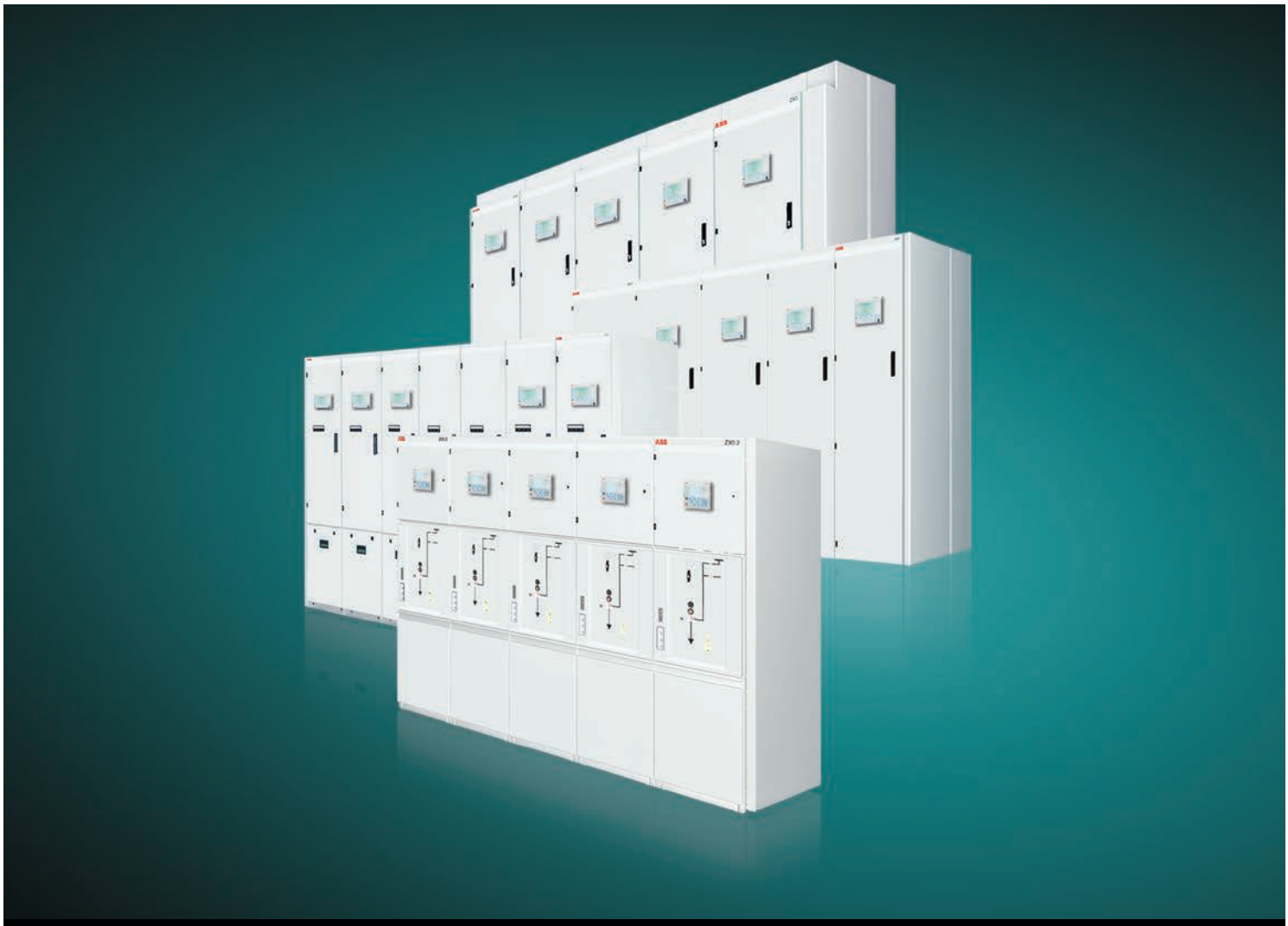
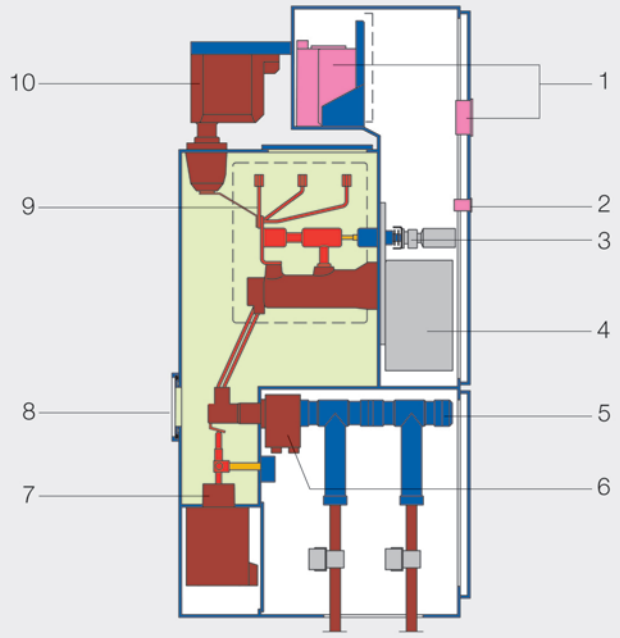


