



ABB AG – Calor Emag Medium Voltage Products

# Gas-insulated switchgear Type ZX1.2

# Gas-insulated switchgear Type ZX1.2



Medium voltage switchgear  
type ZX1.2

Single busbar version

12 kV, ...2500 A, ...31,5 kA

24 kV, ...2500 A, ...31,5 kA

36 kV, ...2500 A, ...31,5 kA

# Gas-insulated switchgear Type ZX1.2

With IAC  
classification  
AFL 31.5 kA 1s



## Single busbar panel

Rated voltage	kV	12	24	36 <sup>1)</sup>
Rated current of busbars	A	...2500	...2500	...2500
Rated current of tee-offs	A	...2500	...2500	...2500
Rated short-circuit breaking current	kA	...31,5	...31,5	...31,5
Rated short-circuit making current	kA	80	80	80
Insulating gas		SF <sub>6</sub> <sup>2)</sup>	SF <sub>6</sub> <sup>2)</sup>	SF <sub>6</sub> <sup>2)</sup>
Width <b>a</b>	mm	600 / 800 <sup>3) 4)</sup>		600 / 800 <sup>4)</sup>
Height <b>b</b>	mm	2100		
Depth <b>c</b>	mm	1300-1800 <sup>5)</sup>		
Height of Cable fixing point	mm	1250		

1) Higher values as per international standards on request

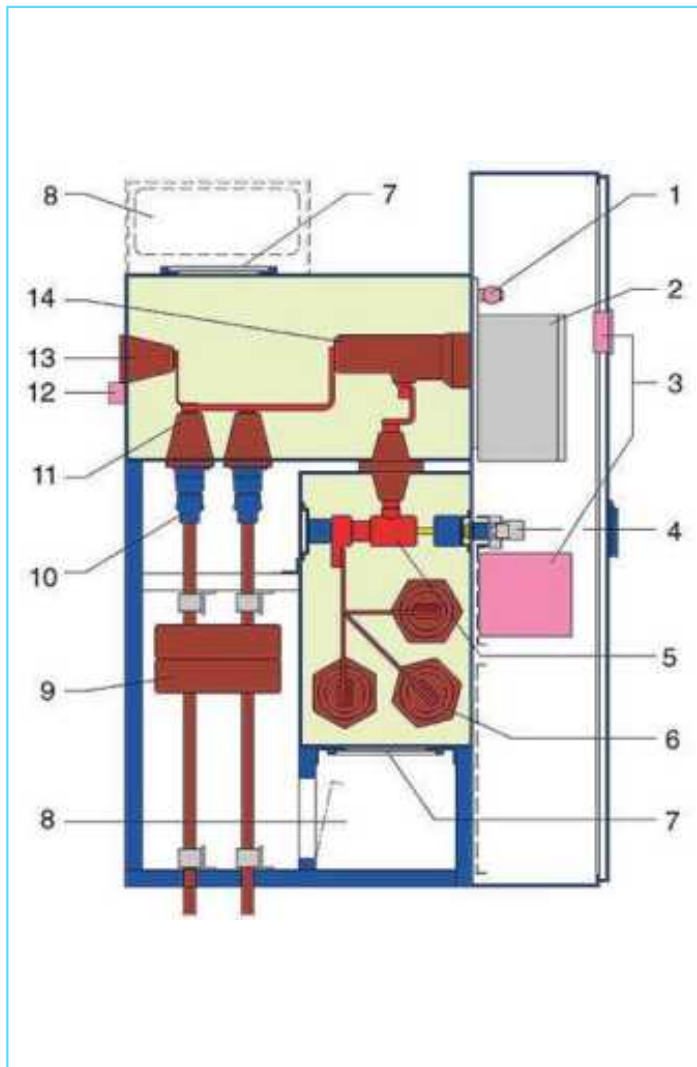
2) Insulating gas: sulphur hexafluoride (SF<sub>6</sub>)

