



SMPS Charger for E-Rickshaw EVs- Lead Acid Batteries 48 v 15A Model iDB4815A

iDB Power Solution Private Limited's

E-Rickshaw Battery Charger is a latest SMPS technology product, for charging pack of 4 Lead Acid batteries in string (48v). These chargers, specially designed for E-Rickshaw / E-Loader /EVs have intelligent 4 stage charging profile and have high power factor (89%) and can provide charging even at very low input voltage (up to 110 V). It has an attractive LED system for indicating charge status of the battery. On completion of the charging of the batteries, LEDs get steady and it automatically disconnects the main power supply.

Salient Features

- High charging current even at low mains voltage for faster charging
- High Efficiency with Power Factor correction to reduce Power consumption from Mains,
- Charging Current and Voltage Cyclic profile optimized for Cyclic Deep Discharge application to ensure back up time
- Charging profile ensures maximum charge return to ensure longer battery life,
- Electronic Reverse Battery Protection – enhanced safety provided besides normal fuse protection,
- Informative Battery Bar Graph and Mains indication along with audio alarm,
- Compact size for easy handling,
- Rugged metal enclosure,
- MCU based digital control
- Double phase protection.

Specifications

AC Input	
AC Input Voltage	Nominal : 230 V / Range: 120VAC±10V to 280VAC±10V
Power Factor / Frequency	Active PF Power Factor Correction >0.95 / 40Hz to 60 Hz
DC Output	
DC Output Voltage	60 Volts to 64 Volts
DC Output Current	15A ± 1A
Peak Efficiency	89 %
Charging Profile	Four Stage – Bulk CC, Absorption CC, Absorption CV and Float charge
Protections	
<ul style="list-style-type: none"> ➤ MAINS VOLTAGE PROTECTION Withstand up to 320V AC RMS. ➤ MAINS OVER CURRENT PROTECTION By FUSE, in case of abnormal condition ➤ THERMAL PROTECTION Electronically protected with internal sensor. ➤ REVERSE BATTERY PROTECTION Electronically Protected – Charger will not start unless battery is connected in correct polarity 	
Visual Indications	
<ul style="list-style-type: none"> ➤ AC Input Present - Mains Nominal Indication ➤ 4 LED Battery Charge Status Bar Graph ➤ Fault Indications by LED Blink ➤ Battery Too Low, Battery Too High, Abnormal High Current ➤ Over Temperature / Fan Failure, Mains Abnormal 	
Audio Indication (Buzzer)	
<ul style="list-style-type: none"> ➤ Battery Connect, Charging Completion – Intermittent Beeps ➤ Mains Failure or any Fault – Long Beep 	
Environment	
COOLING SYSTEM	Forced Air Cooled
Operating Temperature	0°C TO 45°C
Humidity	95% RH Non-Condensing
Weight & Dimensions	
Dimensions	W=135mm, H=100mm, L=300mm
Weight	3.5 Kg approx..
Enclosure	Powder Coated Sheet Metal Cabinet