



- ✓ Block voltage, Rel and Rct simultaneously in approx. 2s
- ✓ DC measuring ranges:
±2.45 VDC (res. 0.00001 V)
±24.5 VDC (res. 0.0001 V)
±600 VDC (res. 0.001 V)
- ✓ Memory for up to **300,000** measured values
- ✓ Up to **1,000 battery definitions** can be transferred from the database to the test instrument
- ✓ **Guided measurement sequences** with acoustic Pass/Fail feedback
- ✓ 1.3 Ω range: robust against interference voltages
- ✓ Bluetooth, IrDA, DMA35(v3)-connection as standard
- ✓ **600 V CAT III** and up to **10 hours** operating time

Battery tester **TMC-2001RTS**

Mobile battery tester for UPS and stationary battery systems

The TMC-2001RTS is a mobile battery tester for professional maintenance and service work on UPS batteries, industrial batteries and stationary battery systems. Together with the CS-Manager software, it forms a **battery management system** for measured value acquisition, limit monitoring, evaluation and documentation — up to a central SQL database solution.

Practical advantages at a glance

- **Measure just as quickly — with more information:** block voltage + Rel + Rct in approx. 2 s; pure block voltage in approx. 0.9 s.
- **Deeper diagnostics:** Rel for electrical losses, Rct for electrochemical abnormalities — more meaningful information than a pure 1000 Hz analysis.
- **More robust measurement:** 1.3 Ω range with 10 $\mu\Omega$ resolution reduces the disadvantages of sensitive low measuring ranges in the presence of interference voltages.
- **Clean documentation:** guided measurement sequences, acoustic Pass/Fail feedback, RFID assignment, DMA35(v3) and CS-Manager.

Technical Data – Measuring Inputs

	Range	Resolution
Block voltage	± 2.45 VDC	0.00001 V
	± 24.5 VDC	0.0001 V
Total voltage	± 600 VDC	0.001 V
Resistance	1.3 Ω	10 $\mu\Omega$

Interfaces

- IrDA / Infrared
- Bluetooth
- RFID system
- direct DMA35(v3)-connection

Software

The CS-Manager software is included in the scope of delivery and supports battery management, limit values, route planning, evaluation, reports and documentation.

Measured values are transferred from the guided test sequence; the SQL database can be operated locally or **centrally on a server**.

Rel/Rct Resistance Diagnostics

The TMC-2001RTS operates with a controlled current profile. During testing, the device generates a controlled current change of up to 1 A. The internal resistance is calculated from the current and voltage profile; synchronous 24 kHz A/D converters and digital filters support reproducible measured values.

Block voltage, Rel and Rct are acquired together in approx. 2 seconds; pure block voltages in approx. 0.9 seconds.

The continuous 1.3 Ω range with 10 $\mu\Omega$ resolution is an advantage in the presence of interference voltages at

block level: sensitive low measuring ranges are avoided, and measurement remains robust in industrial battery systems.

Rel describes ohmic losses at terminals, intercell connectors, grids and electrolyte. Rct describes charge transfer at the electrode/electrolyte interface and makes electrochemical changes visible.

This enables the TMC-2001RTS to provide more diagnostic information than a pure 1000 Hz internal resistance measurement. Abnormal blocks can be detected earlier and documented traceably in the CS-Manager software.

Scope of Delivery

- **TMC-2001RTS** test instrument
- Battery charger
- CS-Manager battery management software as download
- Transport case
- Depending on the article number: without Kelvin test probes, with straight Kelvin test probes or with right-angled Kelvin test probes.
- Protective sleeve with two integrated magnets and carrying strap.

Comfortable to carry:

Dimensions (L x W x H)
154 mm x 98 mm x 33 mm



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Technical specifications subject to change