



ABB AG – Calor Emag Medium Voltage Products

Gas-insulated switchgear Type ZX2

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Medium voltage switchgear
type ZX2

12 kV, ...2500 A, ...40 kA

24 kV, ...2500 A, ...40 kA

36 kV, ...2500 A, ...40 kA

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With IAC
classification
AFLR 40 kA 1s

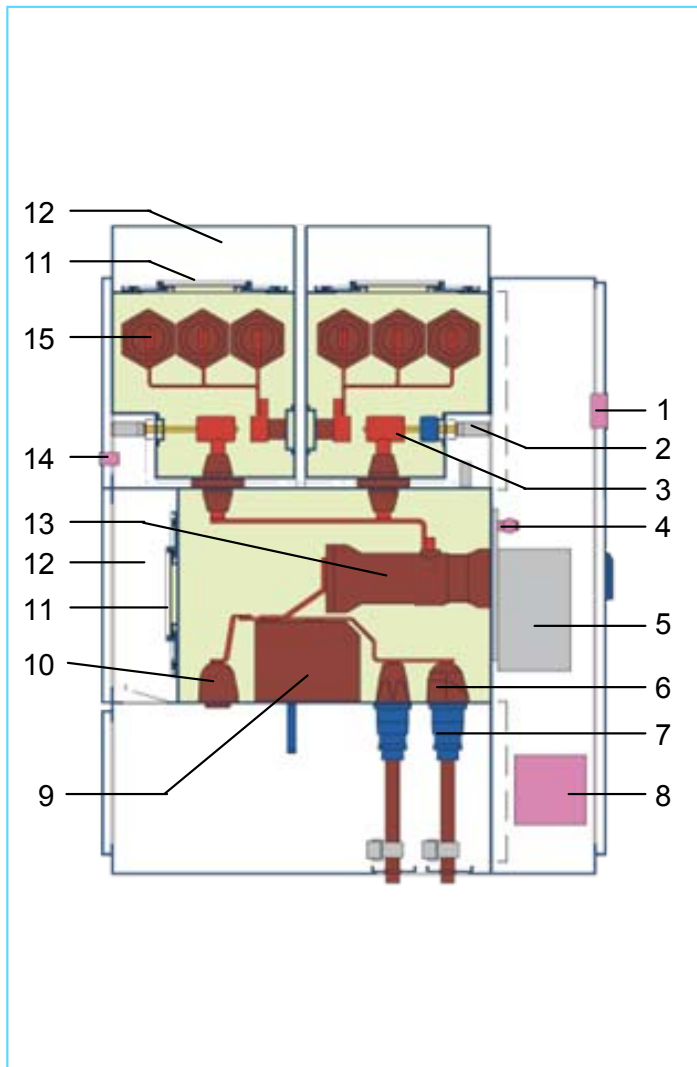


Single or double busbar panel

Rated voltage	kV	12	24	36 ¹⁾
Rated current of busbars	A	...2500	...2500	...2500
Rated current of tee-offs	A	...2500	...2500	...2500
Rated short-circuit breaking current	kA	...40	...40 ²⁾	...40 ²⁾
Insulating gas		SF ₆ ³⁾	SF ₆ ³⁾	SF ₆ ³⁾
Width a	mm	600 / 800 ^{4) 5)}		600 / 800 ⁴⁾
Height b	mm	2300		
Depth c	mm	1760		

- 1) Higher values as per international standards on request
- 2) 600 mm panel width up to 31,5 kA rated short-circuit breaking current
- 3) Insulating gas: sulphur hexafluoride (SF₆)
- 4) Rated feeder current above 1250 A
- 5) Double feeder panel up to 25 kA, 2 x 630 A

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Double busbar panel for 1250 A

