



# Technical specification

## Insulating cable tray **66** in **U23X**

### Description

#### Use

- For support, protection and conduction of cables.
- Insulating material.
- Length: 3m.
- Colour: RAL 7035 Grey.

#### Installation

- Safe, easy and quick mounting. No burrs when cutting.

#### Mounting instructions

- To fulfil the characteristics defined herein, the installation must be carried out in accordance with the manufacturer`s assembly instructions provided in the main product packaging and are also available on the website [www.unex.net](http://www.unex.net).

### Product characteristics

- Cable tray system for outdoor/indoor installations. Suitable for humid, saline and chemical environments: U23X. <sup>(1)</sup>
- Insulating supports for outdoor/indoor installations. Suitable for humid, saline and chemical environments: U23X. <sup>(1)</sup>
- Metallic supports for outdoor/indoor installations. Suitable for humid, saline and chemical environments: Stainless steel AISI 304. <sup>(1)</sup>
- Metallic supports for outdoor/indoor installations. Suitable for humid, saline and chemical environments: Galvanized steel with epoxy coating. <sup>(1)</sup>
- Metallic supports for dry indoor installations: Sendzimir galvanized steel.
- Silicone contents: Without silicone (<0,01%).
- RoHS Directive compliance: Compliant .

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### Quality Marks <sup>(2)</sup>



(3)

EN 61537: 2007  
Licence n°: 030/001911



EN 50085-1:2006 EN  
50085-1:2006/A1:2013 EN  
50085-2-1:2008 EN 50085-  
2-1:2008/A1:2012  
Licence n°: 030/002491



(3)

EN 61537: 2007  
Licence n°: 670639/M2



(3)

EN 61537: 2007  
Licence n°: 40011889



ANSI / UL 568: 2009 -  
CAN/CSA C22.2 No. 126.2-  
02  
Licence n°: E335136



ГОСТ Р  
52868-2007  
ГОСТ Р 53313-2009  
19.H03293

### Approvals <sup>(2)</sup>



Type approval Certificate n°  
05116/H0 BV



Φ3 от 22.07.08 N 123-Φ3  
ГОСТ Р 53313-2009  
C-ES.A509.B.00636

### Characteristics

#### BS EN 61537:2007 (IEC 61537:2006) INTERNATIONAL CABLE TRAY AND CABLE LADDER STANDARD

Min./max. Service, transport, storage, installation and use temperature	-20° C up to +60° C.
Protection against mechanical damage	20 J at -20°C (except 60x100: 10 J and 60x75: 5 J).
Electrical characteristics	<ul style="list-style-type: none"> <li>■ Insulating Cable tray and support system (except metallic supports)</li> <li>■ Without electrical continuity. Non-conductive system.</li> </ul>
Resistance to flame propagation s/ EN 60695-11-2:2003 <sup>(4)</sup>	Non flame propagating system.
Coating	Without coating (except metallic supports with metallic coating and metallic supports with organic coating).

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### Characteristics

#### BS EN 61537:2007 (IEC 61537:2006) INTERNATIONAL CABLE TRAY AND CABLE LADDER STANDARD

% perforation in the base area	<ul style="list-style-type: none"> <li>Class B (between 2% and 15%) for perforated cable tray.</li> <li>Class A (between 0% and 2%) for non perforated cable tray.</li> </ul>
Safe Working Load (SWL) acc. Test Type I	<ul style="list-style-type: none"> <li>60x75 mm : 7,9 Kg/m</li> <li>60x100 mm. : 10,8 Kg/m</li> <li>60x150 mm. : 16,6 Kg/m</li> <li>60x200 mm. : 22,5 Kg/m</li> <li>60x300 mm. : 33,7 Kg/m</li> <li>60x400 mm. : 45,6 Kg/m</li> <li>100x200 mm. : 37,6 Kg/m</li> <li>100x300 mm. : 57,3 Kg/m</li> <li>100x400 mm. : 77,2 Kg/m</li> <li>100x500 mm. : 96,6 Kg/m</li> <li>100x600 mm. : 116,5 Kg/m</li> </ul>
Safe Working Load (SWL) Test conditions	<ul style="list-style-type: none"> <li>T = 40 °C span 1,5 m.</li> <li>T = 60 °C span 1 m.</li> <li>Longitudinal deflection lower than 1% and transverse lower than 5%.</li> <li>Test Type I : the junction between two lengths of cable tray is placed in the midpoint of the span (the worst situation for testing) so that in a real situation the junction can be placed at any point between two supports.</li> <li>The system (cable tray and supports) must be able to support 1,7 times the safe working load (SWL) without collapse.</li> </ul>
Glow-wire test acc./ IEC 60695-2-11:2001 <sup>(4)</sup>	Severity degree 960°C.
Resistance against humid and saline corrosion	Inherently resistant to corrosion. Test is not necessary.

