# 3546 LA SERIES

Battery Charger, Lead Acid Batt: 24 watts



### **Features**

- 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 of lower voltage batteries and safety timer run-out
- Temp. compensated charge voltage on request
- 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



# **TECHNICAL SPECIFICATIONS**

#### **GENERAL INPUT/OUTPUT**

Input voltage: 90-264 VAC Line Frequency: 47 - 63Hz Switch frequency, approx.: 40 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
Input terminal: 2-pin IEC 60320
connector C8

Output terminals: DC connector,

battery clips, push on terminals or open ends

01 0

IP-code: 4X

**Dimensions (L×W×H):**  $124 \times 50 \times 37 \text{ mm}$ 

Weight: 220g

## **SAFETY PROTECTION EMC**

**Protection:** Protected against

reversed polarity and short circuit proof

Insulation class: Class II

Insulation voltage

Primary – secondary: 4000VAC / 5700VDC
Electrical safety std: EN/IEC 60335-2-29, 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

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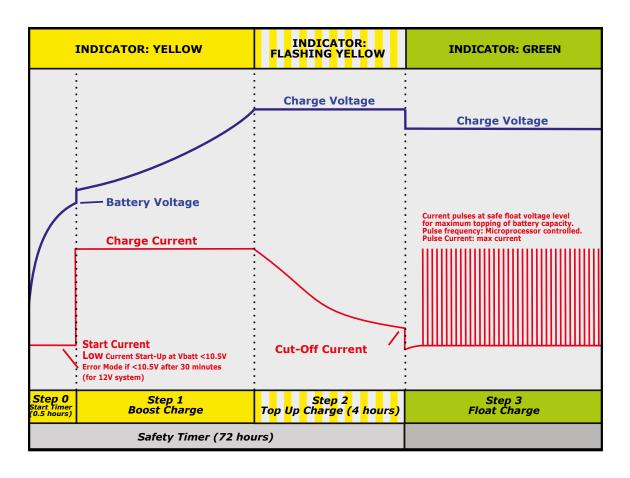
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# **VERSIONS**

	Step 0 < 30 min	Step 0 > 30 min	Step 1	Step 2	Step 3	- Float charge
	(Yellow)	(Red=error)	(Yellow)	(Flash Yellow)	(Green)	
HÍIÎËFG	100mA ± 25mA (batt volt< 10.5V)	0A/0V	2A $\pm$ 0.1A (batt volt >10.5V) (until Vbat = 14.7V)	14.7V ± 0.2V (until I charge <0.5A or >4hr) tapering charge current	13.7V ± 0.2V (until I charge > 2.0A) supply current up to max. 2.0A for possible parallel load	Pulsing current at safe float volt. level for max topp. of batt.
HÍIÌËG	100mA ± 25mA (batt volt< 21V)	0A/0V	$1A \pm 0.1A$ (batt volt< 21V) (until Vbat = 29.4V)	$29.4V \pm 0.2V \\ \text{(until I charge < 0.25A or >4hr)} \\ \text{tapering charge current}$	27.4V ± 0.2V (until I charge > 1A) supply current up to max 1A for possible parallel load	



# 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.



• Order plugs and mains cord separately



# Exchangeable AC plugs