- 1 HMI of multifunctional protection and control unit
 - 2 Three position disconnector operating mechanism
 - 3 Three position disconnector
 - 4 Pressure sensor (temperature-compensated)
 - 5 Circuit-breaker operating mechanism
 - 6 Cable socket
 - 7 Cable plug
 - 8 Electronic unit of multifunctional protection and control unit
 - 9 Block sensor or transformer
 - 10 Testsocket
 - 11 Pressure relief disc
 - 12 Pressure relief duct
 - 13 Circuit-breaker
 - 14 Measuring sockets for capacitive voltage indicator system
 - 15 Busbars
- SF₆

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Operation of a switchgear panel without multi-functional protection- and control-unit

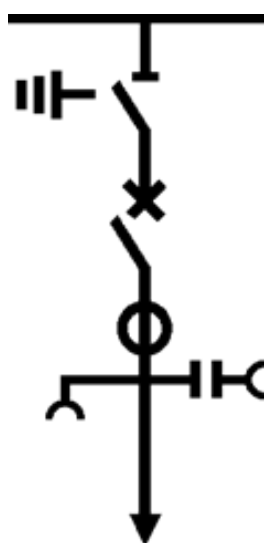


Bay Control Unit

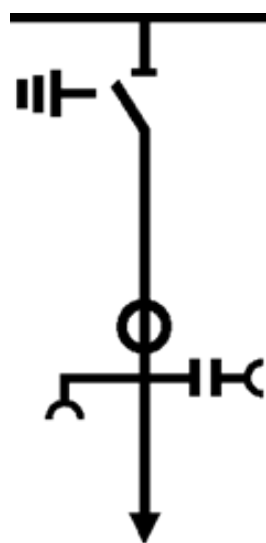
- Modern solution of a conventional switchgear control in ZX
- Integral control, indication and annunciation unit
- Conventional control without active components
- Control via conventional push- buttons and key operated local / remote switch

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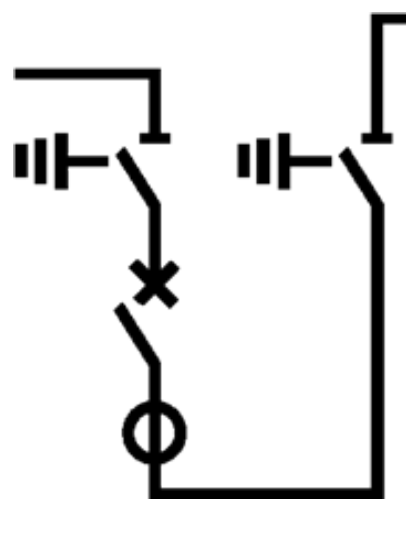
Single lines of switchgear variants (SBB)



