

# Blue Smart IP22 Charger

## 120 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 batteries

Li-ion batteries are charged with a simple bulk – absorption – float algorithm.

### Fully discharged battery recovery function

Will initiate charging even if the battery has been discharged to zero volts.  
Will reconnect to a fully discharged Li-ion battery with internal disconnect function.

### 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 15 / 20 / 30A	12V, 3 outputs 15 / 20 / 30A	24V, 1 output 8 / 12 / 16A	24V, 3 outputs 16A
Input voltage range	100 – 130 VAC			100 - 130 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%			
Bluetooth	Frequency: 2402-2480MHz / Power: -4dBm			
<b>ENCLOSURE</b>				
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			
<b>STANDARDS</b>				
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			