

# MNS® Rear solution

## Space optimized power distribution assembly

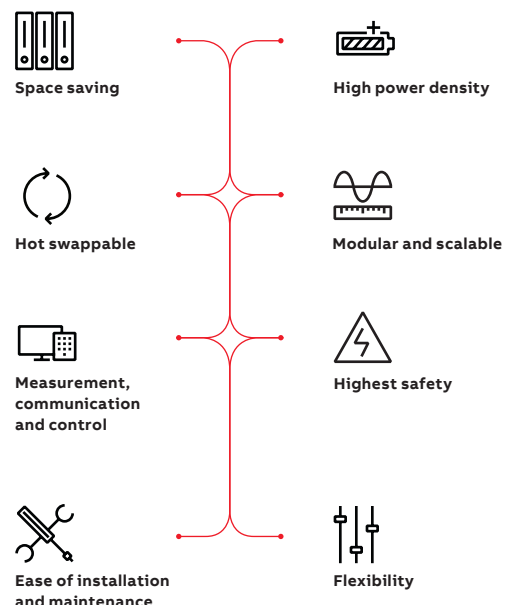


ABB's MNS platform for low-voltage switchgear has been evolving for over 45 years. Since its inception, the MNS design has focused on the fundamental principles of safety, reliability, modularity and scalability. Rear access technology in MNS assembly enables space optimized and cost-efficient power center and MCC application.

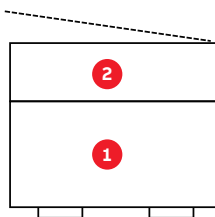
### MNS Rear offers

- **Maximum safety:** the outstanding passive arc protection design and comprehensive verification testing effectively guarantee the safety of operators and the reliability of equipment operation.
- **Design-verified:** Using the standard MNS universal panel design with the unique multi-function separator providing touch protection, system meets highest standards.
- **The withdrawable module design** is shared among different MNS designs and enables the replacement of functional units without the necessity to shut off the power supply, providing the highest availability and reliability thus minimizing any loss from an unexpected downtime.
- **Flexible and bespoke:** unified integration with the wider MNS portfolio and provides stacked 2 or 3 ACBs solutions
- **Online reconfiguration,** where operational procedures allow. Access to cable separated and from rear side for highest operational safety.
- **Footprint reduction:** up to 20% space savings compared to front access, single line-up design.
- **Digital option** application of digital devices that enable condition monitoring and energy management and further seamlessly integrate into the ABB Ability™ digital portfolio.

### Why choose MNS Rear?



01  
Diagram shows MNS  
Rear compartment  
location from top.



The section is divided into:

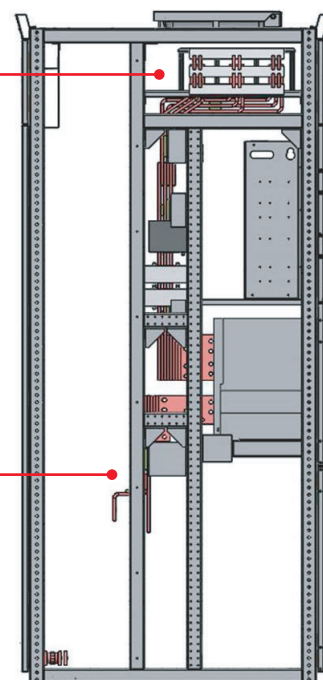
- 1 Front equipment compartment for switchgear modules
- 2 Rear cable compartment

02  
Side view

Top busbar arrangement

Cable or bus duct at the rear

Module, device operation at the front



Full interchangeability of modules between different MNS designs for front or rear access.

Integration of digital devices to gather and report data from the electrical system. This information is available in the ABB Ability™ Condition Monitoring for electrical systems (CMES) or any other energy management system and be used to achieve operational savings through increased efficiency.

### Safety is a priority

As with all MNS solutions, MNS Rear is fully arc fault containment tested and certified according to IEC TR 61641 Ed.3 criteria 1 to 7.

MNS Rear enables quick and simple installation. Once installed, the system can be easily accessed, reconfigured and maintained with cable access segregated at the rear.

Standards		Low voltage switchgear and controlgear assemblies - verification by testing	IEC 61439-2
Test certificates			DEKRA/ASTA
Electrical characteristics	Rated voltage	Rated insulation voltage $U_i$	1000 V 3 ~, 1500 V
		Rated operating voltage $U_e$	up to 690 V 3 ~
		Rated frequency	up to 60 Hz
	Rated current	Rated current $I_e$	up to 6300 A
		Rated peak withstand current $I_{pk}$	up to 220 kA
		Rated short-time withstand current $I_{cw}$	up to 100 kA
	Arc fault protection	Acc. IEC TR 61641 Ed.3 criteria 1 to 7	up to 100 kA
Mechanical characteristics	Forms of separation		up to Form 4
	Dimensions	Height	2300 mm
		Width	400, 600, 800, 1000, 1200 mm
		Depth	1000, 1200, 1400 mm
	Degree of protection	IEC 60529	up to IP54