ECOTAP® VPD®
MAKING VOLTAGE REGULATION
THE STANDARD IN DISTRIBUTION TRANSFORMERS.

WWW.REINHAUSEN.COM
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

- 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

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>CONTROL DS</th>
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<tbody>
<tr>
<td>Reliable regulation algorithm based on single-phase busbar voltage measurement</td>
<td>Additional current measurement allows dynamic setpoint control to dynamically adapt the voltage setpoint based on the active power flow</td>
</tr>
</tbody>
</table>

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

Operational principle of a voltage regulating distribution transformer

Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>ECOTAP® VPD® III 30D-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of phases</td>
<td>3</td>
</tr>
<tr>
<td>Application</td>
<td>At any point in the winding</td>
</tr>
<tr>
<td>Max. rated through current</td>
<td>30 A</td>
</tr>
<tr>
<td>Max. rated step voltage</td>
<td>550 V</td>
</tr>
<tr>
<td>Max. number of operating positions</td>
<td>9</td>
</tr>
<tr>
<td>Highest voltage for equipment</td>
<td>24 kV</td>
</tr>
<tr>
<td>Max. number of tap-change operations</td>
<td>500,000</td>
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</tbody>
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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
Please note:
The data in our publications may differ from
the data of the devices delivered. We reserve
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