

DISTRIBUTION SOLUTIONS

PrimeGear ZX2

SF6-free gas-insulated switchgear
for primary distribution



Product scope

- Rated voltage up to 24 kV
- Rated normal current up to 2500 A
- Rated short-time withstand current up to 40 kA
- Internal arc classified IAC AFL(R) 40kA 1s
- Indoor applications

PrimeGear ZX2 is part of ABB's medium voltage gas-insulated indoor switchgear portfolio for primary distribution. PrimeGear ZX2 distributes electric power safely and reliably in a variety of demanding applications within the utilities and industrial markets. It is fully compliant with the relevant IEC standards and the EU F-gas regulation (EU) 2024/573.

A compact switchgear with advanced technical parameters and ratings built as a single busbar low-pressure design, PrimeGear ZX2 is based on natural origin gases and is sulfur hexafluoride (SF6) free.

PrimeGear ZX2 will be available for commercialization in early 2025.

PrimeGear ZX2

Customer benefits

01



Compliant with IEC standards and F-gas regulation

- Compliant with IEC standards and with the EU F-gas regulation (EU) 2024/573.
- High ratings up to 2500A. Single busbar modular and compact low-pressure design, based on natural origin gases (SF6 free).
- Loss of service continuity LSC 2A and partition class PM*.

02



Reliable and flexible

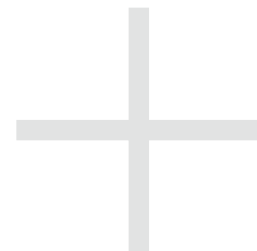
- Compact and modular design for space optimization.
- Very low maintenance required as all high voltage parts are permanently sealed in a gas tank and protected from soiling, humidity, foreign bodies, and other environmental influences.
- Due to the low-pressure design, the switchgear can remain in service up to the point of repair, even in the unlikely event of a leak.
- The switchgear can be enabled with monitoring and diagnostics (e.g., temperature, gas, partial discharge) to track asset health. Automation and control features based on current and voltage sensors and IEC 61850 protocol allow for customization during the manufacturing phase and varying loads during operations.
- Well known and proven vacuum circuit breaker type VD4X.
- Outer cone cable termination system.

03



Safety

- High level of operator safety with front, lateral and rear arc protection, certified AFL(R) 40kA 1s (according to IEC 62271-200).
- Plug-in busbar technology and the factory-assembled pressure relief duct allows for safe, quick and easy installation at site.
- With the switchgear diagram and operation controls on the front panel, no opening of the doors is required for manual operation making the switchgear operator friendly.
- Wide range of monitoring and diagnostic features for safe and reliable operations. All switching devices are motor-operated and can be controlled remotely.
- Mechanical and electrical interlocks prevent incorrect operation of the switchgear panels.



*Partition class: partition of metal

Switchgear		12 kV	17.5 kV	24 kV
Internal Arc Classification (IAC)		AFL R	AFL R	AFL R
Rated voltage	[kV]	12	17.5	24
Insulation levels / power frequency / lightning impulse	[kV]	12 / 28 / 75	17.5 / 38) / 95	24 / 50 / 125
Rated frequency	[Hz]	50 / 60 **	50 / 60 **	50 / 60 **
Rated main busbar current (40°C)	[A]	...2 500	...2 500	...2 500
Rated feeder current (40°C)	[A]	...2 500	...2 500	...2 500
Rated short-time current	[kA x 3 s]	...40	...40	...40
Arc proof withstand current (IEC 62271-200)	[kA x 1 s]	...40	...40	...40
Height	[mm]	2 280	2 280	2 280
Width	[mm]		600 / 850 / 1 000	
Depth	[mm]		1 750 / 2 115	
Insulating gas		natural origin gases (GWP<1)		
Rated filling pressure	[kPa]		150 abs	

**60 Hz is available on request.

—
PrimeGear ZX2

