MFT1835 with Earth Test, Storage and Bluetooth download



For all VDE 0100 testing. Landscape format with dual test buttons, large character dual display and colour-coded range selection dials for ease of use.

Rugged design with tough rubber over moulding and weatherproof to IP54, and extended safety rating to CAT IV 300V. Latest technology including new 2-wire non-trip loop test for fast repeatable results, and full RCD (including Type B – pure DC) compatibility, 3-pole and Stakeless earth spike resistance test capability and storage with Bluetooth download.

Class leading input protection against accidental connection to live circuits for ultimate reliability

- Dual Symmetrical Test buttons for left or right-handed operation
- Large character LCD with dual display and analogue arc for crystal clear readings
- Simple colour-coded rotary range selection switches with no hidden menus
- Conventional landscape layout with balanced neck-strap for ease of use
- 1000 result storage and Bluetooth® download for professional electronic certification
- Rechargeable cells with included charger for lower cost of ownership
- 3-terminal Earth test for spike resistance measurement
- True RMS for reliable voltage and current measurements
- Adjustable limit alarms on Continuity and Insulation for faster testing
- Phase Rotation indication for verification of rotating machinery
- Auto-start tests on Continuity and Loop – no need to push the button
- 3-phase RCD testing for industrial applications with no Earth
- New 2-wire non-trip loop testing – easy, fast to connect and repeatable
- Dual display shows Loop Resistance and Fault Current results simultaneously
- Switched probe included for added ease of use

Supplied with: *User Guide CD, 3-wire test lead with croc clips, Mains plug test lead, printed quick-start guide, battery charger, rechargeable cells, hard carry-case, switched probe*

MFT1825 Installation Tester



For all VDE 0100 testing. Landscape format with dual test buttons, large character dual display and colour-coded range selection dials for ease of use.

Rugged design with tough rubber over moulding and weatherproof to IP54, and an extended safety rating to CAT IV 300V. Latest technology including new 2-wire non-trip loop test for fast repeatable results, and full RCD testing including Auto and Ramp.

Class leading input protection against accidental connection to live circuits for ultimate reliability.

- Dual Symmetrical Test buttons for left or right-handed operation
- Conventional landscape layout with balanced neck-strap for ease of use
- Large character LCD with dual display and analogue arc for crystal clear readings
- Simple colour-coded rotary range selection switches with no hidden menus
- True RMS for reliable voltage and current measurements
- Adjustable limit alarms on Continuity and Insulation for faster testing
- Auto-start tests on Continuity and Loop – no need to push the button
- 3-phase RCD testing for industrial applications with no Earth
- Phase Rotation indication for verification of rotating machinery
- Auto RCD test for faster testing
- New 2-wire non-trip loop testing – easy, fast to connect and repeatable
- Dual display shows Loop Resistance and Fault Current results simultaneously
- Switched probe included for added ease of use

Supplied with: *User Guide CD, 3-wire test lead with croc clips, Mains plug test lead, printed quick-start guide, hard carry-case, switched probe*

MFT1815 Installation Tester



For all VDE 0100 testing. Landscape format with dual test buttons, large character dual display and colour-coded range selection dials for ease of use.

Rugged design with tough rubber over moulding and weatherproof to IP54, and an extended safety rating to CAT IV 300V. Latest technology including new 2-wire non-trip loop test for fast repeatable results, and RCD testing.

Class leading input protection against accidental connection to live circuits for ultimate reliability

- Dual Symmetrical Test buttons for left or right-handed operation
- Conventional landscape layout with balanced neck-strap for ease of use
- Large character LCD with dual display and analogue arc for crystal clear readings
- Simple colour-coded rotary range selection switches with no hidden menus
- Auto-start tests on Continuity and Loop – no need to push the button
- New 2-wire non-trip loop testing – easy, fast to connect and repeatable
- Dual display shows Loop Resistance and Fault Current results simultaneously
- Switched probe included for added ease of use

Supplied with: *User Guide CD, 3-wire test lead with croc clips, Mains plug test lead, printed quick-start guide, hard carry-case, switched probe*

1001-094 MFT1815 Technical Specifications

INSULATION TESTING

Test voltages

Nominal Test Voltage: 500 V, 250 V, (d.c.)

