

NEW

96-Series 48V Alternators

Mid-Duty Cycle, Large Frame Alternators

- 60A (2.9 kW) or 100A (4.8 kW) at 48 Volts
- Low Turn-On Thresholds
- Low Power Take Off at Idle Speed
- Designed for External Regulation using the Balmar MC-620 Regulator
- Ideal for 48V Lithium Battery Banks



96-48-60-K6

96-48-100-K8

New 96-Series Alternators from Balmar establish a new standard for emerging 48V battery banks and inverter systems.

Paired with the **New MC-620 Regulator**, now you can combine the advantages of Balmar's legendary multi-stage regulation capability in a 48V charging system. Offered in two power packages of 60A and 100A, these high power alternators provide 2.9 kW and 4.8 kW of charging power, respectively.

48V systems fill the need for ever-increasing power needs from DC battery systems. DC air-conditioning and cooking, for example, can stretch 12V and 24V systems beyond practical application. The benefits of a 48V system include much more efficient components, such as chargers and inverters, manageable cable sizes, and of course higher output alternators in reasonable package sizes. Lithium batteries can be charged at very high rates – a 48V system can accomplish this in a cost effective way. With lower 1,325 RPM (60A) and 2,250 RPM (100A) cut-in speeds than the competition, the 96-Series starts making power earlier at low RPM, limiting the need for complex pulley schemes or over-throttling the engine at idle.



MC-620-H



MC-TS-A
MC-TS-B

Contact Balmar Tech Service to learn more about the **New 96-Series Alternators!**

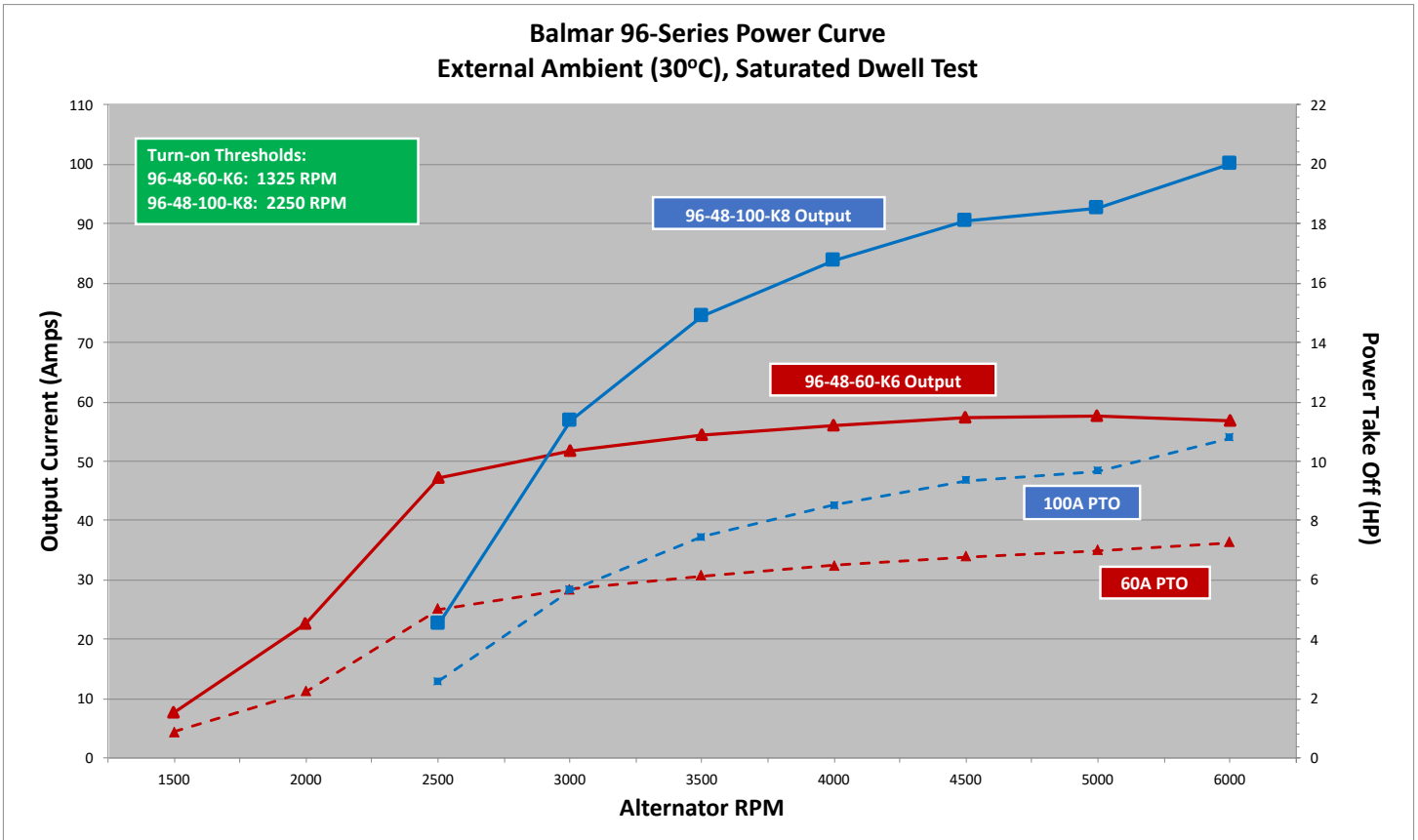
| Part Number ⁽¹⁾ | Output | | Power Take Off | Mounting Style | Standard Pulley |
|----------------------------|------------------------|------|---|-------------------------|-----------------|
| | Volts | Amps | | | |
| 96-48-60-K6 | 48V | 60A | Up to 8 HP | Dual Foot 4" (J-180) | K6 (2.7" Dia.) |
| 96-48-100-K8 | | 100A | Up to 11 HP | | K8 (2.5" Dia.) |
| Part Number | Power Input | | Battery Profiles | | |
| MC-620-H | 12V | | Universal, Deep Cycle Flooded, Gell Cell, AGM, Spiral Wound Flooded, Standard Flooded, Halogen, Lithium | | |
| MC-TS-A | Alternator Temp Sensor | | | | |
| MC-TS-B | Battery Temp Sensor | | | | |

