



ZERA

MT500
Product Catalog

Doc.No: 100352708
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Device



Three phase current and voltage source MT500

Including adjustment and standard factory calibration.
The portable source MT500 provides current and voltage for on site testing of meter installations with low voltage.

- Current generation up to 12 A
- Voltage generation up to 300 V
- High accuracy through closed loop feedback control
- Balanced/Unbalanced load conditions
- Individual phase angle setting
- Vector display of generated and measured values

Ord.No. **100283900**

Adjustment and Calibration / Device



Readjustment of MT500

Note: With initial purchase of an instrument the adjustment is included. This article only applies to a readjustment.

Ord.No. **100033859**



Factory calibration of a new instrument of the MT500 series according to ZERA standard, 50 Hz

Note: This article only applies to a purchase of a new instrument of the MT500 series.
incl. factory calibration certificate

Ord.No. **100007053**

load points voltage measurement, 50Hz:

$V_R=75V$: 3*40/69,3V; 3*75/129,9V
 $V_R=150V$: 3*75,1/130,1V; 3*150/259,8V
 $V_R=300V$: 3*151,1/260V; 3*300/519,6V

load points (with load), 45Hz, 65Hz:

3*300/519,6V($V_R=300V$)
 12A: 45Hz; 65Hz

load points current measurement, 50Hz:

12A; 6,01A($I_R=12A$); 6A; 3,01A($I_R=6A$); 3A; 1,21A($I_R=3A$);
 1,2A; 0,601A($I_R=1,2A$); 0,6A; 0,301A($I_R=0,6A$); 0,3A;
 0,121A($I_R=0,3A$); 0,12A; 0,061A($I_R=0,12A$); 0,06A;
 0,031A($I_R=0,06A$); 0,03A; 0,004A($I_R=0,03A$)

load points phase angle and distortion, $\cos\varphi$ 1:

250V($V_R=300V$), 5A($I_R=6A$)



Factory re-calibration of MT500 according to ZERA standard, 50 Hz

Note: With initial purchase of an instrument the factory calibration is included. This article only applies to a re-calibration.

- Including factory calibration certificate (example available on request)

Ord.No. **100519726**



DKD calibration of MT500, 50 Hz

- Including DKD calibration certificate (example available on request)

Ord.No. **100519626**



Factory calibration of a new instrument MT500 according to ZERA standard, 60 Hz

Note: This article only applies to a purchase of a new instrument MT500.

- Including factory calibration certificate

Ord.No. **100519725**



Factory re-calibration of MT500 according to ZERA standard, 60 Hz

Note: With initial purchase of an instrument the factory calibration is included. This article only applies to a re-calibration.

- Including factory calibration certificate (example available on request)

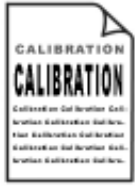
Ord.No. **100519727**



DKD calibration of MT500, 60 Hz

- Including DKD calibration certificate (example available on request)

Ord.No. **100519627**



Calibration, each additional load point for power and energy, DKD

Ord.No. **100006893**



Calibration, each additional load point for current and/or voltage, DKD

Ord.No. **100006894**



Calibration, each additional load point for power and energy, factory calibration

Ord.No. **100007093**



Calibration, each additional load point for current and/or voltage, factory calibration

Ord.No. **100007094**

Power Cords



Power cord “Class I grounded plug type E/F to IEC 60320 C13”, 2.5 m

Ord.No. **M00481006**

For supply via power socket.

- 1x class I grounded plug type E/F (CEE 7/7), angled
- 1x socket IEC 60320 C13

**Power cord “Plug type B to IEC 60320 C13“, 2.5 m**

For supply via power socket.

- 1x plug type B
- 1x socket IEC 60320 C13

Ord.No. **X00006459****Power cord “Plug type I to IEC 60320 C13“, 2.5 m**

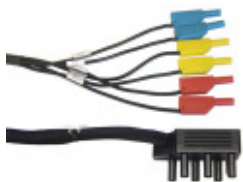
For supply via power socket.

- 1x plug type I (AS/NZS 3112, 3-pin)
- 1x socket IEC 60320 C13

Ord.No. **X00006460****Power cord “Plug type G (BS 1363) to IEC 60320 C13“, 2.5 m**

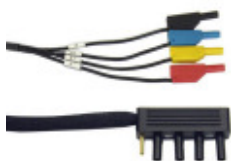
For supply via power socket.

- 1x Plug type G (BS 1363)
- 1x socket IEC 60320 C13

Ord.No. **X00009832****Quick Connection Cable****Quick connection cable “current/rigid sleeve” for source, MT series, sloped, 2.5 m, phase colours: red/yellow/blue**

To prevent connecting faults on the instrument’s side.

