

ZERA

MT551

Product Catalogue

Doc.No: 100352717 Version from: 01.07.2024

Device



STANDARD SET

MT551 Three Phase Current/Voltage Source

Inclusive adjustment and factory calibration for <u>one</u> mains frequency.

Calibration	Ord.No.
Factory 50 Hz	xx → 00
Factory 60 Hz	xx → 01
DAkkS 50 Hz	xx → 02
DAkkS 60 Hz	xx → 03

MT551 is designed for generation of test voltage and test current for one test specimen.

- Generation: max 500 V / 120 A (AC)
- Operation via touch screen
- · Generation of harmonics up to 40th

Each inclusive the following accessories:

Qty	Description	Order No.
1	Software option Generation of harmonics	100078840
1	Power cord "Class I grounded plug type E/F to IEC 60320 C13", 2.5 m	M00481006
1	Laboratory cable with stackable plug, 2.0 m, black	X00006910
3	Laboratory cable with stackable plug, 2.0 m, red	X00007597
3	Laboratory cable with stackable plug, 2.0 m, yellow	X00006907
3	Laboratory cable with stackable plug, 2.0 m, blue	X00007598
1	Accessories bag with connection adapters	100023735
2	Current cable up to 120 A, double-side socket, 2.0 m, red	101200622
2	Current cable up to 120 A, double-side socket, 2.0 m, yellow	101200624
2	Current cable up to 120 A, double-side socket, 2.0 m, blue	101200623
6	Plug-in adapter pin-pin	Z10120112
1	Interface cable, RS232	X00010844
1	Transport case with wheels for MT551	100023902
1	USB flash drive to store customer data and measurement values	101198310
1	Complete documentation as pdf files on USB flash drive	100090716

1016725xx



MT551 Three Phase Current/Voltage Source

Inclusive adjustment and factory calibration for <u>one</u> mains frequency.

Ord.No.	1016726xx

Calibration	Ord.No.	
Factory 50 Hz	xx → 00	
Factory 60 Hz	xx → 01	
DAkkS 50 Hz	xx → 02	
DAkkS 60 Hz	xx → 03	

MT551 is designed for generation of test voltage and test current for one test specimen.

Configuration:

- 3~ phase voltage generation up to 500 V (AC)
- 3~ phase current generation up to 120 A (AC)
- Easy user-guidance via touch screen
- Software option generation of harmonics up to the 40th

Power Cords



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



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**



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



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

Quick Connection Cable (see also Special Accessories)



Quick connection cable for "current/rigid sleeve", 2.5 m, phase colours: red/yellow/blue (max. 24 A) for MT681, MT551, MT78x

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 plug with rigid insulating sleeve
- 2x red, 2x yellow, 2x blue
- Cable cross-section: 2.5 qmm



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 gmm

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 <u>source</u> and <u>reference standard</u> 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.

Ord.No.

101129501

100023456



Quick connection cable "current/rigid sleeve" for source MT551, MT series, 2.5 m, phase colours: red/yellow/blue -> max. 12A

For the connection of <u>source</u> and <u>reference standard</u> 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, 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 Measurement category III (CAT III).

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



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



Current cable up to 120 A, on double-side socket, 2.0

m.

- · 2x 6 mm socket
- · Lead cross section: 35 gmm
- Phase colours: Please specify the colour code when ordering. The cables will get a corresponding coloured marking.

21=black, 22=red, 23=blue, 24= yellow, 25=green, 26=violet, 27=brown, 28=grey, 29=white

xx please select the colour

Ord.No. 1011979xx



For meter connection via terminal, realised as brass silver plated. The two sides of the pin has different diameters and functions.

- 1 Side 6 mm pin for test leads
- 1 Side 3 mm-pin for meter terminals

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Plug-in Adapter Pin 4,2 mm

For meter connection via terminal, realised as brass silver plated.
The two sides of the pin has different diameters and functions.

- 1 Side 6 mm pin for test leads
- 1 Side 4,2 mm-pin for meter terminals

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **Z10120112**

Plug-in Adapter Pin 5,5 mm

For meter connection via terminal, realised as brass silver plated.
The two sides of the pin has different diameters and functions.

- 1 Side 6 mm pin for test leads
- 1 Side 5,5 mm-pin for meter terminals

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **Z10120108**

Plug-in Adapter Pin 6 mm

The adapter is realized in brass silver plated. The two sides of the pin have the same dimensions (6 mm) and are special designed for ZERA 6 mm socket system used with current test leads and/or connection to modern ZERA meter test system (MTS).

Ord.No. **Z10120109**

Plug-in Adapter cable lug 8,5 mm closed

For current connection via screw terminals, realised as brass silver plated. The two sides of the pin has different connectors and functions.

- 1 Side 6 mm pin for test leads
- 1 Side 8,5 mm-cable lug closed in for screw terminals

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.



Plug-in Adapter cable lug 10,5 mm closed

For current connection via screw terminals, realised as brass silver plated. The two sides of the pin has different connectors and functions.

- 1 Side 6 mm pin for test leads
- 1 Side 10,5 mm-cable lug closed in for screw terminals

The 6 mm pin is special designed for ZERA 6 mm socket system used with current test leads.

Ord.No. **100640907**



Current cable up to 120 A, double-side socket, 1.0 m, for connection between source and reference meter.

- · 2x 6 mm socket
- · Lead cross section: 35 gmm
- Phase colours: Please specify the colour code when ordering. The cables will get a corresponding coloured marking.

