



Stator lengths available:

Model	Length (in) / (mm)	Weight(g)	Continuous Watts	Base Price
4410	2.8" / 70mm	1786g	4,000	1,044.00
4415	3.2" / 81mm	2270g	6,000	1,155.00
4420	4.0" / 102mm	2745g	8,000	1,205.00
4430	5.0" / 127mm	3715g	10,000	1,535.00
4440	6.0" / 152mm	4675g	12,000	1,865.00

Motor type: inrunner

Poles: 12p

Slots: 36s

Finned: Optional

Sealed: Optional

Sensored: Optional

Gearbox(es): P62, P120

Shaft size(s): 14mm

Max RPM: 10,000

4410	Diam.		Length		Weight		Max Cont.	Max Peak
							Watts	Watts
	inch:	5.0	2.8	70	70	1981g	4,000	8,000
	mm:	127	70					
Motor	KV	Rm Ohms	Io @ 10v	Torque Constant		Max Volts	Max Amps	
4410/3Y/78	78	0.054	1.000	mNm/A	inOz/A	(max rpm/Kv)	(max watts/volts)	
				122.672	17.372	128	62	

4410

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.0	2.8	70 ozs.	4,000	8,000
mm: 127	70	1981g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
4410/2.5Y/94	94	0.038	1.200	101.792	14.415	106	75
4410/2Y/119	119	0.020	1.500	80.407	11.387	84	95
4410/1.5Y/160	160	0.014	2.000	59.803	8.469	63	128
4410/1Y/235	235	0.006	3.000	40.717	5.766	43	188
4410/.5Y/470	470	0.002	6.000	20.358	2.883	21	376

4415

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.0	3.2	89 ozs.	6,000	12,000
mm: 127	81	2519g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
4415/3Y/60	60	0.064	1.000	159.473	22.583	167	72
4415/2.5Y/72	72	0.044	1.200	132.894	18.819	139	86
4415/2Y/83	83	0.028	1.500	115.282	16.325	120	100
4415/1.5Y/120	120	0.016	2.000	79.737	11.292	83	144
4415/1Y/180	180	0.007	3.000	53.158	7.528	56	216
4415/.5Y/360	360	0.002	6.000	26.579	3.764	28	432

4420

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.0	4.0	108 ozs.	8,000	16,000
mm: 127	102	3056g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
4420/3Y/47	47	0.090	1.000	203.583	28.830	213	75
4420/2.5Y/55	55	0.063	1.200	173.971	24.636	182	88
4420/2Y/62	62	0.040	1.500	154.329	21.855	161	99
4420/1.5Y/85	85	0.023	2.000	112.569	15.941	118	136
4420/1Y/125	125	0.010	3.000	76.547	10.840	80	200
4420/.5Y/235	235	0.003	6.000	40.717	5.766	43	376

4430

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.0	5.0	146 ozs.	10,000	20,000
mm: 127	127	4132g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
4430/3Y/30	30	0.117	1.000	318.947	45.167	333	60
4430/2.5Y/38	38	0.081	1.200	251.800	35.658	263	76
4430/2Y/46	46	0.052	1.500	208.009	29.457	217	92
4430/1.5Y/60	60	0.029	2.000	159.473	22.583	167	120
4430/1Y/97	97	0.013	3.000	98.643	13.969	103	194
4430/.5Y/195	195	0.003	6.000	49.069	6.949	51	390

4440

Diam.	Length	Weight	Max Cont. Watts	Max Peak Watts
inch: 5.0	6.0	184 ozs.	12,000	24,000
mm: 127	152	5207g		

Motor	KV	Rm Ohms	Io @ 10v	Torque Constant mNm/A	inOz/A	Max Volts (max rpm/Kv)	Max Amps (max watts/volts)
4440/3Y/25	25	0.144	1.000	382.736	54.200	400	60
4440/2.5Y/29	29	0.100	1.200	329.945	46.724	345	70
4440/2Y/34	34	0.064	1.500	281.424	39.853	294	82
4440/1.5Y/50	50	0.036	2.000	191.368	27.100	200	120
4440/1Y/70	70	0.060	1.800	136.691	19.357	143	168
4440/.5Y/140	140	0.004	6.000	68.346	9.679	71	336

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.

Copyright (c) 2023 Neutronics Enterprises Inc.