



**E-Rickshaw Lithium (LFP / NMC)
Battery Charger (48 V 15 Amp)
Model iDB4815L**

These E-Rickshaws / EVs Lithium (NMC / LFP) Battery Chargers being manufactured by iDB Power Solution Private Limited are latest SMPS technology product. These chargers have three stage charging profile (CC – CV – with Charge Termination Timer and current threshold). These chargers 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 at voltage set based on Battery Chemistry and the Battery Cell Configuration. These chargers have robust safety features

Salient Features:

- Charging Current and Voltage profile optimized for Lithium Battery Packs (LFP & NMC) for E-Vehicles applications.
- High Efficiency with Power Factor Correction to reduce Power Consumption from Mains..
- High charging current even at low mains voltages (as low as 110 v) for faster charging. Excellent Feature for Power deficient regions.
- Electronic Reverse Battery Protection – enhanced safety and avoid inconvenient fuse replacement in case of accidental reverse connection.
- Informative Battery Bar Graph and Mains indication along with audio alarms.
- Compact size for easy handling.
- Rugged metal enclosure

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	52 Volts to 60 Volts - Set depending on Cell Chemistry / Cell Configuration / BMS Setting
DC Output Current	15A ± 1A
Peak Efficiency	89 %
Charging Profile	(CC-CV) with Charge Termination Timer and current threshold
Protections	
➤ 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	
➤ 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)	
➤ 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