

Air-insulated switchgear type ZS8



ABB

Air-insulated switchgear type ZS8



**Metal-enclosed, cubicle type,
air-insulated switchgear
type ZS8**

12 kV, ...1250 A, ...25 kA

17.5 kV, ...1250 A, ...20 kA

24 kV, ...1250 A, ...25 kA



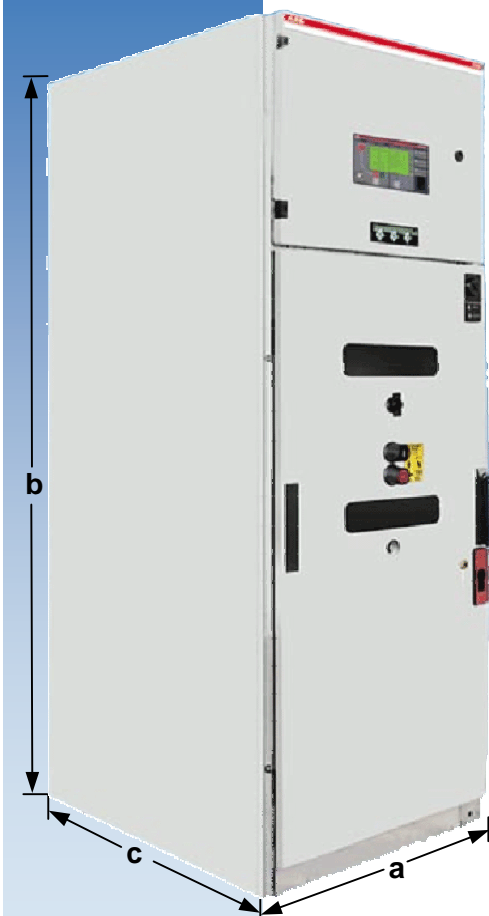
Air-insulated switchgear type ZS8

Metal-enclosed, cubicle type, air-insulated switchgear type ZS8

- 12 kV, ...1250 A, ...25 kA
- 17.5 kV, ...1250 A, ...20 kA
- 24 kV, ...1250 A, ...25 kA



Air-insulated switchgear type ZS8



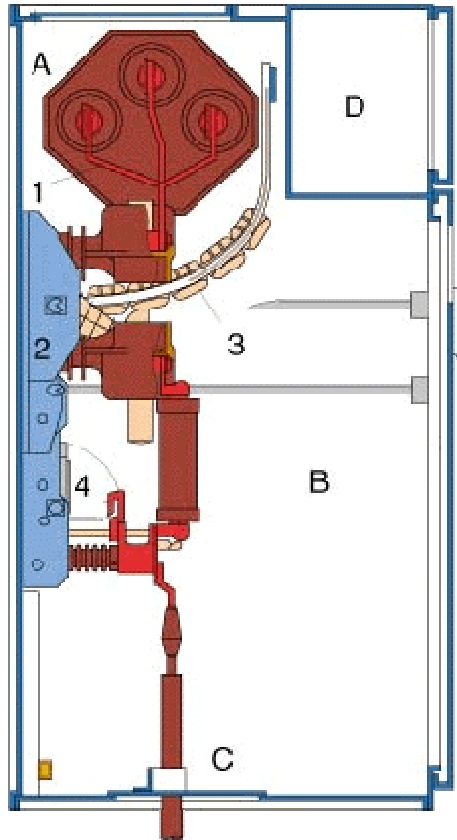
Rated voltage	kV	12	17.5	24	
Rated current, busbars	A	630/1250	630/1250	630/1250	
Rated short time current (3 s)	kA	25	20	16/20/25 ²⁾	
Width	a	mm	600 ¹⁾ /800	650	600/800/900
Height	b	mm	1900	1900	1900
Depth	c	mm	600/800/1000/1200	1000/1200	800/1200

¹⁾ Circuit-breaker panel 650 mm

²⁾ Load break switch panels 16 kA, Circuit-breaker panels 25 kA on request.



