

TOP SELLERS



Safety and functional test devices

VDE 0701-0702 / DGUV Regulation 3 (BGV A3)

- Test channels MERZ MAS
- Professional service case
- Accessories

MERZ Test Technology.

Minimum expense, maximum safety.

At MERZ Test Technology, a wide variety of types of companies find everything they need in order to execute their legally stipulated safety tests completely correctly and at the same time as quickly as possible. In the sector of repair tests and maintenance tests for electrical equipment, we offer sophisticated product solutions that are consistently aligned to the needs of our customers under incorporation of many years of practical experience.

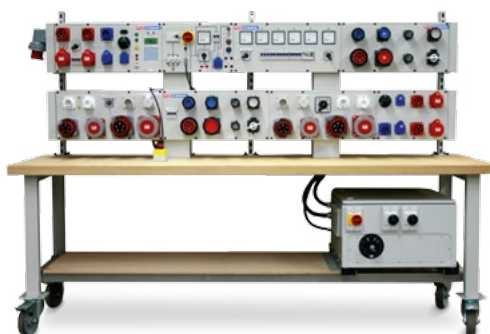
On the following pages, we present to you the pre-configured channels of the MAS test technology system series and their advantages. We would then like to acquaint you above all with our mobile test systems, the test software and our practical training from our complete product programme, which also includes traditional test panels and stationary test and work systems.

We look forward to your interest!

TEST PANELS



STATIONARY TEST AND
WORKPLACE EQUIPMENT



MOBILE TEST SYSTEMS



Everything at a glance.

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One system – thousands of possibilities: the MAS modular test technology system.

With the MAS modular energy supply and test technology system, customised test stations can be implemented in industry, services, handicrafts, laboratories, the event industry, theatres and education – quickly and without complications. MAS adapts to your requirements and allows you an easy start with test technology, while also facilitating retrofitting or expansion. In the framework of this flexible test technology system, you choose the suitable solution for you from 12 different MAS configurations.

The channels for integrating the modules are available in 2 structural heights (1 MHE and 2 MHE). The large channel (height 2 MHE) is designed to incorporate test technology modules. Two 1 MHE modules can also be integrated into this channel one on top of the other. To configure a test station according to your requirements, simply select the desired modules, determine the required channel length and the suitable vacant channel and order the pertinent assembly accessories. All test systems are delivered factory-assembled.

Attention:
a mains power supply module is required for every test panel.

Would you like support to put together the optimum configuration for you?

Feel free to contact us any time under the following contact details:

YOUR DIRECT LINK TO US:

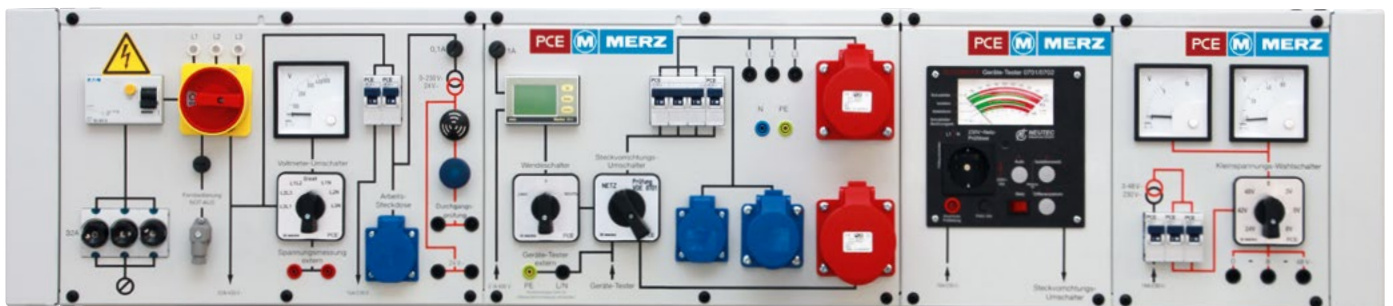
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MAS-PMD 2000

COMPLETE CHANNELS	MERZ MODULES					
	MAS-EM 3200 MZ70000	MAS-FM 3200 MZ70002	MAS-KM 4804 MZ70004	MAS-GE 1000 MZ70008	MAS-GT 1000 MZ70012	MAS-FMD 3200 MZ70003
Type Order number						
MAS-PMD 2000 T MS20000179	√		√		√	√
MAS-PMD 2400 T MS2000080	√		√			√
MAS-PM 2000 MS22000081	√	√	√	√		
MAS-PM 2400 MS22000082	√	√	√			
MAS-PMD 2000 MS22000083	√		√	√		√
MAS-PMD 2400 MS22000084	√		√			√
MAS-FSM 3200-T1 MS22000085	√					
MAS-FSM 3200 FI-T1 MS22000086	√					
MAS-FSM 3200-T2 MS22000087	√		√			
MAS-FSM 3200 FI-T2 MS22000088	√		√			
MAS-FSM 3200-T3 MS22000089	√					
MAS-FSM 3200 FI-T3 MS22000090	√					

BASIS
 ADVANCED
 PROFESSIONAL

MAS-KMR 4804 MZ70005	MAS-GE 1400 MZ70011	MAS-GT 1400 MZ70015	MAS-FSM 3200 MZ70025	MAS-FSM 3200 FI MZ70032	MAS-NMR 5005 MZ70016	Test technology channel large
						
