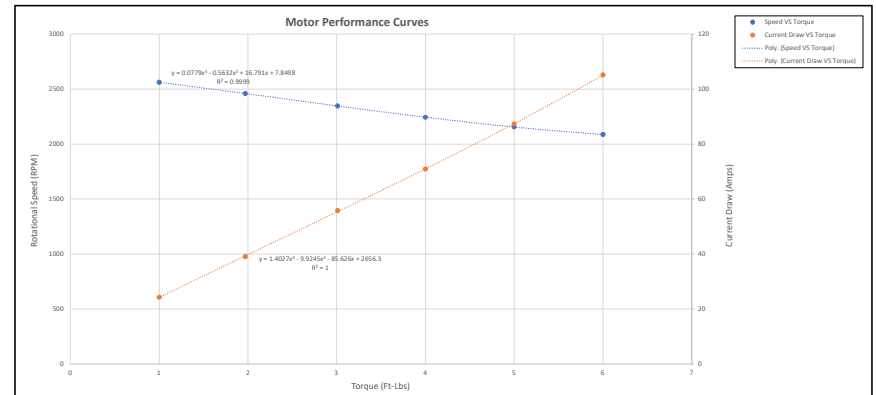
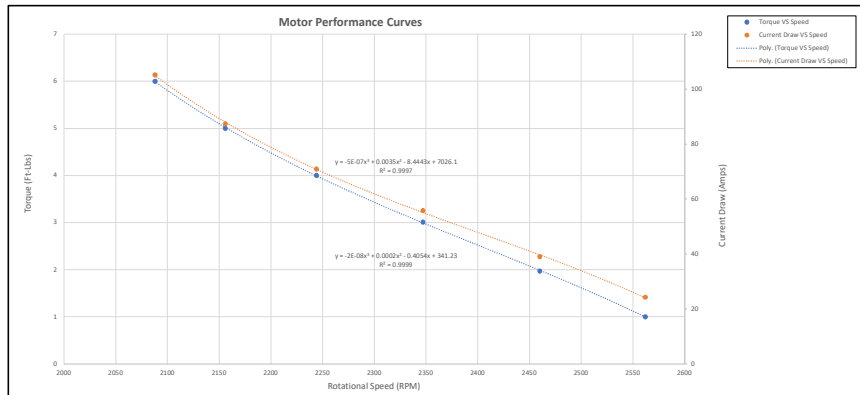
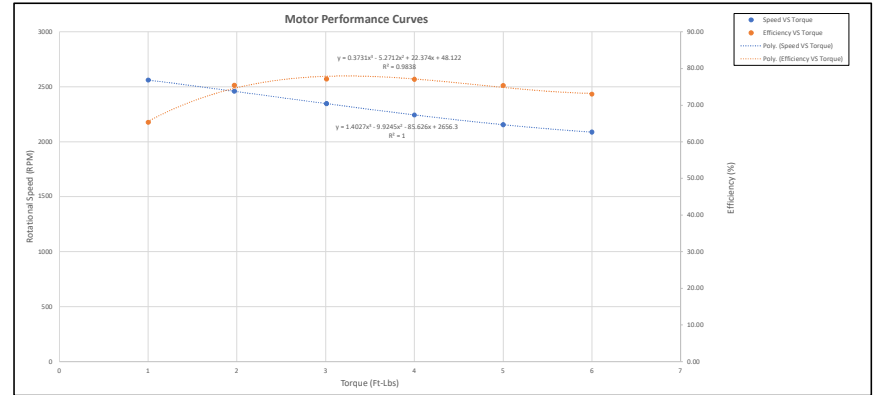
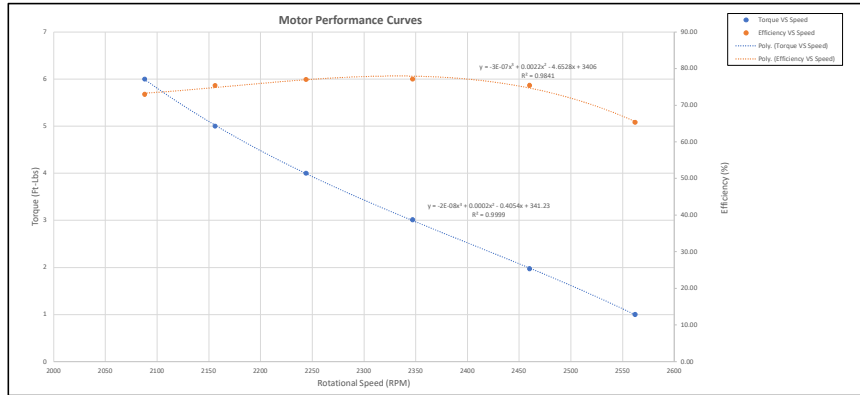


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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	2562	24.6	22.3	3.4	1.95	24.25	0.75	0.49	65.33
1.97	2460	24.4	27.4	3.4	1.93	29.33	1.22	0.92	75.41
3.01	2347	24.2	33.8	3.4	1.94	35.74	1.75	1.35	77.14
4	2244	24	69	3.4	1.94	70.94	2.22	1.71	77.03
5	2156	23.7	85.4	3.4	1.94	87.34	2.72	2.05	75.37
6	2088	23.5	103.3	3.4	1.9	105.2	3.26	2.38	73.01

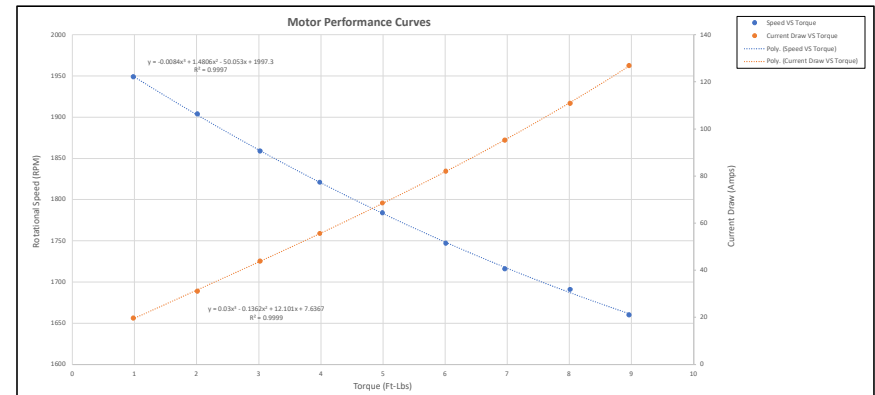
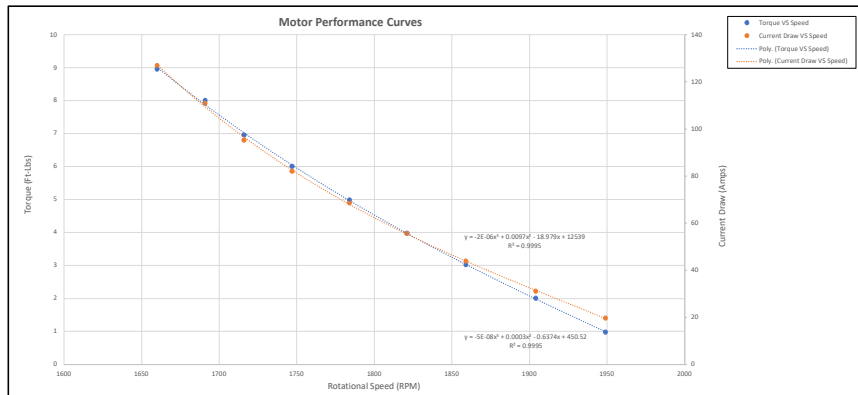
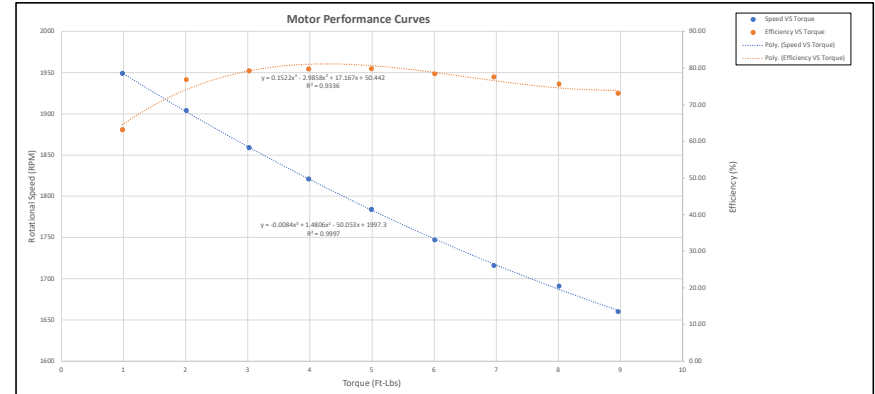
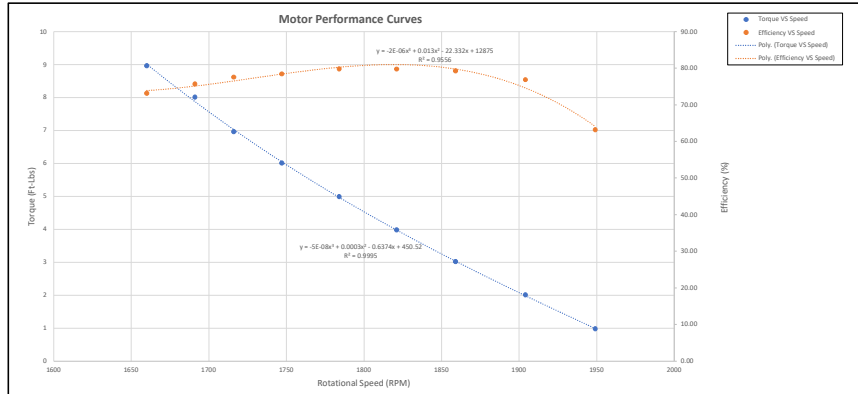


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
0.98	1949	24.8	16.7	5.1	2.95	19.65	0.57	0.36	63.16
2.01	1904	24.5	28.2	5.1	2.99	31.13	0.95	0.73	76.84
3.02	1859	24.3	40.9	5.1	3.95	43.85	1.35	1.07	79.26
3.98	1821	24.2	52.7	5.1	2.93	55.63	1.73	1.38	79.77
4.99	1784	24	65.6	5.1	2.95	68.55	2.13	1.7	79.81
6.01	1747	23.8	79.1	5.1	2.94	82.04	2.55	2	78.43
6.96	1716	23.6	92.3	5.1	2.96	95.26	2.94	2.28	77.55
8.01	1691	23.4	108	5.1	2.9	110.9	3.41	2.58	75.66
8.96	1660	23.2	124	5.1	2.89	126.89	3.87	2.83	73.13

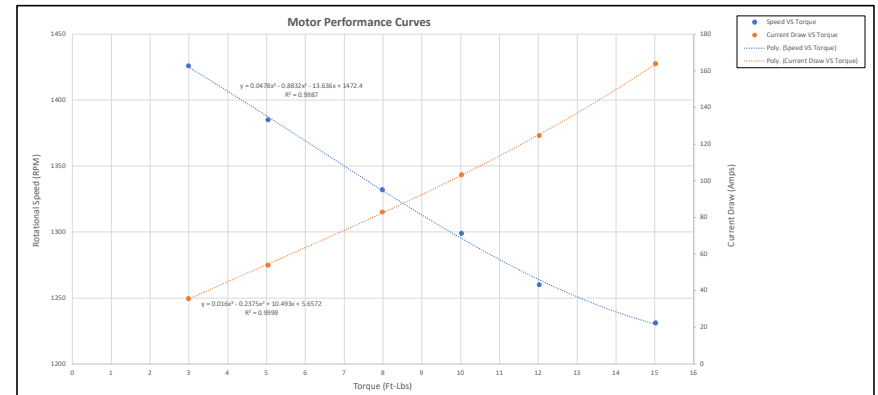
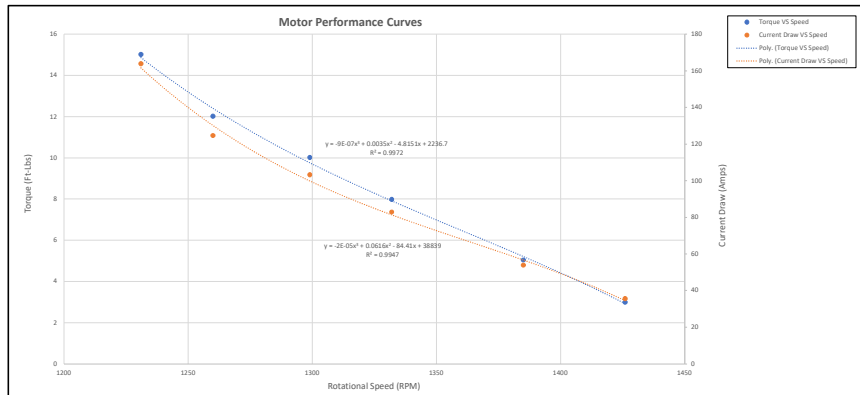
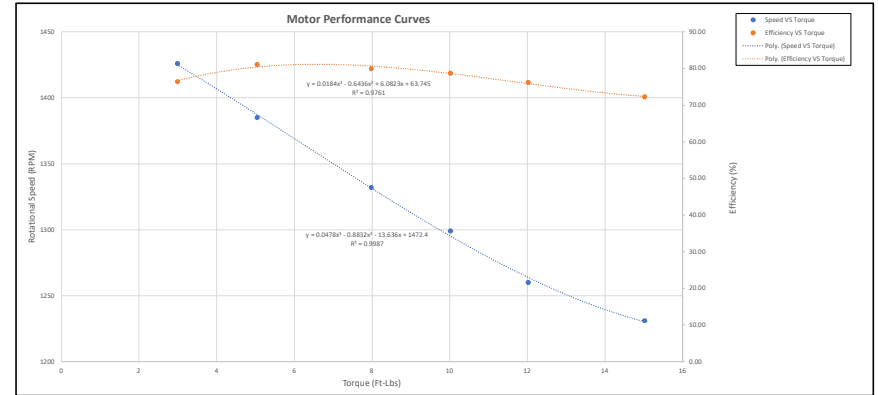
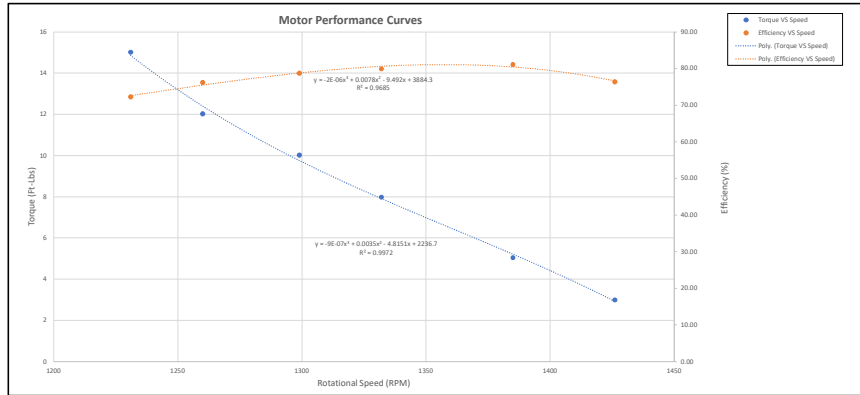


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
2.99	1426	24.5	30.6	8.4	4.99	35.59	1.06	0.81	76.42
5.04	1385	24.7	48.9	8.4	5.01	53.91	1.64	1.33	81.10
7.98	1332	23.8	77.9	8.4	4.99	82.89	2.54	2.03	79.92
10.02	1299	23.5	98.3	8.4	4.99	103.29	3.15	2.48	78.73
12.02	1260	23.2	119.6	8.5	5.05	124.65	3.78	2.88	76.19
15.02	1231	22.6	158.9	8.5	5	163.9	4.87	3.52	72.38