ZX-Family
Gas-insulated medium voltage switchgear

Power and productivity
for a better world™

Your ZX benefit
Minimum overall costs



Circuit-breaker panel 1250 A

ZX offers maximum economy

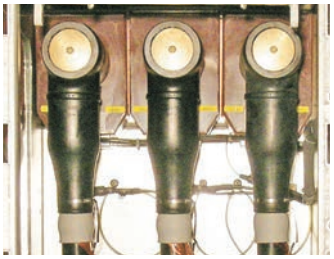
The compact design of the panels reduces the space required and therefore the size of the station. Freedom from maintenance is achieved by constant conditions in the high voltage compartments in conjunction with the selection of suitable materials. As a rule, therefore, isolation of the switchgear to perform maintenance work is not required. The panels are designed for an expected service life of over 40 years. Thanks to the plug-in technology applied in the areas of the busbars, cables and secondary systems, extremely short installation times are possible. No gas work is required as a rule at site.

ZX0 elements at a glance

1 Multifunctional protection and control unit
2 Measuring sockets for capacitive voltage indicator system
3 Three position disconnector
4 Vacuum circuit-breaker
5 Cable connector at outer cone
6 Ring-type current transformer
7 Isolatable voltage transformer – feeder
8 Pressure relief disk
9 Busbars
10 Plug-in voltage transformer – busbar

ZX0

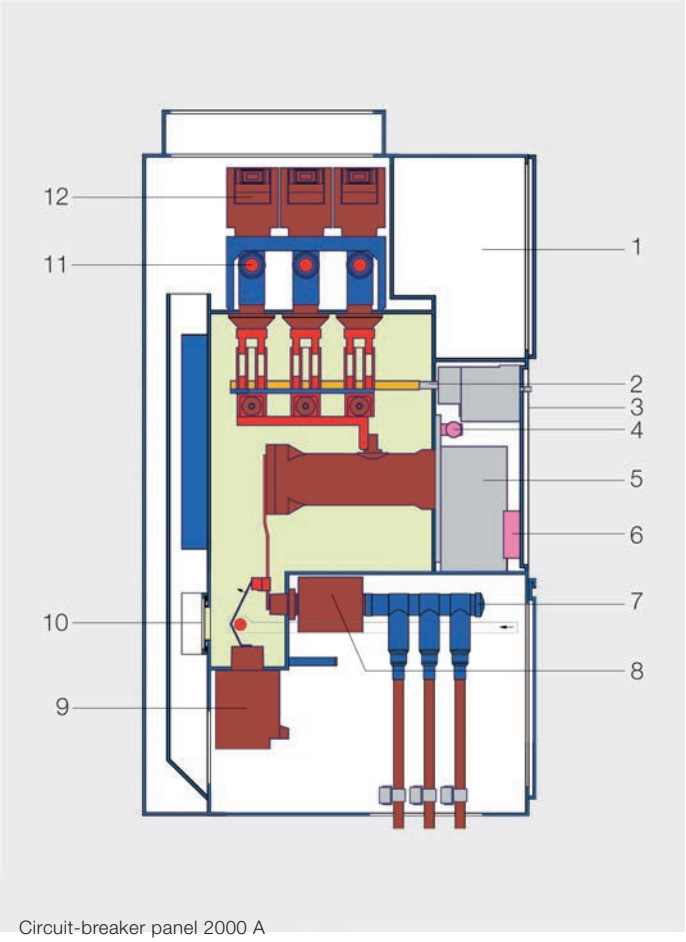
Compact system for distribution applications in block design. Installation against a wall or free-standing in the room. Both local manual operation and remote control are facilitated. Together with vacuum circuit-breakers, there are switch-disconnectors with and without fuses.



