



# TEMPORARY SITE CABLES KEEPING ELECTRICITY AVAILABLE



Global expert in cables and cabling systems

#### About Nexans

Nexans brings energy to life through an extensive range of cables and cabling solutions that deliver increased performance for our customers worldwide. Nexans' teams are committed to a partnership approach that supports customers in four main business areas: Power transmission and distribution (submarine and land), Energy resources (Oil & Gas, Mining and Renewables), Transportation (Road, Rail, Air, Sea) and Building (Commercial, Residential and Data Centers). Nexans' strategy is founded on continuous innovation in products, solutions and services, employee development, customer training and the introduction of safe, low -environmental- impact industrial processes.

More information on [www.nexans.com](http://www.nexans.com)

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# THE FLEXIBILITY TO ACT MORE QUICKLY

DESIGN

## 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 stock or can be manufactured to meet your specific requirements.



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 mm<sup>2</sup> (300 kcmil) or 300 mm<sup>2</sup> (600 kcmil). Depending on customer requirements, the length can vary between 50 m (65 ft) and 500 m (1640 ft) or more. 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 the pre-installed terminations.

### Advantages of temporary site cables and accessories

- Optimized cable design for small bending radii
- Reduced insulation thickness in order to reduce weight and to 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



## BENEFITS FOR CUSTOMERS

### At home, at work, out and about –

there is no life without electrical energy. Electricity is available at any time; this goes without saying. To ensure that this remains the case, overhead lines and transformer substations must always be ready for operation, even if the transmission grids have to be adapted. Temporary site cables are perfect for reducing the disconnecting times of transmission paths during conversion. The cables are a practical and simple solution as they make it easier to modernize switching sections in substations.



### Construction within substations

- Ideal tool for installing temporaries in transformer substations
- Reducing the disconnecting times of transmission lines during conversion
- Flexible terminations can be installed quickly and in a small space
- The cables can be rechecked for partial discharge after being used

### Replacing temporary overhead lines

- Replacing the temporary installation of overhead lines
- Provisional connection of existing overhead lines if new ones have to cross
- Depending on length required, the cables will be simply rolled out and connected
- Reduce risk of recourse claims

### In case of emergencies

- Can be used immediately
- The energy supply can be quickly restored, even in emergencies and malfunctions
- Can be installed regardless of weather conditions including frigid temperatures
- Temporary site cables are save and easy to use and secure the supply

### 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 230 kV and up to 750 A per system. Two systems in parallel double capacity to 1500 A. This setup offers maximum flexibility and operational reliability.

## REFERENCES



bayernwerk



ACTUAL REFERENCE LIST AVAILABLE UPON REQUEST

### Mr. Schindelbauer: Westnetz

„The disconnect times of the electrical systems are frequently only short and timed precisely. It is a major advantage here that temporary site cables can be installed regardless of the weather conditions as well as at minus temperatures.“

„Thanks to their ease of use, temporary site cables allow the supply to be restored quickly



and safely if faults arise in the grid or transformer station.“