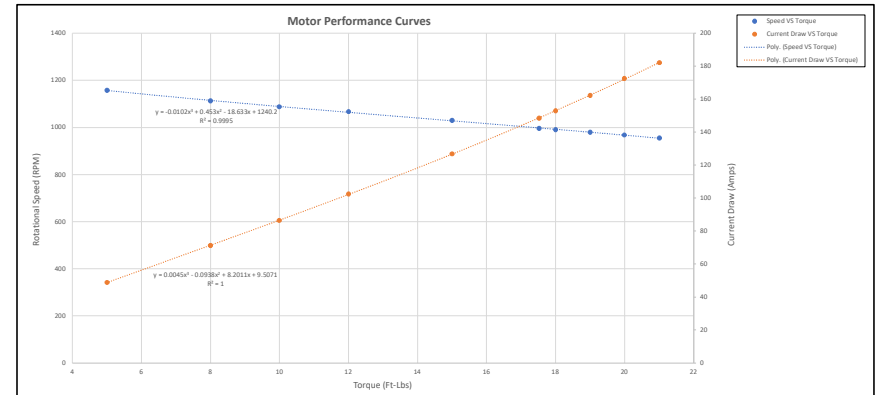
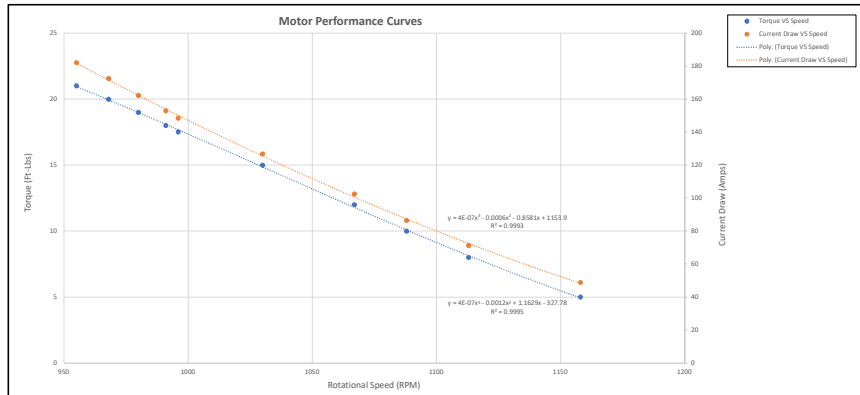
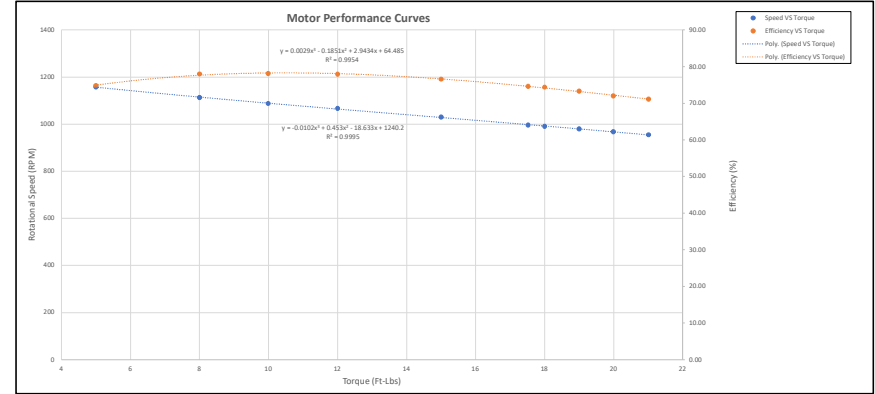
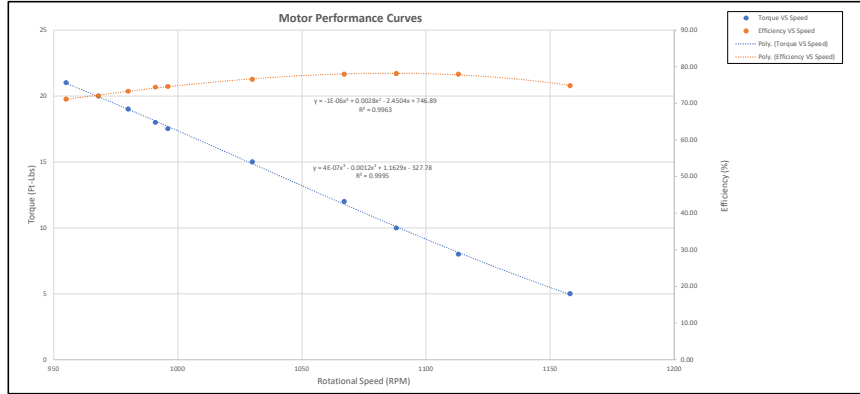


Engineering Performance Test Report

Performance Spec (PS) Number: 50

System Voltage (V): 24 - (V ± 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Available Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
5	1158	24.3	40.9	13.3	7.91	48.81	1.47	1.11	74.83
8	1113	24	63.3	13.4	7.95	71.25	2.16	1.71	77.98
9.99	1088	23.8	78.5	13.4	7.97	86.47	2.65	2.07	78.11
12	1067	23.6	94.5	13.4	8	102.5	3.13	2.44	77.96
15	1030	23.2	118.9	13.5	7.93	126.83	3.84	2.94	76.56
17.52	996	22.9	140.7	13.5	7.76	148.46	4.45	3.32	74.61
18	991	22.8	145	13.5	7.93	152.93	4.57	3.4	74.40
19	980	22.7	154.4	13.6	7.9	162.3	4.83	3.54	73.29
19.99	968	22.5	164.6	13.6	7.95	172.55	5.11	3.68	72.02
21.01	955	22.4	174.2	13.7	7.97	182.17	5.37	3.82	71.14

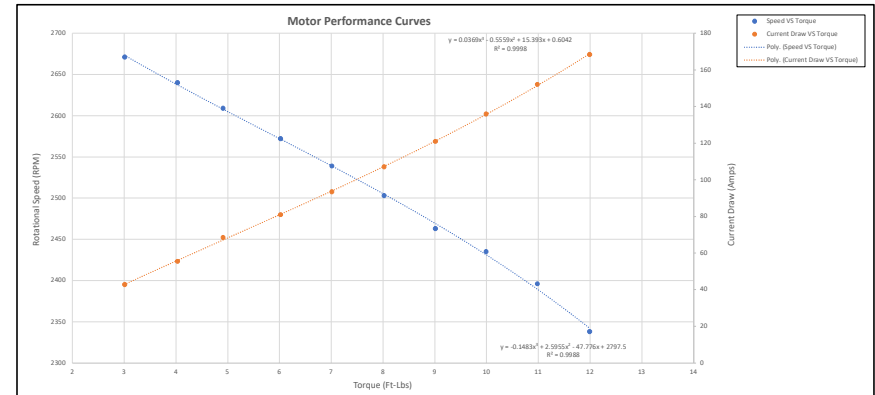
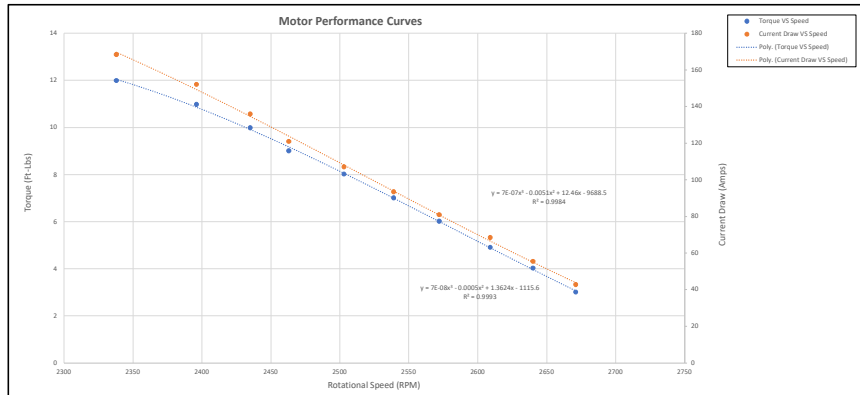
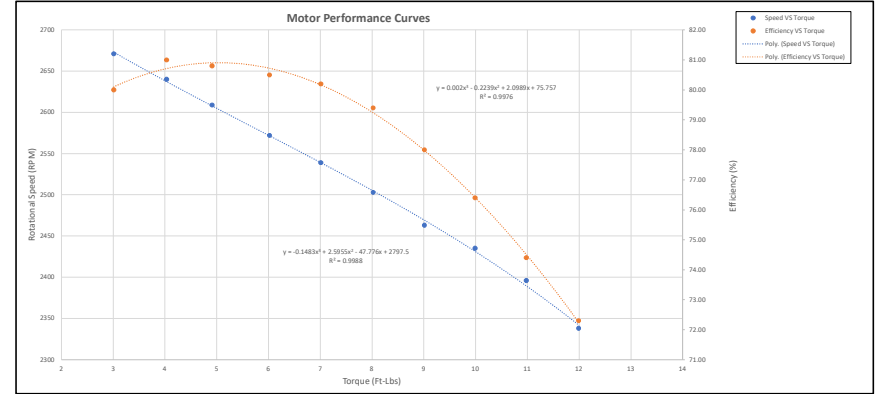
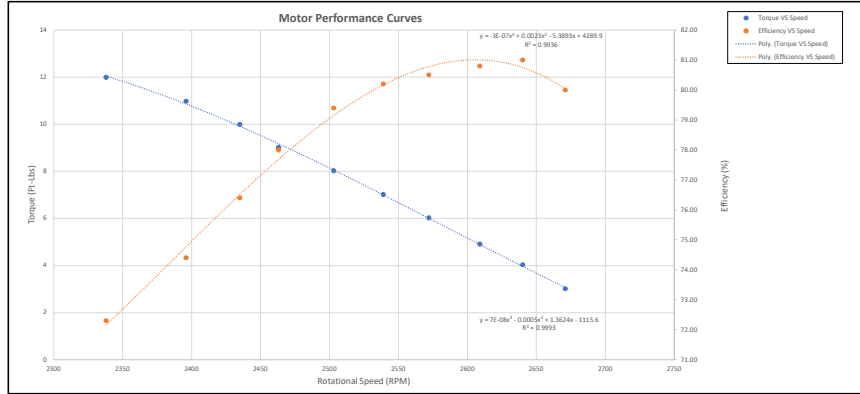


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
3.01	2671	35.4	39.9	5.5	2.92	42.82	1.92	1.53	80.00
4.03	2640	35.2	39.2	5.5	2.96	55.46	2.5	2.03	81.00
4.91	2609	35.1	35.5	5.5	2.98	68.48	3.1	2.44	80.80
6.02	2572	34.9	78	5.5	2.94	80.94	3.67	2.95	80.50
7.01	2539	34.6	90.5	5.5	2.92	93.42	4.22	3.39	80.20
8.02	2503	34.4	104.1	5.5	2.96	107.06	4.82	3.82	79.60
9.01	2463	34.1	118	5.5	2.94	120.94	5.42	4.22	78.00
9.99	2435	33.9	133	5.5	2.95	135.05	6.06	4.63	76.40
10.98	2396	33.6	149.1	5.6	2.98	152.08	6.73	5.01	74.40
11.99	2338	33.2	165.5	5.6	2.98	168.38	7.39	5.34	72.30

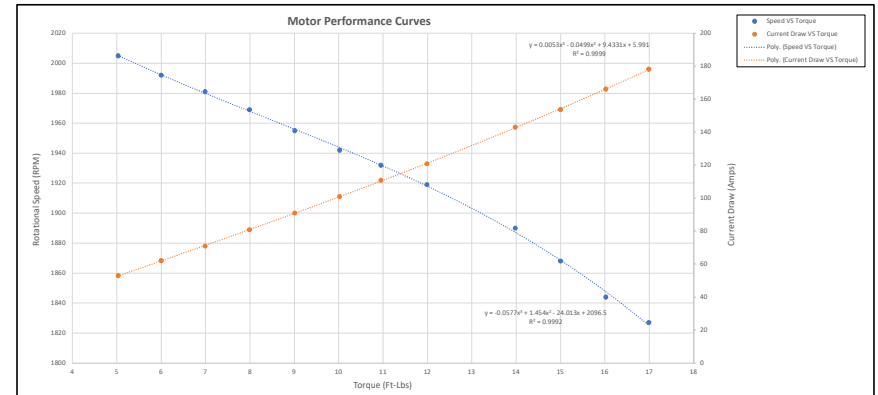
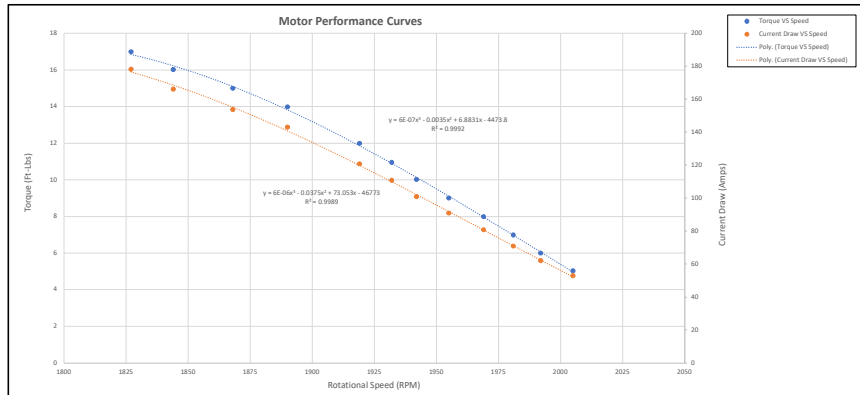
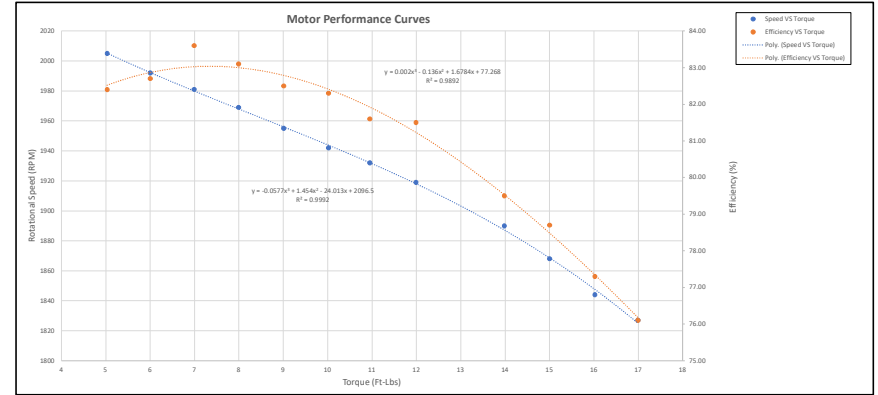
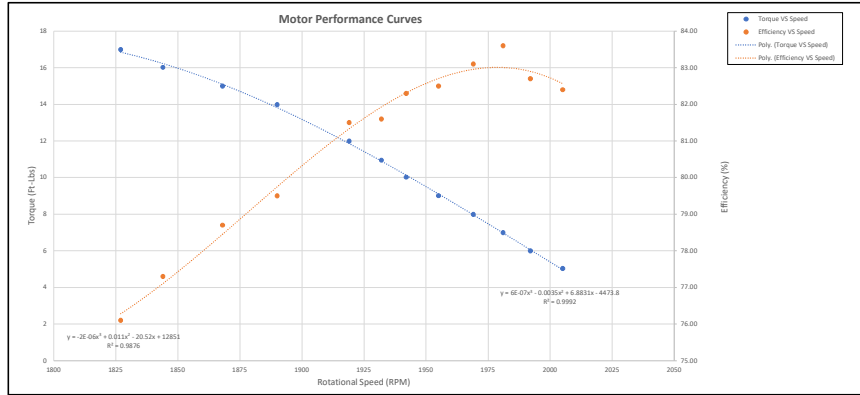


Engineering Performance Test Report

Performance Spec (PS) Number: 50

System Voltage [V]: 36 - (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 (%)
5.03	2005	35.3	48	8.9	4.99	52.99	2.33	1.92	82.40
6	1992	35.2	57.8	8.9	4.94	62.04	2.75	2.27	82.70
6.99	1981	35.1	65.9	8.9	4.99	70.89	3.15	2.64	83.60
7.99	1969	34.9	75.9	8.9	4.9	80.8	3.61	3	83.10
9.01	1955	34.8	86	8.9	4.96	90.96	4.07	3.35	82.50
10.02	1942	34.6	95.9	8.9	4.98	100.88	4.5	3.7	82.30
10.95	1932	34.4	105.8	8.9	5.01	110.81	4.94	4.03	81.60
11.99	1919	34.2	115.8	9	5	120.8	5.37	4.38	81.50
13.98	1890	33.8	138.1	9	4.96	143.06	6.33	5.03	79.50
15	1868	33.7	148.8	9	4.96	153.76	6.77	5.33	78.70
16.02	1844	33.4	161.2	9	4.94	166.14	7.28	5.63	77.30
16.99	1827	33.2	173.2	9	5.04	178.24	7.76	5.91	76.10

