GOSSEN METRAWATT

SECUTEST SII +
Testers per DIN VDE 0701, 0702 and 0751

3-349-395-03
1/6.07

- **Testing electrical safety of electrical equipment** per DIN VDE 0701-1:2000
- **Testing of data processing equipment** and office machines per DIN VDE 0701, part 240
- **Periodic testing** per DIN VDE 0702:2004
- **Testing of electrical medical devices** including type B, BF and CF application parts per DIN VDE 0751 and for technical safety inspection per MPG 1) (AC and DC components measured separately)
- **DIN VDE 0404** is complied with
- **Differential current measurement** with a resolution of 1 µA as recommended by the trade association
- **Automatic classification and test sequence**
- **Automatic measuring point recognition** for protective conductor testing
- **Preset test sequences** and integrated test report templates
- **With calibration certificate per DKD**
- Maximum safety for the user thanks to **integrated personal safety switch**

1) MPG = German medical product legislation

DIN EN ISO / IEC 17025:2005

QUALITY MANAGEMENT SYSTEM

DQS certified per DIN EN ISO 9001:2000 Reg.no.1262

Industrie Forum Design Hannover



Features

Connection of the device under test:

– Via the test socket with and without adapter (accessory) for various types of mains connections
– Via connector jacks for devices under test which do not have a mains plug
– Via adapter (accessory) for extension cables with and without multiple outlets

Automatic recognition of:

– Mains connection errors
– Safety class (I or II)
– Measuring point change:
During protective conductor measurement, the test instrument recognizes whether the protective conductor makes contact with the probe and indicates the two possible states by different acoustic signals. This function is useful when several protective conductor connections have to be tested.

Menu driven test sequence:

– Fully automated or
– Manual

Data interface for PC, printer and barcodes

with direct read-out of measurement data after each individual test or at the end of a test sequence

Compact design, minimal weight

Applications

Testing the electrical safety of electrical equipment per BGV A3

The test instrument is intended for fast, safe measurement of repaired or modified electrical devices in accordance with DIN VDE 0701, and for periodic testing per DIN VDE 0702. The following are measured in accordance with the regulations:

- Protective conductor resistance
- Insulation resistance
- Protective conductor current for safety class I devices
- Contact current for (safety class II devices)
- Absence of voltage at exposed, conductive parts (= contact current)

Measuring methods:

– Direct measurement
– Equivalent leakage current
– Differential current

Testing the electrical safety of electrical medical devices in accordance with German medical product legislation (MPG) and the applicable operator's ordinance

The **SECUTEST SII +** test instrument is intended for fast, safe testing and measurement of repaired or modified electrical devices in accordance with DIN VDE 0751.

Adherence to technical safety requirements assures safe use of electrical medical devices for users of the test instrument. The safety of the patient is also assured during use of tested electrical medical devices.

SECU**TEST SII** | +
Testers per DIN VDE 0701, 0702 and 0751

The following are measured in accordance with DIN VDE 0751:

- Protective conductor resistance (four pole measurement)
- Insulation resistance
- Equivalent housing leakage current
- Equivalent patient leakage current
- Device leakage current
- Patient leakage current (AC and DC components are measured separately)

Measuring methods for leakage current:
– Direct measurement
– Equivalent leakage current
– Differential current

(Mains at application part can be measured using the equivalent patient leakage current method.)

Report Generating Functions

All of the values required for approval reports or device logbooks for electrical equipment (e.g. per ZVEH) can be measured with this instrument.

All measurement data can be documented and archived thanks to the measurement and test report which can be transmitted directly to a printer or printed via a PC, or stored to a PC via the printer adapter DA-II.

The **SECUTEST** | SI module (accessory), a memory with an integrated interface and a keypad which can be inserted into the cover, expands the test instrument's range of possible applications.