Technical data		IEC Ratings	
Rated voltage	kV	12	24
Maximum operating voltage	kV	12	24
Test voltages	kV	28/75	50/125
Rated frequency	Hz	50/60	50/60
Rated busbar current	A	... 1250	... 1250
Rated current of feeder with CB	A	... 1250	... 1250
Rated current of feeder with load break switch	A	... 630	... 630
Rated peak withstand current	kA	... 62.5	... 62.5
Rated short-time current 3 s	kA	... 25	... 25
Internal Arc Classification [1]	Wall installation: IAC AFL 25 kA 1s ; Free-standing installation IAC AFLR 25 kA 1s		

[1] according to VDE 0671 part 200

Your ZX benefit
Durable and reliable



Circuit-breaker panel 2000 A

Sealed gas compartments

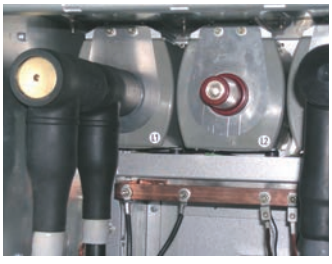
The filling with SF_6 ensures permanently constant ambient conditions. Nevertheless, components such as switching devices or bushings may have to be repaired or possibly replaced. Topping up in the event of a loss of insulating gas can be performed without interrupting operation, and possible shutdowns can therefore be planned. The SF_6 is monitored with temperature compensation, by density sensors with a self-monitoring function. As a result of the closed circuit design, wire breakages and defective plug or terminal connections are signalled as faults.

ZX0.2 elements at a glance

1 Removable low voltage compartment with protection and control unit
2 Three position disconnector
3 Local controls in front of mechanism bay
4 Gas density sensor and filling valve
5 Vacuum circuit-breaker
6 Measuring sockets for capacitive voltage indicator system
7 Cable connector at outer cone
8 Ring-type current transformer
9 Isolatable voltage transformer – feeder
10 Pressure relief disk
11 Solid-insulated busbars
12 Plug-in voltage transformer – busbar

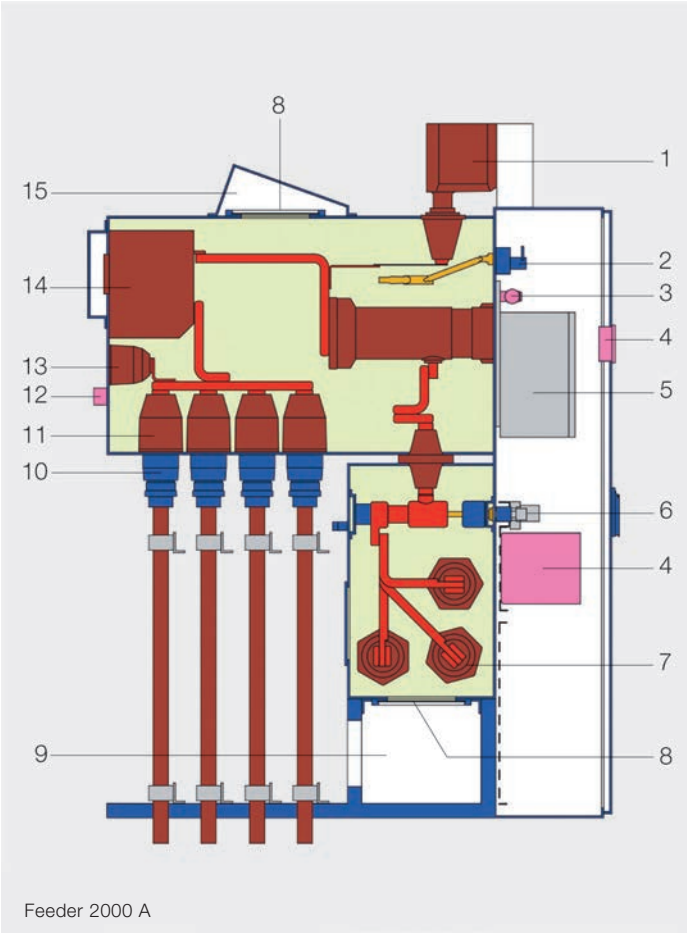
ZX0.2

Metal-enclosed single busbar system for transformer and distribution switchgear in individual panel design. Installation against a wall or free-standing in the room. All systems have mechanical controls for local operation, but can also be remote controlled with optional motorized mechanisms for the three position disconnectors. Together with vacuum circuit-breakers, ZX0.2 also offers three position switch disconnector and fuse combinations (up to 24 kV).



