

Made in the U.S.A.!

AMMOTM

20-SIZE BRUSHLESS MOTORS



Model 20-3600



Model 20-4300



Model 20-5100
(shown actual size)

Ammo Motors Specifications:

- Can Length: 1.57 in (40mm)
- Can Diameter: 0.79 in (20mm)
- Weight: 2.0 oz (58g)
- Shaft Length: 0.39 in (10mm)
- Shaft Diameter: 0.09 in (2.3mm)



More flight time per pack. More raw power for 3D stunts. Split-second response on demand. Ammo Motors' patented windings and brushless, slotless design have the efficiency to deliver all three affordably for everything from hotliner "bullets" to high-alpha 3D aerobats.

- Exceptionally high power-to-weight ratio! Compact 3600, 4300 and 5100 kV models add only 2 oz (57.7g) to aircraft weight.
- Ideal for direct-drive or gear-drive applications.
- Made in the U.S.A. from top-quality materials. Includes: a 1-piece can machined from aircraft-grade aluminum, Neodymium rare earth magnets, shielded ABEC 3 ball bearings, stainless steel output shaft and gold-plated bullet connectors.
- High-efficiency design produces minimal waste heat and extends motor life to the max.
- Exceptionally reliable, virtually maintenance-free and protected by a full, 2-year warranty.
- Minimizes "glitching" with extra-low RF and EMI (Electromagnetic Interference) emissions.

Ammo Brushless Motors: high performance made affordable.



Windings: the Ammo Motor "edge" in efficiency and top performance!

All electric motors have windings. But the winding method in Ammo Brushless Motors is so innovative and advanced that it's protected by two patents!



Each winding starts out as a hollow rectangle of fine copper wire...



which is folded over to form overlapping layers of wire...



and rolled into a tightly packed, full-length cylinder of pure copper that surrounds the rotor.

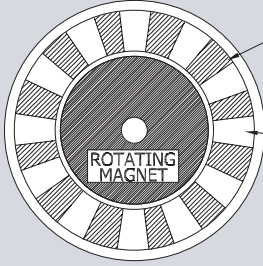
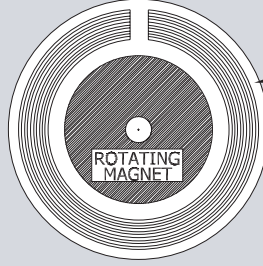
Stock #	Model	Input (# of Cells)	RPM/V (kV)	Maximum Current (A)	
				Constant	Surge
GPMG5000	20-3600	6-10	3600	10-12	18-20
GPMG5005	20-4300	6-10	4300	10-12	18-20
GPMG5010	20-5100	6-10	5100	10-12	18-20

Motor Type	Brushed	Brushless & Slotted	Ammo Brushless & Slotless
Cost to Produce	lowest	higher	highest
Efficiency	30-40%	70-78%	up to 87%
Power-to-weight	worst	better	best
Run time	worst	better	best
Response	worst	better	best
Maintenance	most	virtually none	virtually none

For more information on Ammo brushless motors or the location of the hobby dealer nearest you, please visit www.electrifyfly.com or phone 1-800-682-8948 and mention code number 99G30.

See other side for the differences between slotted motors and slotless efficiency!

The Slotted Motor vs. Ammo Slotless Motors

CHEAPER SLOTTED MOTOR	ELECTRIFLY AMMO SLOTLESS MOTOR
 <p>HEAVY IRON "TEETH" - WINDINGS ARE WRAPPED AROUND OR BETWEEN TEETH</p> <p>LARGER AIR GAPS BETWEEN TEETH = LOWER EFFICIENCY AND RESPONSIVENESS</p> <p>ROTATING MAGNET</p>	 <p>NO HEAVY IRON TEETH - MORE TIGHTLY PACKED COPPER WINDINGS</p> <p>* PATENTED METHOD FOR WINDING AND PACKING LIGHTWEIGHT COPPER INSIDE MOTOR = MUCH SMALLER AIR GAPS, MUCH HIGHER EFFICIENCY AND RESPONSIVENESS</p> <p>ROTATING MAGNET</p> <p>* Patent numbers 5,294,855 and 5,197,180</p>

Windings are wrapped around heavy iron teeth (shaded area) to create magnetic poles. This leaves air gaps (white area) between windings which produce no power and reduce efficiency. The iron teeth not only create strong forces that enhance rotor movement, but weak attractive forces which resist it. Overcoming this "cogging" adds to the motor's current draw, which wastes energy, lowers efficiency and creates waste heat.

