

# Blue Smart Charger

IP65

The professional's choice

5  
YEAR  
WARRANTY

Energy. Anytime. Anywhere.

- Water, dust and chemical resistant
- Seven step smart charge algorithm
- Recovery of fully discharged 'dead' batteries
- Automatic power supply function
- Severe cold performance: down to -30°C
- Several other battery life enhancing features
- Low power mode to charge smaller batteries
- **Li-ion** battery mode
- Setup and configure, readout of voltage and current by **Bluetooth Smart**



| Blue Smart IP65 Charger                                | 12 V 4/5/7/10/15 A                                                                            | 24 V 5/8 A                                       |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------|
| Input voltage range                                    | 180-265 VAC                                                                                   |                                                  |
| Efficiency                                             | 94%                                                                                           | 95%                                              |
| Standby power consumption                              | 0,5 W                                                                                         |                                                  |
| Charge voltage 'absorption'                            | Normal: 14,4 V<br>High: 14,7 V<br>Li-ion: 14,2 V                                              | Normal: 28,8 V<br>High: 29,4 V<br>Li-ion: 28,4 V |
| Charge voltage 'float'                                 | Normal: 13,8 V<br>High: 13,8 V<br>Li-ion: 13,5 V                                              | Normal: 27,6 V<br>High: 27,6 V<br>Li-ion: 27,0 V |
| Charge voltage 'storage'                               | Normal: 13,2 V<br>High: 13,2 V<br>Li-ion: 13,5 V                                              | Normal: 26,4 V<br>High: 26,4 V<br>Li-ion: 27,0 V |
| Charge current                                         | 4 / 5 / 7 / 10 / 15 A                                                                         | 5 / 8 A                                          |
| Low current mode                                       | 2 / 2 / 2 / 3 / 4 A                                                                           | 2 / 3 A                                          |
| Temperature compensation<br>(lead-acid batteries only) | 16 mV/°C                                                                                      | 32 mV/°C                                         |
| Can be used as power supply                            | Yes                                                                                           |                                                  |
| Back current drain                                     | 0,7 Ah/month (1 mA)                                                                           |                                                  |
| Protection                                             | Reverse polarity                                                                              | Output short circuit<br>Over temperature         |
| Operating temp. range                                  | -30 to +50°C (full rated output up to 30°C)<br>(cables retain flexibility at low temperature) |                                                  |
| Humidity (non-condensing)                              | Max 95%                                                                                       |                                                  |
| ENCLOSURE                                              |                                                                                               |                                                  |
| Battery-connection                                     | Black and red cable of 1,5 meter with<br>20 A DC connector, clamps and M8 eyelets             |                                                  |
| 230 V AC-connection                                    | Cable of 1,5 meter with<br>CEE 7/17, BS 1363 plug (UK) or AS/NZS 3112 plug                    |                                                  |
| Protection category                                    | IP65 (splash and dust proof)                                                                  |                                                  |
| Weight                                                 | 0,9 kg                                                                                        | 0,9 kg                                           |
| Dimensions (h x w x d)                                 | 12/7: 47x95x190mm<br>Other: 60x105x190mm                                                      | 24/5: 47x95x190mm<br>Other: 60x105x190mm         |
| 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                                           |                                                  |



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## Included



Clamps



M8 eyelets

## Optional



Fused  
clamps



Extension cable 2m



Fused  
M6 or M8  
eyelets



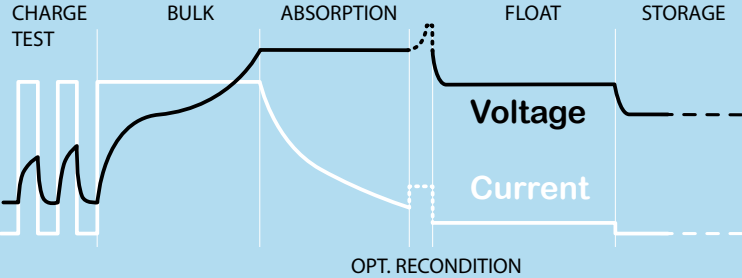
Autoplug

Ultra high efficiency “green” battery charger

With up to 95% 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.