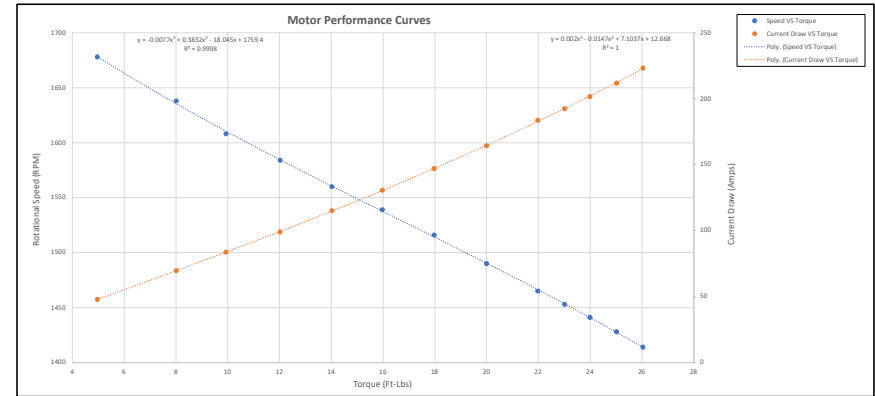
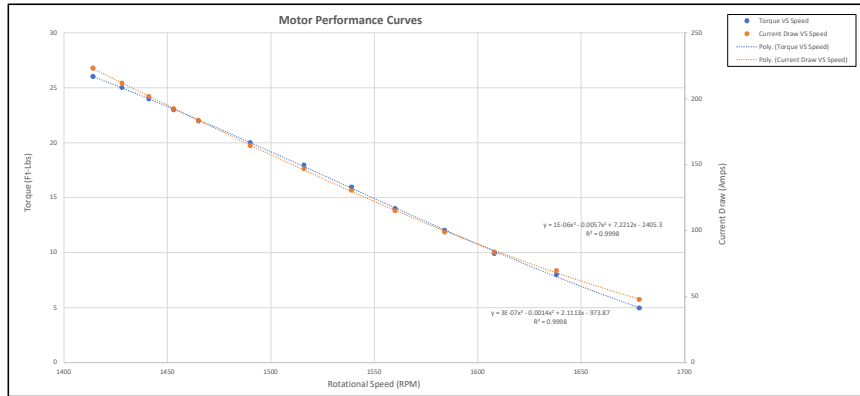
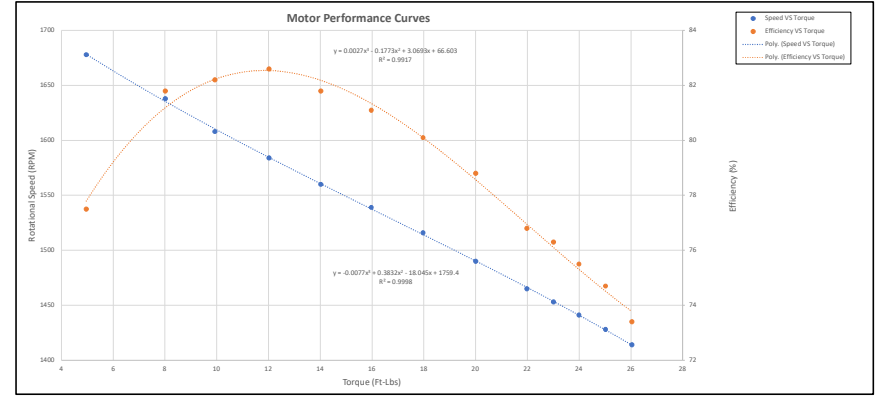
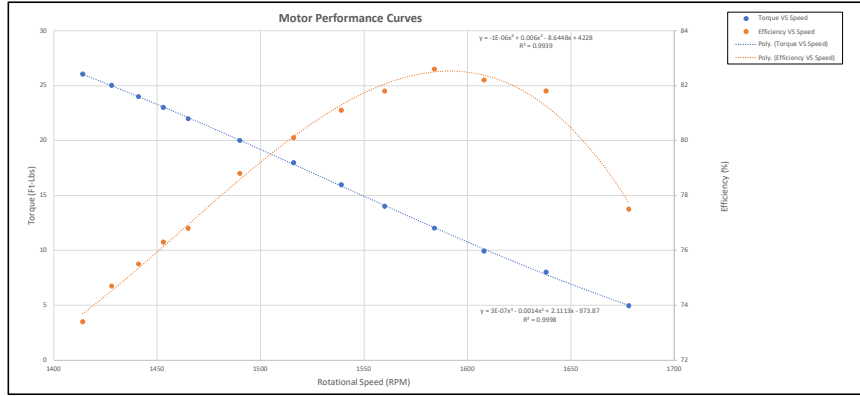


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
4.96	1678	35.4	39.8	14.6	8.02	47.82	2.04	1.58	77.5
8.01	1638	35.1	61.6	14.6	8.04	69.64	3.06	2.5	81.8
9.93	1608	34.9	75.7	14.7	8.03	83.73	3.7	3.04	82.2
12.02	1584	34.7	91	14.7	8.04	99.04	4.39	3.62	82.6
14.02	1560	34.4	107.1	14.8	8.03	115.13	5.09	4.16	81.8
15.97	1539	34.1	122.6	14.8	8.04	130.64	5.77	4.68	81.1
17.97	1516	33.9	139	14.8	8.05	147.05	6.47	5.19	80.1
20	1490	33.6	156.4	14.9	8.01	164.41	7.2	5.67	78.8
21.98	1465	33.3	175.6	14.9	8.02	183.62	7.99	6.13	76.8
23.01	1451	33.1	194.6	15	7.95	192.85	8.35	6.37	76.3
23.99	1441	32.9	193.7	15	7.96	201.66	8.71	6.58	75.5
25.02	1428	32.7	203.9	15.1	7.99	211.89	9.11	6.8	74.7
26.04	1414	32.6	215.2	15.1	8.04	223.24	9.55	7.01	73.4

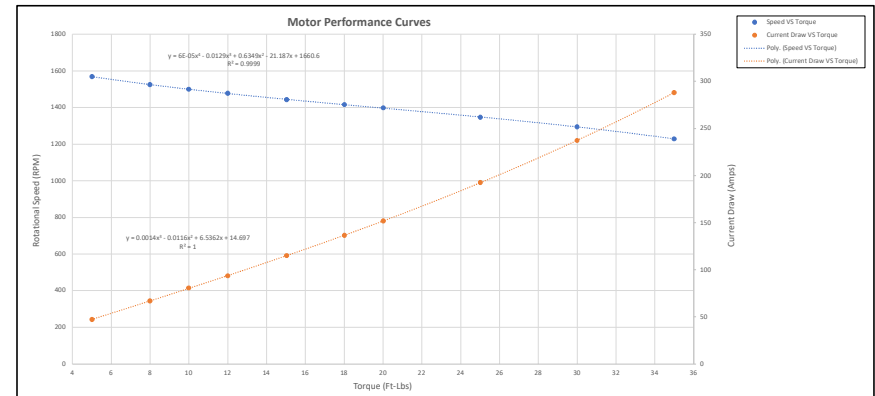
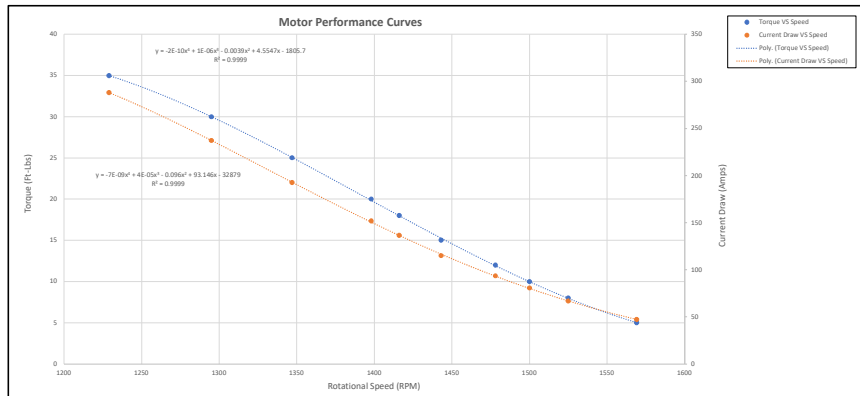
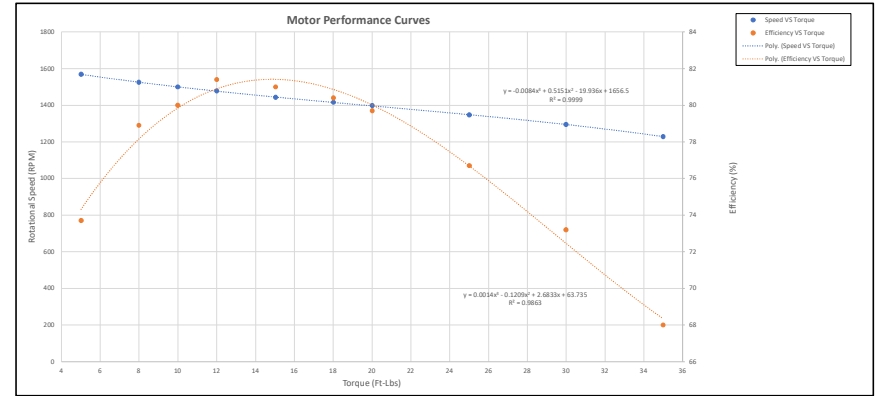
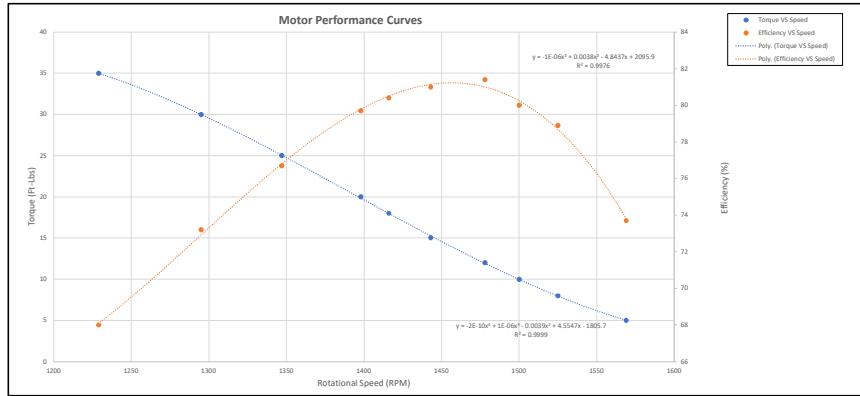


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
5.01	1569	35.5	37.2	19.5	10.05	47.25	2.03	1.5	73.7
7.99	1525	35.7	36.8	19.4	10.06	46.86	2.94	2.21	78.9
9.99	1500	35	36	19.3	10.06	46.66	3.57	2.85	80
12	1478	34.8	34.4	19.2	10.06	43.46	4.15	3.38	81.4
15.03	1443	34.4	34.1	19.1	10.01	43.01	5.1	4.13	81
18.01	1416	34.1	34.1	19	10.03	43.63	6.03	4.85	80.4
20.01	1398	33.8	33.8	18.9	10.05	43.85	6.68	5.33	79.7
25.01	1347	33.1	32.6	18.8	10.05	43.65	8.36	6.42	76.7
29.99	1295	32.4	31.6	18.7	10.18	43.48	10.11	7.4	73.2
34.99	1229	31.6	279.2	18.6	9.9	298.1	12.04	8.19	68

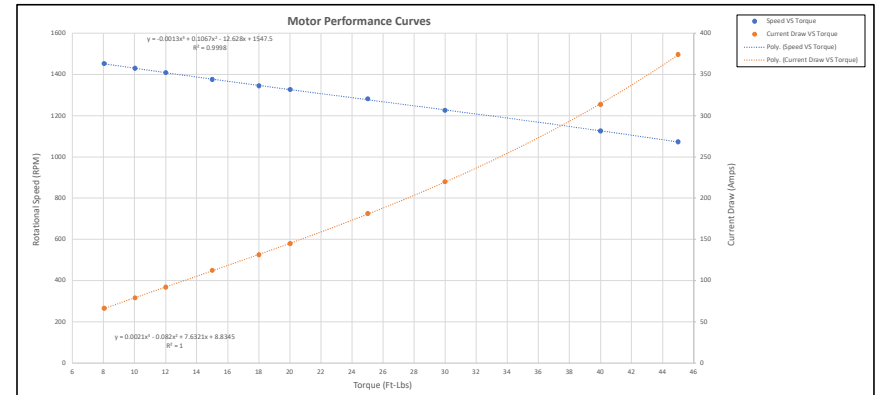
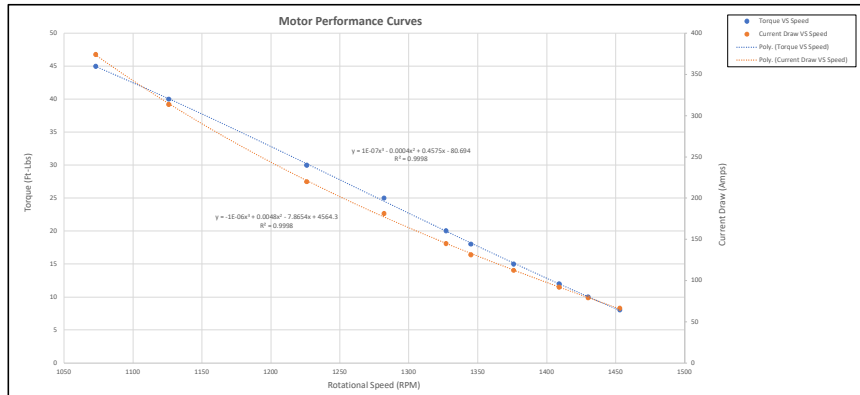
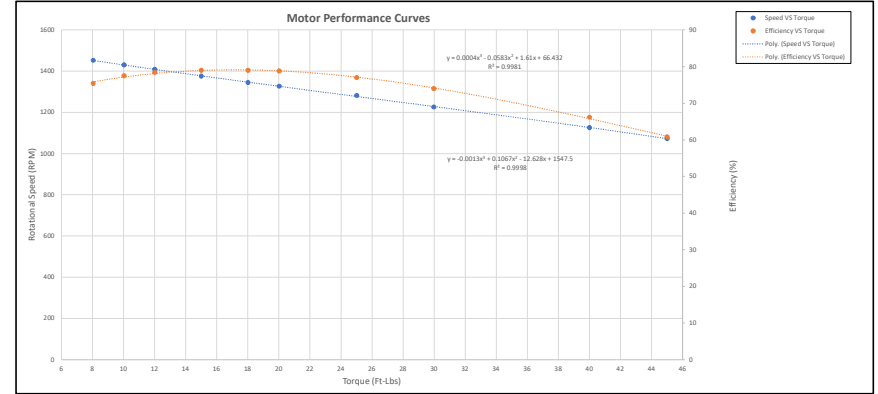
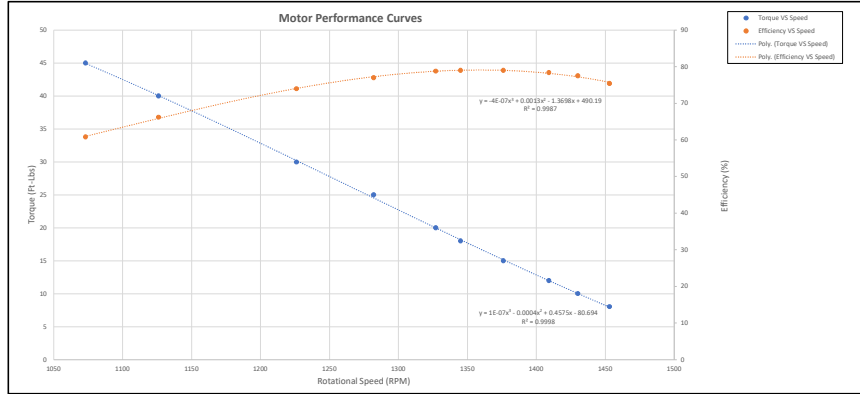


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
8.04	1453	35.2	54.3	23.7	12.05	66.35	2.95	2.22	75.4
10.03	1430	35.1	65.9	23.6	12.04	78.04	3.52	2.73	77.5
12.01	1409	34.9	79.8	23.4	12.1	91.9	4.11	3.22	78.4
15	1376	34.5	99.4	23.3	12.94	112.34	4.98	3.93	79
18.01	1345	34.2	119.1	23.1	12.09	131.19	5.84	4.61	79
20.02	1322	34	132.2	22.9	12.1	144.8	6.42	5.06	78.6
25.01	1282	33.3	169	22.7	12.2	181.2	7.93	6.11	77
29.98	1226	32.7	207.8	22.5	12.08	219.88	9.47	7	74
40	1126	31.1	301.8	22.3	11.87	313.67	12.95	8.57	66.2
45	1073	30.4	362.2	22.1	11.97	374.17	15.12	9.19	60.8

