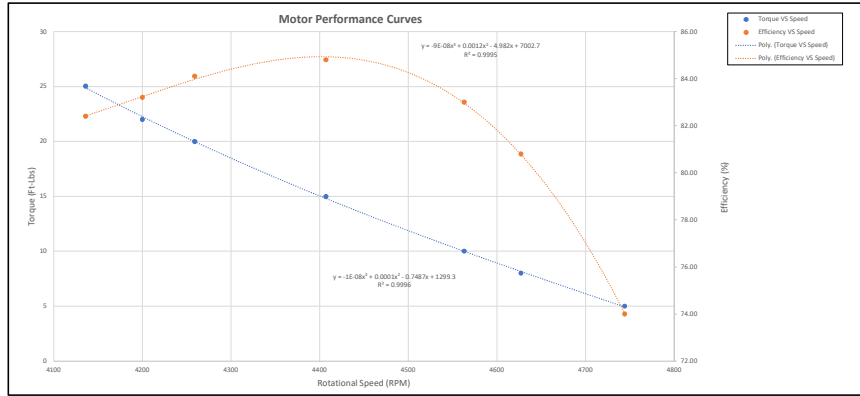


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 - (1" ± 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
5	4744	70.6	61.1	16	15.06	76.16	6.11	4.52	74.00
8	4627	69.6	58	16.1	15.07	105.07	8.73	7.05	80.80
10.01	4563	69	109.7	16.1	15.05	124.75	10.48	8.69	83.00
14.98	4407	67.3	160.7	16.2	15.05	175.75	14.83	12.57	84.80
19.99	4259	65.6	215.6	16.3	14.96	230.56	19.28	16.21	84.10
21.99	4100	64.7	239.7	16.4	15.03	254.73	21.13	17.58	83.20
25.03	4136	63.5	277.4	16.5	14.93	292.33	23.93	19.71	82.40