- Instrument’s side: 1x 6-pin connector with anti-twist safeguard, sloped.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x red, 2x yellow, 2x blue.
- Cable cross-section: 2.5 qmm

Ord.No. **100023452****Quick connection cable for “voltage/rigid sleeve” for MT series, 2.5 m, phase colours: red/yellow/blue/black**

To prevent connecting faults on the instrument’s side.

- Instrument’s side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x red, 1x yellow, 1x blue, 1x black
- Cable cross-section: 2.5 qmm

Ord.No. **100023454**



Quick connection cable for “current/rigid sleeve” for MT series, 12 A, 2.5 m, phase colours: yellow/green/violet

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve - 2x yellow, 2x green, 2x violet.
- Cable cross-section: 2.5 qmm

Ord.No. 100023419



Quick connection cable for “voltage/rigid sleeve” for MT series, 2.5 m, phase colours: yellow/green/violet/black

To prevent connecting faults on the instrument's side.

- Instrument's side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x yellow, 1x green, 1x violet, 1x black
- Cable cross-section: 2.5 qmm

Ord.No. 100023418



Quick connection cable “voltage/rigid sleeve” for source-instrument, MT series, 2.5 m, phase colours: red/yellow/blue/black

When using source and instrument. Two connectors on the instrument's side to connect source and instrument.

- Instrument's side:
 - 1x 4-pin connector with anti-twist safeguard.
 - 1x 4-pin connector (slim) without anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x red, 1x yellow, 1x blue, 1x black
- Cable cross-section: 2.5 qmm

Ord.No. 100023456



Quick connection cable “voltage/rigid sleeve” for source-instrument, MT series, 2.5 m, phase colours: yellow/green/violet/black

When using source and instrument. Two connectors on the instrument's side to connect source and instrument.

- Instrument's side:
 - 1x 4-pin connector with anti-twist safeguard.
 - 1x 4-pin connector (slim) without anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with rigid insulating sleeve - 1x yellow, 1x green, 1x violet, 1x black
- Cable cross-section: 2.5 qmm

Ord.No. 100023462



Quick connection cable “current/rigid sleeve” for source-instrument, MT series, 2.5 m, phase colours: red/yellow/blue

When using source and instrument. Two connectors on the instrument's side to connect source and instrument.

- Instrument's side:
 - 1x 6-pin connector with anti-twist safeguard.
 - 1x 6-pin connector, sloped, with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x red, 2x yellow, 2x blue.
- Cable cross-section: 2.5 qmm

Ord.No. 100023455



Quick connection cable “current/rigid sleeve” for source-instrument, MT series, 2.5 m, phase colours: yellow/green/violet

When using source and instrument. Two connectors on the instrument's side to connect source and instrument.

- Instrument's side:
 - 1x 6-pin connector with anti-twist safeguard.
 - 1x 6-pin connector, sloped, with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve. 2x yellow, 2x green, 2x violet.
- Cable cross-section: 2.5 qmm

Ord.No. 100023461



Quick connection cable “voltage/retractable sleeve” with Entrelec box for MT series, 2.5 m, phase colours: red/yellow/blue/black

When using source and instrument. Cable with Entrelec box for quick connection of source and instrument.

- Instrument's side: 1x 4-pin connector with anti-twist safeguard.
- Mains side: 4x stackable, spring-loaded 4 mm plug with retractable sleeve to prevent accidental touching - 1x red, 1x yellow, 1x blue, 1x black
- Cable cross-section: 2.5 qmm

Ord.No. 100013322



Quick connection cable “current/retractable sleeve” with Entrelec box for MT series, 2.5 m, phase colours: red/yellow/blue

When using two single devices for source and instrument. Cable with Entrelec box for quick connection of source and instrument.

- Instrument's side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 1x multipoint Entrelec plug
- Cable cross-section: 2.5 qmm

Ord.No. 100013222



Quick connection cable "current/Entrelec" with Entrelec box for MT series, 2.5 m, phase colours: red/yellow/blue

When using two single devices for source and instrument.
Cable with Entrelec box for quick connection of source and instrument.