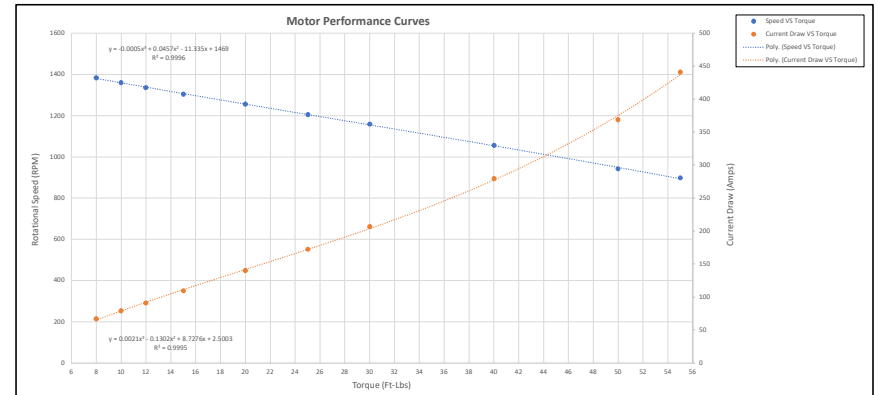
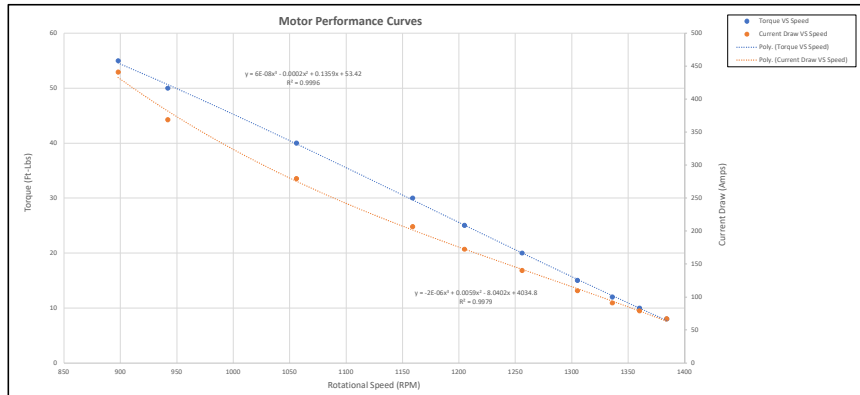
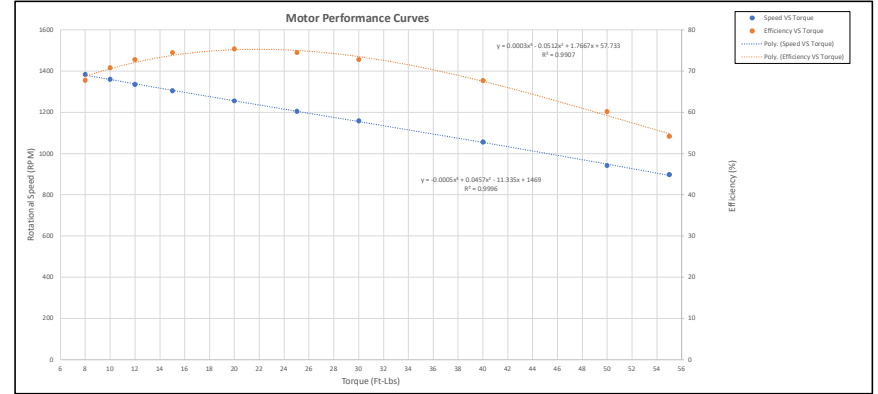
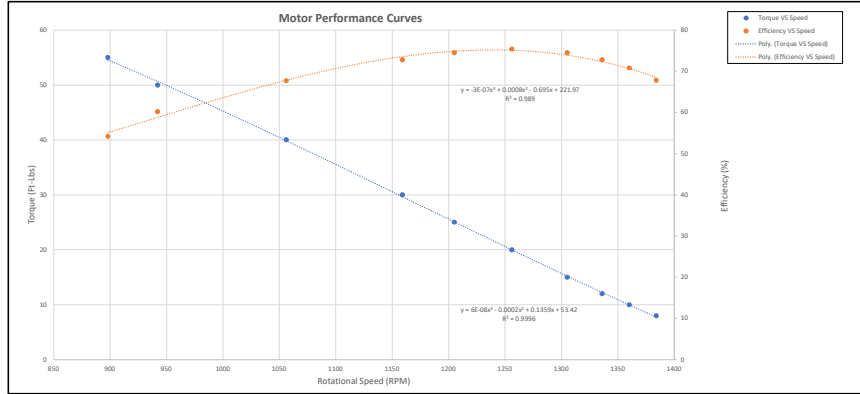


Engineering Performance Test Report

Performance Spec (PS) Number: 50

System Voltage (V): 36 - (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 (%)
7.99	1384	35.3	51.8	32.3	15.11	66.91	3.1	2.1	67.8
9.99	1300	35.1	63.9	31	15.07	78.97	3.65	2.59	70.8
11.99	1336	34.9	75.9	31.7	15.06	90.96	4.19	3.05	72.8
15.01	1305	34.6	94.3	31.4	15.09	109.39	5.01	3.73	74.5
19.99	1256	34.1	125	31.1	15.09	140.09	6.35	4.78	75.4
25.01	1205	33.6	157.4	30.8	15.07	172.47	7.71	5.74	74.5
30.01	1159	33	191.6	30.5	15.11	206.71	9.1	6.62	72.8
40.01	1056	31.8	264.3	30.1	15.37	279.67	11.89	8.05	67.7
49.99	942	30.2	353.6	29.7	15.23	368.83	14.9	8.96	60.2
55	898	29.4	436.4	29.4	14.79	441.11	17.36	9.41	54.2

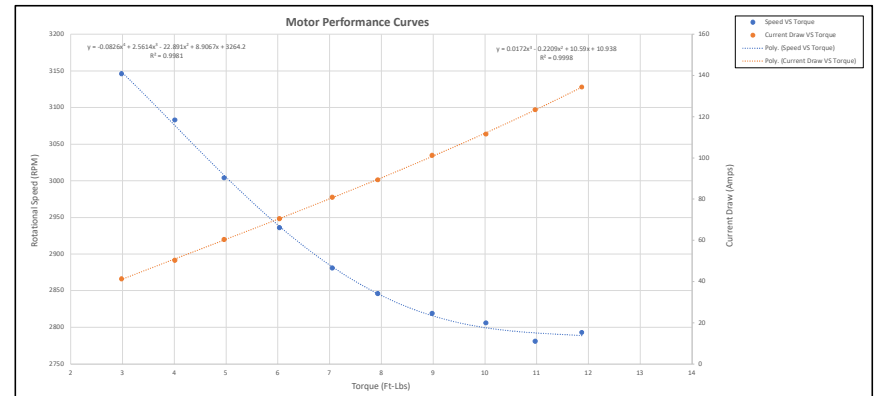
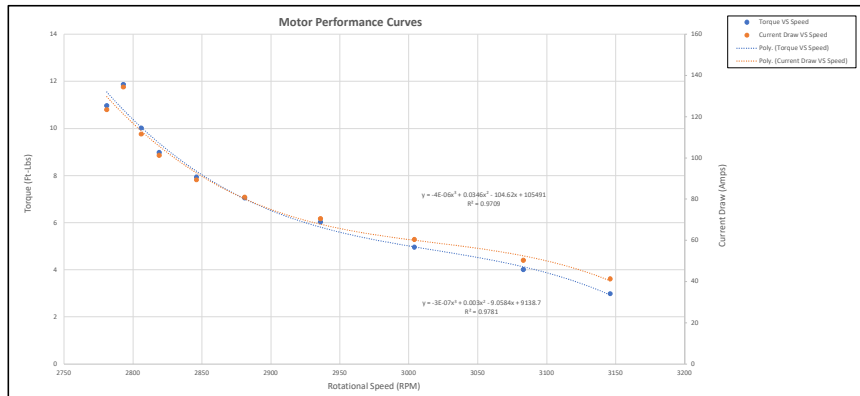
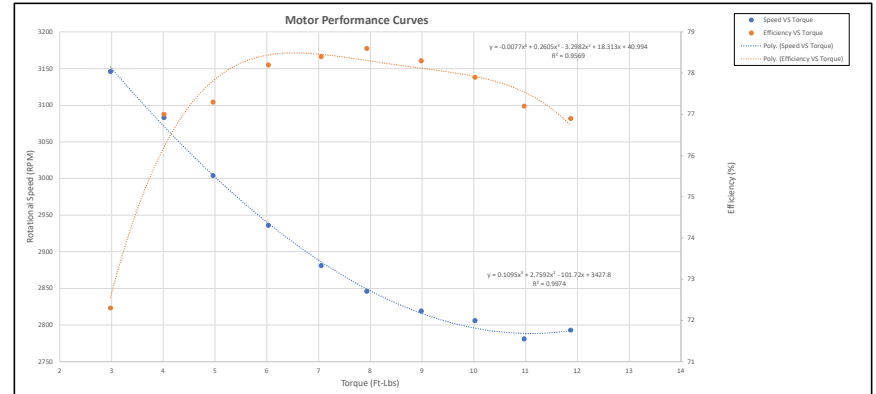
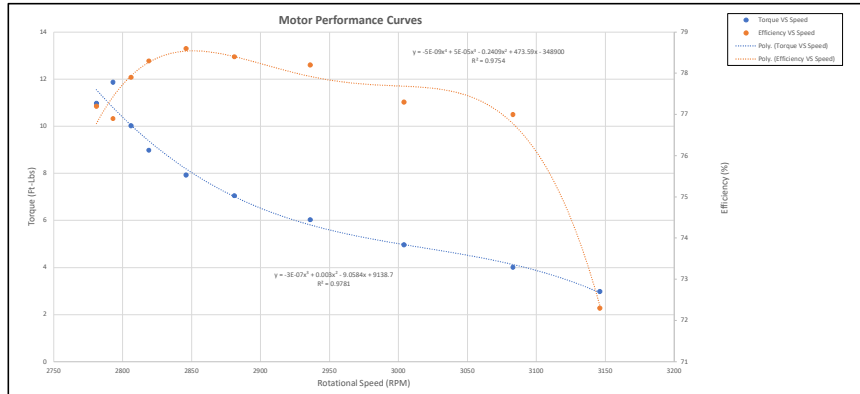


Engineering Performance Test Report

Performance Spec (PS) Number: 50

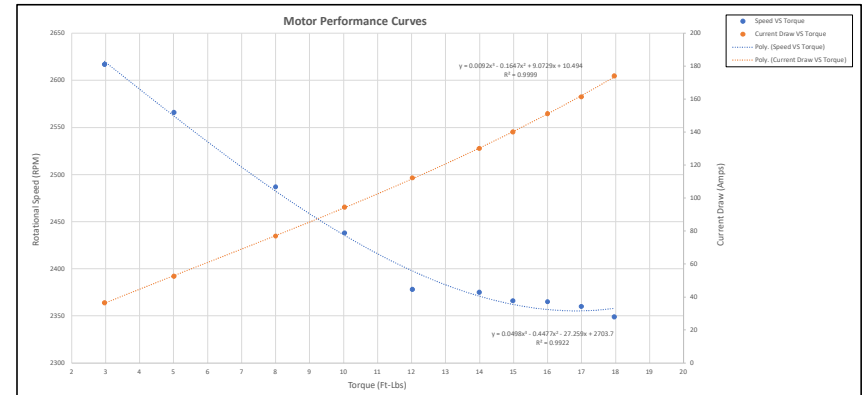
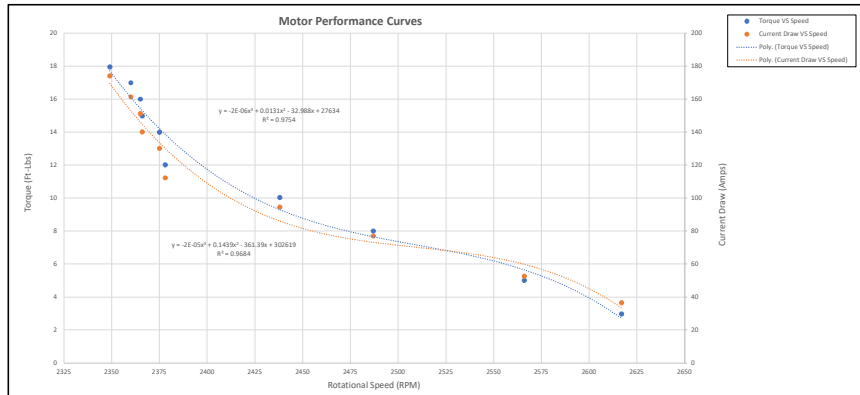
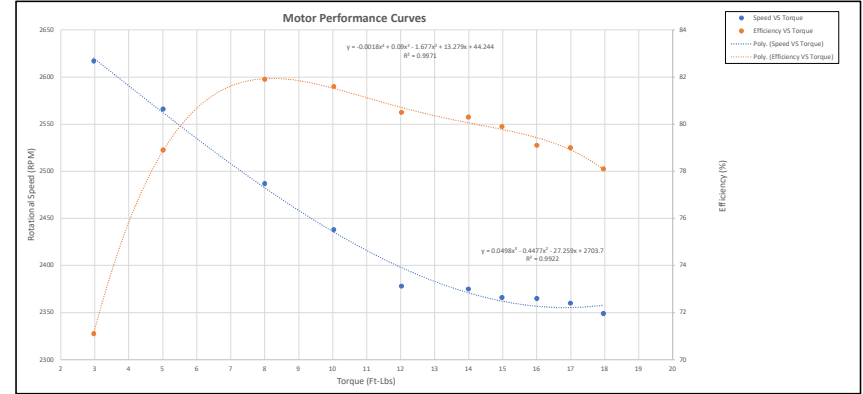
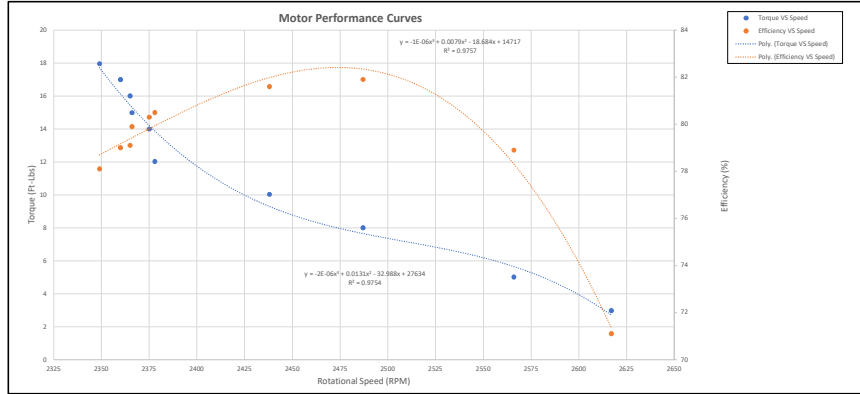
System Voltage (V): 48 - (1 * 0.015)

Torque (Ft-Lbs)	Speed (RPM)	Analog Voltage (Volts)	Analog Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
2.98	3145	47.9	38.2	5.4	3.06	41.26	2.47	1.79	72.3
4.01	3083	47.8	47.3	5.4	3.06	50.35	3.05	2.25	77
4.96	3004	47.6	57.4	5.4	3.02	60.42	3.68	2.84	77.3
6.03	2936	47.4	67.5	5.4	3	70.5	4.31	3.37	78.2
7.05	2881	47.2	77.9	5.4	3.02	80.92	4.95	3.87	78.4
7.93	2846	47.1	86.3	5.4	3.04	89.34	5.47	4.3	78.6
8.98	2819	46.9	98.1	5.4	3.11	101.21	6.19	4.82	78.3
10.02	2806	46.7	108.5	5.4	3.06	111.56	6.82	5.35	77.9
10.97	2781	46.5	120.4	5.4	3.01	123.41	7.53	5.81	77.2
11.87	2793	46.3	131.3	5.5	3.08	134.38	8.18	6.31	76.9



Engineering Performance Test Report
 Performance Spec (PS) Number: 50
 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 (%)
2.97	2617	48	31.5	8.8	4.97	36.47	2.08	1.48	71.1
5.01	2556	47.8	47.6	8.8	4.98	52.58	3.11	2.45	78.5
8	2487	47.3	72	8.8	4.98	76.98	4.62	3.79	81.9
10.03	2438	47.1	89.5	8.8	5.02	94.52	5.71	4.66	81.6
12.02	2378	46.8	107.2	8.8	5.04	112.24	6.78	5.44	80.5
13.99	2325	46.5	125.2	8.8	4.94	130.14	7.86	6.33	80.3
14.98	2365	46.3	135	8.9	5.07	140.07	8.44	6.75	79.9
16	2365	46.2	146.2	8.9	4.93	151.13	9.11	7.2	78.1
16.99	2360	45.9	156.4	8.9	5.01	161.41	9.69	7.65	79
17.96	2349	45.7	169.1	8.9	5	174.1	10.43	8.14	78.3

