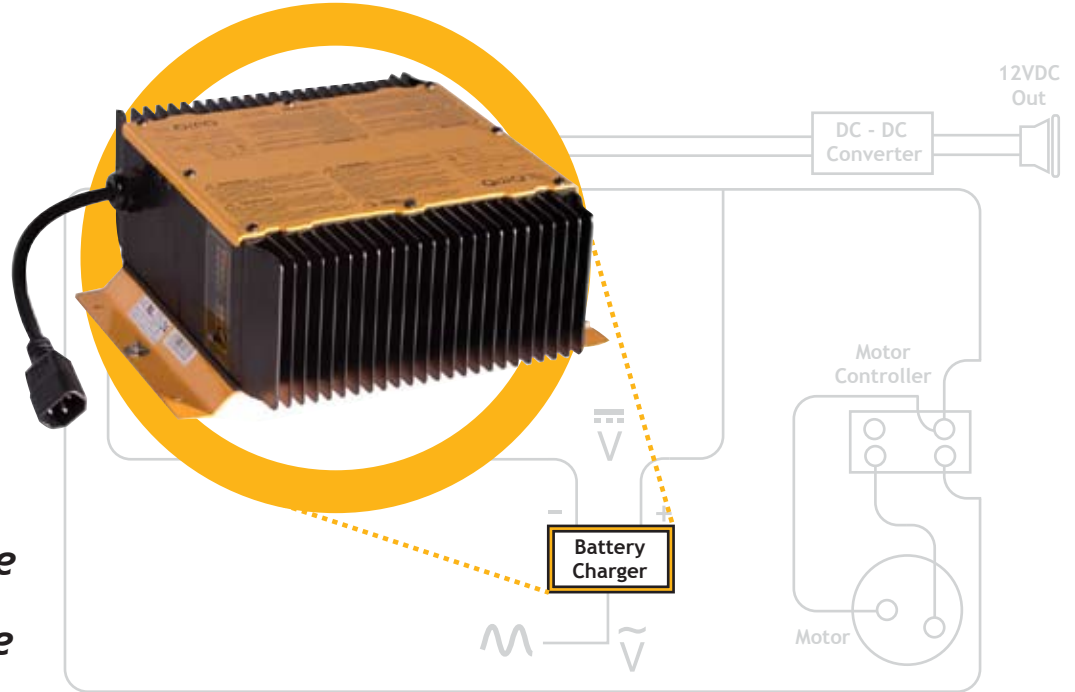


**NOW IN
84V and
96V**

- ✓ **High Reliability**
- ✓ **High Performance**
- ✓ **Unbeatable Value**



Universal Input

QuiQ is designed with a wide input voltage range from 85 - 265 VAC, making it an ideal choice for any worldwide application. Power Factor Correction and 12A maximum current draw ensures the charger will work reliably from any power outlet in the world, even through surges and sags.

Standardizing on a single universal model reduces component count, saving vehicle OEMs manufacturing and service inventory management costs.

Reduced Operating Costs

The high-efficiency design and near unity Power Factor combine to make the QuiQ charger extremely grid-friendly. Over 88% of power taken from the grid is converted to real power to charge the battery. This not only saves users over 30% in raw electricity costs when compared to ferro-resonant chargers, but avoids Power Factor surcharges from utilities as well.

Simple Offboard Operation

Configured with an optional panel mount connector and OEM specific DC output cord, the QuiQ can be easily used to off-board charge almost any vehicle.

Approved Charge Algorithms

The QuiQ's intelligent microprocessor controller can store up to 10 Delta-Q-developed optimized charge algorithms. Delta-Q has designed algorithms for many types of batteries, and is constantly preparing algorithms for new battery types, sizes and chemistries. Battery manufacturers certify Delta-Q algorithms because they help improve battery life and minimize maintenance. Delta-Q configures chargers with the most appropriate set of algorithms for each OEM's applications. Manufacturing and field service personnel can easily toggle between algorithms and, with new field reprogrammable chargers, download new algorithms into the charger "on the fly."

Regulatory Compliance

All Delta-Q chargers are UL and CE compliant and have passed stringent EMI, safety, vibration and water ingress protection (IP) tests. QuiQ offers leading-edge efficiency, power factor correction and GFCI compatibility for safe and reliable operation.

Designed for Onboard Use

QuiQ is built for onboard operation in harsh environments. Its rugged, lightweight and intelligent design provides continuous operation in any application. High efficiency power conversion allows the QuiQ to be delivered in a fully sealed enclosure, making it ideal for onboard applications in the dirtiest and wettest environments. Reliability is increased by the reduction of moving parts.

