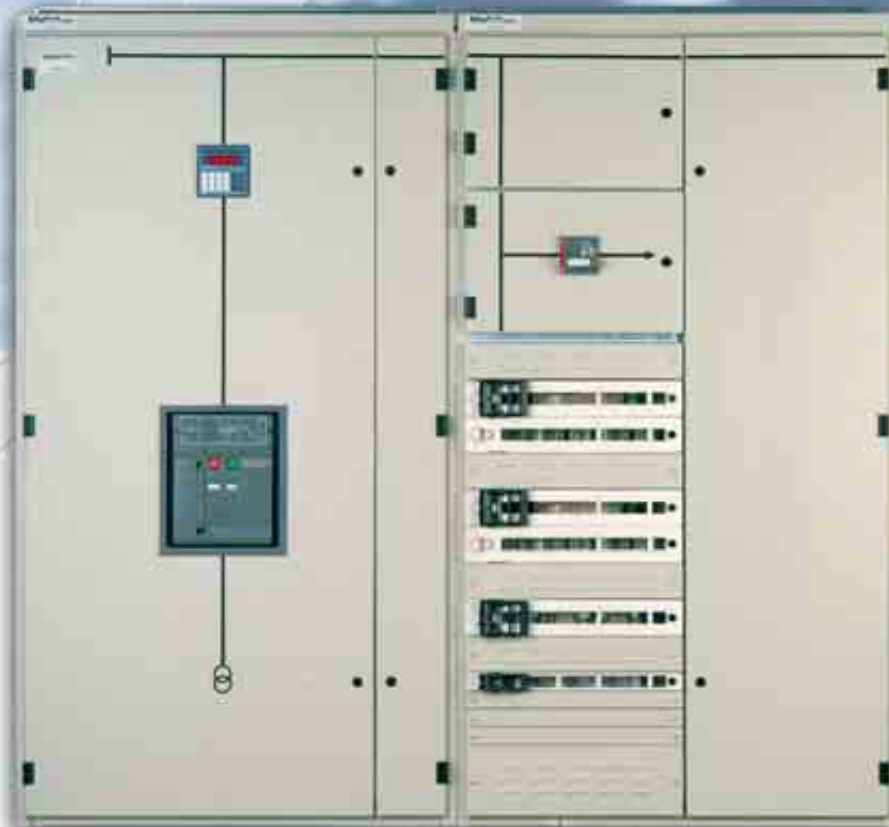


MoNIA₅₀₀₀

Modular Low Voltage Switchgear



Type-tested modular
low voltage switchgear

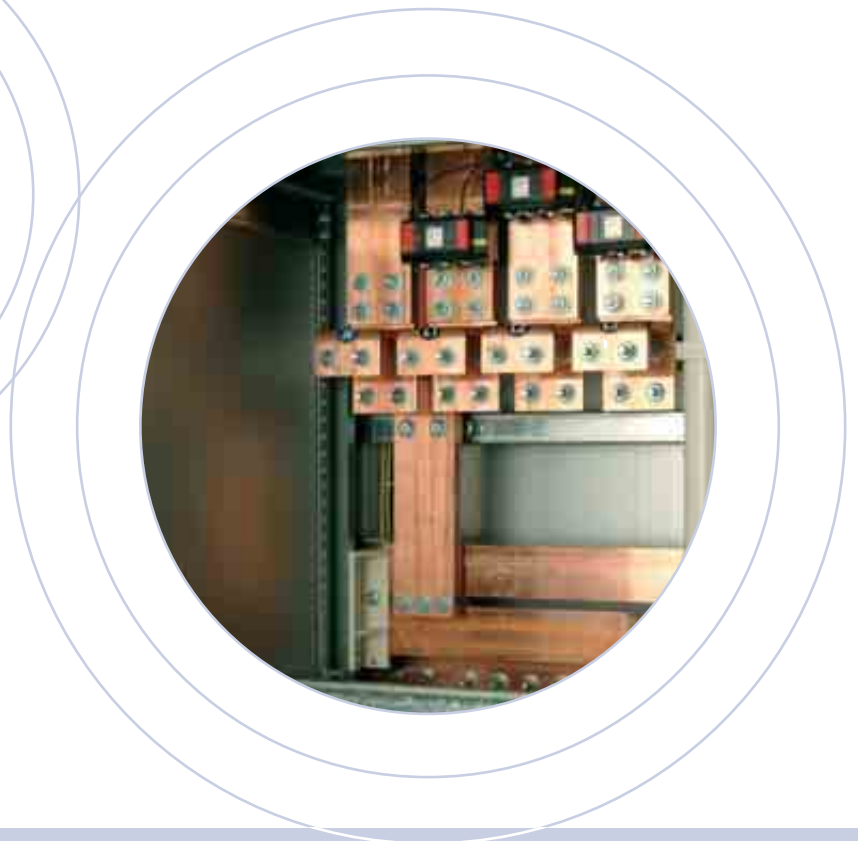
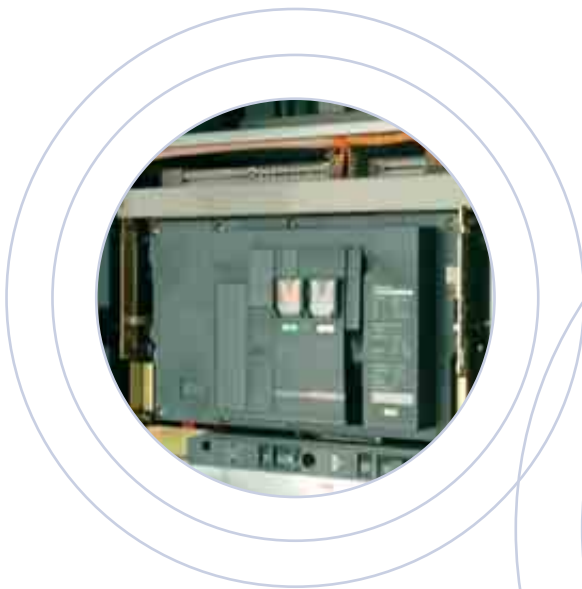
1. General information
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4. Standards
