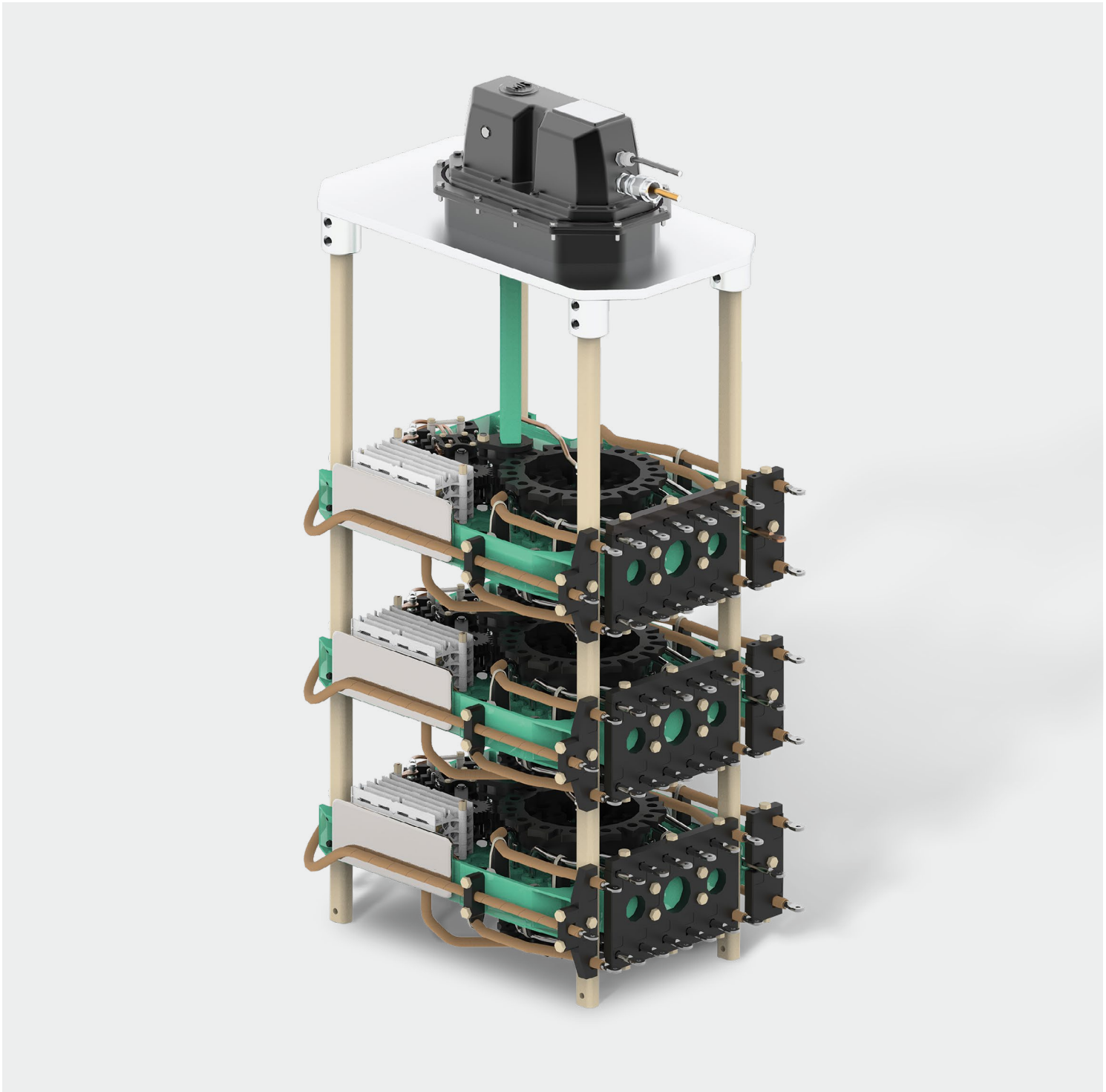
