

Astro Brushless 19 Geared Motor

p/n 819GM-5T



The New Astro 19 Brushless 5 Turn Motor is designed to fly 3 to 4 lb models. It can swing a 14 inch prop on a three cell Lithium pack and 12 inch props on a 4 cell lithium polymer battery pack. The Astro 19 is a rugged motor with a hardened steel shaft, two ball bearings and samarium cobalt magnets. The motor with Astro 701 gear box is very small. It is only 1.35 inches in diameter, 2.75 inches long and weighs only 5.8 oz. The motor is designed to run from on a three or four cell Lithium Polymer pack. On a 4 cell Lithium pack the 819GM-5T can handle over 500 watts.

Astro 819 Geared Motor Characteristics

819 Geared Motor	819GM-5T
Winding	5 turns#21x2
Speed Constant Kv	2450 rpm/volt
Torque Constant Kt	0.55 in. oz/Amp
Resistance	25 milliohms
No load current	1.4 amps
Gear ratio	2.8 to 1
Speed Constant w Gear	875 rpm/volt
Rotor	4 pole SMCO
Stator Lamination	12 Slot
Bearings	Ball Bearings
Diameter	1.35 inches
Length w gearbox	2.75 inches
Weight w gearbox	5.8 ounces
Prop Shaft	¼ inch
Prop Nut	1/4 -28
Connectors	Astro zero loss
Max Lithium	4 cells
Max Continuous Amps	45 Amps
30 Second Burst Amps	60 Amps
Maximum Power	600 Watts

Measured Performance on 11.1 Volts (Simulating a 3 cell lithium battery)

Prop	Amps	Watts	Rpm
10 x 5 APCE	18.5 amps	210 watts	8,800 rpm
11 x7 APCE	28 amps	312 watts	8,000 rpm
12 x 6 APCE	32 amps	355 watts	7,600 rpm
13 x6.5 APCE	38 amps	416 watts	7,200 rpm
14 x 7 APCE	45 amps	475 watts	6,800 rpm

Measured Performance on 14.8 Volts (Simulating a 4 cell lithium battery)

Prop	Amps	Watts	Rpm
10 x 5 APCE	30 amps	425 watts	11,100 rpm
11 x 7 APCE	45 amps	650 watts	9,800 rpm

Other parts you may need

p/n	Name	Price
101	Super Whattmeter	\$54.95
105	Servo Tester	\$24.95
106	Blinky cell balancer	\$29.95
123	Lithium Ion charger	\$109.95
110	Deluxe Charger 1-24 cells	\$109.95
521	Astro 3 pin Connectors	\$16.99
525	Astro 2 pin Connectors	\$11.99
549	Blinky to Thunder Power	\$5.00

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