



# CHARIS+ for Industrial Vehicles\*

## Overview



- > On-board chargers with nominal power of 1,000 W
- > Robust case against very large mechanical shocks and vibrations
- > Best ratio performance/volume available on the market
- > CANBUS link for communication (optional)
- > Thermal, short circuit, reverse polarity protections
- > Overvoltage protection
- > Compatible with all battery types (Lead, Lithium...)



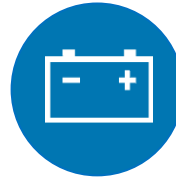
Mechanical Shock  
resistant



Vibration  
proof



CANBUS  
communication



All  
battery types



High level  
overvoltage Protection

## Main applications

- > Forklifts
- > Aerial Platforms
- > Light Electric Vehicles

## Main features

With a compact design thanks to its high frequency electronics, the CHARIS+ charger is perfect for integration into industrial vehicle. Resisting Shocks and vibrations, embedding complete electronic protection, they have been designed to resist harsh environment. Programmable thanks to their 4 selection switch or via CANBUS (optional), they can be easily programmed to fit the battery vehicle, whatever their characteristics.

INPUT
Voltage: 190V - 253V AC Single Phase
Mains Frequency: 45 to 65 Hz
Power factor : > 0,65
Efficiency > 85%
OUTPUT
Voltage: 24V
Power: 1,000W at 230V
Maximum current: 35 Amps
COMMUNICATION BUS (in option)
CAN bus
Diagnostics on CAN
Jack plug to PC

ELECTRONIC PROTECTION
Overload and output short-circuit
Over temperature and temperature regulation
Output over voltage / reverse polarity
OPERATING CONDITIONS
Temperature: -15°C to +50°C
Relative Humidity: 10% to 95%
MECHANICAL FEATURES
Dimensions: H 233mm x L 104mm x W 66mm
Weight: 2 kg
Index Protection : IP20

## Communication

### Vehicle interface:

- Compatible CANBUS in option

### Selection & Indicators:

- Charging curve: 4 positions
- Light status indicators in option

## Standard compliance

- Safety: EN62368-1
- EMC: EN 61000-6-1 / 6-2 / 6-3 / 6-4

CE



Forklifts



Aerial Platforms

\*This product is specifically designed, and is to be installed, as part of this type of equipment:

- Means of transport for persons or goods, excluding electric two-wheel vehicles which are not type-approved
- Non-road mobile machinery made available exclusively for professional use

This product fulfil its function only if it is part of this kind of equipment, and can be replaced only by the same specifically designed product.