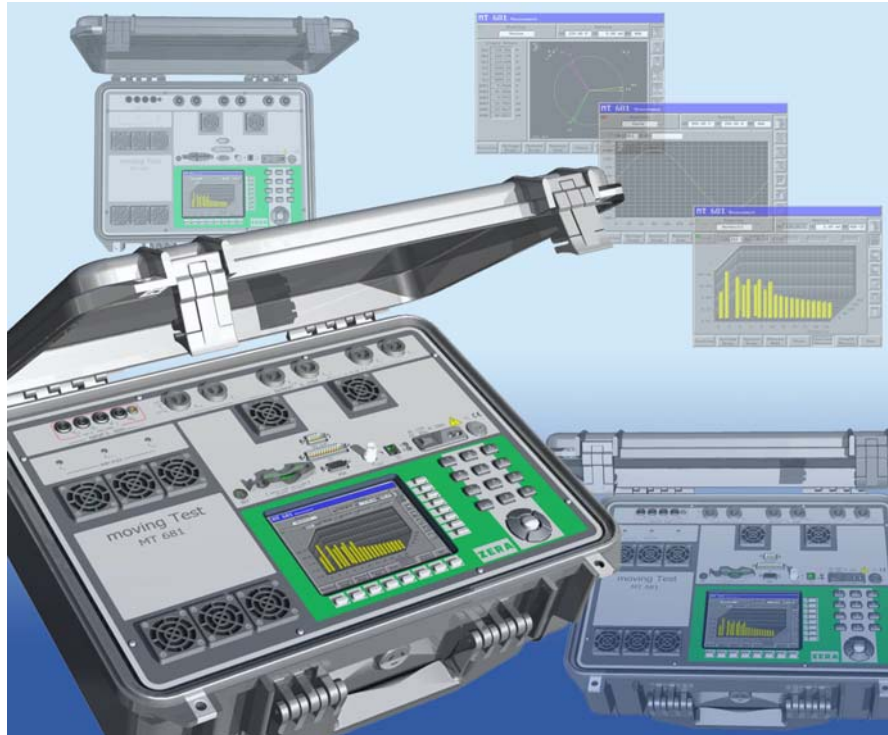


Product catalogue

MT681 series




**Precise measurement
combined with innovative Design**

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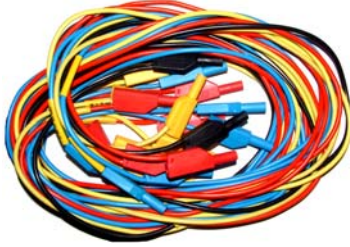
1 Basic system MT381

1.1 Three phase automatic test system MT681


	<p>Three-phase Fully Automatic Test System MT681 - Class 0.1 with Integrated Current Source</p> <p>Order code 100244700</p> <p>Accuracy for power and energy measurement < 0,1% Current circuit output 10mA ... 100A Voltage measurement 30V ... 300V AC</p> <p><u>Further accessories:</u> PC-software SSM3000 for data retrieval + MTVis 100090702 1 compact-flash memory card X00011896 1 USB flash card reader X00011897 1 Data cable RS232 Z08923030 4 Voltage adapter with Omega clamp Z09508700 4 Pin adapter voltage, banana plug bended 100102400 4 Pin for voltage connection X00004961 1 Accessories bag 100214400 1 Mains cable Type "F"(EURO-Connector) 100067700 3 Test clips X00009329 10 Set of spare fuses, M00460179 Factory calibration report</p> <p>Further information can you find in the brochure: „Three-Phase Fully Automatic Test System MT681“</p>
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2 Cable sets

