5.6 AERIAL BUNDLED CONDUCTORS (TORSADES)

5.6.1 - 3 PHASES + NEUTRAL / MESSENGER + STREET LIGHTING CONDUCTOR

Phase and street lighting conductors :

Round stranded and compacted aluminium conforming to the applicable requirements of IEC 60228.

Neutral / Messenger Conductor :

Round stranded and compacted aluminium alloy conforming to the applicable requirements of IEC 60208.

Insulation :

Extruded black XLPE.

Design :

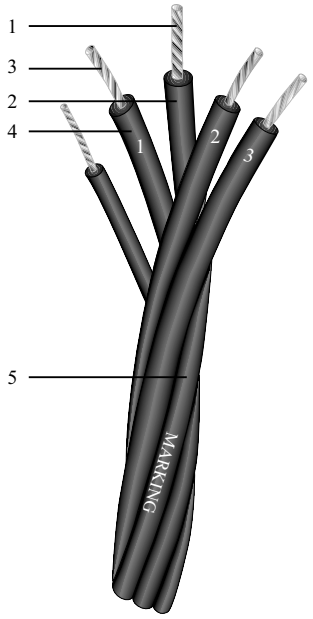
The cable consist of three phase conductors and one or two optional street lighting conductors stranded arround the messenger.

Core identification :

Either by longitunal ridges or by numbering.

Marking :

Embossed on the phase insulation.



1	Stranded Aluminium alloy conductor (Neutral / Messenger)
2	XLPE Insulation
3	Stranded Aluminium conductor (Phase or street lighting conductor)
4	XLPE Insulation
5	Marking

CHARACTERISTICS OF THE NEUTRAL / MESSENGER CONDUCTOR

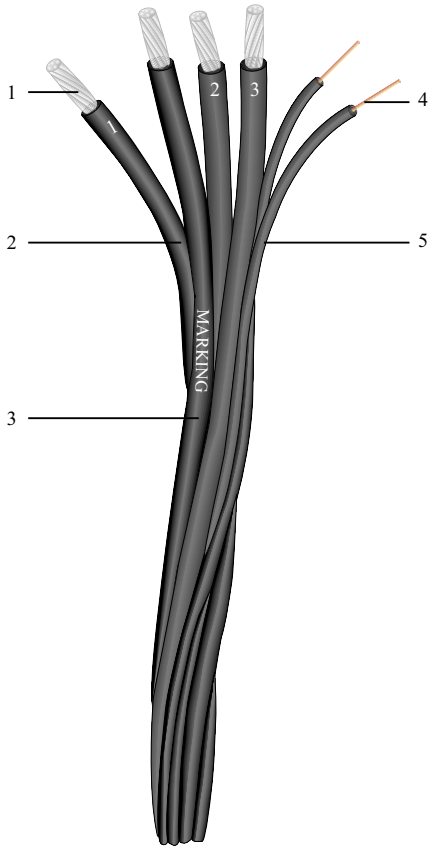
Nominal cross sectional area (mm^2)		54.6 (7/3.15)	70 (7/3.45)
Diameter of the Conductor (mm)		9.2	10
Diameter over the insulation (mm)	min.	12.3	13.1
	max.	13.0	13.6
Breaking load (daN)	min.	1660	2000
Elasticity Modulus (MPA)		62000	62000
Linear dilatation factor		23×10^{-6}	23×10^{-6}

AERIAL BUNDLED CONDUCTORS (TORSADES0
3 PHASES + NEUTRAL / MESSENGER + STREET LIGHTING CONDUCTOR
Conforming to NFC 33 - 209

TECHNICAL CHARACTERISTICS

Nominal cross section	Nominal Diameters					weight	DC Resistance at 20°C		Current carrying capacity	
	Conductors		Insulation		Overall					
	phase	street lighting	phase	street lighting			phase	street lighting	phase	street lighting
mm^2	mm	mm	mm	mm	mm	Kg/Km	Ω/Km	Ω/Km	Amp	Amp
3 x 25+54.6	5.8	-	8.6	-	24	531	1.200	-	97	-
3 x 25+54.6+16	5.8	4.6	8.6	7.1	25	600	1.200	1.910	97	74
3 x 25+54.6+2x16	5.8	4.6	8.6	7.1	26.5	670	1.200	1.910	97	74
3 x 35+54.6	6.8	-	10.2	-	24.6	644	0.868	-	118	-
3 x 35+54.6+16	6.8	4.6	10.2	7.1	25.5	713	0.868	1.910	118	74
3 x 35+54.6+2x16	6.8	4.6	10.2	7.1	27.5	781	0.868	1.910	118	74
3 x 50+54.6	7.9	-	11.2	-	27	773	0.641	-	141	-
3 x 50+54.6+16	7.9	4.6	11.2	7.1	28.5	841	0.641	1.910	141	74
3 x 50+54.6+2x16	7.9	4.6	11.2	7.1	30	990	0.641	1.910	141	74
3 x 70+54.6	9.7	-	13.3	-	30	994	0.443	-	180	-
3 x 70+54.6+16	9.7	4.6	13.3	7.1	32.2	1063	0.443	1.910	180	74
3 x 70+54.6+2x16	9.7	4.6	13.3	7.1	33	11431	0.443	1.910	180	74
3 x 70 + 70	9.7	-	13.3	-	32	1034	0.443	-	213	-
3 x 70 + 70+16	9.7	4.6	13.3	7.1	33	1103	0.443	1.910	213	74
3 x 70 + 70+2x16	9.7	4.6	13.3	7.1	34	1172	0.443	1.910	213	74
3 x 150 + 70	13.9	-	17.3	-	40	1684	0.206	-	335	-
3 x 150+70+16	13.9	4.6	17.3	7.1	41	1753	0.206	1.910	335	74
3 x 150+70+2x16	13.9	4.6	17.3	7.1	42	1822	0.206	1.910	335	74

5.6.2 - 2 and 4 ALUMINIUM CONDUCTORS + PILOT COPPER CONDUCTOR CONFORMING TO **NFC 33 - 209**



Phase Conductor

1	Stranded Aluminium conductor
2	XLPE Insulation
3	Marking

Pilot Conductor

4	Solid Copper Conductor
5	XLPE Insulation

TECHNICAL CHARACTERISTICS

Nominal Cross Section	Nominal Diameters				Weight	DC Resistance at 20°C	Current Carrying Capacity	Voltage Drop	Breaking load of each Conductor	
	Conductor min.	Insulation		Overall						
		min.	max.						min.	max.
mm²	mm	mm	mm	mm	Kg/Km	Ω/Km	Amp	V/A Km	daN	daN
2x16	4.7	7.0	7.9	14.8	140	1.91	83	3.98	190	290
2x25	6.0	8.7	9.6	18.2	213	1.20	108	2.54	300	450
4x16	4.7	7.0	7.9	17.8	280	1.91	74	3.28	190	290
4x25	6.0	8.7	9.6	21.8	426	1.20	97	2.18	300	450
2x16+2x1.5	4.6	7.0	7.8	16.0	191	1.91	83	3.98	190	290
4x16+2x1.5	4.5	7.0	7.8	17.4	328	1.91	74	3.28	190	290
2x25+2x1.5	5.8	8.6	9.4	19.5	270	1.20	108	3.54	300	450
4x25+2x1.5	5.8	8.6	9.4	21.6	486	1.20	97	2.18	300	450