						MAS-PKG 1300
		√				MAS-PKG 1300
						MAS-PKG 1500
	√					MAS-PKG 1500
						MAS-PKG 1300
		√				MAS-PKG 1300
			√			MAS-PKG 1100
				√		MAS-PKG 1100
			√			MAS-PKG 1300
				√		MAS-PKG 1300
√			√		√	MAS-PKG 1900
√				√	√	MAS-PKG 1900

MAS-EM 3200

Item no. MZ70000

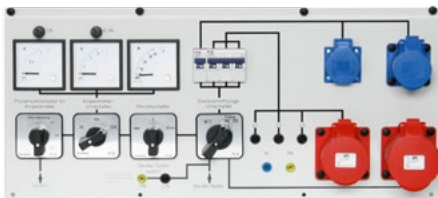


BASIC MODULE

- Mains power supply module 32 A / 400 V AC
- Module 2 MHE, 400 mm wide
- Input fuse E 18, 32 A
- 1 x residual current operated circuit breaker 40 / 0.03 A, Type A
- Master switch under voltage release
- EMERGENCY STOP remote control
- Internal and external voltage measurement up to 500 V AC
- Separately fused working socket earthing contact 16 A / 230 V
- Visual and acoustic continuity test
- Extra-low voltage 24 V AC

MAS-FM 3200

Item no. MZ70002

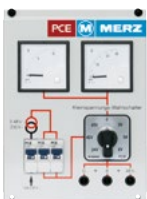


BASIS

- Functional measuring module analogue 32 A / 400 V AC
- Module 2 MHE, 600 mm wide
- Test object connectors:
 - Safety laboratory sockets 16 A
 - Earthed wall socket 16 A / 230 V (Schuko) other standards on request
 - CEE 16 A, 3 p, 230 V
 - CEE 16 A and 32 A, 5 p, 400 V
- Reversing switch for motorised three-phase devices
- Measurement of current consumption of alternating current and three-phase current consuming devices up to max. 32 A using analogue meters
- Reversing switch „Mains“ – „DIN VDE 0701 / 0702 test“
- Sockets for external safety tester

MAS-KM 4804

Item no. MZ70004

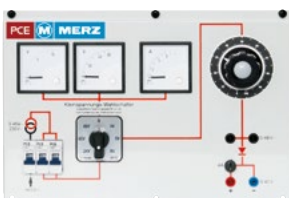


BASIS

- Extra-low voltage module
- Module 2 MHE, 200 mm wide
- Extra-low voltage switchable 3-5-8-12-24-42-48 V AC (100 VA)

MAS-KMR 4804

Item no. MZ70005



ADVANCED

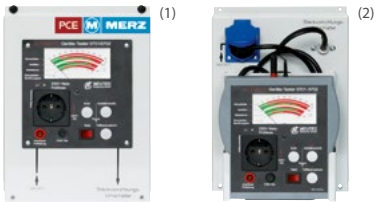
- Extra-low voltage module, adjustable
- Module 2 MHE, 400 mm wide
- Extra-low voltage 0-48 V AC (100 VA) and 0-42 V DC (4 A)
- Continuously adjustable, pulsating
- Current consumption measurement (measuring range 0-6 A)
- Voltage measurement (measuring range 0-10 V, 0-60 V)

MAS-GE 1000⁽¹⁾

Item no. MZ70008

MAS-GT 1000⁽²⁾

Item no. MZ70012



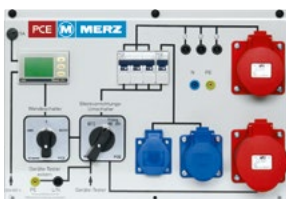
BASIS

- Integrated⁽¹⁾ and removable⁽²⁾, analogue, automatic device tester GE 0701 / 0702
- Module 2 MHE, 200 mm wide
- Measuring and testing possibilities:
 - analogue display with coloured Good/Error labelling for the standard threshold values
 - fast recognition of exceedance of the threshold value due to red-green areas on the display scale and additionally flashing scale LED
 - LEDs for fast identification of the scale valid for the respective measurement
 - automatic or manual test process
 - automatic mains plug commutation in the residual current measuring process

FUNCTION	MEASURING RANGE	MEASUREMENT CURRENT	MEASUREMENT VOLTAGE
Earthwire resistance	0 – 1,000 mΩ	> 200 mA AC	max. 6 V AC
Insulation test	0.2 – 10 MΩ	$I_n = 1 \text{ mA}; I_k \leq 4.8 \text{ mA}$	$U_n = 500 \text{ V DC}$
Leakage current	0 – 18 mA	$I_k < 4.2 \text{ mA}$	< 40 V AC
Earthwire current	0 – 5 mA	Residual current measuring process (230 V / max. 16 A) with automatic mains plug commutation	
Touch current	0 – 5 mA		

