

# ELECTRO COMPOSITES SDC™ HV BUSHINGS

## Solid HV bushings solution for your electrical apparatus applications

Electro Composites SDC™ composite bushings are designed to provide the toughest, cleanest and safest bushing solution for all your HV applications. We make standard OEM and aftermarket replacement bushings for substation transformers, GSU transformers, oil circuit breakers, switchgear, wall/floor (air-air and oil-oil), HVDC and many more.

### SDC™ RATINGS AVAILABLE

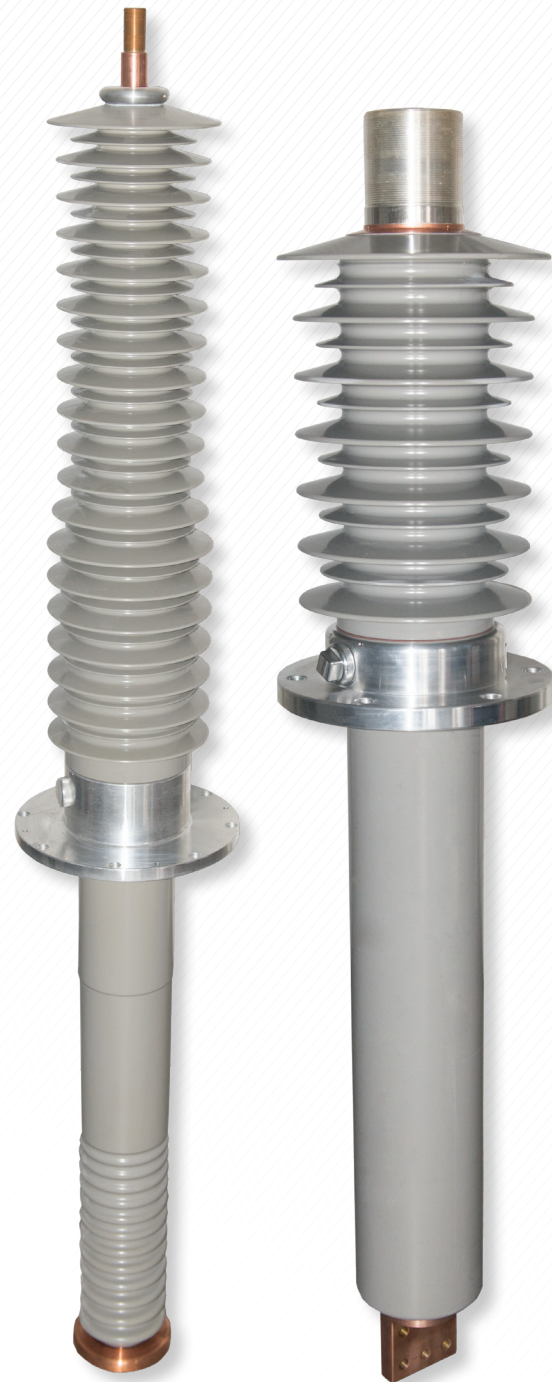
- Transformer/OCB: up to 170 kV (650 kV BIL maximum)/21,500A
- Wall (air-air or oil-oil): up to 170kV (650kV BIL maximum/6,000A
- Switchgear and other: up to 69kV/6,000A

### SDC™ DESIGN

- SDC™ (Solid Dielectric Capacitor) cycloaliphatic one-piece epoxy core and sheds
- Solid dielectric insulation - oil-free construction
- Capacitance graded with internal CT pocket shield and test tap
- Bottom connected or draw-lead compatible
- "As Existing" dimensional replacements
- Custom bushing solution capability
- Application Standards: IEEE C57.19.01, CSA C88.1, IEC 60137

### BENEFITS

- Interchangeable with OIP, RIP and RIS type bushings
- Toughest in the industry - will operate even after major shed damage
- 115C rated epoxy insulation system (standard) and 130C high temperature insulation (optional)
- Enhanced performance over porcelain in wet/contaminated conditions
- All models capable of horizontal or vertical installation
- Fire retardant and self extinguishing insulation
- Safest failure mode in the industry - will not explode
- Clean disposal (environmentally friendly) - no oil



[hubbellpowersystems.com](http://hubbellpowersystems.com)

For more information about Electro Composites products and services, contact your local Hubbell representative or email us at [bushings@hubbell.com](mailto:bushings@hubbell.com)

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# ELECTRO COMPOSITES SDC™ GSU BUSHINGS

## Solid HV bushing solutions for your most demanding applications

Electro Composites™ has expanded its HV SDC™ (Solid Dielectric Capacitor) composite bushing line with high current-high temperature models for use on Generator Step Up (GSU) transformers and other high current applications. Our high temperature SDC GSU designs offer a maximum hot spot temperature of 130 C and are rated per the IEEE standard C57.19.04 - 2018.

### FEATURES

- Available for 15kV through 34.5kV applications
- SDC™ bushing design (Solid Dielectric Capacitor) with a cycloaliphatic epoxy core
- Industry leading 130°C thermal limit insulation for enclosed applications (bus ducts)
- Solid dielectric insulation - **no oil** eliminates need for expansion tanks
- Able to be mounted both horizontally and vertically
- Capacitance graded with internal ground shield (CT pocket)
- Rated and tested per IEEE C57.19.04 - 2018
- Modular mold technology allows for custom design capability for different CT pocket lengths, terminals and other characteristics, as well as bushing standards (IEC 60137, CSA C88.1)
- Custom made-to-order aftermarket replacement options available - contact us with your specific needs

MODEL	VOLTAGE	CURRENT	BIL	CT/EL	L	B	D
150-075-G-653-00	25	7500	150	10	21.5	22.4	8.38
150-075-G-507-00	25	7500	150	21	32.5	22.4	8.38
150-100-G-508-00	25	10000	150	21	32.5	22.4	9.75
150-140-G-939-00	25	14000	150	21	32.5	22.7	12.50
150-185-G-1086-00	25	18500	150	21	32.5	22.0	15.00
150-215-G-645-00	25	21500	150	21	32.5	22.0	15.00

\*Other kV, current ratings and CT/EL lengths available upon request.