2.1 Voltage cable set

	<p>Voltage cable set Order code 100023709</p> <p>Consist of:</p> <p><i>Voltage cables set with 4mm safety plug</i></p> <table><tr><td>1 Cable 2,5mm², 2 m lg.,red</td><td>X00007597</td></tr><tr><td>1 Cable 2,5mm², 2 m lg.,yellow</td><td>X00006907</td></tr><tr><td>1 Cable 2,5mm², 2 m lg.,blue</td><td>X00007598</td></tr><tr><td>1 Cable 2,5mm², 2 m lg.,black</td><td>X00006910</td></tr></table>	1 Cable 2,5mm ² , 2 m lg.,red	X00007597	1 Cable 2,5mm ² , 2 m lg.,yellow	X00006907	1 Cable 2,5mm ² , 2 m lg.,blue	X00007598	1 Cable 2,5mm ² , 2 m lg.,black	X00006910
1 Cable 2,5mm ² , 2 m lg.,red	X00007597								
1 Cable 2,5mm ² , 2 m lg.,yellow	X00006907								
1 Cable 2,5mm ² , 2 m lg.,blue	X00007598								
1 Cable 2,5mm ² , 2 m lg.,black	X00006910								

2.2 Current cable set (120A)

	<p>Current cable set up to 120A Order code Z10353029</p> <p>Consist of:</p> <p><i>Current cable set</i></p> <p>2 Cables 25mm², 2 m lg.,red 2 Cables 25mm², 2 m lg.,yellow 2 Cables 25mm², 2 m lg.,blue</p> <p>with 5,8mm pin connector for connection of the unit under test</p>
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3 Scanning head units

3.1 Photo electric scanning head unit TK326



Photo electric scanning head unit TK326

Order code [100102201](#)

for detection of rotor-disc signals on Ferraris meters and flashing LED signals on static meters.

100313300

Including holding arrangement

100319600

Including connection spiral cable (length 6m)

Z10353027

3.2 Photo electric scanning head unit TK118-05



Photo electric scanning head unit TK118-5

Order code [100201900](#)

LED-Scanning head TK118-05

the TK118 is designed to pick up the energy proportional impulses of the light-emitting diode on solid-state meters. A permanent magnet belongs to the TK118, thus enabling the TK118 to be magnetically attached to the meter under test. A sucker enabling the TK118 also to be attached in the correct position in front of the light-emitting diode. The TK118 scanning head can be used on the most electronic meter test devices.

Dimensions

Diameter	φ33mm
Height	28mm; incl. sucker and permanent ring-magnet
Spiral cable	with a length of up to 6m

3.3 S0 pulse converter K121-01



S0 pulse converter K121-01

Order code [100004200](#)


S0 - Puls converter K121-01

for connection on the scanning head input of the test unit and pulse output of the meter under test. It serves for pulse detection of floating contacts as well as S0-interfaces on energy meters.

Scope of delivery


- K121-01 Pulse converter
- Coloured connection cables for connection of the pulse interface of the unit under test.

3.4 External pushbutton


	<p>External pushbutton Order code Z09969204</p> <p>External pushbutton for manual pulse generation</p> <p>the external Start-Stop pushbutton serves for manual pulse generation while testing a energy meter in the field. The push button need to be connected on the scanning head input of the meter testing system MT300/310 or TPZ108/308</p> <p><u>Scope of delivery</u> - External push button Z09969204</p>
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4 Measuring sensors


4.1 MT3410 Clip-on CT adapter set type 2 (120A)

	<p>Clip-on CT adapter set MT3410 Order code Z10301901</p> <p>Clip-on CT set MT3410 for MT300 / 310 Due to it's high accuracy in the upper current range these three error compensated clamps MT3410 are in particular suitable for testing of electricity meters in the field. The correction values for error compensation are located in a chip inside the connection plug. Therefore the clamp set is equipped with it's own calibration report and can be calibrated independently of the measuring unit. The clamps can be used also on various MT3x units.</p> <p><u>Technical data:</u> Measuring range from 100mA to 120A Error of measurement < 0,15% (500 mA ... 120 A) < 0,3% (100 mA ... 500 mA)</p>
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4.2 MT3414 Clip on CT adapter Type1 (12A)