Function Test with Power Analysis (also suitable for high power DUTs with a current consumption of up to 16 A)

The device under test can be subjected to a function test with line voltage via the integrated test socket.
The function test can be executed immediately after electrical safety testing has been successfully completed. The following are measured or calculated automatically:

- Line voltage
- Differential current
- Current consumption
- Active and apparent power
- Power factor
- Electrical energy
- Duty cycle

Multimeter Functions

Extensive multimeter functions including temperature measurement expand the user's measuring options in a sensible fashion. The following individual measurements are possible:

- Direct and alternating voltage
- Resistance
- Phase search
- Current via clip-on ammeter (accessory)
- Temperature via Pt100 or Pt1000 (accessories)

Features

Display

The LCD panel consists of a dot matrix at which menus, setting options, measurement results, instructions, error messages and schematic diagrams appear.

Automatic Classification and Test Sequence

The instrument detects the safety class of the device under test, and executes even complex measurements fully automatically.

RS 232 Interface for PC and Printer

This port allows for power supply and data transmission to the optionally available SI module.
Other devices can also be connected to this port with the help of an interface cable, e.g. a PC or a printer

The Help Key

Information and schematic diagrams for the current display can be accessed with this key. The appropriate information is displayed at the LCD panel.

Function Selector Switch

Test sequences and measuring functions are selected with the function selector switch. Direct allocation of the switch position to the respective test regulation simplifies operation.

Mains Plug Polarity Reversal

It is not necessary to reverse polarity at the mains plug manually. Reversal is executed during the test sequence upon request.

Test Instrument Safety Features

- Mains connection monitoring:
  Any faulty or dangerous connection is indicated, and measurement is disabled in the event of danger.
- Personal safety by means of integrated residual current monitoring.

Regulations and Standards applied for the Construction and Testing of the Test Instrument

IEC/EN 61 010-1:2001 VDE 0411-1:2002	Safety requirements for electrical equipment for measurement, control and laboratory use – general requirements
DIN VDE 0404, Part 1: 2002	Test and measuring equipment for testing the electrical safety of electrical devices – general requirements
DIN VDE 0404, Part 2: 2002	Test equipment for tests after repair, modification or in the case of periodic tests
DIN VDE 0404 Part 3: 2005	– Equipment for periodic tests and tests prior to commissioning medical electrical devices or systems
DIN EN 60 529/ VDE 0470, Part 1	Test instruments and test procedures, degrees of protection provided by enclosures (IP code)
DIN EN 61326 VDE 0843, Part 20	Electrical equipment for control technology and laboratory use – EMC requirements

Regulations and Standards for the Use of SECUTEST SII** | + Test Instruments**

	Testing after Repairs			Periodic Testing	
DUTs to be tested in accordance with following regulations	DIN VDE 0701, part 1:2000	DIN VDE 0701, part 240	DIN VDE 0751: 2001	DIN VDE 0702: 2004	DIN VDE 0751: 2001
Electrical equipment				•	
Working devices	•			•	
Mains operated electronic devices				•	
Hand-held electric tools				•	
Extension cables	•			•	
Data processing devices		•		•	
Electrical medical devices, application parts			•		•