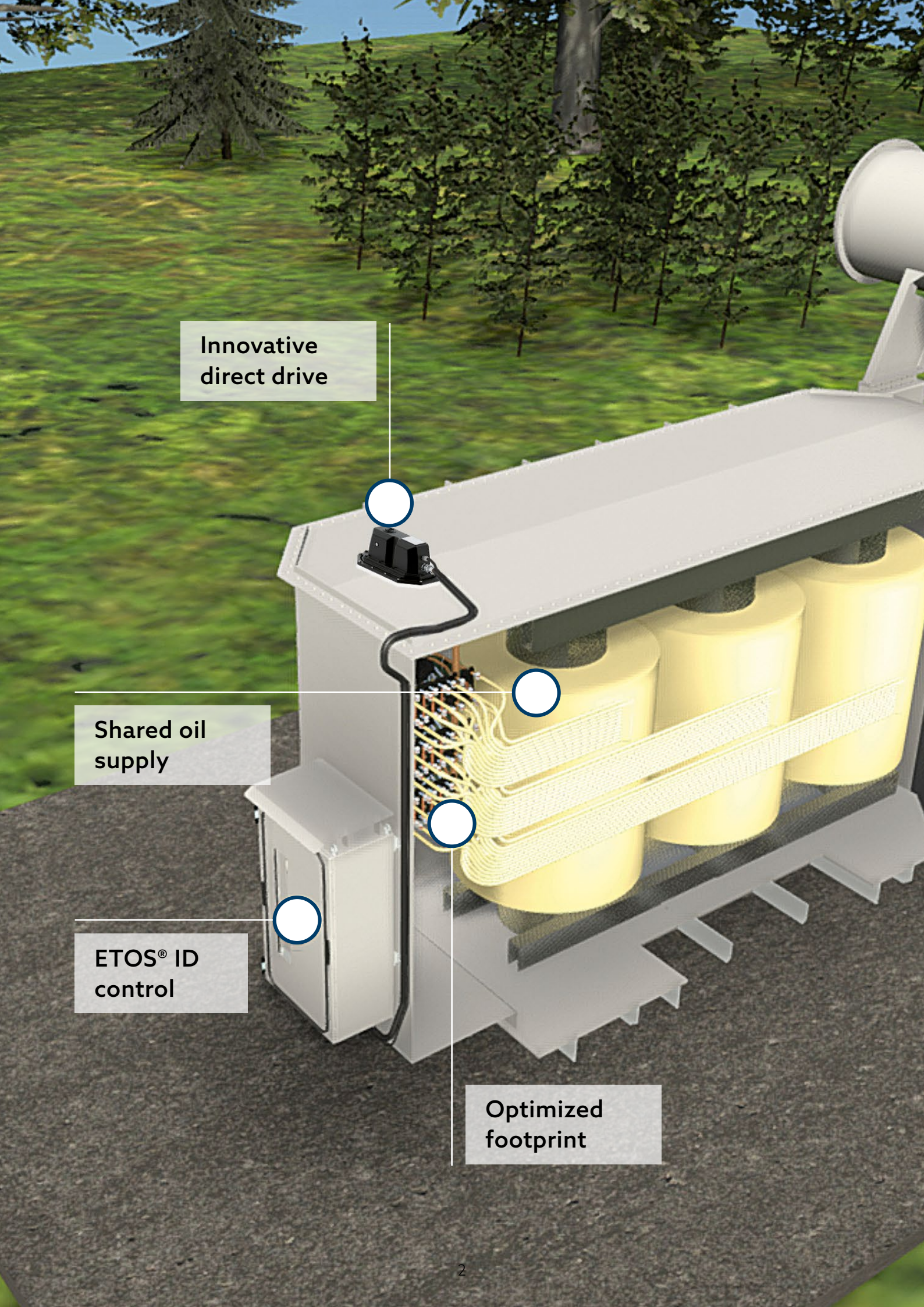
ECOTAP® VI

