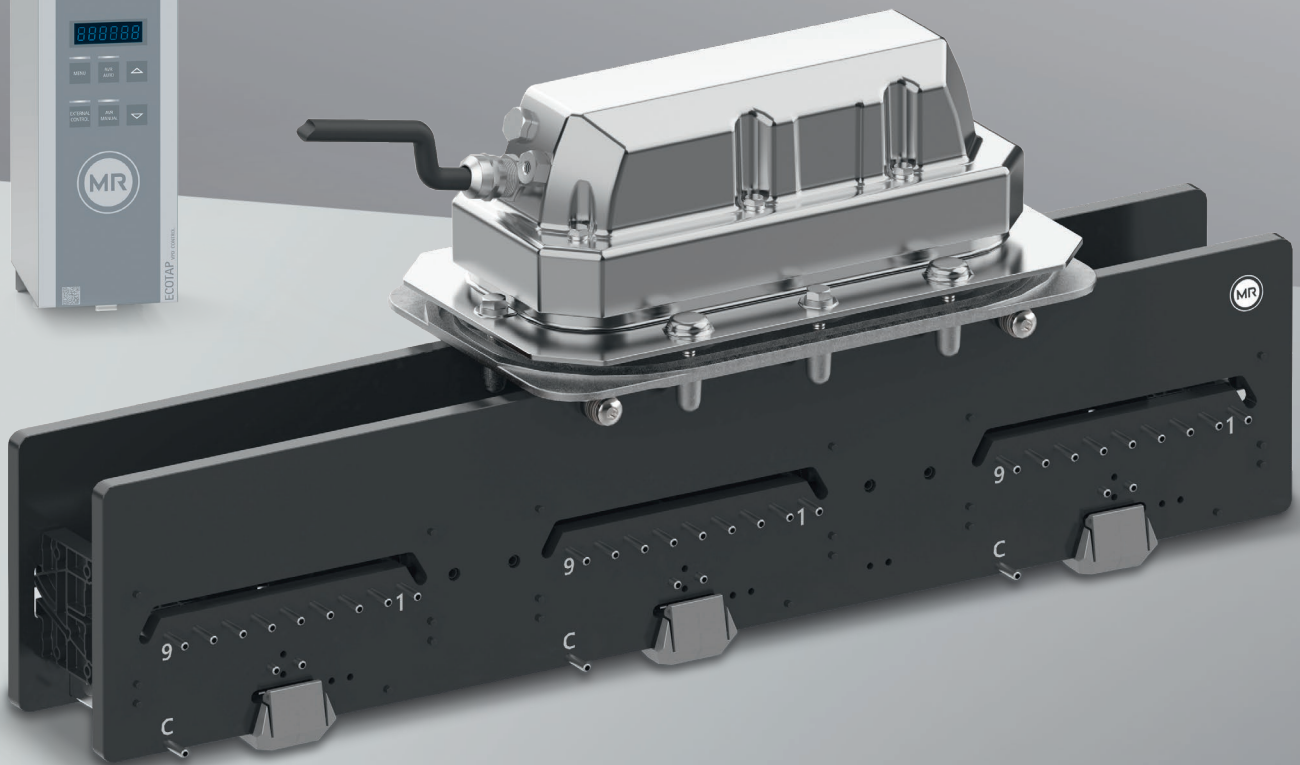


ECOTAP® VPD®



MAKING VOLTAGE REGULATION  
THE STANDARD IN DISTRIBUTION  
TRANSFORMERS.

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# ON-LOAD PERFORMANCE COMBINED WITH OFF-CIRCUIT SIMPLICITY.

