



Stator lengths available:

Model	Length (in) / (mm)	Weight(g)	Continuous Watts	Base Price
2020	3.7" 93mm	624g	3,500	

High pole count for best efficiency at 4,000-6,000 rpms

Motor type: inrunner	Finned:	Gearbox(es): P32, P42
Poles: 6p	Sealed:	Shaft size(s): 8mm std, 6mm
Slots: 18s	Sensored: call	Max RPM: 40,000

2020	Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	Length	Weight	Max Cont. Watts	Max Peak Watts	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)		
												inch:	mm:
												inOz/A	g
	2020/6D/233	232	0.084	0.840	41.243	3.7	22 ozs.	3,500	7,000	172	41		
	2020/5.75D/243	243	0.077	0.877	39.376	3.7	623g			165	43		
	2020/5.5D/254	254	0.071	0.916	37.671	3.7				157	44		
	2020/3Y/258	258	0.063	0.933	37.087	3.7				155	45		

2020

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.0	3.7	22 ozs.	3,500	7,000
mm: 51	93	623g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2020/5.25D/266	266	0.064	0.960	35.971	5.094	150	47
2020/5D/279	279	0.058	1.008	34.295	4.857	143	49
2020/2.75Y/282	282	0.053	1.018	33.931	4.805	142	49
2020/4.75D/294	294	0.053	1.061	32.546	4.609	136	51
2020/4.5D/310	310	0.047	1.120	30.866	4.371	129	54
2020/2.5Y/310	310	0.044	1.120	30.866	4.371	129	54
2020/4.25D/328	328	0.042	1.186	29.172	4.131	122	57
2020/2.25Y/344	344	0.035	1.244	27.815	3.939	116	60
2020/4D/349	349	0.037	1.260	27.417	3.883	115	61
2020/3.75D/372	372	0.033	1.344	25.722	3.642	108	65
2020/2Y/388	388	0.028	1.400	24.661	3.492	103	68
2020/3.5D/399	399	0.029	1.440	23.981	3.396	100	70
2020/3.25D/429	429	0.025	1.551	22.304	3.159	93	75
2020/1.75Y/443	443	0.021	1.600	21.599	3.059	90	78
2020/3D/465	465	0.021	1.680	20.577	2.914	86	81
2020/2.75D/507	507	0.018	1.833	18.873	2.673	79	89
2020/1.5Y/517	517	0.016	1.867	18.508	2.621	77	90
2020/2.5D/558	558	0.015	2.016	17.148	2.428	72	98
2020/2.25D/620	620	0.012	2.240	15.433	2.185	65	109
2020/1.25Y/620	620	0.011	2.240	15.433	2.185	65	109
2020/2D/698	698	0.009	2.520	13.708	1.941	57	122
2020/1Y/775	775	0.007	2.800	12.346	1.748	52	136
2020/1.75D/797	797	0.007	2.880	12.006	1.700	50	139
2020/1.5D/930	930	0.005	3.360	10.289	1.457	43	163
2020/0.75Y/1033	1,033	0.004	3.733	9.263	1.312	39	181
2020/1.25D/1116	1,116	0.004	4.032	8.574	1.214	36	195
2020/1D/1395	1,395	0.002	5.040	6.859	0.971	29	244
2020/0.5Y/1550	1,550	0.002	5.600	6.173	0.874	26	271
2020/0.75D/1860	1,860	0.001	6.720	5.144	0.728	22	326
2020/0.5D/2790	2,790	0.001	10.080	3.430	0.486	14	488
2020/0.25Y/3100	3,100	0.000	11.200	3.087	0.437	13	543

2020

	Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch:	2.0	3.7	22 ozs.	3,500	7,000
mm:	51	93	623g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2020/0.25D/5580	5,580	0.000	20.160	1.715	0.243	7	977

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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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