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6. Protection
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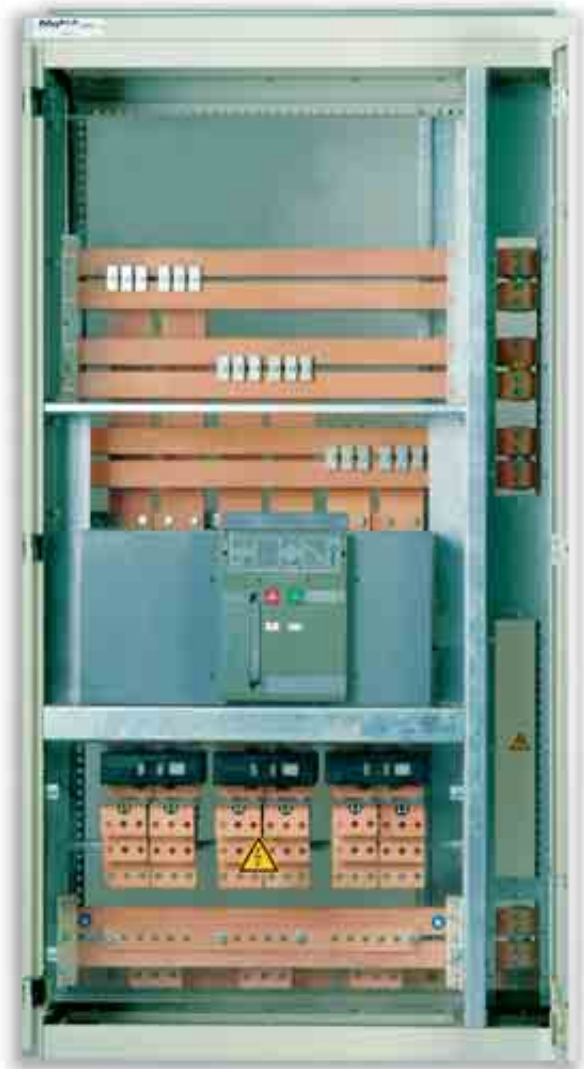
The MoNA5000 switchgear system has been developed by SENTEG in accordance with the standards IEC 60439-1 and DIN EN 60439-1 for type-tested and partially type-tested low voltage switchgear combinations.