MAS-FMD 3200

Item no. MZ70003



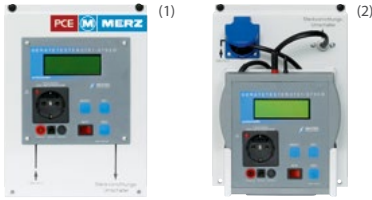
ADVANCED

- Functional measuring module digital 32 A / 400 V AC
- Module 2 MHE, 400 mm wide
- Test object connectors:
 - Safety laboratory sockets
 - Earthed wall socket 16 A / 230 V
 - CEE 16 A, 3 p, 230 V
 - CEE 16 A and 32 A, 5 p, 400 V
- Reversing switch for motorised three-phase devices
- Measurement of current consumption of alternating current and three-phase current consuming devices up to max. 32 A using digital circuit analyser. Simultaneous display of the following measured variables in each case
 - Phase currents (I_1, I_2, I_3)
 - Phase voltages (U_1-N, U_2-N, U_3-N)
 - Phase voltages interlinked ($U_1-U_2, U_2-U_3, U_3-U_1$)
 - Power consumptions: (P, Q, S)
 - Grid frequency, power factor
 - Active and apparent energy
- Reversing switch „Mains“ – „DIN VDE 0701 / 0702 test“
- Sockets for external safety tester

MAS-GE 1400⁽¹⁾ MAS-GT 1400⁽²⁾

Item no. MZ70011

Item no. MZ70015



ADVANCED

- With the digital device testers of the GED / GTD series, the test process and the measurement process can also be set fully automatically via the PC (remote-controllable via PC)
- Module 2 MHE, 200 mm wide with integrated⁽¹⁾ and removable⁽²⁾ device tester
- Convenient operation by means of dialogue control via 4-line alphanumeric LCD
- Automatic or manual test process
- Storage for max. 800 test processes
- Manual or automatic setting of threshold values
- Option of exporting the protocol data in Excel or another file format
- Automatic mains plug commutation in the residual current measuring process
- RS-232C interface for connecting PC, receipt printer or barcode scanner
- A variety of options with optional barcode scanner:
 - convenient management of measurement data
 - automatic configuration of the test process
 - assumption of existing protocol data for the new measurement results

FUNCTION	MEASURING RANGE	MEASUREMENT CURRENT	MEASUREMENT VOLTAGE
Earthwire resistance	0 – 1,000 mΩ	> 200 mA AC	max. 6 V AC
Insulation test	0.2 – 10 MΩ	$I_n = 1 \text{ mA}; I_k \leq 4.8 \text{ mA}$	$U_n = 500 \text{ V DC}$
Leakage current	0 – 20 mA	$I_k < 4.2 \text{ mA}$	< 40 V AC
Earthwire current	0 – 10 mA	Residual current measuring process (230 V / max. 16 A) with automatic mains plug commutation	
Touch current	0 – 10 mA		

MAS-NMR 5005

Item no. MZ70016



PROFESSIONAL

- Power supply unit module adjustable 50 V DC / 5 A
- Module 2 MHE, 400 mm wide
- Stabilised switching power supply clocked on the secondary side
- Digital display for current and voltage

MAS-FSM 3200 MAS-FSM 3200 FI

Item no. MZ70025

Item no. MZ70032



PROFESSIONAL

- Multifunctional module 32 A / 400 V AC
- Module 2 MHE, 600 mm wide
- Test object connectors: IEC60320. Type C14 and Schuko 16 A / 230 V; CEE 16 A, 3 p, 230 V; CEE 16 A and 32 A, 5 p, 400 V (plug and socket each)
- Safety tests in accordance with DIN VDE 0701 / 0702 and DGUV Regulation 3 (BGV A3):
 - Earthwire resistance measurement (0 ... 4.0 Ω, no-load voltage 6 V, current 200 mA DC);
 - Insulation resistance measurement (0 ... 20.00 M, no-load voltages 500 V, 1,000 V, short-circuit current 1 mA);
 - Leakage current measurement (0 ... 40.00 mA, no-load voltage approximately 150 V)
 - Residual current measurement on alternating current and three-phase current consuming devices (filter characteristics in accordance with DIN VDE 0404 for correct assessment of harmonics)
 - Earthwire current: 0 ... 40.00 mA and touch current: 0 ... 4.00 mA
 - Test process single step or auto mode
- User interface:
 - Menu navigation via back-lit dot matrix display
 - Cleartext operation via alphanumeric keyboard
 - Identification of the test object via ident numbers, input or via barcode reader
 - Good/error display

Prior to the test, the test object is classified in order to define the test process and the configuration of the threshold values in accordance with the chosen VDE regulation (e.g. class of protection, heating power, earthwire length). There are separate processes for extension cables and permanently connected devices.
- Statistical evaluation of the tests without external software
- Functional measurements:
 - Voltage per phase: 0 ... 260.0 V - current per phase: 0 ... 40.0 A
 - total output: 0 ... 24,000 W, recording up to the 15th overtone
- Review of extension cables: Measurement of earthwire and insulation resistance and continuity test with phase-sequence test
- Serial interface RS-232 and USB interface
- Reversing switch running direction for motorised three-phase current consuming devices
- The MAS-FSM 3200 includes the following measures for the protection of the tester:
 - The 16 A circuits are separately fused in the device.
 - In the event of dangerous fault currents (larger than 20 mA), an integrated fault current monitor automatically disconnects the test object from the mains.
 - Line identification monitors the PE voltage in the system and reviews the rotating field of the mains voltage.
 - Integrated three-phase current output analysis and connection test
- Internal storage for approximately 8,000 test charts for max. 32 customers with date and timestamp readable via interface (software PMKD 2500 PC-S optional)