#### DIN 8061 AND ISO/TR 10358

Performance against chemical ambiances	Chemical resistance against different substances defined by the standard depending on the concentration and temperature.
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#### EN 50085-2-1:2006 + A1:2011 CABLE TRUNKING EUROPEAN STANDARD

Material	Non metallic.
Minimum storage and transport temperature	-45°C
Minimum installation and application temperature	-25°C

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### Characteristics

#### EN 50085-2-1:2006 + A1:2011 CABLE TRUNKING EUROPEAN STANDARD

Maximum installation and application temperature	+60°C
Resistance against mechanical impacts during mounting and use	Cable tray with cover: 20 J at -25°C
Resistance to flame propagation acc./ IEC 60695-11-2:2003 <sup>(5)</sup>	Non-flame propagation.
Electrical continuity characteristic	Without electrical continuity characteristic.
Electrical insulating characteristic	With electrical insulating characteristic.
Protection degree assured by the enclosure acc./ IEC 60529:1989 <sup>(5)</sup>	<ul style="list-style-type: none"> <li>■ IP3X. Continuous cable tray with cover.</li> <li>■ IP2X. Perforated cable tray with cover.</li> </ul>
Retention of the system access cover	Cover removable only with the aid of a tool.
Electrically protective separation	With and without internal protective separation.
Intended installation positions	Surface mounted on the wall.
Prevention of contact with liquids	Not declared.
Assured functions	Type 1. (Cable tray profile with cover, separator, cover fixing IK10 and end cover)
Rated Voltage <sup>(6)</sup>	750 V.
Protection against mechanical damage acc./ IEC 62262:2002 <sup>(7)</sup> <sup>(5)</sup>	Cable tray with cover: Degree IK10.

### Constructive and Functional characteristics

- Profile type: Cable trays and covers are made of solid walls and by extrusion.
- Junctions: The junction's thickness is equal or higher than the one of the joined lengths of tray and has longitudinal holes to absorb expansion.
- Insulation: The cable tray is insulating and does not require earthing.
- Supports: Supports must comply with IEC 61537:2006 and shall resist at least the maximum loads of the carried cable trays.
- Outdoor performance: Good performance with exposure to the UVs and to the elements. Product Certified UL LISTED as "Suitable for outdoor" ANSI/UL 568:2009 and CAN/CSA C22.2 No. 126.2-02.
- Product packaging: Product perfectly packaged and clearly identified.

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### Compulsory regulations

#### CONFORMITY WITH THE DEMANDS OF EUROPEAN DIRECTIVE 2014/35/EU

CE Marking <sup>(3)</sup>	Conformity with standard EN 61537:2007.
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### Characteristics of U23X raw material

- Base raw material: PVC.
- Silicone contents: <0,01%.
- Phthalate contents according to ASTM D2124-99:2004: <0,01%.
- Dielectric strength according to EN 60243-1:2013: 18±5 kV/mm.  
Test sample thickness 2,5 mm.
- Reaction to fire according to UNE 201010:2015: Classification: M1.
- UL flammability tests on plastic materials according to ANSI/UL 94: 1990: Degree UL94: V0.
- L.O.I. Oxygen index according to EN ISO 4589:1999 + A1:2006: (Concentration %) = 52±5.
- Coefficient of linear expansion: 0,07 mm/°C m. <sup>(8)</sup>
- Behaviour to chemicals exposure: DIN 8061 and ISO/TR 10358 standards indicate the performance of rigid PVC in front of a series of chemical products depending on its concentration and temperature.  
Resistant to the most common:
  - Oils (mineral, vegetable and paraffin emulsions)
  - Acids (diluted or concentrated)
  - Fat acids
  - Alcohols
  - Aliphatic carbon hydrides
  - Hydroxide
  - Saline solutions <sup>(8)</sup>
- Resistance to ozone according to ASTM D-1149: No cracks magnified to 2.
- UL Approval: UL File E317944 (only extrusion formula, grey and blue colour).

### Characteristics of steel coated with epoxy resin raw material

- Base raw material: Steel
- Coating: Epoxy/polyester resin
- Classification: Steels DD11 acc./EN 10111:2008 and DC01 acc./EN 10130:1999

### Characteristics of stainless steel coated with epoxy resin raw material

- Coating: Highly corrosion resistant coating+ epoxy / Polyester resin
- Classification: EN 10088: 1.4301  
AISI:AISI 304  
NF A35-586:Z6CN 18-09  
DIN 17440:1.4301(V2A)  
BS:304,S31

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### Characteristics of sendzimir steel raw material

- Base raw material: Steel
- coating according to EN 10130:1998: Pre-galvanized steel Z275-MBO
- Classification acc./EN 10142: 2000: DX53D+Z275-MBO

### Characteristics of PVC Plasticized raw material

- Base raw material: PVC plasticized
- UL flammability tests on plastic materials according to ANSI/UL 94: 1990: degree UL94 V0

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### Notes

1. In outdoor installations or in aggressive chemical environments it is necessary to periodically check the installation. In outdoor installations, a colour change may occur on the raw material, without affecting its mechanical features. If painted, dark colored paints might cause further warming of the product once exposed to the sun, in such case we recommend to install Cable trays in U48X.
2. Except for new part numbers, which are under process of obtaining quality marks and approvals. See updated information of each part number on [www.unex.net](http://www.unex.net)
3. The values indicated according to IEC 61537:2006 have been tested under its European implementation EN 61537:2007.
4. Tested according to standard prescriptions of EN 61537:2007 . Equivalent to IEC 61537:2006 Cable tray and cable ladder standard.
5. Tested according to standard prescriptions of EN 50085-1
6. Test carried out considering the use of the cable tray with cover to provide additional insulation to an isolated conductor according to requirements of EN 50085-1 standard (Low Voltage Directive)
7. Mounted with Cover fixing Ref. 66845 or 66855. Without this device: Impact resistance 2J and Protection against mechanical damages Grade IK07.
8. All features marked are based on random tests of the material in the manufacture of our products. However, they only reflect the values accepted by the raw material manufacturers, which are provided only as information and guidance.

\* All information contained herein is completely objective and is the result of a wide experience in satisfying our costumers` requirements . For more details, please visit our website.

\*\* Unex aparellaje eléctrico, S.L. reserves the right to modify any characteristics of the products manufactured. This document is an uncontrolled copy and will not be updated if its content changes.

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