MoNA5000 is equally suitable for being up-graded as a power supply system (add-on or single switchgear sections) or as a control system, as well as a combination of both.

Furthermore, different makes of switchgear may be easily extended with MoNA5000.

To manufacturers who do not make their own switchboards we offer MoNA5000 as a modular unit with cut-outs in the doors and all necessary components.





1. General information

The modular LV switchgear system MoNA5000 has been developed by SENTEG Schaltanlagen für Energietechnik GmbH in accordance with international standards and technical requirements.

Range of application for the switchgears MoNA5000:

- Energy supply companies
- Industrial facilities
- Airports
- Power plants
- Administration buildings
- etc.



2. Construction design

The switchgear cubicles MoNA5000 are constructed in a buckling resistant way out of 2 and 3 mm galvanized steel plates or V2A.

The doors, side and back covers are powder-coated to RAL colour at customer´s option.

The switchgear cubicles are subdivided at the basic grid dimension of 25 mm into the following functional compartments:

- Busbar compartment
- Device compartment
- LV cable compartment

According to switchgear configuration and use, diverse forms of partitions are possible.

The LV cable installation is possible through the top or through the bottom of the compartment.

Using state-of-the-art CNC-controlled manufacturing machines we guarantee the unchanging highest quality and uniform measurements of the switchgear cubicles.

3. Installation

The MoNA5000 cubicles are meant for indoor installation. The installation of the MoNA5000 cubicles is possible as stand-alone version or in front of a wall, in a row, cornerwise or back-to-back.

4. Standards

The MoNA5000 switchgear cubicles are manufactured in accordance with the standards for type-tested and partially type-tested low voltage switchgear combinations as per IEC 60439-1, DIN EN 60439-1.

5. Operator protection and operation safety

The MoNA5000 switchgear cubicles provide a high level of operator protection with their interior partitioning of the functional compartments as well as with the appropriate choice of the form of partitioning. The metallic partitions of the functional compartments and of the single cubicles among each other as well as optional busbar bushings resistant to accidental arcs restrict the damage to the point of origin in the event of an error, which ensures a high operation safety.



6. Protection

The protection systems correspond to IP30 for the exterior casing and to IP20 for interior compartments. According to switchgear configuration, application and rated current, protection systems up to IP54 at the most are also possible.

7. Operating conditions

The MoNA5000 switchgear cubicles are designed for normal service conditions and only for indoor installation.

Ambient temperature	Maximum	40°C
	24h-Medium	35°C
	Minimum	-5°C
Relative air humidity	24h-Medium	95%
Altitude at site	< 1000 m height above sea level	