For more information contact:

Delta-Q Technologies Corp.
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Burnaby, BC V5H 2H2
Canada

tel: 604.327.8244
fax: 604.327.8246
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www.delta-q.com



- Advanced high frequency switching design and 90% typical efficiency
- Wide range AC input (85 - 265 VAC) for worldwide operation
- Fully sealed enclosure provides improved reliability in demanding environments
- > 0.99 Power Factor minimizes utility surcharges and optimizes use of AC power
- Approved battery charge algorithms for ideal charging (default I₁, I₂, U, I_{3a})

QuiQ HF/PFC Battery Charger Specifications

subject to change without notice

| DC Output | QuiQ Model: 912- or 913- | | | | | |
|-----------------------------|------------------------------------|------|------|-------|-------|-------|
| | 24xx | 36xx | 48xx | 72xx | 84xx | 96xx |
| DC Output Voltage - nominal | 24 V | 36 V | 48 V | 72 V | 84 V | 96 V |
| DC Output Voltage - maximum | 34 V | 51 V | 68 V | 100 V | 120 V | 135 V |
| DC Output Current - maximum | 25 A | 21 A | 18 A | 12 A | 10 A | 9 A |
| Interlock Current - maximum | 1 A | 1 A | 1 A | 0.5 A | 0.5 A | 0.5 A |
| Battery Type | Specific to selected algorithm | | | | | |
| Reverse Polarity | Electronic protection - auto-reset | | | | | |
| Short Circuit | Electronic current limit | | | | | |

AC Input

| | |
|------------------------------------|---|
| AC Input Voltage - range | 85 - 265 VAC |
| AC Input Voltage - nominal | 120 VAC / 230 VAC rms |
| AC Input Frequency | 45 - 65 Hz |
| AC Input Current - maximum/nominal | 12 A / 9.5 A rms @ 120 VAC or 5 A rms @ 230 VAC |
| AC Power Factor - nominal | > 0.99 @ 120 VAC / > 0.98 @ 230 VAC |

Mechanical

| | |
|-----------------------|--|
| Dimensions | 28.0 x 24.6 x 11.0 cm (11 x 9.7 x 4.3") |
| Weight | < 5 kg (< 11 lbs) w/standard output cord |
| Environmental | Enclosure: IP46 (NEMA4) |
| Operating Temperature | -30°C to +50°C (-22°F to 122°F), derated above 30°C (86°F), below 0°C (32°F) |
| Storage Temperature | -40°C to +70°C (-40°F to 158°F) |
| AC input connector | IEC320/C14 (require ≥ 1.8m localized cord) |
| DC output connector | OEM specific w/12AWG wire |

Regulatory

| | |
|-----------|--|
| Safety | UL2202, UL1564 2nd Edition, CSA-C22.2 No. 107.2, EN 60335-1/2-29 |
| Emissions | FCC Part 15/ICES 003 Class A, EN 55011, EN 61000-3-2, EN 61000-3-3 |
| Immunity | EN 61000-4-2/-3/-4/-5/-6/-11 |

Operation

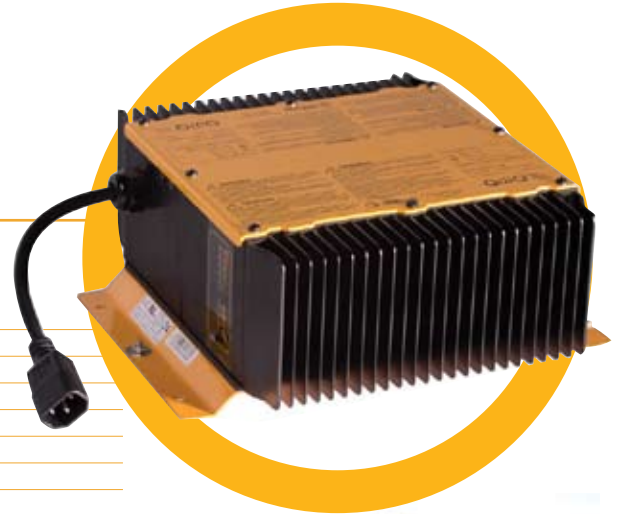
| | |
|------------------------|--|
| AC ON | Solid YELLOW AC LED |
| >80% Charge Indicator | Solid YELLOW Charge LED |
| 100% Charge Indicator | Solid GREEN Finish LED |
| Fault Indicator | Flash RED Fault LED |
| DC Ammeter | LED Bargraph (6 level) |
| Long-term Storage Mode | Auto-restart if battery voltage < 2.1 V/cell or 30 days elapse |

Special Features

| | |
|--------------------------------|---|
| Battery Temperature Monitoring | Temperature Sensor on negative ring terminal |
| External Communications | PC-based configuration software for field programmability |

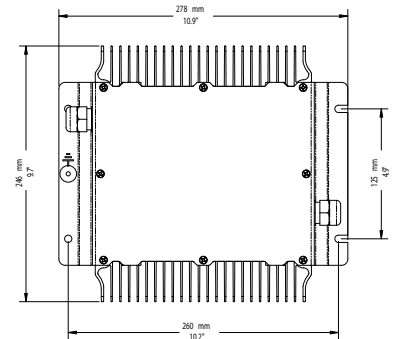
Options

- Custom Remote LEDs
- MODBUS Serial Communications
- Panel Mount DC Connector
- OEM Specific DC Output Cord
- Localized AC Input Cord
- Reverse or Dry Contact Interlocks



Available with optional Panel Mount DC Connector (36V unit shown), OEM Specific DC Output Cord and Localized AC Input Cord.

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