Air-insulated switchgear type ZS8



12 kV outgoing feeder panel with rod-type switch- disconnecter C4

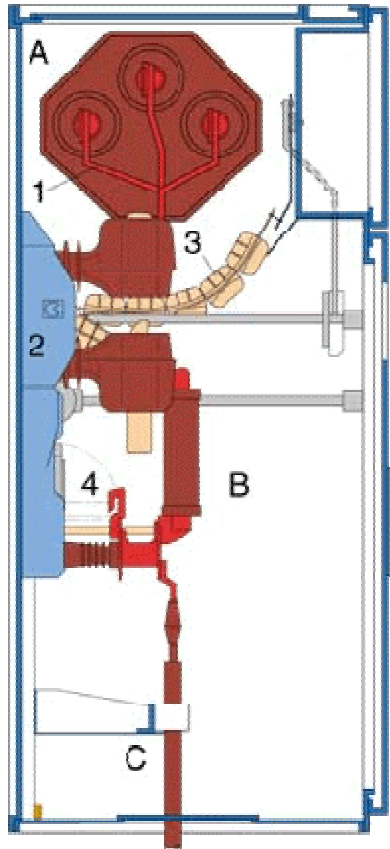
Depth 1000 mm

- A Busbar area
- B Switch-disconnector area
- C Cable termination area
- D Low voltage compartment

- 1 Busbars
- 2 Switch-disconnector type C4
(with fuse extension)
- 3 Automatic sliding plate
- 4 Earthing switch



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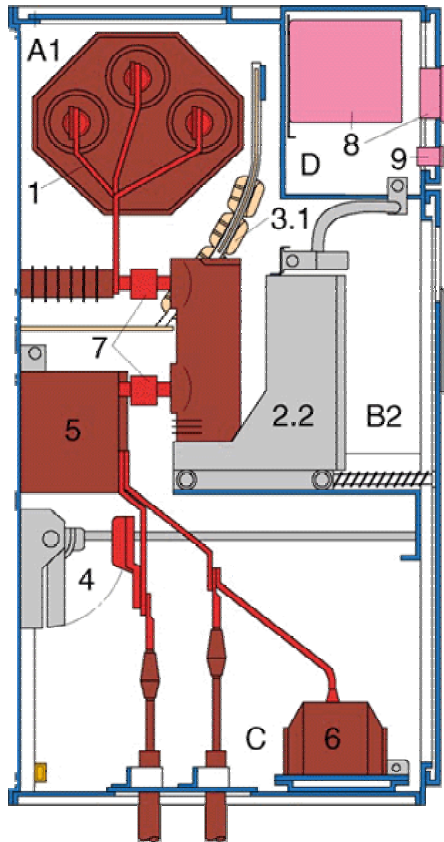
12 kV outgoing feeder panel with rod-type switch- disconnecter C4

Depth 800 mm

- A Busbar area
- B Switch-disconnector area
- C Cable termination area
- 1 Busbars
- 2 Switch-disconnector type C4
with fuse base
- 3 Automatic slide-in plate
- 4 Earthing switch



Air-insulated switchgear type ZS8



12 kV outgoing feeder panel with circuit-breaker VM1/VD4 on withdrawable unit

Depth 1000 mm

A Busbar area

B Circuit-breaker area

C Cable termination area

D Low voltage compartment

1 Busbars

2 Circuit-breaker type VM1 / VD4 (withdrawable)

3 Automatic sliding plate

4 Earthing switch

5 Current transformer

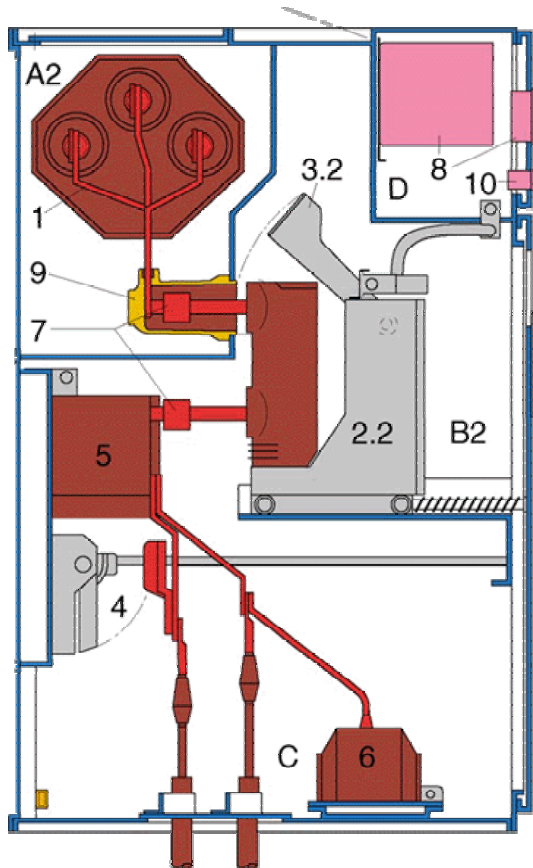
6 Voltage transformer

7 Installation contacts

8 Multifunction protection and switchbay control unit
REF542 *plus*

9 Capacitive divider sockets for
voltage indicating system

Air-insulated switchgear type ZS8



12 kV outgoing feeder panel with circuit-breaker VM1/VD4 on withdrawable unit with tee-off partitioning

