Grid Solutions

GL 314 BPS

Live Tank By-Pass Switch For Series Capacitors Bank Application

With GE Vernova's state-of-the art excellent live tank circuit breaker technology such as the third generation of self-blast interrupter chambers and spring-operated mechanisms (FK) the GL314 By-Pass Switch is suited for series capacitor bank application outdoor installation

Fastest Closing by-Pass Switch

The field-proven interrupter chamber operates on the basis of the energy-optimised selfblast principle. The FK3 type mechanisms equip the entire range of circuit breakers with more than 180,000 references worldwide. The GL314 BPS is designed to close very fast and protect series capacitor banks in case of fault in the overhead lines.

Components

- Three pole operating design
- One self-blast interrupting unit with guard rings at upper and lower positions
- Supporting column is composed of two to four insulators (depending on voltage to earth)
- Spring mechanism FK3 equipped with a position indicator visible from outside
- Field-proven temperature-compensated density monitor with two-stage transducer and three-colour dial
- Easy access to the SF6 filling connection (type DILO)
- Sealings suitable for temperatures down to -50° C
- Hot-dip galvanised steel parts and mechanism housing made completely of aluminium

Testing

The By-Pass Switch meets the requirements of national and international standards. This has been confirmed by comprehensive type tests based on the latest versions of IEC standards.

Certified Quality

GE Vernova's (ISO 9001:2008), environmental (ISO 14001:2004) and occupational health and safety (OHSAS 18001:2007) management systems determine the development and production procedures for the high voltage switches.

GE VERNOVA

Key Benefits

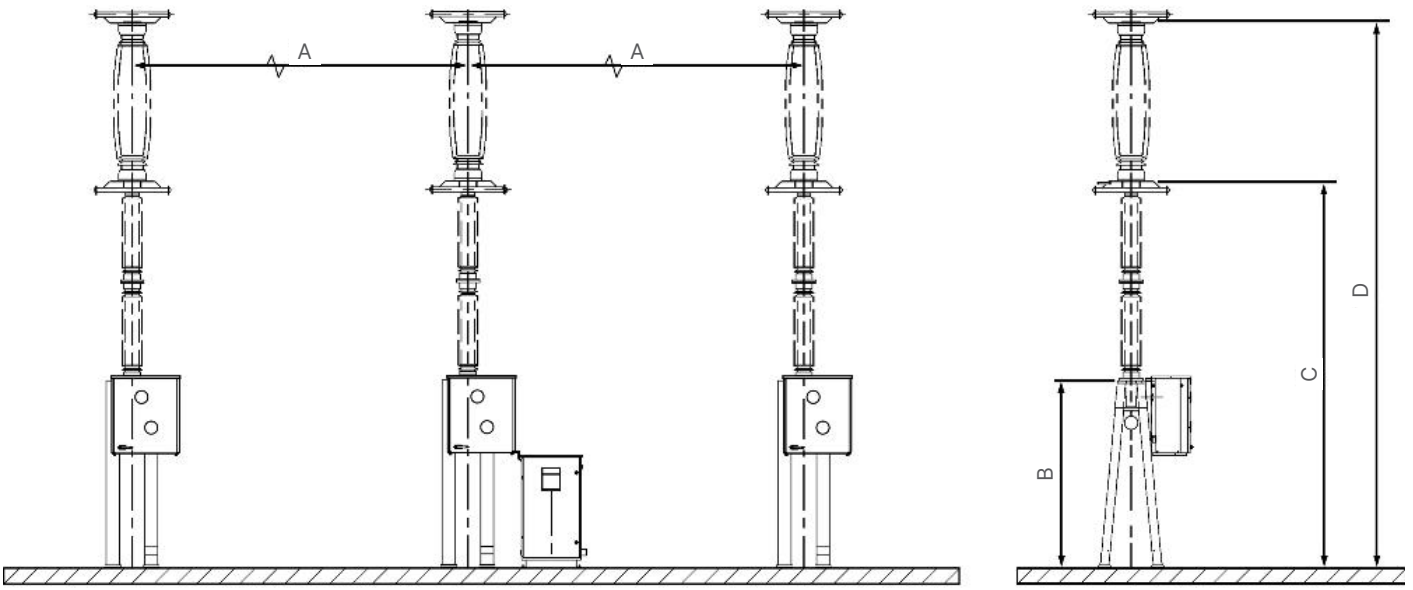
- Very fast closing time
- High mechanical endurance according to IEC 62271-100 Class M2
- Quick and easy installation and commissioning
- Long maintenance intervals
- Proven reliability even under the most severe conditions

Options

- Standard low voltage equipment provided, additional equipment available
- Composite insulators are available
- Seismic dampers for high seismic request can be provided
- Pressure relief system for passive protection of both substation and personnel
- CBWatch: compact and modular circuit breaker monitoring solution

Installation and Maintenance

- Preset at factory prior shipping - no adjustments during installation or commissioning
- Disassembly of interrupter chamber without removal of entire pole column possible



Dimensions (in mm)

	A	B	C	D
220/362 kV	4,700	2,503	5,160	7,200
420 kV	5,300	2,503	6,150	8,200
550 kV	6,100	3,377	8,800	9,500
800 kV	8,000	3,377	7,450	10,850

** For other value, please contact us.*

Technical Data*

Network frequency	Hz	50 / 60
Insulation level Up to 170kV related voltage across the by-pass switch Up to 800 kV related voltage to earth	 kVp kVp	 750 2,100
Operation times Rated closing time Rated opening time	 ms ms	 28 +/-2 95
Rated making current	kAp	120
Insertion current	A	5,000
Insertion voltage	kVp	300
Cycles With breaker open With breaker closed	 C – 0.2 s – OC – 15s OC-10s-OC	

** Standard value, for other, please contact us*

Gas Data*

The functioning of this equipment relies upon SF_6, a fluorinated greenhouse gas.

	SF_6
Average mass of gas/mixture in the equipment (kg)*	21.8
GWP_{100} of gas/mixture ($C0_2$-equivalent)	24,300
$C0_2$-eq of gas/mixture in the equipment ($t_{co2\text{-}eq}$)*	529.7

**For information purposes only. It varies depending on the equipment considered.*

For more information, visit
gevernova.com/grid-solutions

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English
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