### COMPLETE SOLUTION FOR 1 AND 3 PHASE APPLIANCES RECOMMENDET

A 1322 and A 1422 Active 3-phase Adapter

Metrel's all new A 1322 Multifunctional test adapter is designed for troubleshooting, as well as for periodic testing on 3-phase appliances and machinery. Unique functions such as, active polarity testing, differential leakage testing and testing of 3-phase RCD's make the A 1322 Active 3-phase Adapter an ideal instrument for advanced applications. The A 1322 adapter is designed for use alongside the MI 3321 MultiservicerXA and the MI 3310/MI 3310 25A SigmaGT enabling functional tests to be carried out on machines up to 40 A. Several test socket outlets make this instrument an ideal tester for testing industrial extension leads that may also be RCD protected. The A 1422 Multifunctional test adapter has complete support for testing of Arc Welding Equipment in accordance to EN 60974-4 and VDE 0544-4. Due to the powerful test data management included with both supporting test instruments, all test data can easily be equipped with needed parameters. This data can be stored into the large memory included, and with the support of the powerful data management system PC SW Patlink Pro, exported as professional test reports.



#### **KEY FEATURES:**

- Testing of Open-Circuit Voltage at ARC Welding Units in accordance to EN 60974-4 (1422 only).
- All tests on 3-phase electrical equipment can be carried out, including live leakage test, power, polarity, RCD and Active polarity.
- Simple connection to the PAT/MA-CHINE tester with automatic detection.
- Simple test procedures, identical to single phase equipment.
- Test sequence for 3-phase tests are automatically set, based on entered test codes and input voltages.
- Built-in CEE 3-PH/32A 5 pin, CEE 3-PH/16A 5 pin and CEE 1-PH/16A 3 pin test sockets.

| A 1322 and A 1422                                    | MI 3310 | MI 3310 25A |
|--|---------|-------------|
| Earth bond / continuity resistance 200 mA            | ✓       | √           |
| Earth bond / continuity resistance 10A / 25 A        | - / -   | ✓ / ✓       |
| Continuity (single / auto)                           | -       | _           |
| Insulation resistance                                | ✓       | ✓           |
| Insulation resistance – s                            | ✓       | ✓           |
| High voltage test                                    | _       | -           |
| Loop impedance and prospective fault current         | _       | _           |
| Discharging time                                     | -       | -           |
| Voltage, frequency, three-phase rotary field         | -       | _           |
| Substitute leakage current                           | ✓       | ✓           |
| Substitute leakage – s                               | ✓       | ✓           |
| Differential leakage current                         | ✓       | ✓           |
| 3-phase differential leakage current                 | ✓       | ✓           |
| Touch leakage current                                | ✓       | ✓           |
| Polarity test  | ✓       | ✓           |
| Active polarity test                                 | ✓       | ✓           |
| 3-phase polarity test / 3-phase active polarity test | ✓       | ✓           |
| Clamp current test                                   | ✓       | ✓           |
| P/RCD test   | ✓       | ✓           |
| 3-phase P/RCD test                                   | ✓       | ✓           |
| Power / functional test                              | ✓       | ✓           |
| 3-phase power / functional test                      | ✓       | ✓           |
| A 1422 (only)  |         |             |
| Continuity test (according to IEC/ EN 60974-4)       | ✓       | ✓           |
| Insulation resistance (according to IEC/ EN 60974-4) | ✓       | ✓           |
| Leakage current (according to IEC/ EN 60974-4)       | ✓       | ✓           |
| No load voltage (according to IEC/ EN 60974-4)       | ✓       | ✓           |