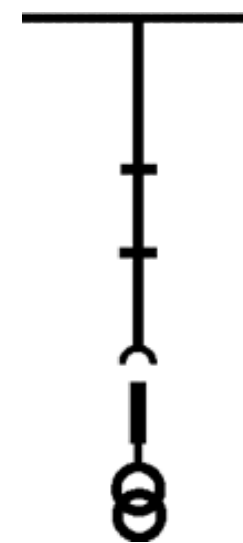
Feeder panel



Cable connection



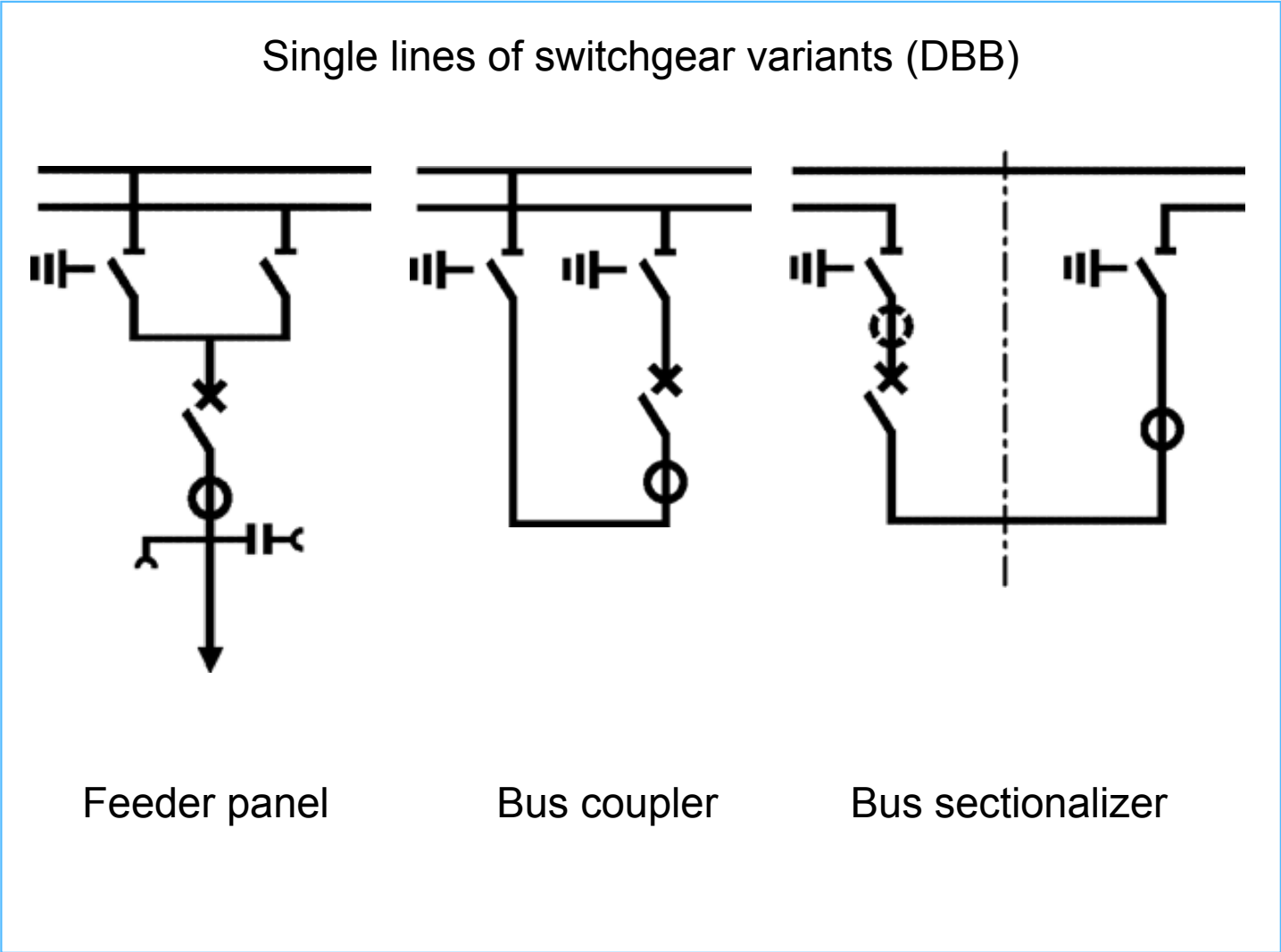
Bus sectionalizer
in one panel



BB-metering

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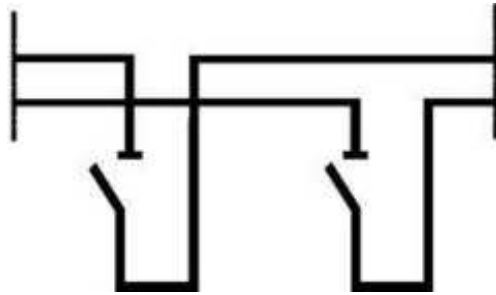
Sheet 1 / 2



