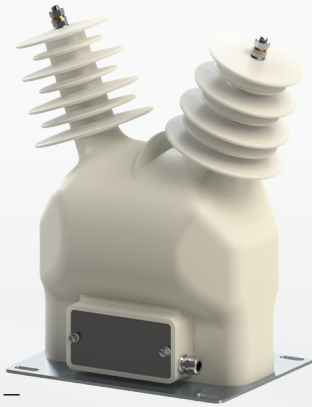


MEDIUM VOLTAGE PRODUCTS

VOL-24L

Outdoor voltage transformer



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Outdoor voltage
transformer
type VOL-24L

Application

The VOL-24L outdoor double-pole insulated voltage transformer is made of resin insulation and designed for networks up to 24 kV.

The transformer inlets are connected across the respective lines, to the phase-to-phase voltage, generally in the 'V' type of connection. The transformers are equipped with a single secondary winding usually used for metering line-to-line circuits or as power supply voltage transformers for control and communication equipment of outdoor applications. One of the terminals of each secondary winding must be earthed during the transformer operation. VOL-24L transformer is special due to the arrangement of the primary terminals, external body dimensions, weight and creepage distance. This allows to meet different customer needs.

Construction features

The primary and secondary coils are wound using special winding and shielding techniques for improved voltage stress distribution. Each winding is carefully insulated to provide a high dielectric medium between layers. The completed winding structure and core are assembled to a support frame. For insulation and protection, the assembly is cast in hydrophobic cycloaliphatic epoxy (HCEP). The HCEP material offers superior arc track, ozone, and ultraviolet-resistive properties while maintaining physical strength. The hydrophobic surface properties of HCEP ensure highly reliable performance in wet or humid environments.

VOL-24L double pole voltage transformer is cast in hydrophobic epoxy resin (HCEP), capable of withstanding outdoor environmental conditions and designed for insulation voltages up to 24 kV.

Terminals

Primary terminals are M10 copper pin with electroplated coating. Clamp-type secondary terminals accommodate 2.5 mm² through 6 mm² wire. The transformer is equipped with M8 earthing terminal located on the base plate, which is galvanically connected with an additional M6 grounding terminal in the terminal box.

Junction box

The metal junction box has a M20 conduit hub on each end. The box is anchored to the body of the transformer with screws and can be easily detached, simplifying installation and changeout procedures. Junction box is equipped with stopper and cable gland. The junction box has IP54 according to standard EN 60529: 1993/IEC 60529: 1989+A1:1999.

Baseplate

The base plate is attached to the bottom part of the instrument transformer and ready to be attached to various frames. It is made of steel with hot-dip galvanizing.

Mounting

VOL-24L can be mounted also in horizontal positions. The voltage transformers are assembled to ground by four screws using holes in base plate.

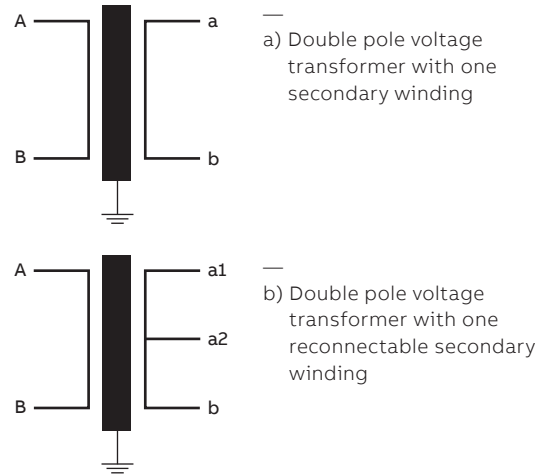
Test reports

Test reports are stored electronically and can be e-mailed in various formats at the time of shipment.

Standards

This unit meets IEC 61869-3 standard. Other value of parameters: rated output, classes, rated frequency, voltage factor, rated secondary voltage, rated primary voltage can also be changed on request.

