

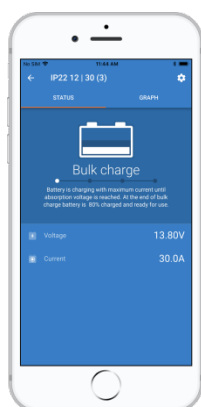
# Blue Smart IP22 Charger

180-265 VAC

www.victronenergy.com



**Blue Smart IP22  
12/30 (3)**



## Bluetooth Smart

The Blue Smart IP22 Charger is the wireless solution to monitor voltage and current, to change settings and to update the charger when new features become available.

## High efficiency

With up to 94% efficiency, these chargers generate up to four times less heat when compared to the industry standard. And once the battery is fully charged, power consumption reduces to 0,5 Watt, some five to ten times better than the industry standard.

## Adaptive 6-stage charge algorithm: test - bulk – absorption - recondition – float – storage

The Blue Smart Charger features a microprocessor controlled 'adaptive' battery management. The adaptive feature will automatically optimize the charging process relative to the way the battery is being used.

## Storage Mode: less maintenance and aging when the battery is not in use

The storage mode kicks in whenever the battery has not been subjected to discharge during 24 hours. In the storage mode float voltage is reduced to 2,2V/cell (13,2V for a 12V battery) to minimize gassing and corrosion of the positive plates. Once a week the voltage is raised back to the absorption level to 'equalize' the battery. This feature prevents stratification of the electrolyte and sulfation, a major cause of early battery failure.

## Also charges Li-ion (LiFePO<sub>4</sub>) batteries

LiFePO<sub>4</sub> batteries are charged with a simple bulk – absorption – float algorithm.

## NIGHT and LOW setting

When in NIGHT or LOW mode, the output current is reduced to max. 50% of the nominal output and the charger will be totally noiseless. The NIGHT mode automatically ends after 8 hours. The LOW mode can be ended manually.

## Protected against overheating

Output current will reduce as temperature increases up to 50°C, but the Blue Smart Charger will not fail.

## Eleven LEDs for status indication

Charge algorithm: TEST / BULK / ABSORPTION / RECONDITION / FLOAT / STORAGE / READY.

MODE button to set: NORMAL (14,4V) / HIGH (14,7V) / RECONDITION / LI-ION.

| Blue Smart IP22 Charger      | 12V, 1 output<br>15 / 20 / 30A  | 12V, 3 outputs<br>15 / 20 / 30A | 24V, 1 output<br>8 / 12 / 16A | 24V, 3 outputs<br>16A |
|------------------------------|---|---------------------------------|-------------------------------|-----------------------|
| Input voltage range          | 180 – 265 VAC   |                                 |                               | 180 – 265 VAC         |
| Charge current, normal mode  | 15 / 20 / 30 A  |                                 |                               | 8/12/16 A             |
| Charge current, NIGHT or LOW | 7,5 / 10 / 15 A   |                                 |                               | 4 / 6 / 8 A           |
| Efficiency                   | 93%   |                                 |                               | 94%                   |
| No load power consumption    | 0.5 W   |                                 |                               | 0.5 W                 |
| Frequency                    | 45 – 65 Hz  |                                 |                               | 45 – 65 Hz            |
| Number of outputs            | 1   | 3                               | 1                             | 3                     |
| Charge voltage 'absorption'  | Normal: 14,4V High: 14,7V   | Li-ion: 14,2V                   | Normal: 28,8V High: 29,4V     | Li-ion: 28,4V         |
| Charge voltage 'float'       | Normal: 13,8V High: 13,8V   | Li-ion: 13,5V                   | Normal: 27,6V High: 27,6V     | Li-ion: 27,0V         |
| Charge voltage 'storage'     | Normal: 13,2V High: 13,2V   | Li-ion: 13,5V                   | Normal: 26,4V High: 26,4V     | Li-ion: 27,0V         |
| Charge algorithm             | 6-stage adaptive  |                                 |                               |                       |
| Can be used as power supply  | Yes   |                                 |                               |                       |
| Protection                   | Battery reverse polarity (fuse)   |                                 | Output short circuit          | Over temperature      |
| Operating temp. range        | -20 to +50°C  |                                 |                               |                       |
| Humidity (non-condensing)    | Max 98%   |                                 |                               |                       |
| ENCLOSURE                    |   |                                 |                               |                       |
| Material & Colour            | Aluminium (blue RAL 5012)   |                                 |                               |                       |
| Battery connection           | Screw terminals 13 mm <sup>2</sup> / AWG6   |                                 |                               |                       |
| 230 V AC connection          | Cable of 1,5 meter with CEE 7/7 plug, BS 1363 plug (UK) or AS/NZS 3112 plug (AU/NZ) |                                 |                               |                       |
| Protection category          | IP22  |                                 |                               |                       |
| Weight                       | 1,3 kg  |                                 |                               |                       |
| Dimensions (h x w x d)       | 235 x 108 x 65 mm   |                                 |                               |                       |
| STANDARDS                    |   |                                 |                               |                       |
| Safety                       | EN 60335-1, EN 60335-2-29   |                                 |                               |                       |
| Emission                     | EN 55014-1, EN 61000-6-3, EN 61000-3-2  |                                 |                               |                       |
| Immunity                     | EN 55014-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-3                                |                                 |                               |                       |
| Automotive                   | E4-10R  |                                 | E4-10R                        |                       |