[hubbellpowersystems.com](http://hubbellpowersystems.com)

For more information about Electro Composite products and services, contact your local Hubbell representative or call our factory at 450-431-2777 or email us at [bushings@hubbell.com](mailto:bushings@hubbell.com)

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# ELECTRO COMPOSITES SDC™ HV GENERATOR BUSHINGS

## Solid HV Bushings Solution for Generators and Power Plants

Electro Composites™ offers HV SDC™ composite bushings specifically designed to meet the demanding performance requirements of hydrogen cooled generators and synchronous condensers. Replacement bushing solutions are available up to 36kV and 50kA, and are made to be directly interchangeable with the original bushing.

### CAPABILITIES

- Bushings for hydrogen, air and water cooled turbo generators and synchronous condensers
- “Form, Fit and Function” replacement bushings
- Possibility to reuse old bushing conductor, terminals and cooling attachments

### FEATURES

- SDC™ (Solid Dielectric Capacitor) composite epoxy core
- High temperature 130C rated insulation
- Capacitance graded with internal grounding shield
  - Capacitance test tap (optional, depending on design)
- Designed and tested for maximum leak rate of  $1 \times 10^{-6}$  cc/sec-atm
- Water, gas or air cooled conductor designs
- Vertical or horizontal installation
- Designed and tested according to DIN 48 124, IEC 60137 or IEEE C57.19.00, and to customer specification



[hubbellpowersystems.com](http://hubbellpowersystems.com)

For more information about Electro Composite products and services, contact your local Hubbell representative or call our factory at 450-431-2777 or email us at [bushings@hubbell.com](mailto:bushings@hubbell.com)

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# HPS POWER APPARATUS BUSHINGS

## QUICK SELECTION GUIDE



### POC® - PAPER-OIL-CAPACITOR

- Oil-impregnated paper wound core with upper/lower porcelain insulators.
- Tried and proven bushing technology with a **60+ year** track record.
- **Transformer-Breaker Interchangeable (TBI)** bushing combined with high performance seismic capabilities.
- Available per IEEE C57.19.00/01 and CSA C88.1 bushing standards.



### PRC® - PAPER-RESIN-CAPACITOR

- Resin-impregnated paper wound core with upper porcelain insulator.
- Available in both oil-filled **AND** oil-free designs.
- **Transformer-Breaker Interchangeable (TBI)** bushing combined with high performance seismic capabilities.
- Available per IEEE C57.19.00/01 and CSA C88.1 bushing standards



### SDC® - SOLID-DIELECTRIC-CAPACITOR

- Solid cast epoxy composite bushing technology with integral epoxy sheds and condenser core, providing all the advantages of oil-free technology
- Modern bushing technology with more than **20 years** of proven field service
- **Transformer-Breaker Interchangeable (TBI)** bushing combined with high performance seismic capabilities
- **Custom designs** to meet difficult dimensional requirements
- Available per IEEE C57.19.00/01, CSA C88.1, IEC 60137 and DIN 48124 bushing standards

BUSHING APPLICATION	MEDIUM	POC®	PRC®	SDC™
Power Transformer	Air - Oil	25kV - 500kV	15kV - 72.5 kV	15kV - 145kV
	Oil - Oil	-	-	15kV - 145kV
GSU Transformer	Air - Oil	25kV	-	15kV - 35kV
Oil Circuit Breaker	Air - Oil	25kV - 230kV	15kV - 72.5 kV	15kV - 145kV
Switchgear	Air - Air	-	-	15kV - 69kV
Wall / Floor	Air - Air	-	-	15kV - 145kV
Generator	Air - H2	-	-	15kV - 30kV
DC	Air - Oil / Air - Air	-	-	15kV - 145kV
Special Application	Varies	-	-	Contact Us

For additional information and general inquiries, please e-mail: [BUSHINGS@HUBBELL.COM](mailto:BUSHINGS@HUBBELL.COM)

### Electro Composites™ solid HV bushings solution

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ISO 9001: 2015 Certified



# HPS POWER APPARATUS BUSHINGS

## QUICK SELECTION GUIDE

### FEATURES

- All bushings are IEEE 693 seismically certified
- Most designs are TBI - Transformer / Breaker Interchangeable
- Oil-Filled or Oil-Free bushing types available depending on voltage / current rating
- All bushings fabricated in ISO-9001 (2015) certified factories
- Bushing designs available for IEEE, CSA or IEC standards
- Standard configurations and customized form-fit-function replacement bushing options available

KV	15				25				34.5				46				69				115				138				161				230				345				500			
CURRENT	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link	SDC	PRC	POC	Quick-Link				
400A DL	█																																											
600A DL	█	█																																										
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APPLICATIONS																																												
Transformer	█	█																																										
OCB																																												
GSU (high current)																																												
Wall / Floor																																												
Switchgear																																												
Generator																																												

**SDC®** - Solid-Dielectric-Capacitor Type, cast epoxy composite bushing, capacitance graded, oil-free.

**PRC®** - Paper-Resin-Capacitor Type, resin-impregnated paper composite core bushing, capacitance graded, with upper porcelain insulator, available oil-filled and oil-free.

**POC®** - Paper-Oil-Capacitor Type, oil-impregnated paper core bushing, capacitance graded, with upper and lower porcelain insulators.

**QUICK-LINK™** - PRC or POC type, with the convenience of a draw-lead bushing and the current capability of a bottom-connected bushing.