3) Double feeder panel up to 25 kA, 2 x 630 A

4) Rated feeder current above 1250 A

5) Depending on quantity of cables per phase

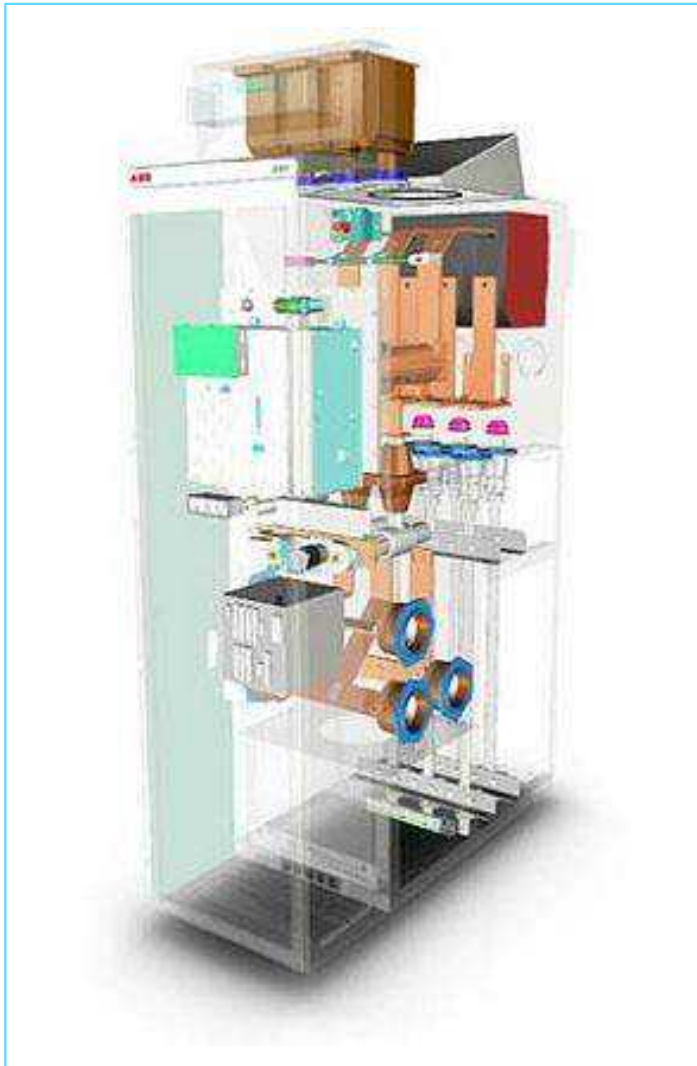
# Gas-insulated switchgear Type ZX1.2



## Feeder 1250 A

- 1 Density sensor
  - 2 Circuit-breaker operating mechanism
  - 3 Multifunction Protection and Switchgear Control unit
  - 4 Three position disconnector operating mechanism
  - 5 Three position disconnector
  - 6 Busbar
  - 7 Pressure relief disk
  - 8 Pressure relief duct (optional)
  - 9 Ring type current transformer
  - 10 Cable plug
  - 11 Cable socket
  - 12 Measuring sockets for capacitive voltage indicator system
  - 13 Test socket
  - 14 Circuit-breaker
- SF<sub>6</sub>

# Gas-insulated switchgear Type ZX1.2



## Options

- Current / voltage transformer or sensors
- Integrated protection and control unit or mechanical auxiliary contacts with freely selectable protection relay
- Electrical protection against maloperation or mechanical interlocking
- Integrated pressure relief ducts or relief of single panel

