

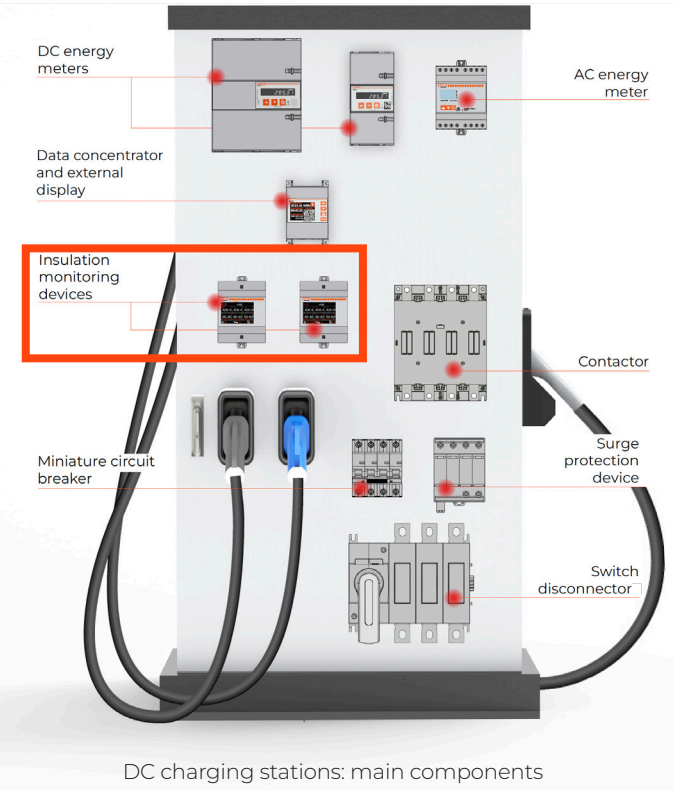
INSULATION MONITORING DEVICES FOR DC CHARGING STATIONS **PMIC** TYPE



INSULATION MONITORING DEVICES PMIC TYPE

Insulation monitoring devices **PMIC** type are designed for **continuous supervision of the insulation resistance** of ungrounded DC systems (IT), used in electric vehicle charging stations. These devices **detect insulation partial loss or developing faults**, that could lead to electric shock or fire hazards, enabling **preventive maintenance** and ensuring high system **reliability** and operational **safety**.

A fault in the insulation can't be seen. Until it's too late!

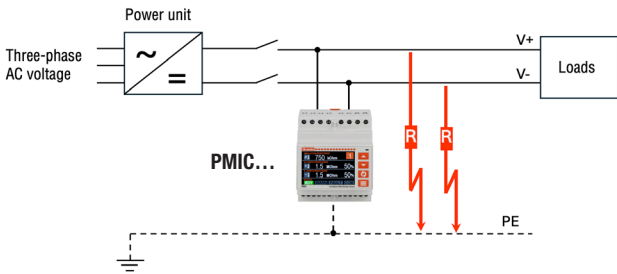


Insulation degradation is silent and progressive: in IT systems, a first fault stays invisible — a second can be severe, even lethal.

- Main causes
- **Thermal stress:** heat from high current hardens and cracks cable insulation
 - **Environmental factors:** humidity, salt spray and temperature fluctuations penetrate connectors
 - **Mechanical wear:** bending, handling and vehicle crushing damage charging cables
 - **Chemical contamination:** dust, oils and pollutants create conductive paths on PCB surfaces and power modules.

The solution? Insulation monitoring device!

The PMIC continuously monitors insulation resistance, triggering a warning and a trip alarm when it drops below set thresholds.



VERSIONS WITH COLOR DISPLAY

- 7 languages: English, Italian, Spanish, French, German, Portuguese, Polish
- Keypad for parameter settings
- Clear view of measures and status

BLIND VERSIONS WITH NFC CONNECTIVITY

- 4 status LEDs
- NFC connectivity for programming with Android and iOS smart devices
- Protection with password

Channel number

Measures

- Insulation resistance
- V+/earth resistance
- V-/earth resistance
- Leakage capacitance
- System voltage

Status LEDs

- ON: presence of auxiliary supply voltage
- READY: charger ready to operate
- WARNING: insulation resistance under the warning value
- FAULT: insulation resistance under the fault value

NFC connectivity



SINGLE OR DUAL CHANNEL

For the monitoring of 1 or 2 charging sockets with just one device.

BUILT-IN RS485 PORT

For monitoring, supervision, or parameter settings via Modbus-RTU protocol.

COMPACT DIMENSIONS

- Only 4-module wide housing (71.6x90x63mm)
- All-in-one:
 - DC voltage measurement inputs
 - Auxiliary supply voltage 12-24VDC
 - 3 SSR signalling outputs per channel (ready, warning, fault)
 - 1 digital input with test/reset/inhibition function (2 inputs for PMIC2...)
 - RS485 port.

MCS READY

- Versions with operating voltage up to 1200VDC or **1500VDC** for Megawatt Charging Systems.
- Active balancing helper function for version 1500VDC



CERTIFICATIONS

- **cURus** certification (pending) for north American market
- **Compliant with standards** (with TUV test report)
 - IEC/EN 61557-8, reference standard for IMD
 - IEC/EN 61557-18 draft, reference standard for IMD for DC charging stations, planned for 2027
 - IEC 61851-23, standard for charging stations.

WIDE TEMPERATURE RANGE

Operating temperature **-40...+70°C**, designed to withstand even the most demanding environments.

SELECTION GUIDE

	PMIC10K00B	PMIC13K00B	PMIC13K00	PMIC13K50	PMIC23K00
Display	-	-	●	●	●
NFC	●	●	-	-	-
Built-in RS485 port	-	●	●	●	●
Number of monitored channels	1	1	1	1	2
Maximum monitored voltage	1200VDC	1200VDC	1200VDC	1500VDC	1200VDC
Destination use	CCS	CCS	CCS	MCS	CCS

Accessory: PMICXC1 (cable kit molex connector for auxiliary supply voltage, digital inputs and RS485 port).



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