

## Description

The Omnicharge<sup>2</sup> 12-40, 12-60, 24-20 and 24-30 are fully programmable, three output, automatic battery chargers designed for professional applications. A clear backlit display shows the charge progress as well as the actual charge voltage and current for each output.

Combining the latest technologies and the best available parts with years of power electronics design expertise, the Omnicharge<sup>2</sup> battery chargers will deliver long life performance even in the most demanding applications. Utilizing high efficiency converter technology, will reduce running costs and guarantees a maximum charge current per AC Watt.

A unique new feature of the Omnicharge<sup>2</sup> range is the autonomous

battery output setup. All outputs are not only isolated from each other, but these are also individually programmable. This enables the possibility to charge a combination of different battery types and sizes by a single battery charger.

All Omnicharge<sup>2</sup> models are equipped with advanced temperature compensated charge programs, with or without a float stage. Standard available are

AGM, GEL, Flooded and Lithium charge programs. Each charge program can also be modified to different voltage and current levels in case the connected battery has special requirements. Also available is a 'Night Mode', which prevents the fans from spinning when absolute silence is desired.

All Omnicharge<sup>2</sup> units are easy to install and come standard with temperature sensor and a very clear installation and operating instruction manual.



## Features

- Three full current outputs (Individually programmable)
- Robust industrial design
- Clear backlit display for easy readout and configuration
- 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
- Protects the battery from being overcharged
- Variable speed fan for low noise operation
- Remote on/off capability (for interfacing to external BMS)
- QuickLink communication port
- Night Mode for silent operation
- 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

## Technical specifications

Parameter	OC12-40 art # 5026202-1	OC12-60 art # 5026402-1	OC24-20 art # 5026222-1	OC24-30 art # 5026422-1
Input voltage	90-265Vac / 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	> 82%			
Nominal output voltage <sup>1)</sup>	12Vdc		24Vdc	
Total output current <sup>1) 4)</sup>	40A	60A	20A	30A
Number of full current outputs	3 (internally isolated, individually programmable)			
Charge characteristic <sup>2)</sup>	IUoUoP, intelligent 4-stage, temperature compensated			
Absorption voltage <sup>2)</sup>	14.4Vdc		28.8Vdc	
Float voltage <sup>2)</sup>	13.5Vdc		27.0Vdc	
Equalize voltage <sup>2)</sup>	15.5Vdc		31.0Vdc	
Supported Battery types <sup>2)</sup>	GEL / AGM / Flooded / LiFePO4 (programmable per output)			
Recommended battery capacity <sup>3)</sup>	80-400Ah	120-600Ah	50-200Ah	70-300Ah
DC current draw (charger off)	< 2mA			
Operating temp. range <sup>4)</sup>	-20°C ... +60°C (humidity max. 95% non condensing)			
Storage temp. range	-40°C ... +70°C (humidity max. 95% non condensing)			
Cooling	Variable speed fan controlled by temperature and load			
Communication port	QuickLink			
Protected against	Low AC voltage, output short circuit, high temperature, battery overcharging and reverse battery polarity			
Indications	LCD showing charging status, voltage- and current levels, error			
DC output connections	M6 studs (3x positive, 1x common negative)			
AC input connections	Fixed AC cord with Schuko plug (1.5 meter length)			
Enclosure body size (L x W x H)	295 x 206 x 86mm	356 x 206 x 99mm	295 x 206 x 86mm	356 x 206 x 99mm
Total weight	3.0 kg	4.0 kg	3.0 kg	4.0 kg
Protection class	IP32			
Standards	CE marked meeting EMC directive 2014/30/EU and LVD 2014/35/EU complying with EN60335-1, EN60335-2-29 and RoHS 2011/65/EU			

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

<sup>1)</sup> 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.

<sup>2)</sup> Value is programmable

<sup>3)</sup> Always consult battery manufacturers specifications for maximum allowable charge current

<sup>4)</sup> At higher ambient temperatures (>40°C), maximum output current may be reduced automatically

## Accessories

- QuickLink to RS-232 Communication Kit, art # 5092030
- QuickLink to USB Communication Kit, art # 5092130  
(Includes TBS Dashboard 2 for monitoring and programming the Omnicarge<sup>2</sup> chargers)
- QuickLink to Bluetooth Communication Kit, art # 5092230 (Dashboard Mobile app available in Apple App Store and Google Play)

