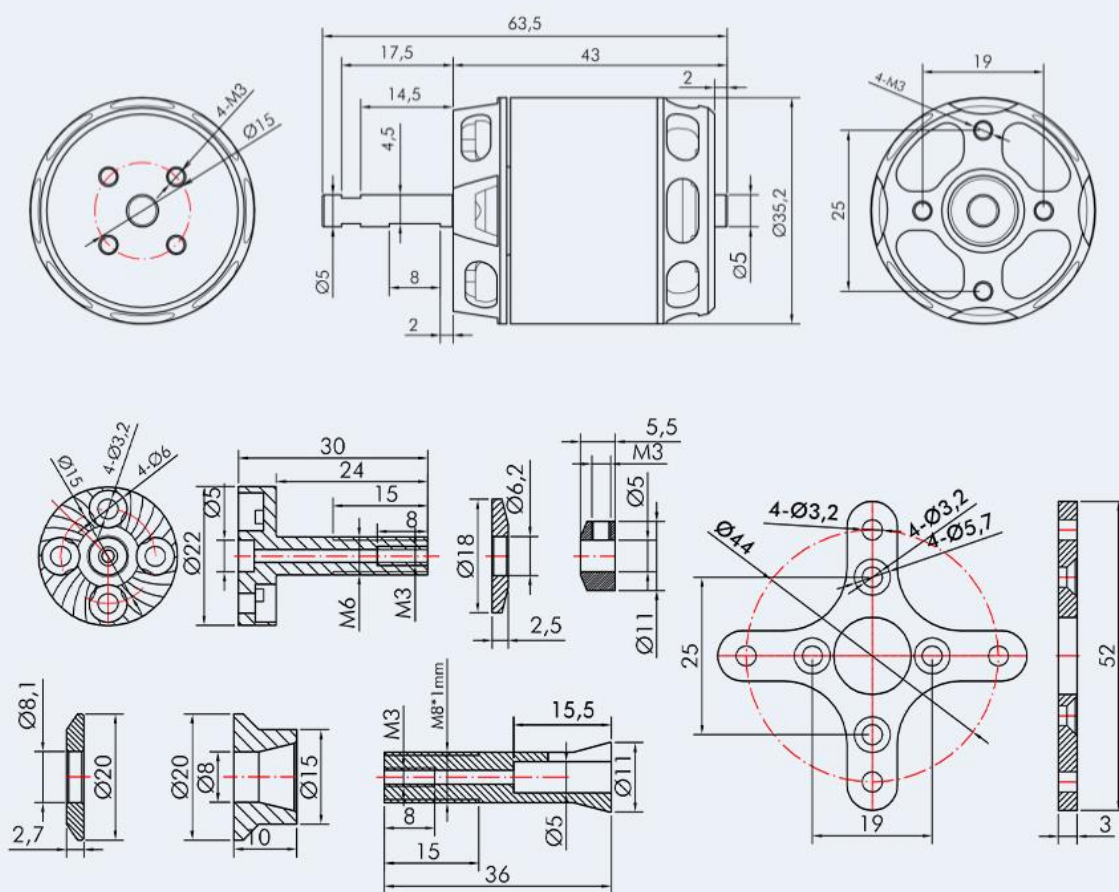


T-Motor AT2820

Product Drawing



Specifications

Test Item	Long Shaft KV880	Weight (Incl. Cable)	139g
Motor Dimensions	Φ35.2*63.5mm	Internal Resistance	39mΩ
Lead	Enameled Wire 100mm	Configuration	12N14P
Shaft Diameter	IN: 5mm OUT: 5mm	Rated Voltage(Lipo)	3-4S
Idle Current(10V)	1.6A	Peak Current(180s)	45A
Max. Power(180s)	700W	Recommendation	/
Test Item	Long Shaft KV1050	Weight (Incl. Cable)	139g
Motor Dimensions	Φ35.2*63.5mm	Internal Resistance	28mΩ
Lead	Enameled Wire 100mm	Configuration	12N14P
Shaft Diameter	IN: 5mm OUT: 5mm	Rated Voltage(Lipo)	3-4S
Idle Current(10V)	2.0A	Peak Current(180s)	65A
Max. Power(180s)	900W	Recommendation	/
Test Item	Long Shaft KV1250	Weight (Incl. Cable)	141g
Motor Dimensions	Φ35.2*63.5mm	Internal Resistance	16mΩ
Lead	Enameled Wire 100mm	Configuration	12N14P
Shaft Diameter	IN: 5mm OUT: 5mm	Rated Voltage(Lipo)	3-4S
Idle Current(10V)	2.7A	Peak Current(180s)	70A
Max. Power(180s)	1000W	Recommendation	/