21=black, 22=red, 23=blue, 24= yellow, 25=green, 26=violet, 27=brown, 28=grey, 29=white

xx please select the colour

Ord.No. **1012006xx**

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 Curve Definition

Software module for generation of harmonic signals:

 Voltage up to 40th max. amplitude 40% from fundamental

 Current up to 40th max. amplitude 40% from fundamental

The module included also defining of programmable wave forms in current and/or voltage line.

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	101584400
10	Connecting terminals for current	X00011923
03	4 mm test clips	X00009329
	(crocodile clips), slim	

03 4 mm test clips X00010059

(crocodile clips), wide

10 Fuse, 5 A, 5 mm x 20 mm, M00460136

semi time-lag

Transport (see also Special Accessories)



Transport Case with wheels for MT3000[S] / MT3000[B] / MT3606[TS] / MT551

Ultra High Impact Copolymer Polypropylene case with inlet from rigid foam, designed for

- 1 Instrument
- Accessories

Overall dimensions:

 $62.2 \text{ cm x } 49.2 \text{ cm} \times 35.5 \text{ cm (H x W x D)}$

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

Standard Accessories (see also Special Accessories)



USB Flash Drive

To store customer data and measuring values.

Provides easy data transfer from the instrument to the PC.

This flash drive is special formated for ZERA instruments.

Ord.No. 101198310

Ord.No.

Ord.No.

100023735

100023902



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

Connection cable for communication

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



Coaxial cable with BNC plug, 2 m

2x BNC plug

Ord.No. **Z09548320**



MT3204, display protection cover

To protect the MT3000/MT551 display module against mechanical impact during transportation of the unit without carrying case.

Ord.No. **Z10342400**

Documentation



Complete Documentation as pdf files on USB flash drive

Ord.No.

100090716

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

Special Accessories (Quick Connection Cable)



Quick Acting Connection Cable for Current / 24A

The Quick connection cable set consists of a fixed detachable block for the MT system and 4mm safety plugs for the connection at the unit under test. (brown, black, red)

Ord.No. 100023409



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

Ord.No. 100023410

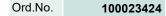


Quick connection cable for "current/rigid sleeve", 2.5

phase colours: yellow/green/violet (max. 24 A)

for MT68x, MT551, MT78x
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 plug with rigid insulating sleeve - 2x yellow, 2x green, 2x violet
- Cable cross-section: 2.5 gmm





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



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

Ord.No. 100023462

For the connection of <u>source</u> and <u>reference standard</u>. Cable length between the devices is 1.65 m.

- 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 violett, 1x black
- · Cable cross-section: 2.5 gmm



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

For the connection of <u>source</u> and <u>reference standard</u>. Cable length between the devices is 1.65 m.

- 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 black 1x brown, 1x red, 1x
- rigid insulating sleeve 1x black, 1x brown, 1x red, 1x blue
- Cable cross-section: 2.5 qmm



Quick connection cable "current/rigid sleeve" for source MT551, MT series, 2.5 m, phase colours: black/brown/grey

For the connection of <u>source</u> and <u>reference standard</u> 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, sloped, 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. **100023478**

100023496



Quick connection cable "current/rigid sleeve" for source-instrument, MT series, 2.5 m, phase colours: brown/black/white

Ord.No.

Ord.No.

101129502

100023485

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, sloped, with anti-twist safeguard.
- Mains side: 6x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve - 2x brown, 2x black, 2x white.
- Cable cross-section: 2.5 gmm



Quick connection cable "voltage/rigid sleeve" for source-instrument, MT series, 2.5 m, phase colours: brown/black/white/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.

- 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 brown, 1x black, 1x white, 1x blue
- Cable cross-section: 2.5 gmm



Quick connection cable "current/rigid sleeve" for source MT551, MT series, 2.5 m, phase colours: yellow/green/violet -> max. 12A

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, 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



Quick connection cable "current/rigid sleeve", 12 A, 2.5 m

Ord.No.

100023494

phase colours: brown/black/white

for MT681, MT78x

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 brown, 2x black, 2x white
- Cable cross-section: 2.5 qmm

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**



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



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 mm²
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00011923**



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. **101584400**



4 mm plug adapter (banana plug)

- Plug: 4 mm spring-loaded plug, made of brass.
- Socket: 4 mm rigid socket in insulator accepting springloaded 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 springloaded 4 mm plugs with rigid insulating sleeve.



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 springloaded 4 mm plugs with rigid insulating sleeve.

Ord.No. 100102400



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 springloaded 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.

X00009329 Ord.No.



Accessories bag without content

DIN A6, material: polypropylene

Fuse, 5 A, 5 mm x 20 mm, semi time-lag

Ord.No.

M00460136



Special Accessories (Transport)



Accessories bag

Nylon bag with inlet from rigid foam, designed for

Ord.No.

100148209

- Test leads
 Scanning box
- 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.

Special Accessories (General)



USB2.0 connection cable, 1.5 m, A to B

Ord.No.

X00011922



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 (for Service)



Adjustment of MT551

Note: Calibration and Calibration report are not included.

Ord.No.

100033893

Calibration (for Service)



,Factory Calibration for MT551, 50 Hz incl. ZERA calibration report.

Ord.No.

100519778

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.



Factory Calibration for MT551, 60 Hz

incl. ZERA calibration report.

Ord.No.

100519779

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.



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

Ord.No.

100007093



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

Ord.No.

100007094

DAkkS 50 Hz Calibration **DAkkS DKD-Calibration for MT551, 50 Hz** incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No.

100519660

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 MT551, 60 Hz incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No.

100519661

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



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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