# Gas-insulated switchgear Type ZX1.2

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

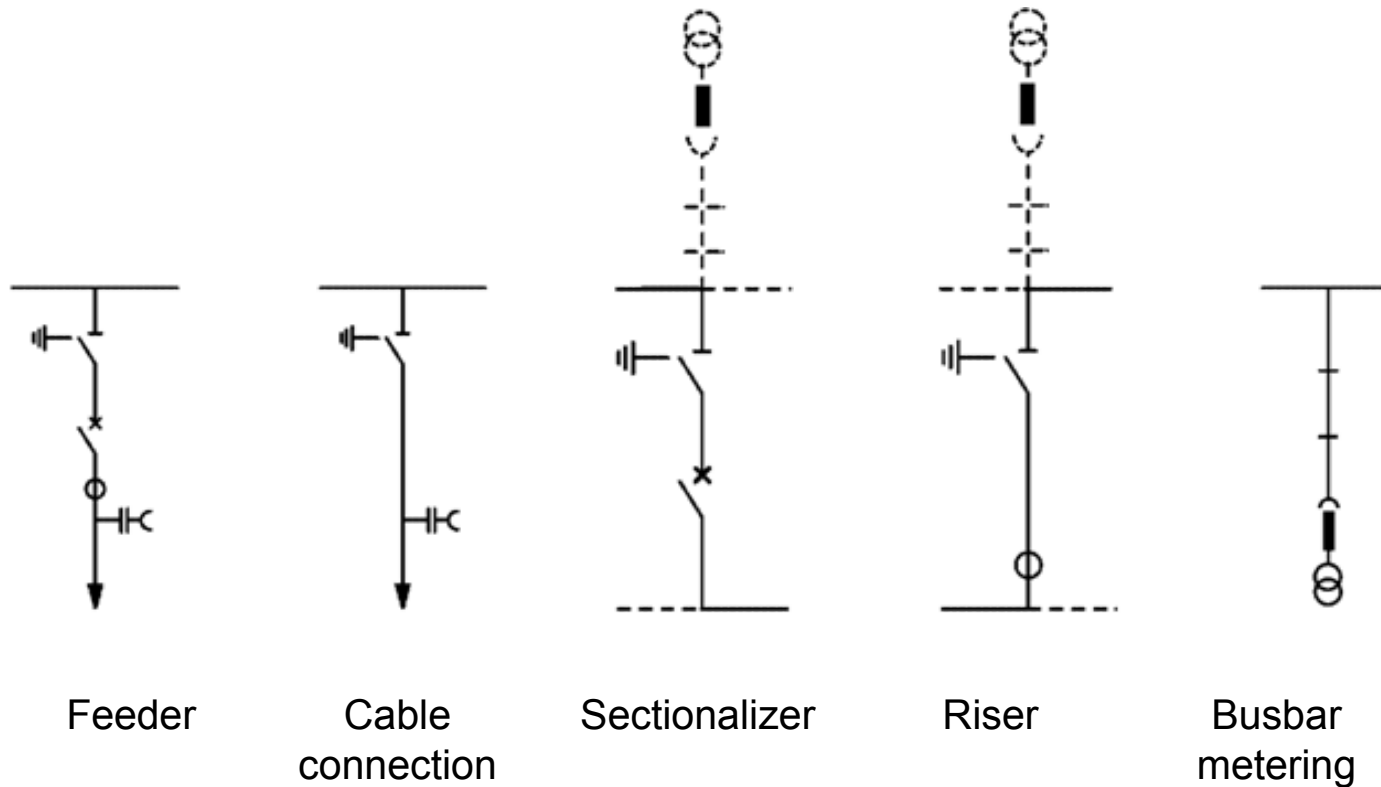


## Bay Control Unit

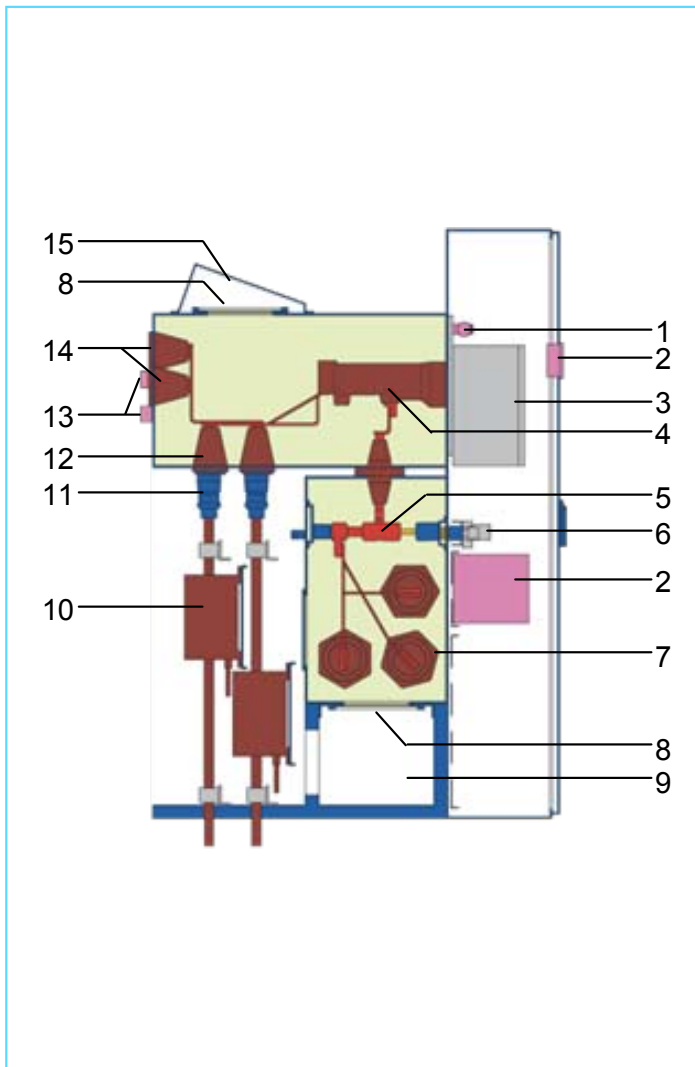
- Modern solution of a conventional switchgear control in ZX
- Integral control, indication and annunciation unit
- Conventional control without active components
- Control via conventional push- buttons and key operated local / remote switch

# Gas-insulated switchgear Type ZX1.2

Single lines of switchgear variants (SBB)