Tecnical data		IEC Ratings							
Rated voltage	kV	12		24		36			
Maximum operating voltage	kV	12		24		36			
Test voltages	kV	28/75		50/125		70/170			
Rated frequency	Hz	50/60		50/60		50/60			
Rated current of busbars	A	... 1250 ... 2500		... 1250 ... 2500		... 1250 ... 2500			
Rated current of tee-off with circuit-breaker	A	... 630	... 1250 ... 2500	... 630	... 1250 ... 2500	... 1250 ... 2500			
Rated current of tee-off with switch-disconnector and fuses	A	... 100		... 63		-			
Rated peak withstand current for circuit-breaker	kA	... 62.5	... 80	... 62.5	... 80	... 80			
Rated short-time current 3 s for circuit-breaker	kA	... 25	... 31.5	... 25	... 31.5	... 31.5			
Internal Arc Classification [1]	Wall installation: IAC AFL 31.5 kA 1s ; Free-standing installation IAC AFLR 31.5 kA 1s								
[1] according to VDE 0671 part 200	Pressure relief in the switchroom or via duct to the outside								

Your ZX benefit
Safety first



Feeder 2000 A

ZX ensures maximum operator safety

All live components are enclosed to prevent accidental contact. As the high voltage compartments are independent of external influences (degree of protection IP65), the probability of a fault during operation is extremely low. As evidenced by arc fault testing, our switchgear systems are notable for maximum operator safety. A further enhancement can be achieved by providing pressure relief to outside the switchgear room.

Main components of ZX1.2

1 Plug-in voltage transformer – feeder
2 Isolating system for voltage transformer
3 Gas density sensor and filling valve
4 Multifunctional protection and control unit
5 Vacuum circuit-breaker
6 Three position disconnector
7 Busbars
8 Pressure relief disk
9 Pressure relief duct
10 Inner cone cable connector
11 Cable socket
12 Measuring sockets for capacitive voltage indicator system
13 Test socket
14 Current transformer or combined current and voltage sensor
15 Plasma diverter

ZX1.2

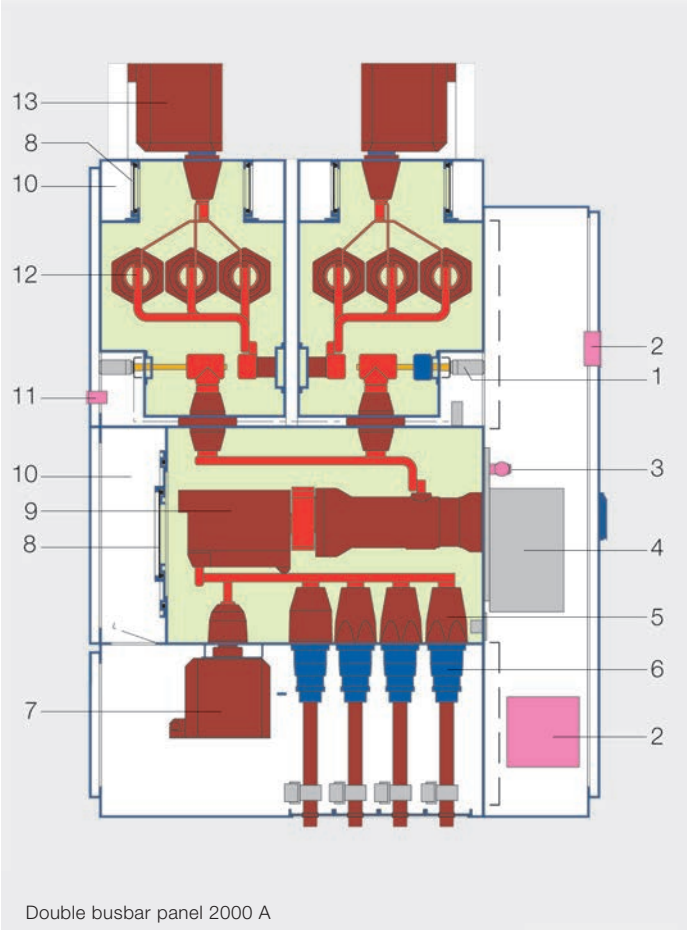
Metal partitioned single busbar system for transformer and distribution substations with raised cable terminations for ultra-simple cable installation from the rear. All switching devices can be remote controlled and optionally mechanically interlocked.