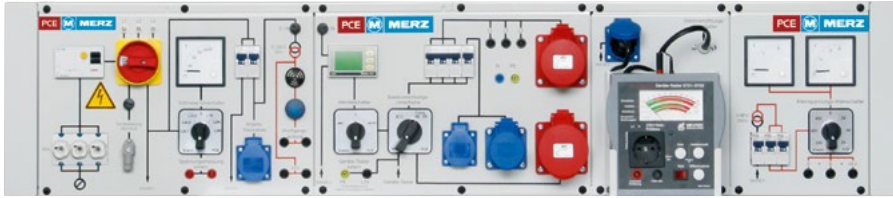
Additional function of the MAS-FSM 3200 FI:

- Residual current device (RCD) test
 - testable FI types: A, B, PRCD, PRCD-S, PRCD-K (optional accessories required for contacting)
 - Tripping time / release current including documentation

MAS-PMD 2000 T

Item no. MS20000179

Modular workshop test panel in channel structure for wall mounting



BASIS

- Test station in accordance with VDE 0104. Removable analogue protective measure test device according to VDE 0701 / 0702 and functional measurement for single and three-phase current test objects up to 32 A.
- Test of earthwire resistance and insulation resistance, leakage, earthwire¹ and touch current¹ in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices.
- Functional test with current and voltage measurement using digital multifunctional measuring device. Simultaneous display of the following measured variables in each case: I1, I2, I3; U1-N, U2-N, U3-N; U1-U2, U2-U3, U3-U1; P, Q, S; mains frequency, power factor, active and apparent energy
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

¹ Earthwire and touch current measurement implementable only on single-phase alternating current consuming devices.

MAS-PMD 2400 T

Item no. MS20000180

Modular workshop test panel in channel structure for wall mounting



ADVANCED

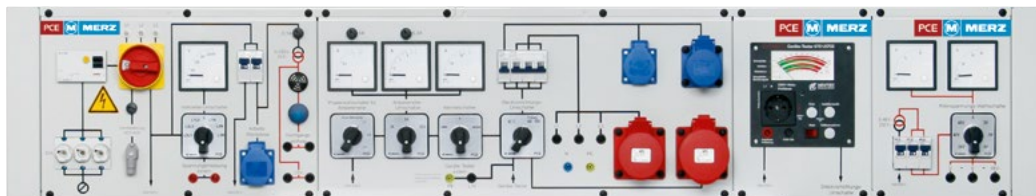
- Test station in accordance with VDE 0104. Removable digital protective measure test device according to VDE 0701-0702 and functional measurement for single and three-phase current test objects up to 32 A.
- Test of earthwire resistance and insulation resistance, leakage, earthwire¹ and touch current¹ in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices. PC interface for data collection and remote control of the test device. **Includes PC software.**
- Functional test with current and voltage measurement using digital multifunctional measuring device. Simultaneous display of the following measured variables in each case: I1, I2, I3; U1-N, U2-N, U3-N; U1-U2, U2-U3, U3-U1; P, Q, S; mains frequency, power factor, active and apparent energy.
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

¹ Earthwire and touch current measurement implementable only on single-phase alternating current consuming devices.

MAS-PM 2000

Item no. MS20000181

Modular workshop test panel in channel structure for wall mounting



BASIC

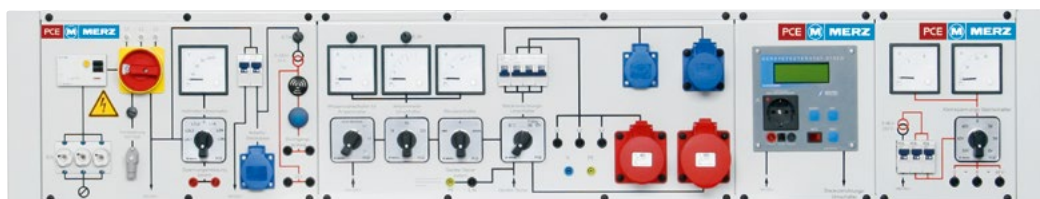
- Test station in accordance with VDE 0104.
- Protective measure test in accordance with VDE 0701 / 0702 and functional measurement for single and three-phase current test objects up to 32 A.
- Test of earthwire resistance and insulation resistance, leakage, earthwire¹ and touch current¹ in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices
- Functional test with current and voltage measurement using analogue displays.
Current measurement via phase reversing switch and measuring range reversing switch (0-1 A, 0-6 A, 0-40 A)
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Operating voltage display analogous to reversing switch L1-L2, L2-L3, L3-L1, 0, L1-N, L2-N, L3-N, visual and acoustic continuity test, emergency stop switch and external emergency stop connection

¹ Earthwire and touch current measurement implementable only on single-phase alternating current consuming devices.