The evolution of our proven vacuum technology




Innovative direct drive
Shared oil supply
ETOS® ID control
Optimized footprint

Over our 30 years of field experience, we have consistently and continuously developed our exceptional vacuum technology. Now it is time for the next step ...

The ECOTAP® VI combines proven MR quality with a highly innovative design and attractive prices. It's an unbeatable offer for all transformer operators. And for manufacturers, ECOTAP® VI offers completely new options for reducing components and radically simplifying production processes.

The drive and control of the ECOTAP® VI are just as innovative as its design. The intelligent ETOS® ID motor-drive unit offers a completely new safety concept. For example, the homing function automatically ensures the correct alignment at all times. Before each tap-change operation, the pre-check function checks all relevant components. An integrated storage battery ensures the reliable completion of the tap-change operation even in case of a sudden power failure. And post-check ensures safety after each tap-change operation.

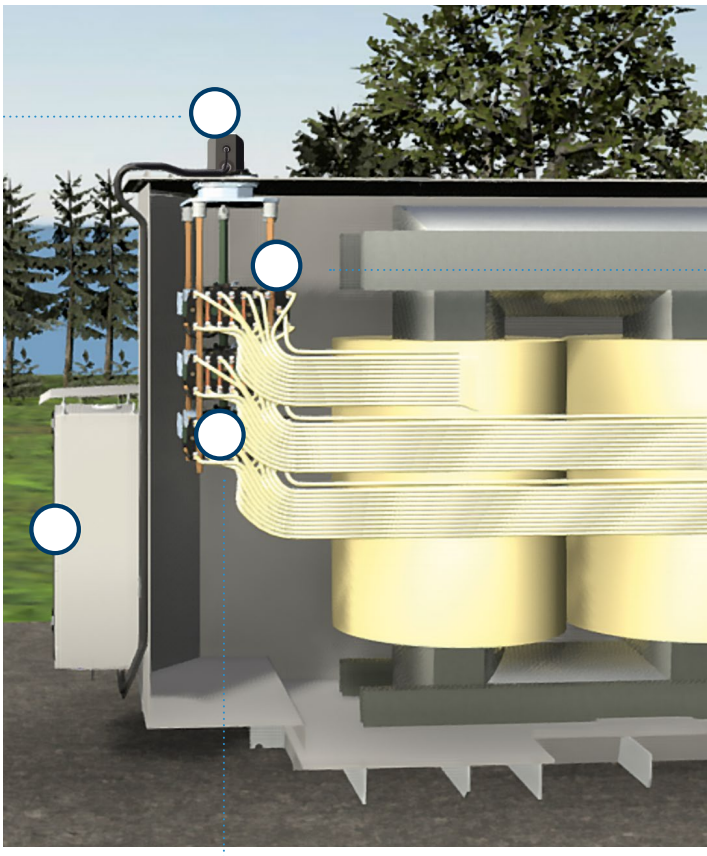
Benefits at a glance

- **Innovative direct drive**
- **Shared oil supply**
- **Focus on sustainability**
- **Optimized footprint**
- **Control of the ECOTAP® VI: ETOS® ID**

→ More information

Built-in sustainability – ECOTAP® VI

A smaller transformer tank with the same power or an identical size for higher power (up to 30%) – ECOTAP® VI provides entirely new options for manufacturing, making it the most sustainable on-load tap-changer on the market. Another contribution is the use of materials which have a positive impact on the environmental footprint.



Direct drive

- \+ No drive shaft required for the motor-drive unit
- \+ Compact direct drive unit without stored energy accumulator
- \+ Cover and bell installation possible

Control of the ECOTAP® VI: ETOS® ID

- \+ Flexible installation on the transformer tank or away from it
- \+ Homing / automatic alignment
- \+ Pre-check before each tap-change operation, check of relevant components
- \+ Reliable completion of the tap-change operation, even in case of power failure thanks to integrated storage battery
- \+ Post-check after each operation

⟶ More information

Simplified OEM customer interface

- \+ Simplified cable routing due to uniform, lateral winding connections
  ⟶ **Reduction of installation space**
- \+ Enables potential for standardization of the cable routing
- \+ Less time needed for tap-changer installation

