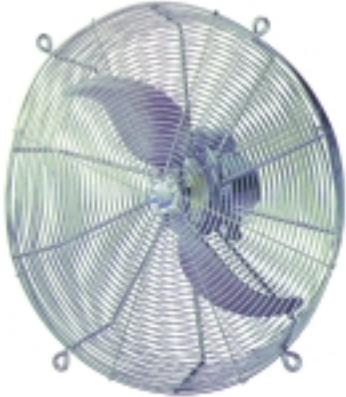


Power Transformer Replacement Parts



CAPABILITIES

TAP CHANGERS



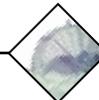
CONTROLS



BUSHINGS



COOLING UNITS



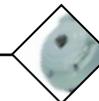
GAUGES



SUDDEN PRESSURE RELAYS



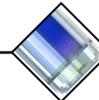
MECHANICAL RELIEF DEVICES



BUSHING POTENTIAL DEVICES (PBA2)



DEHYDRATING BREATHERS



INERTAIRE™



The ABB Components Division, located in Alamo, TN, owns and maintains over 10 million documents and design data on transformers manufactured by:

General Electric (Pittsfield - 40 MVA and larger)

ABB (Muncie and St. Louis)

Central Moloney (St. Louis - 5 MVA and larger)

This detailed and valuable information allows ABB to provide parts that meet or exceed the original material specifications.

TAP CHANGERS

TAP CHANGERS

UTT Contact Upgrade Kit

Tap Changers



Contacts and Kits are carried in stock for:

Current Model ABB UZE and UZF Load Tap Changers
Older Model Westinghouse UTT, UTT-A and UTT-B
Older Model Westinghouse UVT, UTS and UTS-A

Parts are also available for:

Westinghouse type URT, UTH, UTN, URS, UT, UTR, UR
and General Electric Load Tap Changers

CONTROLS

CONTROLS

Panels

SPR, Fans

Seal-In panels for Sudden Pressure Relay devices, and Cooling Fans are carried in stock.

Components

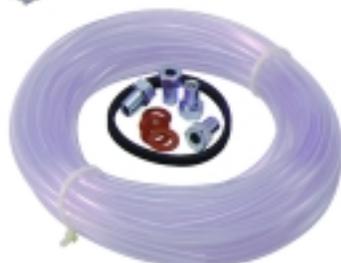
Replacement electrical components are available for existing control cabinets, such as relays, circuit breakers and contactors.

CT Junction Block Kits

Kits replacing 37, 20, and 10 point epoxy blocks are carried in stock.



Sudden Pressure Relay Panel



CT Junction Block Kit

BUSHINGS

BUSHINGS

Refurbished/Replacement Bushings

Available for those manufactured by ABB, Westinghouse, General Electric, and Lapp, as well as other domestic manufacturers for all kV classes up to 800 kV, 2100 kV, BIL. The Bushing Cross Reference Guide is available to facilitate the selection of over 5,000 replacement bushings for obsolete designs or bushings produced by other manufacturers. Refurbishment is an economical alternative for bushings 115kV and higher, or when the current exceeds 2500 A.

Replacement Bushings

Incorporates the leading condenser design with optimum shell designs. Flange and cable adapters are available to facilitate replacement.

Refurbished Bushings

Same warranty as new bushings is provided.

Obsolete components are either replaced with those which conform to original specification or are upgraded to incorporate the latest technology.

Included is ABB's state-of-the-art fused-ink, capacitive-graded condenser core with guaranteed lowest power factor and partial discharge in the industry.

Type O Plus C™

Bushings are designed for use in transformers and oil-filled circuit breakers. Designs exist for oil-to-air, vertical and horizontal applications. Offered in 400 A to 5000 A current ratings. Available for 15kV through 800kV voltage ratings. Meets or exceeds the IEEE/ANSI, and CSA standards.

Type O Plus C™





Type T™

Type T™ Bushings

High-current condenser bushings designed for use in transformers and other oil-filled apparatus for both vertical and horizontal mounting. Offered in 400A to 21,500 A current ratings. Available from 15kV through 34.5 kV voltage ratings.



Type A™

Type A™ Bushings

Stud-type designs used for applications with oil-filled transformers and generators for either vertical or horizontal mounting. Offered in 600 A to 23,000 A current ratings. Available from 1.2 kV to 34.5 kV voltage ratings. Requires little maintenance other than periodic cleaning due to the simple design and rugged construction.