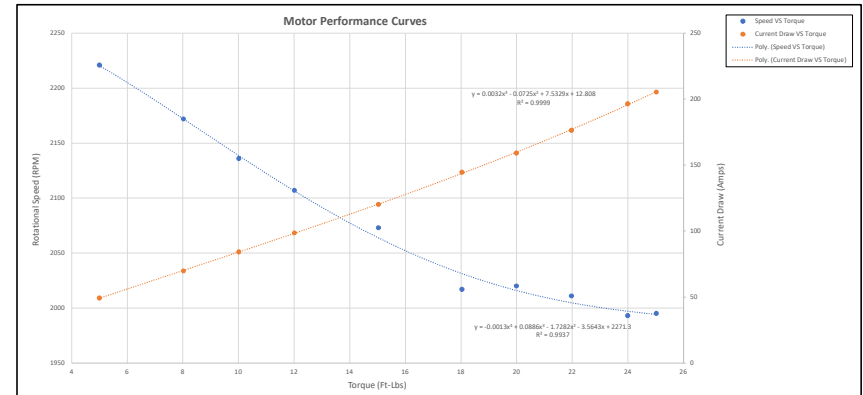
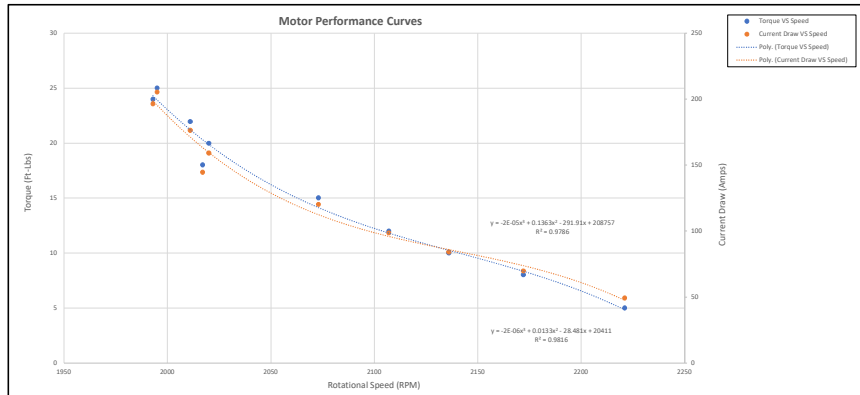
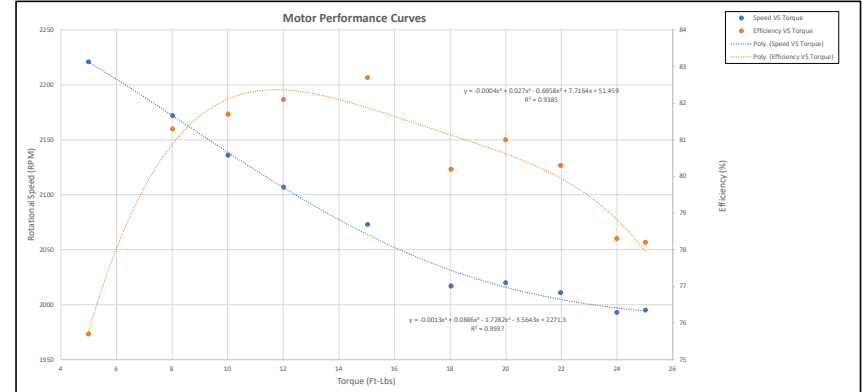
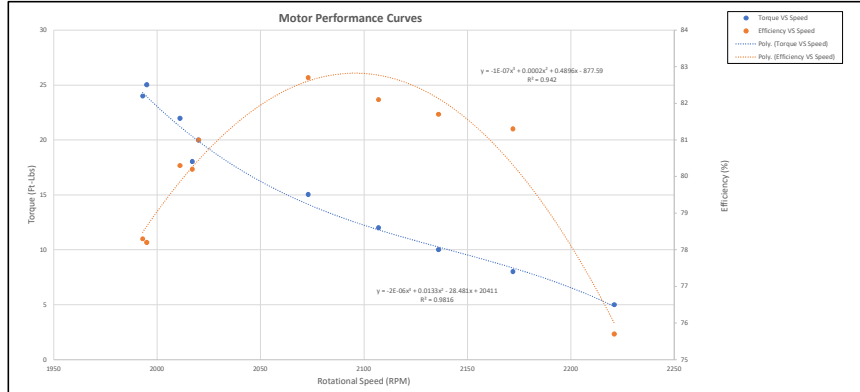


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
5	2221	47.9	41.1	14.3	8.14	49.34	2.79	2.11	75.7
8.02	2172	47.5	61.6	14.4	8.14	69.74	4.06	3.32	81.3
10.01	2136	47.3	76.2	14.4	8.01	84.21	4.98	4.07	81.7
12.01	2107	47.1	90.5	14.4	8.11	98.61	5.86	4.82	82.1
15.03	2073	46.7	112.1	14.5	8.1	120.2	7.18	5.93	82.7
18.03	2017	46.4	135.5	14.5	8.08	144.58	8.64	6.92	80.2
19.99	2020	46.1	151.1	14.6	8.09	159.19	9.49	7.69	81
21.97	2011	45.7	168.5	14.6	7.96	176.46	10.49	8.41	80.3
23.99	1993	45.5	188.3	14.7	8.21	196.51	11.64	9.11	78.3
25.02	1995	45.3	197.5	14.7	7.94	205.41	12.15	9.5	78.2

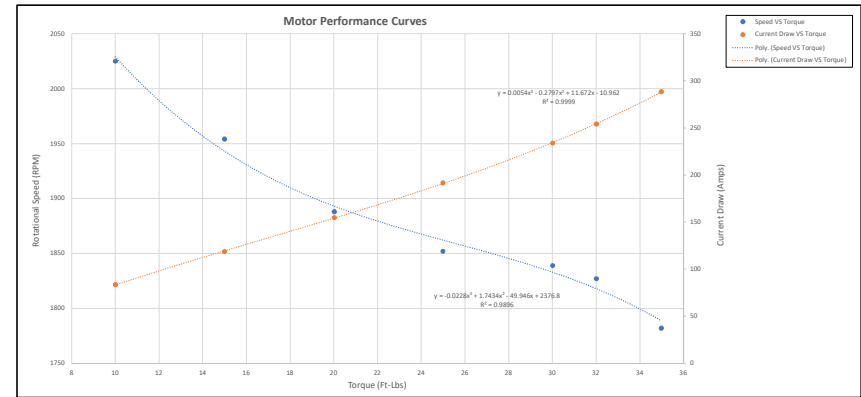
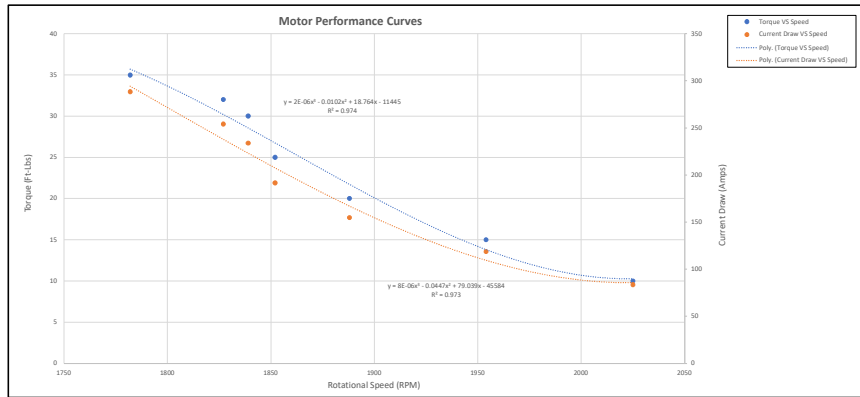
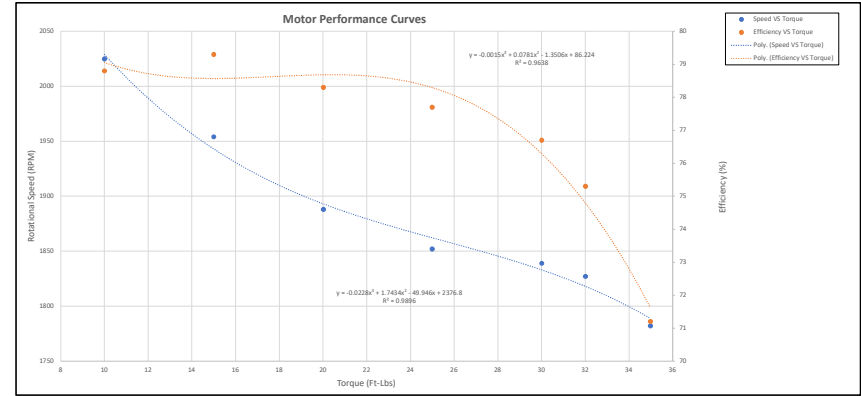
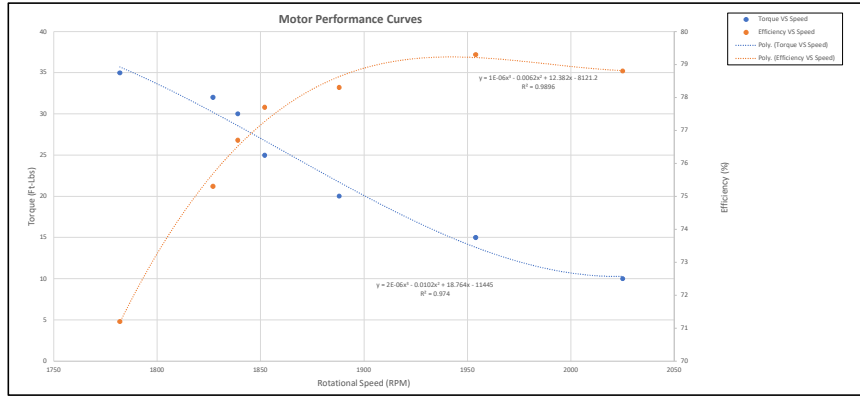


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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

Torque (Ft-Lbs)	Speed (RPM)	Analogic Voltage (Volts)	Armature Current (Amps)	Field Voltage (Volts)	Field Current (Amps)	Total Current (Amps)	Power In (Horsepower)	Power Out (Horsepower)	Efficiency (%)
10	2025	47.3	73.5	17.4	10.05	83.55	4.89	3.85	78.8
15	1954	46.7	808.6	17.5	10.09	118.69	7.04	5.58	79.3
20.02	1888	46.2	144.8	17.5	10.01	154.81	9.2	7.2	78.3
24.99	1852	45.6	181.7	17.6	9.94	191.64	11.34	8.81	77.7
30.01	1839	44.9	223.9	17.7	10	233.9	13.7	10.51	76.7
32.01	1827	44.5	243.8	17.8	10.2	254	14.79	11.64	79.3
34.98	1782	44	278.3	17.9	10.12	288.42	16.67	11.87	71.2

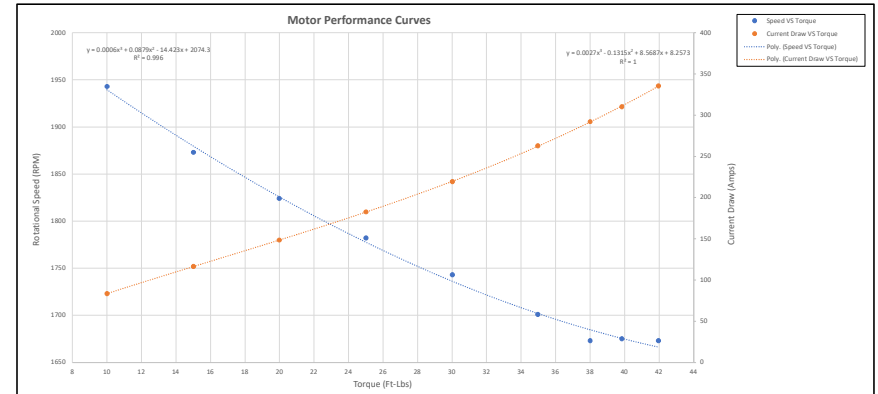
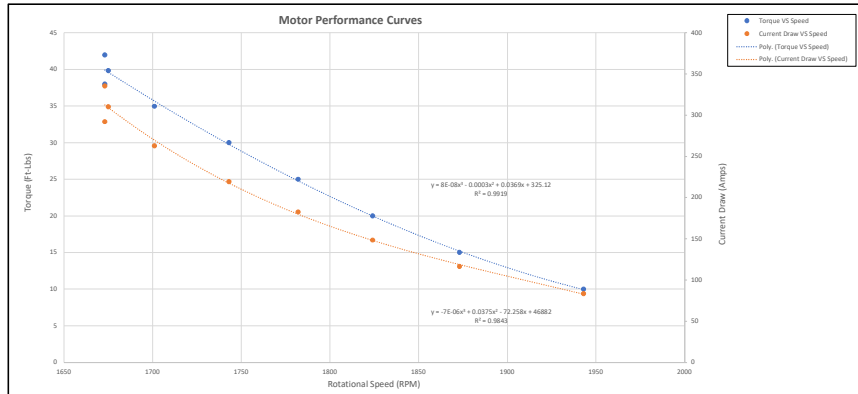
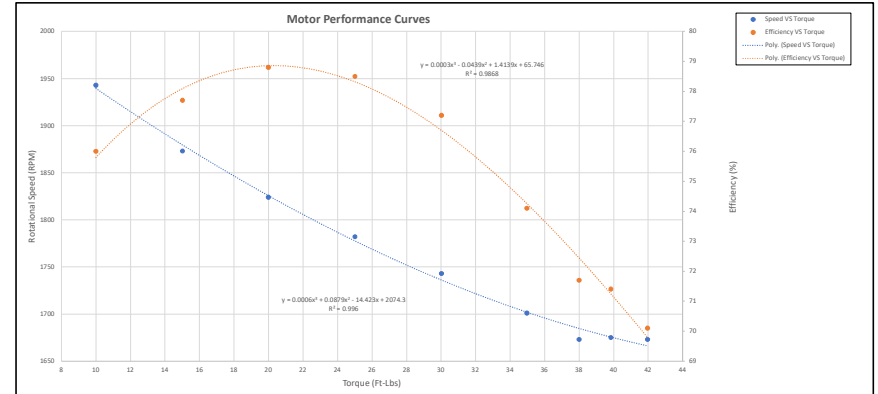
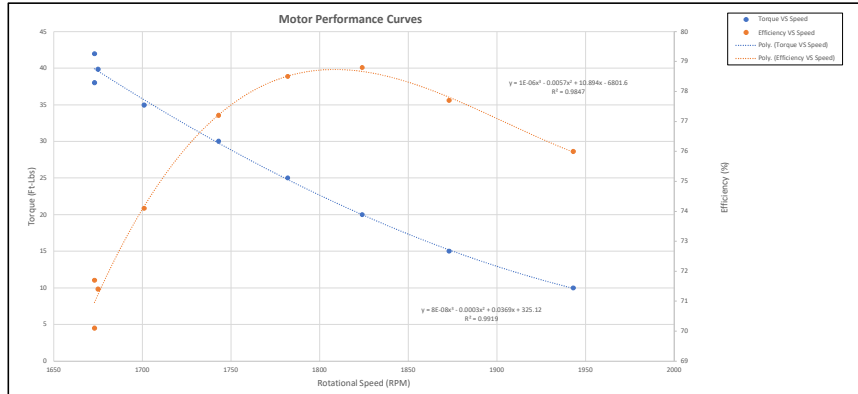


Engineering Performance Test Report

Performance Spec (PS) Number: 50

System Voltage (V): 48 - (± 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 (%)
30	1943	47.3	71.3	21.1	12.17	83.47	4.87	3.7	76
15.01	1873	46.8	104.3	21.2	12.08	116.38	6.86	5.35	77.2
19.99	1824	46.3	136.4	21.4	12.1	148.5	8.81	6.94	78.8
25.01	1782	45.8	170.4	21.5	12.18	182.58	10.8	8.49	78.5
30.02	1743	45.2	207.1	21.7	12.23	219.33	12.91	9.96	77.2
34.97	1701	44.4	250.5	21.8	12.26	262.76	15.38	11.32	74.1
38	1673	44	280.1	22	12.02	292.12	16.88	12.1	71.7
39.84	1675	43.6	298	22.2	12.26	310.26	17.8	12.71	71.4
41.96	1673	43.2	323.1	22.4	12.42	335.52	19.06	13.37	70.1

