

MNS

The new modular low voltage switchgear system from ABB



ABB LV Systems



At ABB we have been using three product types for high current, low voltage switchgear: the Swedish Center, the German MNS and the Finnish MD systems. All three have enjoyed great success on their domestic markets. Now that they are being combined in a single system it is easy to visualise what outstanding performance will be available.

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MNS represents a switchgear solution for the higher current range, and fulfils stringent demands of reliability and availability.

The withdrawable and removable apparatus units are entirely based on the earlier Center concept; however, the design has been improved in several respects. The units are now more mechanically stable. It has become easier to move apparatus units around in the cubicle and to lift them in and out. Even so, the new units are still entirely replaceable, both from the mechanical and operational points of view, by the previous design, and vice versa.

The range of apparatus units available is a comprehensive one. Apart from starters and distribution groups with fuses or circuit breakers there are intelligent functional units and ready-made modules for distributed I/O, power factor compensation, frequency converters, etc.

As alternatives to withdrawable and removable apparatus units, MNS also offers fixed units based on the MD concept.

MNS provides greater choice in the matter of busbar arrangement too. The horizontal busbar system can be placed either high or low in the cubicle. As for the vertical busbar systems, there are two options: fully insulated or screened by an earthed metal separation wall.

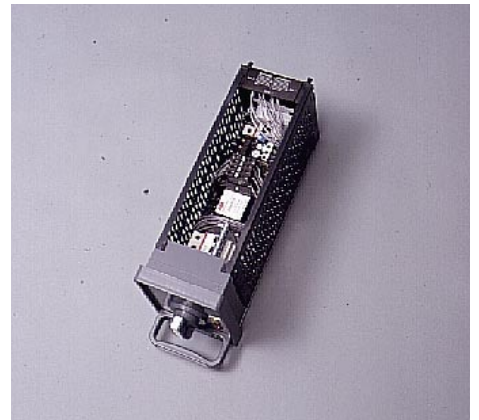
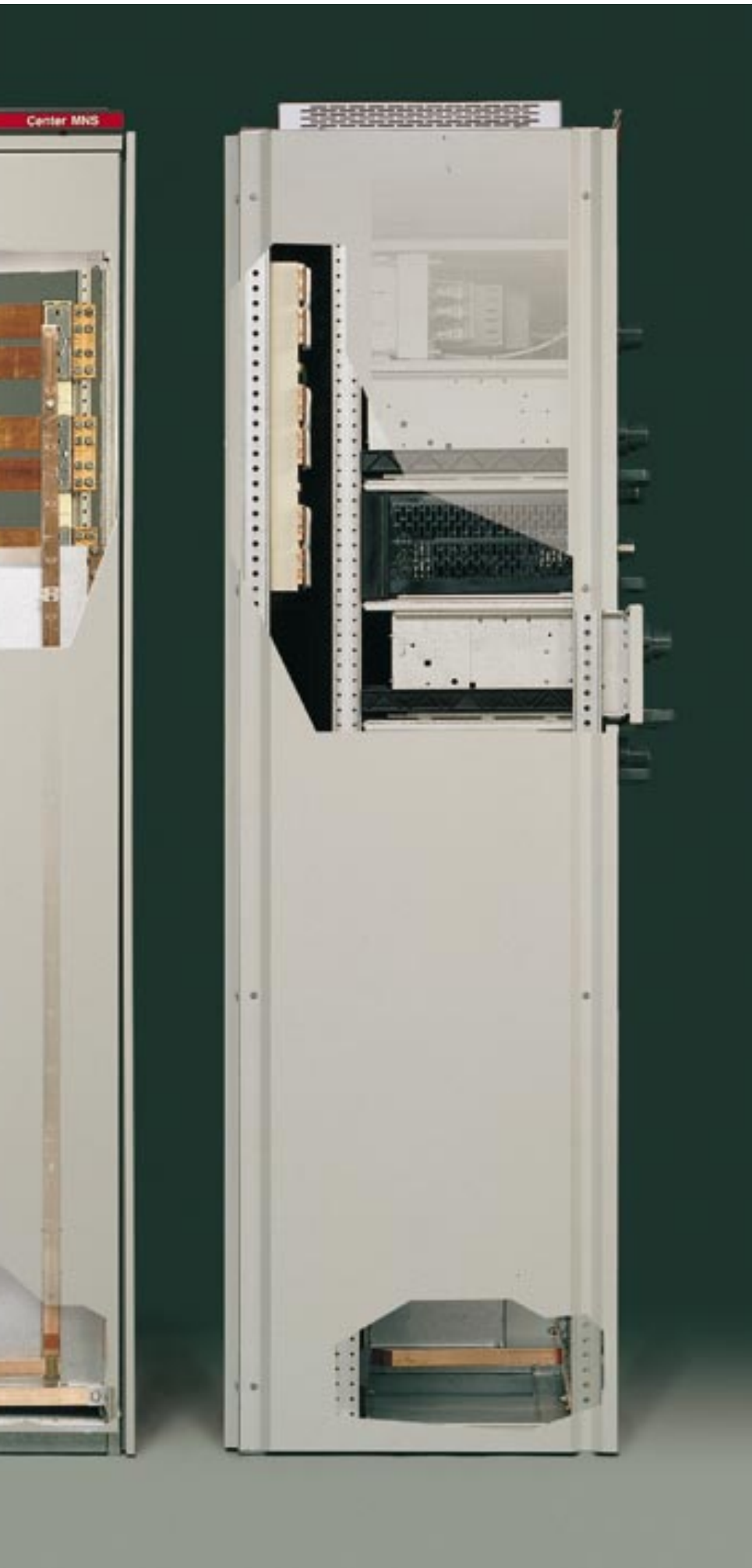
A switchgear assembly that provides continuity

Drawing on our experience and know-how gained from ABB's R&D departments in Sweden, Germany and Finland we have laid the foundation for a switchgear solution that will last well into the next century.

Our traditions of maintaining a high level of safety and reliability have been closely adhered to and further developed. However, the MNS programme does not rest there; a versatile solution such as MNS can always be upgraded and enhanced. It is continuously being adapted to the requirements of our customers: to new functions, to even greater safety, to particular performance.

What we can promise is exciting further development combined with genuine continuity. We will stick to the principles of easy extension and ready replaceability, contributing to healthy total economy for everyone investing in MNS switchgear.





Withdrawable starter unit of compact design with MCB and current limiting device PROLIM as short-circuit protection.



Withdrawable distribution unit with fuse-switch.



Withdrawable starter unit with MCCB.



Withdrawable starter unit with MCB and current limiting device PROLIM as short-circuit protection.

Technical data

Standard	SS EN 60 439-1
Rated insulation voltage	1000 V AC
Rated operating voltage	690 V AC
Rated current	
horizontal busbar system	≤ 5000 A
vertical busbar system	≤ 1800 A
Short-circuit strength	
horizontal busbar system	≤ 100 kA, 1 s
vertical busbar system	≤ 86 kA, 1 s
Enclosure class as per SS EN 60 529	IP 31, IP 41, IP 54
Cubicle dimensions	
height	2260 mm
width	400 – 1200 mm
depth	650 mm
Materials	
frame and enclosure	Aluzink
busbars	copper
insulated parts	halogen-free, self-extinguishing plastics
Finish	
frame and enclosure, inside	untreated
enclosure, outside	polyester lacquer RAL 7035, structural surface

ABB

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