

# MI 3309 BT DeltaGT/PAT



=PRCD type **S, K**



- ✓ Mobile
- ✓ Simple
- ✓ Easy to use
- ✓ Fast & accurate
- ✓ Complete safety testing

**NEW**  
Differential leakage current test  
Mains and battery powered



The new MI 3309 BT DeltaGT is both battery and mains powered multifunctional instrument intended to perform measurements for testing the electrical safety of portable electrical equipment. Due to dual power capability of MI 3309, the instrument can perform tests usually found on larger, heavier machines (e.g. differential leakage, touch leakage, power consumption testing etc) while still maintaining a lightweight portable design. The handling and use of the instrument is clear and simple due to large graphical LCD screen with backlight, two PASS / FAIL LED indicators and HELP screens for each measurement.

Built-in Bluetooth technology enables support of aPAT, revolutionary Portable Appliance Testing software tool. An Android device with the aPAT application creates flexibility by serving as a link between PAT tester, QR code scanner and / or QR code printer. The application also uses a smart phone's built in camera as a barcode reader.

#### THE FOLLOWING TESTS CAN BE PERFORMED:

- Functional and visual inspection;
- Earth bond resistance;
- Insulation resistance; Insulation resistance of isolated accessible conductive parts;
- Substitute leakage current; Substitute leakage current of isolated accessible conductive parts;
- Differential leakage current test;
- Touch leakage test;
- PRCD test;
- Power test;
- IEC cord polarity test;
- Leakage and load currents with current clamp;
- TRMS voltage meter.

#### KEY FEATURES:

- Graphic LCD with backlight.
- Support for aPAT android application.
- Bluetooth communication with QR printer, barcode scanner and PC via aPAT android application.
- Built-in real time clock.
- QR and bar-coding system for quick test code selection and identification of device under test.
- Programmable limits for PASS / FAIL evaluation.
- Fully compatible with Metrel PATLink PRO PC software package, included in standard set (download, view, print and export of test results).
- Optional PC SW PATLink PRO Plus (advanced test result analysis and professional test report creation)
- Portable and lightweight design.
- Rechargeable battery powered instrument with built-in charging circuit.
- The instrument can operate from mains power or batteries.



#### POWERFUL FUNCTIONS FOR FAST AND EFFICIENT PERIODIC TESTING:

- Pre-programmed test sequences;
- Fast testing with the help of QR codes;
- TTest sequences can be created and uploaded from aPAT android application or PC SW;
- VDE organizer.

#### APPLICATION:

- Professional portable appliance testing
- General portable appliance testing
- Multi-location portable appliance testing

#### STANDARDS APPLIED:

**Electromagnetic compatibility (EMC)**

EN 61326

**Safety (LVD)**

EN 61010-1

EN 61010-031

**Functionality**

BS EN 61557-2,-4

VDE 0404-1

VDE 0404-2

VDE 0701-0702

NEN 3140

# Technical specifications

## Earth continuity (200 mA in to 2.00 Ω)

Range	Resolution	Accuracy
0.00 Ω ÷ 19.99 Ω	0.01 Ω	± (5 % of reading + 3 digits)
20.0 Ω ÷ 199.9 Ω	0.1 Ω	
200 Ω ÷ 1999 Ω	1 Ω	Indication only

## Insulation resistance, Insulation – S resistance (250 Vdc, 500 Vdc)

Range	Resolution	Accuracy
0.00 MΩ ÷ 19.99 MΩ	0.01 MΩ	±(5 % of reading + 3 digits)
20.0 MΩ ÷ 49.9 MΩ	0.1 MΩ	
50.0 MΩ ÷ 199.9 MΩ	0.1 MΩ	Indication only

## Differential leakage current (230 Vac)

Range	Resolution	Accuracy
0.00 mA ÷ 19.99 mA	0.01 mA	±(5 % of reading + 5 digits)

