

## 97EHD-Series Heavy Duty-Cycle, Extra-Large Frame Alternators

- Designed for Continuous-Duty Operation
- Case Ground or Isolated Ground Terminations Available
- Bi-Directional Cooling Fan
- Maximum RPM: 7,000
- External Regulation Required
- USCG Title 33 Compliant

**Extra-Large Case 97EHD-Series Alternators** are appropriate for large diesel applications such as Caterpillar, Cummins, MAN, MTU and John Deere to service large battery banks and high DC loads.

Paired with either the **MC-614** or **MC-624 Regulators**, you can combine the advantages of Balmar's legendary multi-stage regulation capability with heavy duty-cycle, large-frame alternators.

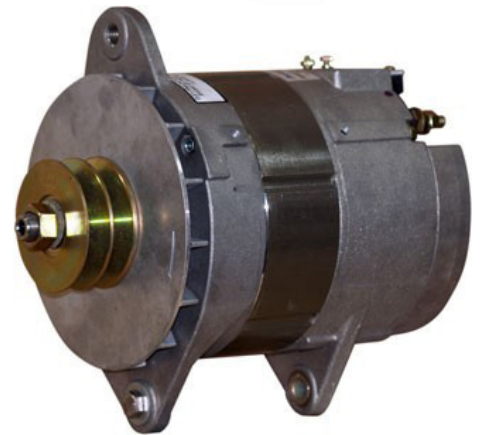
Offered in multiple power packages, these charging systems provide from 2.0kW up to 4.6kW of charging power. With lower cut-in speeds than the competition, the 97EHD-Series starts making power earlier at low RPM, limiting the need for complex pulley schemes or over-throttling the engine at idle.

By adding the **97EHD-Series Alternator** in a second alternator position, the output of a small genset can be obtained, thereby eliminating the maintenance and space requirements of a generator. **97EHD-Series Alternators** are ideal for fast charging of Lithium battery banks without over-stressing the alternator.

Contact Balmar Tech Service to learn more about the **97EHD-Series Alternators!**



97EHD-Series  
85A & 110A, 24V



97EHD-Series  
190A, 24V Model

| Part Number <sup>(2)</sup>       | Output |      | Mounting Style               | Minimum Pulley               |
|----------------------------------|--------|------|------------------------------|------------------------------|
|                                  | Volts  | Amps |                              |                              |
| 97EHD-185-12(-IG) <sup>(3)</sup> | 12     | 185  | Dual Foot 4"<br>(J180-style) | 1/2" Dual Vee <sup>(1)</sup> |
| 97EHD-265-12(-IG) <sup>(3)</sup> |        | 265  |                              |                              |
| 97EHD-85-24-IG                   | 24     | 85   |                              |                              |
| 97EHD-110-24-IG                  |        | 110  |                              |                              |
| 97EHD-190-24(-IG) <sup>(3)</sup> |        | 190  |                              |                              |

