

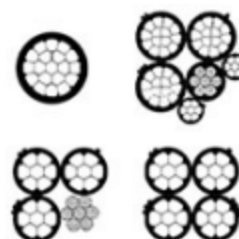
## SANS 1418 Aerial Bundled Cable Application

SANS 1418 is one of the South African national standards for overhead bundled conductor systems for low, medium and high voltage distribution lines and transmission lines.

The SANS 1418 LV ABC Conductor Aerial Bunch Cable is used for overhead line power, so called for combining multiple single core cables together. With applications including temporary power distribution to street lighting and secondary pole-to-pole service cables, they are lightweight stranded aluminium conductors, both single core and multi-cores. ABC Conductor is easy to install, which is the same as bare conductor.

## SANS 1418 Aerial Bundled Cable Construction

Concentric strands or compact aluminum conductor, polyethylene or crosslinked polyethylene insulation.



Phase conductor: circular stranded, rounded, compact aluminum conductor

Phase Core Identification: colour strip, rib or number

Neutral/Messenger conductor: non-compact or compacted all aluminum alloy conductor or AAAC

Street Lighting Conductor: circular stranded, rounded, compacted aluminum conductor

Insulation: black polyethylene (PE) or crosslinked polyethylene (XLPE)

## SANS 1418 Aerial Bundled Cable Features

1. Both self-supporting and supporting-core systems available.
2. Self-supporting is AAC strand compacted conductor up to 4 cores XLPE insulated.
3. Supporting-core is AAAC conductor XLPE insulated.
4. Conductor and supporting-core can be offered in single, duplex, triplex, and quadruplex.
5. Flame retardant, fire resistance and other requirement can be full-filled.
6. Rare specifications or producing by your sample can also be full filled.

## SANS 1418 Standard Aerial Bunch Cable LV ABC Conductor Specification

Cross Section	Nominal Diameter	Overall	Nominal Weight	Minimum Bending Radius	Maximum Current Rating Air 30 °C	Voltage Drop Cos φ= 0,8
nc x mm <sup>2</sup>	mm		kg/km	mm	A	V/A.km
AL 16/2	14,6		135	215	81	3,489
AL 25/2	20,5		200	300	109	2,226
AL 35/3+16A+54,6N	30,7		705	440	120	1,632
AL 35/3+25A+54,6N	33,4		740	450	120	1,632
AL 50/3+54,6N	30,3		735	440	150	1,229
AL 50/3+16A+54,6N	32,7		800	500	150	1,229
AL 50/3+2x16A+54,6N	36,7		890	540	150	1,229
AL 50/3+25A+54,6N	33,4		840	510	150	1,229
AL 70/3+16A+54,6N	37,9		1.035	560	190	0,860
AL 70/3+2x16A+54,6N	43,9		1.120	650	190	0,860
AL 70/3+25A+54,6N	39,9		1.070	590	190	0,860
AL 95/3+54,6N	36,7		1.185	540	230	0,652
AL 95/3+2x16A+54,6N	48,4		1.345	720	230	0,652
AL 95/3+25A+54,6N	43,9		1.285	650	230	0,652

AL 120/3+25A+54,6N	47,7	1.492	710	273	0,504
AL 150/3+2x16A+54,6N	57,1	1.795	850	305	0,446
AL 150/3+2x95	52,6	2.080	770	305	0,446
AL 16/4	20,3	266	300	81	3,489
AL 25/4	24,2	404	360	109	2,226
AL 50/4+25A	34,3	795	515	150	1,229
AL 70/4+25A	42,5	1.104	580	190	0,860
AL 95/4+25A	44,3	1.410	640	230	0,652
AL 95/4+2x16A	48,4	1.419	720	230	0,652
AL 120/4	43,2	1.562	640	273	0,504
AL 120/4+2x16A	52,6	1.695	780	273	0,504