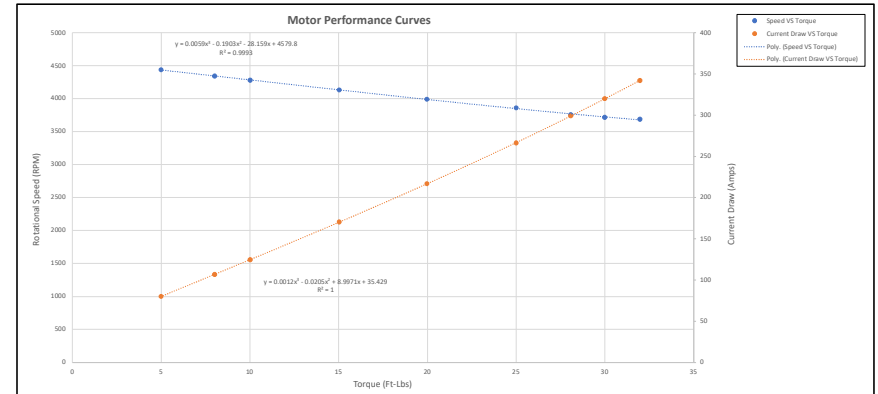
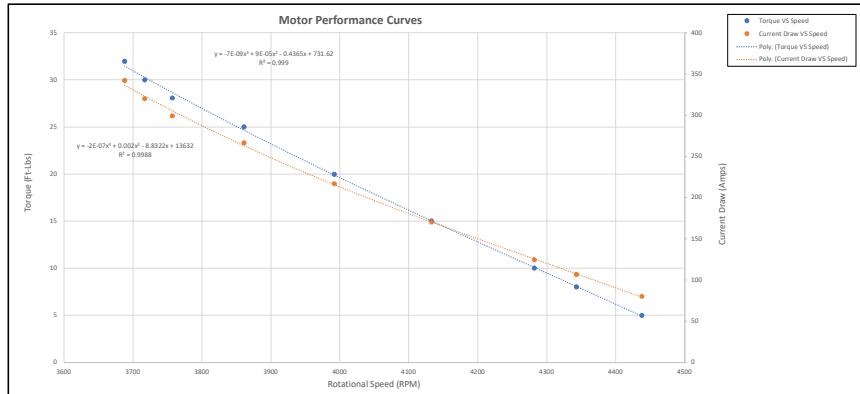
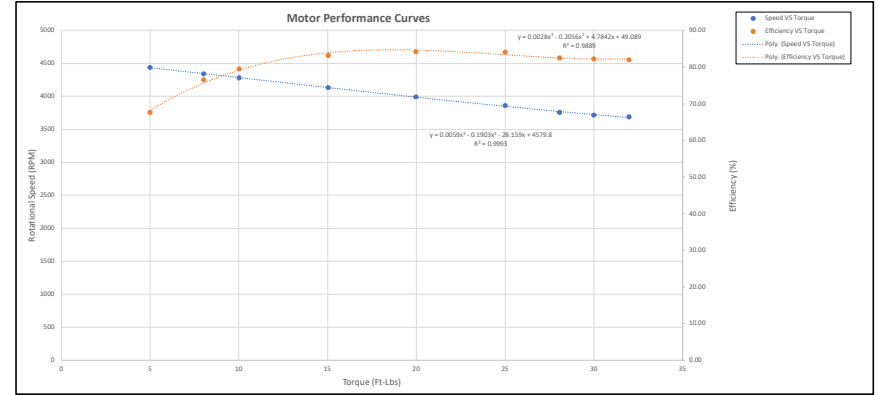
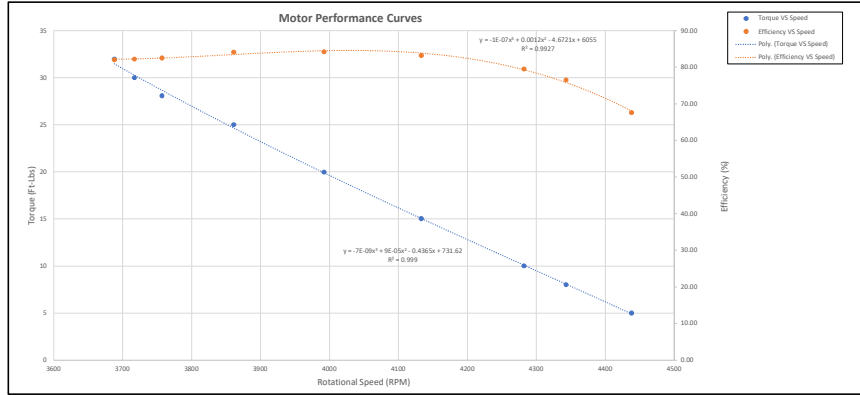


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 (V ± 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
4.99	4438	70.6	60	20.6	20.12	80.12	6.23	4.22	67.60
8.01	4343	69.8	65.5	20.9	20.09	106.99	8.55	6.62	76.50
10.01	4282	69.2	104.4	21.1	20.13	124.53	10.25	8.56	79.50
15.03	4133	67.7	150.4	21.3	20.09	170.49	14.22	11.83	83.20
19.97	3992	66.2	196.7	21.6	20.08	216.78	18.04	15.18	84.20
25	3851	64.5	245	21.8	20.18	266.18	21.86	18.39	84.10
28.07	3757	63.5	278.7	22	20.44	299.14	24.33	20.08	82.50
29.99	3717	62.8	299.8	22.2	20.2	320	25.82	21.22	82.20
31.97	3688	62	321.9	22.5	20.09	341.99	27.37	22.45	82.00

