Lucas

About Lucas

Lucas was founded in 1845 and today is the oldest continuously trading automotive brand in the world. For generations the Lucas name has been relied on all over the world, in every country, in any environment. Whatever your challenge, there's an answer in a famous Lucas green box.

INDUSTRIAL BATTERY CHARGERS

- **Material Handling Equipment's**
- **Substations**
- **Automotive & Generators**
- **EV Vehicles**

Marketed by

AUTOMOTIVE PRODUCTS COMPANY FZCO
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Made in India

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DC SERIES BATTERY CHARGERS

DC Series battery chargers are coming with taper current (DIN41772) profile. Due to taper current profile battery life will be enhancing moderately.
These chargers are used to charge C5 rating traction batteries like flooded batteries, of 12V, 24V, 30V, 36V, 48V, 72V& 80V and Current starts from 5amps to 200Amps

The main application of this chargers are material handling applications like stackers, forklifts, Reach truck's, Articulated forklifts, VNA's, Golf cart vehicles & AGV's etc.

INNOVATIVE FEATURES

- **Microcontroller-Based Control:**

Designed with a reliable microcontroller-based electronic circuit to ensure precise and efficient charging management.

- **DIN 41772 Wa Charging Profile:**

Supports DIN 41772 Wa charging profile, optimized for single-shift, two-shift, and three-shift operations.

- **Automatic Cut-Off:**

Intelligent dV/dt charge control enables automatic cut-off when the battery reaches full charge, ensuring battery protection and energy efficiency.

- **Multi-Mode Charging Capabilities:**

The DC Series offers versatile charging modes including:

- Normal Charging
- Equalize Charging

- **Opportunity Charging Support:**
Ideal for opportunity charging, enabling flexible and efficient charging during breaks or downtime.

BENEFITS

- Made in India chargers designed for long life, high durability, and cost-effective performance.
- Offers superior quality at competitive pricing.
- DC Series chargers feature transformer-based, SCR & Diode-controlled technology.
- Robust design ensures minimal failures and resilience against voltage fluctuations and high surge conditions.
- High efficiency with performance rated above 85%.
- LED indicators and an LCD display show charging voltage, charging current, charging time, ampere-hours (AH), and fault codes.

VRLA SERIES BATTERY CHARGERS

- The VRLA Series battery chargers are **Microcontroller-Based Control:**

Designed with a reliable microcontroller-based electronic circuit to ensure precise and efficient charging management.

- **DIN 41772 Wa Charging Profile:**

Supports DIN 41772 Wa charging profile, optimized for single-shift, two-shift, and three-shift operations.

- **Automatic Cut-Off:**

Intelligent dV/dt charge control enables automatic cut-off when the battery reaches full charge, ensuring battery protection and energy efficiency.

- **Multi-Mode Charging Capabilities:**

The DC Series offers versatile charging modes including:

- Normal Charging
- Equalize Charging

- **Opportunity Charging Support:**
  Ideal for opportunity charging, enabling flexible and efficient charging during breaks or downtime.

Designed with a constant current (CC) charging profile, following the IUIa DIN 41773 standard, ensuring that each cell receives an equal amount of current. This uniform charging approach helps maintain balanced charging and discharging cycles across all cells, enhancing battery life and performance.

These chargers are ideal for Sealed/Valve Regulated /AGM traction batteries, including:

- **VRLA (Valve-Regulated Lead-Acid) Batteries**
- **AGM Lead-Acid Batteries**
- **Gel Batteries**

They are compatible with battery systems rated at **12V, 24V, 30V, 36V, 48V, 72V& 80V** with current output ranging from **5 Amps to 200 Amps**.

Key Applications:

The SMF Series chargers are widely used in **material handling and mobility equipment**, such as:

- Stackers
- Forklifts
- Reach Trucks
- Articulated Forklifts
- VNA (Very Narrow Aisle) Trucks
- Golf Carts

INNOVATIVE FEATURES

- AGVs (Automated Guided Vehicles).

- Microcontroller-Based Charging Control
  Ensures intelligent and efficient charging management.
- CV-CC Charging Profile
  Constant Voltage–Constant Current profile, ideal for single, two, and three-shift operations.

➢**Automatic Cut-Off at Full Charge**
Utilizes dV/dT technology to stop charging precisely at 100% to prevent overcharging.