# ACCESSORIES

| Photo       | Order No. | Acc. decription   |
|-------------|-----------|---|
|             | A 1289    | Soft carying bag  |
|             | A 1306    | PC SW PAT Link PRO<br>with USB and RS232<br>PS2 cable             |
|             | A 1203    | A 1203 Upgrade code<br>PAT Link PRO to PAT<br>Link PRO Plus       |
|             | A 1276    | Label printer (RS232)   |
|             | A 1318    | Label printer (Bluetooth)   |
|             | S 2062    | Zebra BT lable printer set  |
| 9           | A 1450    | Spare label role for<br>S 2062                                    |
|             | A 1295    | Labels for A 1276,<br>A 1318 printers                             |
|             | A 1328    | HI-Q Labels for A 1276,<br>A 1318 printers                        |
|             | A 1321    | Barcode scanner<br>(Bluetooth)                                    |
|             | A 1105    | Barcode scanner   |
| 5.          | A 1107    | RFID reader / writer  |
| ••••        | A 1337    | RFID tags, self-stick,<br>50 pcs                                  |
| •••         | A 1108    | RFID tags, self-stick,<br>25 pcs<br>RFID tags, key-tag,<br>25 pcs |
| <b>*</b> 0, | A 1207    | Three phase adapter   |
|             | A 1331    | Test lead with crocodile black 1.5 m                              |
| <b>Ç</b> ®• | A 1316    | Three phase adapter<br>(16A CEE-Schuko)                           |
| Ç.          | A 1317    | Three phase adapter<br>(32A CEE-Schuko)                           |

### METREL d.d.

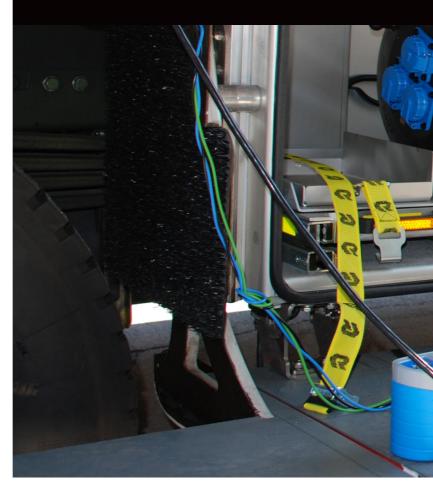
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Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.

SOLUTIONS FOR TESTING \_March\_2014\_Ang

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## **APPLICATIONS AND SOLUTIONS FOR TESTING** AND ANALYSIS OF:

- Portable appliances
- Transportable or moveable equipment
- Hand held appliances or equipment
- Stationary appliances or equipment
- Equipment, such as power tools used in building industry
- Information technology (IT)
- Fixed installed appliances or equipment



### NEW PAT TESTING TECHNOLOGY DESIGNED WITH SAFETY IN MIND

#### Metrel has over 50 Years experience in the development and production of Electrical Testers. We here at Metrel are proud to present our new family of PAT Test Instruments covering the entire requirements of Portable Appliance Testing: • Testing of power tools used on construction sites

- Testing of appliances protected with RCD's (type AC, A, B, S, K), portable RCD's
- Testing of 3-phase appliances (with active 3-phase Adapter A 1322)
- Testing of 3-phase appliances + ARC welding equipment (with active 3-phase Adapter A 1422)
- Testing of hard-wired appliances

Metrel's PAT testing solution is based on new innovative technology, the in-built Active polarity and fast test mode, all in all provide the quickest execution of measurements that you can find on the market. In addition Metrel's new PAT test instruments all comply with the PAT testing standards: VDE 0701-0702, NEN 3140, AS/NZS 3760 and code of practice 3rd Edition.

There are more highly beneficial functionalities to discover when you go PAT Testing with Metrel's new PAT testers including the following:

- Support for Bar-coding and Bar-code reading/ label printing via USB, RS232 and Bluetooth communication ports
- Creation of custom made auto tests with custom limits set into the testers
- Professional and user-friendly PC software PATLink PRO, designed with the portable appliance testing engineers in mind
- Help screens for easy setup of test procedures.

### ADVANCED PORTABLE APPLIANCE TESTING SOFTWARE

#### A 1434 aPAT Android



The aPATLink Android is Advanced Portable Appliance Testing tool. It enables fast and simple data management of tested appliances, as well as a quick overview of already performed tests by simply scanning a QR code. The Application enables the user to send results to the main office before leaving

test site, enter and save data to the test instrument by using a Smart phones' keyboard. Also it enables a creation of the custom made database for portable appliances' ID's, the appliances's names and the appliances' locations. All these features enable the user a faster and easier data handling.