Characteristic Values

Function	Measured Quantity	Meas. Range / Nominal Range of Use	Resolution	Nominal Voltage U_N	Open-Circuit Voltage U_0	Nom. Current I_N	Short-Circuit Cur. I_K	Int. Res. R_I	Ref. Res. REF	Measuring Error	Intrinsic Error	Overload Capacity Value	Overload Capacity Time
DIN VDE 0701 / 0702 / 0751 Tests	Device protective conductor res. R_{SL}	0.000 … 2.100 Ω	1 mΩ	—	4.5 … 9 V DC	—	> 200 mA DC	—	—	±(5% rdg.+ 10 d) > 10 d	±(2.5% rdg.+ 5 d) > 10 d	253 V	Cont.
		2.11 … 31.00 Ω	10 mΩ										
	Insulation resistance R_{ISO}	0.050 … 1.500 MΩ	1 kΩ	50 … 500 V DC	1.0 • U_N … 1.5 • U_N	> 1 mA	< 10 mA	—	—	±(5% rdg.+10 d)	±(2.5% rdg.+5 d) > 10 d	253 V	Cont.
		1.01 … 10.00 MΩ	10 kΩ										
		10.1 … 310.0 MΩ	100 kΩ							±(10% rdg.+10 d)	±(10% rdg.+10 d)		
	Equivalent leakage current I_{EA} or $_{I}EHL$	0.00 … 21.00 mA	10 µA	—	230 V~ - 20 /+ 10%	—	< 3.5 mA	> 72 kΩ	1/2 kΩ [5]	±(5% rdg.+10 d)	±(2.5% rdg.+5 d) > 10 d	253 V	Cont.
		20.1 … 120.0 mA	100 µA										
	Equivalent patient leakage current I_{EPA}	0.0 ... 310.0 µA	100 nA	—	230 V~ - 20 /+ 10%	—	< 3.5 mA	> 72 kΩ	1 kΩ ±10 Ω	±(5% rdg.+10 d)	±(2.5% rdg.+5 d) > 10 d	253 V	Cont.
		0.300 ... 2.100 mA	1 µA										
		2.00 ... 11.00 mA	10 µA										
	Contact or housing leakage cur. I_{Probe} or I_{GA}	0 … 310 µA [6] 0.300 … 3.500 mA	0.1 µA 1 µA	—	—	—	—	1/2 kΩ [5]	—	±(5% rdg.+10 d)	±(2.5% rdg.+5 d) > 10 d	253 V	Cont.
	Patient leakage current I_{PA} AC and DC components measured separately	0.0 ... 310.0 µA	100 nA	—	—	—	—	1 kΩ	—	±(5% rdg.+10 d)	±(2.5% rdg.+5 d) > 10 d	253 V	Cont. [2, 4]
		0.300 ... 3.100 mA	1 µA										
		3.10 ... > 15.00 mA	10 µA										
	Residual current Δl between L and N [1]	0.000 … 3.100 mA~ 3.00 … 31.00 mA~ [2]	1 µA 10 µA	—	—	—	—	—	—	±(10% rdg.+10 d) > 10 d	±(5% rdg.+5 d) > 10 d	[2]	[2]
Function Test	Line voltage U_{L-N}	207.0 … 253.0 V~	0.1 V	—	—	—	—	—	—	—	±(2.5% rdg.+5 d)	253 V	Cont.
	Load current I_L	0 … 16.00 A_{RMS}	10 mA	—	—	—	—	—	—	—	±(2.5% rdg.+5 d)	20 A	10 min.
	Active power P	0 … 3700 W [3]	1 W	—	—	—	—	—	—	—	±(5% rdg.+10 d) > 20 d	253 V	Cont.
												20 A	10 min.
	Apparent power S	0 … 4000 VA	1 VA	Calculated value, U_{L-N} • I_V							±(5% rdg.+10 d) > 20 d		
	Power factor LF with sinusoidal waveshape: cosφ	0.00 … 1.00	0.01	Calculated value, P / S, display > 10 W							±(10% rdg.+5 d)		
	Residual current Δl between L and N	0.00 … 31.00 mA~	10 µA	—	—		—	—	—	±(10% rdg.+10 d) > 10 d	±(5% rdg.+5 d)	[2]	[2]
U_{Probe}	Probe voltage (phase search)	0 … 253.0 V ⎓, ~ and ≂	0.1 V	—	—		—		—	—	±(2.5% rdg.+5 d) > 10 d	253 V	Cont.
$U_{AC/DC}$	Voltage	0 … 253.0 V ⎓, ~ and ≂	0.1 V	—	—		—	—	—	—	±(2.5% rdg.+5 d) > 10 d	253 V	Cont.
	Extra-low voltage, safety class III									±(5% rdg.+10 d)			
R	Resistance	0 … 150.0 kΩ	100 Ω	—	< 20 V –		1.1 mA	—	—	—	±(1% rdg.+3 d)	253 V	Cont.
I_{Clip}	Current via clip-on current-voltage transformer Z3510	0.000 … 10.00 A ~	1 mA (1 mV)	—	—		—	1.5 MΩ	—	—	±(3% rdg.+10 d) > 10 d without clip	253 V	Cont.
		0 … 100 A ~	1 A (1 mV)	—	—		—	1.5 MΩ	—	—		253 V	Cont.
Temp.	Temperature with Pt100 sensor	– 200 … – 50° C	1° C	—	< 20 V –		1.1 mA	—	—	—	±(2% rdg.+1° C)	10 V	Cont.
		– 50.1 … + 300.0° C	0.1° C								±(1% rdg.+1° C)	10 V	Cont.
		+300 … +850° C	1° C								±(2% rdg.+1° C)	10 V	Cont.

