ZERA

MT400

Product Catalogue

Subject to change without notice.

Device

Three phase current source MT400
Including adjustment.
The portable source MT400 provides current for on site
testing of meter installations with low voltage.
  • Supplied via test voltage or mains voltage
  • Current generation up to 12 A
  • Synchronization of the test currents on the grid
    voltage phases of the meter under test.
  • Balanced/Unbalanced load conditions
  • Individual phase angle setting
  • Vector display of generated and measured values

Ord.No.   **100248105**

Factory Calibration for New Instrument

Factory Calibration for NEW MT400, 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.   **100519710**

Factory Calibration for NEW MT400, 60 Hz
incl. ZERA calibration report.
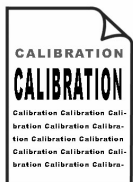
This article applies only for a purchase of new device.
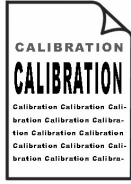
Load points according to ZERA regulations.
Summary of used load points
can be downloaded at www.zera.de.

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Ord.No.   **100519711**

**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

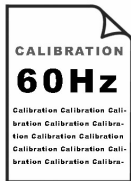Ord.No.　　**100007094**

DAkkS DKD-Calibration for Instrument

DAkkS DKD-Calibration for MT400, 50 Hz
incl. DKD-Calibration Certificate acc. IEC 17025

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.　　**100519612**
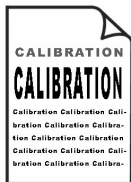
DAkkS DKD-Calibration of MT400, 60 Hz
incl. DKD-Calibration Certificate acc. IEC 17025
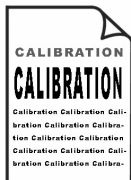
Load points according to ZERA regulations.
Summary of used load points
can be downloaded at www.zera.de.

Additional load points are subject to charges.

Ord.No.　　**100519613**

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**

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Subject to change without notice.

ZERA

Power Cords

Power cord "Euro plug type C to figure-of-eight", 2.0 m
For supply via mains supply.
- 1x Euro plug type C (CEE 7/16)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100067700**

Power cord "Plug type A to figure-of-eight", 2.0 m
For supply via mains supply.
- 1x Plug type A
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100277201**

Power cord "Plug type G to figure-of-eight", 2.0 m
For supply via mains supply.
- 1x Plug type G (BS1363)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100277200**

Power cord "Plug type I to figure-of-eight", 2.0 m
For supply via mains supply.
- 1x Plug type I (AS/NZS 3112, 2-pin)
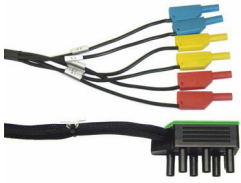- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100277202**

Power cord "stackable safety plug (black) to figure-of-eight", 2.0 m
For supply via test voltage.
- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (2x black)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100067608**

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Quick Connection Cable (see also Special Accessories)

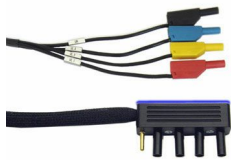**Quick connection cable "current/rigid sleeve" for source, MT series, sloped, 2.5 m, phase colours: red/yellow/blue**
To prevent connecting faults on the instrument's side.
- Instrument's side: 1x 6-pin connector with anti-twist safeguard, 30° sloped.
- Mains side: 6x stackable, spring-loaded 4 mm plugs 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**

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

Ord.No.   **100023456**

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

Ord.No.   **100023455**

Subject to change without notice.

Current and Voltage Cables (see also Special Accessories)

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
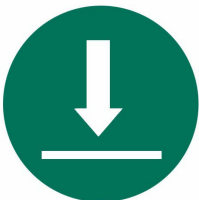- Lead cross section: 2.5 qmm

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**

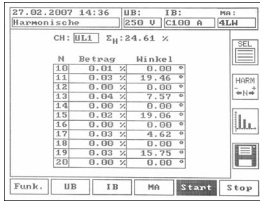## Software

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

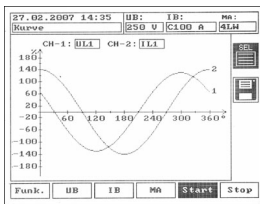The software can be downloaded at www.zera.de.

Ord.No.   **100090720**

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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** |

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
06	Adapter for terminal blocks	101584400
10	Connecting terminals for current	X00011923
03	4 mm test clips (crocodile clips), slim	X00009329
10	Fuse, 16 A / 500 V, 6.3 mm x 32 mm, very fast acting	M00460189
10	Fuse, 6.3 A / 500 V, 6.3 mm x 32 mm, time-lag	100358600

| Ord.No. | **100023726** |

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** |

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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**

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**

Special Accessories

Power cord "stackable safety plug (black/yellow) to figure-of-eight", 2.0 m
For supply via test voltage.
- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (1x black; 1x yellow)
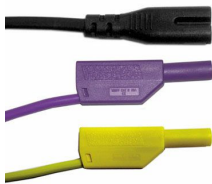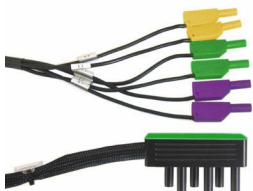- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No.   **100067601**

Power cord "stackable safety plug (violet/yellow) to figure-of-eight", 2.0 m
For supply via test voltage.
- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (1x violet/1x yellow)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No.   **100067602**

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.
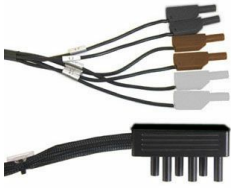- Cable cross-section: 2.5 qmm

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

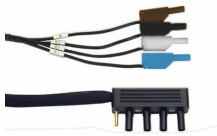Ord.No.   **100023418**

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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
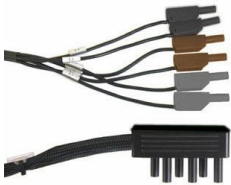- Cable cross-section: 2.5 qmm

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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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**

Subject to change without notice.

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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, 16 A / 500 V, 6.3 mm x 32 mm, very fast acting

Ord.No.	M00460189

Fuse, 6.3 A / 500 V, 6.3 mm x 32 mm, time-lag

Ord.No.	100358600

Subject to change without notice.

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**

Readjustment (only for Service)

Adjustment of MT400

Note: Calibration and Calibration report
are not included.

Ord.No. **100033898**

Factory Calibration (only for Service)

Factory Calibration for MT400, 50 Hz
incl. ZERA calibration report.

 Load points according to ZERA regulations.
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Ord.No. **100519712**
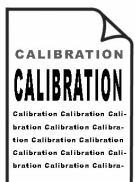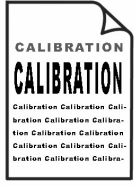
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**Factory Calibration
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load point for power and energy**

Ord.No. **100007093**

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

Ord.No.   **100007094**

ZERA

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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