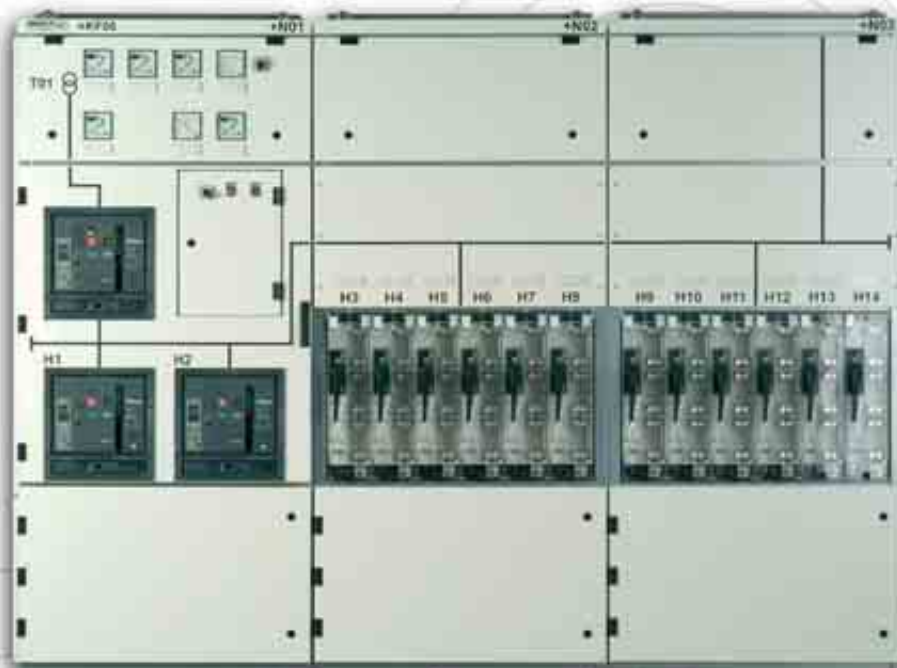
8. Extracts from the SENTEG product range

Low voltage switchgear

- Make-independent assembly
- Flexible configuration
- Modular design
- Ease of extension



Low voltage switchgear



Low voltage switchgear



Customized control units (without electrical installation)

- galvanized, coated sheet steel or stainless steel
- with 19"-hinged frame
- with viewing windows
- with diverse cut-outs
- in various colours and colour thicknesses
- with different locking systems



9. Technical Data

Rated impulse withstand voltage (U _{imp})		8 kV	
Overvoltage category		IV	
Pollution severity		3	
Rated insulation voltage (U _i)		1000 V	
Rated operational voltage (U _e)		Up to 690 V	
Rated frequency		Up to 60 Hz	
Rated operational currents (I _n)		I _n	
Rated short-time withstand current (I _{cw}) (1 s)			I _{cw}
Rated peak withstand current (I _{pk}) (0,1 s)			I _{pk}
Main busbar systems		Phase spacing 200 mm	kA
2x30x5		1050 A	35
2x30x10		1500 A	50
2x60x10		2300 A	65
2x80x10		2800 A	65
4x60x10		3500 A	65
4x80x10		4000 A	65
2x4x60x10		5000 A	100
Angular distribution busbar systems		Phase spacing 185 mm	
50x50x10		1250 A	65
80x80x10		2000 A	65
Main / Distribution busbar systems		Phase spacing 185 mm	
60x10		1000 A	65
80x10		1250 A	65
100x10		1500 A	65
2x60x10		1600 A	65
2x80x10		2000 A	65
2x100x10		2500 A	65
Standard dimensions	Height	1850, 2000, 2200	
	Width	400, 600, ..., 1600	
	Depth	400, 600, ..., 1200	
Internal division into compartments		Shape 1 to shape 4	
Class of protection		1 (earthed)	

