MNS Light SR

Low-voltage switchgear with removable SlimLine units
MNS Light SR switchgear is a flexible system with a large selection of cubicle variants.

The apparatus units are plug-in connected to the vertical busbar system. Replacement and extension can be made with the switchgear live.

The switchgear assembly is delivered in the form of complete, function-tested cubicles that are easy to install and take into service.

**Busbar systems**
The busbar systems are protected against accidental human contact. The horizontal busbars are placed at the top of the switchgear and/or at the bottom. They are connected with screwed joints between each cubicle unit, thus simplifying assembly, replacement and extension. The vertical busbars are located at the rear of each apparatus cubicle.

A neutral or protective earth busbar can be included in the horizontal and vertical busbar systems.

**Ventilation**
The cubicles are self-ventilating. Air is taken in at the front and led out at the rear/top.

**Incoming cubicles**
The incoming cubicles can be fitted with circuit-breakers (MCCBs or ACBs) or disconnectors. Earthing switches can always be included.

Connection possibilities:
- cables from below
- cables from above
- busduct trunking
- sectioning.

**Apparatus cubicle**
The SR type is a specially designed apparatus cubicle intended to be fitted with plug-in switch-fuses of type SlimLine. The apparatus space is divided vertically into 54 E modules (27 M modules)*.

**Other cubicle types available**
The range also includes:
- transformer cubicles
- corner cubicles
- cubicles for extra equipment.

**Range of apparatus units**
- Switch-fuses type SlimLine up to 630 A.
- Distribution boards with MCBs or D-type fuses.
- MCCBs or switch-fuses up to 800 A for cubicle supply.
- kWh measuring units up to 630 A.
- Sectioning units up to 630 A (double breaking).

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*1 E=25 mm, 1 M=50 mm.*
Installation and commissioning
The horizontal busbars are ready-mounted upon delivery and are connected with screwed joints between the cubicles. They can be located at the top or low down and there is ample space for cable connection both from above and below.

The connections for outgoing cables are easily accessible.

Service and extension
The modular system makes it easy to replace units in the cubicles or add new ones with the switchgear live.

Since the horizontal busbar system is compartmented, it is also easy to add new cubicles to the switchgear assembly.

Safety
The individually screened busbar compartments and apparatus and cable spaces minimise the risk for unintentional contact with live parts.

Operating handles and knobs are located on the outside and have distinct position indications. They can be locked with up to three padlocks.

Connecting the horizontal busbars between the cubicle units with bolted joints is easy to carry out from the front.

Drilling for anchor bolts can be done with the cubicles in place.

As the vertical busbar system is protected against accidental human contact (IP 20), SlimLine units can be replaced with the busbars live.
Technical data for MNS Light SR

Rated insulation voltage 1000 V AC
Rated operation voltage up to 690 V
Rated current IP 21, IP 31: max 1900 A (Transformer 1250 kVA)
Rated short-circuit strength 35 or 50 kA
Ambient conditions as per IEC 439-1
  Temperature Max 35 °C for 24 hours
  Relative humidity Max 50 % at < 40°C
Degree of protection as per IEC 529
  With door closed IP 21, IP 31
  With door open IP 20
  Internal separation Form 4a
Dimensions
  Height 2129 mm
  Height module 50 mm
  Depth 450 mm
  Cubicle width
    Circuit-breaker cubicle MCCB 500 mm
    Circuit-breaker cubicle ACB 600 mm
    Disconnector cubicle up to 1600 A 500 mm
    Disconnector cubicle 2000 A 600 mm
    Apparatus cubicle 1000 or 1200 mm
    Apparatus cubicle for extra equipment 500 or 600 mm
Material
  Cubicle 1.5 mm Aluzink sheet steel
  Busbar system Exconal (copper-clad aluminium) or copper
Finish
  Doors and external surfaces Polyester paint RAL 7035
  Frame and internal surfaces Aluzink
Operating conditions as per IEC 439 Normal
Phase sequence
  Horizontal busbars L1, L2, L3 from above and downwards
  Vertical busbars L1, L2, L3 from left to right

Design, data and dimensions are subject to change without prior notice.