



Stator lengths available:

Model	Length (in) / (mm)	Weight(g)	Continuous Watts	Base Price
2205-24S	2.1" / 53mm	325g	1,000	343.00
2207-24S	2.6" / 66mm	390g	1,400	412.00
2210-24S	2.6" / 66mm	485g	1,800	453.00
2215-24S	3.1" / 79mm	610g	2,500	893.00
2220-24S	3.6" / 91mm	720g	3,000	1,098.00
2230-24S	4.6" / 117mm	1100g	4,000	1,373.00

Motor type: inrunner

Poles: 8p

Slots: 24s

Finned: Optional

Sealed: Optional

Sensored: Optional

Gearbox(es): P42, P62

Shaft size(s): 8mm

Max RPM: 30,000

2205-24S

	Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch:	2.3	2.1	11.5 ozs.	1,000	2,000
mm:	58	53	325g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
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2205-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	2.1	11.5 ozs.	1,000	2,000
mm: 58	53	325g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2205/24/3Y/620	620	0.036	0.7	15.4	2.19	48	41
2205/24/2.75Y/676	676	0.030	0.7	14.2	2.00	44	45
2205/24/2.5Y/744	744	0.025	0.8	12.9	1.82	40	50
2205/24/2.25Y/827	827	0.020	0.9	11.6	1.64	36	55
2205/24/2Y/930	930	0.016	1.0	10.3	1.46	32	62
2205/24/1.75Y/1063	1,063	0.012	1.1	9.0	1.27	28	71
2205/24/1.5Y/1240	1,240	0.009	1.3	7.7	1.09	24	83
2205/24/1.25Y/1488	1,488	0.006	1.6	6.4	0.91	20	99
2205/24/1Y/1860	1,860	0.004	2.0	5.1	0.73	16	124
2205/24/0.75Y/2480	2,480	0.002	2.7	3.9	0.55	12	165
2205/24/0.5Y/3720	3,720	0.001	4.0	2.6	0.36	8	248
2205/24/0.25Y/7440	7,440	0.000	8.0	1.3	0.18	4	496

2207-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	2.6	13.75 ozs.	1,400	2,800
mm: 58	66	389g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2207/24/4.5Y/276	276	0.122	0.4	34.7	4.91	109	26
2207/24/2.75Y/451	451	0.045	0.7	21.2	3.00	67	42
2207/24/2.5Y/496	496	0.038	0.8	19.3	2.73	60	46
2207/24/2.25Y/551	551	0.030	0.9	17.4	2.46	54	51
2207/24/2Y/620	620	0.024	1.0	15.4	2.19	48	58
2207/24/1.75Y/709	709	0.018	1.1	13.5	1.91	42	66
2207/24/1.5Y/827	827	0.014	1.3	11.6	1.64	36	77
2207/24/1.25Y/992	992	0.009	1.6	9.6	1.37	30	93
2207/24/1Y/1240	1,240	0.006	2.0	7.7	1.09	24	116
2207/24/0.75Y/1653	1,653	0.003	2.7	5.8	0.82	18	154
2207/24/0.5Y/2480	2,480	0.002	4.0	3.9	0.55	12	231
2207/24/0.25Y/4960	4,960	0.000	8.0	1.9	0.27	6	463

2210-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	2.6	17.1 ozs.	1,800	3,600
mm: 58	66	484g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2210/24/3Y/310	310	0.072	0.7	30.9	4.37	97	37
2210/24/2.75Y/338	338	0.061	0.7	28.3	4.01	89	41
2210/24/2.5Y/372	372	0.050	0.8	25.7	3.64	81	45
2210/24/2.25Y/413	413	0.041	0.9	23.2	3.28	73	50
2210/24/2Y/465	465	0.032	1.0	20.6	2.91	65	56
2210/24/1.75Y/531	531	0.025	1.1	18.0	2.55	56	64
2210/24/1.5Y/620	620	0.018	1.3	15.4	2.19	48	74
2210/24/1.25Y/744	744	0.013	1.6	12.9	1.82	40	89
2210/24/1Y/930	930	0.008	2.0	10.3	1.46	32	112
2210/24/0.75Y/1240	1,240	0.005	2.7	7.7	1.09	24	149
2210/24/0.5Y/1860	1,860	0.002	4.0	5.1	0.73	16	223
2210/24/0.25Y/3720	3,720	0.001	8.0	2.6	0.36	8	446

