# **FAST CHARGER**



The GNB® FUSION™ Series is a line of FAST industrial battery chargers that feature advanced power electronics technologies and microprocessor controls. The new line features state-of-the-art power electronics technologies, resulting in higher efficiencies, smaller size, and lower weight. The advanced on-board microprocessor controls incorporate programmable charging algorithms that can be tailored to meet your application requirements.



#### **Advantages**

- Eliminates battery changeout
- Reduces operational costs
- Improves worker productivity and safety
- Compact size and weight
- Modular Design Flexible & Reconfigurable

### **Applications**

- Industrial electric vehicles Forklift trucks and ground support equipment (GSEs)
- Electric and hybrid electric vehicles

#### **Features and Benefits**

#### Multi Voltage Capability

The GNB® FUSION™ Series is a multi-voltage multi-capacity battery charger eliminating the need for multiple chargers in a facility or plant. Users can standardize on a single fast charger from a single source simplifying installation, operation, and maintenance. With its advanced user interface, the chargers are field programmable to fit any battery size.

#### Advanced Intelligence and Controls

The GNB<sup>®</sup> FUSION™ chargers features state-of-the-art microprocessor controls and advanced user interfaces including an on-board Infra Red port. Using a PDA device (a Palm Pilot) along with user friendly Palm software, users can easily and fully program various charging parameters and select among the various charging sequences that best meet their specific battery needs.

#### Advanced User Interface with Remote Control Capability

Equipped with an RS-232, an IR port, and an optional Ethernet port, GNB<sup>®</sup> FUSION™ extends its programmability and monitoring features to remote hosts such as PCs, PDAs, PLCs, and servers.

## **Typical Specifications**

| Specifications              | FSN-10kW  | FSN-20kW                                 | FSN-30kW                                 |
|-----------------------------|---|--|--|
| Volts / Amps                | 48V / 200A  | 48V / 400A                               | 48V / 600A                               |
| Input Specs                 |   |  |  |
| Voltage                     | 480VAC, 3-Phase ±10% Delta Connection with Earth Ground   |  |  |
| Current                     | 13.8A rms nominal   | 27.6A rms nominal                        | 41.4A rms nominal                        |
| Power Factor                | 0.96  |  |  |
| Output Specs                |   |  |  |
| Voltage                     | 12V-48V Nominal, 62.5V Max.   |  |  |
| Current                     | 250A Max.   | 500A Max.                                | 600A Max.                                |
| Power                       | 10kW  | 20kW                                     | 30kW                                     |
| Overload                    | 110 %   |  |  |
| Peak-to-Peak Voltage Ripple | < 1%  |  |  |
| Efficiency                  | 92%   |  |  |
| Protection                  | •   |  |  |
| Input                       | <ul><li>Under Voltage</li><li>Over Voltage</li></ul>  |  |  |
| Output                      | <ul> <li>Over Current</li> <li>Over Voltage</li> <li>Over Temperature</li> <li>Reverse Polarity Protection</li> </ul> |  |  |
| Operating Conditions        |   |  |  |
| Ambient Temperature         | 0-40°C  |  |  |
| Humidity                    | 10-90% RH non-condensing  |  |  |
| Interface                   | •   |  |  |
| Communication               | Isolated RS-232 (Ethernet optional)   |  |  |
| User Interface              | LCD/Keypad, RS-232, IR with a PDA (Palm Pilot)  |  |  |
| Cooling                     | Forced air (fans)   |  |  |
| Mechanical                  |   |  |  |
| WxDxH                       | 23"x28"x34"   | 23"x28"x34"                              | 23"x28"x34"                              |
| Weight                      | ~ 160 lb  | ~ 290 lb                                 | ~ 350 lb                                 |
| Output Cables               | 2/0 cables  | 2 sets of 4/0 cables                     | 2 sets of 4/0 cables                     |
| Output Connectors           | Euro  | Euro                                     | Euro                                     |
| Auxiliary Contacts          | Interface with a 5 kΩ battery thermistor  | Interface with a 5 kΩ battery thermistor | Interface with a 5 kΩ battery thermistor |
| Certifications              | UL and cUL Listed   |  |  |

Note: Design and/or specifications are subject to change without notice. If questions arise, contact your local sales representative for clarification.

**GNB Industrial Power** 

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