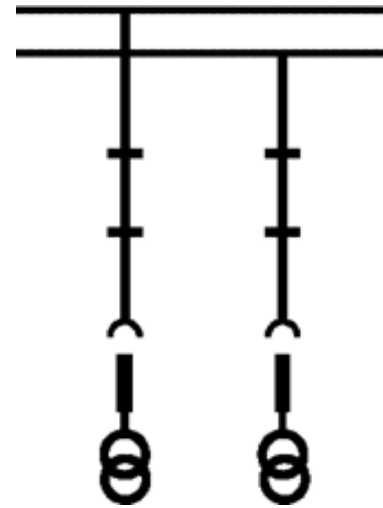
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Single lines of switchgear variants (DBB)

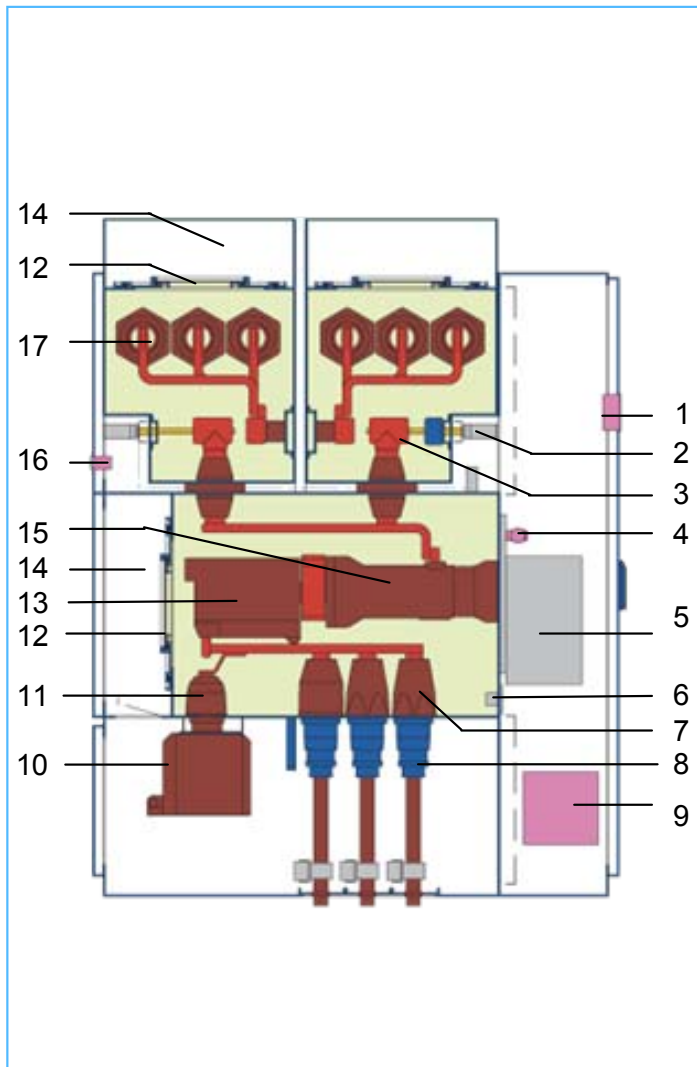


Bus section w/o
circuit-breaker



BB-metering

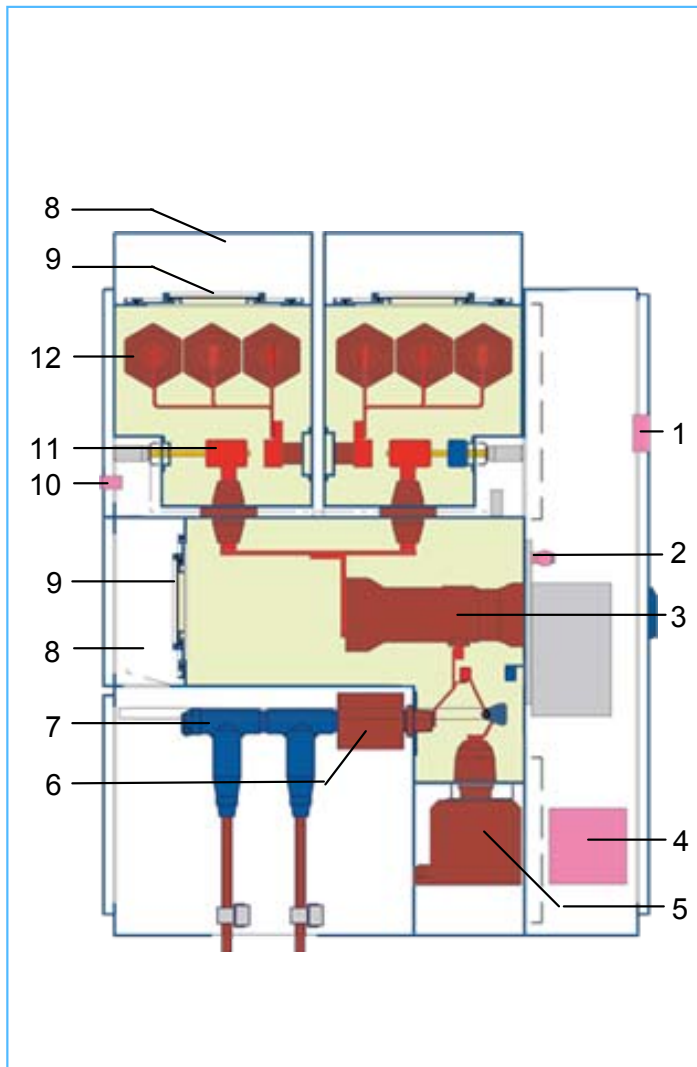
Gas-insulated switchgear Type ZX2



Double busbar panel for 2000 A

- 1 HMI of multifunctional protection and control unit
 - 2 Three position disconnector operating mechanism
 - 3 Three position disconnector
 - 4 Pressure sensor (temperature-compensated)
 - 5 Circuit-breaker operating mechanism