## Touch leakage current (230 Vac)

Range	Resolution	Accuracy
0.00 mA ÷ 7.0 mA	0.01 mA	±(10 % of reading + 5 digits)

## Substitute leakage current (30 Vac)

Range	Resolution	Accuracy
0.00 mA ÷ 9.99 mA	0.01 mA	
10.0 mA ÷ 20.0 mA	0.1 mA	±(5 % of reading + 3 digits)

## (P)RCD testing (10 mA, 15 mA, 30 mA)

Range	Resolution	Accuracy
0 ms ÷ 300 ms (½xIΔN)	0.1 ms	
0 ms ÷ 300 ms (IΔN)	0.1 ms	±3 ms
0 ms ÷ 40 ms (5xIΔN)	0.1 ms	±1 ms

## Power measurement (230 Vac)

Range	Resolution	Accuracy
0.00 kVA ÷ 4.00 kVA	0.01 kVA	±(5 % of reading + 3 digits)

## Voltage TRMS measurement

Range	Resolution	Accuracy
80 ÷ 300 V	1 V	±(2 % of reading + 2 digits)

## Clamp current

Range	Resolution	Accuracy
0.00 mA ÷ 9.99 mA	0.01 mA	±(5 % of reading + 10 digits)
10.0 mA ÷ 99.9 mA	0.1 mA	±(5 % of reading + 5 digits)
100 mA ÷ 999 mA	1 mA	±(5 % of reading + 5 digits)
1.00 A ÷ 9.99 A	0.01 A	±(5 % of reading + 5 digits)
10.0 A ÷ 16.0 A	0.1 A	±(5 % of reading + 5 digits)

## Polarity test (<50 V AC)

# General data

Power supply voltage:	9 VDC (6x1.5 V battery or accu, size AA), 230 Vac
Operation:	10 h
Working temperature range:	0 °C ÷ 40 °C
Maximum relative humidity:	95 % RH (0 °C ÷ 40 °C), non-condensing
Display:	128 x 64 dots matrix display with backlight
Memory:	1500 memory locations
Communication port:	RS232 (PS/2 connector, female), USB (connector Typ B)
Overvoltage category:	CAT II / 300 V
Protection classification:	Double insulation
Protection degree:	case IP 40 /connectors IP 20
Dimensions (w x h x d):	14 cm x 8 cm x 23 cm
Weight:	1,2 kg



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## Ordering information:

Standard set

Part No.: MI 3309



- Instrument MI 3309 BT DeltaGT
- Soft carrying bag
- IEC cable, 2m, 2 pcs
- Test lead, black, 1.5 m
- Test lead, green, 1.5 m
- Test lead, brown, 1.5 m
- Crocodile clip, black
- Crocodile clip, green
- Crocodile clip, brown
- Test probe, black
- Test probe, green
- Test probe, brown
- PC software PATLink PRO
- RS232 cable
- USB cable
- Instruction manual
- Short instruction manual
- Calibration certificate
- NiMH rechargeable batteries, type AA, 6 pcs

## Optional accessories:

Photo	Order No.	Acc. description
	A 1302	Set of carrying straps
	A 1303	Soft hand strap
	A 1306	PC SW PATLink PRO Plus with USB and RS232-PS/2 cable
	A 1203	Upgrade code PATLink PRO to PATLink PRO Plus
	A 1105	Barcode scanner
	A 1316	Three phase adapter (16A CEE-Schucko)
	A 1317	Three phase adapter (32A CEE-Schucko)
	A 1107	RFID reader / writer
	A 1108	RFID tags, self-stick, 25 pcs RFID tags, key-tag, 25 pcs
	A 1331	Test lead with crocodile, black 1.5m
	1472	Leakage current clamp
	A 1207	Three phase adapter
	A 1434	aPAT Android
	A 1488	BT LABEL PRINTER Able
	A 1520	Labels for Able printer, (250 labels per roll)
	A 1450	Spare label role for S 2062
	S 2062	BT label printer set

Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.