

SAXOGY

POWER ELECTRONICS

Guide for the selection of your high-voltage test environment



How may we help you?

Modernize / secure an existing test environment

Develop / deliver a customized test environment



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Modernize / secure already existing test environment

Laboratory safety control (LSS)



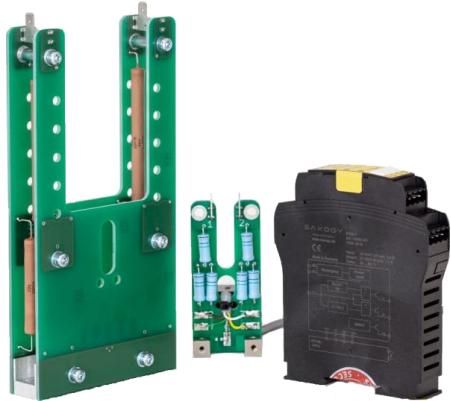
Secures existing, enclosed test environments up to PL e

Safety measurement cabin (SMK)



Secures existing, *unenclosed* test environments up to PL e

Safety technology



Components for safety upgrade of existing high-voltage test environments

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Develop / deliver customer-specific test environment

The size of your project decides :

Safety measurement box (SMB)



For small, variable test setups

Safety measurement station (SMP)



For organized, medium-sized test setups with a lot of measuring equipment

Safety measurement cabin (SMK)



For large-volume test setups

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Laboratory safety control (LSS)

- Individual upgrade of your test environment up to performance level e
 - Integration of existing power supply into the emergency stop circuit
 - Interlocking of the test environment even in case of power supply failure
 - Safe voltage monitoring
 - Insulation monitoring
 - Interlock circuit
 - Interface for external dischargers or integrated dischargers for intermediate circuits
- If you wish, we can support you in the CE process of your modernized test environment

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Safety measurement cabin (SMK)

- Solution for lockable enclosure of your test environment consisting of:
 - Safety control with voltage and insulation monitoring
 - Insulated wall elements
 - Optional swing or sliding door
- The dimensions and technical designs of the safety measurement cabin are adapted to your requirements
- Typical features:
 - Comfortable rack for your measuring equipment
 - Integrated DC link discharge
 - Entry plates for external devices / cables



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Safety technology

➤ Voltage monitor

- Can be used with safety PLC up to PL e

➤ Insulation monitor

- Without influencing your measurement result

➤ High current disconnectors

- Enables low-loss, wear-free switching
- Currents up to 500 A / up to 4,000 A short-circuit proof

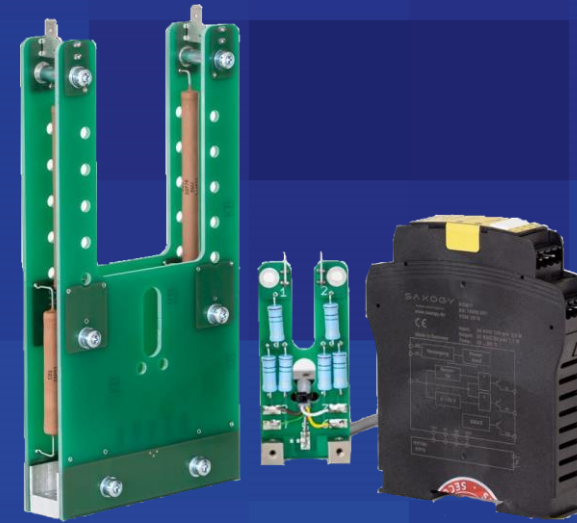
➤ DC link discharge

- Wear-free
- Self-discharging without operating voltage
- Also as a complete solution with discharge resistor

➤ Isolating transformers

- Up to 10 kV insulation
- 33 pF coupling capacitance

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Safety measurement box (SMB)

- High-voltage test environment as tabletop unit
 - Voltage monitored guard locking
 - Includes an automatic discharge for DC links
 - Interlock circuit for external high-voltage supplies
 - Up to performance level e
- Voltage classes:
 - 1,500 V_{DC}
 - 6,500 V_{DC} in development
- completely insulated interior
 - 60 cm x 75 cm x 48 cm (W x D x H)
- Options:
 - additional access on the back side
 - racks for housing external devices
 - remote-controlled inductive loads



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Safety measurement station (SMP)

- Perfectly tailored, secure test environment for your individual project
- Available in three sizes
- As DUT peripherals, we offer:
 - Supplies up to 1,500 V / 500 A / 30 kW
 - Load chokes up to 650 A_{rms} / 2 kA_{peak}
 - Temperature control from -40 to +200 °C
- As measurement technology we offer for example:
 - Oscilloscopes (optionally galvanically isolated)
 - Power meters, data loggers
 - Fluid Flow Controller
- We project the complete system for you and integrate hardware procured by us as well as hardware provided by you

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Safety measurement station (SMP)

➤ Standard features of our test stations:

- Integrated discharge for DC links
- Voltage monitored guard locking
- Insulation monitoring
- Temperature, smoke and leakage monitoring
- Temperature-controlled fans
- Operation via PC interface
- Extendible equipment rack
- Dimmable lighting

➤ Comfort features of our test stations:

- Height adjustable table
- Individual Cable entry plates
- Operation via HMI

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Safety measurement station (SMP)

➤ Optional features of our test stations:

