



2 KW-Smart Chargers for E-Rickshaw Lead Acid Batteries 48 V 35 Amp Model iDB4835A

iDB Power's 2KW Charger is a SMPS type Smart battery charger optimized for charging Lead Acid Batteries for E-Rickshaw / E-Loaders / Other EV applications with Four Stage charging profile. This charger has provision for loading Communication Protocol. This charger has the in-built flexibility of setting for DC current varying from 15 Amp to 35 Amps and voltage can be set from 48 to 65 Volts to enable charging of various battery configurations.

Salient Features

- Charging Current and Voltage profile optimized for Lead Acid battery configuration for E-Rickshaw /EV applications.
- High Efficiency with Power factor correction (.95) to reduce Power Consumption from Mains. At present most of the chargers available in the market have PFC of 0.70 only. This charger saves about 19 % power as compared to other chargers.
- High charging current even at low mains voltages as low as 120 volts for faster charging.
- 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

CHARGING VOLTAGE	48V to 65V ± 0.5V (Voltage is set Based on Requirement.)
CHARGING CURRENT	15A - 35A ± 1A
CHARGING PROFILE	Four Stage – Bulk CC, Absorption CC, Absorption CV and Float charge.
AC OPREATING RANGE	120VAC±10V -280VAC±10V, 40 Hz TO 60 Hz
AC POWER FACTOR	Active PF correction, >0.95
EFFICIENCY	90% Typical at nominal input
LCD DISPLAY PARAMETERS	
SCREEN1	(a) Charger Bar Graph, Elapsed Time (b) Instantaneous Charging Current and Battery Voltage
SCREEN2	(a) Selected Battery Type, Set CC Current, Set CV Voltage
SCREEN3	(a) Mains Voltage and Frequency, Ambient Temperature (optional)
LED INDICATIONS	
(a) Green – Charging On, (b) Yellow – Charging Stopped, (c) Red – Fault	
AUDIO INDICATIONS (Buzzer)	
a) Short Beeps - Power On, Charging Start or Stop	
b) Intermittent Beeps - Battery Charge Completion	
c) Long Beeps - Mains Failure or any Faults	
SAFETY PROTECTIONS	
A) REVERSE BATTERY PROTECTION - Electronically Protected – Charger will not start unless battery is connected in correct polarity.	
B) MAINS VOLTAGE PROTECTION - Withstand up to 320V AC RMS with Surge Protection.	
C) MAINS OVER CURRENT PROTECTION - By FUSE, in case of abnormal condition	
D) THERMAL PROTECTION-Electronically protected with internal temperature sensor.	
COOLING SYSTEM	Forced Air Cooled
OPERATING TEMPERAT.	0°C TO 45°C
Battery Cable	3mts 6sqmm with Anderson Type 50A Connector. 50A Terminal Block.
Mains Cable	1.8mts 1.5sqmm 3Core Cable with 16A molded Plug.
HUMIDITY	95% RH Non-Condensing
ENCLOSURE	Powder coated sheet metal cabinet
NET WEIGHT	6.0 kgs