

SPO

Vertical Break Folding Arm Disconnecter From 245 kV to 800 kV

GE Vernovas' 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). GE Vernova is one of the world's largest manufacturers of disconnectors with units installed in more than 130 countries around the world.

Compact Design

The SPO disconnector is designed with a folding arm which allows the blade sections to fold in on themselves in a vertical plane in the open position. The overall height of the arm in the open position is only 60% of the longitudinal dimension. As a consequence, substation crossing structures and wires can be lower and less expensive than using conventional vertical break disconnectors. The centre of gravity of the live part is always much lower than on a conventional vertical break disconnector, meaning better performance during an earthquake as well as faster, smoother and rebound-free operations.

Reliability

The SPO is a rugged performer even under the most adverse operating conditions. The SPO blades are made of extra heavy, tubular aluminium with replaceable silver-plated copper contacts. Two separate galvanised structural steel bases support the insulators and the live parts assuring a strong, rigid design. All bearings and counter-balancing springs are isolated from the main path.

Performance

The closure of the disconnector is created by the rotation of the insulator, which causes the blade to unfold in such a manner that the jaws rise in a straight horizontal plane.

Thanks to the knee type movement, the moving contact penetration in the jaw is not affected by eventual site misregulation. As contact pressure is applied to the reverse loop jaw fingers by stainless steel springs insulated at one end, the possibility of annealing the springs due to their carrying current is eliminated. The blade is counter-balanced so that only frictional forces must be overcome when operating the disconnector.



Quality

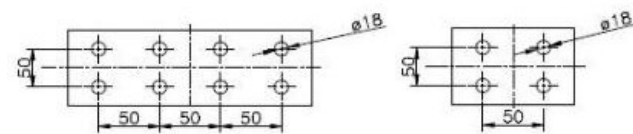
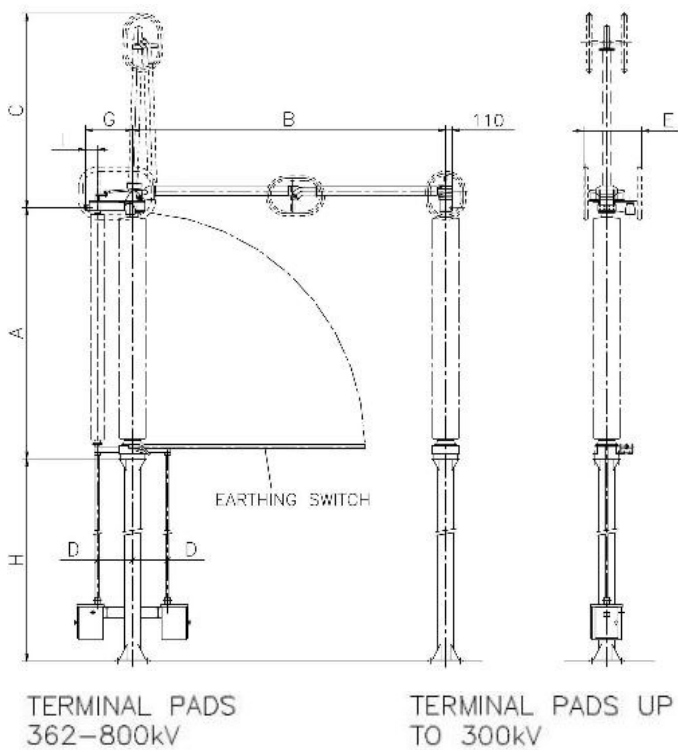
Our design principles, the technical know-how and experience of our experts and the careful selection of our suppliers to ensure that only top quality materials are used during production, ensure an excellent life cycle cost.

Customer Benefits

- High performance and reliability
- Reduced vertical space requirements
- Contact penetration not affected by eventual site misregulations
- Up to 20 mm ice
- Built-in earthing switches and arc restrictors available
- Virtually maintenance-free
- Easy installation and commissioning



GE VERNOVA



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

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
245R	4000 / 63	950	2310	3000	1700	425	500	340	595	170	22
245	4000 / 63	1050	2510	3000	1700	425	500	340	595	170	22
300	4000 / 63	1050	2860	3000	1700	425	500	340	595	170	26
362	4000 / 63	1175	3190	3700	2500	600	800	400	800	200	26
420	4000 / 63	1425	3640	4200	2700	600	800	400	800	200	26
550	4000 / 63	1550	4290	5350	3500	600	1000	400	800	200	26
800	4000 / 63	2100	5490	6000	3800	600	1100	500	800	200	34

Certification

All GE Vernova 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.

Installation and Maintenance

The SPO does not require any special tools to be adjusted and is recognised worldwide as an easy to install and adjust disconnector.

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

Earthing Switches

The SPO can be equipped or easily retrofitted with one or two earthing switches.

Optional Devices

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

For more information, visit
[gevernova.com/grid-solutions](https://www.gevernova.com/grid-solutions)

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