

## IM-8012-115kv + Legatus 12-60A ESC + Scorpion PF28 Prop

Motor	ESC throttle ( $\mu$ s)	voltage (V)	current (A)	force Fz (thrust) (kg)	torque MZ (torque) (N-m)	rotation speed (rpm)	electrical power (W)	mechanical power (W)	motor & ESC efficiency (%)	propeller efficiency (gf/W)	powertrain efficiency (gf/W)
IM-8012-115kv	1322.00	47.68	2.23	1.52	-0.49	1631.06	106.32	84.00	79.00	18.09	14.29
	1368.00	47.67	3.32	2.05	-0.66	1876.47	158.17	129.20	81.68	15.88	12.97
	1402.00	47.67	4.30	2.54	-0.78	2067.26	205.08	169.10	82.46	15.03	12.39
	1437.00	47.64	5.57	3.03	-0.94	2249.30	265.29	221.31	83.42	13.70	11.43
	1475.00	47.57	7.02	3.55	-1.10	2440.07	334.06	281.28	84.20	12.60	10.61
ESC	1511.00	47.49	8.58	4.06	-1.26	2623.81	407.61	346.53	85.02	11.73	9.97
	1559.00	47.37	11.10	4.82	-1.51	2854.83	525.68	450.84	85.76	10.69	9.17
	1567.00	47.31	11.63	5.01	-1.55	2894.55	550.07	470.42	85.52	10.65	9.11
Legatus 12-60	1603.00	47.22	13.70	5.49	-1.75	3024.89	646.87	554.83	85.77	9.89	8.49
	1631.00	46.98	15.61	6.09	-1.88	3190.00	733.21	627.56	85.59	9.70	8.30
	1651.00	46.84	17.25	6.51	-2.02	3274.95	808.09	691.64	85.59	9.42	8.06
PROP	1695.00	46.73	20.09	7.05	-2.23	3444.40	939.09	803.62	85.57	8.78	7.51
	1717.00	46.62	22.04	7.49	-2.36	3542.02	1027.37	877.13	85.38	8.54	7.29
	1740.00	46.47	24.40	8.07	-2.51	3679.61	1133.76	967.17	85.31	8.35	7.12
Scorpion PF28	1765.00	46.40	26.27	8.33	-2.64	3756.50	1219.03	1037.04	85.07	8.03	6.83
	1794.00	46.23	29.17	8.93	-2.82	3876.78	1348.28	1142.86	84.76	7.81	6.62
	1824.00	46.10	32.44	9.57	-3.01	4006.72	1495.56	1262.87	84.44	7.58	6.40
Battery	1860.00	45.88	36.43	10.27	-3.23	4149.56	1671.21	1402.67	83.93	7.32	6.15
	1880.00	45.72	38.91	10.78	-3.33	4258.75	1779.16	1486.11	83.53	7.26	6.06
	1897.00	45.63	40.88	11.06	-3.45	4290.78	1865.42	1550.92	83.14	7.13	5.93
12s Lipo	1923.00	45.45	45.16	11.70	-3.67	4401.57	2052.53	1691.66	82.42	6.91	5.70
	1933.00	45.33	46.18	11.73	-3.73	4400.32	2093.03	1718.85	82.12	6.83	5.61
	1963.00	45.17	49.89	12.25	-3.88	4516.63	2253.75	1836.77	81.50	6.67	5.44
	2000.00	44.87	53.53	12.90	-4.02	4606.80	2401.84	1938.34	80.70	6.66	5.37
	<b>PEAK PULL</b>										
	2000.00	46.29	59.74	14.15	-4.41	4845.13	2765.59	2236.50	80.87	6.33	5.12

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IM-8012-115kv	1253	48.88	2.36	1.52	0.51	1701	115.31	90.59	78.56	16.82	13.21
	1304	48.88	3.51	2.04	0.67	1966	171.47	138.82	80.96	14.71	11.91
ESC	1344	48.84	4.68	2.50	0.82	2176	228.52	187.70	82.14	13.34	10.95
	1383	48.79	6.04	3.01	0.98	2376	294.76	244.98	83.11	12.29	10.21
Legatus 12-60	1421	48.73	7.49	3.50	1.14	2564	365.18	306.90	83.89	11.42	9.60
	1457	48.66	9.19	4.04	1.31	2744	446.98	377.22	84.39	10.71	9.04
	1491	48.58	10.84	4.51	1.47	2902	526.50	446.09	84.73	10.12	8.57
PROP	1523	48.47	12.63	5.00	1.62	3051	612.15	519.18	84.99	9.63	8.17
	1554	48.39	14.55	5.53	1.79	3198	704.25	599.71	85.16	9.22	7.85
	1585	48.27	16.56	6.00	1.95	3335	799.32	680.63	85.15	8.82	7.51
26.1*10.7	1615	48.15	18.74	6.50	2.11	3464	902.22	766.13	85.00	8.48	7.20
	1738	47.81	29.95	8.82	2.86	4020	1432.13	1205.60	83.90	7.32	6.16
Battery	1790	47.55	35.52	9.82	3.18	4226	1688.97	1406.37	83.27	6.98	5.81
	1854	47.43	40.01	10.35	3.46	4335	1850.00	1571.91	82.60	6.58	5.60
12s Lipo	1864	47.25	44.71	11.28	3.66	4520	2112.73	1731.80	81.97	6.51	5.34
	2000	46.92	54.90	12.70	4.13	4782	2575.69	2066.53	80.23	6.15	4.93