

## ZN1

# 12 kV arc-proof air-insulated switchgear for primary distribution

The ABB ZN1 primary distribution switchgear is designed to meet the specific needs of the Indian market, with key features such as a compact construction, low maintenance design and an internal arc withstand current rating of 26.3 kA for 1 second that is unique in this sector. The ZN1 range provides an access to the quality, reliability, safety, performance and high level of technical support associated with ABB's global brand.



### Features

- Switchgear conforms to IEC 62271-200
- Designed for classification LSC2B - PM
- Designed for fast and easy installation
- Constructed using aluminium zinc coated steel and pre-galvanised sheets making it a highly reliable switchgear
- Extensible on both sides
- Encapsulated PTs with built in fuses
- Cable termination height of 600 mm
- Factory assembled integral gas duct
- Simple maintenance
- Compact and space saving solution with reduced footprints
- Fitted with conventional instrument transformers
- Can be offered with ABB's REF601, REJ601 and other numerical relays for intelligent protection solutions

### VInd - Vacuum Circuit Breaker

- Conforms to IEC 62271-100
- Floor rolling circuit breaker
- Continuous rated closing and tripping coils
- Modular circuit breaker mechanism for fast and easy maintenance
- Integral spring charging handle
- Suitable for E2, M2 & C2 (single capacitor bank) class applications
- In-built mechanical anti-pumping device

### Safety

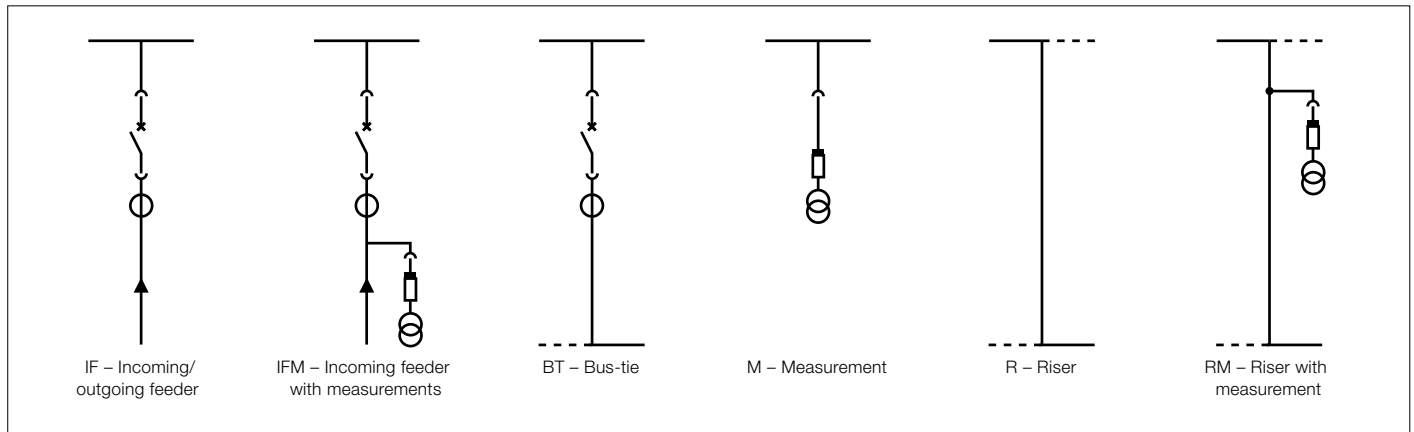
- Internal arc-proof construction conforming to the classification IAC AFLR up to 26.3kA, 1 sec
- Closed door rack-in and rack-out of circuit breaker ensuring full safety to the operating personnel
- Fitted with standard safety interlocks
- Provisions of padlocks on shutter, circuit breaker compartment doors, rack in handle insertion

## Technical data

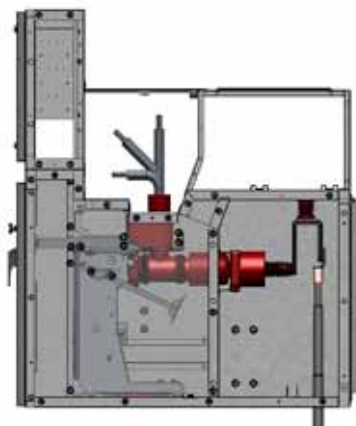
Switchgear		ZN1
Rated voltage	[kV]	12
Rated insulation voltage	[kV]	12
Rated power frequency withstand voltage	[kV 1 min]	28
Rated lightning impulse withstand voltage	[kV]	75
Rated frequency	[Hz]	50
Rated short time withstand current	[kA 3s]	26.3
Peak current	[kA]	65.75
Internal arc withstand current	[kA 1s]	26.3
Main busbar rated current	[A]	1250 - 2000
Branch connection rated current	[A]	1250
Internal Arc Classification to IEC 62271-200		IAC AFLR
Overall dimensions of basic cubicle	H [mm]	1755
	W [mm]	600
	D [mm]	1500 (without line PT) / 2050 (with line PT)
Clearance required for maintenance on front	[m]	1.5
Clearance required for maintenance on rear	[m]	1
Clearance required for maintenance on side	[m]	1
Cable connection height	[mm]	600
Paint shades (for front door and end covers only)		RAL7035 Light Grey (other shades on request)
Approximate weight	kg	600



## Single line diagram of typical units



## Typical feeder unit



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