- Instrument's side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 1x multipoint Entrelec plug
- Cable cross-section: 2.5 qmm

Ord.No. **100013221**

Laboratory Cables



Laboratory cable with stackable plug, red, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00007597**



Laboratory cable with stackable plug, yellow, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006907**



Laboratory cable with stackable plug, blue, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00007598**



Laboratory cable with stackable plug, black, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006910**



- Laboratory cable with stackable plug, green, 2.0 m**
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
 - Lead cross section: 2.5 qmm

Ord.No. **X00006908**

- Laboratory cable with stackable plug, violet, 2.0 m**
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
 - Lead cross section: 2.5 qmm

Ord.No. **X00006909**

- Laboratory cable with stackable plug, brown, 2.0 m**
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
 - Lead cross section: 2.5 qmm

Ord.No. **100414100**

- Laboratory cable with stackable plug, grey, 2.0 m**
Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
 - Lead cross section: 2.5 qmm

Ord.No. **100739800**

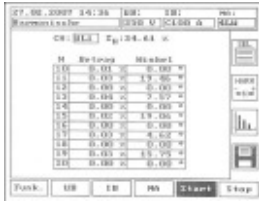
Software



CD-ROM with software SSM3000 / MTVis / WM303 / MCS
The software runs under Windows XP. The documentation is on CD (PDF or Online-Help).

- SSM3000: To control the instrument.
- MTVis: To readout and display data saved in the instrument.
- WM303: To control WM303-I and WM303-U.
- Demo Meter Check Simulation (MCS): For simulation of circuit errors.

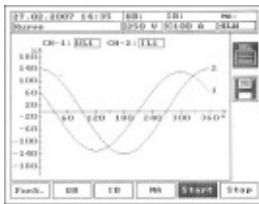
Ord.No. **100090705**



Software option for harmonic measurement, MT400/MT500

The harmonic measurement displays the value and angle of each single harmonic (voltage and current) up to the 40th in a chart or a diagram. Additionally the sum of all harmonics is displayed.

Ord.No. **100078830**



Software option for curve display, MT400/MT500

For simultaneous display of two curves (voltage and/or current measurement channels). Via the curve display you can see at a glance if the fundamental frequency differs from the sinus curve.

Ord.No. **100078831**

Documentation



Operation manual for MT500, German

Ord.No. **100367400**



Operation manual for MT500, English

Ord.No. **100367401**

Small Parts and Accessories Bag for Small Parts



Accessories bag with connection adapters

- 01 Accessories bag 100214400
- 03 Spring clip Z09508700
- 04 4 mm plug adapter (banana plug) X00004962
- 10 Adapter for terminal blocks X00004961
- 10 Connecting terminals for current X00011923
- 03 4 mm test clips (crocodile clips), slim X00009329
- 03 4 mm test clips (crocodile clips), wide X00010059
- 10 Fuse, 3.15 A, 5 mm x 20 mm, time-lag M00460252

Ord.No. **100023727**

Fuse time-lag 3,15A, 5x20mmOrd.No. **M00460252****Transport****Aluminium case with cable tray, small**

Hard-top case with inlet. To transport MT400/MT500 and accessories.

- Dimensions: H 440 mm × W 470 mm × D 250 mm

Ord.No. **100023960****Aluminium case without cable tray, small**

Hard-top case with inlet. To transport MT400/MT500 and accessories.

- Dimensions: H 370 mm × W 450 mm × D 250 mm

Ord.No. **100023961****Nylon protective bag for MT400/MT500**

Inner dimensions: H 340 mm x W 290 mm x D 235 mm

Ord.No. **100062802****Shoulder bag**

Nylon shoulder bag for transport of accessories.

- Dimensions: H 410 mm × W 320 mm × D 170 mm

Ord.No. **100148201**

Additional Accessories for The Device



Coaxial cable with BNC plug, 2 m

Connects the frequency output of an MT3xx with the frequency input of the MT400/500. Is required to execute a dosage.

- 2x BNC plug

Ord.No. **Z09548320**



Interface cable, RS232, cross wired (null modem cable)

Cross wired connection cable.

- 2x D-Sub socket, 9-pin
- Cable length: 3.00 m

Ord.No. **X00010844**



Displayschutz für MT-Serie 3xx/400/500

Zum Schutz der Frontplatte gegen mechanische Stöße während des Gerätetransports ohne Transportkoffer.

Ord.No. **100466700**



Adapter "USB to RS232"

For use with an external PC/notebook.
Can be used with Windows Vista.

Ord.No. **100286701**

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Notes on using the product catalogue

When ordering, always state the order number.

Pictures can differ from original product.

We follow ZVEI terms of delivery, see on www.zera.de

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bank code: 380 700 59
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SWIFT: DEUTDEDK380

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account: 113 313 100
IBAN: DE29 3804 0007 0113 3131 00
SWIFT: COBADEFF380

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account: 001 078 492
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