

Medium voltage products

UniSec SBC-W
Air-insulated medium-voltage secondary distribution switchgear

Power and productivity
for a better world™

UniSec SBC-W

Air-insulated medium-voltage secondary distribution switchgear

UniSec, the air-insulated secondary distribution MV switchgear, expands its portfolio by introducing the new SBC-W (and SBS-W as coupler) functional unit. The SBC-W unit can be installed alongside all the other UniSec units. Withdrawable single isolation circuit breaker in LSC2A-PM panel type, according to IEC 62271-200 standards, and the single cable compartment door are just two of the more important features of the SBC-W unit.

SBC-W panel is ideal for all applications where is required the LSC2A service continuity together with a withdrawable circuit breaker for a fast circuit breaker replacing, in case of maintenance or fault, or just to have a quick and wide (complete 750 mm panel width available) cable compartment access; specific application are: plant with small generation, light industries, data center and buildings.

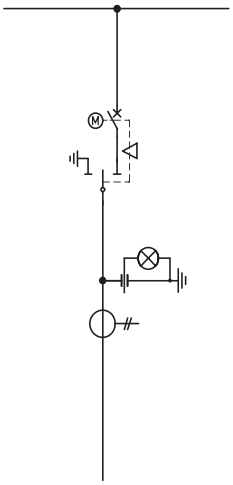


UniSec circuit breaker panel portfolio is now extended with 4 different typical units to cover all needs of the market and existing applications.

HBC

LSC2A PM
Fixed CB
with Integrated 3 pos. SD
Up to 24kV, 630A, 16kA 1sec

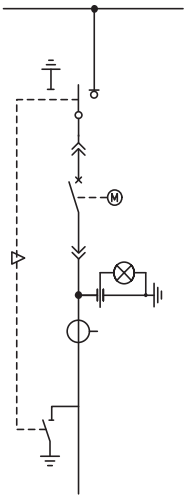




SBC-W (SBS-W coupler type)

LSC2A PM
Single Insulation Withdrawable CB
with 3 pos. LBS
Up to 24kV, 630A, 21/25kA 3sec

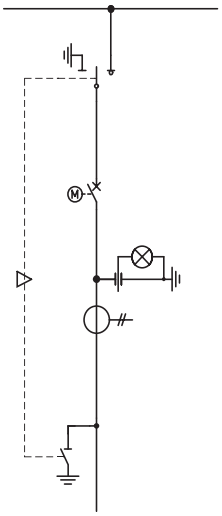




SBC (SBS coupler type)

LSC2A PM
Removable CB
with 3 pos. LBS
Up to 24kV, 800A, 21/25kA 3sec

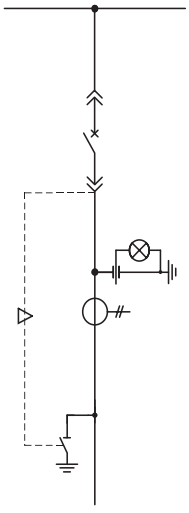




WBC (WBS coupler type)

LSC2B PM-PI
Double Insulation Withdrawable CB
with Making capacity ES
Up to 24kV, 1.250A, 21/25kA 3sec





UniSec SBC-W

Air-insulated medium-voltage secondary distribution switchgear

Switchgear electrical characteristics

Rated voltage	kV	12	17.5	24
Test voltage (50-60 Hz x 1 min)	kV	28	38	50
Impulse withstand voltage	kV	75	95	125
Rated frequency	Hz	50-60	50-60	50-60
Rated main busbar current	A	630/800/1250	630/800/1250	630/1250
Rated current of apparatus:				
– VD4/R-Sec - HD4/R-Sec - HD4/RE-Sec Withdrawable circuit-breaker	A	630	630	630
– GSec gas switch-disconnector	A	630	630	630
Rated short time withstand current	kA (3s)	16/20 [2]/25 [1]	16/20 [2]	16/20 [2]
Peak current	kA	40/50 [2]/62.5	40/50 [2]	40/50 [2]
Internal arc withstand current (up to IAC AFLR)	kA (1s)	12.5/16/20 [2]	12.5/16/20 [2]	12.5/16/20 [2]

[1] 25 kA 2s
[2] Contact ABB for 21 kA/52.5 kAp

Main benefits of the new solution

Is possible a very quick, less then 1 minute, circuit breaker withdraw operation; this is useful when is required:
- Withdrawable feature is required in technical specification
- to quickly replace CB in case of maintenance or fault recover having a full (750 mm wide) cable compartment access
- to have a full access to the cables compartment for quick and easy cables connections.