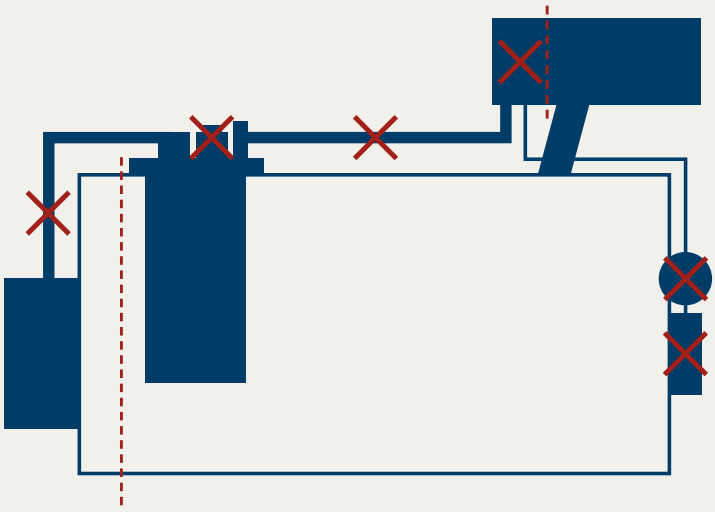
"OVER ITS LIFECYCLE, THE ECOTAP® VI REDUCES CO_2 BY 25% IN COMPARISON TO CONVENTIONAL VACUUM TAP CHANGERS."

Shared oil supply

+ MR expertise and MR quality tested beyond the standard
+ Innovative OLTC design without separate oil supply
+ No influence on the transformer DGA
  - Tap-change operation in the vacuum interrupter
  - Optimized design of the transition resistors and change-over selector

Your benefits at a glance:

The shared oil supply eliminates the need for a variety of components. A special OLTC oil conservator and the piping for it are no longer necessary. The same is true for the OLTC protective relay, dehydrating breather, and oil-level indicator. Another positive: Since it is no longer necessary to couple the tap changer and motor-drive unit, the installation effort is reduced.



+ **No OLTC oil-level indicator**
+ **No OLTC protective relay**
+ **No separate dehydrating breather**
+ **No piping to the oil conservator**
+ **Smaller oil conservator**
+ **Smaller transformer tank**

