

**CONTACT**

Market information  
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**Control cables  
UL Type WTTC & TC**

UL Subject 2277 & UL Standard 1277

**STANDARDS**

**Product** UL 1277; UL 2277

**Application**

Nexans Wind Turbine Tray Cable WINDLINK® LV-UL WTTC was specifically designed to withstand extreme conditions encountered in wind turbine applications.

**Product characteristics**

- Flame-retardant acc. to CSA FT4 (Vertical Tray)
- Oil-resistant acc. to UL OIL RES I
- UV resistant
- Suitable for torsional applications in wind turbines

**Approvals**

- UL MTW
- UL TC-ER 90°C 600V
- UL WTTC 90°C 1000V
- UL DP-1
- UL AWM 600V

## CHARACTERISTICS

## Construction characteristics

|                    |                                |
|--------------------|--------------------------------|
| Construction type  | 4 G 16                         |
| Conductor material | Soft annealed copper           |
| Insulation         | PVC compound                   |
| Individual sheath  | Nylon jacketing compound       |
| Insulation colour  | Black w. number + yellow/green |
| Outer sheath       | Special PVC compound           |
| Sheath colour      | Black - RAL 9005               |

## Dimensional characteristics

|                                     |                    |
|-------------------------------------|--------------------|
| Conductor diameter (mm)             | -                  |
| Number of cores                     | 4                  |
| Conductor cross-section             | 16 mm <sup>2</sup> |
| Insulation sheath thickness         | 0.76 mm            |
| Conductor cross-section (AWG/KCMIL) | 6                  |
| Inner sheath thickness              | - mm               |
| Nominal outer diameter              | 22.3 mm            |
| Nominal outer sheath thickness      | - mm               |
| Copper content                      | - kg/km            |
| Maximum cable diameter              | - mm               |
| Minimum cable diameter              | - mm               |
| Approximate weight                  | - kg/km            |

## Electrical characteristics

|                                         |             |
|-----------------------------------------|-------------|
| Nominal resistance of the conductor     | 1.21 Ohm/km |
| Max. Electrical Resistance AC 60Hz 70°C | - Ohm/km    |
| Max. Electrical Resistance AC 60Hz 90°C | - Ohm/km    |
| Test voltage                            | 2500 V      |
| Inductive reactance                     | - Ohm/km    |
| Insulation resistance at 20°C           | 20 MOhm.km  |
| Nominal Voltage                         | 1000 V      |
| Operating capacitances                  | - mF/km     |
| Permissible short circuit current       | - kA        |
| Operating voltage - range               | - kV        |
| Maximum operating voltage               | -           |
| Transfer impedance                      | -           |

## Mechanical characteristics

|                      |         |
|----------------------|---------|
| Tensile strength     | - N     |
| Maximum tensile load | - N     |
| Torsion stress       | 100 °/m |
| Carrying capacity    | - kg    |
| Frequent torsion     | -       |
| Torsion +/- 180°     | -       |

## Usage characteristics

|                                              |              |
|----------------------------------------------|--------------|
| Ambient dynamic operating temperature, range | -5 ... 90 °C |
|----------------------------------------------|--------------|

**Usage characteristics**

|                                             |                               |
|---------------------------------------------|-------------------------------|
| Ambient static operating temperature, range | -40 ... 90 °C                 |
| Gases corrosivity                           | -                             |
| Minimum bending radius, occasionally moving | 8 (xD)                        |
| Minimum bending radius, fixed installation  | 4 (xD)                        |
| Flame retardant                             | UL 1581 SEC. 1160 AND CSA FT4 |
| Oil resistance                              | Oil resistance I              |
| U.V resistance                              | -                             |
| Ozone resistance                            | -                             |
| Max. conductor temperature in service       | - °C                          |
| Short-circuit max. conductor temperature    | - °C                          |
| Installation temperature, range             | - °C                          |
| Operating temperature, range                | - °C                          |

**WORKING VOLTAGE**

- UL AWM 600V
- UL TC-ER / MTW 600V
- UL WTTC 1000V

**SELLING AND DELIVERY INFORMATION**

## Marking

E219385 - CE - Week/Year of production - TYPE WTTC / THHN or THWN 90°C 1000V or MTW 90°C 600 V - n x/G yy  
mm²/AWG size

n: number of conductors

x/G: without/with Yellow/Green conductor

yy: section of conductor

Meter marking