



DM-III MULTITEST Power Quality Recorder

Amprobe's full-featured Three-Phase Power Quality Recorders provide the essential functions and capabilities required to operate accurately and effectively in today's demanding electrical environments.

■ POWER QUALITY ANALYZER/DATA LOGGER

- True RMS (TRMS)
- Measures & Records Broad Spectrum of Power Quality Parameters
 - AC Current
 - AC Voltage to 600 V
 - Sags and Surges
 - Harmonics
 - Active, Reactive and Apparent
 - Power
 - Peak Demand
 - Power Factor
 - Frequency
 - Phase Sequence
- Compatible with wide range of current transducers
- Works with single and three phase
- Detects & records Sags and Surges
- Displacement power factor for power factor correction determination
- Built in scope displays waveforms
- Phase sequence indication
- Records up to 64 parameters
- Selectable fundamental frequency
- Special data compression system
- Download capabilities, Windows compatible
- A complete kit: 1000A Clamp, Voltage Leads, Ground Probes & Leads, PC software & cable

No hassle warranty

No waiting.

*No shipping
charges.*



Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that an Amprobe Test Tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.

(note: \$500 MSLP limit)

continued on next page ►



■ INSULATION TESTER FUNCTIONS:

- Tests insulation integrity of wires, cables, transformers & electrical motors
- Selectable test voltages up to 1000 V
- Programmable timer to perform the Dielectric Absorption Ratio Test
- Sensitive Ohmmeter for checking resistance of motor windings
- Selectable polarization of ohmmeter for checking grounding continuity
- Automatic voltmeter protects against misuse on hazardous energized systems

■ GROUND RESISTANCE & RESISTIVITY FUNCTIONS:

- Three measuring modes:
 - 2 point continuity/resistance test
 - 3 point Fall of Potential test
 - 4 point Earth Resistivity measurement
- Automatic voltage measurement prevents false measurements
- Automatically applies three testing frequencies for the most accurate readings
- Detects faulty test conditions such as poor soil conditions and input noise

■ PHASE SEQUENCE

- Phase sequence indication
- Frequency measurement
- Phase-to-Phase voltage measurement



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Specifications

| | |
|--------------------------------------|---|
| Supplied Current Transducer | DM-CT-DMA; 1000A Standard CT, 2" internal diameter CT |
| Input accuracy | ±(0.5% Rdg + 2 LSD) |
| AC Current | DM-CT-100: 0.5A to 100A DM-CT-HTA: 5 – 1000A AM-FLEX33: Selectable: 5 – 1000A or 15 – 3000A |
| AC Voltage including Sags and Surges | 0 – 600V |
| Harmonics | THD, DC and individual up to 49th |
| Power | Working (W), Reactive (VAR) and Apparent (VA) ±(1.0% Rdg + 2 LSD) |
| Energy | Working (kWh), Reactive (VARh) and Apparent (VAh) ±(1.0% Rdg + 2 LSD) |
| Peak Demand | KW ±(1.0% Rdg + 2 LSD) |
| Power Factor | 0.00 – 1.00 |
| Frequency measurement | 57 to 63.6 Hz at 60Hz fundamental; 47 to 53 Hz at 50Hz fundamental; ±(1.0% Rdg + 2 LSD) |
| Phase sequence | 1 - 2 - 3 |
| Co-generation | Computes incoming and outgoing energy |
| Selectable Fundamental Frequencies | 50/60 Hz |
| Available Recording Time | Several hours to several years depending on setup |

| Megohmmeter | Range | Accuracy |
|--|--------------------------|---------------------------|
| Insulation resistance with 50 VDC test voltage | 0.01 – 19.99, 49.9 | ± (2% Reading + 2 digits) |
| | 49.9 – 99.9MΩ | ± (5% Reading + 2 digits) |
| Insulation resistance with 100 VDC test voltage | 0.01 – 19.99, 99.9 | ± (2% Reading + 2 digits) |
| | 99.9 – 199.9MΩ | ± (5% Reading + 2 digits) |
| Insulation resistance with 250 VDC test voltage | 0.01 – 19.99, 199.9, 249 | ± (2% Reading + 2 digits) |
| | 249 – 499 MΩ | ± (5% Reading + 2 digits) |
| Insulation resistance with 500 VDC test voltage | 0.01 – 19.99, 199.9, 499 | ± (2% Reading + 2 digits) |
| | 499 – 999 MΩ | ± (5% Reading + 2 digits) |
| Insulation resistance with 1000 VDC test voltage | 0.01 – 19.99, 199.9, 999 | ± (2% Reading + 2 digits) |
| | 999 – 1999 MΩ | ± (5% Reading + 2 digits) |
| Low Resistance (without timer) | 0.01 – 19.99, 99.9Ω | ± (2% Reading + 2 digits) |
| Low Resistance (with timer) | 0.01 – 9.99Ω | ± (2% Reading + 2 digits) |