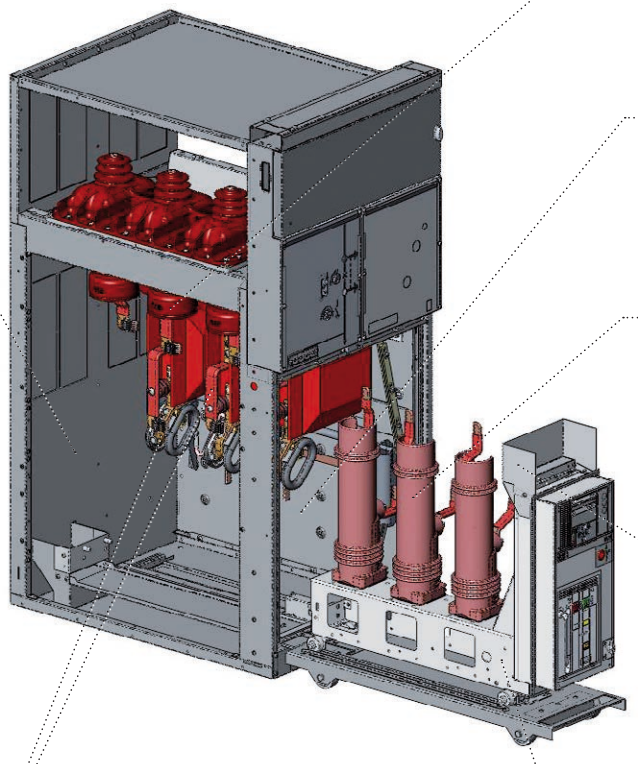
Service continuity LSC2A-PM, access with Switchgear energised, is guaranteed with GSec unique structure:

Top part made with epoxy resins and Lower part made with stainless steel.
All others SBC feature are available for SBC-W according to UniSec platform.
SBS-W panel type, Coupler version, is also available.
UniSec SBC-W can then guarantee mid level of rating and engineering complexity combined with a mid/high level accessories and LSC2A service continuity given by withdrawable single isolation circuit breaker which are requested for small generation, light industries, data center and buildings.



Below are described main technical advantages of SBC-W panel type.
All others panels options (Dimensions, IAC solutions, h 1700-2000 mm and connected features, LV compartment type, CTs, VTs, GSec options, cables connection, Surge Arrester, etc…), GSec and Circuit breaker accessories remain unchanged from SBC panel type.

N° 2 MV compartments (Busbars and Cables) according to LSC2A IEC 62271-200 and PM guaranteed by GSec (Top made with Epoxy resin and Down made with stainless steel). Single Isolation definition is connected to LSC2A: at open door, before to withdraw the CB, the GSec is disconnected and earthed while cable are connected and earthed



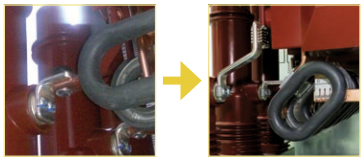
3 positions Load Break Switch type GSec mechanically interlocked with cable compartment cover

One single cover 750mm wide without screws and mechanically interlocked with GSec Earth position

VD4/R-Sec or HD4/R-Sec with n° 6 sliding contacts (CB side) and truck with wheels

Plug and play connection for quick and error free auxiliary circuit disconnection

N° 6 sliding contacts (panel side) not aligned for easier circuit breaker withdraw operation instead of bolted connections



Bolted connection **Sliding contacts**

Insertion hole for lever to unlock circuit breaker from connected position

Notes

Contacts

Your sales contact: www.abb.com/contacts
More product information: www.abb.com/productguide

The data and illustrations are not binding. We reserve the right to make changes in the course of technical development of the product.

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