## Differences between **standards** and different **instruments** MI 3309 BT DeltaGT and MI 3360 OmegaGT XA

| EN 50678 /EN 50699 /<br>VDE 0701-0702 | This procedure is applicable to current-using equipment or appliances with a rated voltage above 25 V AC and 60 V DC up to 1 000 V AC and 1 500 V DC, and currents up to 63 A, connected to final circuits.<br>They may be either pluggable equipment type A connected or permanently connected.  |   |   | MI 3309 (FW latest) | MI 3360 Series (FW<br>Latest) |
|---------------------------------------|---|---|---|---------------------|-------------------------------|
| MEASUREMENTS<br>INSPECTIONS           | EN 50699 (Periodic)   | EN 50678 (After repair)   | VDE 0701-0702 (Periodic & After repair)   | ×                   | ×                             |
|                                       | Visual inspection (EN 50699)  | Visual inspection (EN 50678)  | Visual inspection (VDE 0701-0702)   | Simple              | * * *                         |
|                                       | Protective bonding resistance   | Protective bonding resistance   | Protective bonding resistance   | ×                   | ×                             |
|                                       | - new formula for cross sections above 1,5m2 + 0,1 Ohm  | - new formula for cross sections above 1,5m2 + 0,1 Ohm  |   | manually            | (limit calculator)            |
|                                       | Insulation resistance   | Insulation resistance   | Insulation resistance   | ×                   | ×                             |
|                                       | Protective conductor current  | Protective conductor current  | Protective conductor current  | ×                   | ×                             |
|                                       | - direct method   | - direct method   | - direct method   |                     | ×                             |
|                                       | - residual current method   | - residual current method   | - residual current method   | ×                   | *                             |
|                                       | - alternative method  | - alternative method  | - alternative method  | ×                   | *                             |
|                                       | Touch-current   | Touch-current   | Touch-current   | ×                   | *                             |
|                                       | - direct method   | - direct method   | - direct method   | ×                   | *                             |
|                                       | - alternative method  | - alternative method  | - alternative method  | ×                   | *                             |
|                                       | SELV/PELV   | SELV/PELV   | SELV/PELV   |                     |                               |
|                                       | Leakage current produced by a floating input with a rated input voltage above 50 V AC or 120 V DC   | Leakage current produced by a floating input with a rated input voltage above 50 V AC or 120 V DC                 |   |                     | * (Metrel unique solution)    |
|                                       | Confirmation of the operation of further protective measures (RCD / P-RCD / under-<br>voltage protection devices)   | Confirmation of the operation of further protective measures (RCD / P-RCD / under-<br>voltage protection devices) | Confirmation of the operation of further protective measures (RCD / P-RCD / under-<br>voltage protection devices)   | * (basic)           | * (advanced)                  |
|                                       |   | Confirmation of the polarity of mains plug wiring   | Confirmation of the polarity of mains plug wiring   | Normal              | (Normal / Active)             |
|                                       | Functional test (EN 50699)  | Functional test (EN 50678)  | Functional test (VDE 0701-0702)   | Simple              | * * *                         |
| TEST EQUIPMENT<br>REQUIREMENTS        | EN 61557 series shall be used   | EN 61557 series shall be used   | EN 61557 series shall be used   | *                   | *                             |
| EXCEPTIONS                            | This standard does not apply to:  | This standard does not apply to:  | This standard does not apply to:  |                     |                               |
|                                       | test after repair defined in EN 50678   | recurrent tests defined in EN 50699   |   | ×                   | ×                             |
|                                       | audio/video, information and communication technology equipment (EN 62368-1)  |   |   |                     | Optional                      |
|                                       | medical equipment covered by EN 60601-1. For these devices, EN 62353 applies  | medical equipment covered by EN 60601-1. For these devices, EN 62353 applies                                      | medical equipment covered by EN 60601-1. For these devices, EN 62353 applies  |                     | * (MI 3360 M only)            |
|                                       | arc welding equipment covered by EN 60974-1. For these devices, EN 60974-4 applies  | arc welding equipment covered by EN 60974-1. For these devices, EN 60974-4 applies                                | arc welding equipment covered by EN 60974-1. For these devices, EN 60974-4 applies  |                     | * (MI 3360 + A 1422 only)     |
| PERMISSONS                            | Recurrent tests shall be performed by an electrically skilled person or by an electrically instructed person, supervised by an electrically skilled person.   | Tests after repair shall only be performed by an electrically skilled person.                                     | Recurrent tests shall be performed by an electrically skilled person or by an electrically<br>instructed person, supervised by an electrically skilled person. Tests after repair shall only<br>be performed by an electrically skilled person. |                     | User permissions              |
|                                       | - Skilled person (Standard) / Full access   | - Skilled person (Standard) / Full access   |   |                     | ×                             |
|                                       | - Instructed person (Instructed) / Limited access   |   |   |                     | ×                             |
| EXPLANATION                           | User permissions enable to switch between two different user profiles.<br>- The standard user has full control of the instrument.<br>- Instructed user doesn't access the Single test menu, doesn't have access to change specific limits of Auto Sequences, and can only access AutoSequeces which are designed for the Instructed person plus some other limitations as explained in the user manual. |   |   |                     |                               |
| SPECIAL FUNCTIONS NO                  | T PART OF EN 50699 / EN 50678 / VDE 0701-0702 Introduced with new instruments   |   |   |                     |                               |
| IEC 62368-1                           | SAFETY OF ELECTRONIC EQUIPMENT WITHIN THE FIELD OF AUDIO/VIDEO,<br>INFORMATION TECHNOLOGY AND   |   |   |                     |                               |
|                                       | - Single fault conditions   |   |   |                     | A 1789                        |
|                                       | - AC/DC component on leakage current  |   |   |                     | ×                             |
| IEC 60601-1                           | Medical electrical equipment - Part 1: General requirements for basic safety and essential<br>performance   |   |   |                     |                               |
|                                       | - Single fault conditions   |   |   |                     | A 1789                        |
|                                       | - AC/DC component on leakage current  |   |   |                     | * (MI 3360 M only)            |
|                                       | - Touch curren  |   |   |                     | * (MI 3360 M only)            |
|                                       | - Patient current   |   |   |                     | * (MI 3360 M only)            |