Depth 1200 mm

A Busbar compartment

B Circuit-breaker area

C Cable termination area

D Low voltage compartment

1 Busbars

2 Circuit-breaker type VM1 / VD4 (withdrawable)

3 Automatic shutter

4 Earthing switch

5 Current transformer

6 Voltage transformer

7 Installation contacts

8 Multifunction protection and switchbay control unit
REF542 *plus*

9 Isolating tulip/tee-off partition

10 Capacitive divider sockets for voltage indicating system

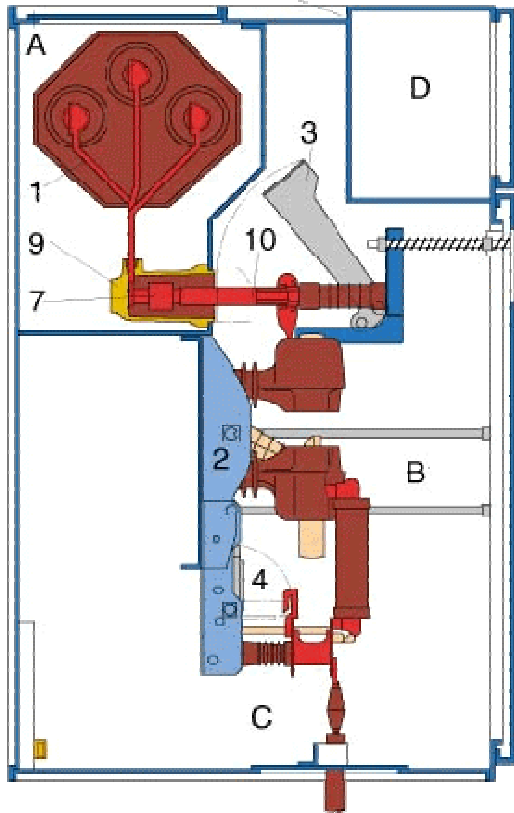
Air-insulated switchgear type ZS8

Outgoing feeder panel with rod-type switch-disconnector C4 with tee-off partitioning

Depth 1200 mm

- A Busbar compartment
- B Switch-disconnector area
- C Cable termination area
- D Low voltage compartment

- 1 Busbars
- 2 Switch-disconnector type C4 (with fuse extension)
- 3 Automatic shutter
- 4 Earthing switch
- 7 Installation contacts
- 9 Insulating-tulip/tee-off partition
- 10 Movable isolating contact



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Panel variants

U _N	I _K	Dimensions			Variants													
		Height	Width	Depth ¹⁾	Range with tee-off partitioning													
kV	kA	mm	mm	mm		VM1/VD4	CK4	CK4	CS4	CS4	CS4	VM1/VD4	CK4	-	EK6	EK6	-	
12	20	1900	600	600			●		●				●	●	●			
		1900	600	800			●		●		●		●	●	●			
		1900	800	800				●		●		●		●	●	●		
	25	1900	650	1000		●	●	●	●			●	●	●	●	●	●	●
		1900	650	1200	●	●		●		●		●	●	●	●	●	●	●
17.5	20	1900	650	1000		●	●		●		●	●	●	●	●	●	●	
		1900	650	1200	●	●					●	●	●	●	●	●	●	
24	16 ²⁾	1900	600	800			●		●				●	●	●			
		1900	800	800			●		●		●		●	●	●			
		1900	900	800			●	●	●		●		●	●	●			
		1900	800	1200		●	●	●	●		●	●	●	●	●	●	●	●
		1900	800	1200	●	●		●		●		●	●	●	●	●	●	●