1) For testing in accordance with DIN VDE 0751, device leakage current is determined by means of differential current measurement as part of the test sequence.
2) As of 25 mA: shutdown within 100 ms as a result of differential current measurement
3) Measured value P and calculated value S are compared, and the smaller of the two is displayed.
4) The measuring path becomes highly resistive, indication appears at the display.
5) For DIN VDE 0701/0702: 2 kΩ, for DIN VDE 0751: 1 kΩ
6) This measuring range for DIN VDE 0751 only

Key: rdg. = reading (measured value), d = digit(s)

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Testing for Correct Mains Connection

The device automatically recognizes mains connection errors if the conditions in the following table have been fulfilled. The user is informed of the type of error, and all measuring functions are disabled in the event of danger.

Type of Mains Connection Error	Message	Condition	Measurements
Voltage at protective conductor PE to finger contact	Text at LCD panel	Press ↵ key U > 40 V	Disabled
Protective conductor PE and phase conductor L reversed and/or neutral conductor N interrupted	Lamp ⚠ lights up	Voltage at PE > 100 V	Disabled
Contact voltage at protective conductor PE to neutral conductor N or phase conductor L	Text at LCD panel	U > 25 V	Disabled, but disabling can be deactivated (e.g. IT network)
Line voltage too low	Lamp ⚠ lights up	U_{L-N} < 180 V	Possible

Influencing Quantities and Influence Error

Influencing Quantity / Sphere of Influence	DIN VDE 0404 Designation	Influence Error ± … % of Measured Value
Change of position	E1	—
Change to test equipment supply voltage	E2	2.5
Temperature fluctuation	E3	Specified influence error valid for temperature changes as of 10 K:
0 … 21 ° C and 25 … 40° C		1 for protective cond. resistance
		0.5 for all other meas. ranges
Amount of DUT current	E4	2.5
Low frequency magnetic fields	E5	2.5
DUT impedance	E6	2.5
Capacitance during insulation measurement	E7	2.5
Waveshape of measured current	E8	
49 … 51 Hz		2 with capacitive load (for equivalent leakage current)
45 … 100 Hz		1 (for contact current)
		2.5 for all other measuring ranges

Reference Ranges

Line voltage	230 V ±0.2 %
Line frequency	50 Hz ±2 Hz
Line Voltage	Sine (deviation between effective and rectified value < 0.5%)
Ambient temperature	+23° C ±2 K
Relative humidity	40 … 60 %
Load Resistance	linear

Nominal Ranges of Use

Line voltage	207 V … 253 V
Line frequency	50 Hz ±2 Hz
Line voltage waveshape	sinusoidal
Temperature	0° C … + 50° C

Ambient Conditions

Storage temperature	– 20° C … + 60° C
Operating Temp.	– 10° C … + 50° C
Accuracy Range	0° C … + 50° C
Relative humidity	Max.75 %, no condensation allowed
Elevation	Max. 2000 m
Deployment	Indoors, except within specified ambient conditions

Power Supply

Line voltage	207 V … 253 V
Line frequency	50/60 Hz
Power consumption	Approx. 15 VA
for function test	Continuous max. 3600 VA, power is conducted through the instrument only, switching capacity ≤ 16 A