Further technical data available on request

10. Tests

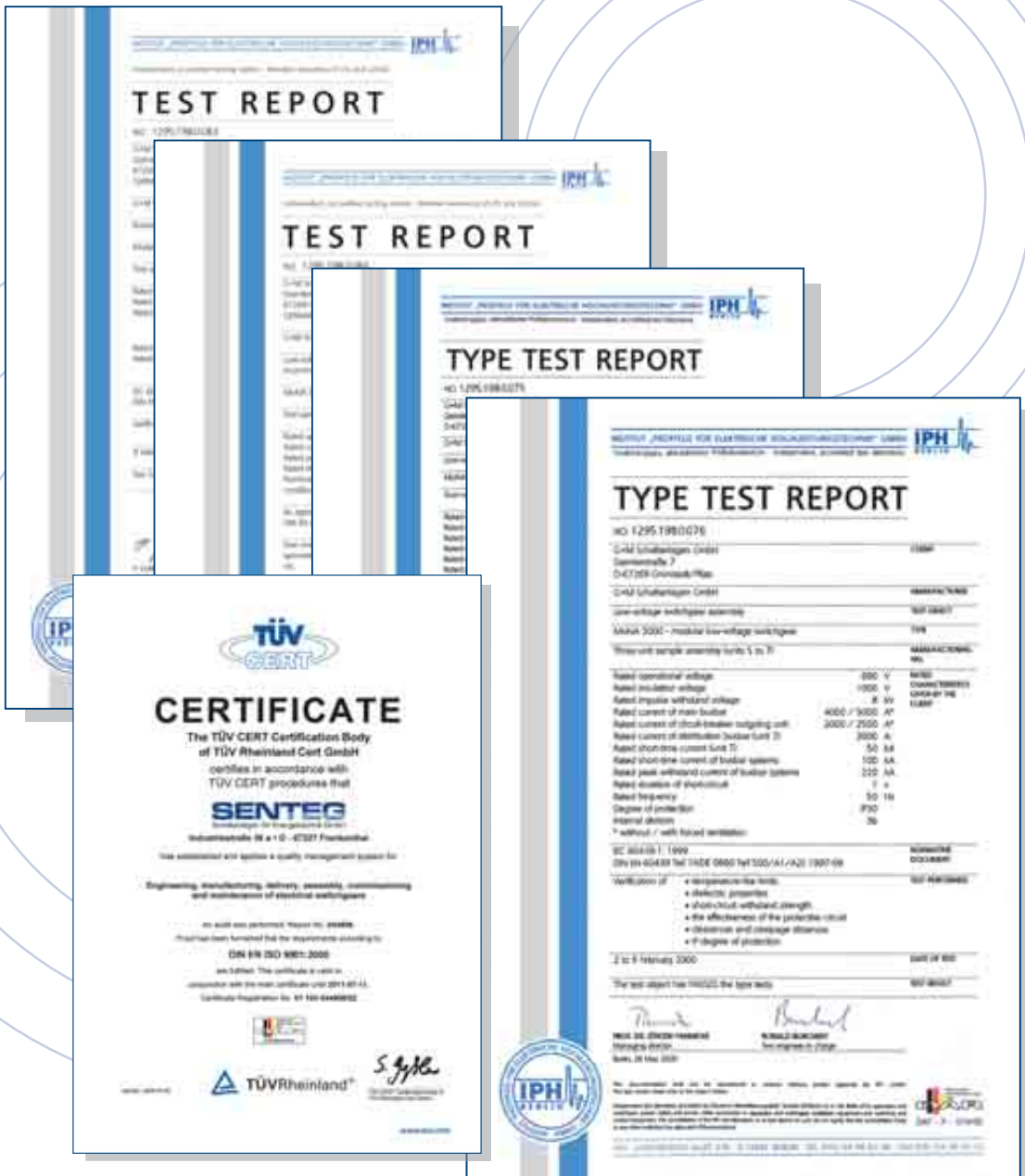
The SENTEG MoNA5000 is a type-tested low voltage switchgear combination.

A witness routine test will be arranged before dispatch, consisting of:

- Visual inspection
- Mechanical function check
- Electrical function check
- Insulation test

11. Quality management

SENTEG GmbH is certified according to DIN EN ISO 9001:2000.



Switch over to our Services that guarantee Safety, Flexibility and High Quality



We do have the know-how! We have had over 30 years' experience in designing, engineering and manufacturing switchgears for the power engineering sector as well as for electrical plants and auxiliary units with our focus on medium and low voltage systems.

We are future-orientated

Our specially trained staff develop innovative products and solutions that not only meet the requirements and expectations of the present-day market but also anticipate future requirements.

We are flexible

Our responsiveness to our clients and our flexibility enable us to adapt our processes, our products and our services to our clients' requirements.

We guarantee high quality

The high-quality standard of our products is guaranteed by our commitment to a Total Quality Management system and the fact that we exclusively produce at our Frankenthal site.

We are competent

A combination of experience, expertise and commitment to high-quality standards makes us a competent partner for realizing complete solutions for electrical plants of almost any kind.

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