1) plus 30 mm depth for the doors

2) 25 kA on request



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Technical Data

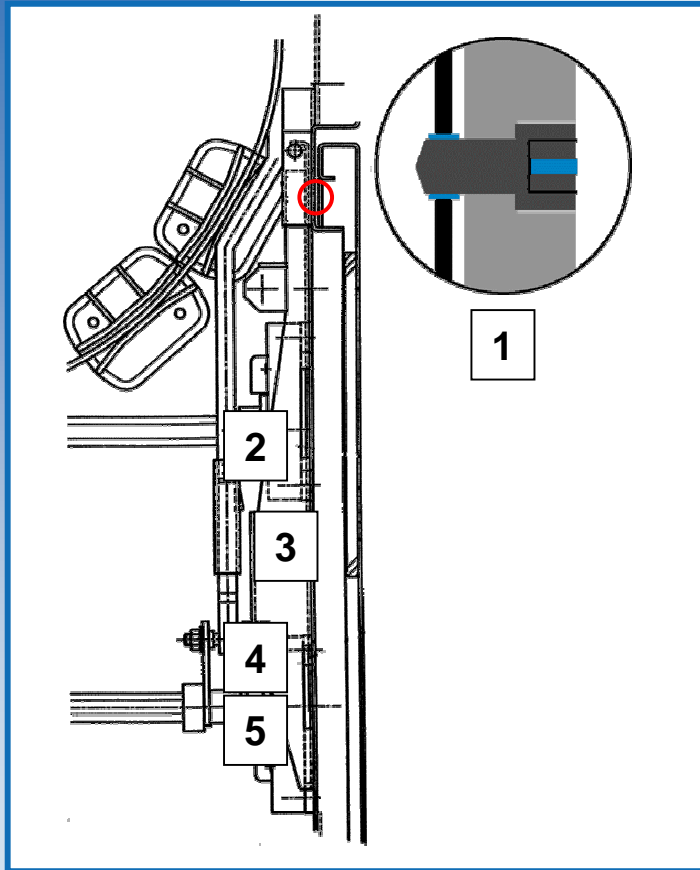
	Switch-disconnector panels up to 800 mm depth		Circuit-breaker panels and corresponding switch-disconnector panels		
Rated voltage	12 kV	24 kV	12 kV	17.5 kV	24 kV
Insulation	VDE/IEC list 2	VDE/IEC list 2	VDE/IEC list 2	VDE/IEC list 2	VDE/IEC list 2
Rated power frequency withstand voltage	28 kV	50 kV	28 kV	38 kV	50 kV
Rated lightning impulse withstand voltage	75 kV	125 kV	75 kV	95 kV	125 kV
Rated current, busbars	630/1250 A	630/1250 A	630/1250 A	630/1250 A	630/1250 A
Rated current, feeder					
Switch-connector panel	630 A	630 A	630 ¹⁾ A	630 ¹⁾ A	630 ²⁾ A
Circuit-breaker panel			630/1000/1250 A	630/1000/1250 A	630/1000/1250 A
Rated short time current (3 s)	25 kA	16 kA	25 kA	20 kA	16/20/25 kA
Rated peak withstand current	63 kA	40 kA	63 kA	50 kA	40/50/63 kA
Site altitude	≤ 1000 m	≤ 1000 m	≤ 1000 m	≤ 1000 m	≤ 1000 m
Ambient temperature					
Maximum	+ 40 °C	+ 40 °C	+ 40 °C	+ 40 °C	+ 40 °C
Maximum 24-hour-average	+ 35 °C	+ 35 °C	+ 35 °C	+ 35 °C	+ 35 °C
Minimum	- 5 °C	- 5 °C	- 5 °C	- 5 °C	- 5 °C

¹⁾ 1000 A available on request

²⁾ 800 A available on request



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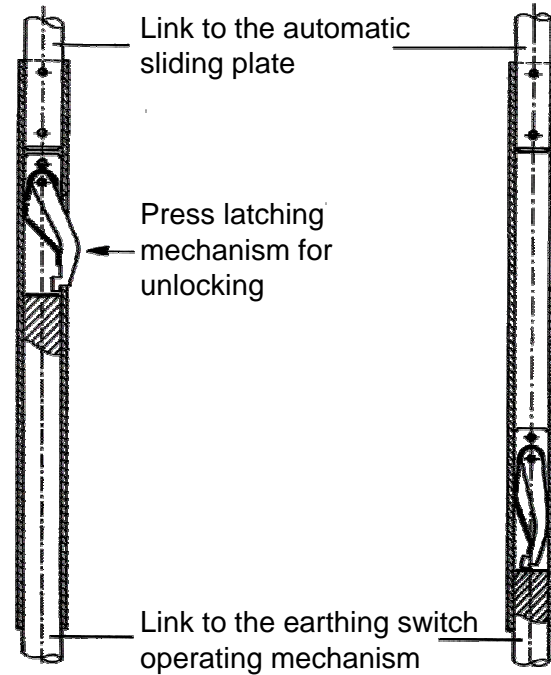
Door emergency interlock

