



Grid Solutions
a GE and Alstom joint venture

DISCONNECT SWITCHES PRODUCT SOLUTIONS

SPOL

245 kV - 800 kV vertical break folding arm disconnect switch

Grid Solutions is the world's largest manufacturer of disconnect switches with over 140,000 units installed in more than 130 countries around the world.



The real performer in harsh conditions

Grid Solutions' 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).

RELIABLE AND COMPACT DESIGN

The SPOL disconnect switch is a rugged performer even in the most adverse operating conditions.

The SPOL is designed with a folding arm which allows the blade sections to fold in on themselves in a vertical plane and 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 disconnect switches. The center of gravity of the live part is always much lower than on a conventional vertical break disconnect switch, meaning better performance during an earthquake as well as faster, smoother and rebound-free operations.



PERFORMANCE

Rotation of the insulator causes the blade to unfold in such a way that the protected tulip contact rises in a straight horizontal path to close the switch. When engaging the fixed contact, the mobile arm enters the guiding bell and the fixed contact matches the mobile one. The blade is counter-balanced so that only friction forces must be overcome when operating the switch.

QUALITY

Grid Solutions prides itself on being the leading supplier of disconnect switches in the world. Our design principles, the technical know-how and experience of our experts and the careful selection of suppliers ensure an excellent life cycle cost.

CUSTOMER BENEFITS

- Pollution and ice-free L-contact
- Reduced vertical space requirements
- Built-in or retro-fitted ground switches
- Built-in arcing and bus transfer contacts
- Virtually maintenance-free
- Easy start-up and commissioning

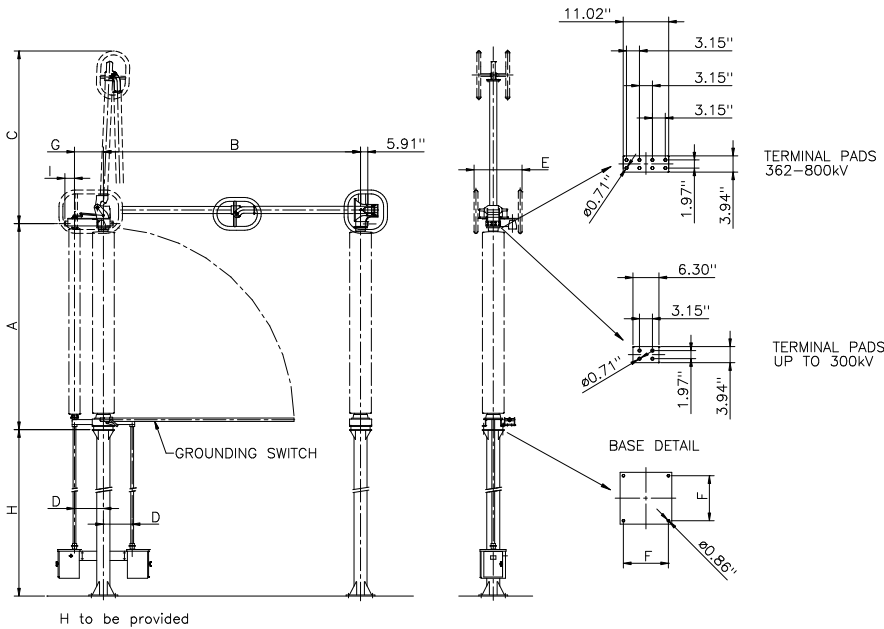
L-CONTACT

The SPOL is equipped with the unique Grid Solutions L contact designed for switches used in heavily polluted or iced sites and for disconnect switches where an extended mechanical endurance (10,000 operations) is required.

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	H inches
245	4,000 / 63	1,050	8' 4¼"	9' 10"	5' 7"	1' 4¾"	1' 7¾"	1' 1½"	1' 11¼"	6¾"
362	4,000 / 63	1,300	9' 9½"	12' 1¾"	7' 8½"	1' 11½"	2' 7½"	1' 3¾"	2' 7½"	7¾"
550	4,000 / 63	1,800	13' 7½"	17' 6¾"	9' 4¼"	1' 11½"	3' 3¾"	1' 3¾"	2' 7½"	7¾"
800	4,000 / 63	2,050	17' 1¼"	19' 8¼"	12' 7½"	1' 11½"	3' 3¾"	1' 3¾"	2' 7½"	245

* IEC ratings also available



CERTIFICATION

All Grid Solutions disconnect switch production facilities worldwide are certified according to ISO 9001, ISO 14001 and OHSAS 18001.

Grid Solutions' designs, manufactures, tests and delivers its disconnect switches in accordance with the latest IEEE/ANSI and IEC standards, as well as GB Chinese national standards.

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

OPTIONAL DEVICES

The SPOL is fitted with bus transfer contacts. 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 SF₆ breaking chamber grants the maximum safety for personnel in the substation.

INSTALLATION & MAINTENANCE

The SPOL does not require any special tools to be adjusted and is recognized worldwide as easy to install and adjust.

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

For more information please contact
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