 - 6 Secondary terminals of current transformer
 - 7 Cable socket
 - 8 Cable plug
 - 9 Electronic unit of multifunctional protection and control unit
 - 10 Voltage transformer
 - 11 Multifunctional socket
 - 12 Pressure relief disk
 - 13 Current transformer
 - 14 Pressure relief duct
 - 15 Circuit-breaker
 - 16 Measuring sockets for capacitive voltage indicator system
 - 17 Busbars
- SF₆

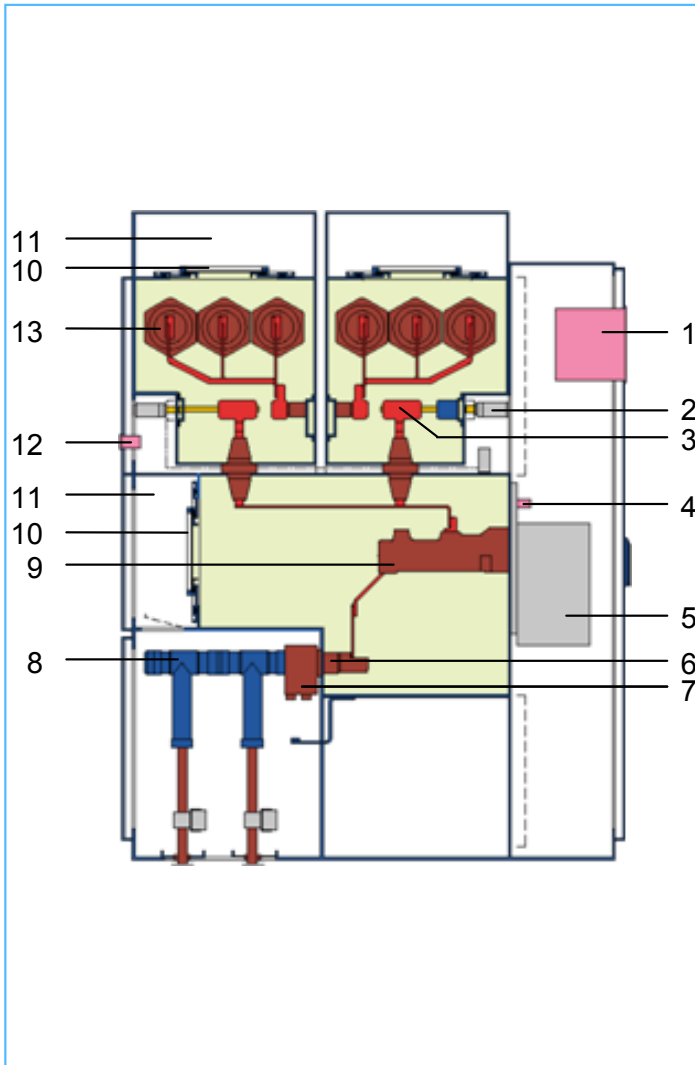
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Single busbar panel
with outer cone connection
for up to 1250A

