



Stator lengths available:

Model	Length (in)	mm	Cont. Watts
12030	2.8	72mm	15,000

Large diameter motor for high torque

Motor type: outrunner

Poles: 26p

Slots: 24s

Finned:

Sealed:

Sensored: Call

Gearbox(es): call

Shaft size(s): 14mm

Max RPM: 10,000

12030

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.5	2.8	91.7 ozs.	15,000	30,000
mm: 140	72	2595g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A inOz/A	Max Volts	Max Amps
12030/14	31	0.093	0.8	308.658 43.710	323	93
12030/13.5	32	0.086	0.9	299.013 42.344	313	96
12030/13	33	0.910	0.1	289.952 41.061	303	99
12030/12.5	35	0.074	0.9	273.383 38.714	286	105
12030/12	36	0.068	1.0	265.789 37.639	278	108

12030

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.5	2.8	91.7 ozs.	15,000	30,000
mm: 140	72	2595g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant		Max Volts	Max Amps
				mNm/A	inOz/A		
12030/11.5	38	0.063	1.0	251.800	35.658	263	114
12030/11	39	0.057	1.1	245.344	34.744	256	117
12030/10.5	41	0.052	1.1	233.376	33.049	244	123
12030/10	43	0.047	1.2	222.521	31.512	233	129
12030/9.5	46	0.043	1.2	208.009	29.457	217	138
12030/9	48	0.038	1.3	199.342	28.229	208	144
12030/8.5	51	0.034	1.4	187.616	26.569	196	153
12030/8	54	0.030	1.5	177.193	25.093	185	162
12030/7.5	58	0.027	1.6	164.972	23.362	172	174
12030/7	62	0.023	1.7	154.329	21.855	161	186
12030/6.5	67	0.020	1.8	142.812	20.224	149	201
12030/6	72	0.017	2.0	132.894	18.819	139	216
12030/5.5	79	0.014	2.1	121.119	17.152	127	237
12030/5	87	0.012	2.4	109.982	15.575	115	261
12030/4.5	96	0.010	2.6	99.671	14.115	104	288
12030/4	109	0.008	3.0	87.784	12.431	92	327
12030/3.5	124	0.006	3.4	77.165	10.927	81	372
12030/3	145	0.004	3.4	65.989	9.345	69	435
12030/2.5	174	0.003	4.7	54.991	7.787	57	522
12030/2	217	0.002	5.9	44.094	6.244	46	651

NEUTRONICS ENTERPRISES INC.
4631 Viewridge Ave Unit B
San Diego, CA 92123

email: info@neutronics.com
phone: 858-674-2250

<http://www.neumotors.com>

DOMESTIC CONTENT / COUNTRY OF ORIGIN

Motors may be assembled with varying degrees of domestic (USA) content. Please contact to discuss content requirements, solutions, and resulting pricing variances, if any. Baseline motors are assembled and or tested in the US or Mexico from components sourced globally, including China.

QUALITY CONTROL

Our factory is ISO 9001 certified. Quality documentation available on a custom order basis.

POWER RATINGS (Watts):

Continuous rating is the power the motor can deliver while maintaining the external housing temperatures below 100C.

MAX power rating is the power the motor can deliver beginning with motor at a temp of 20C until it reaches it's limit temperature of 100C. The exact maximum power output of a motor is dependent on a number of variables including air flow, ambient air temperature, contact cooling, etc. 100C rating is measured on the outside of the case, which allows for higher internal temperatures and a small measure of overhead.

MAX VOLTAGE

Limited by kv (RPMs per volt) times the applied voltage. Max voltage must be kept below the voltage which will spin the motor over max rpm for the motor series.

MAX AMPERAGE

See power ratings above.

MTBF RATINGS:

When used within the constraints described above, BLDC motors' primary "wear" item(s) are the bearings supporting the shaft. Bearing life is inversely affected by speed, temperature, radial and axial loads. While an MTBF figure can be generated, it would be rendered invalid by excursions beyond prescribed temperatures or load limits – such as prop strikes or side loads. MTBF must be determined on a case by case basis, and even then it would be subject to numerous exceptions.

COMPONENT SPECIFICATIONS

Winding temperature: 180C
Magnet grade: 180C UH grade
Bearings: Japanese SPB bearings

Specifications subject to change without notice.

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