TEMPORARY SITE CABLES

High voltage temporary cables are ideal for use during construction, repair & servicing work or emergencies

The Perfect Solution for Temporary Use

The construction of new power plants and the growing demand for renewable energy sources has increased the need to expand and/or convert networks into transformer substations or onto overhead line towers. As a key player in the energy industry, Nexans is pleased to offer a safe and flexible component for such projects – Pre-Terminated Temporary Site Cables.

These cables can be used to temporarily connect equipment in a high voltage network, e.g. as a bypass during construction or repair and servicing work, or during emergencies such as natural disasters or severe weather.

When faults occur in overhead or underground lines, temporary site cables make it possible to restore energy transmission rapidly. While modification work is underway in a transformer station, temporary connections can be rapidly installed between transformers and switchgear systems or overhead lines.

Temporary site cables are available from inventory or they can be manufactured to meet your specific requirements. Nexans also offers additional services such as installation and testing following use or repair work.

Pre-Installed Flexible Silicone Rubber Terminations for Easy Handling

Due to the conditions under which temporary site cables are installed, the accessories must be easy to use and have a wide range of possible applications.

Nexans’ pre-installed flexible silicone rubber terminations facilitate use in any position. Thanks to their low weight, the terminations can operate without any additional support structures. Their monobloc design makes the terminations suitable for all voltages from 72.5 kV to 220 kV. This set-up offers maximum flexibility and operational reliability.
Design

Temporary site cables have the **same design as high voltage cables** but with a **reduced insulation thickness**. This makes them easier to handle on the construction site.

The cables have a standardized conductor cross section of $150 \text{ mm}^2$ (300 kcmil) or $300 \text{ mm}^2$ (600 kcmil). Depending on customer requirements, the length can vary between $50 \text{ m}$ and $500 \text{ m}$ (165 - 1640 ft). They are delivered on a special single-chamber or three-chamber drum. This special drum design facilitates safe winding and unwinding of the cable and pre-installed terminations.

<table>
<thead>
<tr>
<th>Voltage (kV)</th>
<th>Conductor (mm$^2$)</th>
<th>Insulation (mm)</th>
<th>Screen (mm$^2$)</th>
<th>Sheath (mm)</th>
<th>OD (mm)</th>
<th>Weight (kg/m)</th>
<th>Current (A)</th>
<th>Power (MVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>150</td>
<td>15</td>
<td>35</td>
<td>3.7</td>
<td>59</td>
<td>3.9</td>
<td>474</td>
<td>91</td>
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<tr>
<td>115</td>
<td>300</td>
<td>13</td>
<td>35</td>
<td>3.7</td>
<td>59</td>
<td>5.2</td>
<td>701</td>
<td>135</td>
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<td>138</td>
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<td>108</td>
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<tr>
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<td>300</td>
<td>18</td>
<td>50</td>
<td>4.0</td>
<td>72</td>
<td>6.6</td>
<td>655</td>
<td>250</td>
</tr>
</tbody>
</table>

**Advantages of Temporary Site Cables and Accessories**

- Optimized cable design for very small bending radii
- Reduced insulation thickness in order to reduce weight and improve handling
- The pre-installed silicone rubber terminations are maintenance-free and routine tested for partial discharge up to a test voltage of $2.5 \times U_0$. Following every use, a new partial discharge measurement can be performed on the cables in order to rule out possible damage.
- Special single or three-chamber drums make transportation and handling much easier

For more information contact:

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