- 1 HMI of multifunctional protection and control unit
 - 2 Pressure sensor (temperature-compensated)
 - 3 Circuit-breaker
 - 4 Electronic unit of multifunctional protection and control unit
 - 5 Plug-in isolatable voltage transformer
 - 6 Ring type current transformer
 - 7 Outer cone cable connector
 - 8 Pressure relief duct
 - 9 Pressure relief disc
 - 10 Measuring sockets for capacitive voltage indicator system
 - 11 Three position disconnect
 - 12 Busbars
- SF₆

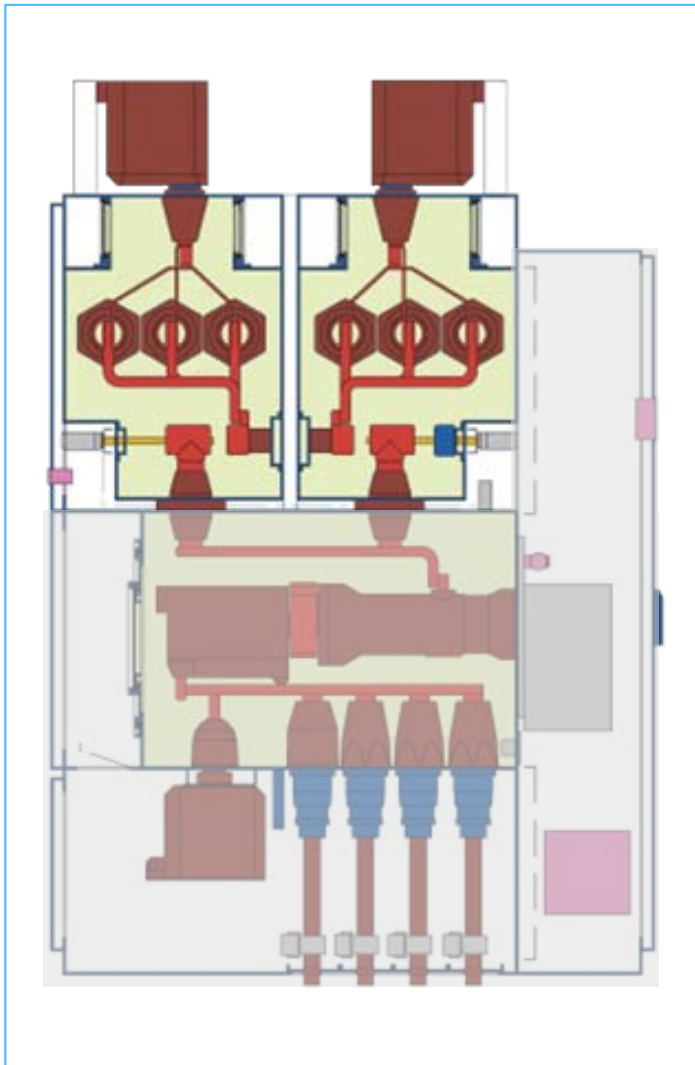
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Double feeder panel up to 24 kV
630 A for each feeder

