CAPACITIVE VOLTAGE

TRANSFORMERS

TRENCH
Sense the Power

Trench is a recognized world leader in the design and manufacture of high voltage equipment for application on electric utility and high energy industrial systems.

Capacitive Voltage Transformers are used to convert high transmission line Voltage (up to 1200 kV) to standardized low and easily measurable values, which will be used for metering, protection and control of the high voltage system. As such, the need for accurate and reliable voltage transformation is essential.

The reliability and security of Trench Capacitive Voltage Transformers is based on over 50 years of innovation with units operating under a wide range of environmental conditions.

Capacitive Voltage Transformers also ensure suitable electrical insulation between high voltage and low voltage measuring equipment.

MAIN FEATURES

General

Complete portfolio available from 72 to 1200 kV

Meet all IEC and ANSI metering and protection classes

Rated primary Voltage up to 1200 kV

Rated Secondary Voltages:
100 V, 100:√3 V, 100:3 V, 110 V, 110:√3 V, 110:3 V, ...

Suitable for HF coupling; possibility to fix the line trap directly on the top of CVT.

Fully type tested according to international standards. KEMA Certificates available

Special tests are also available to meet specific customer requirements.

Available also with options for power quality measurements.

High fidelity of transient response and rapid damping of ferroresonance oscillations.

Constant accuracy in all service conditions.

Product design

Oil/pp and/or paper internal insulation

External insulation with porcelain or composite insulator

External parts made of aluminum or stainless materials

Sealed & Robust Construction

Easy Customization to match all specific Customer requirements

Easy Installation without special tools required.

High performance about seismic solicitations.
Design available to match IEC, IEEE and specific Standards

Hermetically sealed. A suitable Inox steel bellows located in the Capacitor Divider allows the oil volume variation and keep the internal pressure equal to ambient one in every service conditions

Bellows puncture pin available on request designed to provide for the release of internal pressure in the event of abnormal service conditions

Product process

Optimized design to manufacturing

Lean manufacturing concept applied to the whole supply chain

Optimized design allows the use of reduced numbers of components.

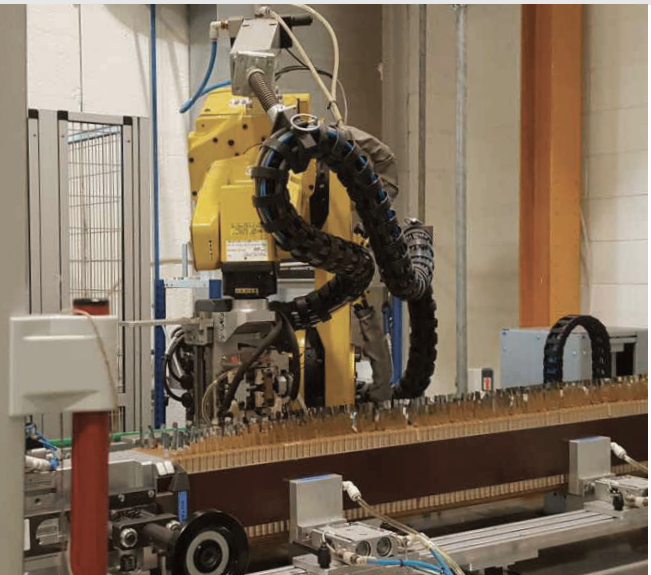
Automated process garantees reproducible quality in manufacturing of condensers

Modular capacitor dividers and EMUs with optimized design allows an easy customization of the product ensuring short delivery times.

