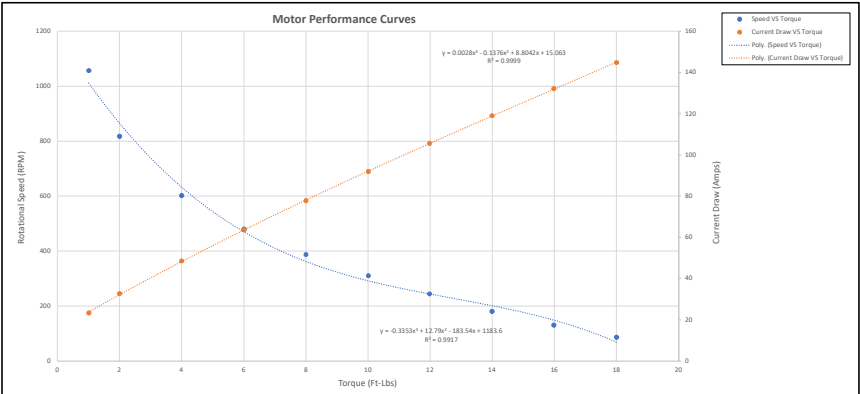
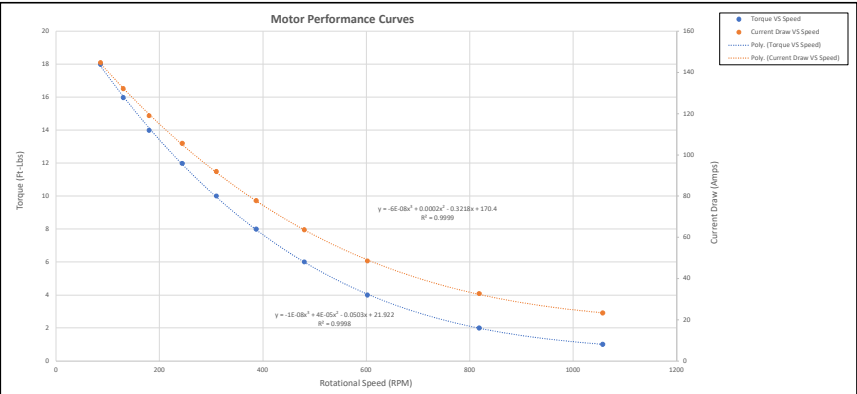
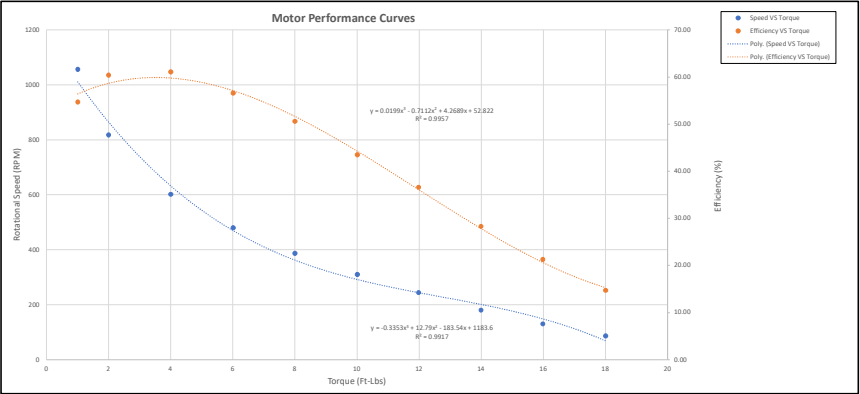
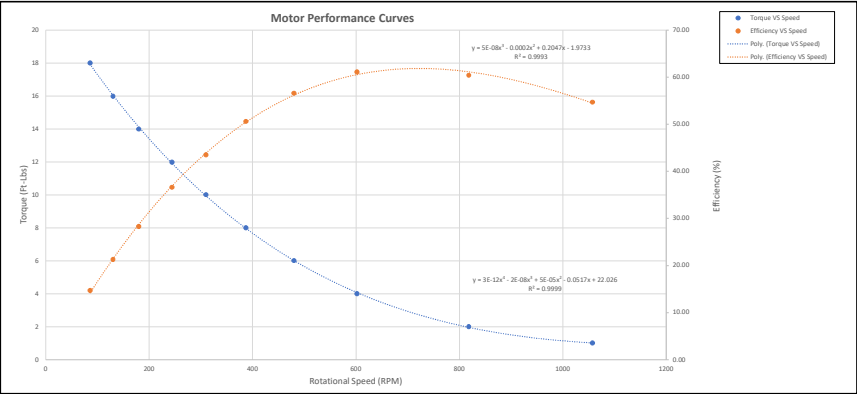


