



TYPE APPROVAL CERTIFICATE  
No. ELE030518XT/003

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	<b>ELECTRIC CABLES</b>
<i>Type</i>	<b>U-HFFRAT m; U-HFFRAT m (I); U-HFFRAT m (C); U-HFFRAT m (I+C)</b>
<i>Applicant</i>	<b>UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S. VELIKOY SANAYI BOLGESI, CERKEZKOY Tekirdag TURKEY</b>
<i>Manufacturer</i>	<b>UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S.</b>
<i>Place of manufacture</i>	<b>VELIKOY SANAYI BOLGESI, CERKEZKOY Tekirdag TURKEY</b>
<i>Reference standards</i>	<b>IEC 60092-350; IEC 60092-376; IEC 60331-21; RINA Rules for the Classification of Ships; RINA Rules for Testing and Certification of Marine Materials and Equipment.</b>

Issued in **ISTANBUL** on **April 13, 2018**. This Certificate is valid until **April 14, 2023**



  
RINA Services S.p.A.  
Cinar Kutlar

This certificate consists of this page and 1 enclosure



**TYPE APPROVAL CERTIFICATE**

No. **ELE030518XT/003**

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**U-HFFRAT m**

**U-HFFRAT m (I)**

**U-HFFRAT m (C)**

**U-HFFRAT m (I+C)**

**Components**

Shipboard control, instrumentation and communication cables, flame retardant , fire resisting, halogen free, low smoke emission.

Rated voltage: 250 V

Type: U-HFFRAT m; U-HFFRAT m (I); U-HFFRAT m (C); U-HFFRAT m (I+C).

Marking: Manufacturer name "type" 250 V n x p x s mm<sup>2</sup> IEC 60332-3A IEC 60331 year of manufacture

**Construction:**

conductor: plain or tinned stranded copper

mica tape: hellically applied fire resistant mica tape

insulation: XLPE

tape: polyester tape

drain wire: plain or tinned copper wire

individual screen: (I) - metal coated polyester tape

collective screen: (C) - metal coated polyester tape

tape: polyester tape

armour: plain or tinned copper wire braid

outer sheath: SHF1

In accordance with IEC 60228 (class. 2 or class. 5); IEC 60092-350; IEC 60092-360; IEC 60092-376; IEC 60332-1; IEC 60331; IEC 60332-3 Cat.A; IEC 60754-1; IEC 60754-2; IEC 61034-1; IEC 61034-2; RINAMIL Rules.

Maximum conductor temperature: 90°C

Number of cores: 1, 2, 3, 4, 5, 7, 10, 12, 16, 19, 24, 27, 37 - cross sectional area 0.50, 0.75, 1, 1.5, 2.5 mm<sup>2</sup>

Test report: UNIKA n.1013 dated 10/01/2008 & UNIKA dated 12/04/2018.

Technical Specification: UNIKA N. 500/TOVD/033 dated 27/12/2006 Rev. 1 dated 01/11/2007.

This certificate annuls and replaces previous certificate no: ELE070117XT/013.

**ISTANBUL April 13, 2018**

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