

UniGear ZS1

Air-insulated switchgear for power application



UniGear ZS1 is the ABB mainline global switchgear for primary distribution up to 24 kV, 4 000 A, 63 kA.

The switchgear is manufactured worldwide and there are more than 500 000 panels currently installed.

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UniGear ZS1

UniGear ZS1 is used to distribute electric power in a variety of demanding applications such as on off-shore platforms, in container or cruise ships, in mines as well as in utility substations, power plants or chemical plants.

UniGear ZS1 is available as a single busbar, double busbar, back to back or double level solution.

Features

- Standards: IEC, CSA, GOST, GB/DL
- Design: LSC-2B, PM
- Accessibility type: A
- Internal arc class: FLR
- Highly customized versions available
- Switchgear can be back to wall installed

Safety

- Fully type tested according to IEC 62271-200
- Fitted with safety interlocks
- Circuit breaker racking with closed doors

Switching devices

- Vacuum circuit breaker with spring actuator
- Vacuum circuit breaker with magnetic actuator
- SF6 circuit breaker with spring actuator
- Vacuum contactor
- Switch disconnecter

Current and voltage measurement

- Current and voltage sensors
- Conventional current and voltage instrument transformers

Protection and control

- Relion® protection and control relays

Optionally available with

- Optical arc fault protection
- Ultra Fast Earthing Switch UFES
- Surge arresters
- Is-limiter, advanced fault current limiter
- Substation management unit COM600S
- Smart Asset Management solutions

Switchgear		12 kV	17.5 kV	24 kV
Internal Arc Classification (IAC)		AFLR	AFLR	AFLR
Rated voltage	[kV]	12	17.5	24
Insulation levels / power frequency / lightning impulse	[kV]	12 / 28 / 75	17.5 / 38 ⁴⁾ / 95	24 / 50 / 125
Rated frequency	[Hz]	50 / 60	50 / 60	50 / 60
Rated main busbar current (40°C)	[A]	...4 000	...4 000	...3 150
Rated feeder current (40°C)	[A]	...4 000	...4 000	...3 150
Rated short-time current	[kA x 3 s]	...50	...50	...31.5
Rated short-time current	[kA x 1 s]	63	63	
Arc proof withstand current (IEC 62271-200)	[kA x 1 s]	...50	...50	...31.5
Arc proof withstand current (IEC 62271-200)	[kA x 0.5 s]	63	63	
Height	[mm]	2 200 ... 2 696 ¹⁾	2 200 ... 2 696 ¹⁾	2 325 ... 2 733 ¹⁾
Width	[mm]	650 / 800 / 1 000 ²⁾	650 / 800 / 1 000 ²⁾	800 / 1 000 ²⁾
Depth	[mm]	1 340 / 1 390 ³⁾	1 340 / 1 390 ³⁾	1 700
Technical catalog		1VCP000138	1VCP000138	1VCP000138

1) With installed gas exhaust duct

2) Depending on rated feeder current

3) 2 089 – 2 154 mm for 63 kA

4) 42 kV (63 kA version; GB/DL)

Note: 1 250 A - 40 kA available at 650 mm panel

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