

SIGNAL & INSTRUMENTATION CABLE

XLPE / OSCR / PVC-FR
Overall Screen

90°C / 500 V

BS EN 50288-7



Construction



1. Stranded plain copper conductor
2. Cross-Linked Polyethylene insulation (XLPE)
3. Core twisted in pairs
4. Colour coding for pair : black/white, continuously numbered
triad : black/white/red, continuously numbered
5. Screened pairs twisted in concentric layers
6. Overall screen of plastic bonded aluminium mylar tape with tinned copper drain wire
7. PVC outer sheath, flame retardant to IEC 60332-3A, black or blue colour



Available on request : Tinned conductors, PVC, PE or EPR insulations, sheathing of LSOH, oil & hydrocarbon resistant, anti termite, anti rodent, and other special sheath performance

Application

For the transmission of signals of measuring data in power stations and industrial plants.
This cable is suitable for fixed indoor installations and for outdoor.

Electrical and technical data

	Working voltage	:	max. 500 V
	Test voltage	core/core	: 2000V 50Hz 1 min.
		core/screen	: 1000V 50Hz 1 min.

	Conductor cross-section		nom.	0.5 mm ²	0.75 mm ²	1.00 mm ²	1.50 mm ²	2.50 mm ²
	Conductor resistance		max.	36.8 Ω/km	24.9 Ω/km	18.6 Ω/km	12.3 Ω/km	7.6 Ω/km
	Mutual capacitance at 1 kHz	single pair :		115 nF/km				
		2 to 4 pairs :	max.	90 nF/km		102 nF/km		
		above 4 pairs :		75 nF/km		85 nF/km		
	L/R ratio	max.	25 μH/Ω		40 μH/Ω	60 μH/Ω		

Capacitance unbalance : max. 500 pF/500 m

 Insulation resistance : min 5000 MΩ/km

 Inductance : max. 1 mH/km

 Temperature range, fixed : -30°C to +90°C

 Minimum bending radius : 7,5 x cable diameter

 Flame retardancy : IEC-60332-1
 Flame propagation : IEC-60332-3-22 (cat A)

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Data Sheet					
No. of pairs x cross section (mm ²)	Conductor no / mm	Thickness of insulation mm	Thickness of outer sheath mm	Overall diameter (approx.) mm	Cable weight approx. (kg/km)
1 X 2 X 0.5	7/0.3	0.6	0.9	6.5	49
2 X 2 X 0.5	7/0.3	0.6	1.0	9.8	86
4 X 2 X 0.5	7/0.3	0.6	1.1	12.3	140
6 X 2 X 0.5	7/0.3	0.6	1.2	14.5	190
8 X 2 X 0.5	7/0.3	0.6	1.2	15.2	227
10 X 2 X 0.5	7/0.3	0.6	1.3	16.9	279
12 X 2 X 0.5	7/0.3	0.6	1.3	18.4	328
16 X 2 X 0.5	7/0.3	0.6	1.4	20.9	418
20 X 2 X 0.5	7/0.3	0.6	1.5	23.2	521
24 X 2 X 0.5	7/0.3	0.6	1.6	25.4	613
1 X 2 X 0.75	7/0.37	0.6	0.9	6.9	57
2 X 2 X 0.75	7/0.37	0.6	1.0	10.6	104
4 X 2 X 0.75	7/0.37	0.6	1.1	13.3	172
6 X 2 X 0.75	7/0.37	0.6	1.2	15.6	232
8 X 2 X 0.75	7/0.37	0.6	1.2	16.4	283
10 X 2 X 0.75	7/0.37	0.6	1.3	18.3	351
12 X 2 X 0.75	7/0.37	0.6	1.4	20.0	419
16 X 2 X 0.75	7/0.37	0.6	1.5	22.7	534
20 X 2 X 0.75	7/0.37	0.6	1.6	25.3	662
24 X 2 X 0.75	7/0.37	0.6	1.7	27.5	779
1 X 2 X 1.0	7/0.43	0.6	0.9	7.3	65
2 X 2 X 1.0	7/0.43	0.6	1.1	11.5	127
4 X 2 X 1.0	7/0.43	0.6	1.2	14.4	209
6 X 2 X 1.0	7/0.43	0.6	1.3	16.9	285
8 X 2 X 1.0	7/0.43	0.6	1.3	17.7	346
10 X 2 X 1.0	7/0.43	0.6	1.4	19.8	432
12 X 2 X 1.0	7/0.43	0.6	1.4	21.3	497
16 X 2 X 1.0	7/0.43	0.6	1.5	24.3	643
20 X 2 X 1.0	7/0.43	0.6	1.6	27.1	799
24 X 2 X 1.0	7/0.43	0.6	1.7	29.5	944
1 X 2 X 1.5	7/0.53	0.6	0.9	7.9	79
2 X 2 X 1.5	7/0.53	0.6	1.1	12.6	158
4 X 2 X 1.5	7/0.53	0.6	1.2	15.7	263
6 X 2 X 1.5	7/0.53	0.6	1.3	18.6	369
8 X 2 X 1.5	7/0.53	0.6	1.4	19.7	465
10 X 2 X 1.5	7/0.53	0.6	1.4	21.7	562
12 X 2 X 1.5	7/0.53	0.6	1.5	23.6	663
16 X 2 X 1.5	7/0.53	0.6	1.6	27.0	865
20 X 2 X 1.5	7/0.53	0.6	1.7	30.0	1068
24 X 2 X 1.5	7/0.53	0.6	1.8	32.6	1259
1 X 2 X 2.5	7/0.67	0.7	1.0	9.3	111
2 X 2 X 2.5	7/0.67	0.7	1.2	14.9	224
4 X 2 X 2.5	7/0.67	0.7	1.3	18.6	379
6 X 2 X 2.5	7/0.67	0.7	1.5	22.2	543
8 X 2 X 2.5	7/0.67	0.7	1.5	23.3	675
10 X 2 X 2.5	7/0.67	0.7	1.6	26.0	840
12 X 2 X 2.5	7/0.67	0.7	1.7	28.3	994
16 X 2 X 2.5	7/0.67	0.7	1.8	32.2	1284
20 X 2 X 2.5	7/0.67	0.7	2.0	35.9	1598
24 X 2 X 2.5	7/0.67	0.7	2.1	39.1	1894

