



**Electronics for
Railway & Public Transport**
From Design to Manufacturing

Control Units & Accelerometer

Bogie Stability and Hot Box Detection Control Units

- **SIL2 and SIL3 certified**
- Ambient Temperature: **-25°+40° C**
(TI class of EN50155)
- **IP30**
- **24 V_{CC}** Nominal Supply Voltage
- **16.7 ÷ 36 V_{CC}** Continuous Supply Voltage
- Powered by train batteries

Accelerometer

- **SIL2 certified**
- Ambient Temperature: **-30°+70° C**
- **IP67**



Optical Power Supply

Transmitter unit based on a **laser diode** and a receiver capable of converting the laser beam in electrical power. This device supplies **power meters installed on trains**.

- 12 V_{DC} Input voltage
- 500mW @5 V_{DC} Output power
- Operating temperature: -40° ÷ +85°C



Prima Electro designs, develops and produces **taylor-made electronics**, translating ideas and specifications into a concrete, industrial-grade product.

DC Battery Charger (2x3.6kW module)

Low power DC battery charger developed specifically for public charging hubs and parking.

- **Compact IP67 solution**, suitable for under-street installations
- **SiC Technology**
- **Bidirectional architecture** (V2G ready)
- 400 V_{DC} Max Output Voltage (CCS2 compatible)
- 450 ÷ 550 V_{DC} Input Voltage
- 98% efficiency at full load



CRT Remote Terminal

This Remote Terminal is an extension of the Chronological Events Recorder HMI, for **data acquisition** of on-board events or for **maintenance**.

- 24 keys keypad
- 240x64 px
- 4 Digital Input channels
- 4 Digital Output channels
- 16 status LED
- Fieldbus RS-485 (*MVB optional*)
- Power 24V/72

Power DC/AC Inverter

Designed to operate with an **extended supply voltage range** even under extreme ambient temperatures. Ethernet port is available for commissioning while CANopen is used for run-time control.

- 600 V_{DC} Input power
- 380÷400 V_{AC} Output (3 Ph)
- 50Hz frequency
- Rated Power 30kVA
- Protection degree:
 - **IP5x** (power electronics)
 - **IP2x** (control electronics)



High voltage PSU

Compact and robust DC/DC power supply suitable for both submarine and railway applications.

- **SiC** Technology
- 2100 V_{DC} Nominal Input voltage
- 300 V_{DC} Nominal Output voltage
- Max Output current 50A
- Max Output power continuous 15kW
- **NO auxiliary supply required**

DC Battery Charger (50kW module)

High power modular DC battery charger up to **350kW**, for EV batteries.

- **SiC** Technology
- **Bidirectional architecture** (V2G ready)
- 950 V_{DC} Max Output Voltage (CCS2 compatible)
- **Input Voltage up to 1500 V_{DC}** (*customizable*)
- 97% efficiency at full load
- Air or water cooling (*customizable*)

REDI - Electronic track relay

REDI is used in **Signalling Systems**, in particular to signal occupied/unoccupied track circuits. It detects the failure of any insulated joint, working with different track circuit types (**single rail track circuit, double rail track circuit, 50 Hz, 83.3 Hz PSK**).

- **SIL4** certified
- RFI IS402 compliant





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