| Ground Resistance | Range | Accuracy |
|--------------------|---------------------------------|---------------------------|
| Ground resistance | 0 – 19.99, 199.9, 1999 Ω | ± (5% Reading + 3 digits) |
| Ground resistivity | 0.6 – 125.6 Ωm | ± (5% Reading + 3 digits) |
| | 0.125 – 1.256, 19.99, 199.9 kΩm | ± (5% Reading + 3 digits) |

LowΩ: 200mA Continuity Test (AUTO, RT+, RT- Mode)

| Range [Ω] | Resolution [Ω] | Accuracy(*) |
|-------------|----------------|-------------------------|
| 0.01 – 9.99 | 0.01 | ±(2% Reading + 2 digit) |
| 10.0 – 99.9 | 0.1 | ±(2% Reading + 2 digit) |

(*) After Test leads calibration

| | |
|-----------------------------|---|
| Test Current | > 200mA DC per R≤5Ω (Test leads included) |
| Resolution for Test current | 1mA |
| Open Circuit Voltage | 4V ≤ V0 ≤ 24V |

DM-III MULTITEST Power Quality Recorder

Specifications (continued)

| Insulation Test | | | |
|--|---|------------------------|-------------------------|
| Test Voltage [V] | Range [MΩ] | Resolution [MΩ] | Accuracy |
| 50 | 0.01 – 9.99 | 0.01 | ±(2% Reading + 2 digit) |
| | 10.0 – 49.9 | 0.1 | ±(2% Reading + 2 digit) |
| | 50.0 – 99.9 | 0.1 | ±(5% Reading + 2 digit) |
| 100 | 0.01 – 9.99 | 0.01 | ±(2% Reading + 2 digit) |
| | 10.0 – 99.9 | 0.1 | ±(2% Reading + 2 digit) |
| | 100.0 – 199.9 | 0.1 | ±(5% Reading + 2 digit) |
| 250 | 0.01 – 9.99 | 0.01 | ±(2% Reading + 2 digit) |
| | 10.0 – 199.9 | 0.1 | ±(2% Reading + 2 digit) |
| | 200 – 249 | 1 | ±(2% Reading + 2 digit) |
| | 250 – 499 | 1 | ±(5% Reading + 2 digit) |
| 500 | 0.01 – 9.99 | 0.01 | ±(2% Reading + 2 digit) |
| | 10.0 – 199.9 | 0.1 | ±(2% Reading + 2 digit) |
| | 200 – 499 | 1 | ±(2% Reading + 2 digit) |
| | 500 – 999 | 1 | ±(5% Reading + 2 digit) |
| 1000 | 0.01 – 9.99 | 0.01 | ±(2% Reading + 2 digit) |
| | 10.0 – 199.9 | 0.1 | ±(2% Reading + 2 digit) |
| | 200 – 999 | 1 | ±(2% Reading + 2 digit) |
| | 1000 – 1999 | 1 | ±(5% Reading + 2 digit) |
| Open circuit Test Voltage | <1.3 x Nominal Test Voltage | | |
| Short Circuit Current | <6.0mA with 500V Test Voltage | | |
| Nominal Test Current | 500V: >2.2mA with 230kΩ; other: >1mA with 1kΩ*Vnom | | |
| Frequency Measurement | | | |
| Range [Hz] | Resolution [Hz] | Accuracy | |
| 47.0 – 63.6 | 0.1 | ±(0.1%Reading+1 digit) | |
| RCD and LOOP function are active only for 50Hz ± 0.5Hz frequency | | | |
| Phase Rotation: Voltage Measurement | | | |
| Range [V] | Resolution [V] | Accuracy | |
| 0 – 460V | 1 | ±(3%Reading + 2 digit) | |
| Ground Test: Resistance Measurement With Earth Rods | | | |
| Range RE [Ω] | Resolution [Ω] | | |
| 0.01 – 19.99 | 0.01 | | |
| 20.0 – 199.9 | 0.1 | | |
| 200 - 1999 | 1 | | |
| Accuracy | ±(5% Reading + 3 digit) | | |
| Test Current | <10mA – 77.5Hz | | |
| Open circuit Test Voltage | <20V RM | | |

DM-III MULTITEST Power Quality Recorder

Specifications (continued)

