



# SPVL

## Semi-Pantograph Disconnect Switch From 145 kV to 800 kV

GE'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 emphasized the need for compact designs. The SPVL is a space saving vertical reach disconnect switch 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 space reductions 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 the unique L-Contact designed for switches used in heavily polluted or iced sites as well as for those disconnect switches 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 is one of the leading, global suppliers of disconnect switches. The design principles, the technical know-how and experience of the GE 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's disconnect switch manufacturing sites worldwide are certified according to ISO 9001, ISO 14001 and OHSAS 18001.
- GE designs, manufactures, tests and delivers its disconnect switches in accordance with the latest ANSI and IEC standards, as well as GB Chinese national standards.

## Key Benefits

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



## High Flexibility

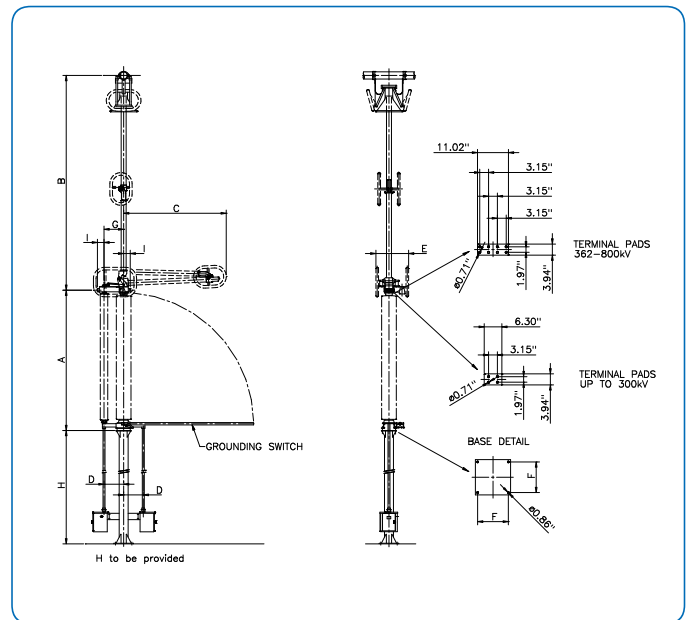
The SPVL can be installed directly below and in line with the overhead bus or on the diagonal at the point of bus crossover. The terminal pads can be arranged so that the lower busbar is in line or perpendicular to the switch. The specific L contact limits its application to tubular busbars only. The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

## Simplified Installation and Minimized Maintenance

The SPVL does not require any special tools to be adjusted and is recognized worldwide as an easy to install and adjust disconnect switch. The SPVL is virtually maintenance-free thanks to its lifetime greased or self-lubricating parts and corrosion-free materials.

## Optional Devices

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



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

## Technical Data (ANSI)\*

Rated voltage kV	Rated current A / Short time current kA	BIL kV	A inches	B inches	C inches	D inches	E inches	F inches	G inches	I inches
145	4,000 / 80	650	5' 2½"	9' 10"	4' 3¼"	1' 4¾"	1' 7¾"	1' 1½"	2' 6"	6¾"
170	4,000 / 80	750	5' 10¼"	9' 10"	4' 3¼"	1' 4¾"	1' 7¾"	1' 1½"	2' 6"	6¾"
245R	4,000 / 80	950	7' 4¼"	13' 1½"	5' 7"	1' 4¾"	1' 7¾"	1' 1½"	2' 6"	6¾"
245	4,000 / 80	1,050	8' 4¼"	13' 1½"	5' 7"	1' 4¾"	1' 7¾"	1' 1½"	2' 6"	6¾"
362	4,000 / 80	1,300	10' 7¼"	15' 9"	7' 8½"	1' 11½"	2' 7½"	1' 3¾"	3' 3¼"	7¾"
550	4,000 / 80	1,800	13' 7½"	21' 11¾"	8' 6¼"	1' 11½"	3' 3¼"	1' 3¾"	3' 3¼"	7¾"
800	4,000 / 80	2,050	17' 1¼"	25' 11"	12' 9½"	1' 11½"	3' 3¼"	1' 3¾"	3' 3¼"	7¾"

\* IEC ratings also available

For more information please contact  
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### Worldwide Contact Center

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