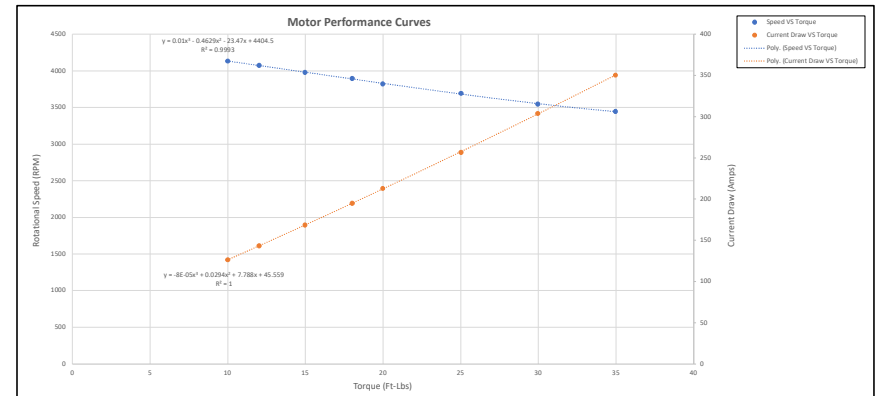
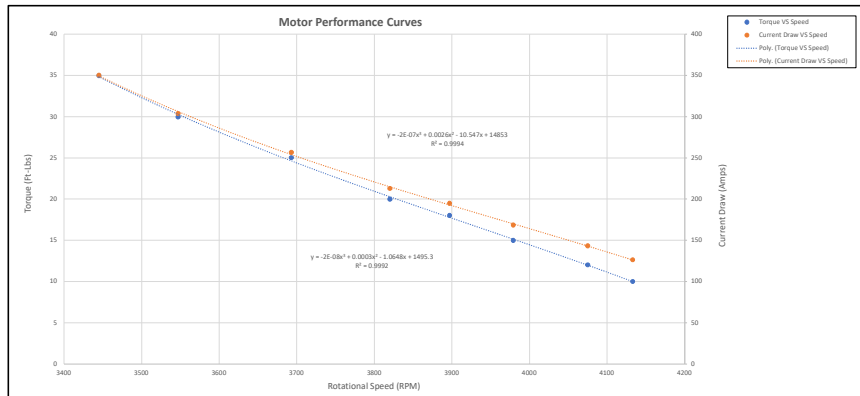
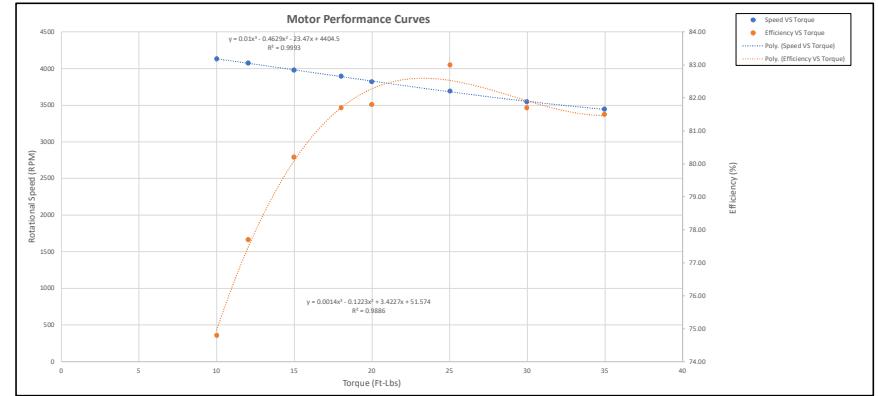
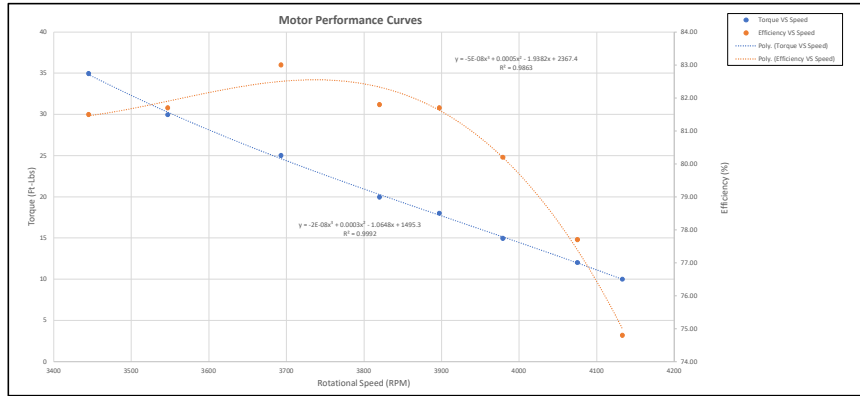


