

# SPV

## Semi-Pantograph Disconnect Switch From 72.5 kV to 800 kV

GE's disconnect switches 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).

### Compact Design

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

The increasing cost of land and the difficulty in obtaining suitable substation sites underline the need for compact designs. The SPV 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 SPV design provides substation designers space reductions up to 30%.

The SPV blades are extra heavy, tubular aluminum with replaceable silver-plated copper contacts. A galvanized structural steel channel base supports the insulators and the live parts, ensuring a high strength, rigid design. All bearings and counter-balancing springs are isolated from the main path.

### Increased Safety

The very clear busbar arrangement and routing results in increased safety for operations and maintenance.

### 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. The SPV is even more compact than a standard pantograph switch and the streamlined contours of the SPV reduce RIV and corona effects.



## 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

- Up to 30 % reduced substation space requirements
- Clear conducting routing for safety
- Rigid or flex busbars for flexibility
- Built-in or retro-fitted ground switch
- Virtually maintenance-free
- Easy start-up and commissioning



## Simplified Installation and Minimized Maintenance

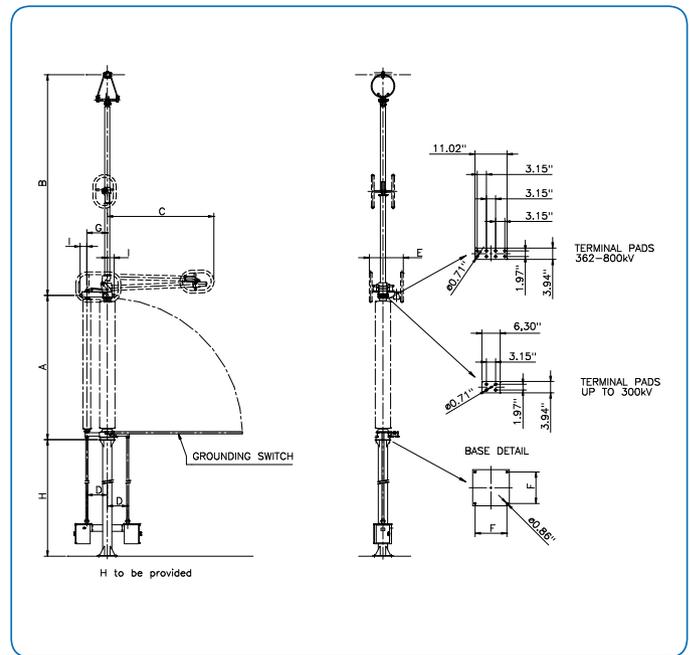
The SPV does not require any special tools to be adjusted and is recognized worldwide as an easy to install and adjust disconnect switch.

The SPV is virtually maintenance-free thanks to its lifetime greased or self-lubricating parts and corrosion-free materials.

## Optional Devices

The SPV can be fitted with arcing horns or with the more performant 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).

For extra high voltage applications, a specific spark-free solution with an SF<sub>6</sub> breaking chamber grants the maximum safety for personnel in the substation.



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

## Technical Data (IEEE/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
123	4000 / 63	550	4' 5 3/4"	9' 10"	3' 2 1/2"	1' 4 3/4"	1' 7 3/4"	1' 1 1/2"	2' 6"	6 3/4"
145	4000 / 63	650	5' 2 1/2"	9' 10"	4' 3 3/4"	1' 4 3/4"	1' 7 3/4"	1' 1 1/2"	2' 6"	6 3/4"
170	4000 / 63	750	5' 10 1/4"	9' 10"	4' 3 3/4"	1' 4 3/4"	1' 7 3/4"	1' 1 1/2"	2' 6"	6 3/4"
245R	4000 / 63	950	7' 4 3/4"	12' 5 1/2"	5' 7"	1' 4 3/4"	1' 7 3/4"	1' 1 1/2"	2' 6"	6 3/4"
245	4000 / 63	1050	8' 4 3/4"	12' 5 1/2"	5' 7"	1' 4 3/4"	1' 7 3/4"	1' 1 1/2"	2' 6"	6 3/4"
362	4000 / 63	1300	10' 7 3/4"	15' 9"	7' 8 1/2"	1' 11 1/2"	2' 7 1/2"	1' 3 3/4"	3' 3 3/4"	6 3/4"
550	4000 / 63	1800	13' 7 1/2"	21' 11 3/4"	10' 2"	1' 11 1/2"	3' 3 3/4"	1' 3 3/4"	3' 3 3/4"	6 3/4"
800	4000 / 63	2050	17' 1 1/4"	25' 11"	12' 9 1/2"	1' 11 1/2"	3' 3 3/4"	1' 3 3/4"	3' 3 3/4"	6 3/4"

\* IEC ratings also available

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Imagination at work