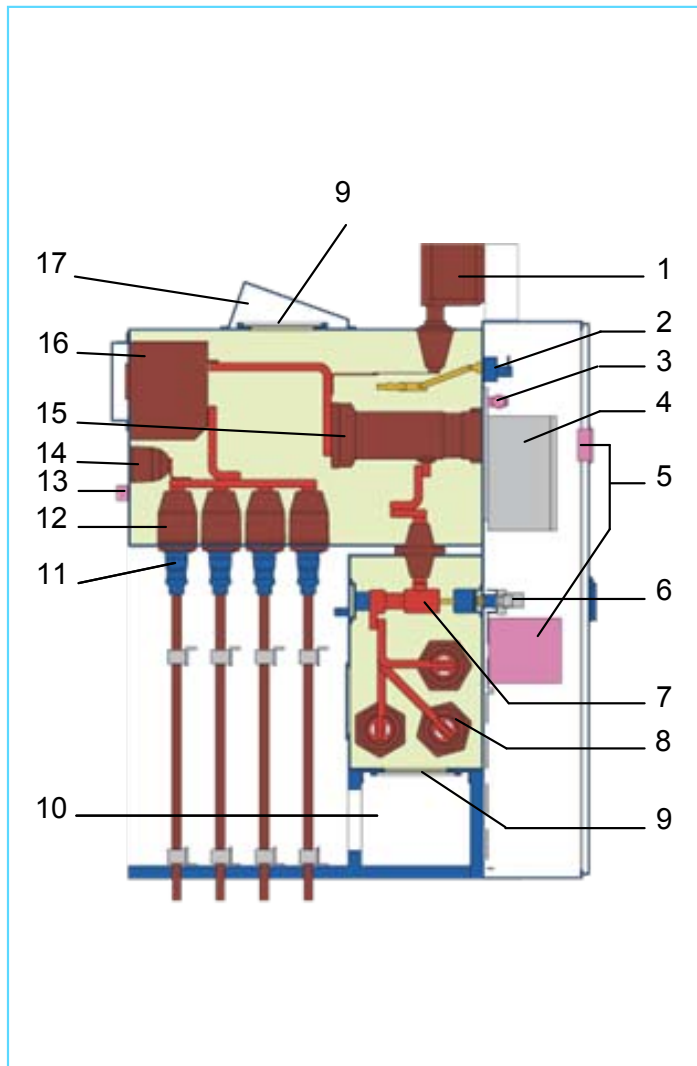
# Gas-insulated switchgear Type ZX1.2



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

- 1 Pressure sensor (temperature-compensated)
  - 2 Multifunction Protection and Switchgear Control unit
  - 3 Circuit-breaker operating mechanism
  - 4 Circuit-breaker
  - 5 Three position disconnector
  - 6 Three position disconnector operating mechanism
  - 7 Busbars
  - 8 Pressure relief disk
  - 9 Pressure relief duct
  - 10 Current transformer or Rogowski coil
  - 11 Inner cone cable plug
  - 12 Inner cone cable bushing
  - 13 Measuring sockets for capacitive voltage indicator system
  - 14 Test socket
  - 15 Plasma diverter
- SF<sub>6</sub>