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 (V ± 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
10	4133	69.2	191.2	33.4	25.08	126.28	10.51	7.87	74.80
12.02	4075	68.7	188.3	33	24.97	143.27	12	9.33	77.70
14.97	3979	67.9	143.4	32.7	25.04	168.44	14.15	11.34	80.20
18.01	3897	67	169.8	32.3	24.96	194.76	16.34	13.37	81.70
19.98	3820	66.4	187.9	31.9	25	212.9	17.79	14.53	81.80
25.07	3693	64.9	211.6	31.5	25.11	256.71	21.21	17.59	83.00
29.96	3547	63.5	278.7	31.1	25.11	303.81	24.77	20.23	81.70
34.96	3445	62.1	325.6	30.7	24.7	350.3	28.13	22.93	81.50

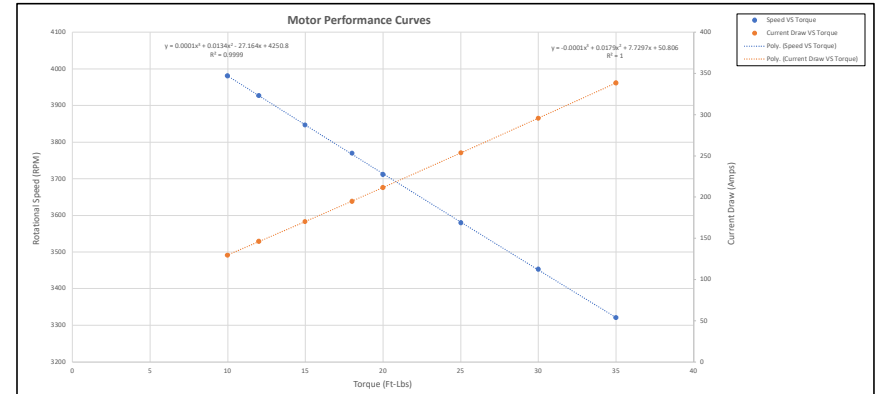
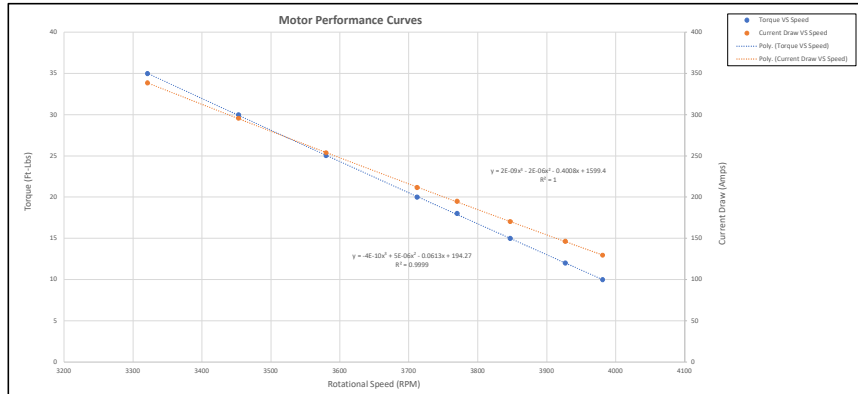
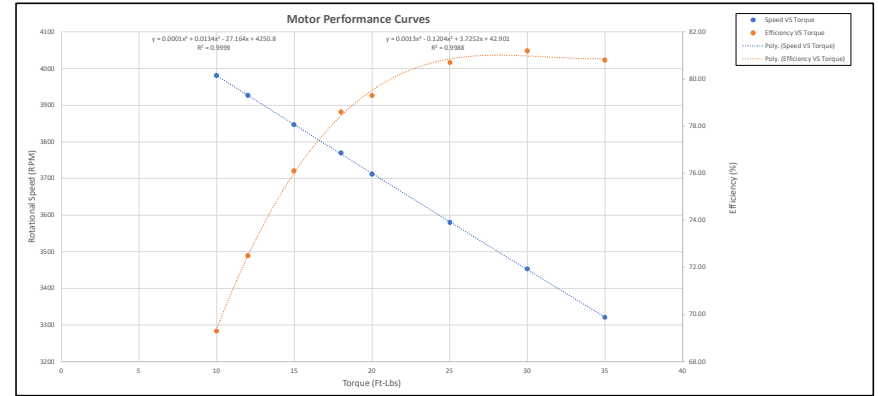
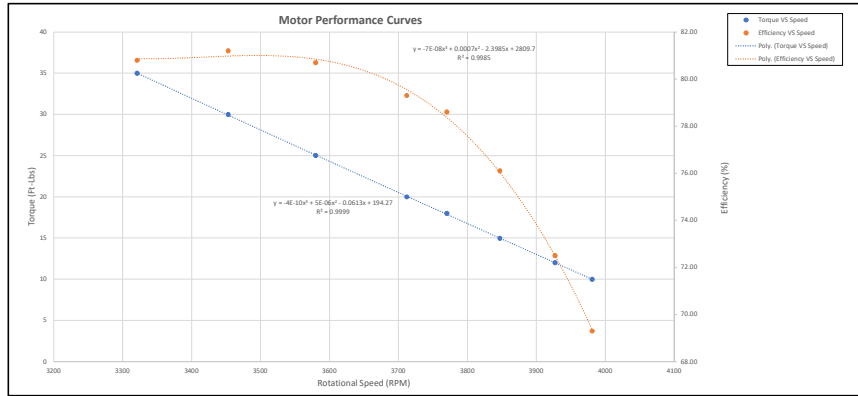


