

MEDIUM VOLTAGE PRODUCTS

SafeRing Air 12kV

Eco-efficient ring main unit



The SafeRing Air is a gas insulated ring main unit (RMU) with dry air as insulation medium:

The eco-efficient solution for ring-cable networks up to 12kV.

As alternative to SF₆, SafeRing Air helps users with a green focus to reduce the climate impact of their distribution grid:

- Global Warming Potential (GWP) of 0
- No SF₆ regulations - today and in the future
- Same compactness as SafeRing with SF₆
- True GIS - independent from ambient air

Independent from ambient conditions

SafeRing Air is a true GIS switchgear with a sealed stainless steel gas tank containing all live parts and switching functions.

Safe, reliable and maintenance-free

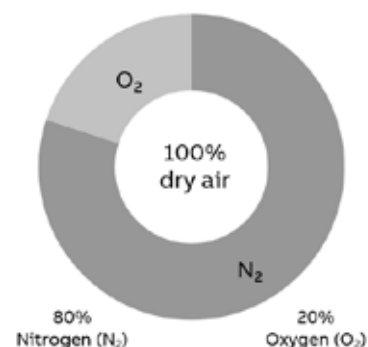
The constant gas conditions in the encapsulation ensure a high level of reliability as well as personnel safety and a virtually maintenance-free system.

Known SafeRing compactness

Like the proven SafeRing with SF₆ insulation, the SafeRing Air is the most compact solution on the market - ideal for utility, CSS, light industry and building applications up to 12kV.

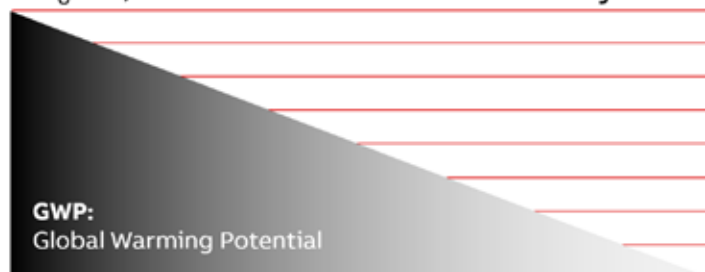
Eco-efficient with 100% dry air

The SafeRing Air completely avoids the use of SF₆, and is the ideal solution for customers with a green focus. This avoids any actions and costs related to the regulations for SF₆ - now and in the future!



SF₆: 22,800

Dry Air: 0



Technical Data		Switch	Earthing switch/disconnector	Vacuum circuit-breaker	Earthing switch/disconnector
SafeRing Air					
Rated voltage	kV	12	12	12	12
Power frequency withstand voltage	kV	28	28	28	28
Impuls withstand voltage	kV	75	75	75	75
Rated normal current	A	630		630	
Breaking capacities					
- active load	A	630		630	
- closed loop	A	630			
- off load cable charging	A	10		25	
- earth fault	A	200			
- earth fault cable charging	A	115			
- short-circuit breaking current	kA			20	
- single capacitor bank breaking current	A	135			
Making capacity	kA	50	50	50	50
Short time current 3 sec.	kA	20	20	20	20

Modules & configurations

SafeRing Air is available in 18 different standard configurations of C-, V- and direct connection D-modules.

- V-module for transformer protection**
 The transformer is protected by a vacuum circuit-breaker combined with a relay and current transformers. The standard relays do not require an external power supply.
- C-module for ring cable connection**
 Also the cable-connection module uses vacuum technology for switching, in series with an earthing switch/disconnector.

Available configurations

CC, CCC, CCCC, CCCCC, DC, DCC, DCCC, DCCCC, DV, DVV, DVVV, DVVVV, CV, CCV, CCVV, CCVVV, CCCVV, CCVVV

Width of the units

Unit	A (mm)
2-way	696
3-way	1021
4-way	1346
5-way	1671

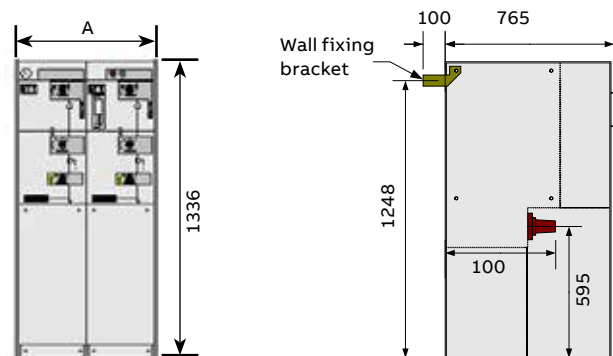
Standard features

- Operating mechanisms with integral mechanical interlocking
- Facilities for padlocking on switch functions
- Manometer for pressure monitoring
- Lifting lug for easy handling

Additional features

- Arc suppressor
- Motor operation
- Capacitive voltage indication
- Auxiliary switches & trip coils
- Short-circuit indicator
- Cable covers interlocked / arc-proof
- Extra base frame (290 or 450 mm height)

Technical drawings



More information required? Configurations or features missing?

SafeRing Air is our eco-efficient RMU for standard configurations. For higher requirements or other configurations, SafePlus Air is the more flexible eco-efficient switchgear solution up to 12kV. Please contact your local ABB for more information on SafeRing Air and SafePlus Air products.