

Chargers for Lead Acid batteries

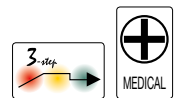


- 3-step charge control with current detection
- XLR output plug for wheelchairs and scooters
- Input voltage 198-264 VAC
- Wake up and low current start-up of deeply discharged batteries
- Error indication for reverse polarity, short circuit, charging of wrong lower voltage battery pack, defect battery and safety timer run-out
- Mounting bracket available
- Approvals:
 - Medically certified EN 60601-1 3ed
 - UL Approved

- 3-trinns ladekontroll med strømdeleksjon
- XLR plug for rullestoler og scootere
- Inngangsspenning 198-264 VAC
- Vekking og lavstrømoppstart av dypt utladede batterier.
- Feilindikasjon for polvendning, kortslutning, for lading av batterier med feil/lavere spenning, defekte batterier og for utløp av sikkerhetstimer
- Kan leveres med festebrakett
- Godkjenninger:
 - Medisinsk sertifisert 60601-1 3ed
 - UL godkjent

For updates: see www.mascot.no

For oppdat.: se www.mascot.no



Technical specifications

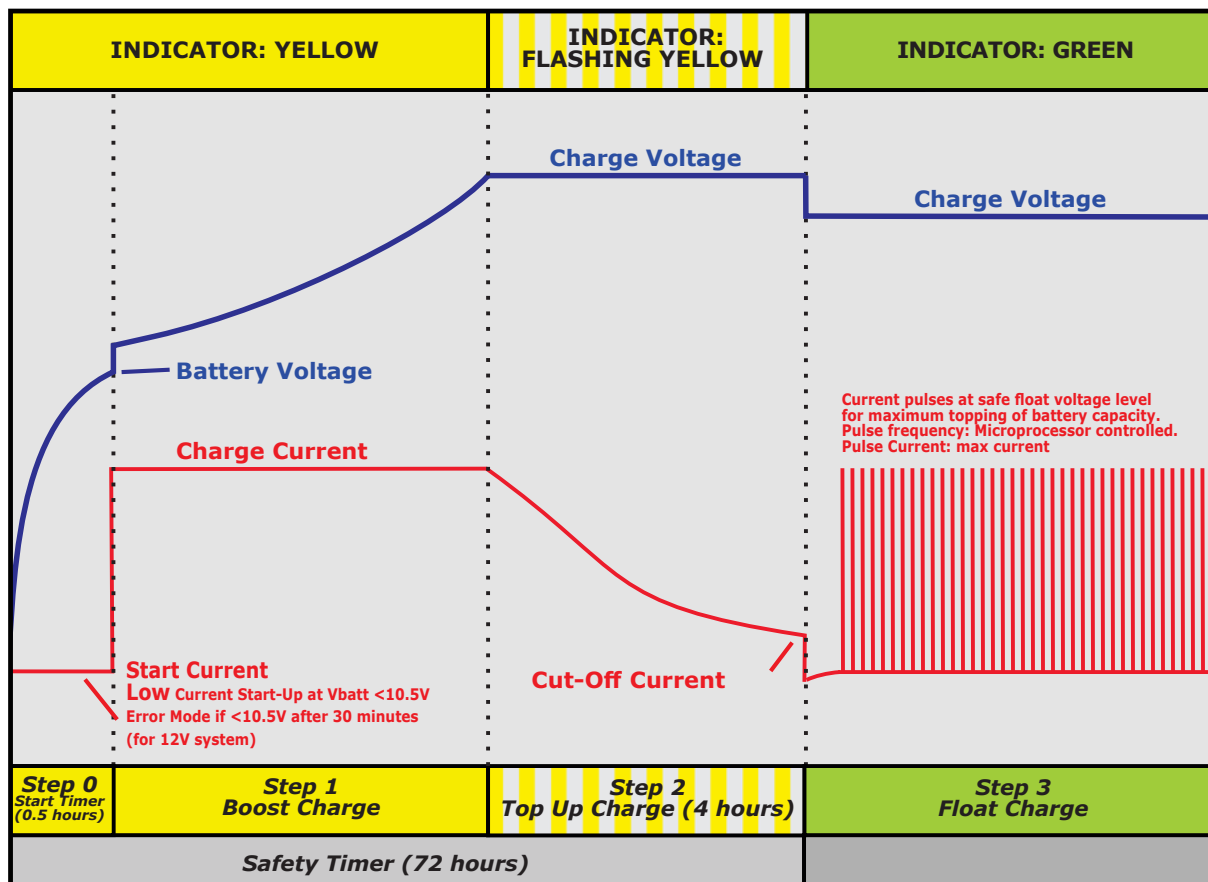
Tekniske data

Input voltage:	Inngangsspenning:	198-264 VAC
Line Frequency:	Frekvensområde:	47 – 50Hz
Switch frequency, approx.:	Svitsjefrekvens ca.:	65 kHz
Leakage current from battery with mains switched off:	Strømtrekk fra batteri ved frakoblet nett:	<130µA @ 24V
Temperature range	Temperaturområde	
• Operating:	• Drift:	-25 °C - +40 °C
• Storage:	• Lagring:	-25 °C - +65 °C
Temp. compensation of charge voltage	Temp. kompensasjon for ladespenning	-3 to -4mV/°C pr. cell (w. batt. clips only)
Ripple:	Rippel:	< 100 mV p-p
Protection:	Sikring:	Protected against reversed polarity, short circuit proof and thermal run-off. Prevents sparking. Charge timer: 4h Safety timer: 72h
Insulation class:	Isolasjonsklasse:	Class II (Double insulated)
Insulation voltage	Isolasjonsspenning	
• Primary – secondary:	• Primær - sekundær:	4000VAC / 5700VDC
Electrical safety standard:	Elektrisk sikkerhetsstandard:	EN 60601 (Edition 3.1)
EMC standards	EMC standarder	EN 60601-1-2:2015 (Edition 4)
Input terminal:	Inngangsterminal:	2-pin IEC 60320 or fixed mains cable
