# Product Overview

T2X is an XLPE-insulated bundled aerial cable designed for low-voltage overhead power distribution networks with a rated voltage of 0.6/1 kV ($U_0/U$).

The cable consists of aluminium phase conductors and a steel-aluminium supporting neutral conductor. The phase conductors are insulated with cross-linked polyethylene (XLPE), specifically TIX 2 type, providing electrical insulation for overhead installation.

Depending on the conductor cross-section, the phase conductor is manufactured as a solid aluminium conductor or a concentrically stranded aluminium conductor. The steel-aluminium neutral conductor provides mechanical support for the aerial cable assembly.

T2X cable is suitable for single-phase and three-phase service connections, residential electricity supply and public lighting networks.

# Applications

T2X bundled aerial cable is designed for low-voltage overhead power distribution networks with rated voltages up to 0.6/1 kV.

Typical applications include:

- Single-phase electrical service connections
- Three-phase electrical service connections
- Residential electricity distribution
- Three-phase power supply networks for household consumers
- Single-phase public lighting networks
- Two-phase public lighting networks
- Three-phase public lighting networks
- Low-voltage overhead distribution systems

# Construction

### 1. Phase Conductor

The phase conductor is made of aluminium, with the construction selected according to the nominal cross-section:

- Solid aluminium conductor (re): for cross-sections up to and including 16 mm², subject to confirmation of the applicable product design.
- Concentric stranded aluminium conductor (rm): for the applicable larger cross-sections.

### 2. Supporting Neutral Conductor

- Material: Steel-aluminium



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- Construction: Concentric stranded (rm)
- Function: Mechanical support for the bundled aerial cable

### 3. Insulation

- Material: Cross-linked polyethylene (XLPE)
- Insulation type: TIX 2
- Colour: Black

### Main Technical Specifications

| Parameter | Description |
|---|---|
| Product name | T2X Bundled Aerial Cable |
| Cable type | XLPE-Insulated Bundled Aerial Cable |
| Rated voltage ($U_0/U$) | 0.6/1 kV |
| Phase conductor material | Aluminium |
| Phase conductor construction | Solid (re) or concentric stranded (rm) |
| Solid conductor application | Cross-section ≤16 mm², subject to design confirmation |
| Supporting neutral conductor | Steel-aluminium |
| Neutral conductor construction | Concentric stranded (rm) |
| Insulation material | Cross-linked polyethylene (XLPE) |
| Insulation type | TIX 2 |
| Insulation colour | Black |
| Production standards | ST 125; SR HD 626 S1 |
| Application | Low-voltage overhead power distribution |

## Technical Parameters

| Conductor cross-section | max la 20°C Electric resistance at 20° C, max. Ω/km | Permissible charge A | in No. of wires conductor, min. | Nominal radial insulation thickness mm | Breaking strength kN | Diam ext nominal Nominal outer diam. mm |
|---|---|---|---|---|---|---|
| 10 | 3.08 | 70 | 1 | 1.1 | 1.6 | 5.8 |
| 16 | 1.91 | 90 | 1 | 1.1 | 2.4 | 7.2 |
| 25 | 1.2 | 107 | 7 | 1.3 | 3.7 | 9.0 |
| 35 | 0.868 | 132 | 7 | 1.3 | 5.2 | 9.6 |
| 50 | 0.641 | 165 | 7 | 1.5 | 7.2 | 11.1 |
| 70 | 0.443 | 205 | 14 | 1.5 | 12.4 | 12.7 |
| 95 | 0.32 | 240 | 19 | 1.7 | 16.8 | 14.8 |
| Conductor neutru | 0.595 | 165 | 6/1 | 1.5 | 16.8 | 11.9 |


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| Conductor cross-section | max la 20°C Electric resistance at 20° C, max. Ω/km | Permissible charge A | No. of wires in conductor, min. | Nominal radial insulation thickness mm | Breaking strength kN | Diam ext nominal Nominal outer diam. mm |
|---|---|---|---|---|---|---|
| 50/8 | | | | | | |
| 70/12 | 0.413 | 205 | 26/7 | 1.5 | 25.77 | 12.7 |
| 95/15 | 0.320 | 240 | 26/7 | 1.7 | 33.72 | 14.8 |

| Cable type | Total cable mass, inf. kg/km | Cable type | Total cable mass, inf kg/km |
|---|---|---|---|
| T2X 10Al+16 Al | 101 | T2X 50 OL-Al+3x35Al +2x16Al | 747 |
| T2X 16Al+25 Al | 153 | T2X 50 OL-Al+3x35Al+3x16Al | 813 |
| T2X 2x10Al | 86 | T2X 50 OL-Al+3x35Al+1x35Al | 746 |
| T2X 2x10Al+16Al | 142 | T2X 50 OL-Al+1x50Al | 405 |
| T2X 2x16Al | 118 | T2X 50 OL-Al+3x50Al | 745 |
| T2X 2x25Al | 188 | T2X 50 OL-Al+3x50Al +1x16Al | 804 |
| T2X 3x16Al+25Al | 271 | T2X 50 OL-Al+3x50Al+2x16Al | 863 |
| T2X 3x25Al +16Al | 345 | T2X 50 OL-Al+3x50Al+3x16Al | 924 |
| T2X 3x35Al | 464 | T2X 50 OL-Al+3x50Al +1x25Al | 839 |
| T2X 4x10Al | 172 | T2X 50 OL-Al+3x50Al+3x25Al | 1032 |
| T2X 4x16Al | 250 | T2X 50 OL-Al+3x50Al +1x35Al | 869 |

# Key Features and Benefits

- **XLPE insulation:** Cross-linked polyethylene insulation provides electrical insulation for low-voltage overhead cable applications.
- **Aluminium phase conductors:** Lightweight conductive material for overhead distribution networks.
- **Steel-aluminium supporting neutral:** Provides mechanical support for the aerial cable assembly.
- **Flexible conductor construction:** Solid and concentrically stranded conductor options according to the specified cross-section.
- **Bundled aerial design:** Suitable for single-phase and three-phase service connections.
- **Residential and public lighting applications:** Designed for low-voltage electricity supply networks.

# Applicable Standards

- ST 125
- SR HD 626 S1

The applicable standard editions and detailed construction requirements should be confirmed against the project specification.



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# Why Choose QZ Cable?

QZ Cable is a cable and conductor manufacturer with a history dating back to 1969. We supply overhead conductors and insulated cable solutions for power transmission and distribution projects.

For T2X cable requirements, our team can evaluate:

- Required phase conductor cross-section
- Solid or stranded aluminium conductor construction
- Supporting neutral conductor specification
- XLPE insulation requirements
- Applicable production standards
- Cable configuration and required quantity

Contact QZ Cable with your technical specifications or project drawings for product evaluation and quotation.

# Frequently Asked Questions

**1. What is the rated voltage of T2X aerial cable?**

The specified rated voltage is 0.6/1 kV ($U_0/U$).

**2. What insulation material is used in T2X cable?**

T2X uses cross-linked polyethylene (XLPE), specifically TIX 2 type, with black insulation.

**3. What is the difference between re and rm conductors?**

In the supplied product documentation, re identifies a solid conductor, while rm identifies a concentrically stranded round conductor.

**4. What is the supporting neutral conductor made of?**

The supporting neutral conductor is made of steel-aluminium wires and has a concentrically stranded construction.

**5. Where is T2X cable used?**

It is designed for low-voltage overhead power distribution, residential service connections and public lighting networks.

**6. Which standards apply to T2X cable?**

The supplied documentation specifies ST 125 and SR HD 626 S1.



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