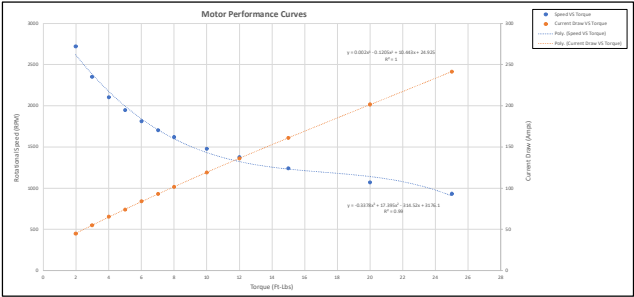
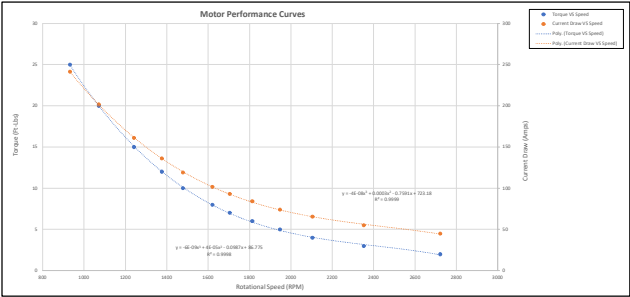
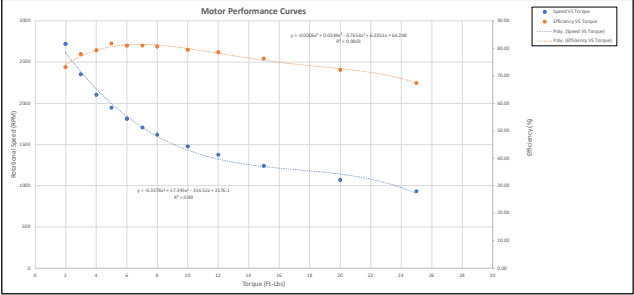
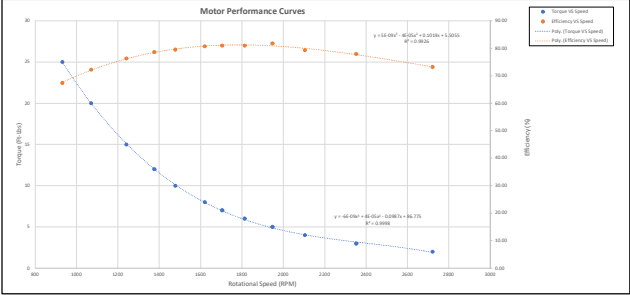
Engineering Performance Test Report
Performance Spec (PS) Number: 2
System Voltage [V]: 12 - (V * 0.015)

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 (%)
1.01	1057	11.9	23.3	0	0	23.3	0.37	0.2	54.70
2	818	11.7	32.7	0	0	32.7	0.52	0.31	60.40
4	602	11.6	48.5	0	0	48.5	0.75	0.46	61.30
6.01	480	11.4	63.6	0	0	63.6	0.97	0.55	56.60
8	387	11.2	77.8	0	0	77.8	1.16	0.59	50.60
10.01	310	11	91.9	0	0	91.9	1.36	0.59	43.50
11.98	244	10.8	105.6	0	0	105.6	1.53	0.56	36.60
13.99	180	10.7	119	0	0	119	1.7	0.48	28.30
15.98	130	10.5	132.1	0	0	132.1	1.86	0.39	21.30
18	86	10.3	144.8	0	0	144.8	2	0.29	14.70



Engineering Performance Test Report
Performance Spec PSI Number: 2
Series Voltage (V): 24 (1 - 0.025)

