

CLEAN AIR COMBINED TRANSFORMER

420 kV

Combi Voltage Transformers, utilizing **Clean Air as insulation medium**, provide accurate and reliable voltage transformation, (measurement), merging proven safety with eco-friendliness.



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TRENCH
Sense the Power

CLEAN AIR COMBINED TRANSFORMER

CHARACTERISTICS

- For voltage levels up to 420 kV
- Clean air as insulation medium
- Fully IEC / IEEE and IEEE seismic level “High” compliant
- Suitable for low-temperature applications at -50°C and below

BENEFITS

- It uses environmentally friendly air instead of mineral oil or SF6
- Superior Internal arc behaviour: Fully explosion-proof, by IEC 61869-1 Class II, verified in tests
- Clean Air does not cause or spread fire under any circumstances

SUSTAINABILITY

REGENERA® is Trench Group’s **Green Quality Label**, awarded to offerings that combine technical excellence with environmental responsibility.

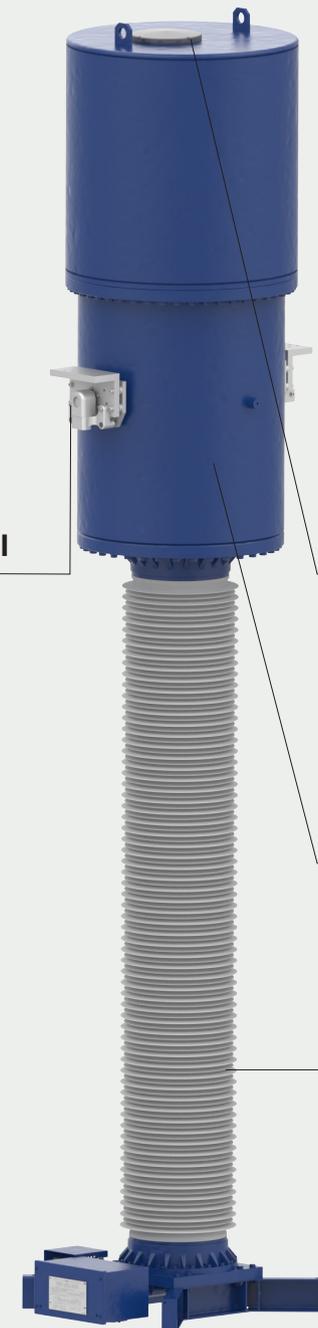


Primary Terminal

Rupture Disc
- explosion proof design

Housing

Composite Insulator



MAIN FEATURES

The sustainable pure air solution



Clean Air

Like breathing air, the insulator consists of 20% oxygen and 80% nitrogen. The purity is higher and the water content is lower – the most sustainable insulating material for high-voltage devices.



Environmental

The Clean Air Combined Transformer insulation has a global warming potential (GWP) and an ozone depletion potential (ODP) of 0 and ensures CO2 savings of 88% over its entire service life.



Proven Design

The design is based on the reliable SF6 devices, that have been in use for 50 years and of which over 100.000 have been in service.



Enhanced Operational Safety

Superior arc behaviour, absolutely explosion-proof, in accordance with IEC 61869-1 Class II and proven in tests. The safest isolator technology on the market, as pure air neither triggers nor spreads fire.



Maintenance

Maintenance-free and therefore cost - and time - saving over a service life of more than 30 years.



Technical/Finance Advantages

There is no need to document or report leaks, as Clean Air is not subject to the F-Gas Regulation. It does not require specialised personnel and does not cost extra to dispose of.



PRODUCT APPLICATIONS

INSIDE THE PRODUCT

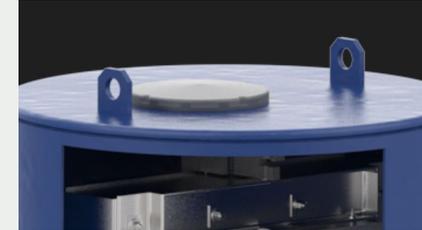
Main components of the Clean Air Combined Transformer

Clean Air Voltage Transformers are the only sustainable and cost-saving alternative to SF6 insulation with no GWP or ODP. They are maintenance-free, designed to last for more than 30 years with no emission, operating or recycling costs.



PROVEN DESIGN

Our Clean Air Combined Transformer portfolio is available up to 420 kV. The modular design has been developed to ensure that they are reliable and maintenance free for a period of more than 30 years.