Test Report

Type	Propeller	Throttle	Voltage (V)	Current (A)	Power (W)	RPM	Torque (N*m)	Thrust (g)	Efficiency (g/W)	Operating Temperature (°C)
AT2820 Long Shaft KV880	APC 11*7	40%	15.15	8.76	132.79	5981	0.152	856	6.44	93 (Ambient Temperature:/)
		45%	15.12	10.26	155.22	6333	0.171	955	6.15	
		50%	15.10	11.91	179.75	6675	0.190	1064	5.92	
		55%	15.07	13.53	203.93	6990	0.209	1162	5.70	
		60%	15.04	15.15	227.85	7255	0.227	1266	5.56	
		65%	15.00	17.47	261.99	7596	0.245	1390	5.30	
		70%	14.96	20.06	300.02	7975	0.278	1543	5.14	
		75%	14.91	23.03	343.28	8330	0.312	1707	4.97	
		80%	14.84	26.77	397.30	8709	0.348	1893	4.77	
		90%	14.70	35.62	523.47	9448	0.415	2275	4.35	
	100%	14.64	39.03	571.30	9685	0.443	2362	4.13		
	APC 12*6	40%	15.15	8.88	134.43	5738	0.157	946	7.04	HOT
		45%	15.12	10.58	159.95	6114	0.176	1077	6.73	
		50%	15.09	12.29	185.48	6461	0.195	1194	6.44	
		55%	15.06	14.01	211.03	6734	0.215	1320	6.25	
		60%	15.03	15.95	239.66	7033	0.242	1437	6.00	
		65%	14.98	18.74	280.67	7422	0.270	1616	5.76	
		70%	14.93	21.84	326.02	7801	0.303	1793	5.50	
		75%	14.87	25.25	375.36	8141	0.337	1992	5.31	
		80%	14.80	29.60	438.01	8514	0.382	2230	5.09	
90%		14.66	37.97	556.43	9174	0.444	2596	4.67		
100%	14.59	42.00	612.71	9413	0.472	2755	4.50			
KV880	40%	11.41	6.59	75.22	4168	0.104	642	8.53		
	45%	11.39	7.88	89.74	4441	0.114	736	8.21		

	APC 13*6.5	50%	11.36	9.29	105.54	4692	0.132	831	7.87	81 (Ambient Temperature:/)
		55%	11.34	10.67	120.98	4951	0.148	923	7.63	
		60%	11.31	12.23	138.37	5211	0.167	1026	7.42	
		65%	11.28	14.17	159.82	5524	0.189	1143	7.15	
		70%	11.23	16.88	189.66	5862	0.216	1303	6.87	
		75%	11.18	19.77	221.17	6162	0.245	1450	6.56	
		80%	11.14	22.83	254.25	6464	0.274	1614	6.35	
		90%	11.02	29.90	329.38	7018	0.332	1922	5.84	
		100%	10.97	32.73	359.09	7225	0.349	2039	5.68	
	APC 14*7	40%	11.39	7.12	81.15	3856	0.135	708	8.73	94 (Ambient Temperature:/)
		45%	11.37	8.37	95.19	4090	0.151	796	8.36	
		50%	11.35	9.86	111.92	4326	0.172	900	8.04	
		55%	11.32	11.67	132.04	4557	0.197	1023	7.75	
		60%	11.27	14.49	163.33	4905	0.229	1188	7.27	
		65%	11.22	17.27	193.82	5238	0.259	1341	6.92	
		70%	11.17	20.42	228.16	5515	0.292	1504	6.59	
		75%	11.11	24.03	266.95	5807	0.326	1678	6.29	
		80%	11.04	28.30	312.38	6093	0.365	1864	5.97	
90%		10.91	36.09	393.87	6534	0.424	2154	5.47		
100%	10.86	39.48	428.63	6691	0.447	2269	5.29			

Note: Motor temperature is motor surface temperature @100% throttle running 10mins.  
(Date above based on benchtest are for reference only, comparion with that of other motor types is not recommended.)

