7 Overhead Lines

7.2 Aerial Bundled Cables (ABC) without messenger neutral core

Application: Aerial bundled cables are mainly used for secondary overhead lines on poles or as feeders to residential premises

Engineering Specifications

Type : Al/XLPE
Standard : NF C 33-209
Nominal Voltage : 600/1000 V
Insulating Sheath : XLPE Compound
Packing : The ABC are delivered on non-returnable wooden drums

ABC – 2 or 4xA mm² Al/XLPE + KxAmm² Cu/XLPE
(A-Cross sectional area of conductor, K-no of pilot cores)

Technical Information

Nominal Area of Conductor	No/stranding wire diameter		Insulation thickness		Conductor DC Resistance at 20°C		Minimum breaking strength	Nominal drum length	Drum size
	Conductor	Pilot wire	Conductor	Pilot wire	Phase Conductor	Pilot wire			
mm²	x/mm	x/mm	mm	mm	Ω/km	Ω/km	daN	m	
2x16 2x16 + 2x1.5	7/1.6	1/1.38	1.2	1.2	1.91	12.1	190	1750 1500	Kel 26
2x25 2x25 + 2x1.5	7/2.0	1/1.38	1.4	1.2	1.2	12.1	300	1200 1000	Kel 26
2x35 2x35 + 2x1.5	7/2.33	1/1.38	1.6	1.2	0.868	12.1	420	1200 1200	Kel 27
2x50 2x50 + 2x1.5	7/2.7	1/1.38	1.6	1.2	0.641	12.1	600	1000 1000	Kel 27
4x16 4x16 + 2x1.5	7/1.6	1/1.38	1.2	1.2	1.91	12.1	190	1200 1000	Kel 26
4x25 4x25 + 2x1.5	7/2.0	1/1.38	1.4	1.2	1.2	12.1	300	700 600	Kel 26
4x35 4x35 + 2x1.5	7/2.33	1/1.38	1.6	1.2	0.868	12.1	420	800 800	Kel 27

Nominal Area of Conductor	Current carrying capaity			Voltage Drop (in phase conductors)	Min Bending Radius (Bundle)	Approximate overall diameter	Approximate Weight
	Air at 30°C	On facades	In conduits in walls				
mm²	A	A	A	mV/A/m	mm	mm	kg/km
2x16 2x16 + 2x1.5	93	83	72	3.98	129.6	15 16	133.1 178.4
2x25 2x25 + 2x1.5	122	111	95	2.54	158.4	18 19.5	203.1 248.4
2x35 2x35 + 2x1.5	150	134	116	1.65	183.6	21 23	274.5 319.7
2x50 2x50 + 2x1.5	168	149	130	1.27	203.4	23 25	350.4 395.6
4x16 4x16 + 2x1.5	83	75	63	3.44	129.6	18 19.5	266.3 311.5
4x25 4x25 + 2x1.5	111	99	83	2.2	158.4	22 24	406.2 451.5
4x35 4x35 + 2x1.5	138	123	107	1.65	183.6	26 28	549.0 594.2