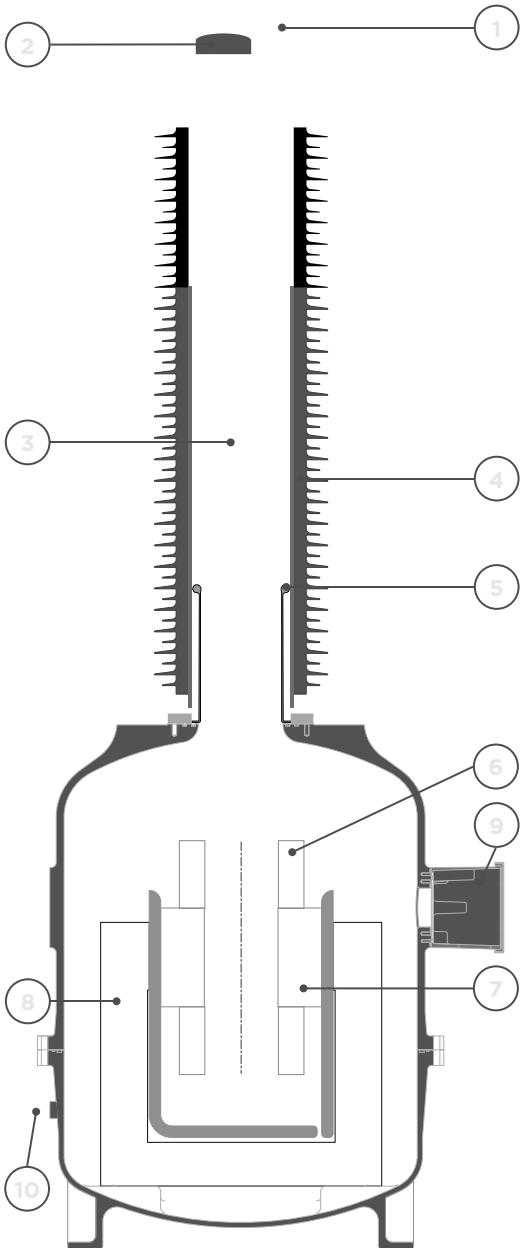
UG SERIES

Gas insulation:
model UG up to 550 kV and
125 kVA.

1. Primary terminal
2. Pressure relief device
3. HV Electrode
4. Insulator
5. LV Electrode
6. Primary windings
7. Secondary windings
8. Core
9. Secondary terminal box
10. Gas filling valve



DESIGN AND MANUFACTURING

PVTs with gas insulation are made with a magnetic core inside a metallic tank with its primary and secondary windings around it. These windings are made of heat-resisting electric wires coated in synthetic resin and a layer of plastic with a high dielectric resistance and excellent thermal and mechanical performance. The SF_6 and this plastic layer form the electrical insulation. An input valve for SF_6 gas is provided on a side of tank together with a manometer for monitoring gas pressure.

The silicone rubber insulator guarantees safety during transportation and service.

The transformer is equipped with temperature compensated densimeter with two levels of alarm that can be wired to the control equipment for remote monitoring. In case of a working pressure drop, the PVT can still withstand rated voltage with internal atmospheric gas pressure.

Safe design, Internal arc class II as per IEC61869, thanks to:

- Active parts located inside metallic tank, separated from the insulator.
- Pressure relief device located on the upper part.
- Electrical connections resistant to short circuit.

Designed to minimize gas volume, pressure and leaks, with a leakage rate <0.5%/year (lower values available upon request), thus reducing its environmental impact.

Tanks and insulators are designed, manufactured and tested according to international pressure vessel standards.

OPTIONS:

- Inner temperature monitoring sensor.
- Actual pressure value monitoring signal.
- Additional secondaries for measuring and/or protection.

RANGE

This series is named with the letters UG followed by 2 or 3 numbers indicating the maximum service voltage for which they have been designed.

The table shows the range currently manufactured by ARTECHE. These characteristics are merely indicative. ARTECHE can manufacture these transformers to comply with any domestic or international standard.

Gas insulation > Model UG

Model	Highest Voltage (kV)	Rated insulation level			Max. Power Output per phase (KVA)	Standard creepage distance (mm)
		Power frequency (kV)	Lightning impulse (BIL) (kVp)	Switching Impulse (kVp)		
UG-72	72.5	140	325	-	125	1800
UG-145	123	230	550	-	125	3125
	145	275	650	-	125	3625
UG-245	170	325	750	-	125	4230
	245	460	1050	-	125	6125
	300	460	1050	850	125	7350
UG-420	362	510	1175	950	125	9050
	420	630	1425	1050	125	10300
UG-550	550	680	1550	1175	125	13750

For detailed values please consult with Arteche.
For higher rated power values consult with Arteche.