Engineering Performance Test Report

Performance Spec (PS) Number: 38

System Voltage (V): 72 - (V ± 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
9.98	3981	69.3	99.5	41.8	29.95	129.45	10.92	7.57	69.30
12	3927	68.7	116.3	41.7	29.91	146.31	12.36	8.97	72.50
14.97	3847	68	140.3	40.5	29.93	170.33	14.41	10.96	76.10
18	3770	67.2	164.9	39.8	29.94	194.84	16.45	12.92	78.60
19.99	3712	66.7	181.7	39.1	29.87	211.57	17.81	14.13	79.30
25.01	3580	65.3	223.8	38.4	29.92	253.72	21.12	17.04	80.70
29.99	3453	63.9	265.9	37.6	29.79	295.69	24.28	19.71	81.20
34.99	3321	62.7	308.4	36.8	30.03	338.43	27.39	22.13	80.80



Engineering Performance Test Report

Performance Spec (PS) Number: 38
 System Voltage (V): 72 - (V = 0.030)

Torque (Ft-Lbs)	Speed (RPM)	Applied Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
9.99	3870	69.3	99.4	50.5	35.01	134.41	11.6	7.36	63.50
11.99	3824	68.8	115.1	49.3	34.99	150.09	12.92	8.72	67.50
14.99	3751	68	138.6	48.1	34.95	173.55	14.9	10.71	71.90
18.01	3671	67.2	162.1	46.8	35.02	197.12	16.81	12.59	74.90
20	3619	66.8	177.9	45.6	35.02	212.92	18.07	13.78	76.30
25.04	3488	65.5	217.9	44.2	34.84	252.74	21.21	16.63	78.40
30.04	3360	64.2	258.3	42.9	34.94	293.24	24.23	19.22	79.30
40.04	3097	61.4	347.7	41.5	34.82	382.52	30.54	23.61	77.30