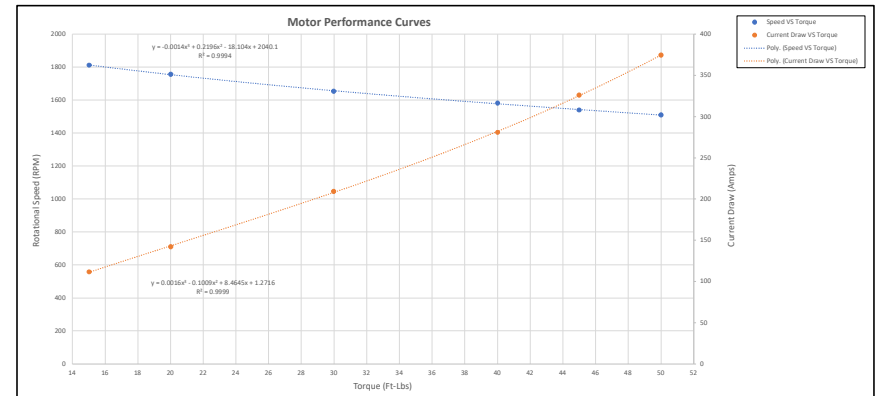
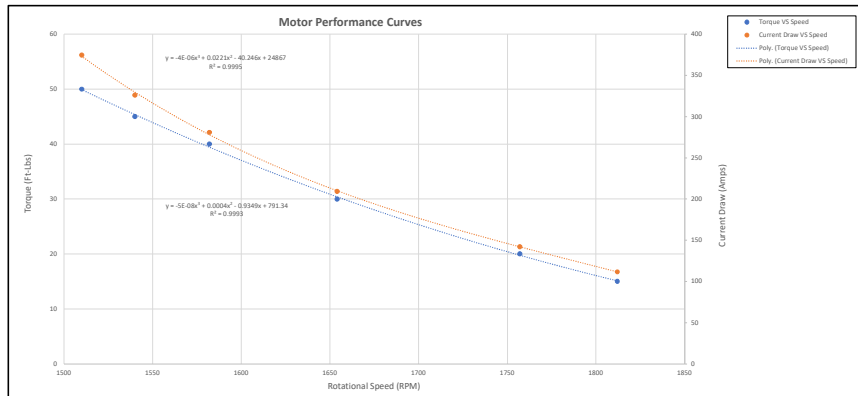
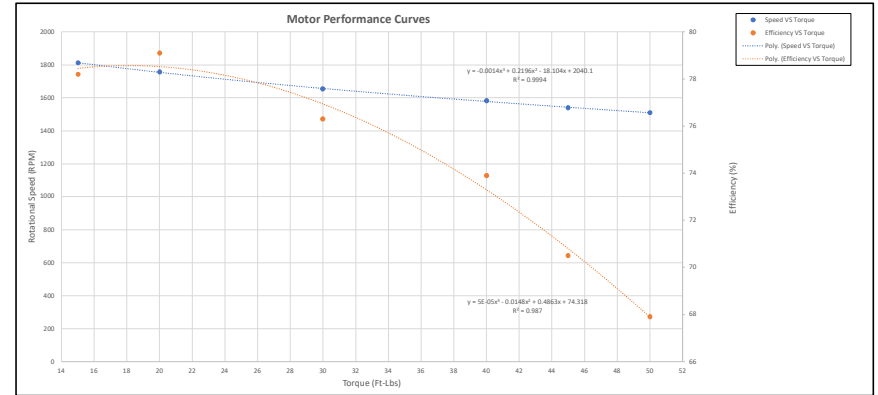
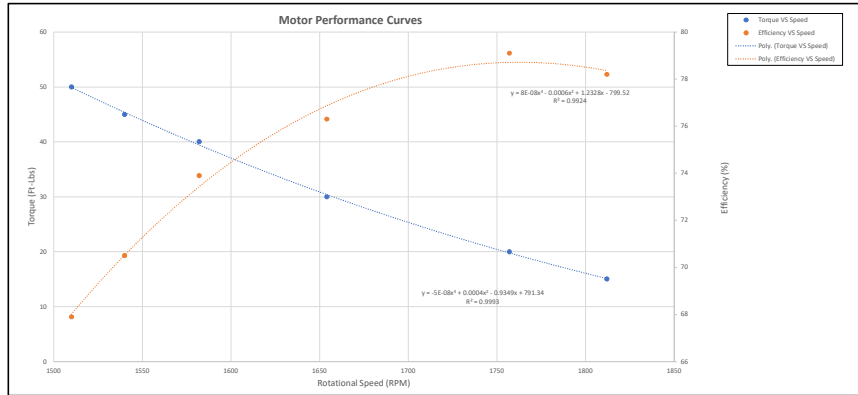


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
15.02	1812	46.9	96.6	27.2	15	111.6	6.62	5.18	78.2
20.01	1757	46.4	137.2	27.5	14.97	152.17	8.47	6.69	79.1
29.98	1654	45.4	194.2	27.8	15.02	209.22	12.38	9.44	76.3
40.01	1582	44.2	266	28.1	14.94	280.94	16.32	12.06	73.9
44.99	1540	43.6	310.9	28.4	15.14	326.04	18.73	13.19	70.5
50	1510	42.8	359.3	28.7	15.37	374.67	21.18	14.38	67.9

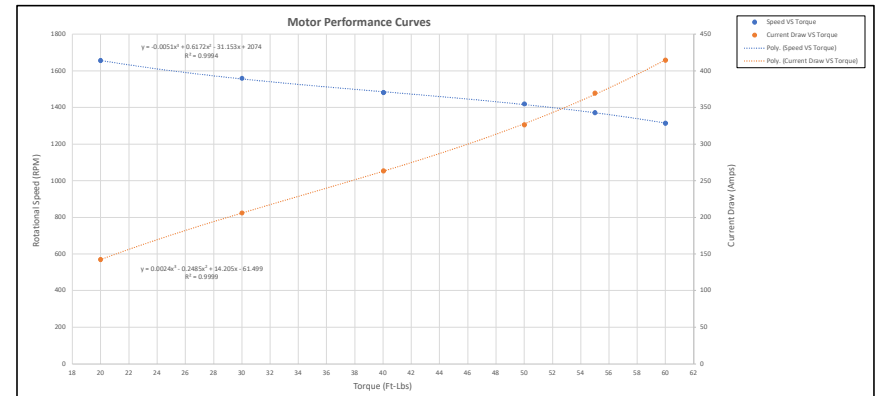
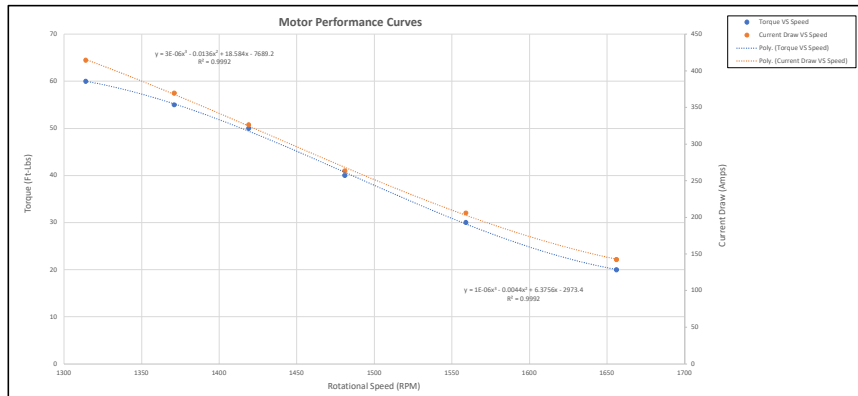
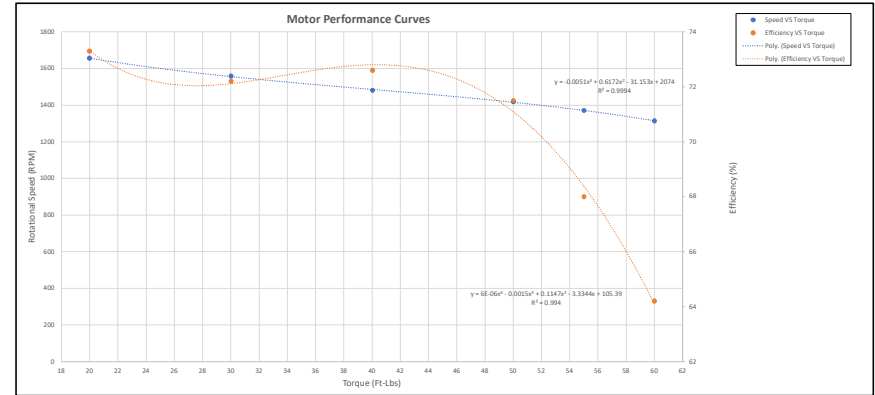
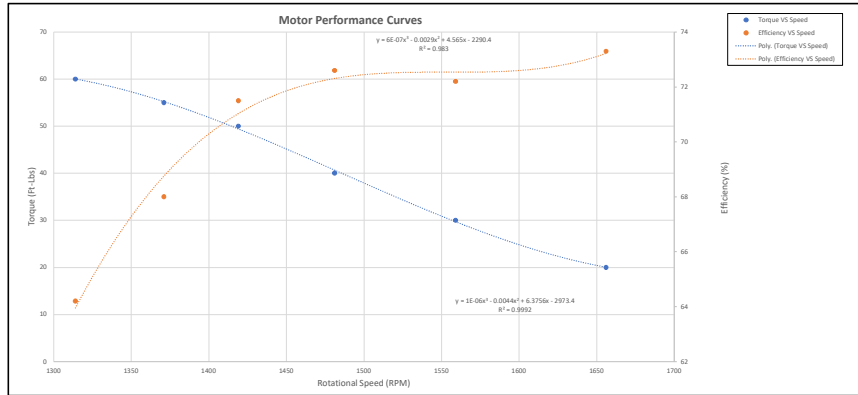


Engineering Performance Test Report

Performance Spec (PS) Number: 50

System Voltage (V): 48 - (V ± 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 (%)
19.99	1656	46.5	122.2	36.6	20.13	142.33	8.6	6.3	73.3
30.01	1559	45.5	106	37.4	19.97	205.97	12.34	8.91	72.2
40.03	1481	44.6	243.2	38.1	30.2	263.4	15.56	11.29	72.6
50.01	1419	43.5	306.3	38.9	20.08	326.38	18.9	13.51	71.5
55.01	1371	42.8	349.6	39.7	20.01	369.61	21.12	14.26	68
60	1314	42.1	394.5	40.4	20.03	414.53	23.36	15.01	64.2

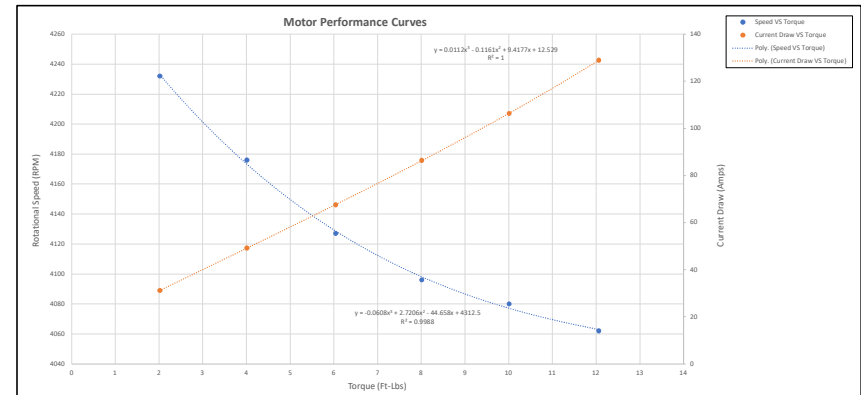
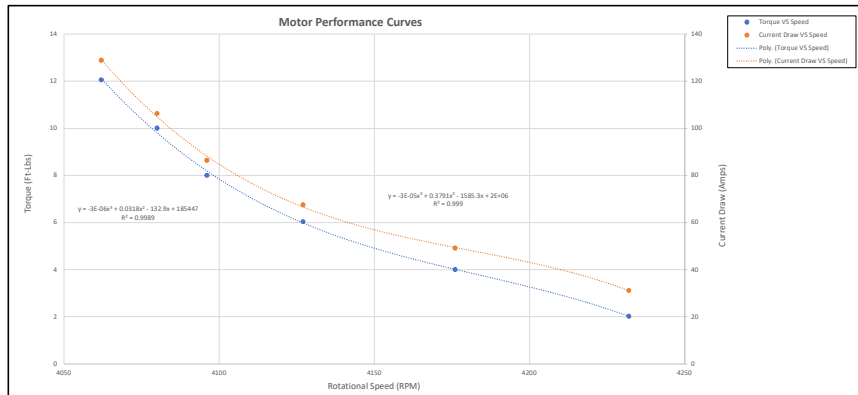
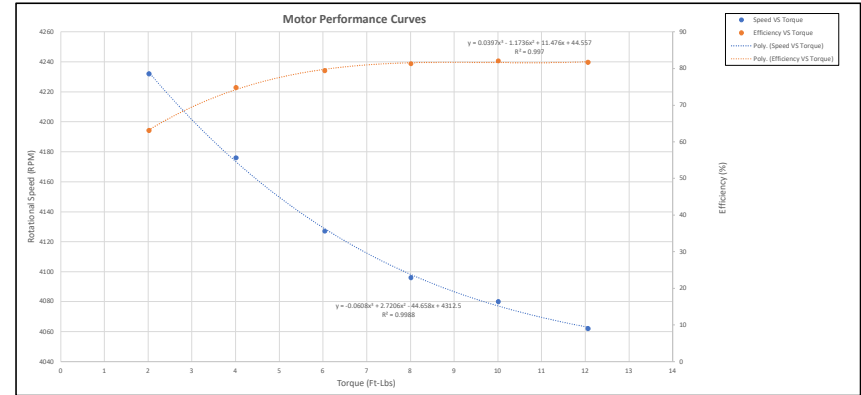
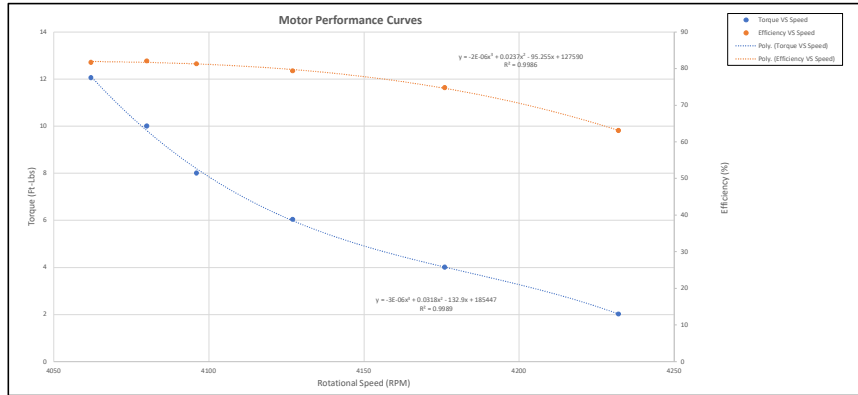


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
2.02	4232	71.7	26.2	8.5	4.97	31.17	2.58	1.63	63.1
4.01	4176	71.1	26.2	8.5	4.98	49.16	4.27	3.19	74.8
6.04	4127	70.5	26.2	8.5	4.95	67.55	5.98	4.75	79.4
8.01	4096	69.9	26.2	8.5	5.03	86.43	7.68	6.25	81.3
10.01	4080	69.2	26.2	8.5	4.94	106.34	9.47	7.77	82.1
12.05	4062	68.4	26.2	8.5	4.94	128.94	11.42	9.23	81.7

