UniGear ZS1
Double busbar system – Back to back
Air insulated switchgear for power application

Each panel consists of two single units connected in double busbar arrangement. They can be equipped with circuit-breaker or contactor as well as with all the accessories available for the conventional units of the switchgear. Each panel is provided with a cubicle to take the auxiliary instrumentation, placed in the upper part. There is the possibility to extend the switchgear on both ends without putting out of service the switchgear itself. All the service operations are carried out from the front.

All the significant components are identical to those used for the single and double level units and therefore the same service and maintenance procedures are guaranteed.

**Range**
- ...12 - 17.5 kV, ...4000 A, ...50 kA
- ...24 kV, ...2500 A, ...31.5 kA
- Standard IEC
- Highly customized versions

**Safety**
- Fitted with safety interlocks
- Internal arc classification IAC AFLR
- Classified LSC-2B, PM
- CB racking with closed door

**Flexibility**
- Wide applications
- Vacuum and SF6 circuit-breaker
- Vacuum contactor
- Traditional CT/VT and sensors
- Free-standing solution

**Design includes**
- Protection and control
- Earthing switch
- Bay computer

**Quality**
- ABB quality
- Large installed base
- Installed in high number of Countries
### Technical data

<table>
<thead>
<tr>
<th>Switchgear</th>
<th>UniGear 12</th>
<th>UniGear 17.5</th>
<th>UniGear 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of construction - Internal Arc Classification</td>
<td>IAC AFLR</td>
<td>IAC AFLR</td>
<td>IAC AFLR</td>
</tr>
<tr>
<td>Rated voltage [kV]</td>
<td>12</td>
<td>17.5</td>
<td>24</td>
</tr>
<tr>
<td>Insulation levels / power frequency / lightning impulse [kV]</td>
<td>12 / 28 / 75</td>
<td>17.5 / 38 / 95</td>
<td>24 / 50 / 125</td>
</tr>
<tr>
<td>Rated frequency [Hz]</td>
<td>50-60</td>
<td>50-60</td>
<td>50-60</td>
</tr>
<tr>
<td>Rated main busbar current (40 °C) [A]</td>
<td>... 4000 *)</td>
<td>... 4000 *)</td>
<td>... 2500</td>
</tr>
<tr>
<td>Rated feeder current (40 °C) [A]</td>
<td>... 4000 *)</td>
<td>... 4000 *)</td>
<td>... 2500</td>
</tr>
<tr>
<td>Rated short-time current [kA x 3 s]</td>
<td>... 50</td>
<td>... 50</td>
<td>... 31.5</td>
</tr>
<tr>
<td>Arc proof withstand current (IEC 62271-200) [kA x 1 s]</td>
<td>... 40</td>
<td>... 40</td>
<td>... 31.5</td>
</tr>
<tr>
<td>Arc proof withstand current (IEC 62271-200) [kA x 0.5 s]</td>
<td>... 50</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Tested according to</td>
<td>IEC</td>
<td>IEC</td>
<td>IEC</td>
</tr>
<tr>
<td>Overall dimensions of the basic cubicle</td>
<td>H [mm] 2200 ... 2533 **)</td>
<td>2200 ... 2533 **)</td>
<td>2400 ... 2733 **)</td>
</tr>
<tr>
<td></td>
<td>W [mm] 650 / 800 / 1000 ***)</td>
<td>650 / 800 / 1000 ***)</td>
<td>800 / 1000 ***)</td>
</tr>
<tr>
<td></td>
<td>D [mm] 2680</td>
<td>2680</td>
<td>3085</td>
</tr>
</tbody>
</table>

*) In case of Longitudinal Bus-tie only up to 2500 A
**) Height with gas duct
***) Depending on rating of nominal current

### Single-line diagram of typical units

#### Typical feeder unit

- A: Low voltage compartment
- B: Busbars 1
- B*: Busbars 2
- C: Circuit-breaker compartment
- D: Cable compartment
- E: Gas duct channel

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