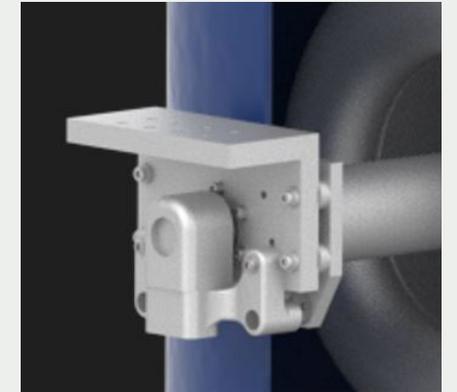
RUPTURE DISK

The rupture disc of a Clean Air Combined Transformer, in this case with Life Tank, acts as a safety system that is triggered in the event of overpressure and effectively prevents an imminent explosion.



PRIMARY CONDUCTOR

The bar-type primary conductor of the Clean Air Combined Transformers is designed to withstand a much higher short-circuit current and prevents large voltage drops in the primary winding.



PRIMARY TERMINAL

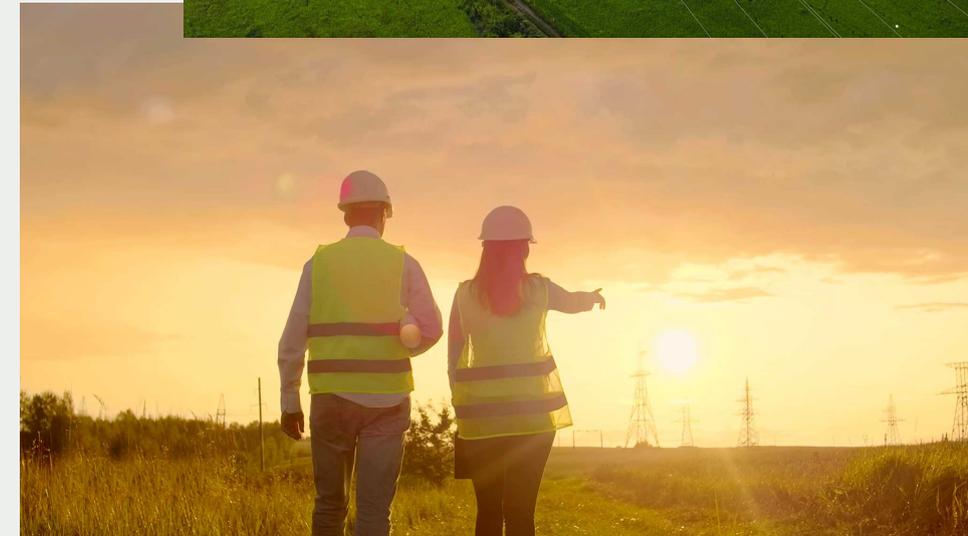
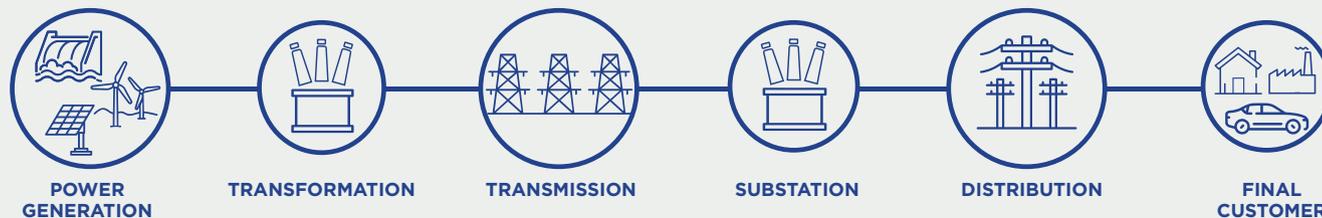
Depending on the application and requirements, Clean Air Combined Transformers can be fitted with customised high voltage connections (HV), designed to IEC and NEMA specifications and others.

THE **FUTURE** OF ENERGY IS **NOW** AND IT'S **EXTRAORDINARY**

THE CRUCIAL ROLE OF POWER TRANSMISSION

Our vision of a sustainable future starts with an eco-friendly portfolio of high voltage products and systems, brought to you by our dedicated team of global innomakers.

Our mission is to support our customers, from power generation through transmission and distribution to the electricity consumers, in their transition to clean energy and a greener world.





Get in touch:

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