

SPVL

Semi-Pantograph Disconnecter From 145 kV to 800 kV

GE Vernova's disconnectors are the result of over 75 years of experience in developing high voltage switches that have proven their reliability in the scorching climates of Arizona (USA), Australia and Sudan, in the extremely cold territories of Canada, Russia and Sweden, in the tropical weather of Panama, Indonesia, Malaysia and Venezuela and in regions with intense seismic activity such as Chile and California (USA).

Space Saving Design

The increasing cost of land and the difficulty in obtaining suitable substation sites have emphasised the need for compact designs. The SPVL is a space saving vertical reach disconnector on which the semi-pantograph arm connects the lower busbar to the upper one. By using vertical rather than horizontal separation, the SPVL design provides substation designers with a means of reducing space requirements by up to 30%.

High Reliability

The SPVL is a rugged performer even in the most adverse operating conditions including high winds and heavy ice and is always stable in the closed position during short circuits.

L Contact

The SPVL is equipped with GE Vernova's unique L Contact designed for switches used in heavily polluted or iced sites as well as for those disconnectors where an extended mechanical endurance (10,000 operations) is required.

Reliable Performance

In the open position, the blade sections fold upon themselves, thus offering a maximum blade dimension slightly greater than half the open gap dimension and making it even more compact than a standard pantograph switch. Closure of the switch is created by rotation of the insulator which causes the blade to unfold in such a manner that the protected tulip contact rises in a straight vertical path. When engaging the fixed contact, the mobile arm enters the guiding bell and the fixed contact matches the mobile one.

Safety

The very clear busbar arrangement and routing results in increased safety during operation and maintenance.



Superior Manufacturing

GE Vernova is one of the leading, global suppliers of disconnectors. The design principles, the technical know-how and experience of the GE Vernova experts and the careful selection of suppliers ensure that only top quality materials are used during production, allowing an excellent life cycle cost.

Certified Quality

- All GE Vernova's disconnector manufacturing sites worldwide are certified according to ISO 9001, ISO 14001 and OHSAS 18001.
- GE Vernova designs, manufactures, tests and delivers its disconnectors in accordance with the latest ANSI and IEC standards, as well as GB Chinese national standards.

High Flexibility

The SPVL can be installed directly below and in line with the overhead bus or on the diagonal at the point of bus crossover. The terminal pads can be arranged so that the lower busbar is in line or perpendicular to the switch. The specific L contact limits its application to tubular busbars only. The SPV model is available for strain busbars.

Key Benefits

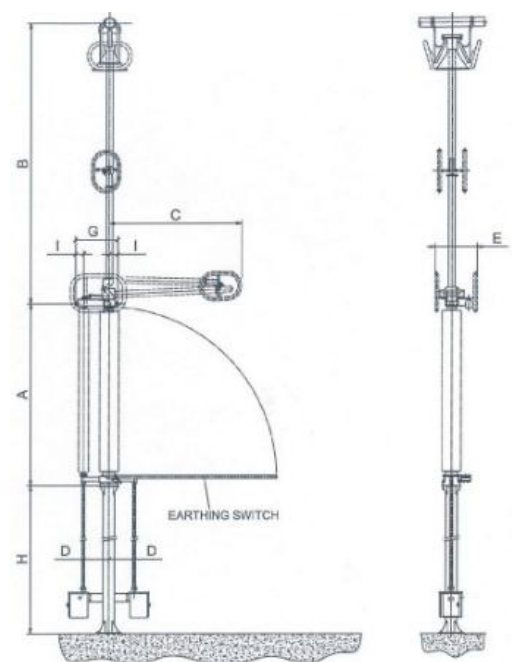
- Reduced substation space requirement (upto -30%)
- Pollution and ice-free L contact
- Tested for up to 10,000 operations
- Built-in arcing horns and bus transfer contacts
- Built-in earthing switches available
- Virtually maintenance-free
- Easy start-up and commissioning



GE VERNOVA

Simplified Installation and Minimized Maintenance

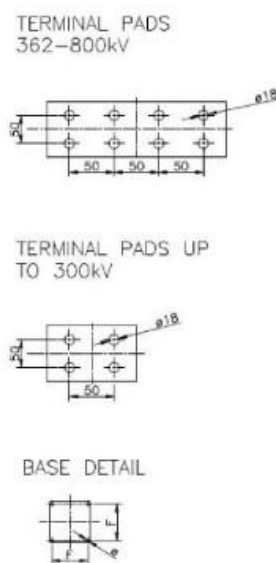
The SPVL does not require any special tools to be adjusted and is recognised worldwide as an easy to install and adjust disconnecter. The SPVL is virtually maintenance-free thanks to its lifetime greased or self-lubricating parts and corrosion-free materials, and in particular the “L” contact.



Customized layouts available upon request. Phase-to-phase distance defined by substation layout.

Optional Devices

The SPVL is fitted with bus transfer contacts (IEC 62271-102 Annex B). The integrated earthing switches used on double circuit overhead lines can also be fitted with induced current switching devices (IEC 62271-102 Annex C).



Technical Data (IEC)

RATED VOLTAGE kV	RATED CURRENT A / SHORT TIME CURRENT kA UP TO	BIL kV	A mm	B mm	C mm	D mm	E mm	F mm	G mm	I mm	Ø mm
145	3150 / 63	650	1710	3000	1300	425	500	340	765	170	22
170	3150 / 63	750	1910	3000	1300	425	500	340	765	170	22
245R	3150 / 63	950	2310	4000	1800	425	500	340	765	170	22
245	3150 / 63	1050	2510	4000	1800	425	500	340	765	170	22
300	4000 / 63	1050	2860	4400	2000	425	500	340	765	170	26
362	4000 / 63	1175	3190	4800	2200	600	800	400	1000	200	26
420	4000 / 63	1425	3640	5300	2600	600	800	400	1000	200	26
550	4000 / 63	1550	4290	6700	3500	600	1000	400	1000	200	26
800	4000 / 63	2100	5490	8200	4000	600	1100	500	1000	200	34

For more information, visit
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