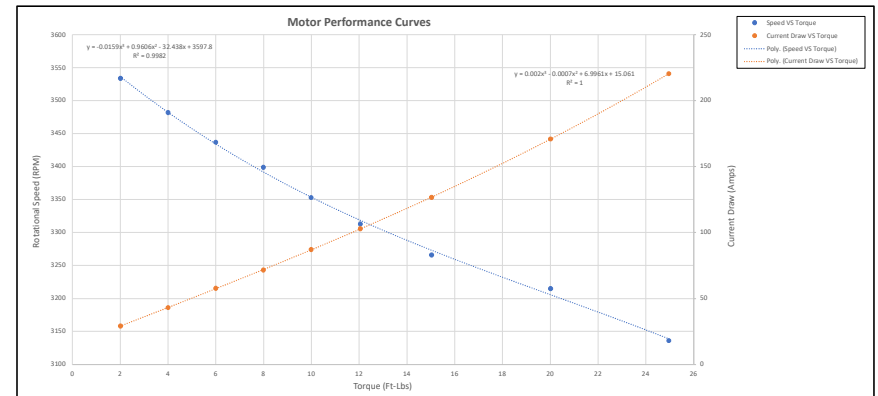
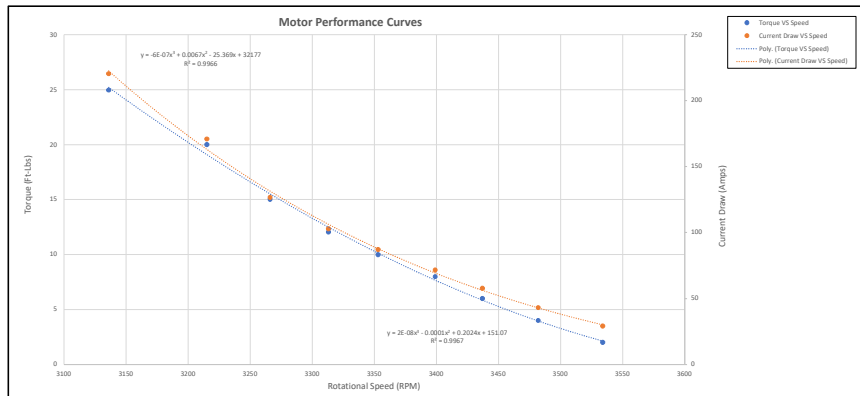
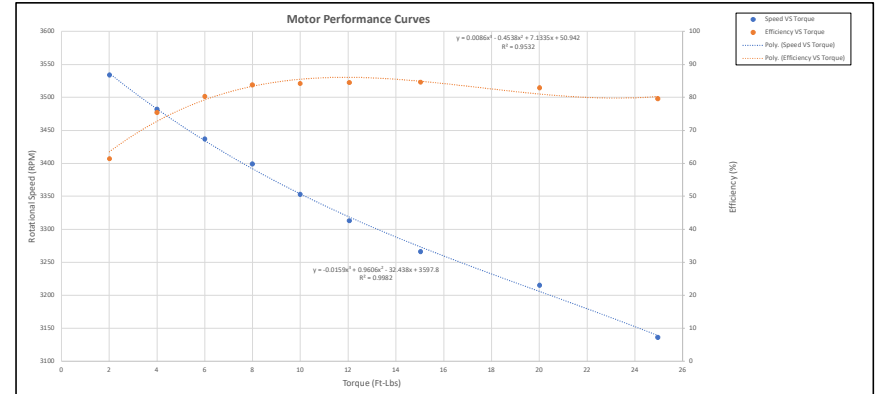
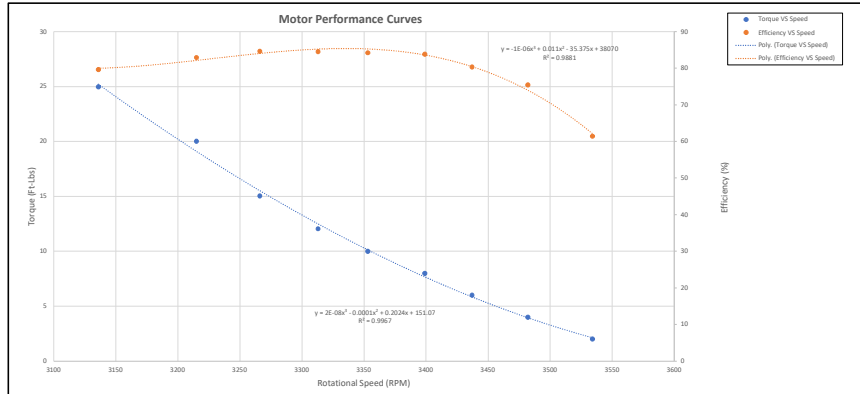


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
2.01	3534	71.8	21.1	15.5	8.06	29.16	2.2	1.35	61.4
4	3482	71.4	35	15.5	8.07	43.07	3.52	2.65	75.4
6	3437	70.9	49.6	15.5	8.07	57.67	4.89	3.92	80.3
7.99	3399	70.5	63.5	15.5	8.09	71.59	6.17	5.17	83.8
9.99	3353	69.9	79	15.5	8.09	87.09	7.58	6.38	84.2
12.05	3313	69.4	94.9	15.5	8.03	102.93	9	7.6	84.5
15.03	3266	68.5	118.6	15.5	8.07	126.67	11.05	9.35	84.6
20.01	3215	66.9	162.9	15.5	8.06	170.96	14.78	12.25	82.9
24.96	3136	65.1	212.5	15.5	7.99	220.49	18.72	14.91	79.6

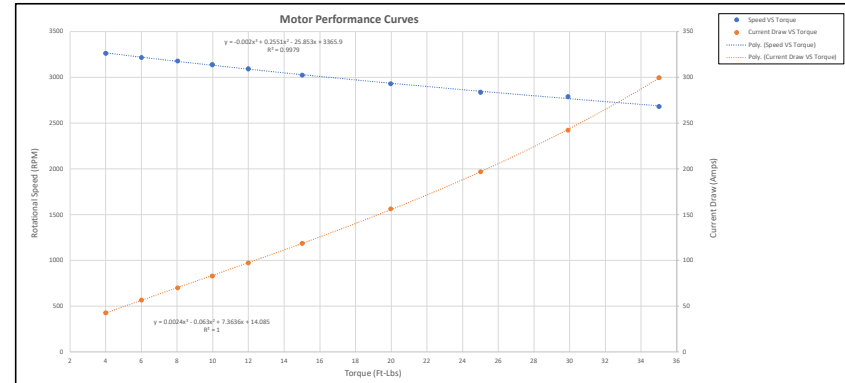
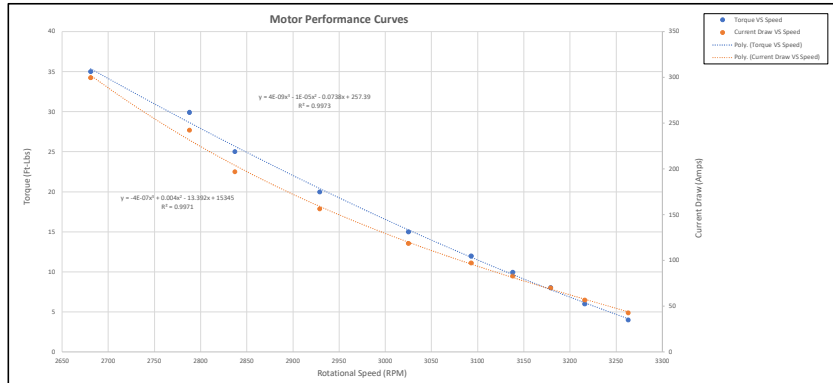
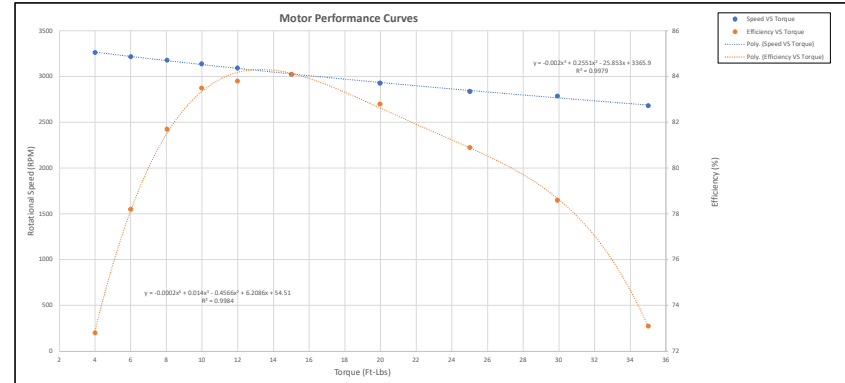
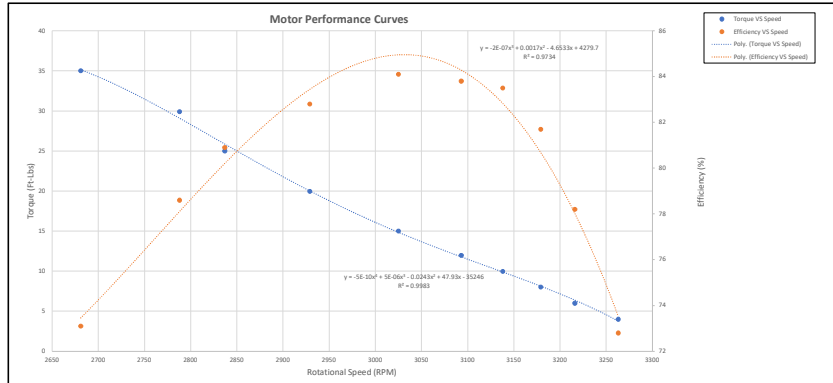


Engineering Performance Test Report

Performance Spec (PS) Number:50

System Voltage (V): 72 - (0 ± 0.03%)

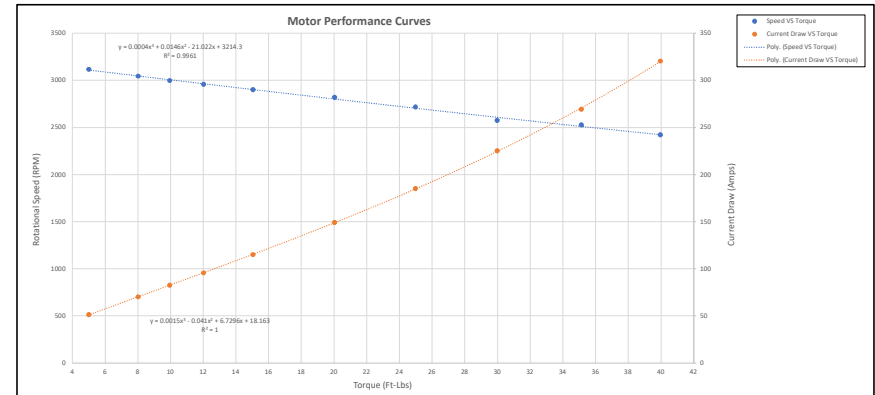
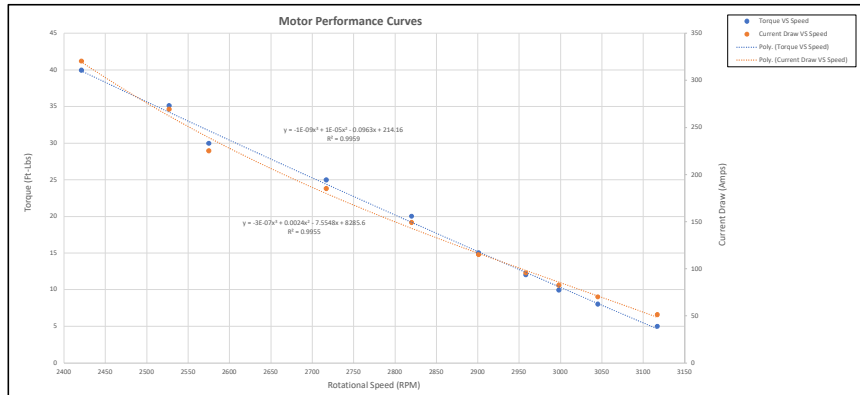
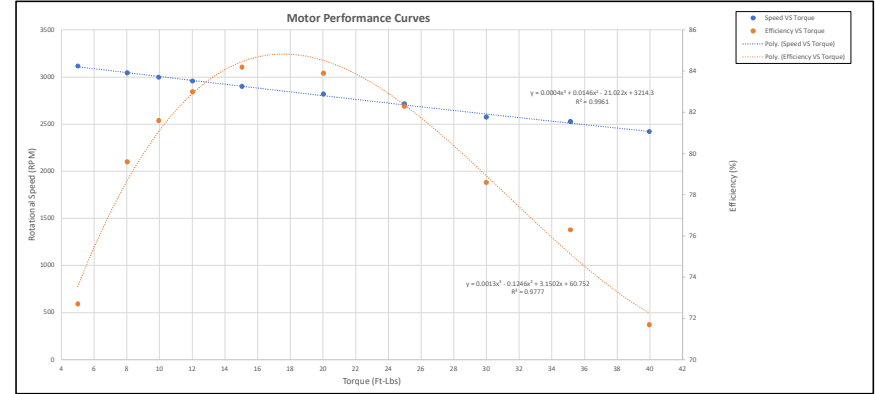
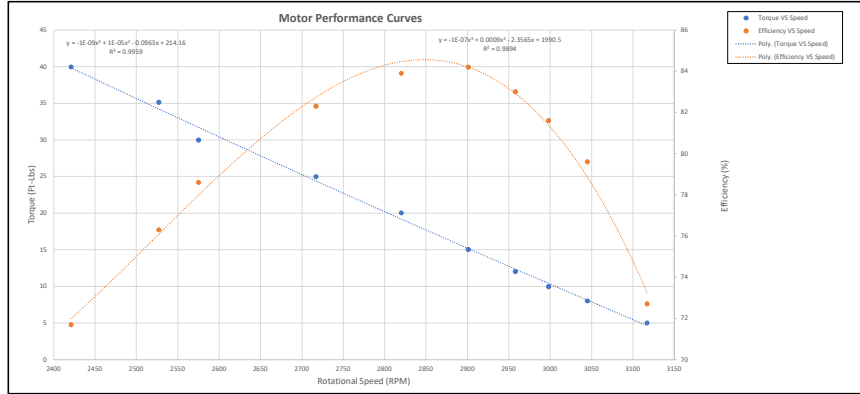
Speed (RPM)	Speed Error	Applied Voltage (Volts)	Measured Current (Amps)	Load Voltage (Volts)	Load Current (Amps)	Total Current (Amps)	Speed (RPM) (Measured)	Speed (RPM) (Nominal)	Efficiency (%)
4	3263	71.4	32.9	19.9	10.07	42.97	3.41	2.48	72.8
6	3216	71	46.6	19.9	10.07	56.67	4.71	3.57	76.2
8.03	3179	70.6	60	19.9	10.11	70.11	5.95	4.86	81.7
9.97	3138	70.1	73.1	19.8	10	83.1	7.13	5.96	83.5
11.98	3093	69.6	87.3	19.8	10.06	97.36	8.43	7.05	83.8
15.01	3025	68.8	108.7	19.8	10.05	118.75	10.29	8.65	84.1
19.97	2929	67.3	146.2	19.7	10.13	156.33	13.46	11.14	82.8
25.01	2817	65.7	186.8	19.7	10.06	196.86	16.7	13.51	80.9
29.91	2788	64.1	232.2	19.6	10.1	242.31	20.2	15.88	78.6
35.01	2681	62.4	289.4	19.5	10.08	299.48	24.46	17.88	73.1



Engineering Performance Test Report

Performance Spec (PS) Number: 50
 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	3117	71.3	39.2	20.8	12.06	51.26	4.08	2.97	72.7
8.02	2945	70.7	38.8	20.7	12.05	50.45	5.84	4.65	79.6
9.95	2998	70.2	30.5	20.6	12.01	42.51	6.96	5.68	81.6
12.02	2958	69.8	33.6	20.4	12.03	45.63	8.15	6.77	83
15.04	2901	69.1	103	20.3	12.03	115.03	9.87	8.31	84.2
20.03	2820	68	117.1	20.1	12.02	149.12	12.82	10.76	83.9
24.98	2717	66.3	173.1	20	11.99	185.09	15.69	12.92	82.3
29.98	2575	64.3	213.3	19.8	11.99	225.29	18.7	14.7	78.6
35.13	2527	63.3	257.3	19.6	11.98	269.28	22.15	16.9	76.3
39.96	2424	61.4	308.4	19.5	12.12	320.52	25.7	18.42	71.7

