



# MNS Platform, low voltage systems

Rear Access Power Motor Control Center

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# MNS Platform, low voltage systems

Add Value to our customers

## Sales

- Maximum safety; for the personnel and the plant
- Flexibility; to easy design and re-design our switchgear according customer needs
- Reduce maintenance; with proactive maintenance to prevent faults
- Proximity; local presence with a worldwide portfolio (ANSI/UL & IEC)
- Simplicity; package projects to deliver an Integrated ABB solution



## After sales

- Installation and commissioning: made by our technician worldwide present
- Customer Training
- Upgrades, Extensions and Retrofit solutions: available for aging and legacy switchgear solutions
- Service Agreements: to provide the best possibility for customers to ensure that the switchgear performs of the plant life cycle
- Spare Parts and Consumables



Delivering solutions not simple products

# MNS Platform, low voltage systems

## IEC Portfolio

### MNS R



Rear access PMCC

- High performance
- Stacked ACBs
- Conventional & Intelligent MCC

### MNS3.0



Front access PMCC

- Wall standing installation
- Fourth Level
- Conventional & Intelligent MCC

### MNS iS



MCC with embedded intelligence

- Proactive maintenance
- Sensors technology
- Integrated data concentrator

### MNS-Up



PC with integrated UPS

- Scalable 100 kW modules
- Space savings
- Faster installation and commissioning

One platform with dedicate solutions for each customer

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# MNS Platform, low voltage systems

## Full ABB Solution

ACBs



MCCBs



Motor protection relays



Frequency drivers



Protection relays



Soft Starters



Switch disconnectors



Metering device



# MNS Platform; MNS R rear access switchgear

## Technical data

### Top performances

#### Electrical rating

- Rated current main BB up to 8000A
- Rated current distribution BB up to 4000A
- Short circuit current up to 120kA (1 sec)
- Service voltage up to 690V ac
- Service Frequency 50Hz – 60Hz

#### Protection rating

- Degree of protection up to IP54
- Internal separation up to 4b / 4 type 7
- Arc proof execution up to 100kA (0.3 sec)

#### Standards and approvals

- Standards IEC 61439-1 & -2
- Arc proof IEC TR 61641



# MNS Platform; MNS R rear access switchgear

## Safety

Arc proof  
execution

Safety for the personnel

- Switchgear successfully tested according criteria 1 to 5

Service continuity

- Switchgears tested also according additional criteria 6 & 7



Multi  
Functional  
Wall

Multifunction wall:

- Segregation and insulation of the distribution busbars
- Segregation of the main busbars from the functional units
- Sensible reduction of possible to have an internal arc
- IP2X guarantee also with drawers removed



Safety is a propriety for ABB

# MNS Platform; MNS R rear access switchgear

## Availability

### Withdrawable execution

To reduce downtime during the maintenance withdrawable option is available for all the circuits

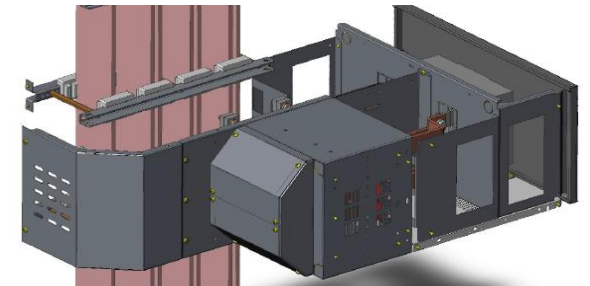
- Air circuit breakers
- Molded Case Circuit Breakers
- Drawers



### Segregation form

Higher level of segregation form allows for safety interventions keeping alive circuit not involved:

- Segregation form up to Form 4b, according IEC 61439
- Segregation form up to Form 4 type 7, according BS 61439



Maximum availability in all the conditions

# MNS Platform; MNS R rear access switchgear

## Flexibility

### Power connections

All the possible configurations and solutions

- Power cables entrance from the top or the bottom
- Bus connection for higher current
- Possibility to mix cable and bus duct connection in the same switchboard



### Main Busbars positioning

Multiple position available inside the panel

- Top
- Middle
- Bottom



### Busbars treatments

Several options available according customer preference:

- Tinned
- Silvered
- Sleeved



Design around customer needs

# MNS Platform; MNS R rear access switchgear

## Intelligent motor control center

### Multifunctional units

Possibility to install intelligent modules inside the withdrawable units like ABB M10x able to perform:

- Protections (26, 27, 37, 46, 49, 51LR, 66...)
- Measuring (A, V, Hz, kW, kVA, kWh....)
- Communication (Profibus DP, Modbus RTU)



### Proactive maintenance

MService is the package to monitor and control the switchgear; it offers:

- Proactive maintenance = maintenance only when is needed
- A report per each fault and the possible solutions
- Complete data logging of the plant
- Reduction of the number and the durance of maintenance interventions



# MNS Platform; MNS R rear access switchgear

## Intelligent motor control center

### Full integrated control system

Installing the ABB Data concentrator you have:

- Connection point for the higher supervision systems like ECS and DCS
- Possibility of a single control point using ABB Touch screen
- Air circuit breakers and motor feeders in the same network

DCS



MCC



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details

Power center section with ACBs



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details

Power center section with ACBs

Power center section with MCCBs



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details

Power center section with ACBs

Power center section with MCCBs

600mm wide MCC section with drawers



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details

Power center section with ACBs

Power center section with MCCBs

600mm wide MCC section with drawers

MCCB (Fix-plug-with) for Energy distribution



# MNS Platform; MNS R rear access switchgear

## MNS R Construction details

Power center section with ACBs

Power center section with MCCBs

600mm wide MCC section with drawers

MCCB (Fix-plug-with) for Energy distribution

Withdraw. compact drawers 8E1/2 & 8E1/4



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Withdraw. full size drawers



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Multifunctional wall; only MCC sections



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Multilevel Main copper busbars



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Power cables rear connection area



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Stacked withdrawable ACBs up to 6300A



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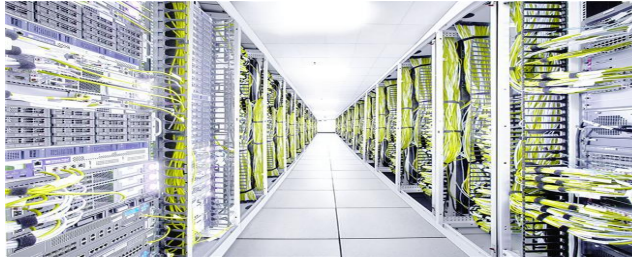
# MNS Platform; MNS R rear access switchgear

Worldwide reference in all the industrial segments

Chemical, Oil & Gas



Data Center



Infrastructures



Water & Waste Water



Marine



Power





**ABB**