MAS-PM 2400

Item no. MS20000182

Modular workshop test panel in channel structure for wall mounting



BASIC

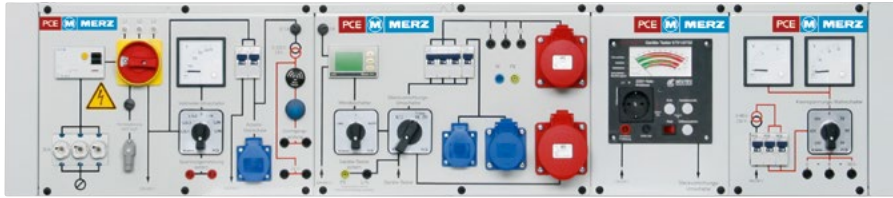
- Test station in accordance with VDE 0104.
- Digital protective measure test device in accordance with VDE 0701 / 0702 and functional measurement for single and three-phase current test objects up to 32 A.
- Test of earthwire resistance and insulation resistance, leakage, earthwire¹ and touch current¹ in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices. PC interface for data collection and remote control of the test device. **Includes PC software.**
- Functional test with current and voltage measurement using analogue displays.
Current measurement via phase reversing switch and measuring range reversing switch (0-1 A, 0-6 A, 0-40 A)
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Operating voltage display analogous to reversing switch L1-L2, L2-L3, L3-L1, 0, L1-N, L2-N, L3-N, visual and acoustic continuity test, emergency stop switch and external emergency stop connection

¹ Earthwire and touch current measurement implementable only on single-phase alternating current consuming devices.

MAS-PMD 2000

Item no. MS20000183

Modular workshop test panel in channel structure for wall mounting



BASIC

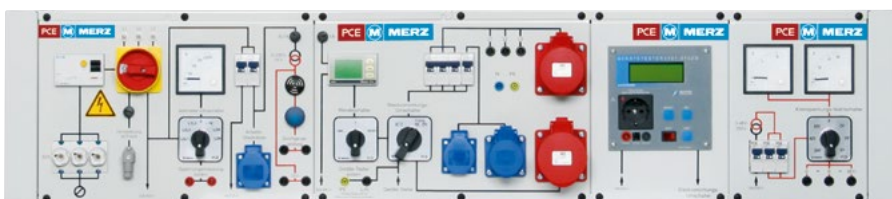
- Test station in accordance with VDE 0104.
- Analogue protective measure test device in accordance with VDE 0701 / 0702 and functional measurement for single and three-phase current test objects up to 32 A.
- Test of earthwire resistance and insulation resistance, leakage, earthwire¹ and touch current¹ in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices.
- Functional test with current and voltage measurement using digital multifunctional measuring device. Simultaneous display of the following measured variables in each case: I1, I2, I3; U1-N, U2-N, U3-N; U1-U2, U2-U3, U3-U1; P, Q, S; mains frequency, power factor, active and apparent energy
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

¹ Earthwire and touch current measurement implementable only on single-phase alternating current consuming devices.

MAS-PMD 2400

Item no. MS20000184

Modular workshop test panel in channel structure for wall mounting



ADVANCED

- Test station in accordance with VDE 0104.
- Analogue protective measure test device in accordance with VDE 0701 / 0702 and functional measurement for single and three-phase current test objects up to 32 A.
- Test of earthwire resistance and insulation resistance, leakage, earthwire¹ and touch current¹ in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices. PC interface for data collection and remote control of the test device. **Includes PC software.**
- Functional test with current and voltage measurement using digital multifunctional measuring device. Simultaneous display of the following measured variables in each case: I1, I2, I3; U1-N, U2-N, U3-N; U1-U2, U2-U3, U3-U1; P, Q, S; mains frequency, power factor, active and apparent energy
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

¹ Earthwire and touch current measurement implementable only on single-phase alternating current consuming devices.

MAS-FSM 3200 T1 MAS-FSM 3200 FI-T1

Item no. MS20000185

Item no. MS20000186

Modular professional test panel in channel structure for wall mounting



PROFESSIONAL

- Test station in accordance with VDE 0104. Digital functional and safety test device for VDE 0701 / 0702 and functional measurement for single and three-phase current test objects and extension cables up to 32 A.
- Test of earthwire resistance and insulation resistance as well as leakage, earthwire and touch current in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices. Continuity, rotating field test of extension cables and test of short circuit of all cores against each other. PC interface for data collection and remote control of the test device.
Includes PC software for creation of test protocol (optional remote control software PMKD 2500 PC-S).
- Functional test with display of current and voltage measurement, active power via the device display.
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

MAS-FSM 3200 T2 MAS-FSM 3200 FI-T2

Item no. MS20000187

Item no. MS20000188

Modular professional test panel in channel structure for wall mounting



PROFESSIONAL

- Test station in accordance with VDE 0104. Digital functional and safety test device for VDE 0701 / 0702 and functional measurement for single and three-phase current test objects and extension cables up to 32 A.
- Test of earthwire resistance and insulation resistance as well as leakage, earthwire and touch current in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices. Continuity, rotating field test of extension cables and test of short circuit of all cores against each other. PC interface for data collection and remote control of the test device.
Includes PC software for creation of test protocol (optional remote control software PMKD 2500 PC-S).
- Functional test with display of current and voltage measurement, active power via the device display.
- Extra-low voltage source AC, 0-48 V, 4 A configurable via reversing switch 3-5-8-12-24-42-48 V AC
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