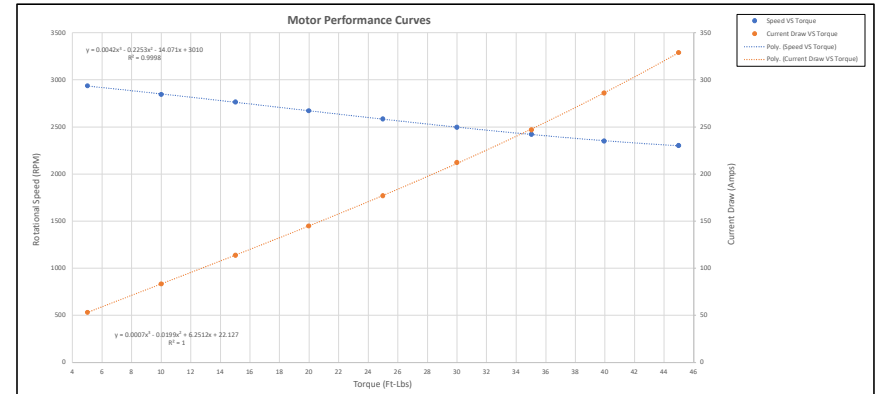
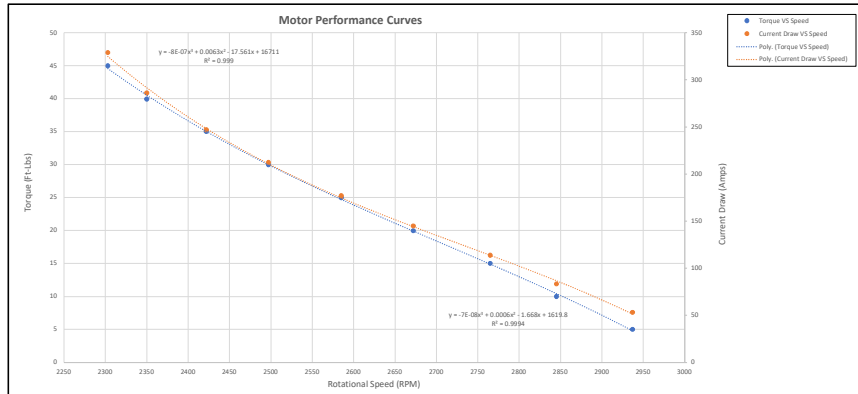
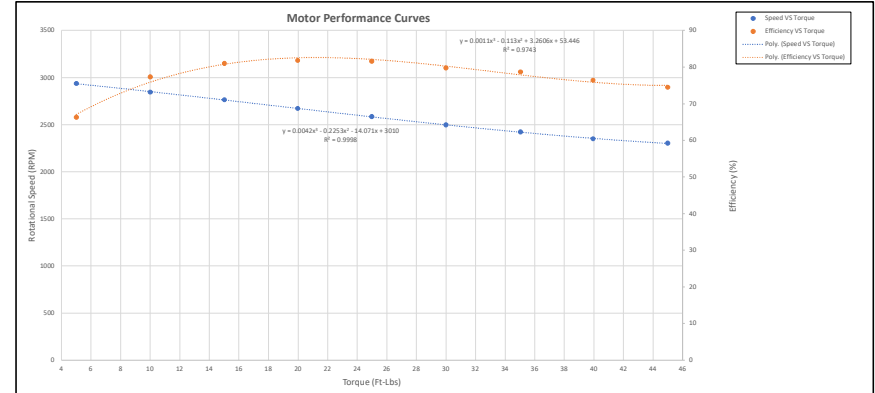
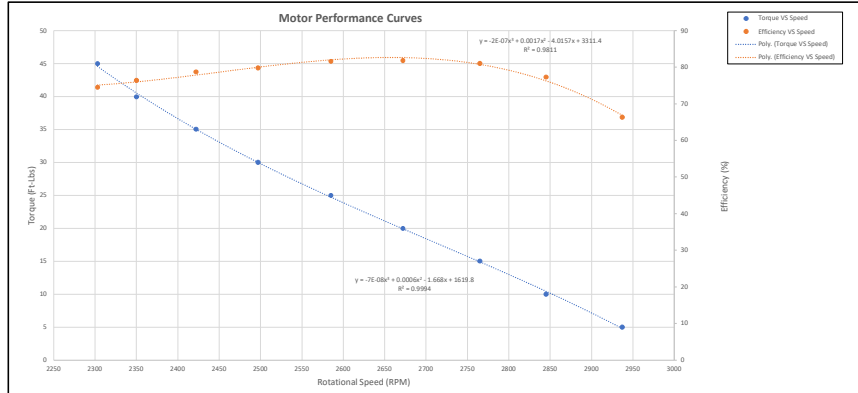


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
5.01	2937	71.3	38	29.5	15.13	53.13	4.22	2.8	66.3
10	2845	70.3	68.2	29.3	15.12	83.24	7.02	5.42	77.3
15.02	2765	69.3	98.7	29	15.07	113.77	9.76	7.91	81
19.97	2672	68	129.8	28.8	15.07	144.87	12.42	10.16	81.8
24.98	2585	66.8	161.8	28.5	15.12	176.92	15.08	12.29	81.6
29.99	2497	65.5	197.2	28.2	15.02	212.21	17.87	14.26	79.8
35.03	2422	64.2	231.9	27.9	15.07	246.97	20.53	16.15	78.7
39.94	2350	62.9	270.8	27.6	15.28	286.08	23.39	17.87	76.4
44.98	2309	61.7	313.9	27.3	15.09	328.99	26.5	19.73	74.5

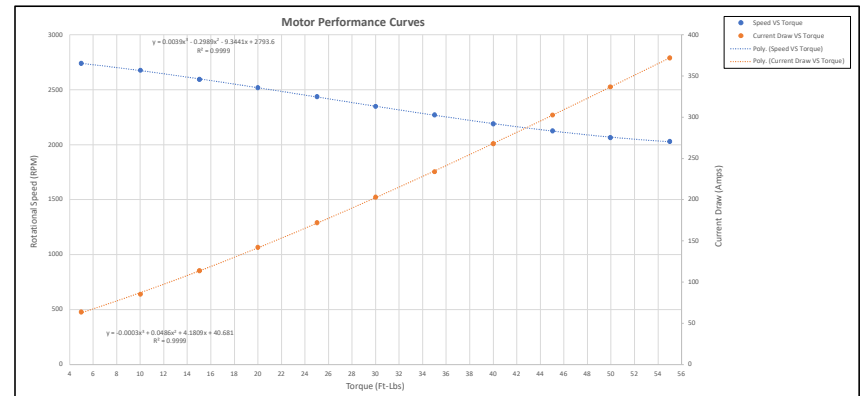
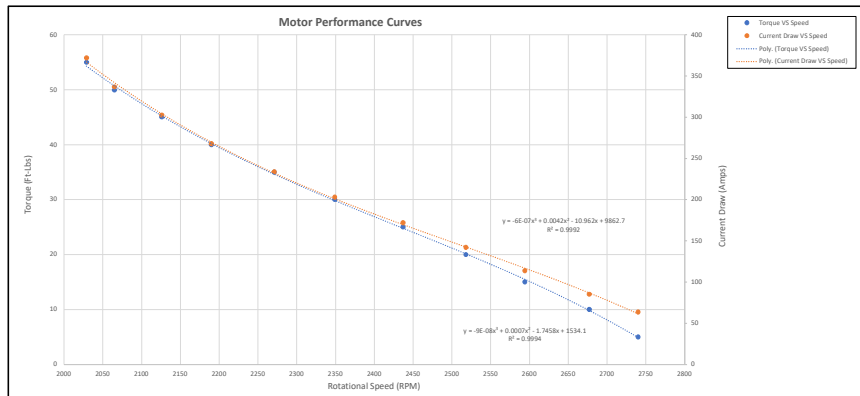
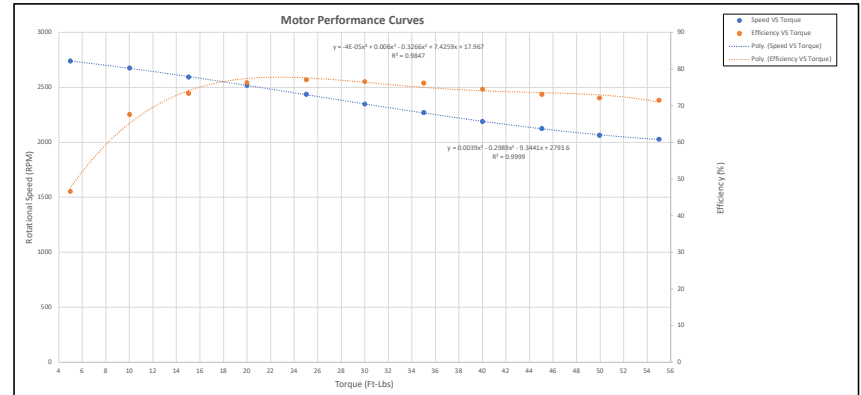
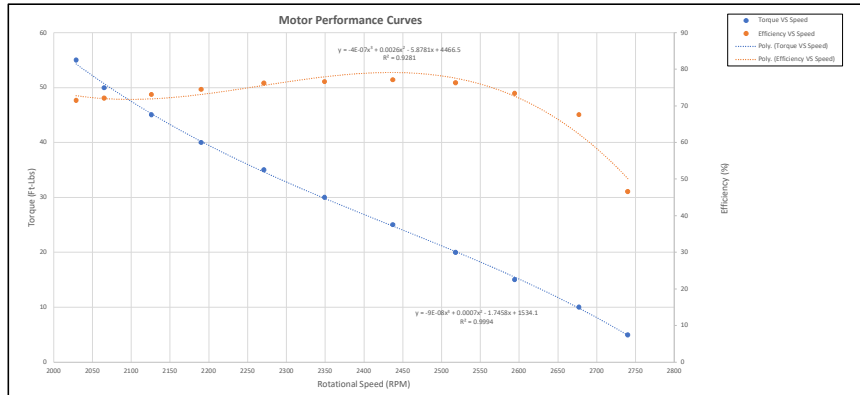


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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 (%)
4.98	2740	71	43.5	52.9	20.16	63.66	5.57	2.6	46.6
10.02	2672	70.2	65.8	52.6	20.14	85.24	7.55	5.11	67.6
15.03	2594	69.3	93.6	52.3	20.15	113.75	10.11	7.42	73.4
19.99	2518	68.3	122	52	20.19	142.19	12.57	9.58	76.3
25.03	2437	67.1	151.8	51.6	20.18	171.98	15.06	11.62	77.1
30	2349	65.8	182.8	51.2	20.21	201.01	17.52	13.62	76.6
35.01	2271	64.5	213.6	50.8	20.26	233.86	19.86	15.14	76.2
40	2190	63.3	247.6	50.4	20.27	267.87	22.39	16.68	74.5
45.04	2126	62.3	283.3	50	20.4	302.7	24.93	18.23	73.1
49.95	2065	61.1	316.7	49.5	20.15	336.85	27.26	19.64	71.1
55	2029	60.2	351.6	49.1	20.43	372.03	29.71	21.25	71.5

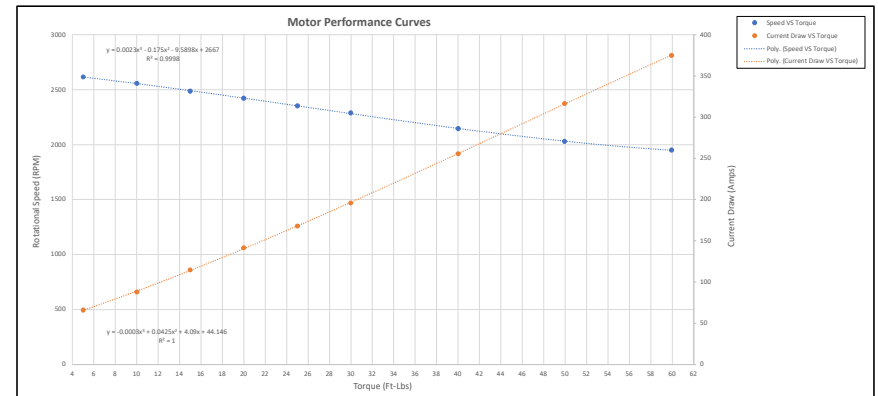
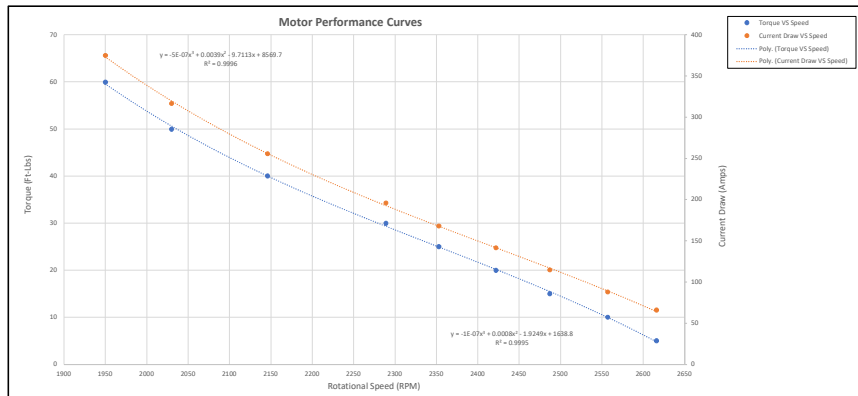
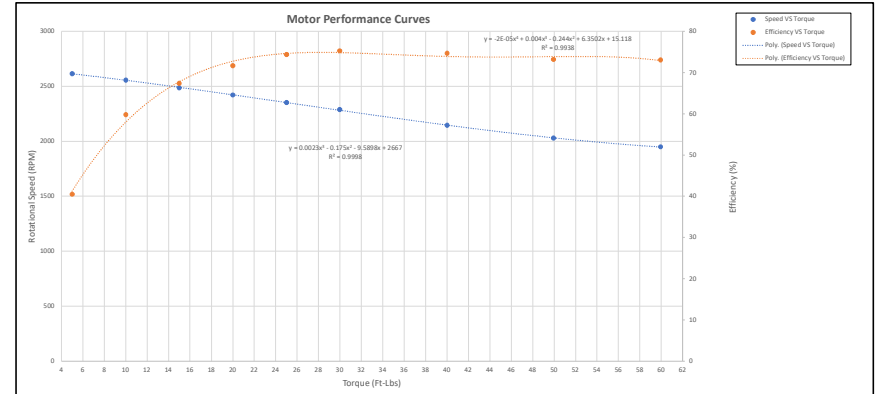
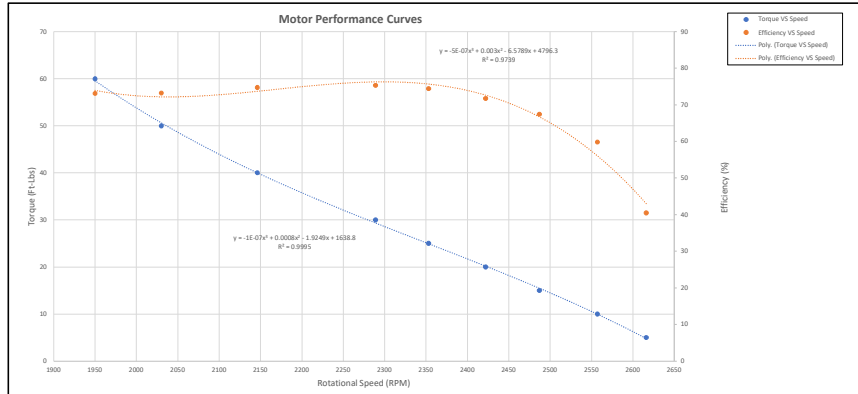


Engineering Performance Test Report

Performance Spec (PS) Number: 50

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	2616	71	40.8	67.3	25.11	65.91	6.15	2.49	40.5
10.01	2557	70.3	42.8	66.3	25.07	67.87	6.15	4.87	59.8
14.99	2487	69.4	49.6	65.3	25.05	114.65	10.53	7.1	67.4
19.99	2422	68.5	116.4	64.3	25.05	141.45	12.85	9.22	71.7
25.01	2353	67.6	142.9	63.2	25.05	167.95	15.07	11.21	74.4
29.98	2289	66.7	170.7	62.1	25.14	195.84	17.35	13.07	75.3
40.01	2146	64.3	230.5	60.9	25.11	255.61	21.9	16.35	74.7
49.94	2030	62.4	291.4	59.7	25.15	316.55	26.37	19.3	73.2
59.93	1950	60.7	349.7	58.5	25.23	374.93	30.42	22.25	73.1



Engineering Performance Test Report

Performance Spec (PS) Number: 50

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	2464	70.3	62.3	75.5	30.02	92.32	8.91	4.68	52.6
30	2336	68.6	113.8	73.2	30.01	143.11	13.34	8.9	66.2
30.04	2209	66.8	166.2	70.8	29.94	196.14	17.71	12.64	71.4
39.99	2081	64.5	220.5	68.4	30.05	250.55	21.83	15.85	72.6
49.96	1955	62.2	279	65.9	30.2	309.2	25.92	18.6	71.7
59.99	1844	60.4	348.1	63.5	29.97	378.07	30.72	21.07	68.6
70	1736	58.3	410.9	60.9	30.14	441.04	34.56	23.14	67