Test #	Speed (RPM)	Current (Amps)	Power (Watts)	Efficiency (%)	Speed (RPM)	Current (Amps)	Power (Watts)	Efficiency (%)
1.00	2722	20.4	44.8	0	0	44.8	1.4	1.55
2.00	2724	20.2	55	0	0	55	1.75	21.85
3.00	2724	20	66.5	0	0	66.5	2.04	1.4
4.00	2724	20.2	74	0	0	74	2.35	1.05
5.00	2724	20.2	84.2	0	0	84.2	2.58	2.02
6.00	2724	20.2	93.1	0	0	93.1	2.8	2.35
7.00	2724	20.4	101.7	0	0	101.7	3.05	2.47
8.00	2724	20.2	109	0	0	109	3.24	2.62
9.00	2724	20.2	116	0	0	116	3.44	28.05
10.00	2724	20.3	121.1	0	0	121.1	3.55	28.35
11.00	2724	20.3	125.6	0	0	125.6	3.68	29.25
12.00	2724	20.4	131.4	0	0	131.4	3.92	27.45

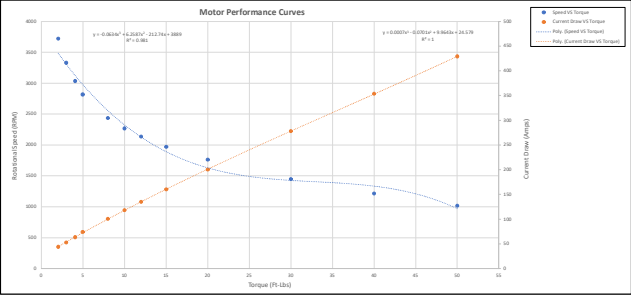
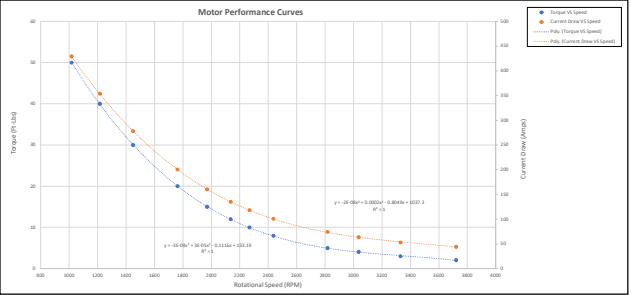
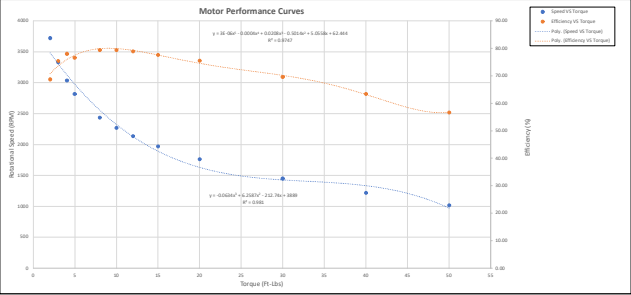
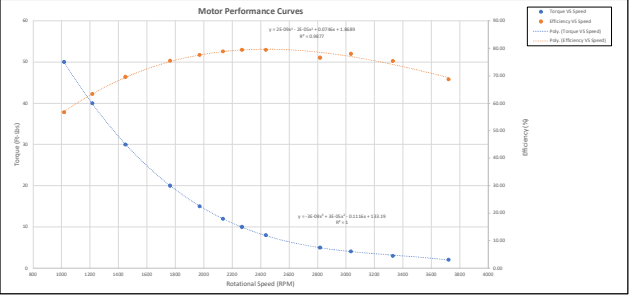