RS 232 Interface

Type	RS 232C, serial, per DIN 19241
Configuration	9600, N, 8, 1
Connection	9-pin subminiature socket connector

Electrical Safety

Safety class	I per IEC 61010-1/EN 61010-1/VDE 0411-1
Nominal voltage	230 V
Test voltage	2.35 kV, 50 Hz
Measuring category	300 V CAT II
Fouling factor	2
Safety Shutdown	At DUT differential current of > 25 mA, Shutdown time: < 100 ms Probe current: > 10 mA, < 1 ms

Electromagnetic Compatibility

Generic Standard DIN EN 61326:2002

Interference Emission		Class
EN 55022		B
Interference Immunity	Test value	Feature
EN 61000-4-2	Contact/atmos. - 4 kV/8 kV	A
EN 61000-4-3	10 V/m	C
EN 61000-4-4	Mains connection - 2 kV	B
EN 61000-4-5	Mains connection - 1 kV	A
EN 61000-4-6	Mains connection - 3 V	A
EN 61000-4-11	0.5 period / 100 %	A

Mechanical Design

Display	Multiple display with dot matrix, 128 x 128 pixels, backlit
Dimensions	LxWxH: 292 x 138 x 243 mm
Weight	Approx. 4.5 kg
Protection	Housing: IP 40, connectors: IP 20 per DIN VDE 0470, part 1/EN 60529, table excerpt on the meaning of IP codes

IP XY (1st digit X)	Protection against foreign object entry	IP XY (2nd digit Y)	Protection against the penetration of water
0	Not protected	0	Not protected
1	≥ 50.0 mm dia.	1	Vertically falling drops
2	≥ 12.5 mm dia.	2	vertically falling drops with enclosure tilted 15°
3	≥ 2.5 mm dia.	3	Spraying water
4	≥ 1.0 mm dia.	4	Splashing water

Standard Equipment

1 **SECUTEST SII | +** test instrument
1 Probe cable with test probe
1 Plug-on alligator clip for test probes
1 Calibration certificate per DKD
1 Set operating instructions
1 Carrying strap
1 CD ROM (demo) with PS3 data management software
1 CD ROM (demo) with PC.doc-WORD™/EXCEL™ software for generating reports and lists, and for test data management

Accessories

Foreign Language Software SE-L.med * (on enclosed PS | 3 CD-ROM)

User interface languages which are not included as a standard feature can be uploaded from our homepage (www.gossenmetrawatt.com). One language at a time can be uploaded to the test instrument.

* Prerequisites for installing the software

Software:
– MS Windows 2000 or XP

Hardware:
– IBM compatible Windows PC, as from 200 MHz Pentium CPU with at least 64 MB RAM
– SVGA monitor
– Hard disk with at least 20 MB available memory
– Microsoft compatible mouse

Memory and Input Module SECUTEST | SI

Values measured by the test instrument can be stored to this module and furnished with comments with the help of the alphanumeric keypad. The LCD panel at the test instrument is used as a display for the module. Statistical analysis of the measurement results is also possible (percentage of tests which have been successfully passed). The SI module is screwed into the lid of the test instrument in a space-saving fashion.



Please request our **SECUTEST | SI** *data sheet for further information.*

SECU-cal 10 Calibration Adapter

The calibration adapter is used for testing the measuring uncertainty of test instruments in accordance with DIN VDE 0701/0702/0751. As a rule, these instruments must be tested once each year, as set forth by accident prevention regulation BGV A3 (previously VBG 4) as well as for certification in accordance with the ISO 9000 quality standard.



All limit values for the required tests per DIN VDE, such as protective conductor resistance, insulation resistance, equivalent leakage current, differential and/or contact as well as housing leakage current must be tested.

