# ZERA

# MT500

## Product Catalogue

**Subject to change without notice.**

## Device

**MT500 Three Phase Current/Voltage Source**
Inclusive adjustment for <u>one</u> mains frequency.

*MT500* is designed for generation of test voltage and test current for max. 1 test specimen.

<u>Configuration:</u>
- 3~ phase voltage generation up to 300 V (AC)
- 3~ phase current generation up to 12 A (AC)
- Light and compact design

Ord.No. **100283905**

## Factory Calibration for New Instrument

**Factory Calibration for NEW MT500, 50 Hz**
incl. ZERA calibration report.

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**
Summary of used load points
can be downloaded at www.zera.de.

Additional load points are subject to charges.

Ord.No. **100007053**

**Factory Calibration for NEW MT500, 60 Hz**
incl. ZERA calibration report.

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**
Summary of used load points
can be downloaded at www.zera.de.

Additional load points are subject to charges.

Ord.No. **100519725**

**Factory Calibration
for instrument, each additional
load point for power and energy**

Ord.No. **100007093**

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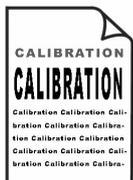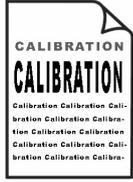
**Factory Calibration
for instrument, each additional
load point for current and/or voltage**

Ord.No.     **100007094**

## DAkkS DKD-Calibration for Instrument

**DAkkS DKD-Calibration for MT500, 50 Hz**
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No.     **100519626**

 **Load points according to ZERA regulations.**
Summary of used load points
can be downloaded at www.zera.de.

Additional load points are subject to charges.
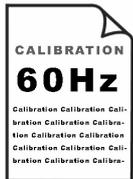
**DAkkS DKD-Calibration for MT500, 60 Hz**
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No.     **100519627**

 **Load points according to ZERA regulations.**
Summary of used load points
can be downloaded at www.zera.de.

Additional load points are subject to charges.
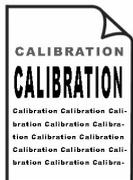
**DAkkS DKD-Calibration (acc. IEC 17025)
for instrument, each additional
load point for power and energy**

Ord.No.     **100006893**
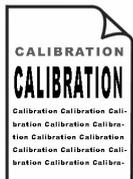
**DAkkS DKD-Calibration (acc. IEC 17025)
for instrument, each additional
load point for current / voltage**

Ord.No.     **100006894**

**Subject to change without notice.**

## Power Cords

**Power cord with protective earth "stackable safety plug to IEC 60320 C13", 2,5 m**
For supply via test voltage.
• 3x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve
  (1x black, 1x blue, 1x yellow/green)
• 1x socket IEC 60320 C13

Ord.No. **100067609**

**Power cord "Class I grounded plug type E/F to IEC 60320 C13", 2.5 m**
For supply via power socket.
• 1x class I grounded plug type E/F (CEE 7/7), straight
• 1x socket IEC 60320 C13

Ord.No. **M00481006**

**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**

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**Subject to change without notice.**

**Power cord "Plug type D (BS 546) to IEC 60320 C13", 1.8 m**
For supply via power socket.
- 1x Plug type D (BS 546)
- 1x socket IEC 60320 C13

Ord.No.    **100929900**

**Power cord "Plug type H" to IEC 60320 C13", 1.8 m**
For supply via power socket.
- 1x Plug type H
- 1x socket IEC 60320 C13

Ord.No.    **100929903**

## Quick Connection Cable (see also Special Accessories)

**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, 30° 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**

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**Subject to change without notice.**

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

Ord.No.    **100023456**

For the connection of source and reference standard if they are used as separate devices.
Cable length between the devices is 1.65 m.
- Reference standard'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

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

Ord.No.    **100023455**

For the connection of source and reference standard if they are used as separate devices.
Cable length between the devices is 1.65 m.
- Instrument's side:
  1x 6-pin connector with anti-twist safeguard.
  1x 6-pin connector, 30° 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

## Current and Voltage Cables (see also Special Accessories)

**Laboratory cable with stackable plug, red, 2.0 m**

Ord.No.    **X00007597**

Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

**Laboratory cable with stackable plug, yellow, 2.0 m**

Ord.No.    **X00006907**

Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

**Subject to change without notice.**

**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**

## Software

**Software SSM3000 / MTVis**
The software runs under Windows 7 or 10.
- SSM3000: For external control via PC.
- MTVis: To readout and display saved data.

