

ReliaGear® ND

ANSI narrow design metal-clad switchgear



ReliaGear® ND is a new IEEE C37.20.2 compliant, 5 and 15 kV metal-clad switchgear platform featuring a narrow width, two-high breaker configurations and the compact, easy to maintain Vmax/A breaker.

Measuring in at 26 inches wide, 98 inches tall and 77 inches deep one-high or 85 inches two-high, ReliaGear ND is a compact solution for new installation space savings or meeting existing installation space constraints. Utilizing the ABB Vmax/ATM breaker, maintenance and repair costs are greatly reduced due to its modular design and quick change trip and close coil and charge motor design.

Product highlights

ReliaGear ND's compact, space saving design efficiently uses space while still providing the following benefits:

- Reduced 26-inch frame width for both 5 kV and 15 kV switchgear
- Minimal depth of 77 inches for one-high and 85 inches for two-high construction for 5 and 15 kV
- Low voltage instrumentation mounting space available on breaker doors to efficiently use mounting locations even with a small footprint
- Options for surge arresters and zero sequence CTs
- Available for top and/or bottom cable and bus duct entry
- Reduced shipping splits due to decreased frame weight and size saves on-site commissioning time
- Viewing window for verification of breaker/PT/CPT truck and position
- UL certified
- Outdoor enclosures
- Utility metering cabinets
- SwitchgearMD temperature, humidity and partial discharge (PD) monitoring

Characteristic	Unit	Rated maximum voltage level*	
		5 kV	15 kV
Rated nominal voltages	kV	2.4, 4.16, 4.8	6.9, 7.2, 8.4, 11, 12, 12.47, 13.2, 13.8, 14.4
Main bus continuous current	A	1200, 2000	1200, 2000
Short circuit current (rms)	kA	25, 31.5	25, 31.5
Rated frequency	Hz	50, 60	50, 60
Low Frequency Withstand (rms)	kV	19	36
Impulse level; (BIL, crest)	kV	60	95

* Ratings given are for service conditions within temperature and altitude limitations as defined by IEEE C37.20.2-1999 metal-clad standard.

ReliaGear ND accessories

- Breaker lift truck
- Mechanically operated Ground & Test Device
- Test cabinet
- Test jumper
- Primary and secondary potential transformer fuses
- SmartRack™ remote racking device
- REA arc protection relay system
- Ultra Fast Earthing Switch (UFES)

Vmax/A breaker

Compliant with IEEE C37.04, C37.06, and C37.09, the Vmax/A is a reliable, lightweight, and flexible breaker used in the ReliaGear ND platform. The Vmax/A breaker features a modular, easy to maintain design with only a single screw to remove the smart coil assembly and spring charged motor. Using this design, maintenance time on breakers is greatly reduced - lowering maintenance costs and limiting employees' exposure to the switchgear and thus, improving safety.

Current transformers

ReliaGear ND is designed and tested for use with the ABB SCH-3U and SCH-3UD current transformers (CT), with accuracy classes up to C200. These CTs are used for voltage ratings of 5 kV and 15 kV. Each breaker can accommodate up to two load side and one bus side CT for a total possible three CTs per phase.

5 kV potential transformers

For 5 kV applications, ReliaGear ND is designed and tested for use with the ABB VIY-60 indoor potential transformers.

The VIY-60 indoor potential transformers are fused and are used for metering or relaying applications.

15 kV potential transformers

For 15 kV applications, ReliaGear ND is designed and tested for use with ABB VIZ-75, VIZ-11, and TJC5 indoor potential transformers (PT).

All PTs are fused and can be used for metering and relaying applications. PTs are mounted on draw-out trays that are available in both single-phase and three-phase configurations including wye-wye, open delta, line-line, and line-ground connections.

Relion® relays

ABB's Relion® family of protection and control relays for distribution applications provides the performance, safety, and ease-of-use that switchgear specifiers and users demand. The Relion 615 and 620 series offer complete protection and control for feeders, motors, and transformers in switchgear applications and are characterized by their flexibility and performance in today's and future distribution schemes.