



**Lithium Battery Chargers for EVs
(E-Scooter, E- Bike, E-2-Wheelers)**

Models iDB3605L, iDB3603L

E-Scooters, E-Bikes, E-2-Wheelers

iDB Power Solution Private Limited have Lithium (LFP/NMC) Battery Chargers for all these vehicles. These chargers are latest SMPS technology product and for Lithium Batteries (NMC / LFP) these 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 Aluminium metal enclosure

Technical Specifications

Charger Models : iDB3605L | iDB3603L

AC Input	
AC Input Voltage (Nominal/ Range)	230 V / 120VAC±10V to 280VAC±10V
Input Power Factor / Frequency	Active PF Power Factor Correction >0.95 / 40Hz to 60 Hz
DC Output	
DC Output Voltage	38 Volts to 41 Volts Set depending on Cell Chemistry / Configuration / Selected Nominal Voltage
DC Output Current	5 Amp ± 1Amp 3.5 Amp ± 1Amp for models iDB3605L and iDb3003L respectively
Peak Efficiency	89 %
Charging Profile	CC – CV – with Charge Termination Timer and current threshold
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 Abnprmal 	
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	1.5 Kg approx..
Enclosure	Aluminium Metal Cabinet