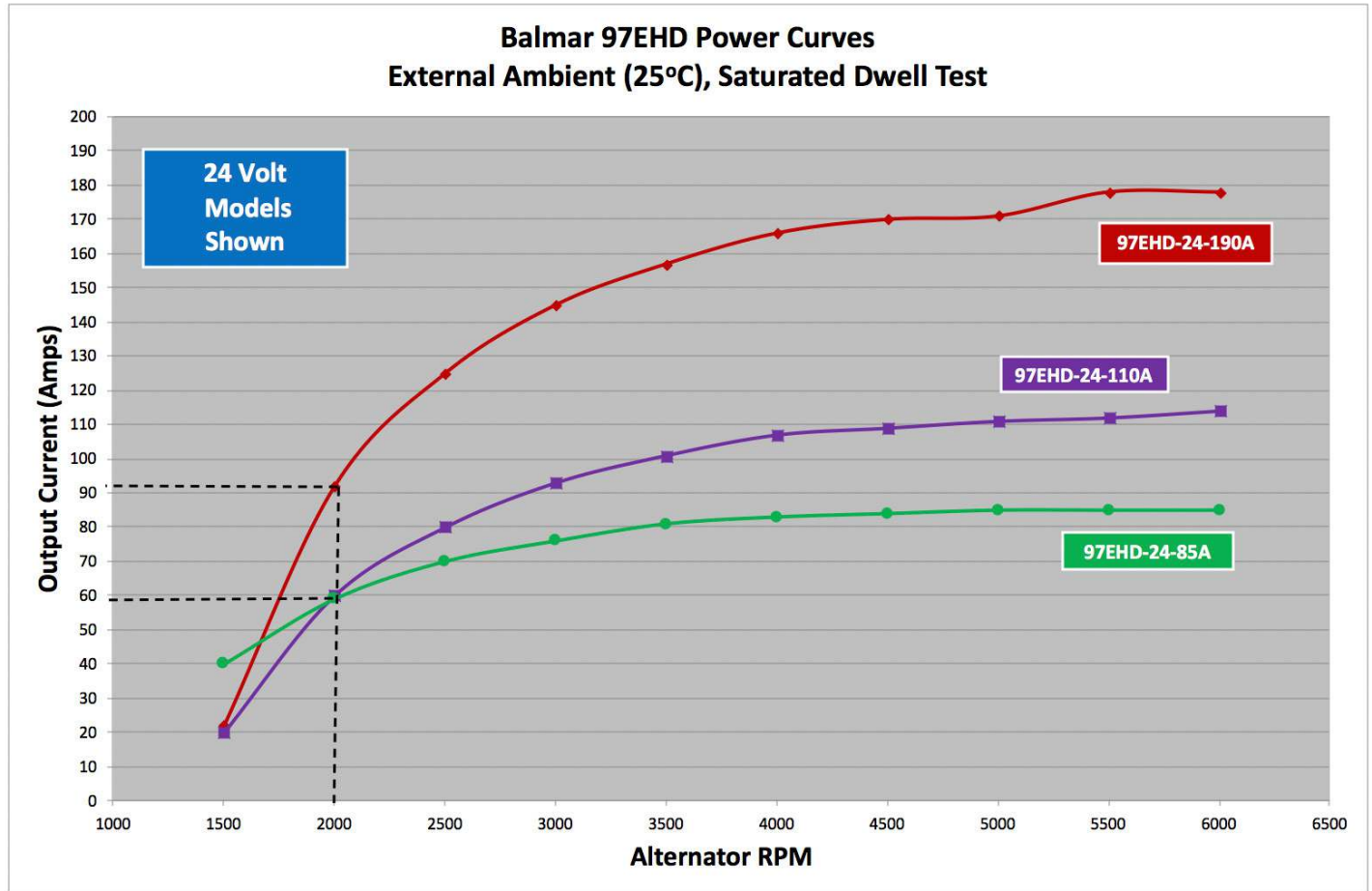
(1) All 9-Series Alternators can be outfitted with K6 or K8 Serpentine Pulleys.

(2) 97EHD Alternators are designed to be used with Balmar Multi-Stage Regulators

(3) Some 97EHD Alternators can be delivered with either Case or Isolated Ground (-IG).

### 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 (25°C) conditions where the alternator dwells at a specific RPM until the temperature stabilizes. Test voltages are set at 27.0V.



### 97EHD-Series Alternator Specifications - 190A (24V) IG Version

|  |   |
|--|---|
| <b>Alternator Style:</b> Large Case, Positive Field Excitation (P-Type)            | <b>AC/Stator Output:</b> 12 Poles<br>Stator Output Wire included (Ring Terminal)                        |
| <b>Regulation:</b> External P-Type:<br>MC-614 for 12V or MC-624 for 24V            | <b>B+ Positive Output:</b> Threaded Stud, 5/16-18<br><b>B- Terminal:</b> Threaded Stud, 5/16-18 (Qty 2) |
| <b>Cooling:</b> Bi-Directional External Fan  | <b>Grounding:</b> Case Ground or Isolated Ground Available  |
| <b>Bearings:</b> Sealed Bearings, Heavy Duty Radial (front & rear)                 | <b>Mounting Style:</b> 4" Dual Foot Saddle (J-180)  |
| <b>Case Construction:</b> Ventilated Cast Aluminum                                 | <b>Diodes +/-:</b> 6 Positive, 6 Negative; 50A Rated  |
| <b>Finish:</b> Clear Anodize   | <b>Weight:</b> 15kg (36 lbs)  |
| <b>Tensioning Arm Mount:</b> 13mm (1/2")<br><b>Mounting Foot Bore:</b> 13mm (1/2") | <b>Normal Operating Temperature:</b> 180°F / 82°C<br><b>Max Operating Temperature:</b> 225°F / 108°C    |
| <b>Low RPM Cut-In:</b> 1,400 rpm   | <b>Max Alternator RPM:</b> 7,000 rpm  |
| <b>Ignition Protection Ratings:</b> USCG Title 33 Compliant                        |   |