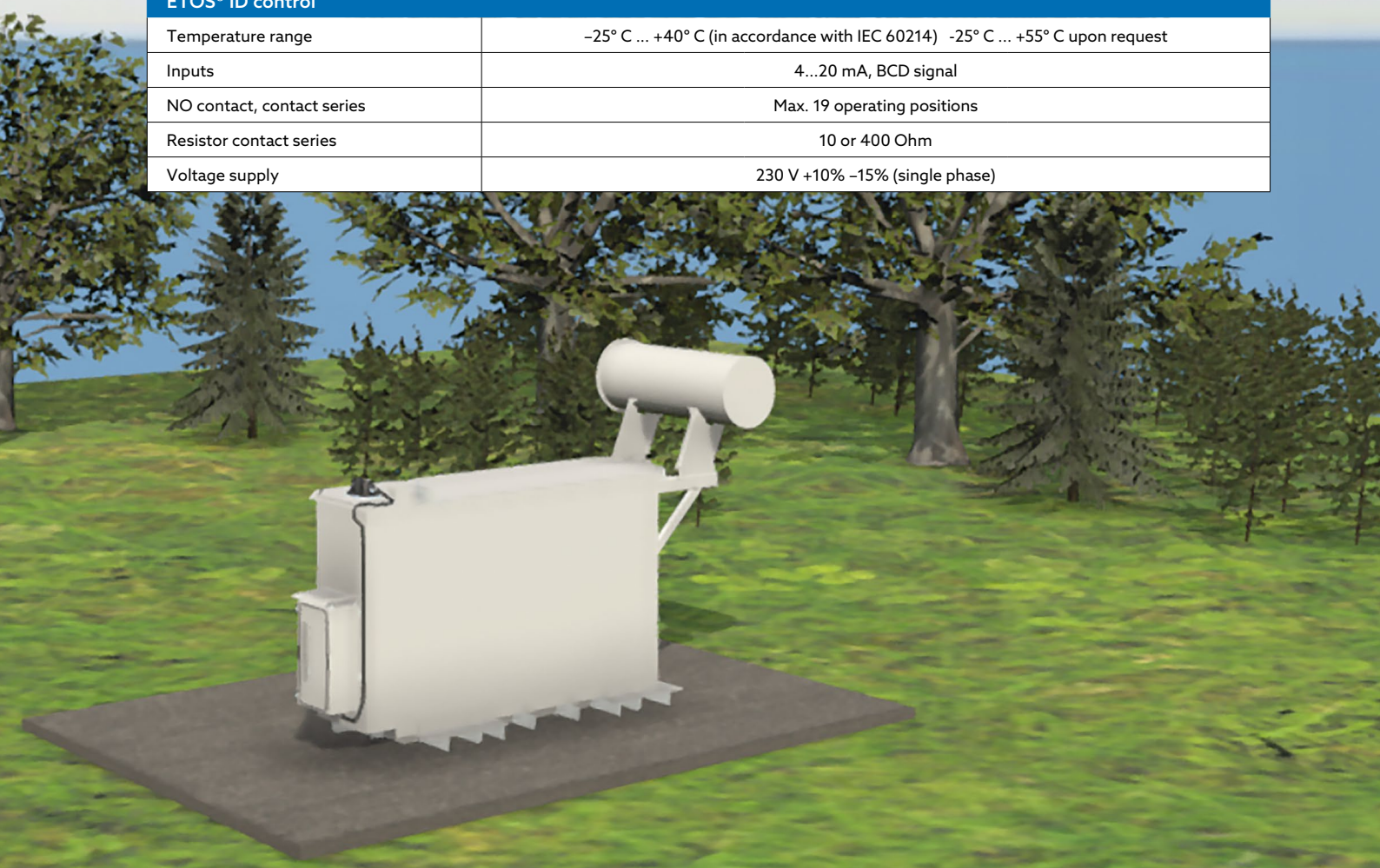
As needed – the service packages

Adapt the ECOTAP® VI to your needs.
We offer 4 different price packages:

TAP CLASSIC	**Maintenance free for up to 300,000 tap-change operations**
Optional:	
TAP S	Maintenance free for up to 50,000 tap-change operations, repurchase option of 2 x 50,000 tap-change operations
TAP M	Maintenance free for up to 100,000 tap-change operations, repurchase option of 50,000 tap-change operations
TAP L	Maintenance free for up to 150,000 tap-change operations

Technical Data

ECOTAP® VI on-load tap-changer	ECOTAP® VI III 400 Y 76	ECOTAP® VI III 400 D 76	ECOTAP® VI III 400 Y 123
Number of phases	III	III	III
Max. rated through-current I_r (A)	400	400	400
Rated short-time current (kA)	5	5	5
Rated duration of short circuits (s)	3	3	3
Rated peak withstand current (kA)	12.5	12.5	12.5
Max. rated step voltage U_{ir} (V)	1,500	1,500	1,500
Step capacity P_{stm} (kVA)	600	600	600
Size (mm)	1,347	1,547	1,452
Rated frequency (Hz)	50–60		
Number of operating positions	Without change-over selector: max. 14, with change-over selector: max. 27		
Control	ETOS® ID		
Insulation fluid	Mineral oil, alternative fluids on request		
Corrosion classes	C4H standard, C4VH and C5H optional		
ETOS® ID control			
Temperature range	–25° C ... +40° C (in accordance with IEC 60214) -25° C ... +55° C upon request		
Inputs	4...20 mA, BCD signal		
NO contact, contact series	Max. 19 operating positions		
Resistor contact series	10 or 400 Ohm		
Voltage supply	230 V +10% –15% (single phase)		



→ More information
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THE POWER BEHIND POWER.