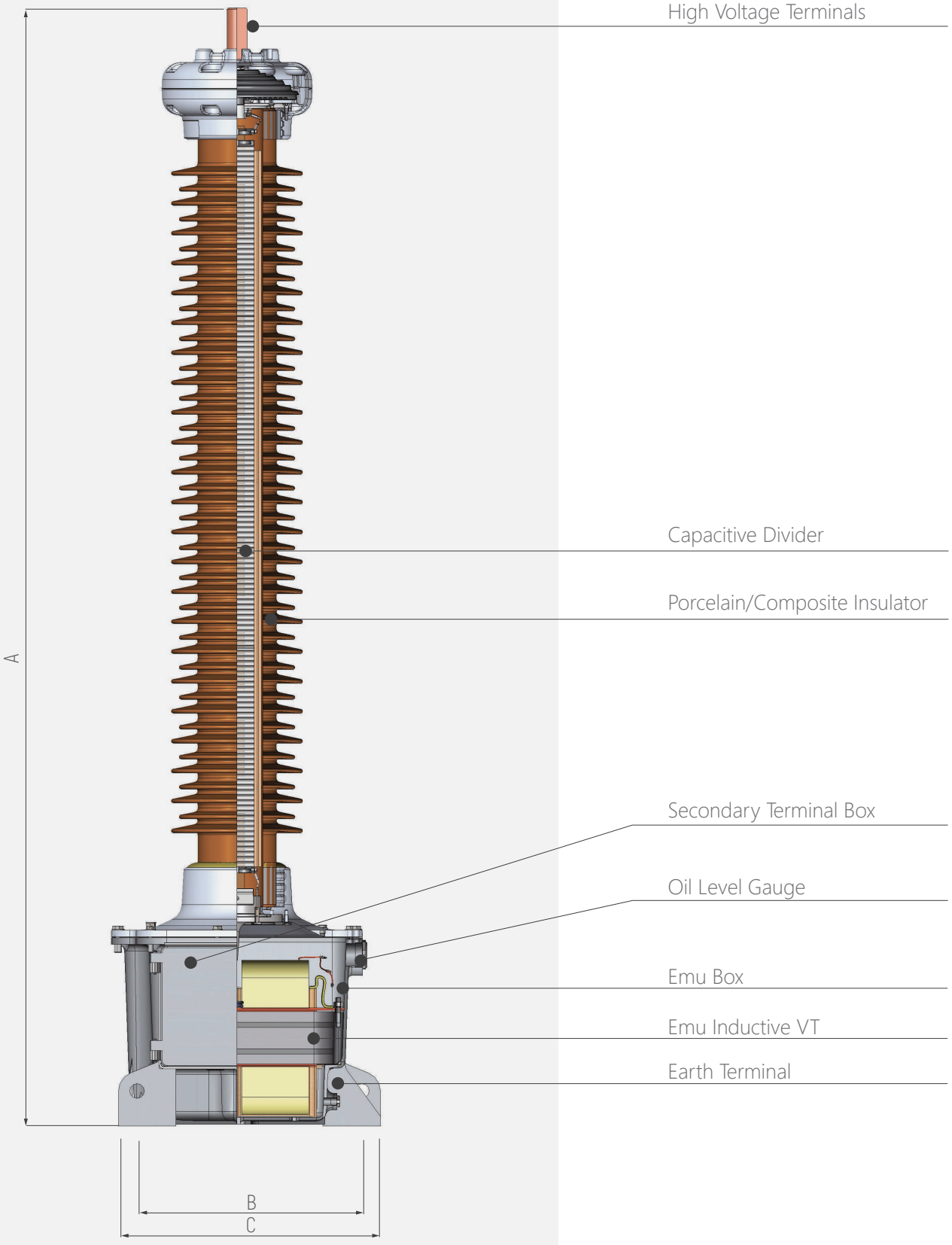
Maintenance free during a long lifetime of more than 30 years

Trench Management System has been certified to ISO 9001, ISO 14001 and OHSAS 18001 standards

Thousands of transformers installed and in service for more than 50 years all over the world and in all environmental conditions are the best guarantee of the quality and reliability of our products.



PRODUCT STRUCTURE



ELECTRICAL and MECHANICAL DATA

Type	Highest Voltage for Equipment (Um)	Rated capacitance (range)	Number of Units for Stack	Rated power-frequency withstand voltage	Rated lightning impulse withstand voltage	Rated switching withstand voltage	Arc distance	Minimum nominal specific creepage distance (Pollution Level III)	Minimum nominal specific creepage distance (Pollution Level IV)	A	B- Base Fixing (N°4 holes Ø 22)	C	Total weight	Oil Weight
	kV (r.m.s)	pF	-	kV (r.m.s)	kV (peak)	kV (peak)	mm	mm	mm	mm	mm	mm	KG	KG
TCVT 72,5	72,5	8000-12000	1	140	325	-	750	1815	2250	1470	324 x 470	394 X 508	195	34
TCVT 123	123	5000-6000	1	230	550	-	1005	3075	3813	1770	324 x 470	394 X 508	225	36
TCVT 145	145	4000-5000	1	275	650	-	1205	3625	4495	1970	324 x 470	394 X 508	245	37
TCVT 170	170	4000-4500	1	325	750	-	1405	4250	5270	2170	324 x 470	394 X 508	265	38
TCVT 245	245	4000-6000	1	460	1050	-	2005	6125	7595	2800	324 x 470	394 X 508	350	50
TCVT 300	300	4000-6500	1	460	1050	850	2305	7500	9300	3100	324 x 470	394 X 508	385	52
TCVT 362	362	3000-6000	2	510	1175	950	2810	9050	11222	3480	324 x 470	394 X 508	450	54
TCVT 420	420	4000-5000	2	630	1425	1050	2810	10500	13020	3900	324 x 470	394 X 508	475	58
TCVT 550	550	4000-8000	2	680	1550	1175	4010	13750	17050	5250	324 x 470	394 X 508	750	106
TCVT 800	800	3000-5000	3	975	2100	1550	4915	20000	24800	6480	324 x 470	394 X 508	860	144
TCVT 1200	DATA SUPPLIED ON REQUEST													

Data are indicative and are not binding. Dimensions are referred to typical TCVTs equipped with porcelain insulator and a medium size EMU & according to IEC 61869 Standards – Other options are available. The regular improving on design may cause discrepancies between this document and updated product. On request our sales team will be glad to submit You a firm updated technical & commercial offer fully customized to your specific requests.

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