Bushings

Expertise up to 1200 kV

For all applications, GE’s bushings represent a cost-effective solution to facilitate the electric stress control of your equipment.

GE offers a large portfolio of condenser bushings for AC or DC operation.

Motivated to provide its customers with innovative and superior quality products, GE’s vision remains focused on meeting customer requirements while anticipating and exceeding the needs of a continuously changing market.

Together with the Customers Towards the Future

GE began producing capacitance-graded bushings in 1924 and is recognised today as one of the major reputable manufacturers in the world.

With top quality products, numerous worldwide references and capacity to innovate, GE is also one of the first suppliers of 1,100 kV equipment in China.

Large Portfolio of Condenser Bushings

- RIP resin impregnated paper up to 36 kV for generators
- Oil-impregnated paper for voltages up to 1200 kV for power transformers and through-wall applications
- SF₆ insulated up to 800 kV for GIS, GIL and through-wall
- RIP - resin impregnated paper bushings for power transformers
- Hybrid – Oil Impregnated Paper (Transformer side insulation) / SF₆ (Valve side insulation) DC bushings for power transformers

Key Benefits

- Advanced R&D department
- Full property of production technology and know-how
- Bushing with longer lifetime and higher reliability
- Decades of on-site experience
All the winding machines used for condenser bushings product are computer controlled and have been specifically designed and developed for that purpose by GE.

Expert in HV Condenser Bushings
For all applications, GE offers cost-effective solutions.

Power Transformers
- Oil-to-air, for the connection to the HV transmission or AC/DC distribution system
- Oil-to-oil, for the connection to HV cables
- Oil-to-SF₆, for the connection to the SF₆ metal enclosed bus ducts
- Oil-to-air, high current (up to 24,000 A, 52 kV) with aluminium inner conductor for bus duct connection

Through-Wall
Air-to-Air, for Indoor and Outdoor Service
- AC or DC application
- Porcelain or composite envelope both sides
- High Grade Insulating oil or SF₆ filled
- Partial discharges < 5 pC at 1.5 Uₑ/√₃
- Provided with power factor tap
- Flange of aluminium alloy casting
- Execution with solid conductor
- For horizontal or vertical installation
Power Generator

**Turbo-generator, hydrogen or water cooling up to 30 kV, 45,000 A**

- Outer envelopes: Porcelain and/or Fiberglass tube
- Cooling: Natural, hydrogen, water
- Coupling by means of a Belleville washer placed on the air side
- Inner conductor made of aluminium or copper casting
- Dry filling (polyurethane foam) of the space between the porcelain and condenser body
- Installation in any position
- CT accommodation on request
- Flange made of aluminium or stainless steel, low permeability

GIS

- SF₆-to-air, for the connection between GIS, GIL, dead tank circuit breakers and GE’s high voltage systems

GE supplies these bushings according to SF₆ insulation technology:

- SF₆ filled for voltages from 72.5 to 300 kV and condenser-type made of SF₆ impregnated polypropylene film for voltages more than 300 to 550 kV for applications
- SF₆-to-air, for the connection between GIS, GIL, dead tank circuit breakers and the HV network.

**Key Advantages**

- One source for all bushings type up to 1200 kV
- Improved reliability
- Short delivery time even for higher creepage bushings
- Easy transport and installation
- State-of-the-art technology
- Customers preferred product
- International expertise in UHV

RIP

Generator bushings

Gas-insulated

SF₆ to Air

Bushing Expertise

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Gas-insulated

SF₆ to Air
Oil-to-air transformer bushings

PTFR/PTHR
- oil-to-air high current
- 24-52 kV

PNR
- 52-420 kV

PCTR
- 72.5-265 kV

POBR
- 72.5-245 kV

PGFR
- generator bushings up to 30 kV

Oil-to-oil

PNO
- 52-1200 kV

PSO
- 52-170 kV

PAO
- 25-765 kV

POBO
- 72.5-1050 kV

PCTO
- 72.5-1050 kV

PWO
- 72.5-420 kV

Hybrid SF₆/OIP

SF₆
- PABS
- 52-550 kV

PHI
- 265-820 kV DC applications

245-800 kV AC and DC applications

O.I.P.

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