Type 1: Self-supporting

Nominal Cross Section	Phase(AAC+UV-XLPE)					Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	D.C. of
	Compact Conductor		UV-XLPE Insulation					
	No. of Individual Wires	Nominal Overall Diameter	Nominal Thickness	Min. Thickness	Nominal Diameter			
No. X mm <sup>2</sup>	mm	mm	mm	mm	mm	Ω'/km		
4 X 16	7	4.8	1.2	0.98	7.2	17.42	1.91	
4 X 25	7	6.0	1.4	1.16	8.8	21.3	1.2	
4 X 35	7	7.0	1.6	1.34	10.2	24.68	0.868	
4 X 50	7	8.3	1.6	1.34	11.5	27.83	0.641	
4 X 70	19	10.0	1.8	1.52	13.6	32.91	0.443	
4 X 95	19	11.6	1.8	1.52	15.2	36.78	0.32	
4 X 120	19	13.0	1.8	1.52	16.6	40.17	0.253	
4 X 150	19	14.6	1.8	1.52	18.2	44.04	0.206	
3 X 16	7	4.8	1.2	0.98	7.2	15.55	1.91	
3 X 25	7	6.0	1.4	1.16	8.8	19.01	1.2	
3 X 35	7	7.0	1.6	1.34	10.2	22.03	0.868	
3 X 50	7	8.3	1.6	1.34	11.5	24.84	0.641	
3 X 70	19	10.0	1.8	1.52	13.6	29.38	0.443	
3 X 95	19	11.6	1.8	1.52	15.2	32.83	0.32	
3 X 120	19	13.0	1.8	1.52	16.6	35.86	0.253	
3 X 150	19	14.6	1.8	1.52	18.2	39.31	0.206	
2 X 16	7	4.8	1.2	0.98	7.2	14.4	1.91	
2 X 25	7	6.0	1.4	1.16	8.8	17.6	1.2	
2 X 35	7	7.0	1.6	1.34	10.2	20.4	0.868	
2 X 50	7	8.3	1.6	1.34	11.5	23	0.641	
2 X 70	19	10.0	1.8	1.52	13.6	27.2	0.443	
2 X 95	19	11.6	1.8	1.52	15.2	30.4	0.32	
2 X 120	19	13.0	1.8	1.52	16.6	33.2	0.253	
2 X 150	19	14.6	1.8	1.52	18.2	36.4	0.206	
1 X 16	7	4.8	1.2	0.98	7.2	7.2	1.91	
1 X 25	7	6.0	1.4	1.16	8.8	8.8	1.2	
1 X 35	7	7.0	1.6	1.34	10.2	10.2	0.868	
1 X 50	7	8.3	1.6	1.34	11.5	11.5	0.641	

1 X 70	19	10.0	1.8	1.52	13.6	13.6	0.443
1 X 95	19	11.6	1.8	1.52	15.2	15.2	0.32
1 X 120	19	13.01	1.8	1.52	16.6	16.6	0.253
1 X 150	19	14.6	1.8	1.52	18.2	18.2	0.206

**Type 2: Phase +Supporting**

Nominal Section Area		Phase(AAC+UV-XLPE)			Supporting(AAAC+UV-XLPE)		Approx. Overall Diameter
Phase (AAC+UV-XLPE)	Supporting (AAAC+UV-XLPE)	Compact Conductor		UV-XLPE Insulation	Conductor	UV-XLPE Insulation	
		No.of Individual Wires	Nominal Diameter	Nominal Thickness	No./Dia.of Wires	Nominal Thickness	
No. X mm2	No. X mm2	-	mm	mm	No./mm	mm	
3 X 16	1 X 54.6	7	4.8	1.2	7/3.15	1.6	20.72
3 X 25	1 X 54.6	7	6	1.4	7/3.15	1.6	23.63
3 X 35	1 X 54.6	7	7	1.6	7/3.15	1.6	26.17
3 X 50	1 X 54.6	7	8.3	1.6	7/3.15	1.6	28.53
3 X 70	1 X 54.6	19	10	1.8	7/3.15	1.6	32.34
3 X 95	1 X 54.6	19	11.6	1.8	7/3.15	1.6	35.24
3 X 120	1 X 54.6	19	13	1.8	7/3.15	1.6	37.78
3 X 150	1 X 54.6	19	14.6	1.8	7/3.15	1.6	40.69
3 X 16	1 X 70	7	4.8	1.2	7/3.5	1.6	21.36
3 X 25	1 X 70	7	6	1.4	7/3.5	1.6	24.26
3 X 35	1 X 70	7	7	1.6	7/3.5	1.6	26.8
3 X 50	1 X 70	7	8.3	1.6	7/3.5	1.6	29.16
3 X 70	1 X 70	19	10	1.8	7/3.5	1.6	32.97
3 X 95	1 X 70	19	11.6	1.8	7/3.5	1.6	35.88
3 X 120	1 X 70	19	13	1.8	7/3.5	1.6	38.42
3 X 150	1 X 70	19	14.6	1.8	7/3.5	1.6	41.32

