Charger for Li-ion batteries - switch mode

- 3-step charge control with current detection
- Input voltage 198-264 VAC
- Wake up and low current start-up of deeply discharged batteries
- Error indication for reverse polarity, short circuit, charging of wrong (lower Voltage) battery pack, defect battery and safety timer run-out
- Fixed mains cable,
 2-pin IEC 60320 available
- · Mounting bracket included
- With NTC input on request
- · Custom specifications on request
- · Approvals:
 - Home healthcare EN 60601-1-11 (fixed cord versions only)
 - Medically certified: Safety: EN 60601-1 ed. 3.1
 - UL approved

For updates: see www.mascot.no

TECHNICAL SPECIFICATIONS

GENERAL INPUT/OUTPUT

Input voltage: 198-264 VAC Line Frequency: 47 – 50Hz Switch frequency, approx.: 65 kHz

Leakage current from batt.

with mains switched off: <170µA@29.2V

Temperature range

• Operating: -25 °C - +40 °C • Storage: -25 °C - +65 °C Derating: Approx. - 30 % at 40 °C

Ripple: < 100 mV p-p

Dimensions (L×W×H): $210 \times 113 \times 53 \text{ mm}$ Weight: With mains cable 1400g With IEC60320 1150g







SAFETY PROTECTION EMC

Protection: Short circuit proof and

protected against reversed polarity and thermal run-off.

Prevents sparking.

Charge timer: (step 2): 1h

Safety timer: 72h

Insulation class: Class II (Double insulated)

Insulation voltage

Primary – secondary: 4000VAC / 5700VDC Electrical safety std: EN/IEC/ANSI 60601

EMC standards EN 60601-1-2: 2015 (Edition 4)

Input terminal: Fixed mains cable,

2-pin IEC 60320 available

Output terminals: Cord with open ends

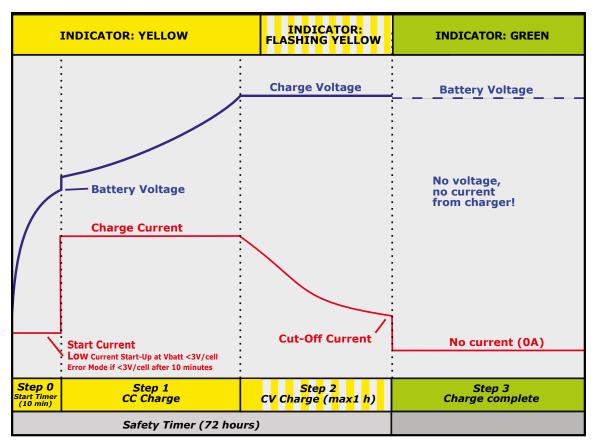
IP-code: IP44 (IP40 w IEC 60320)

VERSIONS

		Step 0 < 10min (yellow)	Step 0 > 10min (Red: 4 blinks)	Step 1 (yellow)	Step 2 (Flash yellow)	Step 3 (green)	
Cells	Max output power (W)	Low Current start-up for deeply discharged batt.	Battery voltage too low	Charge Current	Charge Voltage	Charge term when current is:	Restart
3	252W	CC 1A±0.4A when batt volt < 9V		20A +0.2/-0.3A	12.6V ±0.2V	< 1A or max. 2 hr.	12.3V ±0.1V
4	294W	CC 1A±0.2A when batt volt < 12V		17.5A +0.2/-0.3A	16.8V ±0.2V	< 1A or max. 2 hr.	16.4V ±0.1V
7	294W	CC 0.8A±0.4A when batt volt < 21V	0A/0V	10A +0/-0.3A	29.4V ±0.2V	< 0.8A or max. 1 hr.	28.7V ±0.1V
8	293W	CC 5A±0.2A when batt volt < 24V		8.7A +0.1/-0.3A	33.6V ±0.2V	< 0.5A or max. 1 hr.	32.8V ±0.1V
10	294W	CC 0.5A±0.1A when batt volt < 30V		7A +0/-0.3A	42.0V ±0.2V	< 0.5A or max. 1 hr.	41.0V ±0.1V



Charging characteristics and LED indication *



^{*} an animated video of this charging progress is available on our website

BATTERY NOT CONNECTED INDICATIONS

Battery not connected is indicated by FLASHING GREEN. In this mode charger will apply short pulses attempting to wake up deeply discharged batteries.

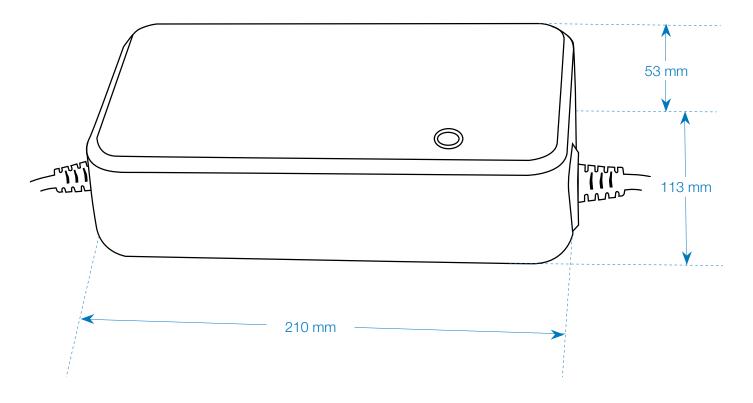
ERROR INDICATIONS

2 red blinks: Battery is connected to charger with wrong polarity!
3 red blinks: Charger output is shorted. Check output cable connection!
4 red blinks: Battery voltage is low. Check battery status or voltage.
5 red blinks: Safety timer has run out. Check battery status or capacity.
LED off: Battery voltage is too high. Check battery voltage.

WAIT MODE INDICATIONS (For NTC versions only)

Yellow with 1 red blink: Battery temperature is too low (<0°C) Yellow with 2 red blink: Battery temperature is too high (>45°C)





Mounting bracket, part no. 205800

