

APE

OUTDOOR EPOXY RESIN CURRENT TRANSFORMERS

HIGHEST VOLTAGE FOR EQUIPMENT
UP TO 36 KV

Application

APE type current instrument transformers are single-phase and single pole insulated transformers. They are used to step-down current to defined values, and thus provide standardized, useable levels of current in a variety of power monitoring, measurement and protection applications while insulating the measurement and protection equipment from high system voltage.

Transformers of this type are provided for outdoor installation in an upright position.

Description of Main Parts

APE type transformers are designed for facilities with rated primary currents up to 800 A. The transformers can either be produced with primary reconnection 1:2 for currents up to 2x500 A or without reconnection for currents up to 800 A. Primary reconnection is performed through the use of connectors. When necessary, transformation ratios can be selected by using secondary winding taps.

Cores are made either of cold-rolled grain-oriented magnetic steel sheets or a high quality soft magnetic material, depending on the required accuracy class and rated primary current.

The main insulation is a mixture of quartz flour and two-component resin. After cross-linking at high temperatures, the mixture takes on excellent insulating characteristics and required mechanical features. Mixture preparation and casting of the active part is performed using gravity and under vacuum.

Primary terminals are made of electrolytic copper or brass and can be corrosion protected through galvanic tinning or silver plating when necessary.

Secondary terminals are placed in a sealed box with cable glands. They are M8 in size and are of stainless steel threaded bolt type. The protection level is IP55.

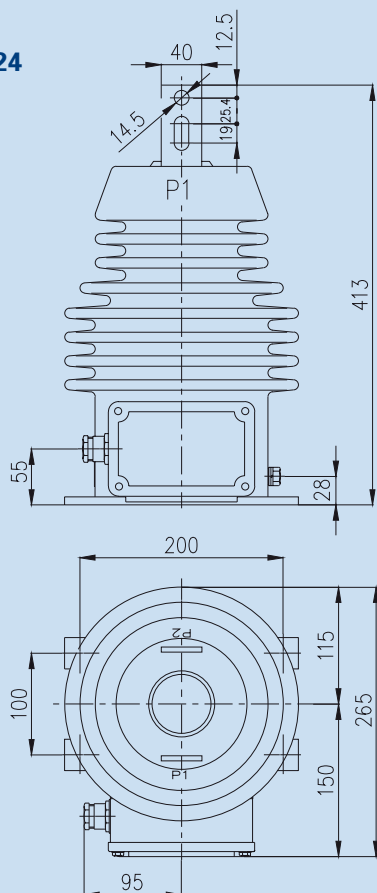
The transformers can contain up to three protective or measurement cores. Primary winding is designed as a loop. Secondary windings are made of high quality enamelled copper wire.



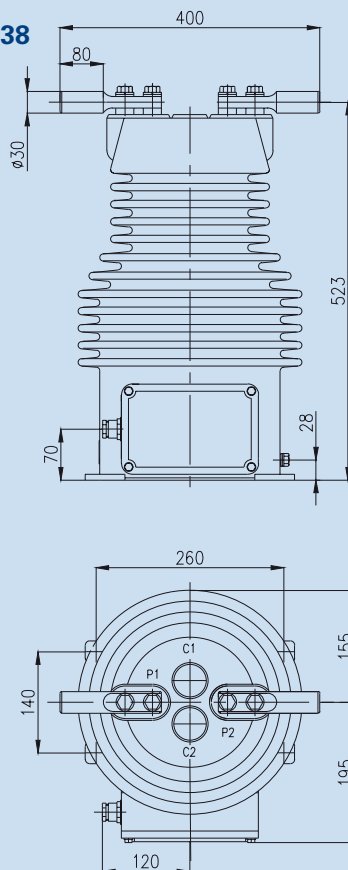
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APE - 24



APE - 38



Technical Data

TRANSFORMER TYPE	APE - 24		APE - 38	
Highest voltage for equipment (kV)	24		36	
Rated primary current (A)	up to 400	up to 800 A or up to 2x400 A	up to 800 A or up to 2x500 A	
Rated secondary current (A)	1, 2 or 5			
Rated burden of measuring core (VA)	1.25; 2.5; 3.75; 5; 7.5; 10; 12.5; 15; 20; 25; 30			
Accuracy class of measuring core	0.1; 0.2; 0.2S; 0.5; 0.5S or 1			
Instrument security factor	5 or 10			
Rated burden of protection core (VA)	1.25; 2.5; 3.75; 5; 7.5; 10; 12.5; 15; 20; 25; 30			
Accuracy class of protection core	5P or 10P			
Accuracy limit factor	5; 10; 15; 20			
Rated short circuit current (I _{th})	100 x I _n (max 40 kA) / 1s			
Power frequency withstand voltage (kV)	50		70	
Lightning impulse withstand voltage (kV)	125		170	
Test voltage of secondary windings (kV)	3			
Number of secondary cores	up to 3			
Creepage distance (mm)	650	750	1000	1000
Weight (kg)	18	32	60	88

NOTE: given indicative values refer to our standard versions and vary depending on electrical, mechanical and environmental parameters specified in the customers' inquiry. These values are susceptible to change in the course of technical developments.

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Quality Assurance

Končar current transformers are designed in compliance with IEC, ANSI/IEEE, GOST, AS, IS, CAN/CSA, or any other relevant standard.

Product quality is assured through a certified quality standard, the ISO 9001. Končar - Instrument transformers Inc. is ISO 14001 and OHSAS 18001 certified, ensuring environmental and occupational health standards are met.