Ground Test: Resistivity Measurement

| Range p | Resolution |
|---------------------------|----------------------------|
| 0.60 – 19.99 Ωm | 0.01 Ωm |
| 20.0 – 199.9Ωm | 0.1Ωm |
| 200 – 1999Ωm | 1 Ωm |
| 2.00 – 99.99kΩm | 0.01 kΩm |
| 100.0 – 125.6kΩm(*) | 0.1 kΩm |
| | (*) setting distance = 10m |
| Accuracy | ±(5% Reading + 3 digit) |
| Test Current | <10mA – 77.5Hz |
| Open circuit Test Voltage | <20V RMS |

Voltage Measurement – (Autorange)

| Range [V] | Resolution [V] |
|------------|------------------------|
| 15 – 310V | 0.2V |
| 310 – 600V | 0.4V |
| Accuracy | ±(0.5% Reading+2digit) |

Voltage Sag And Surge Detection –(Manual Range)

| Range [V] | Resolution (Voltage) |
|-----------------------------|--|
| 15 – 310V | 0.2V |
| 30 – 600V | 0.4V |
| Resolution (Time) | 10ms (_ period) |
| Accuracy (Voltage) | ±(1.0% Reading+2digit) |
| Accuracy (Rif. 50hz) (Time) | 10ms (_ period) |
| Input Impedance | 300kΩ (Phase-Neutral); 300kΩ (Phase-Phase) |

Current Measurement – STD & FlexEXTclamps

| Range [V] | Resolution [Mv] |
|---|------------------------|
| 0.005 – 0.26V | 0.1 |
| 0.26 – 1V | 0.4 |
| (*): Example: with a 1000A/1V full scale clamp, the instrument detect only current higher than 5A | |
| Accuracy | ±(0.5% Reading+2digit) |
| Input Impedance | 200kΩ |
| Overload Protection | 5V |

Current Measurement – FlexINT clamp – 1000A Range

| Current Range | Input Voltage Range | Resolution | Accuracy |
|---------------------|---------------------|------------|----------------------|
| 5.00 – 20.00A | 425µV – 1.7mV | 0.850µV | ± (4.0% rdg + 8.5µV) |
| 20.00 – 99.99A | 1.7mV – 8.499mV | 0.850µV | ± (1.0% rdg + 8.5µV) |
| 100.0 – 999.9A | 8.5mV – 84.99mV | 8.5µV | ± (1.0% rdg + 85µV) |
| Input Impedance | 9.166kΩ | | |
| Overload Protection | 5V | | |

DM-III MULTITEST Power Quality Recorder

Specifications (continued)

Current Measurement – FlexINT clamp – 3000A Range

| Current Range | Input Voltage Range | Resolution | Accuracy |
|---------------------|---------------------|------------|-----------------------|
| 15.00 – 99.99A | 1.27mV – 8.499mV | 0.850μV | ± (1.0% rdg + 8.5μV) |
| 100.0 – 270.0A | 8.5mV – 22.75mV | 8.5μV | ± (1.0% rdg + 42.5uV) |
| 270.0 – 999.9A | 22.75mV – 84.99mV | 8.5μV | ± (1.0% rdg + 85uV) |
| 1.00 – 3.00kA | 85mV – 255mV | 850μV | ± (0.5% rdg + 8.5mV) |
| Input Impedance | 9.7kΩ | | |
| Overload Protection | 5V | | |

Power Measurement – (Autorange)

| Quantity | Range | Resolution |
|-----------------------------------|-----------------------|------------|
| Active Power | 0 – 999.9W | 0.1W |
| | 1 – 999.9kW | 0.1kW |
| | 1 – 999.9MW | 0.1MW |
| | 1000 – 9999MW | 1MW |
| Reactive Power | 0 – 999.9VAR | 0.1VAR |
| | 1 – 999.9kVAR | 0.1kVAR |
| | 1 – 999.9MVAR | 0.1MVAR |
| | 1000 – 9999MVAR | 1MVAR |
| Apparent Power | 0 – 999.9VA, | 0.1VA |
| | 1 – 999.9kVA, | 0.1kVA |
| | 1 – 999.9MVA | 0.1MVA |
| | 1000 – 9999MVA | 1MVA |
| Active Energy (Classe2 EN61036) | 0 – 999.9Wh, | 0.1Wh |
| | 1 – 999.9kWh, | 0.1kWh |
| | 1 – 999.9MWh | 0.1MWh |
| | 1000 – 9999MWh | 1MWh |
| Reactive Energy (Classe3 IEC1268) | 0 – 999.9VARh, | 0.1VARh |
| | 1 – 999.9kVARh, | 0.1kVARh |
| | 1 – 999.9MVARh | 0.1MVARh |
| | 1000 – 9999MVARh | 1MVARh |
| Accuracy | ±(1.0%Reading+2digit) | |