Wiring diagram



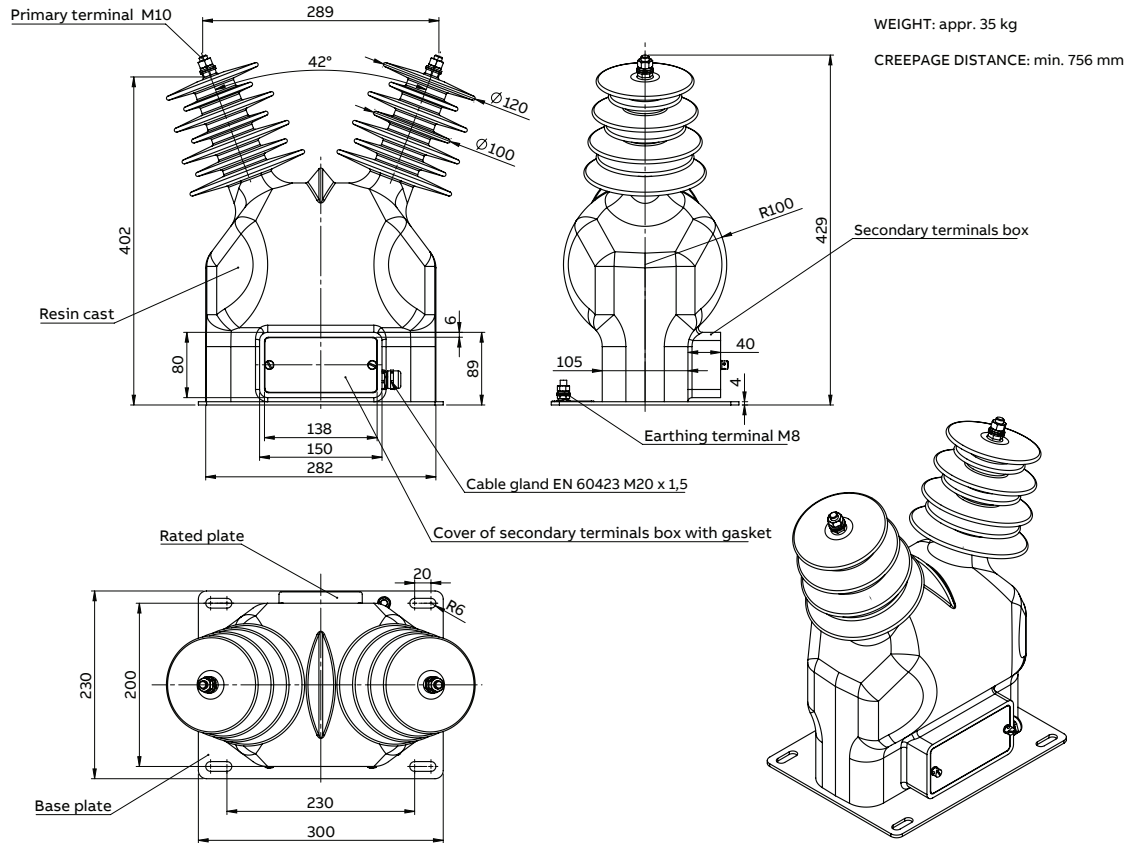
Technical data

Parameters		VOL-24L
Highest voltage for equipment U_m (r.m.s.)	[kV]	up to 24
Rated power-frequency withstand voltage (r.m.s.)	[kV]	up to 50
Rated lightning impulse withstand voltage (peak)	[kV]	up to 150
Rated frequency	[Hz]	50, 60
Rated primary voltages U_n	[kV]	up to 20
Voltage factor	[-]	1,2/- or 1,5/30s
Max. number of secondary windings	[-]	1
Rated secondary voltages	[V]	up to 230
Max. rated output*/classes	[VA/-]	15/0,2; 30/0,5; 50/1; 100/3 (3P); 250/6P
Thermal limiting output	[VA]	500
Creepage distance	[mm]	min. 756
Approximate weight	[kg]	35
Ambient temperature	[°C]	-40 ÷ +50

* Sum of rated output per voltage transformers.

Dimensional drawings

VOL-24L



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