Additional function of the MAS-FSM 3200 FI-T1 and the MAS-FSM 3200 FI-T2:

- Test of residual current devices in distributors. The following types of RCDs can be tested:
A, B, PRCD, PRCD-S, PRCD-K

MAS-FSM 3200 T3 MAS-FSM 3200 FI-T3

Item no. MS20000189

Item no. MS20000190

Modular professional test panel in channel structure for wall mounting

PROFESSIONAL



- Test station in accordance with VDE 0104. Digital functional and safety test device for VDE 0701 / 0702 and functional measurement for single and three-phase current test objects and extension cables up to 32 A.
- Test of earthwire resistance and insulation resistance, as well as leakage, earthwire and touch current in accordance with DIN VDE 0701 / 0702 on three-phase and alternating current consuming devices. Continuity, rotating field test of extension cables and test of short circuit of all cores against each other. PC interface for data collection and remote control of the test device.
Includes PC software for creation of test protocols (optional remote control software PMKD 2500 PC-S).
- Functional test with display of current and voltage measurement, active power via the device display.
- Extra-low voltage source AC, 0-48 V, 4 A continuously adjustable via adjustable transformer 0-48 V AC, 0-42 V DC pulsating. Voltage measurement 0-10 V and 0-60 V, current measurement 0-6 A
- DC power supply unit, 50 V DC, 5A stabilised, clocked on the secondary side, configurable current limit, digital display for current and voltage.
- Visual and acoustic continuity test, emergency stop switch and external emergency stop connection

Additional function of the MAS-FSM 3200 FI-T3:

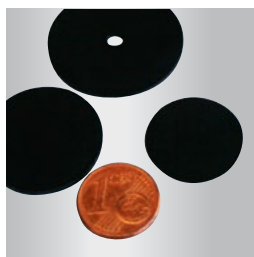
- Test of residual current devices in distributors. The following types of RCDs can be tested:
A, B, PRCD, PRCD-S, PRCD-K

MERZ test accessories.

These accessories support you in optimising your work processes. If you are interested, we are happy to advise you.



Brush probe



Transponder (RFID)



Transponder reader



Hand-held barcode scanner



Calibration adapter

VDE tests with PCE MERZ test labels including continuous barcode.

IT IS VERY EASY:

- Mark the future test date on the test label
- Scan the barcode of the test label
- Implement VDE safety test with the test device
- In the event of a positive assessment, stick the test label on the test object in order to approve the test object for use

GOOD TO KNOW:

- Please note that two simple rules must be complied with in order to ensure legal certainty:
- Test objects without test labels may not be used.
 - Following up on the test / compliance with the test deadlines is the responsibility of the users.

Lost barcode system test label

TYPE	SIZE	FILM COLOUR	PRINT COLOUR	BARCODE COLOUR	ORDER NO.
Test label circular, 30mm diameter, vinyl film, strongly adhesive					
circular	30 mm	white	black	black	MZ69573
circular	30 mm	white	colour	black	MZ69573F
Test label rectangular, 50 x 20 mm, vinyl film, strongly adhesive					
rectangular	50 x 20 mm	white	black	black	MZ69574
rectangular	50 x 20 mm	white	colour	black	MZ69574F
Test label rectangular, 50 x 100 mm, vinyl film, strongly adhesive					
rectangular	50 x 100 mm	white	black	black	MZ69575
rectangular	50 x 100 mm	white	colour	black	MZ69575F

Permanent barcode test label

TYPE	SIZE	FILM COLOUR	PRINT COLOUR	BARCODE COLOUR	ORDER NO.
Test label rectangular, 50 x 30 mm, vinyl film, strongly adhesive					
rectangular	50 x 30 mm	white	black	black	MZ69577
rectangular	50 x 30 mm	white	colour	black	MZ69577F
Test label rectangular, 39 x 120 mm, vinyl film, strongly adhesive					
rectangular	39 x 120 mm	white	black	black	MZ69576
rectangular	39 x 120 mm	white	colour	black	MZ69576F

Product features

- Minimum order quantity: x 500.
- We print all labels in black and white and with a second colour on request. The following colours can be chosen from: red, green, blue, orange, brown, violet
- The barcode is always in black and white. The barcode numbers are guaranteed to be consecutive per sheet. We aim for consecutive numbers within a complete delivery; however, these cannot be guaranteed.
- We are happy to implement customer-specific labels with an integrated logo, their own range of numbers, etc. on request.
- The PCE MERZ test labels can be used with every test device that works in conjunction with a barcode scanner. Barcode = code 39.



Sample test label MERZ SVB

PMKD 1500 and PMKD 2500.

Your reliable service case for the regular safety check.

PMKD 1500

The PMKD 1500 is small, light and is suitable for the safety and functional test of single-phase devices up to 230 V / 16 A. It is the ideal choice not only for mobile use in the field of facility management.

PMKD 2500

The PMKD 2500 is the „all-round tester“ for all electrical devices up to 400 V / 32 A (except medical devices). This device is preferably used within the framework of industrial upkeeping and maintenance, in the construction industry and in the renting of construction machinery as well as in the event industry.