Technical data		IEC Ratings					Special Ratings
Rated voltage	kV	12		24		36	
Maximum operating voltage	kV	12		24		36	40.5
Test voltages	kV	28/75		50/125		70/170	85/185
Rated frequency	Hz	50/60		50/60		50/60	50/60
Rated busbar current	A	... 1250 ... 2500		... 1250 ... 2500		... 1250 ... 2500	... 1250 ... 2500
Rated current of feeder	A	... 630	...1250 ... 2500	... 630	...1250 ... 2500	... 1250 ... 2500	... 1250 ... 2500
Rated peak withstand current	kA	... 62.5	... 80	... 62.5	... 80	... 80	... 80
Rated short-time current 3 s	kA	... 25	... 31.5	... 25	... 31.5	... 31.5	... 31.5
Internal Arc Classification [1]	with plasma diverter IAC AFL 31.5 kA 1s ; with plasma absorber and duct IAC AFLR 31.5 kA 1s						

[1] according to VDE 0671 part 200

Pressure relief in the switchroom or via duct to the outside

Your ZX benefit
Maximum availability



Double busbar panel 2000 A

Easy, simple and fast

The busbar technology permits simple and therefore safe assembly. In spite of the extremely low failure probability of the ZX switchgear systems, replacement of components in the gas compartments and therefore a rapid return to service after repairs is possible.
In gas-insulated switchgear, earthing of switchgear sections is performed by a high quality vacuum circuit-breaker. The circuit-breaker can close onto a short-circuit significantly more frequently and reliably than a positively making earthing switch.

ZX2 key elements

1 Three position disconnector
2 Multifunctional protection and control unit
3 Gas density sensor and filling valve
4 Vacuum circuit-breaker
5 Cable socket
6 Inner cone cable connector
7 Plug-in voltage transformer – feeder
8 Pressure relief disk
9 Current transformer or combined current and voltage sensor
10 Pressure relief duct
11 Measuring sockets for capacitive voltage indicator system
12 Busbars
13 Plug-in voltage transformer – busbar

ZX2

Metal partitioned single or double busbar system for all applications – even with the highest parameters. Cables accessible from the rear. All switching devices can be remote controlled and optionally mechanically interlocked. Both combined protection and control devices and pure protection devices are used.

Technical data		IEC Ratings						Special Ratings
Rated voltage	kV	12		24		36		
Maximum operating voltage	kV	12		24		36		42
Test voltages	kV	28/75		50/125		70/170		85/200
Rated frequency	Hz	50/60		50/60		50/60		50/60
Rated busbar current [2]	A	... 1250 ... 2500		... 1250 ... 2500		... 1250 ... 2500		... 1250 ... 2500
Rated current of feeder	A	... 630	...1250 ... 2500	... 630	...1250 ... 2500	... 1250 ... 2500		... 1250 ... 2500
Rated peak withstand current	kA	... 62.5	... 100	... 62.5	... 100	... 100		... 100
Rated short-time current 3 s	kA	... 25	... 40	... 25	... 40	... 40		... 40
Internal Arc Classification [1]	IAC AFLR 40 kA 1s							
[1] according to VDE 0671 part 200	Pressure relief via duct in the switchroom or to the outside							

[2] Single busbar systems up to 4000 A on request

Contact

This product contains Sulphur hexafluoride (SF_6).
SF_6 is a fluorinated greenhouse gas with a GWP of 22800.
The maximum quantity per panel or per block of panels is 18 kg, devided into maximally four gas compartments.
That corresponds to a CO_2 equivalent of 410 t.
Each compartment has a gas leakage monitor, and therefore regular leakage testing (to Fluorinated Gas Regulation 517/2014) is not required.

Your sales contact: www.abb.com/contacts
More product information: www.abb.com/productguide

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