**Type 3: Phase+Supporting+ Street Lighting**

Nominal Section Area			Phase			Supporting		Service Connection			Approx.Overall Diameter
Phase (AAC+XLPE)	Supporting (AAAC+XLPE)	Service Connection (AAC+XLPE)	Compact Conductor		UV-XLPE	Conductor	UV-XLPE	Compact Conductor		UV-XLPE	
			No.of Al.Wire	Overall Dia.	Normal Thickness	No./Dia.of Alloy Wires	Normal Thickness	No. of Al. Wire	Overall Dia.	NominalThickness	
No.Xmm2	No.Xmm2	No.Xmm2	-	mm	mm	No./mm	mm	-	mm	mm	
3 X 16	1 X 54.6	1 X 25	7	4.8	1.2	7/3.15	1.6	7	6.0	1.4	27.05
3 X 25	1 X 54.6	1 X 25	7	6.0	1.4	7/3.15	1.6	7	6.0	1.4	30.25
3 X 35	1 X 54.6	1 X 25	7	7.0	1.6	7/3.15	1.6	7	6.0	1.4	33.05
3 X 50	1 X 54.6	1 X 25	7	8.3	1.6	7/3.15	1.6	7	6.0	1.4	35.65
3 X 70	1 X 54.6	1 X 25	19	10.0	1.8	7/3.15	1.6	7	6.0	1.4	39.85
3 X 95	1 X 54.6	1 X 25	19	11.6	1.8	7/3.15	1.6	7	6.0	1.4	43.05
3 X 120	1 X 54.6	1 X 25	19	13.0	1.8	7/3.15	1.6	7	6.0	1.4	45.85
3 X 150	1 X 54.6	1 X 25	19	14.6	1.8	7/3.15	1.6	7	6.0	1.4	49.05
3 X 16	1 X 54.6	2 X 25	7	4.8	1.2	7/3.15	1.6	7	6.0	1.4	27.05
3 X 25	1 X 54.6	2 X 25	7	6.0	1.4	7/3.15	1.6	7	6.0	1.4	30.25

