

Omnicharge

programmable automatic battery chargers

Description | The Omnicharge 12-40, 12-60, 24-20 and 24-30 are fully programmable, automatic battery chargers designed for professional applications.

Combining the latest technologies and the best available parts with years of power electronics design expertise, the Omnicharge battery chargers will deliver long life performance even in the most demanding applications. A unique active rectifier output stage ensures unmatched efficiency figures. Combined with active PFC, the Omnicharge battery chargers are very energy efficient. This will reduce running costs and guarantees a maximum charge current per AC Watt.

All Omnicharge models are equipped with advanced temperature compensated 4 stage charging programs. Besides the standard Flooded, GEL and AGM charge programs, users are also allowed to create a custom charging program for their specific battery, with the TBS "Dashboard" software. The standard available TBSLink port enables remote control and readout via the optional TBS Universal Remote Control.

All Omnicharge units are easy to install and come standard with temperature sensor and a very clear installation and operating instruction manual.

Features

- Two battery outputs
- Robust industrial design
- Designed for continuous duty charging
- Very efficient
- Universal power factor corrected auto ranging AC input
- No charge current derating at 115VAC input
- Protected against battery failure, high temperature, overload, short circuit, low input voltage and reverse polarity (fuse)
- Multistage intelligent charging programs
- Programmable charging programs up to 8 stages
- Protects the battery from being overcharged
- Variable speed fan for silent operation
- Remote on/off capability
- Alarm relay (optional Alarm Output Expander available)
- Remote control capability via TBSLink
- Easy to access connection bay for installing AC-, DC and control wiring
- Temperature sensor included
- CE certified
- 24 month warranty

Applications

- Recreational vehicles
- Marine applications
- Industrial systems
- Mobile entertainment systems
- Service vehicles
- Remote homes

Accessories

- DC cable kits
- Universal Remote Control with LCD¹⁾
- TBSLink communication kit including software
- Alarm output expander



Technical specifications

| Parameter | OC12-40 | OC12-60 | OC24-20 | OC24-30 |
|--|----------|--|-----------|-------------------|
| Input voltage | | 100-260VAC / 47-63Hz / PF ≥ 0.95 | | |
| Full load consumption | 700VA | 1050VA | 700VA | 1050VA |
| AC input current (115V/230V) | 6A/3A | 9A/4.5A | 6A/3A | 9A/4.5A |
| Full load efficiency | 88% | 88% | 91% | 91% |
| Nominal output voltage ¹⁾ | | 12V | | 24V |
| Total output current ^{1),4)} (Aux.) | 40A(4A) | 60A(4A) | 20A(2.5A) | 30A(2.5A) |
| Charge characteristic ²⁾ | | IUoUoP, intelligent 4-stage, temperature compensated | | |
| Absorption voltage ²⁾ | | 14.4V | | 28.8V |
| Float voltage ²⁾ | | 13.5V | | 27.0V |
| Equalize voltage ²⁾ | | 15.5V | | 31.0V |
| Supported Battery types ²⁾ | | Flooded / GEL / AGM / Custom | | |
| Recommended battery capacity ³⁾ | 80-400Ah | 120-600Ah | 50-200Ah | 70-300Ah |
| DC current draw (charger off) | | $\leq 5\text{mA}$ | | $\leq 4\text{mA}$ |
| Operating temp. range ⁴⁾ | | -20°C ... +50°C (humidity max. 95% non condensing) | | |
| Storage temp. range | | -40°C ... +80°C (humidity max. 95% non condensing) | | |
| Cooling | | Variable speed fan controlled by temperature and load | | |
| TBSLink enabled | | Yes | | |
| Protected against | | Low AC voltage, output short circuit, high temperature, battery overcharging and reverse polarity (fuse) | | |
| Indications | | Power on, output current bar, state of charge bar, error | | |
| DC output connections | | M8 bolts (main output), Screw terminals (auxiliary output) | | |
| AC input connections | | Screw terminals | | |
| Enclosure body size | | 351 x 210 x 114mm | | |
| Total weight | | 5.8 kg | | |
| Protection class | | IP21 (mounted in upright position) | | |
| Standards | | CE marked meeting EMC directive 2004/108/EC and LVD 2006/95/EC complying with EN60335-1, EN60335-2-29 | | |

Note: the given specifications are subject to change without notice.

¹⁾ Maximum output current tolerance is +/-3%. Maximum setpoint voltage deviations are +/- 0.1V for 12V and +/- 0.2V for 24V models. All setpoint voltages are temperature compensated when battery temperature sensor is connected.

²⁾ Value is programmable

³⁾ Always consult battery manufacturers specifications for maximum allowable charge current

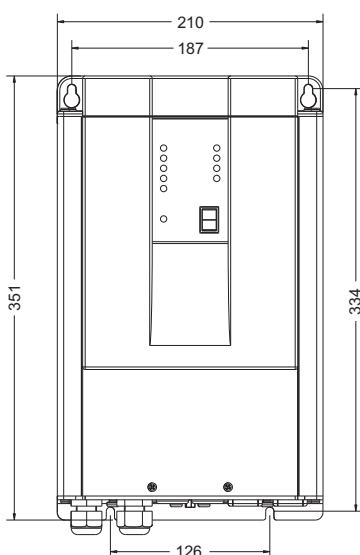
⁴⁾ At higher ambient temperatures ($>40^\circ\text{C}$), maximum output current may be reduced automatically



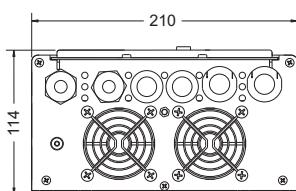
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Dimensions

Front view



Bottom view



Side view