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No. of triads x cross section (mm ²)	Conductor no / mm	Thickness of insulation mm	Thickness of outer sheath mm	Overall diameter (approx.) mm	Cable weight approx. (kg/km)
1 X 3 X 0.5	7/0.3	0.6	0.9	6.8	58
4 X 3 X 0.5	7/0.3	0.6	1.1	13.2	181
8 X 3 X 0.5	7/0.3	0.6	1.2	16.2	299
12 X 3 X 0.5	7/0.3	0.6	1.4	19.7	439
16 X 3 X 0.5	7/0.3	0.6	1.5	22.5	569
20 X 3 X 0.5	7/0.3	0.6	1.6	24.9	695
24 X 3 X 0.5	7/0.3	0.6	1.6	27.1	821
1 X 3 X 0.75	7/0.37	0.6	0.9	7.2	68
4 X 3 X 0.75	7/0.37	0.6	1.2	14.3	227
8 X 3 X 0.75	7/0.37	0.6	1.3	17.6	384
12 X 3 X 0.75	7/0.37	0.6	1.4	21.2	554
16 X 3 X 0.75	7/0.37	0.6	1.5	24.2	720
20 X 3 X 0.75	7/0.37	0.6	1.6	27.0	897
24 X 3 X 0.75	7/0.37	0.6	1.7	29.4	1062
1 X 3 X 1.0	7/0.43	0.6	0.9	7.7	80
4 X 3 X 1.0	7/0.43	0.6	1.2	15.3	271
8 X 3 X 1.0	7/0.43	0.6	1.3	19.0	477
12 X 3 X 1.0	7/0.43	0.6	1.5	22.9	685
16 X 3 X 1.0	7/0.43	0.6	1.6	26.2	896
20 X 3 X 1.0	7/0.43	0.6	1.7	29.1	1106
24 X 3 X 1.0	7/0.43	0.6	1.8	31.7	1312
1 X 3 X 1.5	7/0.53	0.6	1.0	8.5	104
4 X 3 X 1.5	7/0.53	0.6	1.3	16.9	357
8 X 3 X 1.5	7/0.53	0.6	1.4	21.0	632
12 X 3 X 1.5	7/0.53	0.6	1.6	25.5	931
16 X 3 X 1.5	7/0.53	0.6	1.7	29.0	1208
20 X 3 X 1.5	7/0.53	0.6	1.8	32.2	1493
24 X 3 X 1.5	7/0.53	0.6	1.9	35.0	1766
1 X 3 X 2.5	7/0.67	0.7	1.0	9.8	143
4 X 3 X 2.5	7/0.67	0.7	1.4	20.0	519
8 X 3 X 2.5	7/0.67	0.7	1.6	25.1	946
12 X 3 X 2.5	7/0.67	0.7	1.8	30.4	1390
16 X 3 X 2.5	7/0.67	0.7	1.9	34.6	1808
20 X 3 X 2.5	7/0.67	0.7	2.1	38.6	2255
24 X 3 X 2.5	7/0.67	0.7	2.2	42.0	2674