THE PERFECT COMBINATION: PMKD 1500 AND PMKD 2500

With the PMKD 1500, operation functions via the alphanumeric membrane keyboard or via the PC remote control software, identical to the PMKD 2500. Thus the two test devices can be used in combined fashion.

Both devices are delivered with PC software. This software saves the data stored on the measuring device onto the PC and allows the creation of test protocols.

Database and remote control software is optionally available for both devices. See page 18.

The advantage for you as a tester is obvious: according to what is required (alternating current or three-phase current), you can use the optimum test device and you will still have all the relevant measurement data at a glance. It does not get more efficient than that.

PROPERTIES	PMKD 1500	PMKD 2500
Order number	MZ69478	MZ69549
Test object connectors	Schuko socket 16 A / 230 V (other national sockets on request)	IEC60320. Type C14 and Schuko sockets 16 A / 230 V; CEE 16 A, 3 p, 230 V; CEE 16 A and 32 A, 5 p, 400 V (plug and socket each)
Safety tests in accordance with DIN VDE 0701 / 0702 according to DGUV Regulation 3 (BGV A3)	√	√
Earthwire resistance measurement	0 ... 4.0 Ω no-load voltage 6 V, current 200 mA DC	0 ... 4.0 Ω no-load voltage 6 V, current 200 mA DC
Insulation resistance measurement	0 ... 20.00 MΩ, no-load voltages 500 V, 1,000 V, short-circuit current 1.5 mA	(0 ... 20.00 MΩ, no-load voltages 500 V, 1,000 V, short-circuit current 16 mA
Leakage current measurement	0 ... 40.00 mA, no-load voltage approximately 230 V	0 ... 40.00 mA, no-load voltage approximately 150 V
Residual current measurement	on alternating current consuming devices (filter characteristics according to DIN VDE 0404 for the correct assessment of harmonics)	on alternating current and three-phase current consuming devices (filter characteristics according to DIN VDE 0404 for the correct assessment of harmonics)
Earthwire current	0 ... 40.00 mA	0 ... 40, 00 mA
Touch current	0 ... 4.00 mA	0 ... 4, 00 mA
Menu navigation via back-lit dot matrix display	√	√
Cleartext input via alphanumeric keyboard	√	√
Identification of the test object via ident numbers, input, barcode reader or transponder reader	√	√
Good/error display	√	√
Prior to the test, the test object is classified to define the test process and the configuration of the threshold values in accordance with the chosen VDE regulation (e.g. class of protection, heating power, earthwire length). There are separate processes for extension cables and permanently connected devices	√	√
Statistical evaluation of the tests without external software	√	√
Functional measurements	<ul style="list-style-type: none"> • Voltage per phase: 0 ... 260.0 V • Current per phase: 0 ... 20.00 A • Total output: 0 ... 4,000 W, recording up to the 15th overtone 	<ul style="list-style-type: none"> • Voltage per phase: 0 ... 260.0 V • Current per phase: 0 ... 40.00 A • Total output: 0 ... 24,000 W, recording up to the 15th overtone
Review of extension cables: Measurement of earthwire resistance and insulation resistance and continuity test with phase-sequence test	—	√
Interfaces	<ul style="list-style-type: none"> • RS-232 • USB 	<ul style="list-style-type: none"> • RS-232 • USB
Mains supply	via single-phase plug 16 A / 230 V	via CEE plug 5-pin 32 A / 400 V, 16 A / 400 V or single-phase plug 16 A / 230 V
Measures for protecting the tester	<ul style="list-style-type: none"> • An integrated fault current monitor automatically disconnects the test object from the mains in the event of dangerous fault currents (larger than 20 mA). • Line identification monitors the PE voltage in the system 	<ul style="list-style-type: none"> • The 16 A circuits are separately fused in the device. • An integrated fault current monitor automatically disconnects the test object from the mains in the event of dangerous fault currents (larger than 20 mA). • Line identification monitors the PE voltage in the system and reviews the rotating field of the supply
Internal storage	for 8,000 measurement protocols with date and timestamp readable via serial interface (PMKD 2500 PC-S software optional)	for 8,000 measurement protocols with date and timestamp for max. 32 customers, readable via serial interface (PMKD 2500 PC-S software optional)
All fixtures in the robust and moisture-proof plastic case	√	√
Dimensions	approximately 267 x 245 x 120 mm	approximately 530 x 440 x 220 mm
Weight	approximately 3 kg	approximately 13 kg