Output voltage tolerance: -0% +20% at rated load or less

Measuring Range All instruments:

10 kΩ - 1000 MΩ on all test voltages

Short Circuit Current: 1.5 mA nominal test current

Test Current on Load:

=>1 mA at min. pass values of insulation

Accuracy (at 20° C) ±3%, ±2 digits

CONTINUITY TESTING

Displayed Range 0,01Ω to 99.99 kΩ

Intrinsic accuracy ± 2% ± 2 digits

Open Circuit Voltage 4 V to 5 V

Test Current @ 0Ω to 19.99Ω

200mA +10mA -0mA

RCD TESTING

RCD Test Ranges (to EN61557-6)

Supply voltage 100 V~280 V 45Hz~65 Hz

Test Current Accuracy:

No Trip Test: (1/2I) -8% to -2%

Trip Test: (I, 5I) +2% to +8%

Trip Time: ±1% ±1ms

Programmable RCD step Increments

10 mA to 50 mA 1 mA steps

50 mA to 500 mA 5 mA steps

Fault (Touch) Voltage

Displayed range: 0 V to at least 253 V

Error: +5%/+15% ±0.5 V

LOOP TESTING

Supply: 48V to 280V (45Hz to 65Hz)

Display range: 0.01Ω to 1000Ω

Accuracy ±5% ±0.03Ω

Nominal test current: 15mA or 4A

(at nominal 230VAC supply)

Prospective Fault Current (PFC)

Prospective fault current=

Measured Supply Voltage / Loop resistance

Maximum range: 20kA

SUPPLY MEASUREMENT

Voltage

Range 10V to 600 V; 25Hz to 400Hz

Accuracy: ±2% ±1V

Frequency

Range 15hz to 400Hz

Resolution 0.1Hz

ENVIRONMENTAL

Operational Temp: -10°C to +55°C

Storage Temp: -25°C to +70°C

Operating Humidity: 93% R.H. at +40°C max.

Altitude 2000m max

Weight: <1000g ±10% (excluding case.)

IP rating: IP54

BATTERIES

6 x 1,5 V IEC LR6 AA (Alkaline)

DESIGN STANDARDS

EMC

EMC In accordance with IEC61326 edition 2.

Locations: Class B locations.

Safety

IEC61010-1:2008; IEC61010-31:2009

Installation Category: 600V Cat III / 300V Cat IV. (Max Phase to Phase 600V)

Electrical test

BS7671; VDE 0100; VDE0413 parts 1 & 4; HD 384; IEC364; NFC15-100, NFC16-600; NEN 3140; ES59009

Instrumentation design

EN61557-1; EN61557-2 ; EN61557-3 ; EN61557-4; EN61557-5; EN61557-6; EN61557-10

1001-095 MFT1825 Technical Specifications

INSULATION TESTING

Test voltages

Nominal Test Voltage: 1000 V, 500 V, 250 V (d.c)

Output voltage tolerance: -0% +20% at rated load or less

Measuring Range All instruments:

10 kΩ - 1000 MΩ on all test voltages

Short Circuit Current: 1.5 mA nominal test current

Test Current on Load:

=>1 mA at min. pass values of insulation

Accuracy (at 20° C) ±3%, ±2 digits

CONTINUITY TESTING

Displayed Range 0,01Ω to 99.99 kΩ

Intrinsic accuracy ± 2% ± 2 digits

Open Circuit Voltage 4 V to 5 V

Test Current @ 0Ω to 19.99Ω

200mA +10mA -0mA

RCD TESTING

RCD Test Ranges (to EN61557-6)

Supply voltage 50 V~500 V 45Hz~65 Hz

Test Current Accuracy:

No Trip Test: (1/2I) -8% to -2%

Trip Test: (I, 5I) +2% to +8%

Trip Time: ±1% ±1ms

Programmable RCD step Increments

10 mA to 50 mA 1 mA steps

50 mA to 500 mA 5 mA steps

500 mA to 1000 mA 10 mA steps

Fault (Touch) Voltage

Displayed range: 0 V to at least 253 V

Error: +5%/+15% ±0.5 V

LOOP TESTING

Supply: 48V to 480V (45Hz to 65Hz)

Display range: 0.01Ω to 1000Ω

Accuracy ±5% ±0.03Ω

Nominal test current: 15mA or 4A

(at nominal 230VAC supply)

Prospective Fault Current (PFC)

Prospective fault current=

Measured Supply Voltage / Loop resistance

Maximum range: 40kA

EARTH (GROUND) TESTING

Resolution: 0.01Ω

Current: 0.45mA or 4.5mA.

Noise Rejection: 40V pk/pk (14V rms).

Max Probe Resistances: Rp, Rc = 100kΩ @ 50Volts.

3 – 2 pole method:

0.01Ω to 1.999kΩ ± 2.0% ± 3 digits

Stakeless method:

1.00Ω to 199Ω ± 7.0% ± 3 digits

TEMPERATURE (via optional probe):

Range: -20°C to +100°C

Accuracy: ± 1.0% ± 2 digits.

Resolution: 1°C

SUPPLY MEASUREMENT

Voltage

Range 10V to 600 V; 25Hz to 400Hz

Accuracy: ±2% ±1V

Frequency

Range 15hz to 400Hz

Resolution 0.1Hz

ENVIRONMENTAL

Operational Temp: -10°C to +55°C

Storage Temp: -25°C to +70°C

Operating Humidity: 93% R.H. at +40°C max.

