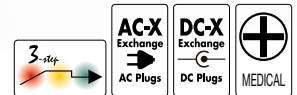


- 3-step charge control with current detection
- Universal input voltage (90-264 VAC)
- Wake up and low current start-up of deeply discharged batteries
- Error indication for reverse polarity, short circuit, charging battery packs with wrong number of cells and safety timer run-out
- With NTC input on request
- Order plugs and mains cord separately
- ECO-design compliance: DoE and CEC
- Approvals:
 - Medically certified
 - Safety: EN 60601-1 ed. 3.1
 - EMC: EN 60601-1-2 ed. 4
 - UL approved

For updates: see www.mascot.no



TECHNICAL SPECIFICATIONS

GENERAL INPUT/OUTPUT

Input voltage:	90-264 VAC
Line Frequency:	47 – 63Hz
Switch frequency, approx.:	56 kHz
Leakage current from batt. with mains switched off:	<0,3mA @ nominal battery voltage
Temperature range	
• Operating:	-25 °C - +40 °C
• Storage:	-25 °C - +85 °C
Ripple:	< 100 mV p-p
Dimensions (L×W×H):	108,5 × 49 × 29 mm
Weight:	150g

SAFETY PROTECTION EMC

Protection:	Protected against reversed polarity and short circuit proof Class II
Insulation class:	
Insulation voltage	
Primary – secondary:	4000VAC / 5700VDC
Electrical safety std:	EN/IEC 60335-2-29, EN 60601-1-11, EN/IEC/ANSI 60601-1
EMC standards	
• Medical	EN 60601-1-2
• Emission	EN 55014-1, EN 61000-6-3
• Immunity	EN 55014-2, EN 61000-6-1
Input terminal:	2-pin IEC 60320 connector C8
Output terminals:	DC connector, battery clips, push on terminals or open ends
IP-code:	41

VERSIONS

CHARGE CONTROL		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
1	6W	CC 100mA±25mA when batt. < 3V	0A/0V	1.5A ±0.1A	4.2V ±0.1V	< 100mA or max. 1 hr.	4.1V
2	13W	CC 100mA±25mA when batt. < 6V		1.5A ±0.1A	8.4V ±0.1V		8.2V
3	15W	CC 100mA±25mA when batt. < 9V		1.2A ±0.1A	12.6V ±0.1V		12.3V
4	16W	CC 100mA±25mA when batt. < 12V		1.0A ±0.1A	16.8V ±0.1V		16.4V
5	16W	CC 100mA±25mA when batt. < 15V		0.8A ±0.1A	21V ±0.1V		20.5V
6	16W	CC 100mA±25mA when batt. < 18V		0.66A ±0.1A	25.2V ±0.1V		24.6V
7	17W	CC 100mA±25mA when batt. < 21V		0.56A ±0.1A	29.4V ±0.1V		28.7V
14	18W	CC 80mA±25mA when batt. < 42V		0.3A ±0.1A	58.8V ±0.1V	< 56mA or max. 1 hr.	57.4V