The software can be downloaded at www.zera.de.

Ord.No.  **100090720**
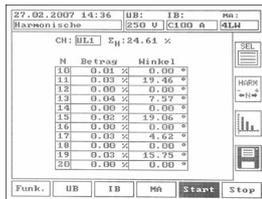
**Software option for harmonic measurement, MT400/MT500**
The harmonic measurement displays the value and angle of each single harmonic (voltage and current) up to the 40th in a chart or a diagram. Additionally the sum of all harmonics is displayed.

Ord.No.  **100078830**
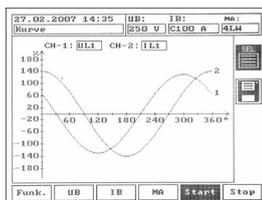
**Software option for curve display, MT400/MT500**
For simultaneous display of two curves (voltage and/or current measurement channels). Via the curve display you can see at a glance if the fundamental frequency differs from the sinus curve.

Ord.No.  **100078831**

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**Subject to change without notice.**

## Connectors (see also Special Accessories)

**Accessories bag with connection adapters**

| | | |
|---|---|---|
| 01 | Accessories bag | 100214400 |
| 03 | Spring clip | 100606750 |
| 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**

## Transport (see also Special Accessories)

**Transport Case for MT400 / MT500, with cable case**
Aluminum case with inlet from rigid foam, designed for
  • 1 Instrument
  • Accessories
Overall dimensions: 44 cm x 47 cm × 25 cm (H x W x D)

*Please clarify whether the case size is suitable for the ordered accessories.*

Ord.No. **100023960**

**Transport Case for MT400 / MT500**
Aluminum case with inlet from rigid foam, designed for
  • 1 Instrument
Overall dimensions: 37 cm x 45 cm × 25 cm (H x W x D)

Ord.No. **100023961**

**Transport Bag for MT400 / MT500**
Nylon bag which is special designed for the instrument.
The bag protects against dust and scratches.
The bag is designed for:
  • 1 Instrument
Overall dimensions: 34 cm x 29 cm × 23,5 cm (H x W x D)

Ord.No. **100062802**

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**Subject to change without notice.**

**Accessories bag**
Nylon bag with inlet from rigid foam, designed for
- Test leads
- Scanning head
- Current clamps
- Etc.

Overall dimensions: 41 cm x 31 cm × 16 cm (H x W x D)

*Please clarify whether the bag size is suitable for the ordered accessories.*

| Ord.No. | **100148209** |
| --- | --- |

## Standard Accessories (see also Special Accessories)

**Interface cable, RS232, crossed wired (null modem cable)**
Connection cable
- 2x D-Sub socket, 9-pin
- Cable length: 3.00 m

| Ord.No. | **X00010844** |
| --- | --- |

**Protection cover for MT series 3xx/400/500**
To protect the front plate against mechanical collision during transport without transport case.

| Ord.No. | **100466700** |
| --- | --- |

**Coaxial cable with BNC plug, 2 m**
- 2x BNC plug

| Ord.No. | **Z09548320** |
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## Documentation

**Complete documentation as pdf files on USB Stick**

| Ord.No. | **100090716** |
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## Special Accessories

**Power cord with protective earth "stackable safety plug to IEC 60320 C13", 2,5 m**
For supply via test voltage.
- 3x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve
  (1x brown, 1x blue, 1x yellow/green)
- 1x socket IEC 60320 C13

| Ord.No. | **100067610** |
|---|---|

**Power cord with protective earth "stackable safety plug to IEC 60320 C13", 2,5 m**
For supply via test voltage.
- 3x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve
  (1x red, 1x black, 1x yellow/green)
- 1x socket IEC 60320 C13

| Ord.No. | **100067611** |
|---|---|

## Special Accessories (Quick Connection Cable)
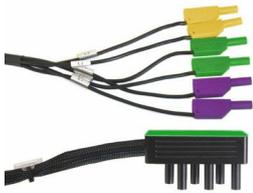
**Quick connection cable for "current/rigid sleeve" for MT series, 12 A, 2.5 m, phase colours: yellow/green/violet**
To prevent connecting faults on the instrument's side.
- Instrument's side: 1x 6-pin connector with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve - 2x yellow, 2x green, 2x violet.
- Cable cross-section: 2.5 qmm

| Ord.No. | **100023476** |
|---|---|

**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** |
|---|---|

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**Subject to change without notice.**

