Gas-insulated switchgear
Type ZX2
Gas-insulated switchgear

Medium voltage switchgear

**Type ZX2**

Single or double busbar systems
- 12 kV, ...2500 A, ...40 kA
- 24 kV, ...2500 A, ...40 kA
- 36 kV, ...2500 A, ...40 kA
Gas-insulated switchgear

Medium voltage switchgear

Type ZX2

With IAC classification
AFLR 40 kA 1s

<table>
<thead>
<tr>
<th></th>
<th>12</th>
<th>24</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated current of busbars</td>
<td>A</td>
<td>.2500</td>
<td>.2500</td>
</tr>
<tr>
<td>Rated current of tee-offs</td>
<td>A</td>
<td>.2500</td>
<td>.2500</td>
</tr>
<tr>
<td>Rated short-circuit breaking current</td>
<td>kA</td>
<td>.40</td>
<td>.40</td>
</tr>
<tr>
<td>Insulating gas</td>
<td>SF₆</td>
<td>SF₆</td>
<td>SF₆</td>
</tr>
<tr>
<td>Width a</td>
<td>mm</td>
<td>600/800/840</td>
<td>600/800/840</td>
</tr>
<tr>
<td>Heigth b</td>
<td>mm</td>
<td>2300</td>
<td></td>
</tr>
<tr>
<td>Depth c</td>
<td>mm</td>
<td>1860 (with a 500 mm deep LV compartment)</td>
<td></td>
</tr>
</tbody>
</table>

1) Higher values as per international standards on request
2) Insulating gas: sulphur hexafluoride (SF₆)
3) Rated feeder current above 1250 A up to 2000 A
4) Rated feeder current 2500 A
5) Double feeder panel up to 25 kA, 2 x 630 A
Gas-insulated switchgear

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. Dummy plug
10. Combined current sensor with socket
11. Pressure relief disk
12. Pressure relief duct
13. Circuit-breaker
14. Measuring sockets for capacitive voltage indicator system
15. Busbars

\( \text{SF}_6 \)
Gas-insulated switchgear

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

Type ZX2

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

Single lines of switchgear variants (SBB)

Type ZX2

- Feeder panel
- Cable connection
- Bus sectionalizer in one panel
- BB-metering
Gas-insulated switchgear

Single lines of switchgear variants (DBB) – 1 von 2

Type ZX2

Feeder panel

Bus coupler

Bus sectionalizer
Gas-insulated switchgear
Single lines of switchgear variants (DBB) – 2 von 2

Type ZX2

Bus section w/o circuit-breaker

BB-metering
Gas-insulated switchgear
Doppelsammelschienenfeld für 2000 A

Type ZX2
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
**Gas-insulated switchgear**

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

**Type ZX2**

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 disconnector
12. Busbars

SF₆
Gas-insulated switchgear

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

**Type ZX2**

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
Gas-insulated switchgear

Type ZX2

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

**Type ZX2**

- 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.
Gas-insulated switchgear

Type ZX2 – Plug-in components
Advantages

**Type ZX2**

- 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