

INDIVIDUAL & COLLECTIVELY SCREENED (ISOS) ARMoured SWA, 500V



APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	: Plain Annealed Copper Wires to BS 6360
Insulation	: PE or XLPE or PVC or LSHF compound
For Pairs	: Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	: 1 pair – Black & White 2 pair & above – Black & white core with black number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number
Individual screen	: Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ²
Wrapping	: Polyester Binder tape
Overall screen	: Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ²
Bedding	: PVC or LSHF
Armouring	: Galvanized steel wires SWA
Outer sheath	: PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	: Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

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transmission of reliability & brightness



TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE	XLPE	PVC	LSHF	
	65	90	70 or 105	90 or 150	
High Voltage Test	2000 V _{ac} for 1 minute				
Reference Standard	BS EN50288-7				
Flame Retardant Property	IEC 60332-1				
Fire Retardant on bunched cables Property	IEC 60332-3-22				
Halogen Free Property	IEC 60754 (only for LSHF)				
Low Smoke Emission Property	IEC 61034 (only for LSHF)				
Min. Bending Radius	6 × OD				
Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid		Multi-core		
0.50mm ²	39.7Ω/km		39.0Ω/km		
0.75mm ²	26.5Ω/km		26.0Ω/km		
1.00mm ²	18.4Ω/km		18.1Ω/km		
1.50mm ²	12.3Ω/km		12.1Ω/km		
2.50mm ²	7.56Ω/km		7.41Ω/km		
Maximum L/R ratio	0.50mm ²	0.75mm ²	1.00mm ²	1.50mm ²	2.50mm ²
μH/Ω	25	25	25	40	60

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Type Available

CU/PVC/IS/OS/PVC/SWA/PVC-RP

CU/XLPE/IS/OS/PVC/SWA/PVC-RP

CU/PE/IS/OS/PVC/SWA/PVC-RP

CU/XLPE/IS/OS/LSHF/SWA/LSHF

CU/PE/IS/OS/LSHF/SWA/LSHF

CU/LSHF/IS/OS/LSHF/SWA/LSHF

Nominal Area (mm ²)	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
No. of pairs		
2×2×0.5	10.8	254
3×2×0.5	16.3	499
4×2×0.5	17.5	566
5×2×0.5	18.8	638
6×2×0.5	20.9	844
8×2×0.5	22.9	988
10×2×0.5	25.5	1162
12×2×0.5	26.2	1239
15×2×0.5	28.7	1437
16×2×0.5	28.7	1454
20×2×0.5	32.3	1925
24×2×0.5	35.8	2248
30×2×0.5	37.7	2478
36×2×0.5	40.5	2812
2×2×0.75	16.5	497
3×2×0.75	17.3	552
4×2×0.75	18.5	630
5×2×0.75	19.9	713
6×2×0.75	22.2	940
8×2×0.75	24.5	1107

Nominal Area (mm ²)	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
No. of pairs		
10×2×0.75	27.2	1309
12×2×0.75	28.0	1400
15×2×0.75	29.3	1520
16×2×0.75	30.7	1654
20×2×0.75	35.1	2215
24×2×0.75	38.4	2558
30×2×0.75	40.5	2852
36×2×0.75	44.3	3552
2×2×1.0	17.2	536
3×2×1.0	18.0	599
4×2×1.0	19.5	686
5×2×1.0	21.7	914
6×2×1.0	23.3	1053
8×2×1.0	25.7	1215
10×2×1.0	28.8	1441
12×2×1.0	29.6	1547
15×2×1.0	33.2	2020
16×2×1.0	33.2	2047
20×2×1.0	37.0	2452
24×2×1.0	40.7	2840

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Nominal Area (mm ²)	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
No. of pairs		
30×2×1.0	43.7	3500
36×2×1.0	47.3	4018
2×2×1.5	18.4	604
3×2×1.5	19.3	682
4×2×1.5	21.6	919
5×2×1.5	23.3	1044
6×2×1.5	25.1	1179
8×2×1.5	27.8	1405
10×2×1.5	31.1	1677
12×2×1.5	32.8	1978
16×2×1.5	36.5	2444
20×2×1.5	40.2	2877
24×2×1.5	45.1	3878
36×2×1.5	51.5	4743

Nominal Area (mm ²)	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
No. of pairs		
2×2×2.5	21.7	891
3×2×2.5	22.9	1007
4×2×2.5	24.8	1166
5×2×2.5	26.8	1336
6×2×2.5	29.0	1520
8×2×2.5	33.1	2043
10×2×2.5	37.5	2497
12×2×2.5	38.7	2695
16×2×2.5	43.5	3546
20×2×2.5	48.5	4254
24×2×2.5	53.5	4953

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

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Type Available

CU/PVC/IS/OS/PVC/SWA/PVC-RP

CU/xLPE/IS/OS/PVC/SWA/PVC-RP

CU/PE/IS/OS/PVC/SWA/PVC-RP

CU/xLPE/IS/OS/LSHF/SWA/LSHF

CU/PE/IS/OS/LSHF/SWA/LSHF

CU/LSHF/IS/OS/LSHF/SWA/LSHF

Nominal Area (mm ²)	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
No. of traids		
2×3×0.5	16.3	498
5×3×0.5	19.7	723
10×3×0.5	26.9	1329
20×3×0.5	34.6	2282
24×3×0.5	38.0	2615
30×3×0.5	40.0	2929
2×3×0.75	17.2	552
5×3×0.75	21.7	961
10×3×0.75	28.8	1515
20×3×0.75	37.2	2598
24×3×0.75	40.8	3015
30×3×0.75	43.9	3718
2×3×1.0	18.0	600
5×3×1.0	22.8	1044
10×3×1.0	30.4	1685
20×3×1.0	39.5	2906

Nominal Area (mm ²)	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
No. of traids		
24×3×1.0	44.0	3747
30×3×1.0	46.9	4234
2×3×1.5	19.3	684
5×3×1.5	24.6	1210
10×3×1.5	33.7	2204
20×3×1.5	43.6	3786
24×3×1.5	48.3	4471
30×3×1.5	51.0	5057
2×3×2.5	22.9	444
5×3×2.5	28.5	1582
10×3×2.5	40.0	2983
20×3×2.5	51.6	5189
24×3×2.5	58.0	6585
30×3×2.5	62.0	7557

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