





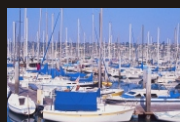


# Automatic Switch-Mode Battery Charger

# EPS 1245

## GENERAL FEATURES

-  Fitted with boost phase time-out timer to avoid excessive battery gassing
-  Overheating and short circuit protection
-  IUOU charging characteristic with time limited UO Phase
-  Fan ventilation
-  LED charging display
-  For motor homes, on sailing yachts, ambulance, and emergency vehicles



## INPUT

Input	207-253V
Frequency	50-60Hz
Protection	Internal Primary
Isolation	Input-Output 3000VAC Input-Case 2500 VAC Output-Case 500 VAC
Safety	Designed to IEC 950
EMI-EMC Standard	FCC Class , CE, C-Tick AS 3193
Input Connection	3 Core SAA Cable IEC

## MECHANICAL

Case Dimension	325L X 230W X 102H
Casing Material	Extruded Anodized Aluminum
Weight	5.05 kg.
Cooling	Fan cooled
Warranty	12 Months

## ELECTRICAL

Topology	Switching DC Power
Efficiency	90%
Boost Charge Voltage	14.7 VDC
Float Charge Voltage	13.8 VDC
Output Charge Current	45 Amps
Ripple & Noise	150 mV
Line Regulation	+/- 0.5% Over
Load regulation	Input Range +/- 1% 0-100% Load
Rise Time	500 mS
Hold-up Time	20 mS@Nominal Output
Short Circuit Protection	Output Shutdown
Over Current Protection	Secondary Current Limited
Reverse Polarity Protection	Internal Fuse

## Charging characteristic

The charging characteristic is generally designated as a modified IUOU characteristic

### I phase

At the beginning of the charging process, the empty battery is charged with constant current until the battery voltage reaches 13.8 V or 27.6 V. When the battery reaches this voltage level, the charging current slowly drops. With the drop of the current to the 80 % mark, the charger switches over to the higher charging voltage 14.3 V/14.7 V or 28.6 V/29.4 V.

### U0 phase

Here the time registration starts which limits the main charging phase (U0 phase) to a maximum of 4/8 hours. With the switching over of the charging voltage, the current rises again to its maximum value. Now it remains constant as long as the battery voltage is below 14.3 V/14.7 V or 28.6 V or 29.4 V. After reaching the maximum voltage, the current drops again. Thereby the voltage remains constant (U0). Within this main charging phase, which is limited to 4/8 hours, the battery is fully charged.

### U phase

If the current decreases to 10% of the rated current or if the time limit of 4/8 hours is exceeded, then the charger switches over to economy charging (13.8 V or 27.6 V) (U phase).