All bushing products are manufactured to the international standards ISO 9001.

Type LCRJ™ Bushings

Stud-type designs that are suitable for vertical and/or horizontal mounting on power transformers. Available for applications between 1.2kV and 25kV. Bushings rated 15kV are available in current ratings from 2900 A to 23,000 A. Requires little maintenance other than periodic cleaning due to the simple design and rugged construction. Particularly suitable for applications requiring low partial discharge.



Type LCRJ™

Type T, Type A, and Type LCRJ bushings electrically meet or exceed the IEEE/ANSI standards.

COOLING

Maintaining, updating, or replacing cooling equipment can keep transformers operating at peak performance

Coolers:

Oil Coolers are designed and manufactured by ABB for the transformer industry and can easily replace existing models.

Replacement fans, motors, and valves are also available for existing coolers.

Radiators:

Replacement Radiators can be manufactured to meet original requirements. Bolt-on fan assemblies to replace existing fans and motors are available.

Kits are available to rebuild the older model Westinghouse radiator valves.

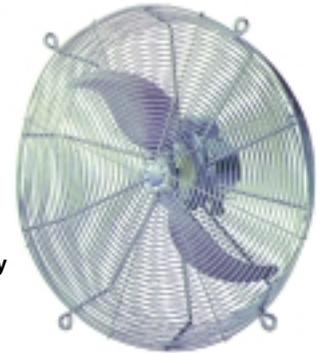
Pumps:

Replacement pumps are available.

Kits are available to rebuild the older model Westinghouse pump valves.



Pump Valve Rebuild Kit



Fan Assembly for Radiator

GAUGES

Oil Thermometers

Oil Thermometers are used to indicate the top liquid temperature of the transformer. Internal switches can be used to control fans and/or initiate an alarm.

Replacement kits are carried in stock.

Winding Thermometers

Winding Thermometers are used to provide a means of reading an equivalent of the winding hot spot temperature. Replacement kits are carried in stock.

Oil Level

Magnetic liquid level gauges are used to indicate the level of the insulating fluid. A magnetic float arm positively displaces the magnetic shaft to indicate the oil level on the gauge face.

Oil Flow

Flow gauges are used on forced-oil cooling equipment to indicate the proper flow of the insulating liquid during forced oil cooling operations.



Oil Thermometer Gauge



Winding Thermometer Gauge



Oil Level Gauge

ABB PowerTransmission

Sudden Pressure Relay



Sudden Pressure Relay
This device is designed to respond to the sudden increase in gas pressure in a power transformer which would be caused by an internal arc. Nuisance trips due to pressure changes caused by the environment are not detected.

Mechanical Relief Device

This device is designed to relieve excessive pressure that may build up within the transformer tank. It will protect the transformer against gradual build up of excessive pressure.



Mechanical Relief Device

PBA2

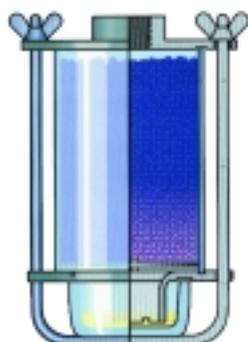
This device attaches via special cable to the voltage tap of a 115kV or larger condenser bushing. As power flows through the bushing, the PBA2 provides output at 115 and 66.4 volts that is commonly used to energize synchroscopes, voltmeters, and voltage responsive relays. It is generally an economical source of small amounts of 115 volt power at field locations.



PBA2

Breathers

Dehydrating breathers are used to prevent the normal moisture in the air from coming in contact with the oil in electrical equipment as the internal pressure varies. The use of this device would reduce the degradation of the oil and help maintain its insulation capability. Dehydrating breathers come in seven sizes for application on equipment with oil volumes from 235 to 9,600 gallons. They are filled with Silicagel which can absorb 20% of its own weight in moisture.



Dehydrating Breather

DEVICES DEVICES

Inertiaire™

This system includes all of the pressure regulating controls needed to maintain a positive pressure nitrogen atmosphere in the gas space of the transformer. This nitrogen blanket protects the transformer's oil from deterioration caused by exposure to moisture or oxygen. When the gas space pressure falls below the low pressure limit, the Inertiaire™ system automatically feeds fresh nitrogen into the transformer gas space until the pressure is restored to a value above the low pressure limit. When the pressure exceeds the high pressure limit, the system vents the excess pressure to the atmosphere through a relief valve.



RNB Inertiaire System™



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