

Pre-assembled Cable Insulated Aluminum Multiplex Wire Application

Pre-assembled Cable is also called cabo multiplex, it is used in distribution circuits and household connections. It has advantage over bare cables, because they can be installed in wooded areas and in places where there is little physical space.

Due to the fact of being isolated, Pre assembled Cable provides greater reliability to the electrical system, avoiding disconnections due to short circuits caused by contact with trees.

Pre-assembled Cable Insulated Aluminum Multiplex Wire Construction

Phase conductor: Aluminum wires 1350, stringing class 2, compact, acc. to NM 280.

Insulation: thermosetting compound of XLPE/PE polyethylene, weather resistant.

Pre-assembled Cable Insulated Aluminum Multiplex Wire Identification

1 phase: black

2 phases: black and gray

3 phases: black, grey and red

Pre-assembled Cable Insulated Aluminum Multiplex Wire Neutral conductor

Aluminum CA: aluminum wires 1350, hardness H19, normal round stringing.

Alloy aluminum CAL: aluminum wires with alloy 6201, hardness T81, normal round stringing, acc. to 10298.

Neutral conductor insulation: if requested, in XLPE in light blue.

Pre-assembled Cable Insulated Aluminum Multiplex Wire Maximum Operating Temperatures

In continuous regime: 90°C

In overload: 130°C

In short circuit: 250°C

Pre-assembled Cable Insulated Aluminum Multiplex Wire Reference Standards

ABNT NBR 8182 - Self-sustained multiplex power cables with extruded insulation of PE or XLPE, for voltages up to 0,6/1 kV - Performance requirements.

ABNT NBR NM 280 - Conductors of insulated cables (IEC 60228, MOD).

ABNT NBR 10298 - Bare cables with alloy aluminum-magnesium-silicon, for overhead lines

Pre-assembled Cable Insulated Aluminum Multiplex Wire Specification

Cabo Multiplexado AL XLPE 0,6/1kV - Neutro Isolado

Tipo	Seção Nominal (mm ²)	Condutor Fase			Condutor Neutro				Diâmetro externo aprox (mm)	Peso Líquido (kg/km)
		Diâmetro do Condutor (mm)	Espessura de Isolação (mm)	Resistência Elétrica Máxima (Ω/km)	Formação (nº fios x mm)	Espessura de Isolação (mm)	Carga de Ruptura mín (kgf)			
							CA	CAL		
Duplex	1x10 + 10	4,0	1,2	3,08	7x1,36	1,2	199	-	12,9	96,4
	1x16 + 16	4,7	1,2	1,91	7x1,70	1,2	306	-	14,6	135
	1x25 + 25	5,9	1,4	1,20	7x2,11	1,4	455	-	17,8	207
	1x35 + 35	6,9	1,6	0,87	7x2,50	1,6	626	1113	20,8	284
	1x50 + 50	8,1	1,6	0,64	7x3,00	1,6	852	1602	23,5	377
Triplex	2x10 + 10	4,0	1,2	3,08	7x1,36	1,2	199	-	13,8	142
	2x16 + 16	4,7	1,2	1,91	7x1,70	1,2	306	-	15,6	199
	2x25 + 25	5,9	1,4	1,20	7x2,11	1,4	455	-	19,2	304
	2x35 + 35	6,9	1,6	0,87	7x2,50	1,6	626	1113	22,4	420
	2x50 + 50	8,1	1,6	0,64	7x3,00	1,6	852	1602	25,3	551
Quadruplex	3x10 + 10	4,0	1,2	3,08	7x1,36	1,2	199	-	15,4	188
	3x16 + 16	4,7	1,2	1,91	7x1,70	1,2	306	-	17,3	264
	3x25 + 25	5,9	1,4	1,20	7x2,11	1,4	455	-	21,3	403
	3x35 + 35	6,9	1,6	0,87	7x2,50	1,6	626	1113	24,8	555
	3x50 + 50	8,1	1,6	0,64	7x3,00	1,6	852	1602	28,0	726

	3x70 + 70	9,7	1,8	0,44	7x3,45	1,8	1102	2030	32,6	1004
	3x95 + 70	11,5	2,0	0,32	7x3,45	2,0	1102	2030	37,9	1270
	3x120 + 70	12,9	2,0	0,25	7x3,45	2,0	1102	2030	41,3	1500

Cabo Multiplexado AL XLPE 0,6/1kV - Neutro Nu

Tipo	Seção Nominal (mm ²)	Condutor Fase			Condutor Neutro			Diâmetro externo aprox (mm)	Peso Líquido (kg/km)
		Diâmetro do Condutor (mm)	Espessura de Isolação (mm)	Resistência Elétrica Máxima (Ω/km)	Formação (nº fios x mm)	Carga de Ruptura mín (kgf)			
						CA	CAL		
Duplex	1x10 + 10	4,0	1,2	3,08	7x1,36	199	-	10,5	74
	1x16 + 16	4,7	1,2	1,91	7x1,70	306	-	12,2	109
	1x25 + 25	5,9	1,4	1,20	7x2,11	455	-	15,0	167
	1x35 + 35	6,9	1,6	0,87	7x2,50	626	1113	17,6	231
	1x50 + 50	8,1	1,6	0,64	7x3,00	852	1602	20,3	311
Triplex	2x10 + 10	4,0	1,2	3,08	7x1,36	199	-	13,8	119
	2x16 + 16	4,7	1,2	1,91	7x1,70	306	-	15,3	173
	2x25 + 25	5,9	1,4	1,20	7x2,11	455	-	18,8	266
	2x35 + 35	6,9	1,6	0,87	7x2,50	626	1113	21,8	367
	2x50 + 50	8,1	1,6	0,64	7x3,00	852	1602	24,4	485
Quadruplex	3x10 + 10	4,0	1,2	3,08	7x1,36	199	-	15,4	165
	3x16 + 16	4,7	1,2	1,91	7x1,70	306	-	17,0	238
	3x25 + 25	5,9	1,4	1,20	7x2,11	455	-	20,9	365
	3x35 + 35	6,9	1,6	0,87	7x2,50	626	1113	24,2	502
	3x50 + 50	8,1	1,6	0,64	7x3,00	852	1602	27,1	660
	3x70 + 70	9,7	1,8	0,44	7x3,45	1102	2030	31,9	920
	3x95 + 70	11,5	2,0	0,32	7x3,45	1102	2030	37,2	1185
3x120 + 70	12,9	2,0	0,25	7x3,45	1102	2030	40,6	1415	