2215-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	3.1	21.6 ozs.	2,500	5,000
mm: 58	79	611g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2215/24/3Y/207	207	0.108	0.7	46.2	6.55	145	35
2215/24/2.75Y/225	225	0.091	0.7	42.5	6.02	133	38
2215/24/2.5Y/248	248	0.075	0.8	38.6	5.46	121	41
2215/24/2.25Y/276	276	0.061	0.9	34.7	4.91	109	46
2215/24/2Y/310	310	0.048	1.0	30.9	4.37	97	52
2215/24/1.75Y/354	354	0.037	1.1	27.0	3.83	85	59
2215/24/1.5Y/413	413	0.027	1.3	23.2	3.28	73	69
2215/24/1.25Y/496	496	0.019	1.6	19.3	2.73	60	83
2215/24/1Y/575	575	0.009	3.2	16.6	2.36	52	96
2215/24/1Y/620	620	0.012	2.0	15.4	2.19	48	103
2215/24/0.75Y/827	827	0.007	2.7	11.6	1.64	36	138
2215/24/0.5Y/1240	1,240	0.003	4.0	7.7	1.09	24	207

2215-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	3.1	21.6 ozs.	2,500	5,000
mm: 58	79	611g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2215/24/0.25Y/2480	2,480	0.001	8.0	3.9	0.55	12	413

2220-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	3.6	25.4 ozs.	3,000	6,000
mm: 58	91	719g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2220/24/3Y/155	155	0.144	0.7	61.7	8.74	194	31
2220/24/2.75Y/169	169	0.121	0.7	56.6	8.02	178	34
2220/24/2.5Y/186	186	0.100	0.8	51.4	7.28	161	37
2220/24/2.25Y/207	207	0.081	0.9	46.2	6.55	145	41
2220/24/2Y/233	233	0.064	1.0	41.1	5.82	129	47
2220/24/1.75Y/266	266	0.049	1.1	36.0	5.09	113	53
2220/24/1.5Y/310	310	0.036	1.3	30.9	4.37	97	62
2220/24/1.25Y/372	372	0.025	1.6	25.7	3.64	81	74
2220/24/1Y/465	465	0.016	2.0	20.6	2.91	65	93
2220/24/0.75Y/620	620	0.009	2.7	15.4	2.19	48	124
2220/24/0.5Y/930	930	0.004	4.0	10.3	1.46	32	186
2220/24/0.25Y/1860	1,860	0.001	8.0	5.1	0.73	16	372

2230-24S

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 2.3	4.6	38.8 ozs.	4,000	8,000
mm: 58	117	1098g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2230/24/3Y/103	103	0.216	0.7	92.9	13.16	291	27
2230/24/2.75Y/113	113	0.182	0.7	84.7	11.99	265	30
2230/24/2.5Y/124	124	0.150	0.8	77.2	10.93	242	33
2230/24/2.25Y/138	138	0.122	0.9	69.3	9.82	217	37

2230-24S

	Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch:	2.3	4.6	38.8 ozs.	4,000	8,000
mm:	58	117	1098g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	Torque Constant inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
2230/24/2Y/155	155	0.096	1.0	61.7	8.74	194	41
2230/24/1.75Y/177	177	0.074	1.1	54.1	7.66	169	47
2230/24/1.5Y/207	207	0.054	1.3	46.2	6.55	145	55
2230/24/1.25Y/248	248	0.038	1.6	38.6	5.46	121	66
2230/24/1Y/310	310	0.024	2.0	30.9	4.37	97	83
2230/24/0.75Y/413	413	0.014	2.7	23.2	3.28	73	110
2230/24/0.5Y/620	620	0.006	4.0	15.4	2.19	48	165
2230/24/0.25Y/1240	1,240	0.002	8.0	7.7	1.09	24	331

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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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