Type	Propeller	Throttle	Voltage (V)	Current (A)	Power (W)	RPM	Torque (N*m)	Thrust (g)	Efficiency (g/W)	Operating Temperature (°C)
AT2820 Long Shaft KV1050	APC 11*5.5	40%	15.10	11.63	175.58	7044	0.168	1045	5.95	96 (Ambient Temperature:/)
		45%	15.06	13.78	207.57	7454	0.192	1184	5.71	
		50%	15.02	16.06	241.26	7836	0.213	1314	5.44	
		55%	14.98	18.36	275.07	8161	0.235	1448	5.27	
		60%	14.94	20.74	309.94	8483	0.253	1577	5.09	
		65%	14.91	22.92	341.60	8741	0.277	1699	4.97	
		70%	14.85	25.91	384.80	9093	0.302	1847	4.80	
		75%	14.78	30.29	447.71	9548	0.343	2070	4.62	
		80%	14.71	34.91	513.46	9976	0.379	2266	4.41	
		90%	14.53	45.49	661.09	10726	0.459	2691	4.07	
	100%	14.42	52.39	755.33	11048	0.502	2860	3.79		
	APC 11*8	40%	15.08	12.57	189.55	6316	0.197	1034	5.46	HOT
		45%	15.03	15.40	231.52	6775	0.228	1190	5.14	
		50%	14.99	17.93	268.71	7162	0.254	1324	4.93	
		55%	14.94	20.73	309.74	7452	0.282	1476	4.77	
		60%	14.89	23.85	355.09	7826	0.311	1615	4.55	
		65%	14.82	27.90	413.55	8247	0.347	1789	4.33	
		70%	14.77	31.10	459.34	8570	0.375	1931	4.20	
		75%	14.68	36.36	533.78	8998	0.419	2135	4.00	
		80%	14.59	42.03	613.13	9405	0.460	2331	3.80	
		90%	14.39	54.37	782.26	10043	0.547	2695	3.45	
	100%	14.28	60.78	867.87	10356	0.581	2823	3.25		
	APC 12*6	40%	11.35	8.84	100.36	5187	0.129	765	7.62	82 (Ambient Temperature:/)
		45%	11.32	10.43	118.07	5476	0.147	864	7.32	
		50%	11.29	12.23	138.14	5790	0.165	969	7.01	
		55%	11.26	13.94	156.96	6095	0.181	1064	6.78	
		60%	11.23	15.61	175.35	6344	0.197	1161	6.62	
		65%	11.20	17.40	194.97	6609	0.212	1249	6.41	
		70%	11.16	20.23	225.72	6963	0.237	1399	6.20	
		75%	11.11	23.16	257.21	7254	0.262	1539	5.98	
		80%	11.04	27.34	301.75	7636	0.297	1739	5.76	
		90%	10.90	35.69	389.18	8269	0.356	2077	5.34	
	100%	10.83	40.02	433.53	8549	0.385	2215	5.11		
	APC 13*6.5	40%	11.34	9.19	104.22	4624	0.147	809	7.76	97 (Ambient Temperature:/)
		45%	11.31	11.11	125.63	4954	0.168	931	7.41	
		50%	11.27	13.29	149.84	5268	0.191	1063	7.10	
55%		11.24	15.42	173.28	5508	0.214	1192	6.88		
60%		11.21	17.51	196.23	5788	0.235	1303	6.64		
65%		11.14	21.32	237.42	6161	0.268	1487	6.26		
70%		11.08	24.78	274.57	6470	0.301	1667	6.07		
75%		11.01	28.76	316.76	6814	0.329	1833	5.79		
80%		10.94	33.15	362.71	7140	0.363	2007	5.53		
90%		10.78	43.09	464.60	7706	0.425	2351	5.06		
100%	10.71	47.69	510.55	7938	0.455	2496	4.89			

Note: Motor temperature is motor surface temperature @100% throttle running 10mins.  
(Date above based on benchtest are for reference only, comparion with that of other motor types is not recommended.)