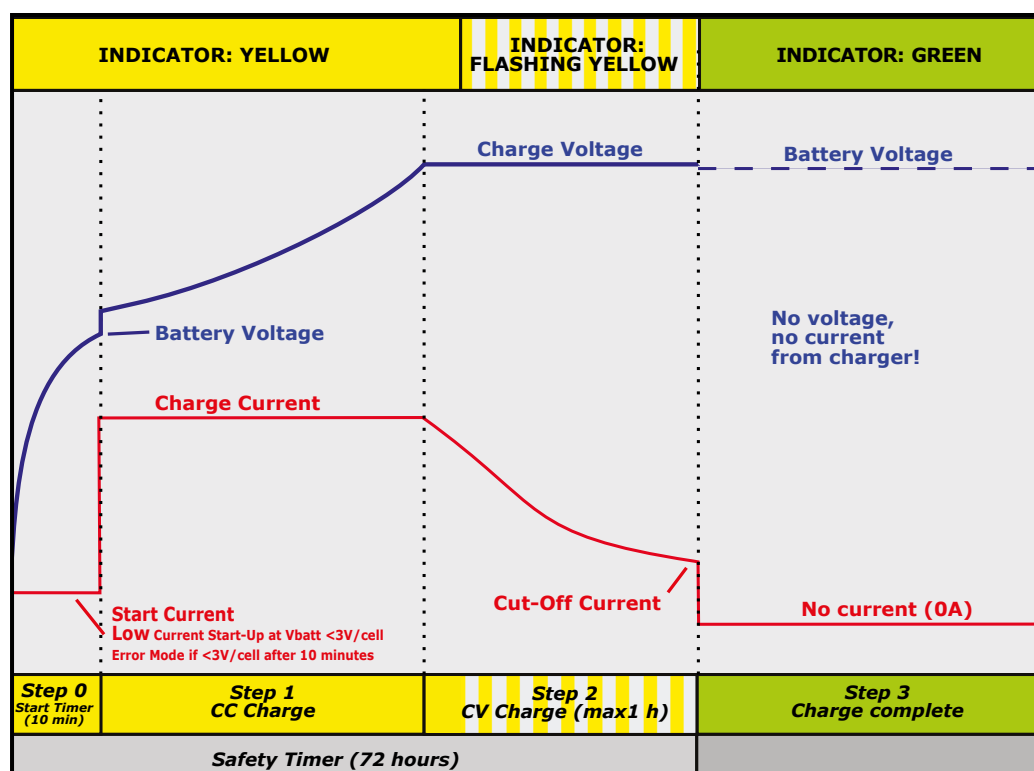
Li-Ion Battery Chargers

This new range of chargers for Li-Ion batteries uses a 3-stage charging profile with a microcontroller to maximise battery performance. They are also capable of waking up deeply discharged batteries and soft-start charging with low current until voltage is normalized. The new chargers are all medically certified according to EN 60601-1 edition 3.1 and EMC EN 60601-1-2 ed. 4 and are also UL-approved, and meet the latest DoE and CEC energy efficiency requirements.

Alternative chargers that terminate the charge on reaching the battery's threshold voltage can shorten charging time but always leave some capacity unfilled. The 3-stage charge control first restores the full battery voltage and then applies the saturation charge needed to fill the battery completely. This ensures the longest possible battery run-time. These chargers also features a single 3-colour LED indicator light for charge, error or standby status.

Below are shown the charging characteristics and LED indications

Charging characteristics and LED indication



BATTERY NOT CONNECTED INDICATIONS

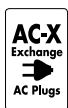
Battery not connected is indicated by FLASHING GREEN. In this mode charger will apply short pulses attempting to wake up deeply discharged batteries.

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

- Yellow with 1 red blink: Battery temperature is too low ($< 0^{\circ}C$)
- Yellow with 2 red blink: Battery temperature is too high ($> 45^{\circ}C$)

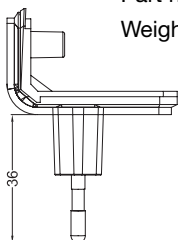


Exchangeable AC plugs for 3743LI

EU plug adapter

Part no. 127000

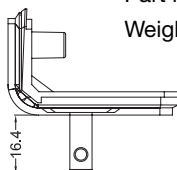
Weight: 20,9 g



US plug adapter

Part no. 127100

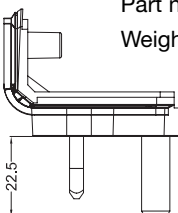
Weight: 13,4 g



UK plug adapter

Part no. 127200

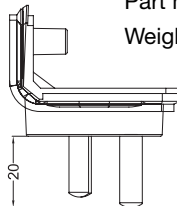
Weight: 29,2 g



AUS plug adapter

Part no. 127300

Weight: 21,4 g



2-pin IEC 60320 C7 mains cord

1800 mm

EU part no. 131306, UK part no. 131148,

US part no. 131368, AU part no. 013108