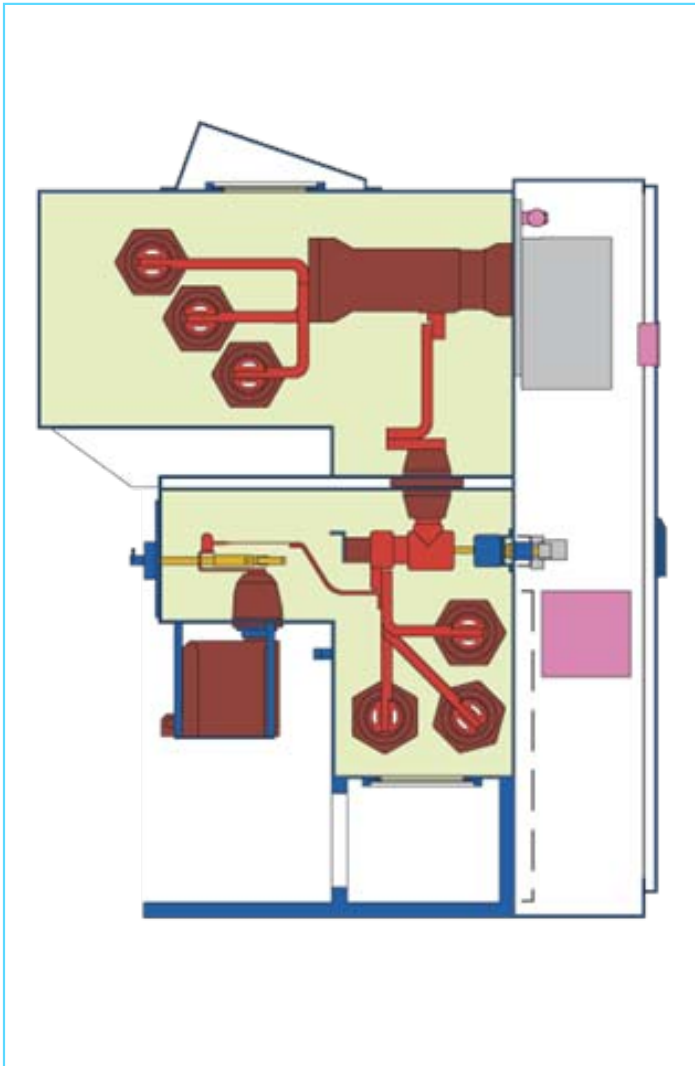
# Gas-insulated switchgear Type ZX1.2



## Feeder 2000 A

- 1 Plug-in voltage transformer
  - 2 Disconnecting device for voltage transformers
  - 3 Density sensor
  - 4 Circuit-breaker operating mechanism
  - 5 Multifunction Protection and Switchgear Control unit
  - 6 Three position disconnector operating mechanism
  - 7 Three position disconnector
  - 8 Busbar
  - 9 Pressure relief disk
  - 10 Pressure relief duct
  - 12 Cable socket
  - 13 Measuring sockets for capacitive voltage indicator system
  - 14 Test socket
  - 15 Circuit-breaker
  - 16 Combined current and voltage sensor or current transformer
  - 17 Plasma diverter
- SF<sub>6</sub>