#### **KEY FEATURES:**

- Complete database of tested appliances on one location.
- Upcoming retest warning on your smart phone or tablet.
- Simple, custom auto-test creation. • Use of smartphones barcode or QR code scanner for quicker data entry.
- Remote control of PAT tester.
- Easy data entering.
- Projects can be stored to your drop box account • Sending data to main office, before
- leaving test site. Built in risk assessment calculator.
- User can perform test simply by scanning the QR code containing all needed information for specific appliance.
- Overview of testing parameters by simple scanning QR code.

#### ADDITIONAL FEATURES:

- In Built Risk Assessment tool to provide correct Re-Test periods in accordance with COP version 4;
- Protect your business by applying QR codes instead of Bar Codes.

### SYMBOLS FOR KEY FEATURES



Class I Class II

Downloadable/Uploadable

simple tests

Pre-programmed automatic

3-phase appliance testing with support of 3-phase active adapter

Flash testing with 1500 V AC, 3000 V AC

Pass / Fail LED - indication

RCD /Portable RCD testing (no external adapter needed)



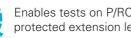
P/RCD

DUAL

Trend analysis with on site comparison of test results

Clamp leakage

Special terminals for fixed appliance testing



Operates on batteries and mains



## COMPLETE SOLUTION FOR SINGLE AND THREE PHASE APPLIANCES

MI 3310 25A SigmaGT

The MI 3310 25A SigmaGT is a multifunctional portable test instrument intended to perform all measurements for complete testing of portable electrical equipment. Along with numerous features like dual power supply support, built-in battery charger, lightweight design, large bright LCD, Bluetooth data transfer, soft qwerty keypad, internal memory for up to 6000 results this instrument offers also testing of RCD-protected cords, and testing of fixed appliances. Optional 3-phase active adapter enables testing of 3-phase appliances.



**AFTER REPAIR TESTING** 

MI 3305 OmegaGT Plus

The MI 3305 OmegaGT Plus is Metrel's top instrument intended for the extensive electrical safety testing of a wide range of portable appliances. With its ability to Flash test the MI 3305 OmegaGT Plus is an ideal instrument for after repair safety testing.















measurement

CHECKBO



Enables tests on P/RCD ACTIVE protected extension leads

Built-in charger

Bluetooth

- $(\mathbf{x})$
- RCD and portable RCD testing;

Touch leakage current;

• IEC cord polarity test;

**MEASURING FUNCTIONS:** 

Insulation resistance;

• Continuity test with 200 mA;

· Insulation resistance of isolated

accessible conductive parts;

accessible conductive parts;

Differential leakage current;

Substitute leakage current;

• Earth bond resistance with 10 A, 25 A;

• Substitute leakage current of isolated

• Leakage and load currents with current

- Functional test;
  - Bluetooth interface.

clamp:

### **BASIC SAFETY CHECKS**

MI 3311 GammaGT

Hand held battery powered tester appropriate for quick safety checks, with optional download facility. To reduce the time involved in testing, the MI 3311 GammaGT automatically performs Earth Continuity, Insulation, Sub-Leakage test and Polarity tests according to the appliance type (selected by the user manually or via a barcode scanner).



### **COMBINED FIXED INSTALLATION & PAT TESTING**

MI 3309 BT DeltaGT

Downloadable battery and mains powered hand held tester appropriate for both fixed installation and portable appliance testing. Dual power capability enables the MI 3309 BT DeltaGT to perform differential leakage current tests in spite of its lightweight portable design. Integrate unique PRCD-testing technology prevents tripping out of mains RCD during measurement. These features make the MI 3309 BT DeltaGT an ideal combination test instrument for fixed installations and portable appliances.



#### **MEASURING FUNCTIONS:**

- Functional and visual inspection;
- Continuity test with 200 mA;
- 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;
- RCD and portable RCD testing;
- Power test;
- IEC cord polarity test;
- Leakage and load currents with current clamp;
- TRMS voltage;
- Bluetooth interface.



### **MEASURING FUNCTIONS:**

- Continuity tests (200 mA, 10 A, 25 A);
- Insulation resistance;
- Substitute leakage current;
- Differential leakage current;
- Touch leakage current;
- IEC cord polarity test;
- Leakage and load TRMS current measurement with current clamp;
- Portable RCD testing;
- HV Flash test (OmegaGT Plus only);
- Functional test.