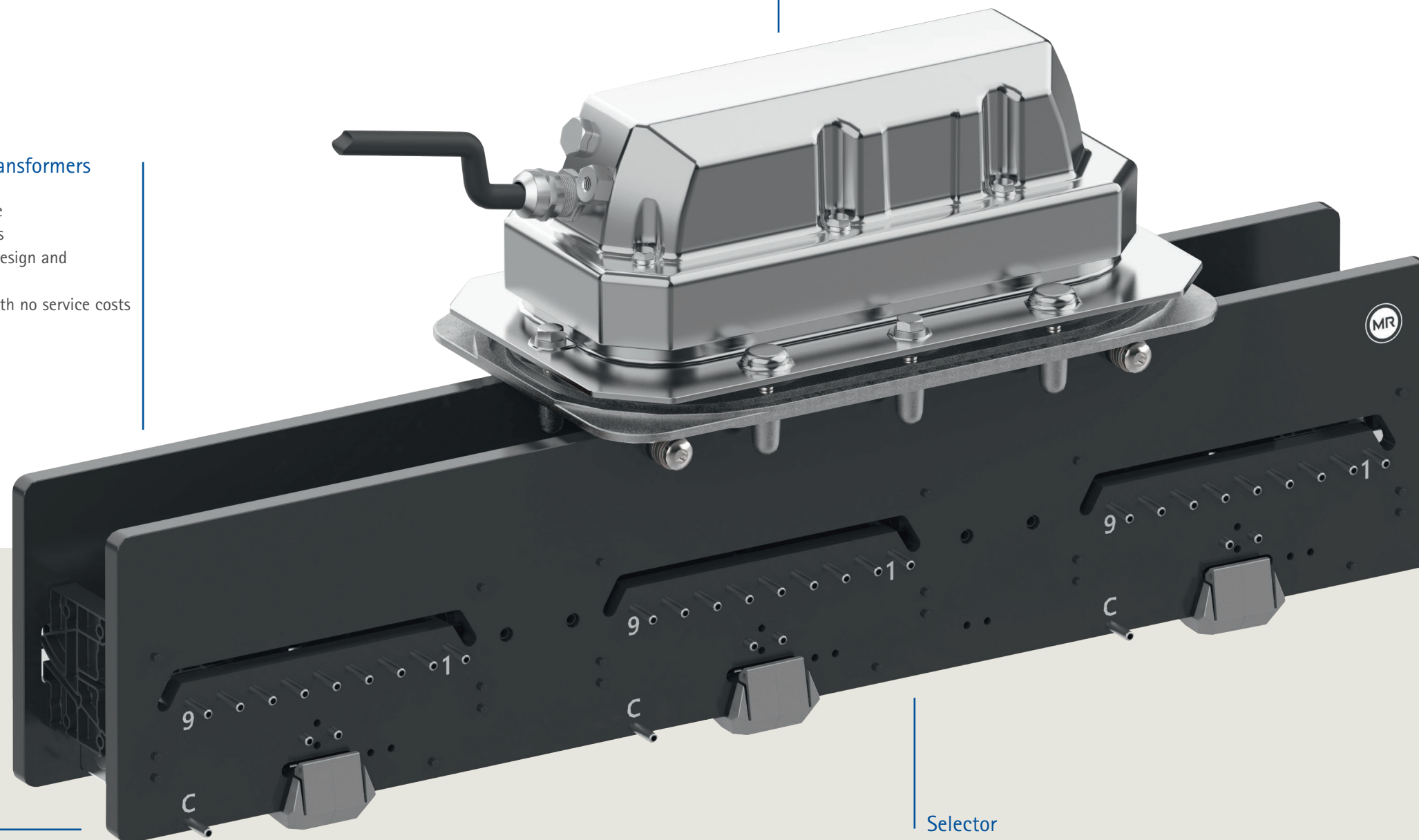
What if an on-load tap-changer were as easy to work with as a de-energized tap-changer? The new ECOTAP® VPD® is a big leap towards that goal.

## Tailor made for distribution transformers

- Most economic solution for voltage regulating distribution transformers
- Easy integration into transformer design and manufacturing process
- Maximum operational reliability with no service costs over the transformer lifetime

## Direct drive

- 20 tap-change operations per minute enable quick responses to changing grid situations
- Comprehensive safety functions and an electrical energy accumulator ensure that once tap-change operations are started they are reliably completed even if all power is lost
- Can be used outdoors thanks to the IP66 degree of protection



## Switching unit

- Maximum reliability and maintenance free for lifetime due to superior vacuum-switching technology
- High-speed resistor-type tap-changer principle avoids additional losses
- Lifetime of the on-load tap-changer identical to the transformer

## Selector

- Well-known tube-design contacts for quick connection
- 9 operating positions enable a wide regulating range
- Eco friendly: can be operated with selected natural and synthetic ester fluids such as MIDEL® 7131, ENVIROTEMP FR3, MIDEL® eN

# ECOTAP® VPD® – CONTROL AND VOLTAGE REGULATION.

Compact, robust and user friendly



**Compact and robust**

- Only 10 cm wide and 35 cm tall
- Wide temperature range of -25°C to +70°C
- High electrical interference level of up to 4 kV
- Degree of protection IP30
- Designed for a life of 20 years

**User friendly**

- Auto mode with single-phase regulation algorithm
- Manual mode with raise/lower operation
- Complete parameterization on the controller possible, no laptop needed
- Comprehensive indication of status in the display