# Gas-insulated switchgear Type ZX1.2

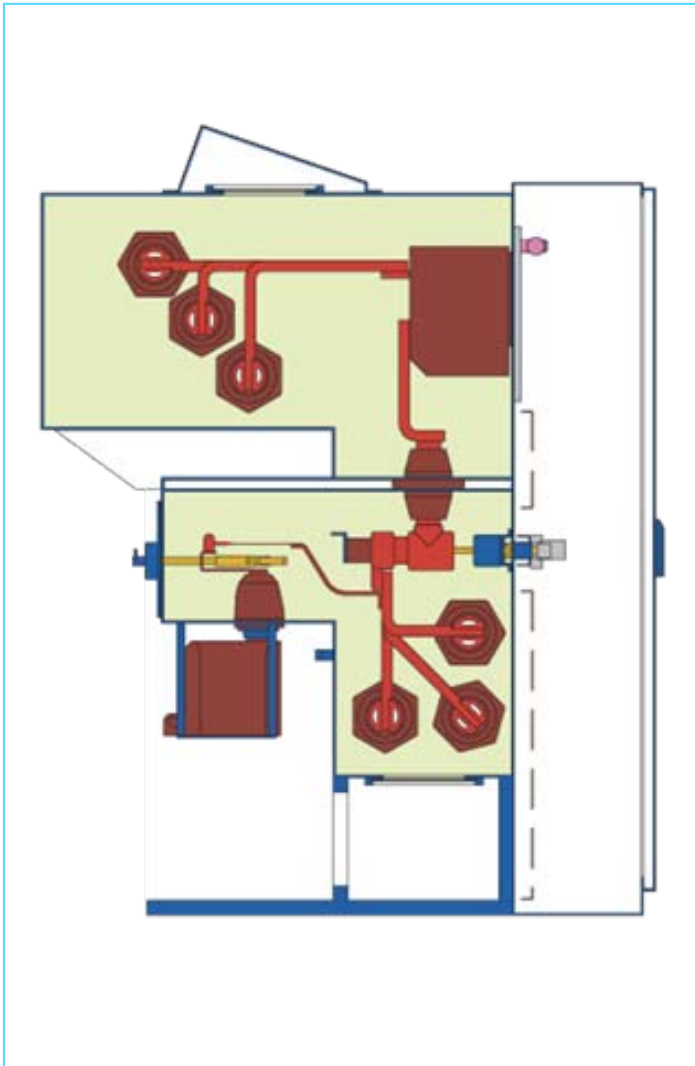


Bus sectionalizer 2000 A

with option

- Integrated voltage metering

# Gas-insulated switchgear Type ZX1.2

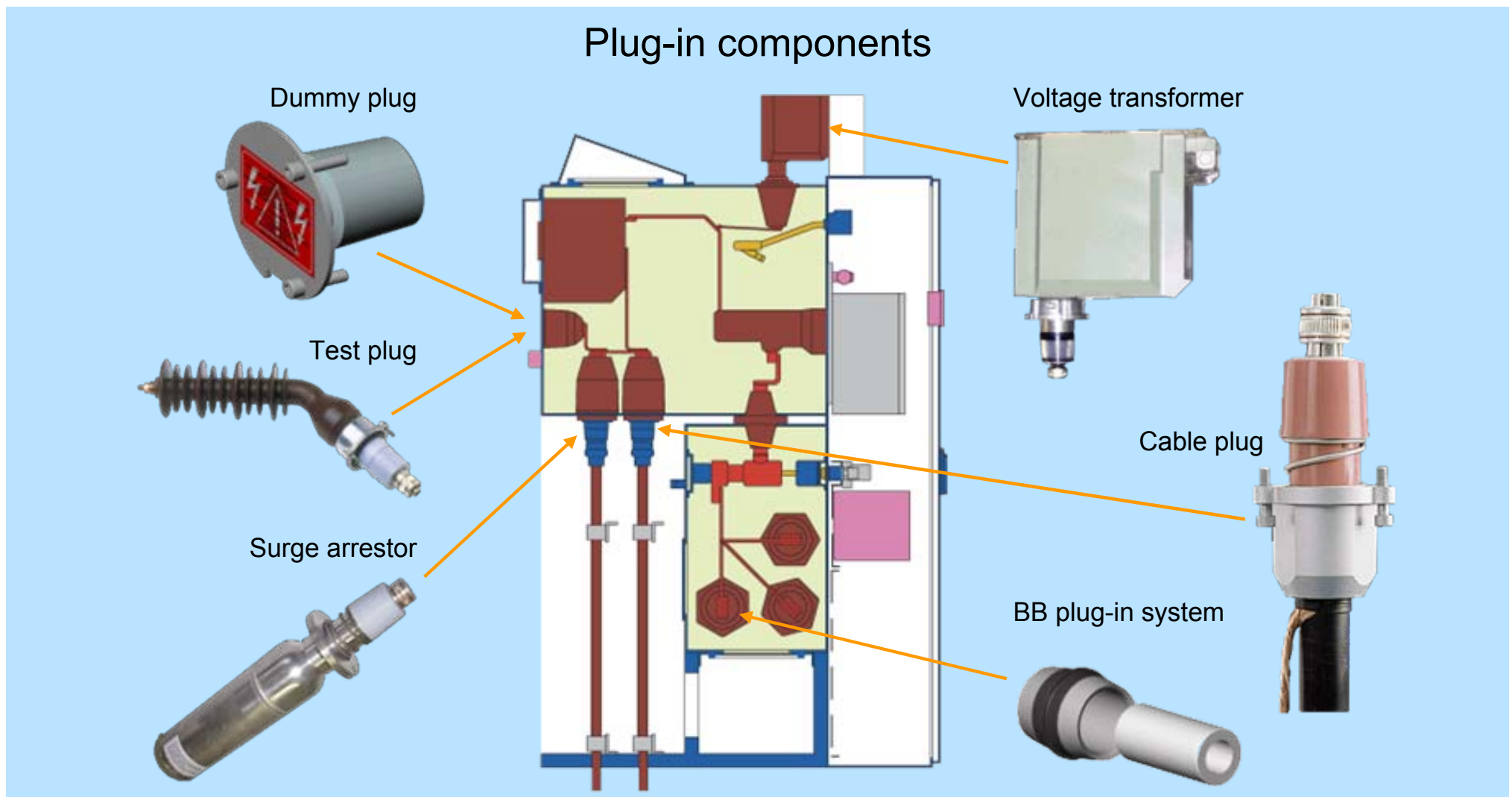


Bus riser 2000 A

with option

- Integrated voltage metering

# Gas-insulated switchgear Type ZX1.2



# Gas-insulated switchgear Type ZX1.2



## 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

Power and productivity  
for a better world™

