



# 8292HPX-100

HPX SERIES ALTERNATOR - 48/51 VOLT

Integrated DC Charging Solutions for RV Applications

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Nations Starter & Alternator

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# Dual Alternator Charging System

With today's rapidly evolving electrical DC to AC inverters, solar chargers & advanced power storage battery systems the off grid versatility options are endless. At the heart of the off grid capability is the engine driven generator option. Nations offers the most advanced system, coverage & experience pioneering the mobile charging market.

*Kit includes Alternator, Van Harness, Regulator & Mounting Kit  
Please contact us for more information*

**One Source for your charging system needs!**

## Highlights

- Dedicated Secondary Alternator System
- 48/51 Volt for most Class B Vehicles
- Wakespeed WS500 Advanced Regulator
- Simplified click-n-go harness to easy installation
- For Mercedes Sprinter, Ram Promaster, Ford Transit & More





Custom designed using the latest in high energy rotating electrical technology. The HPX series utilizes carefully selected components to provide performance & dependability that Nations is known for.

**SIMPLY THE BEST COMPACT APPLICATION  
SPECIFIC ALTERNATOR ON THE MARKET**

## **HPX SERIES**

**48/51 VOLT**

# **8292HPX-100**

### **100 AMP MAX OUTPUT**

Software Regulated

### **5.5KW PLUS MAX OUTPUT**

Produced safely to protect battery system

### **CAN ENABLED CHARGING SYSTEM**

Closed loop for safest lithium systems

### **OE DESIGNED COMPONENTS**

Designed with High Energy Systems in mind

### **HAIRPIN WINDINGS & INTERNAL RECTIFIER**

High efficiency & 12 Diode dual bridge

### **CUSTOM HOUSINGS WITH E-COATING**

Protection from the elements

### **INTERNAL FAN & STEEL INSERTS**

Dual cooling & reinforced in mounting ears

### **GROUND, TEMP SENSOR, THREADED BOSSES**

Dedicated connections for regulator harness

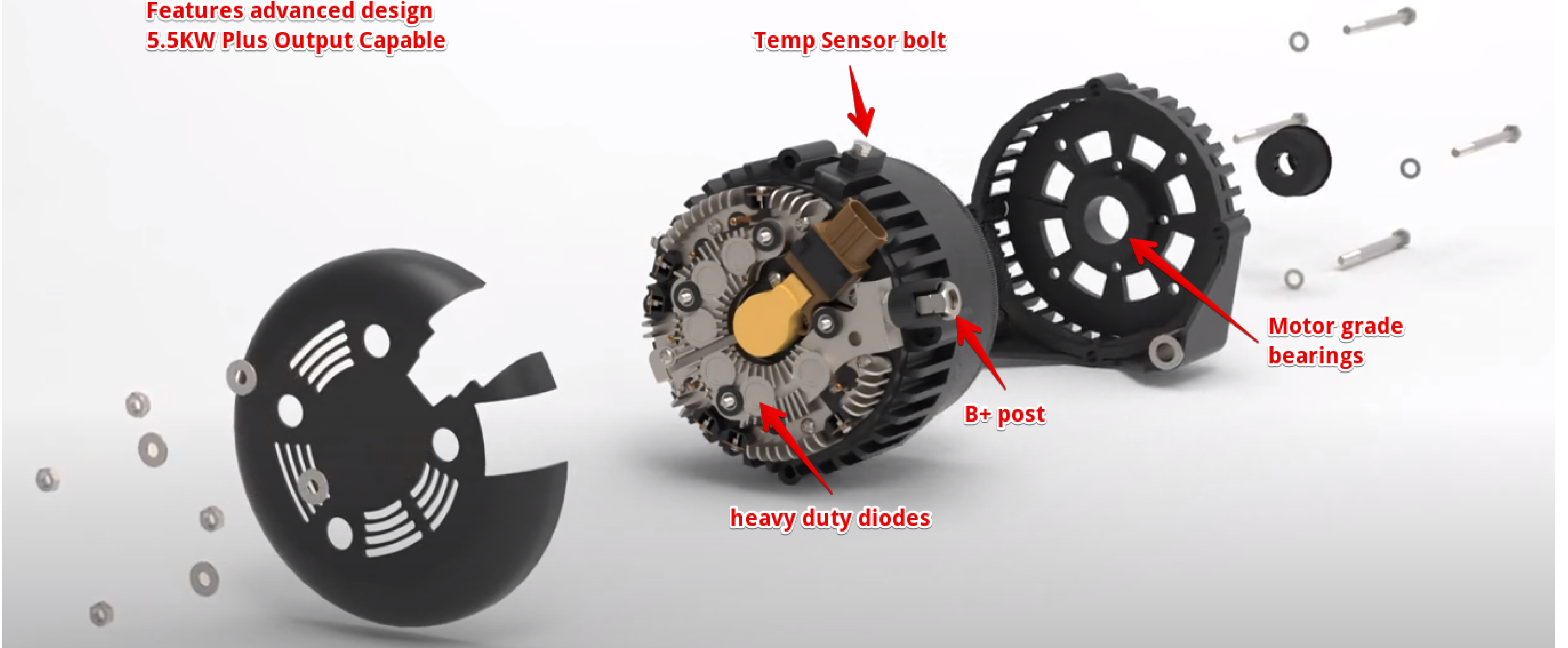
### **MOTOR GRADE BEARRINGS**

Maximum dependability & service

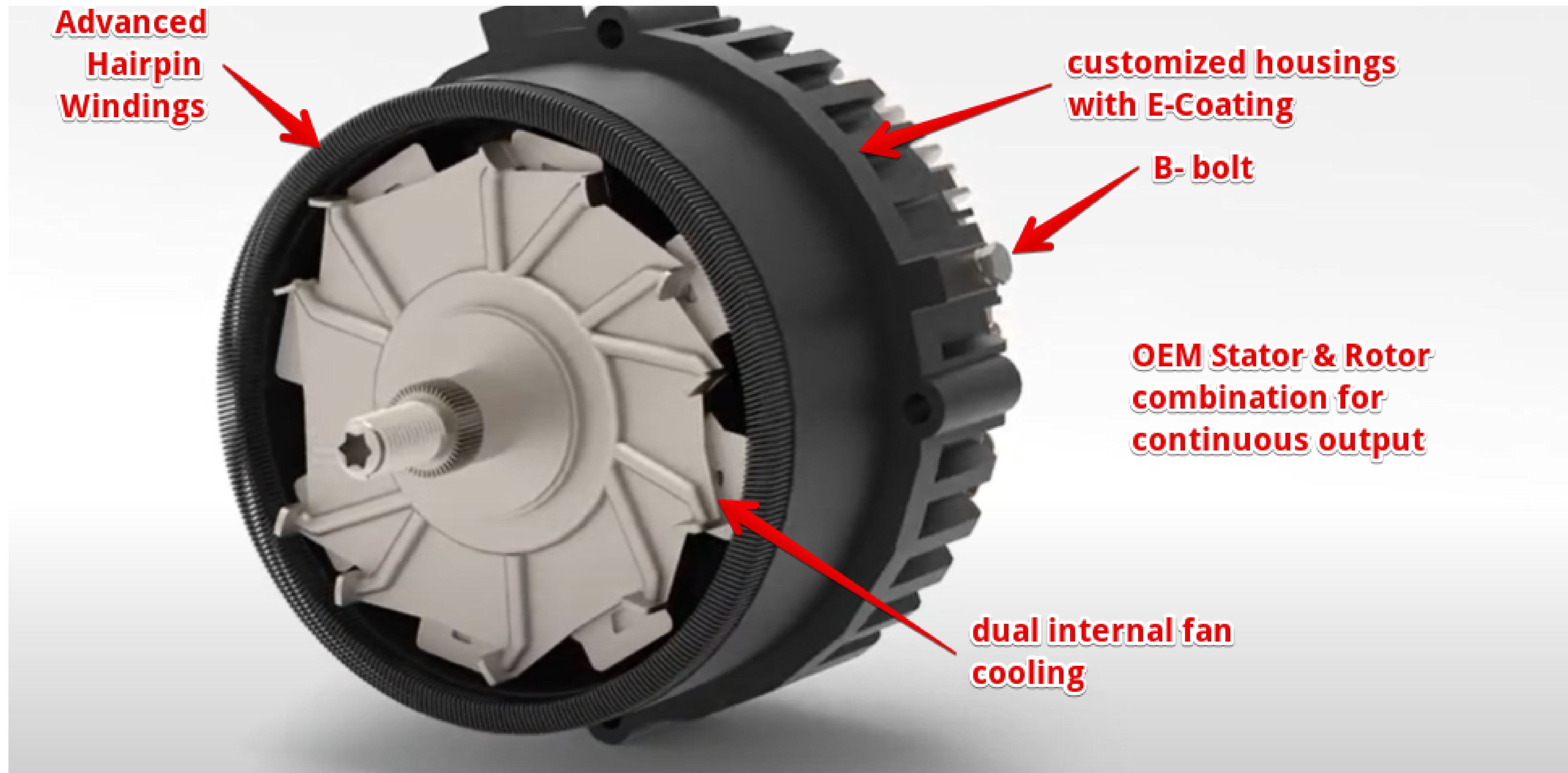


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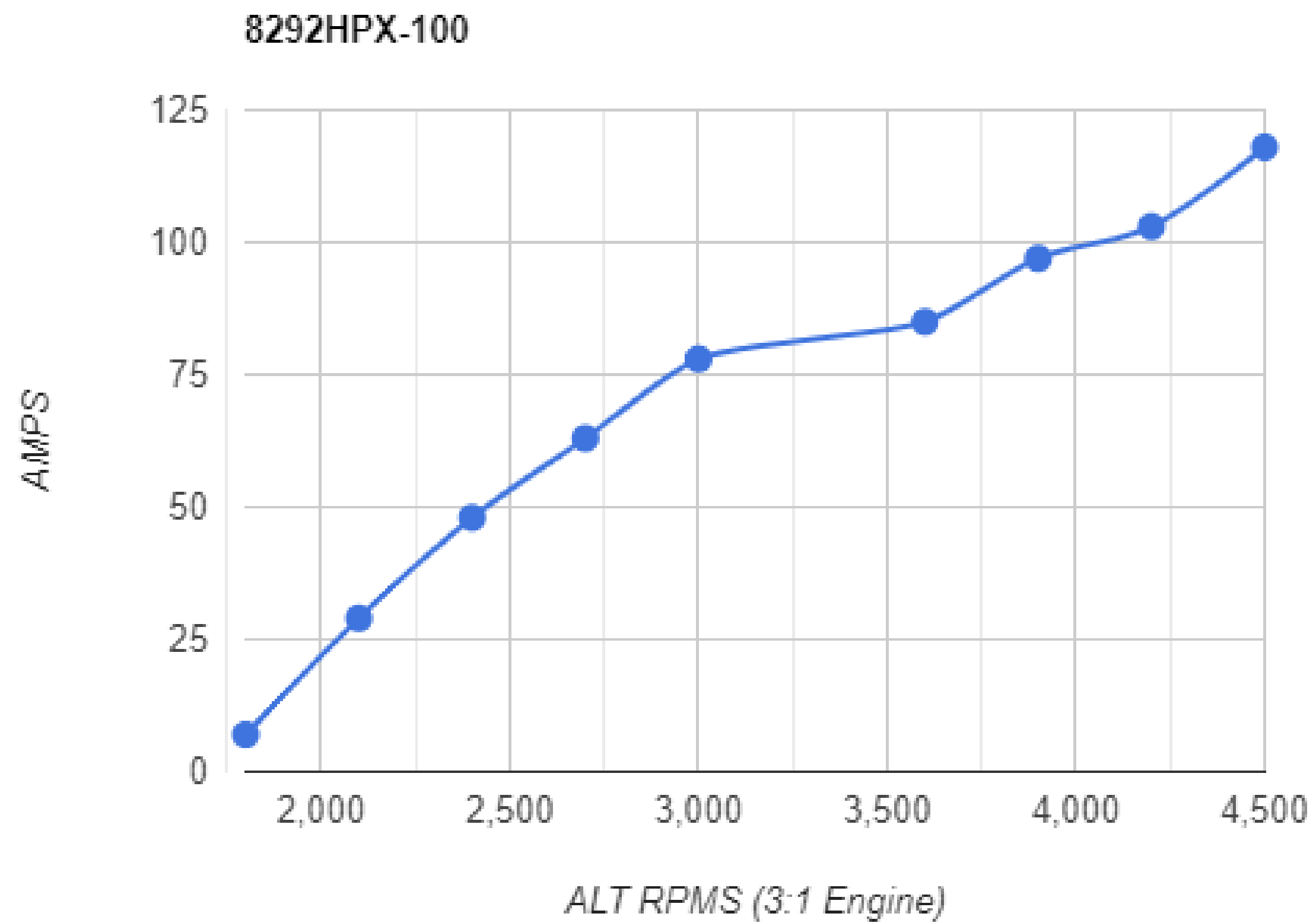
**Nations 8292HPX-100**  
**Features advanced design**  
**5.5KW Plus Output Capable**



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# Wakespeed WS500 Advanced Regulator

Ideal for RV applications, some exclusive features of the WS500 include:

- Active regulation of voltage, current, & temperatures to assure proper battery charging while protecting the system - including ensuring battery C rate is never exceeded without needing to artificially restrict the alternator capacity.
- Zero Output Technology™ allows alternators to continue to power house loads after the battery is fully charged.
- Adaptive Idle Technology™ reduces alternator load at lower engine RPM's to minimize impact on performance.
- Auto-adjusts for 12, 24, 48/51 volt systems and allows advanced user-configuration for system voltages in between.
- CAN communication for ease of install & reliable measurement of critical battery & system information such as: battery amperage/voltage, alternator & battery temperature, battery capacity & status, electrical & engine loads .
- Full BMS & Operator Display compatibility using RV-C, OSEnergy & other protocols.

In a resounding departure from the vast majority of multi-stage voltage-only regulators currently available, the WS500 uses a unique approach to charge control by factoring multiple criteria - battery voltage, current in, current out, battery temperature, alternator temperature - resulting in a smarter approach to battery & system care. Highly configurable & able to communicate via J1939 CAN protocol, the WS500 provides superior charging efficiency & safety along with the singular ability to address the specific needs of newer battery technologies like LiFePO4 & similar chemistries.



Van harness with Y adapter