

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 triples
Collective Screen	Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
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 (core:core / core: screen)
Working Temperature	-40°C / + 90°C (during operation) - 5 °C / + 50°C (during installation)
Min Bending Radius (Fixed)	7,5 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	11,0	115
4x3x0,5	13,0	186
5x3x0,5	14,2	220
6x3x0,5	15,6	262
8x3x0,5	17,5	328
10x3x0,5	20,1	408
12x3x0,5	20,9	476
16x3x0,5	23,4	612
20x3x0,5	26,3	754
24x3x0,5	29,3	900
2x3x0,75	12,1	140
4x3x0,75	14,4	230
5x3x0,75	15,9	282
6x3x0,75	17,3	327
8x3x0,75	19,7	423
10x3x0,75	22,5	524
12x3x0,75	23,5	613
16x3x0,75	26,3	790
20x3x0,75	29,5	973
24x3x0,75	32,9	1160
2x3x1	12,7	160
4x3x1	14,8	258
5x3x1	16,4	317
6x3x1	18,1	378
8x3x1	20,3	478
10x3x1	23,5	606
12x3x1	24,3	696
16x3x1	27,2	900
20x3x1	30,5	1110
24x3x1	34,2	1342

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x1,3	13,5	187
4x3x1,3	15,9	314
5x3x1,3	17,4	377
6x3x1,3	19,2	450
8x3x1,3	21,8	583
10x3x1,3	25,0	724
12x3x1,3	26,0	848
16x3x1,3	29,1	1100
20x3x1,3	32,7	1356
24x3x1,3	36,5	1620
2x3x1,5	14,0	200
4x3x1,5	16,6	340
5x3x1,5	18,4	418
6x3x1,5	20,1	488
8x3x1,5	22,8	633
10x3x1,5	26,3	798
12x3x1,5	27,2	922
16x3x1,5	30,5	1196
20x3x1,5	34,4	1493
24x3x1,5	38,4	1782
2x3x2,5	16,7	285
4x3x2,5	19,8	490
5x3x2,5	21,9	603
6x3x2,5	24,1	718
8x3x2,5	27,4	933
10x3x2,5	31,6	1172
12x3x2,5	32,7	1360
16x3x2,5	36,8	1783
20x3x2,5	41,3	2200
24x3x2,5	46,3	2650