



**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

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

2020			Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
			inch:	3.7	22 ozs.	3,500	7,000
			mm:	51	623g		
Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
<b>2020/3Y/258</b>	258	0.063	0.9	37.1	5.25	155	45
<b>2020/2.75Y/282</b>	282	0.053	1.0	33.9	4.80	142	49
<b>2020/2.5Y/310</b>	310	0.044	1.1	30.9	4.37	129	54
<b>2020/2.25Y/344</b>	344	0.035	1.2	27.8	3.94	116	60

### 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)
<b>2020/2Y/388</b>	388	0.028	1.4	24.7	3.49	103	68
<b>2020/1.75Y/443</b>	443	0.021	1.6	21.6	3.06	90	78
<b>2020/1.5Y/517</b>	517	0.016	1.9	18.5	2.62	77	90
<b>2020/1.25Y/620</b>	620	0.011	2.2	15.4	2.19	65	109
<b>2020/1Y/775</b>	775	0.007	2.8	12.3	1.75	52	136
<b>2020/0.75Y/1033</b>	1,033	0.004	3.7	9.3	1.31	39	181
<b>2020/0.5Y/1550</b>	1,550	0.002	5.6	6.2	0.87	26	271
<b>2020/0.25Y/3100</b>	3,100	0.000	11.2	3.1	0.44	13	543

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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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