

VCU

电容式电压互感器

Capacitor Voltage Transformer

吾心求索·通享未来

得益于多年的电气产品研发和制造经验，索通电气为您提供结合了先进技术和卓越工程设计的高压开关设备；系列产品符合智能化、安全性和可靠性要求最严苛的标准。该系列能为公共配电、工业和楼宇领域提供极具成本效益的解决方案，提高竞争力。



节能型
Energy Saving



智能化
Intellectualization



易维护
Easy Maintenance



安全性
Safety

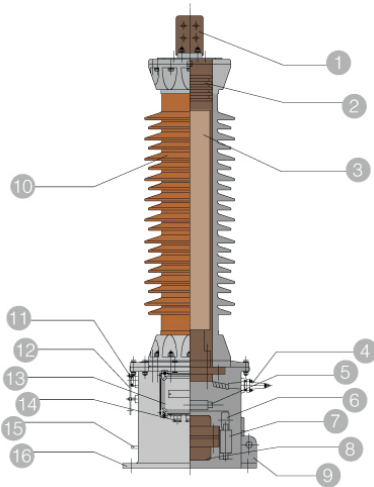
VCU

电容式电压互感器

Capacitor Voltage Transformer



Product



Cross Section Drawn of VCU-type combined transformer

- (1) Primary terminal
- (2) Metallic bellows
- (3) Capacitor
- (4) HF terminal
- (5) Surge arrester
- (6) Damping unit
- (7) Reactor
- (8) Intermediate transformer
- (9) Lifting hole
- (10) Insulator
- (11) Oil level indicator
- (12) Potential grounding switch
- (13) Secondary terminal box
- (14) Cable gland
- (15) Oil valve
- (16) Tank

Basic dimension and capacitance

Type	h(mm)	H(mm)	Capacitance(pF)
VCU-72.5	990	1810	20000
VCU-126	990	1830	10000
VCU-145	1340	2260	7300
VCU-170	1577	2500	6300
VCU-252	990	3080	5000
VCU-363	1577	4360	5000
VCU-420	1707	4590	5000
VCU-550	1342	5370	5000
VCU-765	1707	6580	3000

Standard

- IEC 60044-5 Capacitor voltage transformer
- GB/T 4703-2007 Capacitor voltage transformer
- ANSI, BS and other standards are also applicable.

Application

Capacitor voltage transformer is used to separate measuring and protection equipment from high voltage, and to transform measured voltages to the values suitable for measuring and protection equipment. The capacitor voltage transformer can also be used for high-frequency signal transmission.

Major parameter

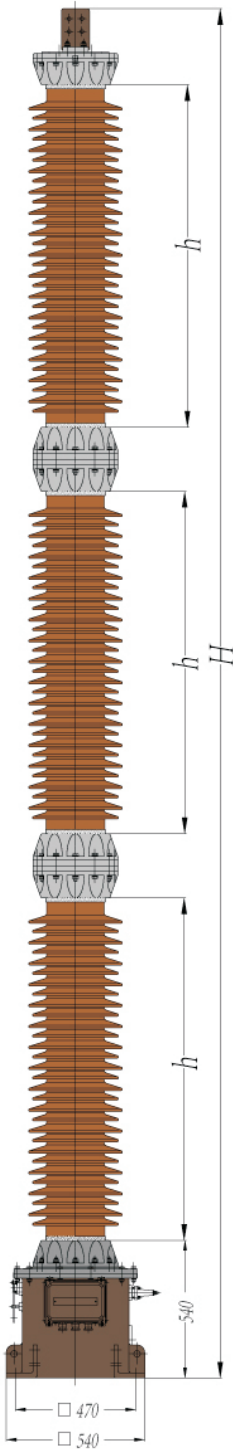
- Rated secondary voltage: $100/\sqrt{3}V$, $100/3V$ or $110/\sqrt{3}V$, $110/3V$
- Thermal limiting output: 2000VA
- Quantity of secondary winding, rated burden of each winding, accuracy class, rated voltage factor, rated frequency, ambient temperature and all other parameters can meet clients' requirements and involved standards.
- This type voltage transformer withstand 0.3g seismic intensity earthquake.

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电容式电压互感器 Capacitor Voltage Transformer



Structure feature



We introduced and absorbed internationally advanced technique, research and develop international advanced capacitor voltage transformer. It combined by capacitive voltage dividers and electromagnetic unit. Interior of the capacitive voltage divider unit are series connected capacitors rolled by composite material, on the top of the voltage transformer is metal bellows for compensating the change of oil volume. Bushing structure of high-strength porcelain or silicon rubber as the external insulation, can completely meet the requirement of standard creepage distance 20,25 or 31mm/kV. According to voltage level difference, capacitive voltage divider is assembled by one or several sealed independent units. Electromagnetic unit consists of medium voltage transformer, compensating reactor, damping device restraining ferroresonance, and overvoltage protection device, etc. The electromagnetic unit is filled with high-quality transformer oil with the moisture content less than 10mg/g after vacuum dehydration and degassing treatment, which ensures excellent dielectric properties. The tank of electromagnetic unit is made of high-quality casting aluminum alloy materials with good anti-corrosive prevention property. The secondary terminal plate with epoxy resin casting is provided in the secondary terminal box on the tank which prevent oil leakage, and the secondary terminal is M8 screw made of brass. The high voltage terminal of the product is made of aluminum alloy into cylindrical or plate shape according to different requirements.

Main technical advantage

- Design, manufacturing and operating experience of VCU typ capacitor voltage transformer for over 40 years, the highest voltage level of the product is 765kV.
- Meet all requirements of metering and protection accuracy class in standards.
- Low dielectric loss($\tan \delta = 0.05\%$).
- The capacitance value of the product is extreme stability with the change of power net work frequency and temperature..
- High number of capacitor elements to ensure ideal distribution of voltage along internal and external insulation.
- The resonant frequency of the capacitor voltage dividers is higher than 1 MHz.
- External metal parts adopt anticorrosive protection, maintenance free in lifetime.
- Compared with the similar product, minimum weight and excellent quality make it always reliable.
- The product meets the special requirements of high seismic intensity, high pollution class and extreme weather conditions, and we will try our best to meet clients' requirements.
- Instrument transformer lifetime is over 40 years.

VCU-type combined transformer

电流互感器应用工程案例
Application case of current transformer



工程案例 Engineering case



550kV current transformer in operation



363kV current transformer in operation



550kV current transformer operating in Yibin, Sichuan



VAU-550 combined transformer



VPU-550 voltage transformer



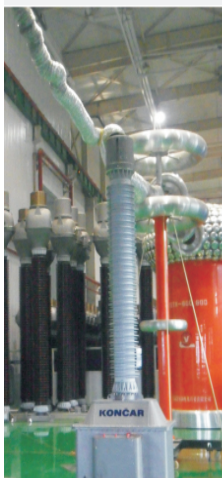
AGU-252 current transformer



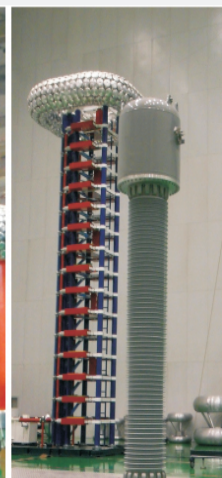
VPU-252 voltage transformer



Workshop product



VCU-550 Capacitive voltage transformer



LVQBT-550 SF6 current transformer



220kV current transformer operating in Huaneng Changchun Power plant



110kV current transformer operating in Yangzhou station