QuickLink to RS-232  
Communication Kit,  
art # 5092030



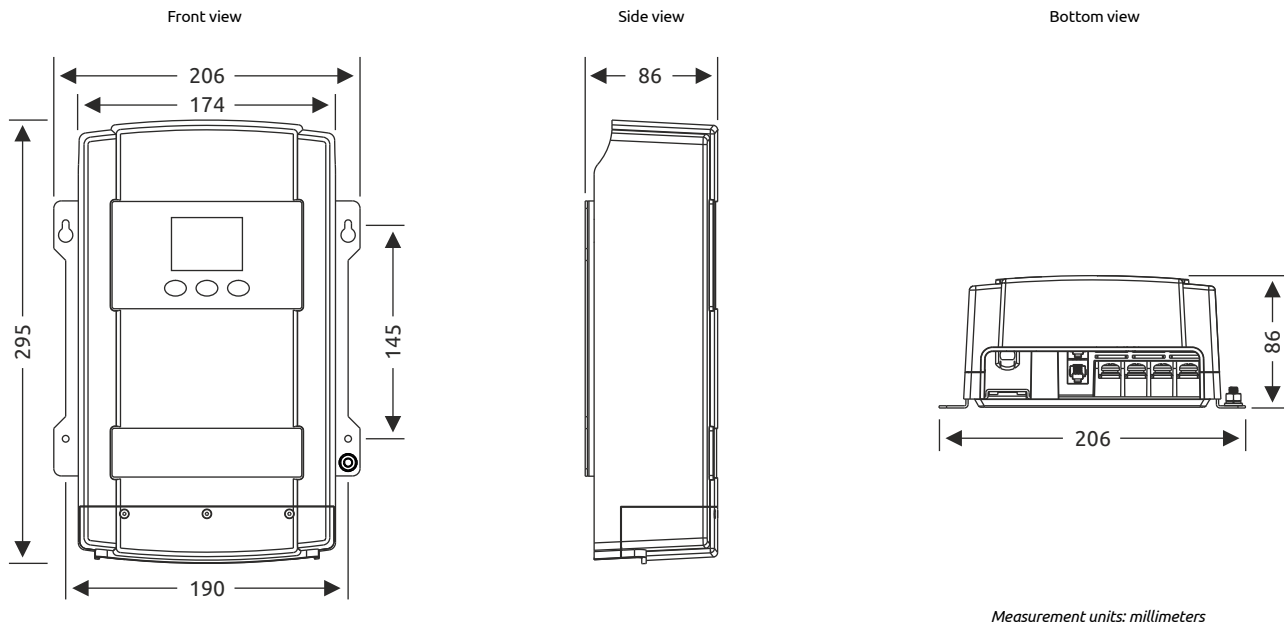
QuickLink to USB  
Communication Kit,  
art # 5092130



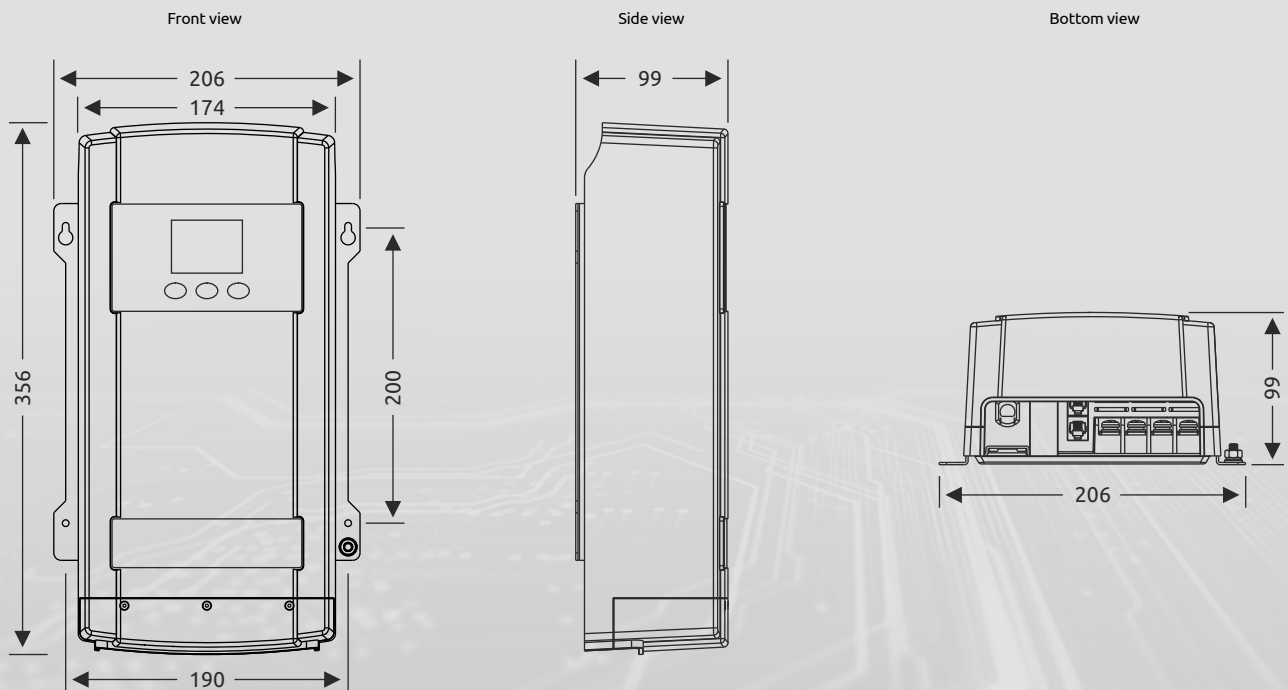
QuickLink to Bluetooth  
Communication Kit,  
art # 5092230



## Dimensions (OC12-40 and OC24-20)



## Dimensions (OC12-60 and OC24-30)



## Basic application diagram

