RODAV

Remotely Operated De-icing All-weather Vehicle

Using superheated (200°C) steam, RODAV can safely and effectively de-ice substation disconnectors—even energized ones—in just minutes. Besides its high heat capacity, superheated steam has insulating properties comparable to air at normal temperature and pressure. RODAV is made up of a steam generator, a 16-m non-conductive telescopic mast on a hydraulic turret and an insulated hose on the mast for aiming the steam. The entire unit is mounted on a truck.

Safe, effective and easy to use

Using RODAV simply involves feeding steam into the hose and aiming it at the target by orienting the remote-controlled mast. RODAV can quickly de-ice energized equipment such as insulating columns, transformer bushings and other substation structures. It can also be used to de-ice unsheltered equipment in storage, like wood poles and distribution transformers. An industrial version recently developed de-ices live equipment at voltages as high as 330 kV. Cleaning energized equipment is also feasible.

RODAV was designed to maximize the safety of crews responsible for de-icing energized equipment. It is operated using a digital remote control unit with indicator lights for key parameters, e.g., those of the steam generator and hydraulic system. A programmable controller manages steam generation, monitors possible leakage currents and warns the operator of incipient problems.
Versatile technology

RODAV's patented technology is suited to a wide range of applications:

- Removing ice from line disconnectors (up to 330 kV) to ensure proper operation
- Rapid de icing of energized equipment like substation insulators
- Steam cleaning of soiled or contaminated surfaces
- De-icing of wood poles, transformers and other exposed equipment
- Degreasing of mechanical equipment.

Data sheet

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specifications</th>
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<tbody>
<tr>
<td>Dielectric strength</td>
<td>Dry flashover voltage meeting IEC 60-1: &gt; 800 kV&lt;sub&gt;rms&lt;/sub&gt;</td>
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<td></td>
<td>Withstand capability: 240 kV&lt;sub&gt;rms&lt;/sub&gt; in rain</td>
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<td>850 kV switching surge in rain</td>
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<tr>
<td>Steam generator</td>
<td>Steam temperature: 200°C</td>
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<td></td>
<td>Pressure: 100 psi</td>
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<td>Fuel: Diesel</td>
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<tr>
<td>Telescopic mast</td>
<td>Rotation: ±110 deg.</td>
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<td>Elevation: -10 to +90 deg.</td>
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<tr>
<td></td>
<td>Length: 3.8 m retracted, 16 m fully extended</td>
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<tr>
<td>Remote control</td>
<td>Range: 300 m</td>
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For information

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