Engineering Performance Test Report

Performance Date: PSI Number: 2

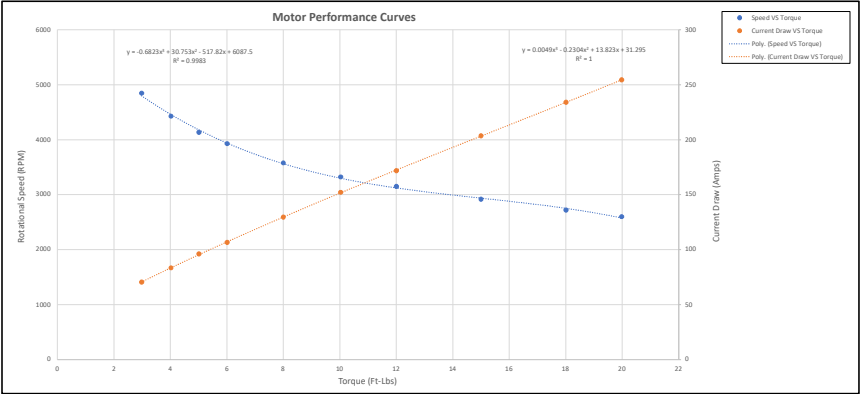
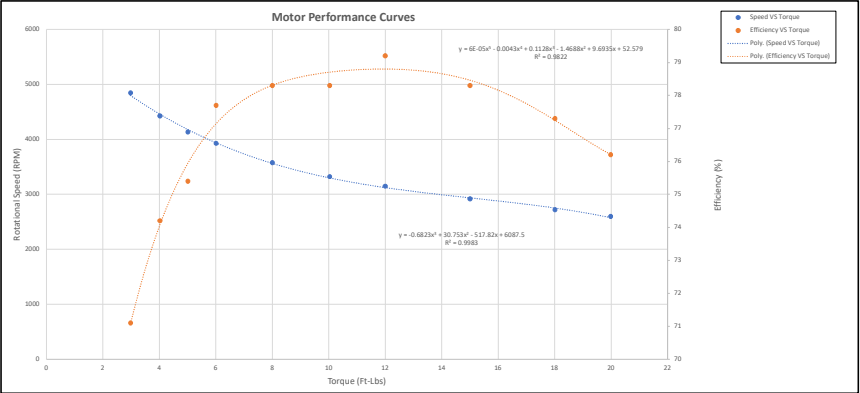
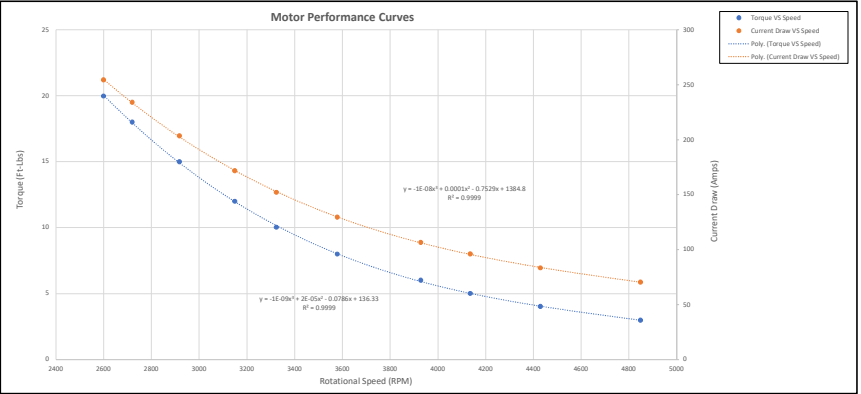
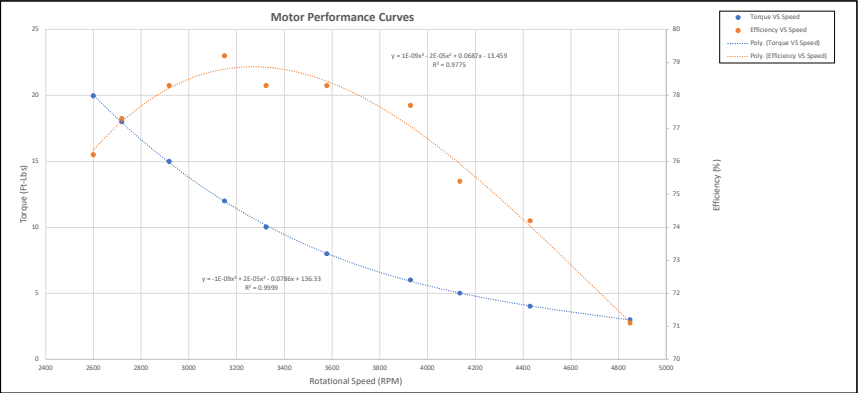
System Voltage (V): 110 V (0.025)