Altitude 2000m max

Weight: <1000g ±10% (excluding case.)

IP rating: IP54

BATTERIES

Standard: 6 x 1,5 V IEC LR6 AA (Alkaline)

DESIGN STANDARDS

EMC

EMC In accordance with IEC61326 edition 2.

Locations: Class B locations.

Safety

IEC61010-1:2008; IEC61010-31:2009

Installation Category: 600V Cat III / 300V Cat IV. (Max Phase to Phase 600V)

Electrical test

BS7671; VDE 0100; VDE0413 parts 1 & 4; HD 384; IEC364; NFC15-100, NFC16-600; NEN 3140; ES59009

Instrumentation design

EN61557-1; EN61557-2 ; EN61557-3 ; EN61557-4; EN61557-5; EN61557-6; EN61557-10

1001-096 MFT1835 Technical Specifications

INSULATION TESTING

Test voltages

Nominal Test Voltage: 1000 V, 500 V, 250 V, 100V (d.c)
Output voltage tolerance: -0% +20% at rated load or less
Measuring Range All instruments:
10 kΩ - 1000 MΩ on all test voltages
Short Circuit Current: 1.5 mA nominal test current
Test Current on Load:
=>1 mA at min. pass values of insulation
Accuracy (at 20° C) ±3%, ±2 digits

CONTINUITY TESTING

Displayed Range 0,01Ω to 99.99 kΩ
Intrinsic accuracy ± 2% ± 2 digits
Open Circuit Voltage 4 V to 5 V
Test Current @ 0Ω to 19.99Ω
200mA +10mA -0mA

RCD TESTING

RCD Test Ranges (to EN61557-6)
Supply voltage 50 V~500 V 45Hz~65 Hz
Test Current Accuracy:
No Trip Test: (1/2I) -8% to -2%
Trip Test: (I, 5I) +2% to +8%
Trip Time: ±1% ±1ms
Programmable RCD step Increments
10 mA to 50 mA 1 mA steps
50 mA to 500 mA 5 mA steps
500 mA to 1000 mA 10 mA steps
Fault (Touch) Voltage
Displayed range: 0 V to at least 253 V
Error: +5%/+15% ±0.5 V

LOOP TESTING

Supply: 48V to 480V (45Hz to 65Hz)
Display range: 0.01Ω to 1000Ω
Accuracy ±5% ±0.03Ω
Nominal test current: 15mA or 4A
(at nominal 230VAC supply)
Prospective Fault Current (PFC)
Prospective fault current=
Measured Supply Voltage / Loop resistance
Maximum range: 40kA

EARTH (GROUND) TESTING

Resolution: 0.01Ω
Current: 0.45mA or 4.5mA.
Noise Rejection: 40V pk/pk (14V rms).
Max Probe Resistances: Rp, Rc = 100kΩ @ 50Volts.
3 – 2 pole method:
0.01Ω to 1.999kΩ ± 2.0% ± 3 digits
ART method:
1.00Ω to 1.999kΩ ± 5.0% ± 3 digits
Stakeless method:
1.00Ω to 199Ω ± 7.0% ± 3 digits

TEMPERATURE (via optional probe):

Range: -20°C to +100°C
Accuracy: ± 1.0% ± 2 digits.
Resolution: 1°C

SUPPLY MEASUREMENT

Voltage
Range 10V to 600 V; 25Hz to 400Hz
Accuracy: ±2% ±1V
Frequency
Range 15hz to 400Hz
Resolution 0.1Hz

ENVIRONMENTAL

Operational Temp: -10°C to +55°C
Storage Temp: -25°C to +70°C
Operating Humidity: 93% R.H. at +40°C max.
Altitude 2000m max
Weight: <1000g ±10%
(excluding case.)
IP rating: IP54

BATTERIES

Standard: 6 x 1,5 V IEC LR6 AA (Alkaline)
Rechargeable: 6 x 1.2 V IEC LR6 AA (NiMH)
Charging: On board via mains or car battery.
(4 hours Typical)

(Display to show battery type as NiMH or no graphic for alkaline cells. Display configured by user via setup option on all models)

DESIGN STANDARDS

EMC

EMC In accordance with IEC61326 edition 2.

Locations: Class B locations.

Safety

IEC61010-1:2008; IEC61010-31:2009

Installation Category: 600V Cat III / 300V Cat IV. (Max Phase to Phase 600V)

Electrical test

BS7671; VDE 0100; VDE0413 parts 1 & 4; HD 384; IEC364; NFC15-100, NFC16-600; NEN 3140; ES59009

Instrumentation design

EN61557-1; EN61557-2 ; EN61557-3 ; EN61557-4; EN61557-5; EN61557-6; EN61557-10