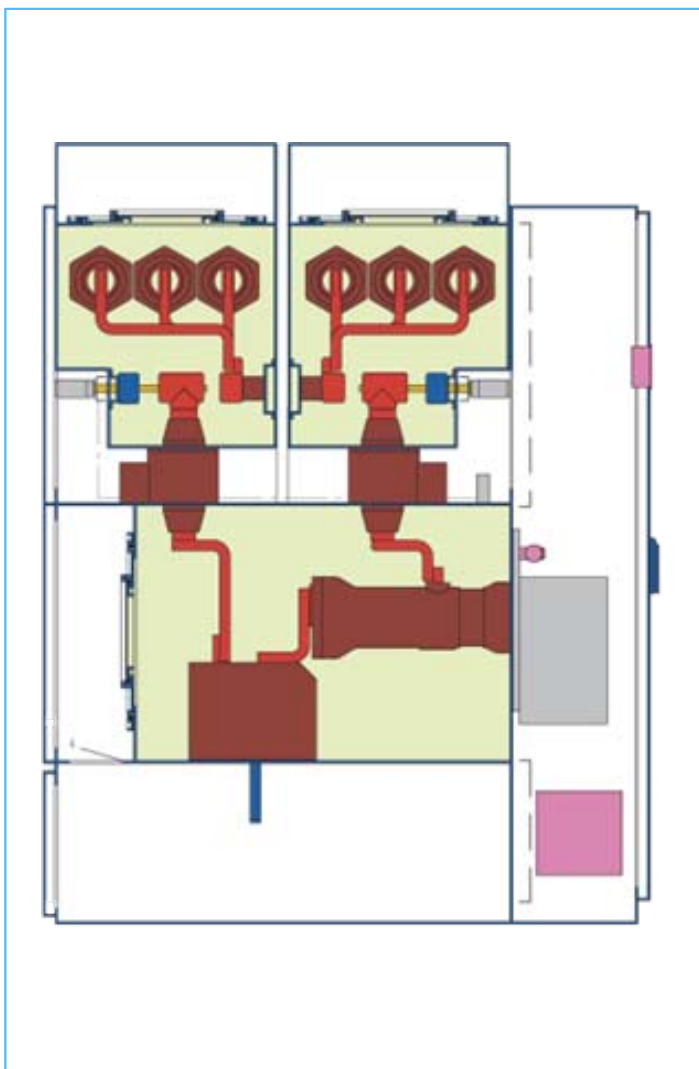
- 1 Multifunctional protection and control unit
 - 2 Three position disconnector operating mechanism
 - 3 Three position disconnector
 - 4 Pressure sensor (temperature-compensated)
 - 5 Circuit-breaker operating mechanism
 - 6 Outer cone cable bushing
 - 7 Current transformer or Rogowski coil
 - 8 Outer cone cable plug
 - 9 Circuit-breaker
 - 10 Pressure relief disk
 - 11 Pressure relief duct
 - 12 Measuring sockets for capacitive voltage indicator system
 - 13 Busbars
- SF₆

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Integrated double busbar
metering with plugged-in
voltage transformer in air
on top of panels with
2000A feeder current

