

EN 50288-7 (500 V)



CABLE STRUCTURE

Conductor	Electrolytic, stranded, annealed plain copper wires to IEC 60228 Class 2 (Class 1 or Class 5 and / or tinned on request)
Insulation	XLPE compound to EN50290-2-29 Black / White / Red twisted triads with numbered cores
Binder Tape	Polyester foil on each twisted triad
Individual Screen	Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
Binder Tape	Polyester foil on overall cable core formed by stranded pairs
Collective Screen	Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
Inner Sheath	LSZH compound to EN50290-2-27
Armour	Round galvanised steel wires to EN10257-1
Outer Sheath	Halogen free flame retardant LSZH compound to EN50290-2-27 Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable Gray for indoor applications Other colours on request

STANDARDS & MAIN CHARACTERISTICS

Rated Voltage	500 V a.c.
AC Test Voltage	2000 V x 1 min. (core:core / core: screen)
Working Temperature	-40°C / + 90°C (during operation) - 5 °C / + 50°C (during installation)
Min Bending Radius (Fixed)	10 x D
Construction	EN 50288-7
Material Types & Tests	EN 50290-2 series
Electrical & Mechanical Tests	EN 50289 series
Flame Retardant	IEC 60332 / 1-2, IEC 60332 / 3-24 Cat C
Halogen Content	IEC 60754 / 1-2
Smoke Emission	IEC 61034 / 1-2

Available Features on Request

- 300 V version
- Hydrocarbon resistant
- Oil resistant
- Hv type reinforced sheath
- Anti termit / anti rodent
- UV resistant

Application

These cables used for connecting instruments and control systems for analogue or digital signal transmission for indoor and outdoor applications. These cables shall not be connected directly to mains electricity supply or other low impedance sources, since they are not designed to be used for power supply.

ELECTRICAL CHARACTERISTICS(*)

Conductor size (Class 2)	nom.	mm ²	0,5	0,75	1	1,3	1,5	2,5
Conductor resistance	max.	Ω/km	36,7	25,0	18,5	14,2	12,3	7,6
Insulation resistance	min.	MΩxkm	5000					
Mutual Capacitance	max.	nF/km	150					
Inductance	max.	mH/km	1					
L/R ratio	max.	μH/Ω	25	25	25	40	40	60

(*) At 20 °C

PHYSICAL CHARACTERISTICS

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x0,5	15,6	402
4x3x0,5	17,6	517
5x3x0,5	18,8	580
6x3x0,5	20,7	752
8x3x0,5	22,8	814
10x3x0,5	25,4	1038
12x3x0,5	26,0	1109
16x3x0,5	28,3	1308
20x3x0,5	31,2	1526
24x3x0,5	35,3	1992
2x3x0,75	16,7	454
4x3x0,75	19,0	591
5x3x0,75	21,0	784
6x3x0,75	22,6	878
8x3x0,75	24,8	1028
10x3x0,75	27,6	1207
12x3x0,75	28,4	1309
16x3x0,75	31,2	1563
20x3x0,75	35,5	2067
24x3x0,75	38,9	2378
2x3x1	17,1	477
4x3x1	19,4	632
5x3x1	21,7	843
6x3x1	23,2	935
8x3x1	25,6	1110
10x3x1	28,4	1302
12x3x1	29,4	1432
16x3x1	33,0	1900
20x3x1	36,7	2262
24x3x1	40,2	2600

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x1,3	18,1	527
4x3x1,3	21,0	816
5x3x1,3	22,7	930
6x3x1,3	24,3	1043
8x3x1,3	26,9	1243
10x3x1,3	30,1	1473
12x3x1,3	31,0	1610
16x3x1,3	35,1	2190
20x3x1,3	38,7	2571
24x3x1,3	42,5	2958
2x3x1,5	18,6	554
4x3x1,5	21,9	877
5x3x1,5	23,5	986
6x3x1,5	25,4	1118
8x3x1,5	27,9	1328
10x3x1,5	31,2	1572
12x3x1,5	33,0	1923
16x3x1,5	36,7	2348
20x3x1,5	40,4	2753
24x3x1,5	45,2	3482
2x3x2,5	22,0	822
4x3x2,5	25,1	1109
5x3x2,5	27,0	1273
6x3x2,5	29,2	1442
8x3x2,5	33,2	1935
10x3x2,5	37,6	2348
12x3x2,5	38,7	2575
16x3x2,5	43,4	3401
20x3x2,5	48,5	4067
24x3x2,5	53,3	4708