In place of iron teeth and air gaps that limit efficiency, Ammo Motors optimize it with a slotless design and patented winding method that maximizes the amount of power-producing copper in the can. Copper's much lower inductance virtually eliminates "cogging", resulting in smoother, faster response to changes in throttle settings, especially at higher speeds.

MORE FOR ELECTRIC FLIGHT FROM ELECTRIFLY.

Li-Po Battery Packs



Once for ounce, Lithium-Polymer (Li-Po) cells offer more power than either NiCd or NiMH cells, and add less to all-up weight! And because they're high-discharge cells, they're great for electric flight and other high-drain applications. ElectriFly's innovative SafeCharge™ circuitry monitors and limits charge voltage, protecting cells and packs from overcharging. All packs include leads, plus a standard 2-pin red connector for charging and a separate connector for discharging. Type of discharge connector varies. They include: 2-pin white (GPMP0800, 0801), black Molex® (GPMP0810, 0811) and Deans Ultra (GPMP0820-0831). Wafer-thin **Parallel Boards** can connect up to five Li-Po Packs and boost current-carrying capacity.

- GPMP0800 Lithium-Polymer 350mAh 7.4V 2-Series Pack
- GPMP0801 Lithium-Polymer 350mAh 11.1V 3-Series Pack
- GPMP0810 Lithium-Polymer 720mAh 7.4V 2-Series Pack
- GPMP0811 Lithium-Polymer 750mAh 11.1V 3-Series Pack
- GPMP0820 Lithium-Polymer 1200mAh 7.4V 2-Series Pack
- GPMP0821 Lithium-Polymer 1200mAh 11.1V 3-Series Pack
- GPMP0830 Lithium-Polymer 1500mAh 7.4V 2-Series Pack
- GPMP0831 Lithium-Polymer 1500mAh 11.1V 3-Series Pack
- GPMP0898 Parallel Board Molex Plug
- GPMP0899 Parallel Board Deans Ultra Plug

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Triton™ NiMH Cd Computerized Peak Charger, Discharger and Cycler



The only thing that matches the Triton's versatility is the ease with which modelers can use it.

It can peak charge 1-24 NiCd or NiMH cells, or fully charge 1-4 cell Li-Ion or Li-Po packs and 3, 6 or 12 lead acid cells.

Pushbuttons let you select cell type and menus in seconds; a unique rotating dial makes it easy to scroll through menus, set up custom battery routines and store up to 10 routines for later use. Triton's bright, 32-character LCD displays programming as it's entered, provides updates of capacity, battery voltage, current and time as batteries charge and produces data from the last ten cycles on demand. Small and lightweight, it features a durable aluminum case and a built-in cooling fan to improve efficiency and extend life. Requires 12V DC power. **GPMM3150**



PolyCharge Charger

DC Charger for 1-3 cell Li-Po Batteries

Dimensions: 2.2 in x 3.5 in x 0.9 in (55x88x23mm)
Weight: 4.35 oz (123g)

With the PolyCharge, charging 1-3 cell Li-Po packs is just what it should be: fast, easy and affordable. The only set-up is choosing from 250, 500 or 1,000mA rates. Charging starts automatically when the pack is connected and ends when the pack is fully charged. A buzzer and bright blue LED alert you to both, plus: high/low input voltage, reverse polarity (on output) and a loose/broken connection between the pack and PolyCharge. Includes alligator clips on 30" lead and a red 2-pin connector. Requires 11-15V DC power. **GPMM3010**