	<p>MT3414 clip-on CT set Type 1 Order code Z10301701</p> <p>Clip-on CT set MT3414 for MT300 / 310 Due to it's high accuracy in the lower current range these three error compensated clamps MT3414 are in particular suitable for measuring of the operating burden on voltage transformers in the field. The correction values for error compensation are stored located in a chip inside the connection plug. Therefore the clamp set is equipped with it's own calibration report and can be calibrated independently of the measuring unit. The clamps can be used also on various MT3x units.</p> <p><u>Technical data:</u> Measuring range from 10mA to 12A Error of measurement < 0,3% (50 mA ... 12 A) < 0,6% (10 mA ... 50 mA)</p>
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4.3 MT3416 Current clamp set (300A)

	<p>MT3416 Current clamp set (300A) Order code 100319200</p> <p>Consisting of <u>three error compensated current clamps</u> designed for precise current measurements of currents up to 300A. The MT3403 current clamp serves for current measurements on cables with a diameter of up to 53mm.</p> <p><u>Technical Data:</u> Measuring range from 200mA to 300A</p> <p>Error of measurement</p> <table><tr><td></td><td>< 0,15% (1 A ... 300 A)</td></tr><tr><td></td><td>< 0,3% (200 mA ... 1 A)</td></tr></table>		< 0,15% (1 A ... 300 A)		< 0,3% (200 mA ... 1 A)
	< 0,15% (1 A ... 300 A)				
	< 0,3% (200 mA ... 1 A)				


4.4 MT3403 Current clamp Type3 (1000A)

	<p>MT3403 Current clamp Type 3 Order code 100032400</p> <p>The MT3403 current clamp serves for current measurements on cables with a diameter of up to 53mm. The clamp must be connected directly to the 12A measuring input of the MT system.</p> <p><u>Technical Data:</u> Measuring range from 100mA to 1000A Ratio 100/1</p> <p>Error of measurement</p> <table><tr><td><0.3%, 0.7°</td><td>(100 A ... 1000 A)</td></tr><tr><td><0.5%, 1.0°</td><td>(10 A ... 100 A)</td></tr><tr><td><1.0%, 2.0°</td><td>(1 A ... 10 A)</td></tr><tr><td><2.0%</td><td>(100mA ... 1 A)</td></tr></table>	<0.3%, 0.7°	(100 A ... 1000 A)	<0.5%, 1.0°	(10 A ... 100 A)	<1.0%, 2.0°	(1 A ... 10 A)	<2.0%	(100mA ... 1 A)
<0.3%, 0.7°	(100 A ... 1000 A)								
<0.5%, 1.0°	(10 A ... 100 A)								
<1.0%, 2.0°	(1 A ... 10 A)								
<2.0%	(100mA ... 1 A)								


4.5 MT3404 Flexible current ring (100/10000A)

	<p>MT3404 Flexible current ring for 10.000A Order code 100032500</p> <p>The flexible MT3404 current sensor serves for current measurements on any conductors well as on bus bars. The MT3404 current sensor must be get plugged via the connection unit MT3412 direct on the CT terminal of the MT3x measuring unit.</p> <p><u>Technical data:</u> Measuring range from 500mA to 10.000A Error of measurement < 1,5%</p>
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4.6 MT3405 High voltage stick (40kV)

 A red high-voltage measuring stick with a black handle and a silver probe tip. It is connected to a black and red measuring unit via a red cable.	<p>MT3405 High voltage stick Order code 100032000</p> <p>The MT3405 is a measuring adapter for primary voltage measurements on power transmission lines up to 40 kV. The MT3405 is get plugged via the connection unit MT3409 direct on the CT terminal of the MT3x measuring unit.</p> <p><u>Technical Data:</u> Measuring range up to 40,000 V Measuring accuracy < 2%</p> <p>!! Not for use in EU / No CE approval !!!</p>
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4.7 MT3406 High current stick (2000A, 50Hz)

