EN 50288-7 XLPE Insulation IOS Armoured LC Fire Retardant

- Instrumentation cables 170/300 V
- With lead cover (LC)
- Individual & Overall Screen (IOS)
- **Aliphatic and aromatic hydrocarbons resistant**

STANDARDS

Test IEC 60332-3-22 Cat.A

APPLICATIONS

These instrumentation and communication cables are used to **transmit analogue or digital signals in measurement and process control**. They are well adapted to **underground use** in industrial applications, in moist areas, where **hydrocarbon and mechanical protection are needed. The lead cover brings an enhanced resistance to aromatics hydrocarbons. The individual screening of each pair limits the consequence of crosstalk**

Design

Conductor:

Stranded bare copper class 2

Insulation:

Cross-linked polyethylene (XLPE)

Individual screen:

Polyester tape

Tinned copper drain wire,

Aluminium backed polyester tape

Polyester tape

Overall screen:

Polyester tape

Tinned copper drain wire,

Aluminium backed polyester tape

Inner sheath:

Polyvinyl chloride (PVC)

Colour: black

Lead sheath:

Bedding (intermediate sheath):

Polyvinyl chloride (PVC)

Colour: black

Armour:

Galvanized steel wires (SWA)

Outer sheath:

Polyvinyl chloride (PVC)

Colour: black

Other colour on request.

Rated Voltage Uo/U (Um)
170/300V

Mechanical resistance to impacts
Good

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Aliphatic and aromatic hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
90 °C

CONTACT

Market information
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CHARACTERISTICS

Construction characteristics	
Conductor material	Bare copper
Type of conductor	Stranded, class 2
Insulation	XLPE (Cross-linked Polyethylene)
Individual screen	Tinned copper drain wire + aluminium/polyester tape
Overall screen	Tinned copper drain wire + aluminium/polyester tape
Inner sheath	PVC
Lead Sheath	Yes
Intermediate sheath	PVC
Armour type	Galvanized steel wires
Outer sheath	PVC
Protection	Yes
Electrical characteristics	
Rated Voltage Uo/U (Um)	170/300V
Mechanical characteristics	
Mechanical resistance to impacts	Good
Usage characteristics	
Fire retardant	EN IEC 60332-3-22 (cat A)
Chemical resistance	Aliphatic and aromatic hydrocarbons resistant
Electro magnetic interference resistance	Yes
Operating temperature, range	-20 ... 60 °C
Max. conductor temperature in service	90 °C
Standard	EN

SECTION 0.5MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diameter over lead sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	5	0.9	1.38	9.8	11.6	13.6	15.4	17.8	19.7	867
	30	0.9	1.38	19.8	22.2	24.2	26.7	29.2	32.2	2401


Rated Voltage Uo/U (Um)
170/300V


Mechanical resistance to impacts
Good


Fire retardant
EN IEC 60332-3-22 (cat A)


Chemical resistance
Aliphatic and aromatic hydrocarbons resistant


Electro magnetic interference resistance
Yes


Operating temp.
-20 ... 60 °C


Max.conductor temp.in service
90 °C

EN 50288-7 XLPE Insulation IOS Armoured LC Fire Retardant

SECTION 0.75MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diameter over lead sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	30	1.1	1.58	22.3	24.7	26.7	29.2	31.8	35.1	2811

SECTION 1.0MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diameter over lead sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	30	1.28	1.76	24.4	27	29.4	31.9	34.6	38.2	3504

SECTION 1.5MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diameter over lead sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	30	1.5	2.16	29.3	32.1	34.5	37.7	40.4	44.6	4506

SECTION 2.5MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diameter over lead sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	30	1.91	2.57	34.1	37.3	40.1	44.1	47.0	51.9	6219

SELLING AND DELIVERY INFORMATION

Other fire performances IEC 60332-1 or IEC 60332-3-24(C) on request.

Minimum bending radius:

10 x outer diameter
To be doubled during laying operations


Rated Voltage Uo/U (Um)
170/300V


Mechanical resistance to impacts
Good


Fire retardant
EN IEC 60332-3-22 (cat A)


Chemical resistance
Aliphatic and aromatic hydrocarbons resistant


Electro magnetic interference resistance
Yes


Operating temp.
-20 ... 60 °C


Max.conductor temp.in service
90 °C

EN 50288-7 XLPE Insulation IOS Armoured LC Fire Retardant

Tinned copper conductors available on request

Rated Voltage Uo/U (Um)
170/300V

Mechanical resistance to impacts
Good

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Aliphatic and aromatic hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
90 °C