Output terminals:	Utgangsterminaler:	XLR plug or cord with insulated battery clips and temp. sensor
IP-code:	IP-grad:	IP44
Dimensions (LxWxH):	Mål (LxBxH):	210 x 113 x 53 mm
Weight:	Vekt:	With mains cable 1400g With IEC60320 1150g

Versions - Versjoner

Charge control - Ladekontroll (LED indication)						
	Step 0 < 30 min	Step 0 > 30 min	Step 1	Step 2	Step 3	Float charge
	(Yellow / Gul)	(Red=error / Rød=feil)	(Yellow / Gul)	(Flash Yellow / Blink Gul)	(Green / Grønn)	Vedl. lading
24V	1,4A +- 0,5A (batt. volt < 21V)	< 0A	10A +- 0,3A (batt. volt > 21V) (til Vbat = 29,4V)	29,4V +- 0,2V (until I charge < 1,4A or > 4hr) tapering charge current	27,4V +- 0,1V (until I charge > 8,5A) supply current up to max 10A for possible parallel load	27,4V ± 01,V Pulsing curr. at safe float volt level for max. topping of batt. capacity

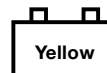
Charging characteristics and LED indication



STEP 1 - BOOST CHARGE

LED-indicator: YELLOW

The charger is in constant current mode (CC), charging with the maximum current until battery voltage reach Top-Up level.



STEP 2 – TOP-UP CHARGE

The charger is in constant voltage mode. The LED-indication will be FLASHING YELLOW during Top-up charge. The charger stays in this mode until the charge current decreases to charge termination level or the Top-Up Charge Timer runs out. The battery is charged to its full capacity at the end of this step



STEP 3 – FLOAT CHARGE

The LED-indication on the charger is GREEN and the battery is fully charged.

The charger is in standby mode. The charge voltage is at standby level and the charger may remain connected to the battery. The charger will return to boost charge if the battery is used. A load larger than the cut-off current will initiate a new charge cycle.



BATTERY NOT CONNECTED

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!
- 4 red blinks: Charging of wrong lower voltage battery pack (e.g. 12V) will be limited to 1.4A and terminated after 30min
- 5 red blinks: Safety timer has run out. Check battery status or capacity.
- 6 red blinks: Defect battery
- LED off: Battery voltage is too high ($> 32V$). Check battery voltage.

