# GE Grid Solutions

# SX

# Pantograph Disconnector From 72.5 kV to 550 kV

GEs' 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).

# Designed for Reliability

The SX disconnector is a rugged performer even in very adverse operating conditions. The SX is reliable in high winds and heavy ice and always stable in the closed position during short circuits. The SX blades are extra heavy, tubular aluminium with replaceable silverplated copper contacts. A galvanised structural steel base supports the insulators and the live parts, ensuring a high-strength, rigid design. All counter-balancing springs and bearings are isolated from the main path.

# Space Saving Design

The SX is a double scissor aluminium disconnector on which the pantographic arms connect the lower busbar to the upper one. By using vertical rather than horizontal separation, this design offers substation designers the possibility to reduce space requirements by as much as 30 %.

### Performance

In the open position, the blade sections are folded upon themselves thus offering a maximum blade dimension slightly greater than the open gap dimension. The double scissor design ensures low current density on the arms and the highest mechanical strength.

When engaging the fixed contact, the four arms clamp firmly on the contact bar. The blades are counter-balanced so that only friction forces must be overcome when operating the switch. The streamlined contours reduce RIV and corona effects.

## Safety

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



# Quality

GE is one of the leading, global suppliers of disconnectors. 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**

- Reduced substation space requirements (up to -30 %)
- Clear conducting routing for safety
- Rigid or flex busbars for flexibility
- Double scissor design for high rigidity
- Built-in earthing switches available
- Virtually maintenance free
- Easy start-up and commissioning



#### Technical Data (IEC)

Rated	Rated current A /						
voltage kV	Short time current kA Up to	BIL kV	A mm	B mm	C mm	D mm	Ø mm
	'						
72.5	4,000 / 63	325	980	2,000	1,400	340	22
100	4,000 / 63	450	1,230	2,200	1,500	340	22
123	4,000 / 63	550	1,480	2,500	1,600	340	22
145	4,000 / 63	650	1,710	3,000	2,000	340	22
170	4,000 / 63	750	1,910	3,000	2,000	340	22
245	4,000 / 80	1,050	2,510	3,650	2,650	340	26
300	4,000 / 80	1,050	2,810	3,650	2,650	340	26
362	4,000 / 80	1,175	3,100	4,400	3,100	400	26
420	4,000 / 80	1,425	3,550	5,450	4,100	400	26
550	4,000 / 80	1,550	4,200	5,800	4,300	400	26

# TERMINAL PADS UP TO 300 kV BASE DETAIL

## Certification

All GE disconnector manufacturing sites worldwide are certified according to ISO 9001, ISO 14001 and OHSAS 18001.

GE designs, manufactures, tests and delivers its disconnectors in accordance with the latest IEEE/ANSI and IEC standards, as well as GB Chinese national standards

# Installation Flexibility

The SX can be installed either 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 bus is in line or perpendicular to the switch. The SX is suitable for both strain and tubular busbars.

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

For more information please contact GE Grid Solutions

#### **Worldwide Contact Center**

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