

BUSHINGS

Expertise up to 1200 kV

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

GE Vernova 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 Vernova 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 Vernova 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 to manufacture condenser bushings are computer controlled and have been specifically designed and developed for that purpose by GE Vernova.



PHI hybrid bushings



OIP wall bushings



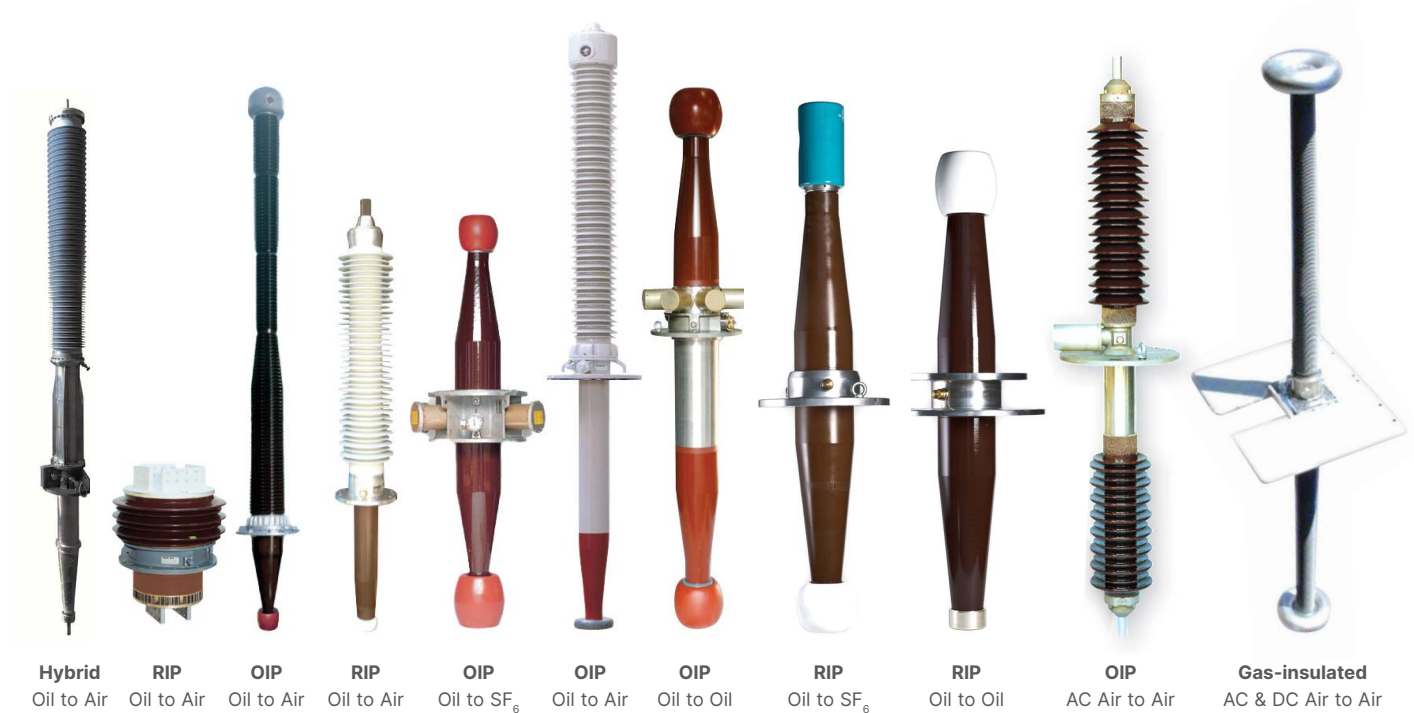
PWHS wall bushings

Expert in HV Condenser Bushings

For all applications, GE Vernova 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 aluminum inner conductor for bus duct connection



Hybrid Oil to Air
RIP Oil to Air
OIP Oil to Air
RIP Oil to Air
OIP Oil to SF₆
OIP Oil to Air
OIP Oil to Oil
RIP Oil to SF₆
RIP Oil to Oil
OIP AC Air to Air
Gas-insulated AC & DC Air to Air

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 Um/3
- Provided with power factor tap
- Flange of aluminum 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 aluminum 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 aluminum or stainless steel, low permeability



RIP
Generator Bushings

GIS

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

GE Vernova 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.



Gas-insulated
SF₆ to Air

Key Benefits

- 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

R.I.P



PTFR/PTHR
Oil-to-Air High Current 24-52 kV



PNR
52-420 kV



PCTR
72.5-245 kV



POBR
72.5-245 kV



PGFR
Generator Bushings up to 30 kV



O.I.P



PNO
52-1200 kV



PSO
52-170 kV



PAO
25-765 kV

Oil to Air Transformer Bushings



POBO
72.5-1050 kV
Oil-to-SF₆



PCTO
72.5-1050 kV
Oil-to-oil



PWO
72.5-420 kV
Air-to-air

SF₆ and Hybrid SF₆/OIP



PABS
52-550 kV



PHI
265-820 kV DC
Applications



PWS/PWHS
245-800 kV
AC and DC
Applications



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