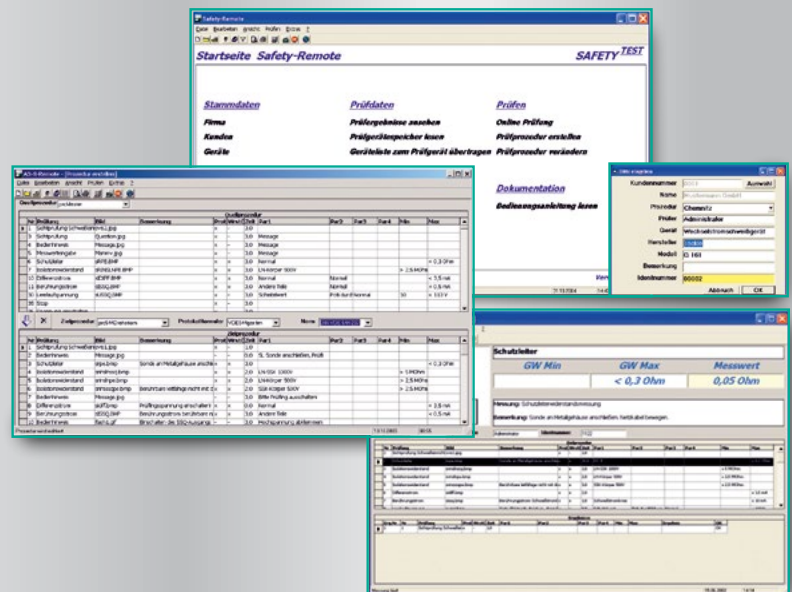
VARIANTS	PMKD 2500 SG	PMKD 2500 FI
Order number	MZ69572	MZ69570
Application	In addition, testing of welding equipment	Also for RCD tests
Description	Test device for maintenance tests on arc-welding devices in accordance with DIN VDE 0544-4 and IEC60974-4	With an integrated RCD test (FI test) for testing residual current devices types A, B, PRCD, PRCD-S, PRCD-K. Fault currents up to 500 mA AC and DC.

PMKD 2500 PC-S. Protocol and database software.

For the test devices of series PMKD 1500 and 2500 as well as MAS-FSM 3200.

THE ADVANTAGES

- Simple documentation and data management
- Creation of protocols and lists
- Bi-directional communication with the testing device
- Creation of customer-specific test processes
- Standard evaluations or via filter functions



PMKD 2500 PC-S is remote control and management software for the test devices PMKD 1500, PMKD 2500 and the MAS-FSM series. Using the software, customised test processes can be created for testing the safety of mobile devices, unique ident numbers can be allocated to the test objects and the tests can be implemented in a PC-controlled manner. Test protocols with all measurement values can be printed out under MICROSOFT WORD. PMKD 2500 PC-S also offers automated core and test data management.

PMKD 2500 PC-S reads the test data stored in the test device and can also transfer core data into the test device.

A measuring process consists of a series of test steps that are implemented consecutively. The test time as well as a lower and upper threshold value can be entered for each test step. During the test, the measurement value is compared to the threshold values and is evaluated with „OK“ or „F“. Beside the measurement values, comments can be entered on the test step. In addition,

the tester can show supplementary images. One special function allows one to enter the measurement values by hand, while another one allows the good/error assessment of a sight test. Loops and jump functions as well as commands that implement several measurements in a row allow compact test processes. A procedure is created through the copying of commands from a master procedure and the subsequent modification according to the requirements.

This results in extremely quick composition of a customised test process.

All measuring data is saved in an ACCESS database and can be loaded and protocolled again at any time.

Data of the PMKD 2500 PC-S software can be imported onto other computers.

„Testing technology“ training

DGUV Regulation 3 (BGV A3) / VDE 0701 / 0702

Find out all that is worth knowing about our testing technology training with theoretical and practical components:

SEMINAR OBJECTIVES

To convey the current legal obligations, the legally compliant implementation and documentation of tests, the corresponding standards and the technical and practical skills required in order to test electrical equipment.

TARGET GROUP

- Electrical specialists in responsible positions
- Electrical specialists (industry, service providers, handicrafts)
- Experts
- As a refresher seminar for EIPs (electrically instructed persons)

BACKGROUND

In accordance with the Occupational Health and Safety Act, the Ordinance on Industrial Safety and Health (BetrSichV) and DGUV Regulation 3 (BGV A3), the employer is obliged to instruct his employees.

In the TRBS 1203 section 3.3, the necessary electrotechnical skills of the „competent persons“ for the required tests are discussed.

These skills must be constantly updated through further training, participation in training sessions or appropriate interchange of experience.

With participation in this seminar, the previously named conditions are fulfilled.

SEMINAR – LEGAL BASIS AND HANDS-ON SEMINAR

- Legal obligations related to testing electrical equipment, ArbSchG, BetrSichV test-relevant TRBS and accident prevention regulation of the trade associations (DGUV Regulation 3 (BGV A3))
- Documentation and legal security
- Dangers of electric current
- Causes and effects of electrical accidents
- „Competent person“ and EIP
- Explanations of the new DIN VDE 0701 / 0702
- Theoretical and practical explanations of the individual tests and their legal documentation
- Technical possibilities of test device technology (Possibilities, selection criteria)
- Hands-on seminar – viewing, testing, measuring
- Practical measurements and test implementation under use and exploitation of the technical possibilities of testing device technology
- In the practical section, you can also work with your own measuring device

TEST PRACTICE SEMINAR PMKD / FSM

In the practical training offered at MERZ, the following topics are dealt with:

- Fundamental legal basis
- Fundamental information on the tests, earthwire resistance, insulation resistance leakage current measurements and functional tests to be applied
- Basic structure of the measuring devices
- Operation of the test device
- Operation of the test device via PC remote control (PMKD 2500 PC-S software)
- Creation of test programs and data management with the PMKD 2500 PC-S software