1. Interlocking pin
2. Switch-disconnector operating mechanism
3. Interlocking plate
4. Earthing switch operating mechanism
5. Cam for interlocking plate



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Unlocking of the automatic sliding plate

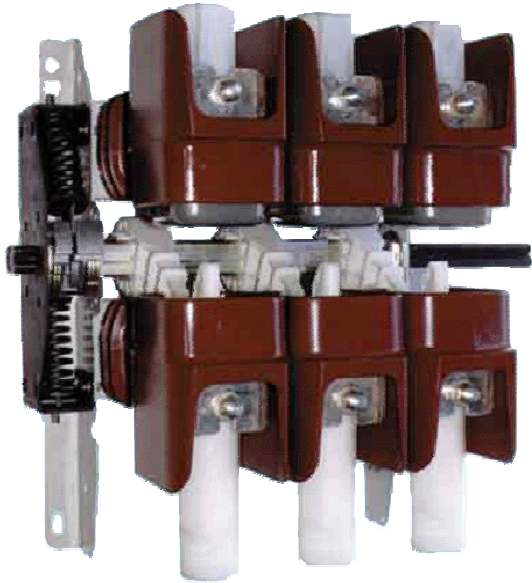


Interlocking
automatic active

Interlocking
automatic inactive



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Switch-disconnector type C4
Basic version

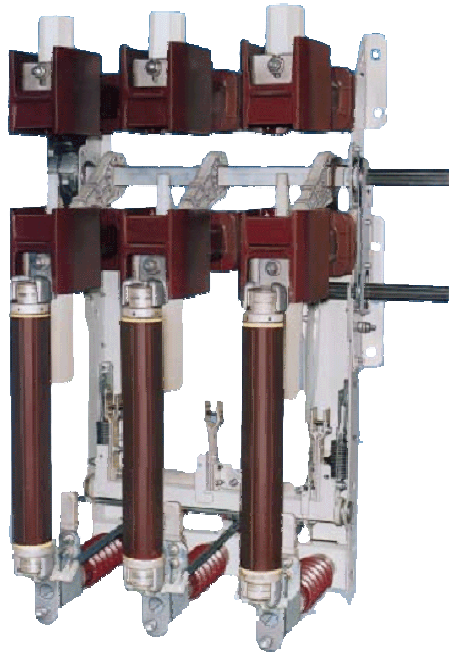
Rated voltage ...24 kV
Rated current ...1250 A

Rod-type switch-disconnectors type C4

- Wide field of application as a general purpose switch in accordance with VDE 0670 parts 301 and 303 and IEC-Publications 60265-1 and 60420
- Maintenance-free for 10 years
- Capable of switching capacitive currents under earth fault conditions
- Compact and space saving design
- Mounting possible in any position
- Suitable for service under severe climatic conditions
- Reliable even after long periods without operation



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Switch-disconnector type C4
with fuse bases and earthing switch

Rated voltage ...24 kV
Rated current ...630 A

Rod-type switch-disconnectors type C4 with fuse bases

- Wide field of application as a general purpose switch in accordance with VDE 0670 parts 301 and 303 and IEC-Publications 60265-1 and 60420
- Maintenance-free for 10 years
- Capable of switching capacitive currents under earth fault conditions
- Compact and space saving design
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Vacuum circuit-breaker
type VM1 on withdrawable part



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Even more advantages for the user

- ZS8 More Safety
 - Intelligent interlocking system comprising panel door and switching devices
 - Integrated insulating plate or shutter
- ZS8 More Flexibility
 - Large range of panel variants that can be changed as required
 - Large range of panel dimensions
 - Protection via conventional transformers or modern sensor technology
 - All standard cable termination types can be installed
- ZS8 Higher Availability
 - Low maintenance switch disconnecter type C4
 - Maintenance-free vacuum-circuit-breakers type VM1
 - Switching of capacitive currents under earthfault conditions



ABB