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#### MNS R Customer value

### MNS R Customer Value Introduction

#### Introduction



- Low installation cost
- Low foot print
- High technical performance
- Low meantime to repair
- Low maintenance cost

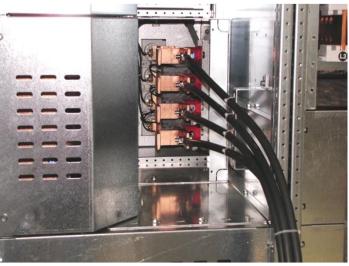


- Flexible applications
- Long life performance
- Safety
- Integrated into MNS Platform



### MNS R Customer Value Low installation cost





- Due to the low foot print and easy access for power cables, set up and installation is short and effective
- Rear covers of power cable compartments are available in several configurations according to customer and plant preference (hinged doors, bolted plate, safety padlocks)
- Full segregation between power and auxiliary cables allow modifications on the auxiliary circuits while the switchgear is on service without affecting the safety standards



#### MNS R Customer Value Low foot print and high technical performance





- Multilevel Air Circuit Breaker layout reduce switchgear footprint
- Air Circuit Breaker up to 6300A without derating show high technical performance
- Reduce foot print; minimum depth 1025mm
- MCC cubicles 600mm wide
- Different busbars locations give maximum flexibility in order to optimize switchgear layout and dimensions
- 8000A / 120kA main busbars performances to match any request



#### MNS R Customer Value Low meantime to repair and low maintenance cost

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Low foot print and
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Low meantime to
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maintenance cost
Flexible applications
Long life
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Safety
Common in MNS
platform



All the breakers, ACB or MCCB, are available with withdrawable execution in order to minimize maintenance time for their replacement



Due to the innovative busbars design no drill needed for branch connections:

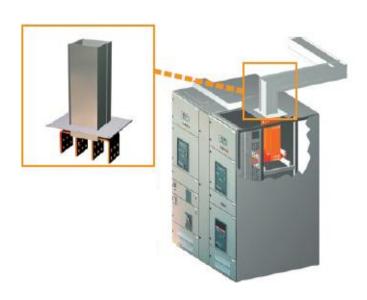
- Reduce downtime to modify existing feeder
- Reduce downtime to equip spare units
- Reduce downtime to change branch bushars size



## MNS R Customer Value Flexible in applications

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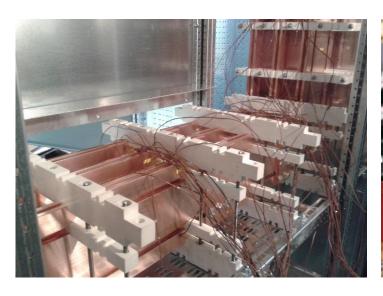


Fully adaptable to customer needs with the wide range of possible configurations:

- Fully modular design with three main busbars locations
- Power cables entry from top or bottom
- Top or bottom bus duct connection for high currents
- Possibility to have busbars sleeved, tinned or silvered



# MNS R Customer Value Long life performance



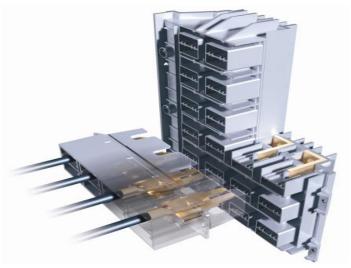


- Type tested according to IEC 61439-1&2
- MNS R design is the result of 40 years ABB's switchgear experience
- All components, arrangements and functional units are designed for long life performance



# MNS R Customer Value Safety





- MNS R is internal arc tested according to IEC TR61641 and guarantees highest level of personnel safety
- Modular design, internal segregation and easy access ensuring highest safety for operation, inspection and maintenance. Available segregation forms:
  - Up to form 4b; IEC standards
  - Up to form 4 type 7; BS standards
- IP 2x protection guarantee on the MCC panels also with modules removed thanks to the ABB multifunctional wall



### MNS R Customer value Common MNS Platform

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#### ABB's MNS® LV Switchgear Platform

One standard-features for MNS Switchgear family:

- Safety 'Plus' concept
- Modular design
- World wide production, support and service
- Common spare parts
- High operational performance



# Power and productivity for a better world™