 A red high-current measuring stick with a black handle and a silver probe tip. It is connected to a black and red measuring unit via a red cable.	<p>MT3406 High current stick Order code 100032100</p> <p>The MT3406 is a measuring adapter for primary current measurements on power transmission lines up to 2000A / 50Hz. The MT3406 must be get plugged via the connection unit MT3409 direct on the CT terminal of the MT3x measuring unit.</p> <p><u>Technical Data:</u> Measuring range up to 2.000 A Frequency 50 Hz Measuring accuracy < 1,5% Rated working voltage 40 kV</p> <p>!! Not for use in EU / No CE approval !!!</p>
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4.8 MT3409 Connection unit for MT3405 and MT3406

 A red connection unit with six input channels (three for voltage and three for current) and a grey cable with a connector.	<p>MT3409 Connection unit Order code 100032202</p> <p>The connection unit serves for the connection of the hot sticks types MT3405/MT3406 to the MT3x system. It is equipped with six input channels for connection of the hot sticks (max. 3x voltage and 3x current) to the MT3x system.</p>
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4.9 MT3411 Flexible current ring (200/2000A), Ring length 0,45m

 A flexible current ring with a red outer sheath and a black inner conductor. The ring is coiled, and a black cable with a connector is attached to one end.	<p>MT3411 Flexible current ring for 2.000A Order code 100061300</p> <p>The flexible MT3411 current sensor serves for current measurements on any conductors well as on bus bars. The MT3411 current sensor must be get plugged via the connection unit MT3412 direct on the CT terminal of the MT3x measuring unit.</p> <p><u>Technical data:</u> Measuring range from 500mA to 2.000A Error of measurement < 1,5% Ring length 0,45m</p>
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4.10 MT3415 Flexible current ring (200/2000A), Ring length 0,80m

 A flexible current ring with a red outer sheath and a black inner conductor. The ring is coiled, and a black cable with a connector is attached to one end.	<p>MT3415 Flexible current ring for 2.000A Order code 100061301</p> <p>The flexible MT3415 current sensor serves for current measurements on any conductors well as on bus bars. The MT3415 current sensor must be get plugged via the connection unit MT3412 direct on the CT terminal of the MT3x measuring unit.</p> <p><u>Technical data:</u> Measuring range from 500mA to 2.000A Error of measurement < 1,5% Ring length 0,80m</p>
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4.11 MT3412 Connection unit for MT3404, MT3411 and MT3415

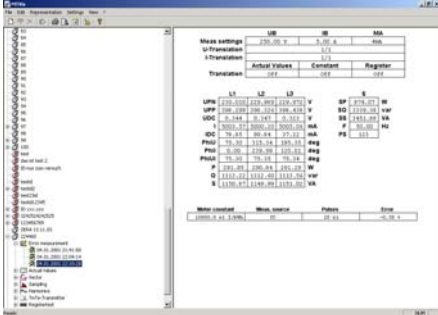
 A connection unit with three black input ports on the left and a grey ribbon cable with a connector on the right.	<p>MT3412 Connection unit Order code 100032203</p> <p>The connection unit serves for the connection of the flexible current sensor types MT3415/MT3411/3404 to the MT3x system. It is equipped with three inputs for connection of up to three flexible current sensors to the MT3x system.</p>
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4.12 MT3413 Current clamp type 4 (1500A)

	<p>MT3413 Current clamp type 4 Order code 100032401</p> <p>The clamp serves for current measurements on cables with a diameter of up to 64 mm or bus bars up to 64x145 mm . The clamp is connected directly to the 12 A measuring input of the MT3x system.</p> <p><u>Technical Data:</u> Measuring range from 1 A to 1500 A Übersetzung 100/1 Error of measurement <math><0.5\%</math> (bis 1500 A) <math><0.75\%</math> (bis 300 A) <math><1.5\%</math> (bis 75 A)</p>
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5 Windows software

5.1 MTVis Data management software

	<p>MTVis Windows software Order code X00012330</p>
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* Subject to alterations !