The DC Series offers versatile charging modes including:

- Normal Charging
- Equalize Charging

➢Opportunity Charging Support
Enables quick top-up charging during operational breaks.
➢ Optimized Battery Health
Prevents both overcharging and undercharging, extending battery life.
➢ Built-In Safety Protections
Safeguards against reverse polarity, incorrect voltage connections, AC over-voltage, and under-voltage.

BENEFITS

➢ Made in India chargers designed for long life, high durability, and cost-effective performance.
➢ Offers superior quality at competitive pricing.
➢ DC Series chargers feature transformer-based, SCR & Diode-controlled technology.
➢ Robust design ensures minimal failures and resilience against voltage fluctuations and high surge conditions.
➢ High efficiency with performance rated above85%.
➢ LED indicators and an LCD display show charging voltage, charging current, charging time, ampere-hours (AH), and fault codes.

IFC SERIES BATTERY CHARGERS

IFC Series – Initial & First-Time Battery Charger

The **IFC Series Charger** is designed specifically for **initial charging** and **first-time charging** of uncharged and dry-charged batteries.

- **Initial Charging**: Required for uncharged batteries after electrolyte filling. These batteries need several charge-discharge cycles before use.
- **First-Time Charging**: Applies to dry-charged batteries shipped without electrolyte. After filling, the battery must be charged before operation. Charging parameters (current and duration) are as per battery manufacturer guidelines.

FEATURES

Charger Highlights (Features):

- **Constant Current Output**
  Adjustable from **5% to 100%** as per charging requirement.
- **Programmable Timer**
  Settable from **0 to 120 hours** for controlled charging duration.
- **Multi-Voltage Support**
  Compatible with **24V, 48V, 72V, and 80V** batteries via a voltage selector switch.
- **User Interface**
  - LED & LCD Display showing:
    - Charging Voltage & Current
    - Charging Time
    - Ampere-Hour (Ah)
    - Fault Codes
  - Potentiometer for current adjustment
  - Electronic timer for charging duration
- **Three-Phase Input Only.**

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AMPCO LI SEREIS BATTERY CHARGERS

Our 0.8kW to 20kW energy-efficient smart charging system is engineered for exceptional power density and supports multiple battery chemistries—extending battery life, maximizing vehicle uptime, and empowering your business to perform at its best.



FEATURES

- HIGH EFFICIENCY

  Utilizing Phase Shifting Full Bridge Convertor technology. Li Series offers peak efficiency at 92% and a power factor 0.99.

- COMPACT DESIGN, HIGH POWER

  Light weight, compact design and high output power enabling dense installations in limited spaces.

- MODULAR FLEXIBILITY

  Modular designs ensure continuous operation, even if one module fails

- PRECISION CHARGING

  Charge profiles are designed for both Pb and Li-ion batteries, focusing on balanced charging, battery longevity and specification needs.

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LI1 SERIES 0.8KW/1.5KW/3KW/6KW

SPECIFICAPONS

INPUT POWER	Single phase 180V-260VAC, 50/60Hz
POWER FACTOR	0.99
PEAK EFFICIENCY	92%
BAMERY TYPE	Lead acid/AGM/GEL/Li-Ion
OUTPUT VOLTAGE	12V/24V/36V/48V/60V/80V
OUTPUT CURRENT	5A-100A
INGRESS PROTECTION	IP20/IP67
CONNECTIVITY	CANbus Ready
COOLING	Forced cooling
OPERATING TEMPERATURE	-20°C to 55°C
HUMIDITY & ALTITUDE	0% ~ 75%, non-condensing.
APPLICATIONS	Semi Electric stacker, Fully Electric stacker, Golf Cart, Floor Cleaning machines.

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LI3 SERIES 3KW/6KW/10KW/20KW

SPECIFICAPONS

INPUT POWER	Three phase 380V-450VAC, 50/60Hz
POWER FACTOR	0.99
PEAK EFFICIENCY	92%
BAMERY TYPE	Lead acid/AGM/GEL/Li-Ion
OUTPUT VOLTAGE	12V/24V/36V/48V/60V/80V
OUTPUT CURRENT	50A-200A
INGRESS PROTECTION	IP20
CONNECTIVITY	Canbus Ready
COOLING	Forced cooling
OPERATING TEMPERATURE	-20°C to 55°C
HUMIDITY & ALTITUDE	0% ~ 75%, non-condensing.
APPLICATIONS	Forklifts, Reach trucks, Articulated Forklifts, VNA's.