**Quick connection cable "current/rigid sleeve" for MT series, 12 A, 2.5 m,
phase colours: black/brown/white**
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 black, 2x brown,  2x white
- Cable cross-section: 2.5 qmm

| Ord.No. | 100023493 |
|---|---|



**Quick connection cable "voltage/rigid sleeve" for MT series, 2.5 m,
phase colours: brown/black/white/blue**
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 brown, 1x black, 1x white, 1x blue
- Cable cross-section: 2.5 qmm

| Ord.No. | 100023492 |
|---|---|



**Quick connection cable "current/rigid sleeve" for MT series, 12 A, 2.5 m, phase colours: black/brown/grey
Reference meter > Unit under test.**
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 black, 2x brown,  2x grey
- Cable cross-section: 2.5 qmm

| Ord.No. | 100023474 |
|---|---|

## Special Accessories (Current and Voltage Cables)



**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 |
|---|---|

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**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** |
|---|---|

**Laboratory cable with stackable plug, white, 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. | **100662500** |
|---|---|

## Special Accessories (Connectors)

**Connecting terminals for current**
- Isulating screw joint for flexible wire connection
  max cable size 1,5 ... 16 mm$^2$
- Socket: 4 mm rigid socket in insulator accepting
  spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **X00011923** |
|---|---|

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**Subject to change without notice.**

### Adapter for terminal blocks
- Connection via insulated flexible copper conductor.
- Socket: 4 mm rigid socket in insulator, made of brass, accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **X00004961** |
|---|---|

### 4 mm plug adapter (banana plug)
- Plug: 4 mm spring-loaded plug, made of brass.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **X00004962** |
|---|---|

### 4 mm cable lug adapters
- Cable lug adapter, made of brass for permanent installation, e. g. for connecting screw terminals.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **X00004963** |
|---|---|

### Spring clip
- Connection via spring clip.
- Socket: spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **100606750** |
|---|---|

### Test plugs for terminal blocks
- Plug: 4 mm test plug, made of brass with spring-loaded plug for connecting into rail mounted terminals with 4 mm sockets.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **100102400** |
|---|---|

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**Subject to change without notice.**

**4 mm test clips (crocodile clips), wide**
- Crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **X00010059** |
|---|---|

**4 mm test clips (crocodile clips), slim**
- Small, slim crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.
- 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

| Ord.No. | **X00009329** |
|---|---|

**Accessories bag without content**
DIN A6, material: polypropylene

| Ord.No. | **100214400** |
|---|---|

**Fuse, 3.15 A, 5 mm x 20 mm, time-lag**

| Ord.No. | **M00460252** |
|---|---|

## Special Accessories (General)

**Adapter "USB to RS232"  (32/64 bit), 1.5 m**
For use with an external PC/Notebook (32/64 bit) with WINDOWS OS (7, 8, 10).

| Ord.No. | **101421801** |
|---|---|

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**Subject to change without notice.**

## Readjustment (only for Service)

**Adjustment of MT500**

*Note:* Calibration and Calibration report
are not included.

Ord.No.     **100033859**

## Factory Calibration (only for Service)
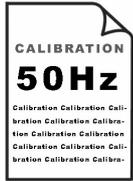
**Factory Calibration for MT500, 50 Hz**
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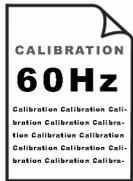
Ord.No.     **100519726**

**Factory Calibration for MT500, 60 Hz**
incl. ZERA calibration report.

**Load points according to ZERA regulations.**
Summary of used load points
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Additional load points are subject to charges.

Ord.No.     **100519727**
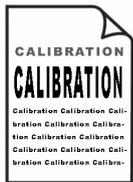
**Factory Calibration
for instrument, each additional
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Ord.No.     **100007093**

**Factory Calibration
for instrument, each additional
load point for current and/or voltage**

Ord.No.     **100007094**

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**Subject to change without notice.**

# ZERA

## 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