- External guard locking for temperature and climate chambers
- Energy supply for climate test chambers and process thermostats
- Disconnecter for DC and AC load circuits

➤ Optional features for fluid power:




- Pluggable terminal for fluid connections to the DUT
- Flow controller 0.2 l/min to 20 l/min
- blow-out function of the cooling circuit
- External terminal for fluid connection when operating with external climate test chamber

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Safety measurement station (SMP) in comparison

Version	SMP-III	SMP-IV	SMP-V
			
Dimension (WxDxH)	120 cm x 120 cm x 255 cm	252 cm x 122 cm x 232 cm	278 cm x 126 cm x 234 cm
Typical applications	Semiconductor characterization based on double pulse	<ul style="list-style-type: none"> • characterization based on double pulse • Continuous load tests • Software Evaluation 	<ul style="list-style-type: none"> • characterization based on double pulse • Continuous load tests • Software Evaluation
Equipment rack inside the test room	2 x 10 RU 19"	2 x 10 RU 19" + shelf for small devices	3 x 10 RU 19"
Equipment rack outside the test room	8 RU 19"	12 RU 19"	13 RU 19"

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Safety measurement station (SMP) in comparison

Version	SMP-III	SMP-IV	SMP-V
Work table	Extendible tray mobile operating terminal	Height adjustable	Height adjustable Foldable
High-voltage power supply	Up to 1,000 V / 3 kW + integrated 20 mF DC link	Up to 1,500 V / 30 kW without integrated DC link	
Fluid power	Oil thermostat	Oil thermostat Cooling water thermostat	
Blow-out function / Flow Controllers	-	Only for cooling water circuit	
Device Interfaces	Process thermostats, climate chambers, temperature chambers and much more can be supplied via the SMP		

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Still not the right product?

We plan and manufacture your individual test station also out of existing platforms.
Please do not hesitate to contact us!

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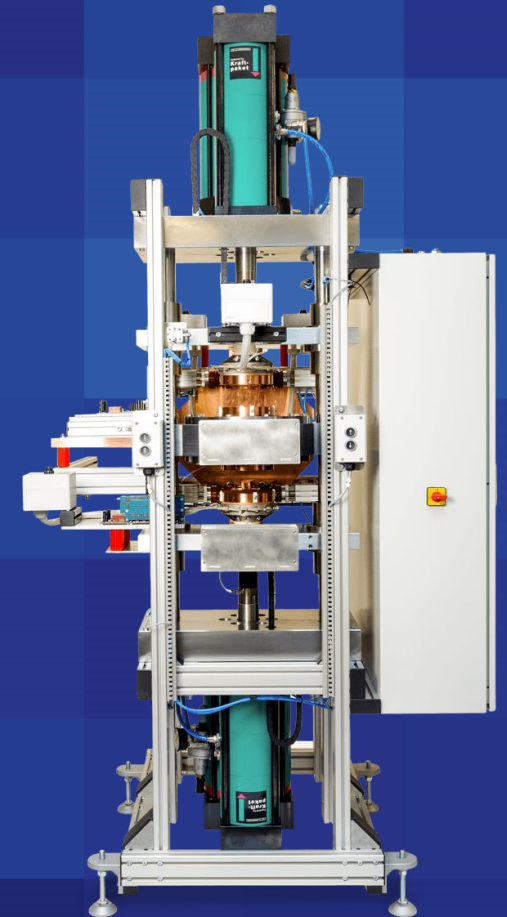
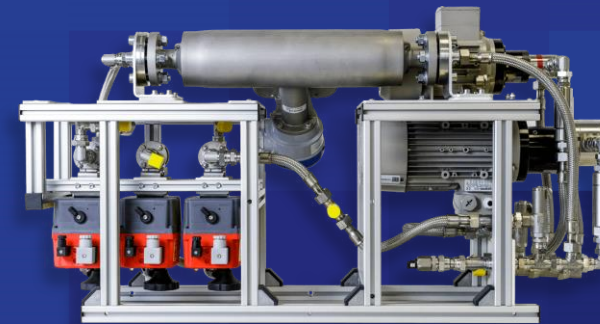
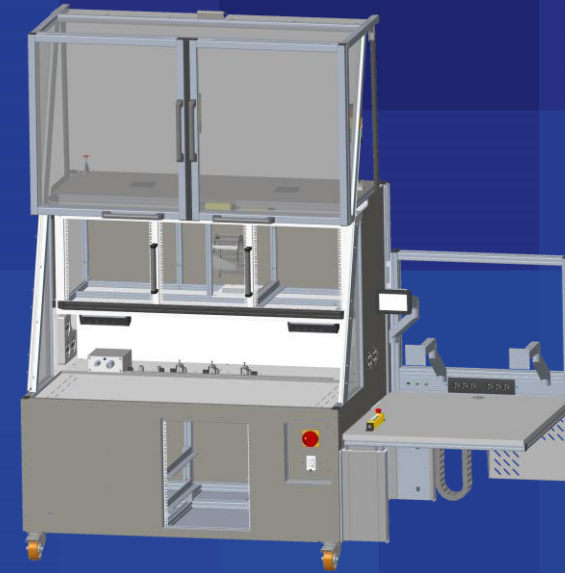
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We speak power electronics
precise. safe. adaptive.



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Thank you!