Test No.	Speed (RPM)	Current (Amps)	Power (Watts)	Efficiency (%)	Speed (RPM)	Current (Amps)	Power (Watts)	Efficiency (%)
1	2000	2.22	24.4	44	2000	2.22	24.4	44
2	2000	2.22	24.4	44	2000	2.22	24.4	44
3	2000	2.22	24.4	44	2000	2.22	24.4	44
4	2000	2.22	24.4	44	2000	2.22	24.4	44
5	2000	2.22	24.4	44	2000	2.22	24.4	44
6	2000	2.22	24.4	44	2000	2.22	24.4	44
7	2000	2.22	24.4	44	2000	2.22	24.4	44
8	2000	2.22	24.4	44	2000	2.22	24.4	44
9	2000	2.22	24.4	44	2000	2.22	24.4	44
10	2000	2.22	24.4	44	2000	2.22	24.4	44
11	2000	2.22	24.4	44	2000	2.22	24.4	44
12	2000	2.22	24.4	44	2000	2.22	24.4	44
13	2000	2.22	24.4	44	2000	2.22	24.4	44
14	2000	2.22	24.4	44	2000	2.22	24.4	44
15	2000	2.22	24.4	44	2000	2.22	24.4	44
16	2000	2.22	24.4	44	2000	2.22	24.4	44
17	2000	2.22	24.4	44	2000	2.22	24.4	44
18	2000	2.22	24.4	44	2000	2.22	24.4	44
19	2000	2.22	24.4	44	2000	2.22	24.4	44
20	2000	2.22	24.4	44	2000	2.22	24.4	44
21	2000	2.22	24.4	44	2000	2.22	24.4	44
22	2000	2.22	24.4	44	2000	2.22	24.4	44
23	2000	2.22	24.4	44	2000	2.22	24.4	44
24	2000	2.22	24.4	44	2000	2.22	24.4	44
25	2000	2.22	24.4	44	2000	2.22	24.4	44



Engineering Performance Test Report
Performance Spec (PS) Number: 2
System Voltage [V]: 42 - [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 (%)
2.98	4848	41.1	70.4	0	0	70.4	3.87	2.75	71.1
4.02	4429	40.9	83.4	0	0	83.4	4.57	3.39	74.2
5.01	4135	40.7	96.1	0	0	96.1	5.24	3.95	75.4
6.01	3928	40.5	106.6	0	0	106.6	5.78	4.49	77.7
8	3578	40.1	129.6	0	0	129.6	6.97	5.45	78.3
10.01	3323	39.8	152.1	0	0	152.1	8.11	6.34	78.3
12	3149	39.5	171.8	0	0	171.8	9.08	7.2	79.2
15	2917	39	203.6	0	0	203.6	10.64	8.33	78.3
18.01	2719	38.4	234.1	0	0	234.1	12.06	9.32	77.3
19.98	2599	38.1	254.4	0	0	254.4	12.99	9.89	76.2
24.97	2341	37.2	305.3	0	0	305.3	15.22	11.13	73.1
30.03	2151	36.5	353.3	0	0	353.3	17.27	12.3	71.2
39.98	1845	35.1	449	0	0	449	21.1	14.05	66.6
50	1635	33.8	537.6	0	0	537.6	24.34	15.57	63.9



Engineering Performance Test Report

Performance Date: PFI Number: 2
System Voltage: VAC 48 (1 - 0.025)

Test	Time	Current (A)	Power (W)	Efficiency (%)	Speed (RPM)	Torque (ft-lb)	Power (W)	Efficiency (%)	Speed (RPM)
2.01	2000	47.7	39.7	0	0	39.7	2.53	2.95	70.85
3	4000	47.5	39.5	0	0	39.5	3.39	2.95	80.85
4.01	4144	47.3	38.9	0	0	38.9	3.24	3.16	80.85
4.09	4043	47.2	38.5	0	0	38.5	4.39	3.06	81.90
5.01	3934	47.1	38.1	0	0	38.1	4.93	4.16	80.85
6	3333	46.8	37.4	0	0	37.4	4	5.06	80.85
10.01	3107	46.5	33.8	0	0	33.8	7.04	5.93	80.85
11.01	2993	46.3	32.9	0	0	32.9	8	6.06	80.85
11.01	2993	46.3	32.9	0	0	32.9	8.45	7.2	80.85
19.07	2393	45.1	198.8	0	0	198.8	13.5	9.1	70.85
24.09	2241	45.1	189.4	0	0	189.4	14.01	14.36	70.85
30	2045	43.8	276.1	0	0	276.1	16.23	11.08	77.05
39.01	1795	42.6	319.3	0	0	319.3	17.65	15.65	65.90
45	1385	40.2	393.2	0	0	393.2	22.21	14.41	58.90