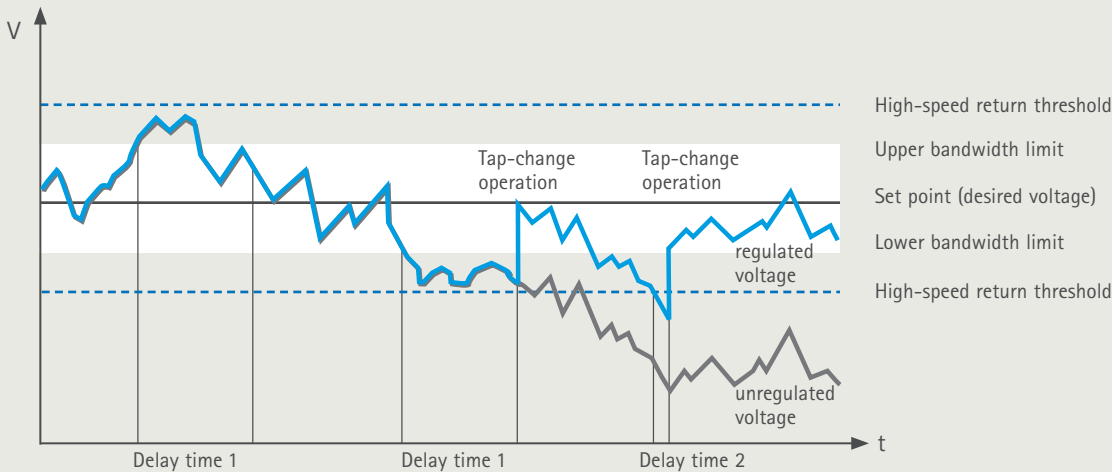
**MODBUS RTU communication**

- Status of control unit
- Control parameterization of control unit
- Reading of measured values
- Command for tap-change operation

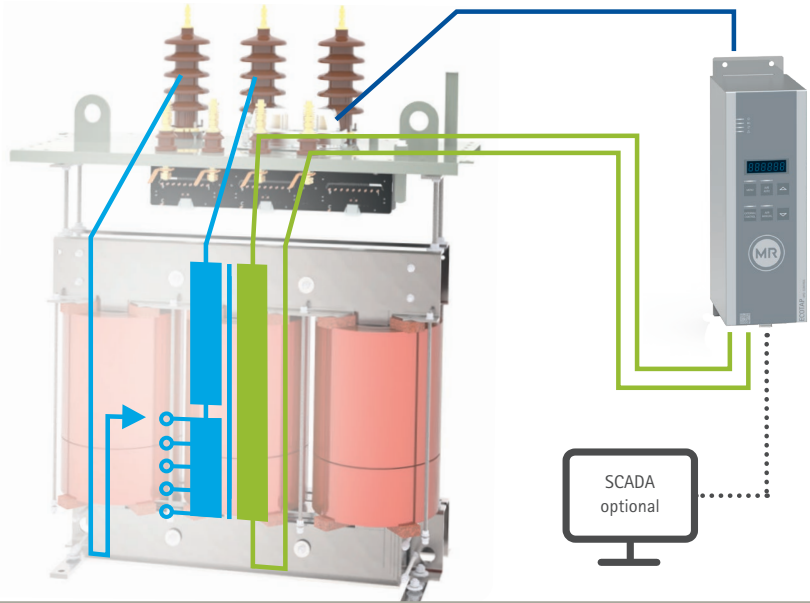
Variants for different regulation strategies

CONTROL	CONTROL DS
Reliable regulation algorithm based on single-phase busbar voltage measurement	Additional current measurement allows dynamic setpoint control to dynamically adapt the voltage setpoint based on the active power flow

Reliable regulation algorithm based on the busbar voltage measured in one phase



Operational principle of a voltage regulating distribution transformer



Technical data

On-load tap-changer	ECOTAP® VPD® III 30D-24
Number of phases	3
Application	At any point in the winding
Max. rated through current	30 A
Max. rated step voltage	550 V
Max. number of operating positions	9
Highest voltage for equipment	24 kV
Max. number of tap-change operations	500,000



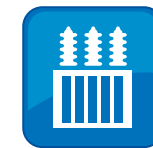
# MORE POWER, MORE VALUE.

Superior technology. Compelling economics.



## Maximum economic efficiency for the entire transformer

- Cost-optimized design for minimum cost and effort during design and manufacture of the transformer
- No need for servicing of the on-load tap-changer or motor drive unit during the entire transformer lifetime; the electronic control can be replaced easily if necessary



## Perfect fit into transformer manufacturers' processes

- Easy integration into all common transformer designs
- Minimum variants allow optimized order processing and logistics
- Well-known tube-design contacts for quick connection



## Best fit into processes of distribution network operators

- Standard solution for the entire distribution network
- Standardized interface throughout the entire ECOTAP® VPD® family avoids extra training for operators
- Simple commissioning and operation



## Maximum operational reliability

- Autonomous operation
- Robust design for high reliability
- Maintenance-free vacuum technology



## Environmentally friendly

- Compliant with the requirements of the EU Ecodesign Directive 2021
- Can be operated with synthetic and natural esters as insulating fluids



**Maschinenfabrik Reinhausen GmbH**  
Falkensteinstrasse 8  
93059 Regensburg, Germany

Phone: +49 941 4090-0  
E-mail: [info@reinhausen.com](mailto:info@reinhausen.com)  
[www.reinhausen.com](http://www.reinhausen.com)

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ECOTAP® VPD® – 08/21– uw

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THE POWER BEHIND POWER.