K2010 Accessory Case for SECUTEST SII | + and Accessories



F2000 Accessory Pouch for SECUTEST SII | + and Accessories



SECU**TEST SII** | +
Testers per DIN VDE 0701, 0702 and 0751

PC Software for SECU**TEST SII** | +

Analysis Software Comparison	PC.doc-WORD™/ EXCEL™ PC.doc-ACCESS™	PS 3	PS3 compact
Autonomous	Required: WINWORD/EXCEL/ ACCESS	✔ autonomous	✔
Type	Always complete	Modular	—
Included GMC-I Gossen-Metrawatt GmbH testers	SECUTEST... METRATESTER®5/5-F PROFITEST®0100S-II/C, **PROFITEST** | **ONE**, PROFITEST 204 METRISO®*C* GEOHM®*C* (standard)	SECUTEST..., **SECUSTAR** | **FM**, PROFITEST®0100S-II/C, **PROFITEST** | **ONE**, PROFITEST 204, METRISO®*C*	SECUTEST..., PROFITEST® 0100S-II/C, **PROFI-TEST** | **ONE**, METRISO®*C*
Master data management	✔ Complete with WINWORD/EXCEL/ ACCESS	✔ Fully autonomous	✔
Search function	✔ Using Access functions	✔ Autonomous	✔
List generator	✔ With Access retrieval functions	✔ Autonomous	✔ Not storable
Automatic deadline follow-up	✔ Standard	✔ Included with add-on module	✔
Forms generator	✔ Using WINWORD	✔ Included with add-on module	—
Statistics	✔ Error statistics, defect statistics	✔ Option	—
Navigator	—	✔ (module)	—
Client options	—	✔ (module)	—
Outdoor function	—	✔ (module)	—
Barcode generation	✔ (standard)	✔	✔
Network compatible	✔ (standard)	✔ (module)	—
Inventory management	—	✔ (module)	—
Viewer	—	✔ (module)	—
Repairs function	—	✔	—
Document management	—	✔ (module)	—
Error messaging module	—	✔ (module)	—

Report and List Generation with PC.doc-WORD™/EXCEL™

Prerequisite: Microsoft®WORD™ or Microsoft®EXCEL™

PC.doc-WORD™/EXCEL™ inserts test results and data entered at the test instrument input module into report or list forms. These can then be supplemented and printed out with Microsoft®WORD™ or Microsoft®EXCEL™.

Test Data Management with PC.doc-ACCESS™

Prerequisite: Microsoft®ACCESS™

PC.doc-ACCESS™ manages device, machine, equipment, master and test data. Available test data are automatically entered to master data and test data lists which are assigned to individual customers.

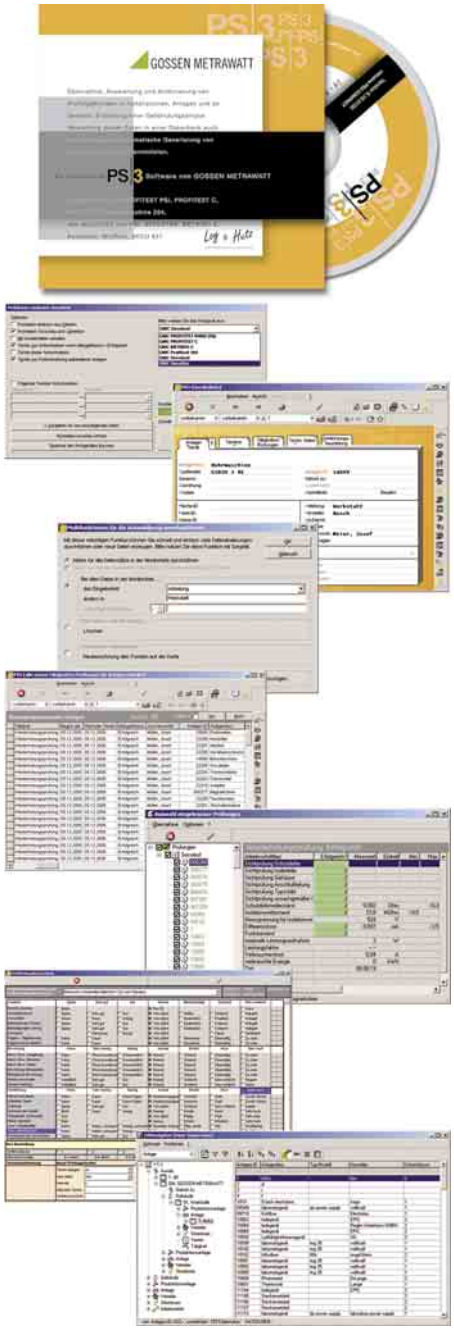
Data are represented in accordance with the respective test regulation. Data are displayed as lists or in data sheet format, and can be sorted and filtered in a variety of different ways. Complete test data management is thus made possible.