3 X 35	1 X 54.6	2 X 25	7	7.0	1.6	7/3.15	1.6	7	6.0	1.4	33.05
3 X 50	1 X 54.6	2 X 25	7	8.3	1.6	7/3.15	1.6	7	6.0	1.4	35.65
3 X 70	1 X 54.6	2 X 25	19	10.0	1.8	7/3.15	1.6	7	6.0	1.4	39.85
3 X 95	1 X 54.6	2 X 25	19	11.6	1.8	7/3.15	1.6	7	6.0	1.4	43.05
3 X 120	1 X 54.6	2 X 25	19	13.0	1.8	7/3.15	1.6	7	6.0	1.4	45.85
3 X 150	1 X 54.6	2 X 25	19	14.6	1.8	7/3.15	1.6	7	6.0	1.4	49.05
3 X 16	1 X 70	1 X 25	7	4.8	1.2	7/3.15	1.6	7	6	1.4	28.1
3 X 25	1 X 70	1 X 25	7	6.0	1.4	7/3.15	1.6	7	6	1.4	31.3
3 X 35	1 X 70	1 X 25	7	7.0	1.6	7/3.15	1.6	7	6	1.4	34.1
3 X 50	1 X 70	1 X 25	7	8.3	1.6	7/3.15	1.6	7	6	1.4	36.7
3 X 70	1 X 70	1 X 25	19	10.0	1.8	7/3.15	1.6	7	6	1.4	40.9
3 X 95	1 X 70	1 X 25	19	11.6	1.8	7/3.15	1.6	7	6	1.4	44.1
3 X 120	1 X 70	1 X 25	19	13.0	1.8	7/3.15	1.6	7	6	1.4	46.9
3 X 150	1 X 70	1 X 25	19	14.6	1.8	7/3.15	1.6	7	6	1.4	50.1
3 X 16	1 X 70	2 X 25	7	4.8	1.2	7/3.15	1.6	7	6	1.4	28.1
3 X 25	1 X 70	2 X 25	7	6.0	1.4	7/3.15	1.6	7	6	1.4	31.3
3 X 35	1 X 70	2 X 25	7	7.0	1.6	7/3.15	1.6	7	6	1.4	34.1
3 X 50	1 X 70	2 X 25	7	8.3	1.6	7/3.15	1.6	7	6	1.4	36.7
3 X 70	1 X 70	2 X 25	19	10.0	1.8	7/3.15	1.6	7	6	1.4	40.9
3 X 95	1 X 70	2 X 25	19	11.6	1.8	7/3.15	1.6	7	6	1.4	44.1
3 X 120	1 X 70	2 X 25	19	13.0	1.8	7/3.15	1.6	7	6	1.4	46.9
3 X 150	1 X 70	2 X 25	19	14.6	1.8	7/3.15	1.6	7	6	1.4	50.1
3 X 16	1 X 54.6	1 X 16	7	4.8	1.2	7/3.15	1.6	7	4.8	1.2	27.05
3 X 25	1 X 54.6	1 X 16	7	6.0	1.4	7/3.15	1.6	7	4.8	1.2	30.25
3 X 35	1 X 54.6	1 X 16	7	7.0	1.6	7/3.15	1.6	7	4.8	1.2	33.05
3 X 50	1 X 54.6	1 X 16	7	8.3	1.6	7/3.15	1.6	7	4.8	1.2	35.65
3 X 70	1 X 54.6	1 X 16	19	10.0	1.8	7/3.15	1.6	7	4.8	1.2	39.85
3 X 95	1 X 54.6	1 X 16	19	11.6	1.8	7/3.15	1.6	7	4.8	1.2	43.05
3 X 120	1 X 54.6	1 X 16	19	13.0	1.8	7/3.15	1.6	7	4.8	1.2	45.85
3 X 150	1 X 54.6	1 X 16	19	14.6	1.8	7/3.15	1.6	7	4.8	1.2	49.05
3 X 16	1 X 54.6	2 X 16	7	4.8	1.2	7/3.15	1.6	7	4.8	1.2	27.05
3 X 25	1 X 54.6	2 X 16	7	6.0	1.4	7/3.15	1.6	7	4.8	1.2	30.25
3 X 35	1 X 54.6	2 X 16	7	7.0	1.6	7/3.15	1.6	7	4.8	1.2	33.05
3 X 50	1 X 54.6	2 X 16	7	8.3	1.6	7/3.15	1.6	7	4.8	1.2	35.65
3 X 70	1 X 54.6	2 X 16	19	10.0	1.8	7/3.15	1.6	7	4.8	1.2	39.85
3 X 95	1 X 54.6	2 X 16	19	11.6	1.8	7/3.15	1.6	7	4.8	1.2	43.05
3 X 120	1 X 54.6	2 X 16	19	13.0	1.8	7/3.15	1.6	7	4.8	1.2	45.85
3 X 150	1 X 54.6	2 X 16	19	14.6	1.8	7/3.15	1.6	7	4.8	1.2	49.05
3 X 16	1 X 54.6	1 X 16	7	4.8	1.2	7/3.15	1.5	7	4.8	1.2	27.9
3 X 25	1 X 70	1 X 16	7	6.0	1.4	7/3.15	1.5	7	4.8	1.2	31.1
3 X 35	1 X 70	1 X 16	7	7.0	1.6	7/3.15	1.5	7	4.8	1.2	33.9
3 X 50	1 X 70	1 X 16	7	8.3	1.6	7/3.15	1.5	7	4.8	1.2	36.5
3 X 70	1 X 70	1 X 16	19	10.0	1.8	7/3.15	1.5	7	4.8	1.2	40.7
3 X 95	1 X 70	1 X 16	19	11.6	1.8	7/3.15	1.5	7	4.8	1.2	43.9
3 X 120	1 X 70	1 X 16	19	13.0	1.8	7/3.15	1.5	7	4.8	1.2	46.7

3 X 150	1 X 70	1 X 16	19	14.6	1.8	7/3.15	1.5	7	4.8	1.2	49.9
3 X 16	1 X 70	2 X 16	7	4.8	1.2	7/3.15	1.5	7	4.8	1.2	27.9
3 X 25	1 X 70	2 X 16	7	6.0	1.4	7/3.15	1.5	7	4.8	1.2	31.1
3 X 35	1 X 70	2 X 16	7	7.0	1.6	7/3.15	1.5	7	4.8	1.2	33.9
3 X 50	1 X 70	2 X 16	7	8.3	1.6	7/3.15	1.5	7	4.8	1.2	36.5
3 X 70	1 X 70	2 X 16	19	10.0	1.8	7/3.15	1.5	7	4.8	1.2	40.7
3 X 95	1 X 70	2 X 16	19	11.6	1.8	7/3.15	1.5	7	4.8	1.2	43.9
3 X 120	1 X 70	2 X 16	19	13.0	1.8	7/3.15	1.5	7	4.8	1.2	46.7
3 X 150	1 X 70	2 X 16	19	14.6	1.8	7/3.15	1.5	7	4.8	1.2	49.9