Cos j Measurement

| Cos J | Accuracy [°] |
|-------------|--------------|
| 1.00 – 0.80 | 0.6 |
| 0.80 - 0.50 | 0.7 |
| 0.50 – 0.20 | 1.0 |
| Resolution | 0.01 |

Voltage and Current Harmonics Measurement

| Range | Accuracy |
|------------|------------------|
| DC – 25H | ±(5% + 2 digit) |
| 26H – 33H | ±(10% + 2 digit) |
| 34H – 49H | ±(15% + 2 digit) |
| Resolution | 0.1V / 0.1A |

Harmonics values are null under fixed threshold:

- DC: its values is null if it is < 2% of Fundamental or is < 2% of Full Scale clamp
- 1st Current Harmonic: its values is null if it is < 0.2% Full Scale clamp
- 2nd – 49th: its values is null if it is < 0.5% of fundamental or is < 0.1% of Full Scale clamp

DM-III MULTITEST Power Quality Recorder

Technical Data – General Information

| | |
|--|--|
| General | |
| Safety | EN 61010-1 + A2 (1997) |
| Protection Classification | Class 2 - Double Insulation |
| Pollution Degree | 2 |
| Degree of Protection | IP50 |
| Over-Voltage Category | CAT II 600V |
| Usage | Indoor; max height 2000m |
| EMC | EN61326-1 (1997) + A1 (1998) The Instrument complies with European Guidelines for CE mark |
| Safety Test | |
| Low½ (200mA) | IEC 61557-4 |
| Insulation Test | IEC 61557-2 |
| Phase Sequence | IEC 61557-7 |
| Ground Test | IEC 61557-5 |
| Power Quality | |
| Voltage Sag and Surge | EN50160 |
| Alternating Current Static Watt-hour meters for Active Energy | EN61036 (CLASS 2) |
| Alternating Current Static VAR-hour Meters for Reactive Energy | IEC1268 (CLASS 3) |
| General Specifications | |
| Mechanical Data | |
| Dimensions | 225 (L)x165 (W) x 105 (H)mm |
| Weight | 1,2Kg approx |
| Power Supply | 6 x 1.5-LR6-AA-AM3-MN 1500 batteries |
| Battery Life | |
| Low½ | ~ 800 test |
| Insulation Test | ~ 500 test |
| Ground Test | ~ 1000 test |
| Phase Sequence | ~ 1000 test |
| Power Quality (recording) | ~20 hours |
| External Power Supply Adapter Code | DMT-EXTPS (only for POWER QUALITY function) |
| Display | |
| Display Type | Graphic with Backlight |
| Resolution | 128x128 |
| Visible Area | 73mmx73mm |
| Memory | |
| Safety Test Memory | 999 measurement |
| Power Quality | 2MByte (with 63 channels select and Integration Period = 15min -> more than 30 days). |
| Environment | |
| Reference Temperature | 23° ± 5°C |
| Working Temperature Range | 0° – 40°C |
| Working Humidity | < 80% |
| Storage Humidity Range | -10 – 60°C |
| Storage Humidity | < 80% |



Includes Amprobe's Download Suite Software

Replacement Parts (supplied with product)

| | |
|-----------------|---|
| DM-CT-HTA | 1000A Clamp |
| HW1254A | Soft Carrying case |
| DMT-EXTPS | External power supply 12VDC |
| MTL-VOLT | Complete set of voltage and megohmmeter test leads and alligator clips |
| MTL-EARTH | Carrying case containing: 4 earth rods and 4 test leads (banana – alligator clip) |
| C-2001 | Special RS-232 Computer Cable |
| www.amprobe.com | PC Software |
| www.amprobe.com | Instruction Manual |

Optional Accessories

| | |
|-----------|-----------------------------------|
| AM-FLEX33 | 3000A Flexible CT |
| DM-CT-100 | 100A Compact Clamp (0.5A to 100A) |
| RS-USB | USB-RS-232 Adapter |
| CC-DM-III | Hard Case |

Amprobe® Test Tools
website: www.Amprobe.com
email: info@amprobe.com
Everett, WA 98203
Tel: 877-AMPROBE

Amprobe® Test Tools Europe
Amprobe Test Tools Europe
Beha-Amprobe GmbH
In den Engematten 14
79286 Glottertal, Germany
Tel.: +49 (0) 7684 8009 - 0

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Стандарт Электрон Связь

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

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С нами вы становитесь еще успешнее!

Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,
Промышленная ул, дом № 19, литера Н,
помещение 100-Н Офис 331