Reports and deadline lists can be printed out for selectable ID number ranges and dates.

An overview of performance features included with PC.doc-WORD™/ EXCEL™ and PC.doc-ACCESS™ is available in a separate data sheet.

PS | 3

**Universal, modular test instrument software –
Systems, equipment and service management, plus report generation**



**Automatic read-out and analysis of measured values
from testing conducted on systems and equipment.**

**System and equipment management
with respective test results stored to a database.**

**Automatic generation of test reports
in accordance with recommendations issued by the trade associations**

PS3-compact

Report generation and test data management for electrical devices and equipment with SECUTEST®..., PRO*Fi*TEST®0100S-II, PRO*Fi*TEST®*C* and METRISO®*C*

PS3 GM

Basic module and device driver, allows for the read-out of measured values from the PRO*Fi*TEST®0100S-II, PRO*Fi*TEST®*C*, METRISO®*C*, PROFITEST 204 and SECUTEST®... test instruments (all variants)

PS3 AM

PS3 AM (device driver, basic module and add-on module) complemented by the following modules:

- equipment management
- remote
- maintenance management
- barcode printing

PS3 add-on modules

- PS3 Navigator – LHNavigator and LHViewer (prerequisite: PS3 AM)
- PS3 Client – client options (prerequisite: PS3 AM)
- PS3 Hazard Analysis – hazard analysis (prerequisite: PS3 AM)

PS3 update

- Update to PS3 AM, version 9, including hazard analysis,
  – basic software: PS3 add-on module (version 3 or 4)

PS3 upgrade

(data transfer is not guaranteed in any case,
expenses and costs upon request)

Upgrade to PS3 AM including hazard analysis,

- basic software: SE-Q.base
- basic software: PC.base
- basic software: PC.doc-WORD™/EXCEL™, PC.doc-ACCESS™
- basic software: Elektromanager / Protokollmanager
- basic software: PS3 compact (any version)
- basic software: PS3 basic module (any version)

Maintenance contract

PS3 maintenance contract upon request

System Requirements for PS3

- a Windows compatible PC with at least a Pentium IV CPU > 2 GHz
- Windows 2000 SP4 / Windows XP
- working memory: 512 MB RAM
- hard disk with approx. 800 MB free memory (without data)
- CD ROM drive
- floppy disk drive or e-mail connection for loading control and/or enable files