Continued below

Type	Propeller	Throttle	Voltage (V)	Current (A)	Power (W)	RPM	Torque (N*m)	Thrust (g)	Efficiency (g/W)	Operating Temperature (°C)
AT2820 Long Shaft KV1250	APC 9*6	40%	15.02	15.68	235.58	9026	0.172	1045	4.44	98 (Ambient Temperature:/)
		45%	14.98	18.29	273.97	9437	0.194	1166	4.25	
		50%	14.93	21.14	315.70	9975	0.216	1290	4.09	
		55%	14.88	24.08	358.32	10391	0.238	1408	3.93	
		60%	14.84	26.45	392.53	10766	0.255	1514	3.86	
		65%	14.79	29.36	434.32	11114	0.275	1598	3.68	
		70%	14.73	32.79	483.11	11398	0.297	1704	3.53	
		75%	14.67	36.84	540.35	11780	0.319	1797	3.33	
		80%	14.58	42.30	616.66	12354	0.359	1973	3.20	
		90%	14.38	54.29	780.98	13244	0.430	2274	2.91	
	100%	14.25	62.15	885.82	13692	0.472	2419	2.73		
	APC 10*5.5	40%	15.00	15.57	233.55	8400	0.191	1220	5.23	HOT
		45%	14.95	18.59	277.88	8903	0.215	1356	4.88	
		50%	14.89	22.03	328.11	9342	0.242	1522	4.64	
		55%	14.84	24.99	370.91	9635	0.266	1674	4.51	
		60%	14.79	28.24	417.54	10031	0.287	1795	4.30	
		65%	14.72	32.03	471.55	10395	0.315	1964	4.16	
		70%	14.66	35.77	524.50	10770	0.341	2109	4.02	
		75%	14.56	41.76	608.16	11154	0.370	2267	3.73	
		80%	14.46	48.28	697.99	11720	0.419	2545	3.65	
		90%	14.23	62.25	885.76	12569	0.498	2966	3.35	
	100%	14.11	69.57	981.39	12883	0.534	3136	3.20		
	APC 11*8	40%	11.27	13.76	155.17	5814	0.166	871	5.61	78 (Ambient Temperature:/)
		45%	11.23	16.54	185.73	6227	0.190	993	5.35	
		50%	11.18	19.41	217.02	6584	0.213	1114	5.13	
		55%	11.13	22.38	249.05	6925	0.235	1226	4.92	
		60%	11.08	25.53	282.78	7258	0.259	1344	4.75	
		65%	11.01	29.61	325.97	7603	0.287	1495	4.59	
		70%	10.96	32.94	360.94	7899	0.310	1612	4.47	
		75%	10.88	37.52	408.28	8208	0.345	1766	4.33	
80%		10.80	42.80	462.04	8560	0.374	1928	4.17		
90%		10.62	53.36	566.90	9141	0.432	2192	3.87		
100%	10.50	60.92	639.56	9468	0.467	2358	3.69			
APC 12*6	40%	11.27	13.55	152.80	5857	0.164	979	6.41	92 (Ambient Temperature:/)	
	45%	11.23	16.38	183.85	6239	0.188	1127	6.13		
	50%	11.18	19.09	213.47	6587	0.210	1248	5.85		
	55%	11.13	22.41	249.36	6893	0.236	1398	5.61		
	60%	11.08	25.22	279.40	7205	0.257	1522	5.45		
	65%	11.02	28.68	316.16	7524	0.284	1676	5.30		
	70%	10.95	32.93	360.64	7858	0.311	1824	5.06		
	75%	10.88	37.46	407.60	8193	0.345	1997	4.90		
	80%	10.80	42.20	455.85	8491	0.368	2165	4.75		
	90%	10.60	54.62	579.02	9099	0.441	2555	4.41		
100%	10.48	61.59	645.73	9390	0.471	2712	4.20			

Note: Motor temperature is motor surface temperature @100% throttle running 10mins.  
(Date above based on benchtest are for reference only, comparion with that of other motor types is not recommended.)

## Contents



Motor×1



Parts Bag×1

(AT28Series V2.0-Aluminum Washerφ6.1\*16\*2.5mm\*1, Prop adapter φ22\*30mm-M6\*1, Washer (Non-slip design)18\*6.2\*2.5mm \*1, M6 Nut\*1, Cup-head set screwM3\*6mm\*4, Motor baseφ20\*10mm\*1, 5 to 8 Collet-style prop adapterφ11\*36mm\*1, Washer (Non-slip design)20\*8.1\*2.7mm \*1, M8 Thin Nut (Stainless Steel)M8\*1\*4mm \*2, C-Clipsφ9\*4\*3.5mm\*1, Hexagon set screwM3\*4mm\*1, Cross style motor mount25\*19\*3MM\*1, Mount screwsM3\*6mm\*4)

Please check that your package contains all the above items before use, If something is missing, please contact online customer service or leave message to [onsales@rctigermotor.com](mailto:onsales@rctigermotor.com)