(1) Balmar's 96-Series 48V Alternators are designed to be used with the MC-620 Multi-Stage Regulator.

Caution: The MC-620 Regulator requires a 12V power input. The MC-620 Regulator requires up to 12V to power the device, it cannot be powered from a 48V source.

Alternator Output Curves

Alternator output is dependent upon a number of factors: battery condition and capacity, wire size, engine horsepower and RPM, battery temperature and alternator temperature. Of these factors, alternator speed and temperature are most important. The following graph describes alternator output based ambient (30°C) conditions where the alternator dwells at a specific RPM until the temperature stabilizes. Test voltages are set at 13.5V.



96-Series Alternator Specifications

| | |
|--|---|
| Alternator Style: Large Case, Positive Field Excitation (P-Type) | AC/Stator Output: 12 Poles Stator Output Wire included in Pigtail Plug |
| Regulation: External P-Type (MC-620) The Alternator Will Not Operate without the MC-620 External Regulator. 12V Supply to Regulator Required | B+ Positive Output: Threaded Stud, M8 x 1.25" B- Terminal: Threaded Stud, M6 x 1.0" L Terminal: Threaded Stud, M5 x 0.8" |
| Cooling: Dual Internal Fans | Grounding: Case Ground |
| Bearings: Sealed Bearings, Heavy Duty Radial (front & rear) | Mounting Style: 4" Dual Foot Saddle (J-180) |
| Case Construction: Ventilated Cast Aluminum | Diodes +/-: 6 Positive, 6 Negative; 50A Rated |
| Finish: Clear Anodize | Weight: 9kg (19.8 pounds) |
| Tensioning Arm Mount: 13mm (1/2") Mounting Foot Bore: 13mm (1/2") | Normal Operating Temperature: 180°F / 82°C Max Operating Temperature: 225°F / 108°C |
| Low RPM Cut-In: 60A: 1,325 rpm, 100A: 2,250 rpm | Max Alternator RPM: 12,000 rpm |
| Ignition Protection Ratings: TBD | |