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Order Information

Designation	Type	Article Number
Standard types available from stock		
Test instrument with automatic test sequence, interface, German user interface, earthing contact plug and outlet, probe cable with test probe, plug-on alligator clip, DKD calibration certificate and operating instructions.	**SECUTEST SII +**	M7010-V011
PC analysis software		
Software for maintenance and electronic equipment management	**PS 3**	
Report generation and test data management of electrical devices and systems with SECUTEST... test instruments	PS3-compact	Z530K
Basic module and device driver, allows for read-out of measured values from the SECUTEST... test instruments	PS3 GM	Z530E
Device modules, basic module and add-on module complemented by the following modules – electronic equipment management – remote – maintenance management – barcode printing	PS3 AM	Z531N
PC software for generating reports and lists as supplement to MS Word/EXCEL (language version German/English/French/Finnish/Polish) (Exception: EXCEL part only in German/English)	PC.doc-WORD™/ EXCEL™ D)	Z714A
PC software for test data management as supplement to MS-ACCESS (language version German/English)	PC.doc-ACCESS™ D)	Z714B
Upgrade from PC.doc win/med... to PC.doc-WORD™	PC.doc upgrade	Z714C
Upgrade from PC.base … to PC.doc-ACCESS™	PC.base upgrade	Z714D
Update for SE-Q.base and PS3 compact to PS3	Z530U	Z530U
Accessories for Report Generation		
SI module with the languages German, English, French, Dutch, Italian, Spanish and Czech, batteries and operating instructions	**SECUTEST SI**	M702F
Printer adapter for direct connection of external printers	DA-II	Z745M
Barcode scanner	B3261	GTZ 3261 000 R0001
Barcode and label printer with software	Z721D	Z721D
Label set for Z721D printer (qty. x width: 3 x 24, 1 x 18 and 1 x 9 mm, 8 m long each)	Z722D	Z722D
Label set for Z721D printer (5 lengths, 18 mm wide x 8 m long)	Z722E	Z722E
Accessories Probe, Sensors, Adapters and Cables		
Probe cable, 2 m	SK2	Z745D
Probe cable, 5 m	SK5	Z745K
Brush probe	Z745G	Z745G
Pt100 temperature sensor, –40 to +500° C, for surface and immersion measurements	Z3409	GTZ 3409 000 R0001
Pt100 oven sensor, –50 to +550° C	TF550	GTZ 3408 000 R0001
Switchable clip-on current sensor, 1 mA … 15 A and 1 A … 150 A, Frequency range 45 ... 65 … 500 Hz, Transformation ratio: 1 mV/mA and 1 mV/A, Clip opening: max. cable dia.: 15 mm	WZ12C D)	Z219C
Adapter for testing single-phase extension cables including earth contact and inlet plug inserts	EL1	Z723A
Plug insert for EL1 in CH per SEV	PRO-CH	GTZ 3225 000 R0001
Plug insert for EL1 in GB per BS	PRO-GB	GTZ 3226 000 R0001
Plug insert for EL1 for GB measurement	PRO-GB/ring	GTZ 3226 000 R0002
Plug insert for EL1 in Italy per IMQ	PRO-I	GTZ 3227 000 R0001
Plug insert for EL1 in DK	PRO-DK	GTZ 3219 000 R0001
Plug insert for EL1 in South Africa	PRO-RSA	Z501A
Plug insert for EL1 with 3 connector cables for any connection standards	PRO-UNI	GTZ 3214 000 R0003
Plug insert for EL1 with 10 m cable for PE measurements and the like	PRO-RLO	GTZ 3214 000 R0002
Schuko plug insert or similar (replacement plug, included with EL)	PRO-Schuko	GTZ 3228 000 R0001
Test adapter for tests on devices with CEE16 and CEE32 connections	AT3-II-S D)	Z745T
3-phase current adapter 16A/32A (test case) for connection to the test instrument for tests per DIN VDE 0701, 0702, 0751 and IEC 601	AT3-III-E D)	Z745S
Adapter for connecting devices under test: 3-pole 16 A, 5-pole 16 A + 32 A, 5 ea. 4 mm jacks	CEE-Adapter	Z745A
Cable set for connecting test instruments to the mains without earthing contact outlet and for connecting DUTs, consisting of connector socket with 3 permanent cables, 3 measurement cables, 3 pick-off clips, 2 plug-on test probes	KS13	GTY 3624 065 P01
Cable set (1 pair of measurement cables) 1.2 m, with VDE-GS symbol 1000 V/CAT III, 600 V/CAT IV 16 A	KS17-2	GTY 3520 034 P01
Additional Accessories		
Calibration adapter for test instruments per DIN VDE 0701/0702/0751 (max. 200 mA) **not to be used for protective conductor test current of 10 A**	SECU-cal 10	Z715A
Carrying pouch	F2000 D)	Z700D
Carrying case	K2010	Z504L

D) Data sheet available

For additional information on accessories, please refer to

- our Measuring Instruments and Testers Catalog
- our website www.gossenmetrawatt.com

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