Durable, safe and silent

- Low thermal stress on the electronic components.
- Protection against ingress of dust, water and chemicals.
- Protection against overheating: the output current will reduce as temperature increases up to 60°C, but the charger will not fail.
- The chargers are totally silent: no cooling fan or any other moving parts.



Reconditioning

A lead-acid battery that has been insufficiently charged or has been left discharged during days or weeks will deteriorate due to sulfation. If caught in time, sulfation can sometimes be partially reversed by charging the battery with low current up to a higher voltage.

Recovery function for fully discharged batteries

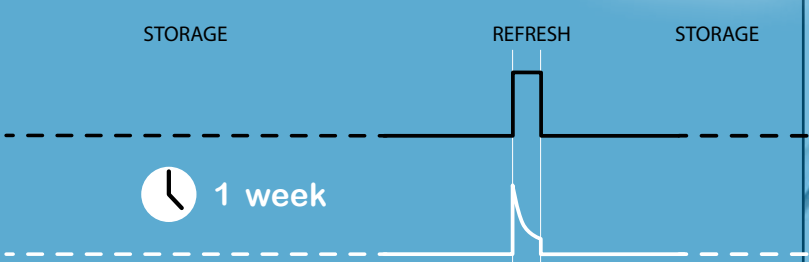
Most reverse polarity protected chargers will not recognize, and therefore not recharge a battery which has been discharged to zero or nearly zero Volts. The **Blue Smart Charger** however will attempt to recharge a fully discharged battery with low current and resume normal charging once sufficient voltage has developed across the battery terminals.

The VictronConnect app

Setup, readout and configure your **Blue Smart IP65 Charger** via your smartphone.

You can display the status of your charger and battery and even control the functions of your charger using the VictronConnect app. On your screen the readout of voltage and current is default available.

Download your app for iOS and Android here at <https://www.victronenergy.com/live/victronconnect>



Storage mode: less corrosion of the positive plates

Even the lower float charge voltage that follows the absorption period will cause grid corrosion. It is therefore essential to reduce the charge voltage even further when the battery remains connected to the charger during more than 48 hours.

Temperature compensated charging

The optimal charge voltage of a lead-acid battery varies inversely with temperature. **The Blue Smart IP65 Charger** measures ambient temperature during the test phase and compensates for temperature during the charge process. The temperature is measured again when the charger is in low current mode during float or storage. Special settings for a cold or hot environment are therefore not needed.

Li-ion battery mode

The **Blue Smart Charger** uses a specific charging algorithm for Li-ion (LiFePO<sub>4</sub>) batteries, with automatic Li-ion under voltage protection reset.



IP65 - Charger Guide  
Blue Smart IP65 Charger

| Battery size Ah     | 12V                   |                   |                     | 24V               |                   |      | Battery type icons |
|---------------------|-----------------------|-------------------|---------------------|-------------------|-------------------|------|--------------------|
|                     | 4 & 5 A<br>20 - 50 Ah | 7 A<br>20 - 70 Ah | 10 A<br>30 - 100 Ah | 5 A<br>20 - 50 Ah | 8 A<br>30 - 80 Ah | 24/8 |                    |
| Your IP65 Charger » | 12/5                  | 12/7              | 12/10               | 24/5              | 24/8              |      |                    |
|                     | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |
|                     | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |
| CLASSIC             | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |
| MODERN              | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |
|                     | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |
|                     | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |
|                     | OK                    | OK                | OK                  | OK                | OK                | OK   |                    |

**Recommended** This is the best charger for this type of battery. The battery will be charged in the most efficient way.

**OK** This charger can be used for this battery. It is possible that it takes longer to charge the battery than using a recommended charger.