



## • Application

The AS/NZS 3560.1 standard aerial bundled cables (ABC) are designed for overhead distribution lines and electrical installations. They are suitable for use in alternating current (AC) power networks with a nominal voltage of U0/U 0.6/1 kV and in direct current (DC) power networks with a maximum voltage of 0.9 kV.

## • Advantage

**Tensile strength:** High tensile strength to withstand mechanical stresses during installation and service.

**Flexibility:** Adequate flexibility for ease of installation in various overhead configurations.

**Abrasion resistance:** Designed to resist abrasion and mechanical wear, ensuring long service life in outdoor environments.

## • Performance

**Electrical performance:** Rated voltage of 0.6/1 kV.

**Chemical performance:** Resistant to chemicals, UV radiation, and oil.

**Thermal performance:**

Maximum service temperature: 90°C

Maximum short-circuit temperature: 250°C (for a maximum of 5 seconds)

Minimum service temperature: -40°C

## • Construction

**Conductors:**

Phase conductor: Circular stranded, rounded, compact aluminum conductor.

Neutral/Messenger conductor: Circular stranded, rounded, compact aluminum conductor.

**Insulation:** Black polyethylene (PE) or crosslinked polyethylene (XLPE).

## • Specification

-AS/NZS 3560.1 Standard low voltage aerial bundled cables

## • Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

## • Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rheinland and CCS.



## • National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.

We are committed to the development of high-end, intelligent and green manufacturing industry.

\*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

## ● Technical Parameters

Nominal Cross Section Area	Nominal Dia. of Conductor	Nominal Thickness of Insulation	Nominal Dia. of Insulation	Nominal Dia. Over Laid-up Cores	Nominal Weight
mm <sup>2</sup>	mm	mm	mm	mm	kg/km
2 cores					
16	4.7	1.3	7.4	14.8	130
25	5.9	1.3	8.6	17.2	190
35	6.9	1.3	9.6	19.3	250
50	8.1	1.5	11.2	22.3	340
95	11.4	1.7	14.9	29.8	640
3 cores					
19	5.9	1.3	8.6	16.4	-
25	5.9	1.3	8.6	18.5	290
35	6.9	1.3	9.6	20.8	370
50	8.1	1.5	11.2	24.1	510
4 cores					
19	4.7	1.3	7.4	11.4	22.8
16	4.7	1.3	7.4	17.8	270
25	5.9	1.3	8.6	20.8	390
35	6.9	1.3	9.6	23.2	500
50	8.1	1.5	11.2	27.0	670
70	9.7	1.5	12.8	30.8	930
95	11.4	1.7	14.9	36.0	1280
120	12.8	1.7	16.3	39.3	1570
150	14.2	1.7	17.7	42.8	1890

## ● Technical Parameters

Nominal Cross Section Area	Min.Bending Radius		Rec. Tension		Min.Breaking Load of Cable	Modulus of Elasticity	Coeff. of Linear Expansion
	Single Core	Complete Cable	Highest Tension Everyday	Max. Working Tension			
mm <sup>2</sup>	mm	mm	kN	kN	kN	GPa	×10 <sup>-6</sup> /°C
2 cores							
16	30	90	0.79	1.23	4.4	59	23.0
25	35	100	1.26	1.96	7.0	59	23.0
35	60	120	1.76	2.74	9.8	59	23.0
50	65	130	2.52	3.92	14.0	59	23.0
95	90	270	4.79	7.45	26.6	59	23.0
3 cores	99	99	4.13	6.43	23.0	56	23.0
25	35	110	1.89	2.94	10.5	59	23.0
35	60	120	2.65	4.12	14.7	59	23.0
50	65	140	3.78	5.88	21.0	59	23.0
4 cores	68	136	2.73	4.25	15.2	59	23.0
16	30	110	1.58	2.46	8.8	59	23.0
25	35	120	2.52	3.92	14.0	59	23.0
35	60	140	3.53	5.49	19.6	59	23.0
50	65	160	5.04	7.84	28.0	59	23.0
70	75	280	7.06	11.0	39.2	56	23.0
95	90	320	9.58	14.9	53.2	56	23.0
120	100	350	12.1	18.8	67.2	56	23.0
150	110	390	15.1	23.5	84.0	56	23.0

## ● Technical Parameters

Nominal Section Area	D.C. Resistance at 20°C	A.C. Resistance at 50Hz 80°C	Inductive Reactance at 50Hz	Voltage Drop at 50Hz 80°C	Continuous Current Carrying Capacity			Fault Current Rating for 1s
					still air	1s/m wind	2s/m wind	
mm <sup>2</sup>	Ω/km	Ω/km	Ω/km	mV/A.m	A	A	A	kA
2 cores								
16	1.91	2.37	0.094	4.75	49	78	91	1.4
25	1.20	1.49	0.089	2.99	64	105	120	2.2
35	0.868	1.08	0.086	2.16	78	125	145	3.1
50	0.641	0.796	0.086	1.60	94	150	180	4.1
95	0.320	0.398	0.080	0.812	140	230	275	8.3
3 cores								
25	1.20	1.49	0.089	2.99	59	97	115	2.2
35	0.868	1.08	0.086	2.16	72	120	135	3.1
50	0.641	0.796	0.086	1.60	88	140	165	4.1
4 cores								
16	1.91	2.37	0.10	4.11	44	74	86	1.4
25	1.20	1.49	0.097	2.59	59	97	115	2.2
35	0.868	1.08	0.094	1.87	72	120	135	3.1
50	0.641	0.796	0.093	1.39	88	140	165	4.1
70	0.443	0.551	0.088	0.966	110	175	205	6.0
95	0.320	0.398	0.087	0.706	135	215	255	8.3
120	0.253	0.315	0.085	0.566	155	250	300	10.5
150	0.206	0.257	0.084	0.468	180	280	345	12.9

Note :

Voltage drops are single-phase for 2 & 3 core cables and three-phase for 4 core cables.

Continuous current ratings are based on an ambient temperature of 40°C, maximum conductor temperature of 80°C and solar radiation intensity of 1000W/m<sup>2</sup>. Ratings for 2 & 3 core cables are based on all cores fully loaded. Ratings for 4 core cables are based on a lightly loaded neutral. Fault current ratings are based on initial and final conductor temperatures of 80°C and 210°C respectively.

An improved performance grade of XLPE (X-FP-90) designed to provide improved circuit integrity when subjected to the heat radiation effects of a bush fire or overload conditions is available as an option.