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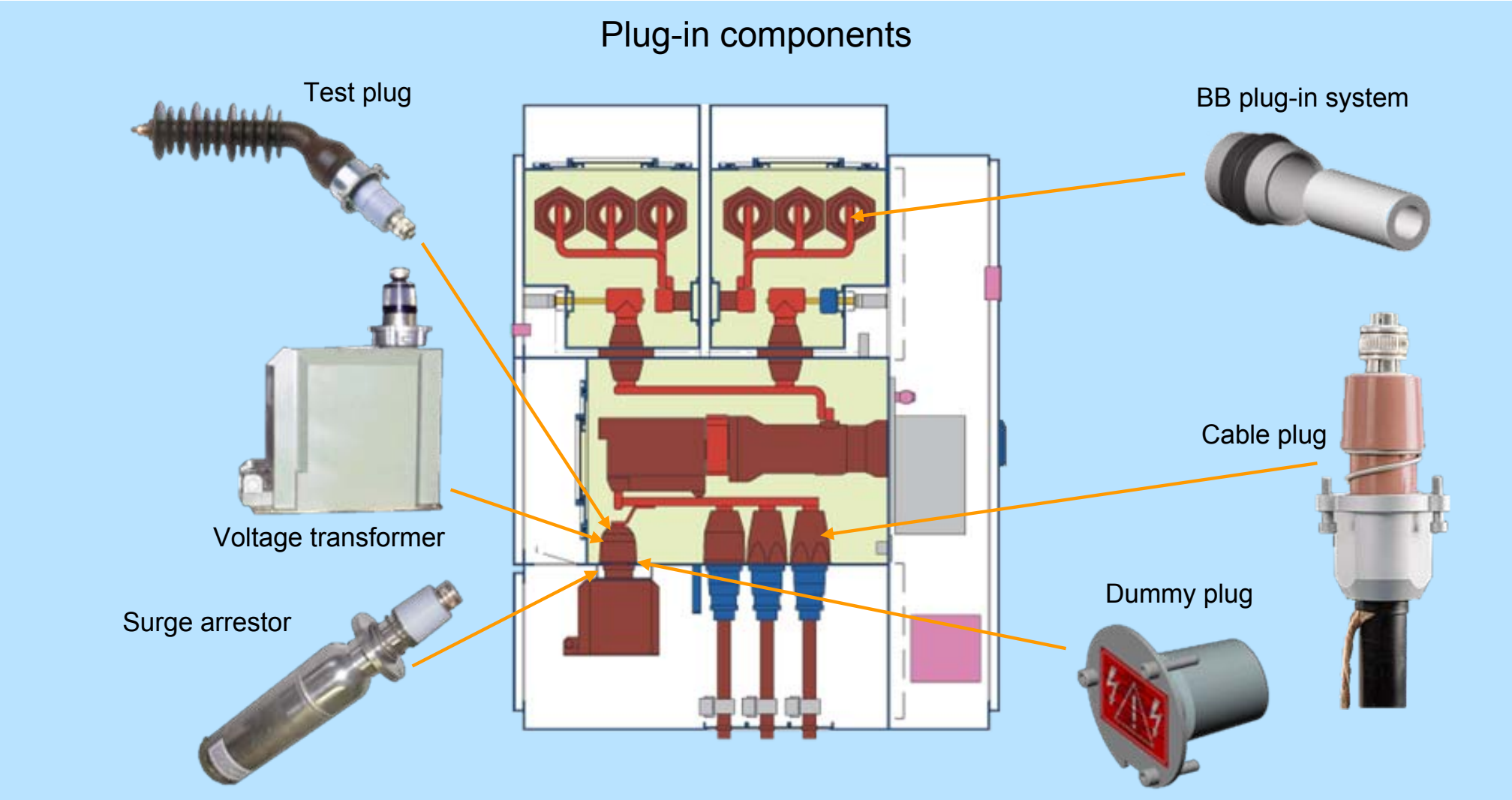
Bus coupler DBB 2000 A

Bus sectionalizer DBB 2000 A

- Optional equipped with current detection by
 - Block device
 - Block device + bushing current transformer
 - Bushing current transformer
- also without current detection

1250 A panels of width 600 mm are available with block device or without current detection

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Advantages

- Partitioned function compartments ► maximum safety
- Completely shockproof enclosures
- High voltage section totally independent of environmental influences
- No effect of site altitude on dielectric strength
- Maximum availability for the operator
- Independence of the environment makes for extremely long system life
- Minimum maintenance requirement
- Longer life than other system types

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