

Low Voltage Power Cable

Single Core 600/1000 V Cable with Circular Stranded Conductor, PVC Jacket



Detail Description or Construction

Single cross-linked polyethylene insulated conductor of stranded copper or aluminum, with aluminum wire armor and thermoplastic jacket of PVC (Polyvinyl Chloride).

Application

For use in ducts, trays and direct burial in ground. The cable is subject to immerse in water all the time.

Standards / Testing Specifications • IEC 60502-1

Marking

0.6/1 KV XLPE/AWA/PVC A x B SQ.MM., PHELPS DODGE A = Number of cores B = Size of conductor (SQ.MM.)

Installation

Low voltage power cable can be installed in duct, tray or direct burial. It is recommended that the installation instructions indicated by the Local Electric Code, or any equivalent, be followed, so that the safeguarding of persons and the integrity of the product will not be affected by deficiencies in the installation.



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Nominal Cross- Sectional Area of Conductor ¹⁾	Thickness of Insulation	Thickness of Extruded Bedding	Nominal Aluminum Armor Wire Diameter	Thickness of Oversheath	Approximate Overall Diameter	Cable Weight kg / km		Standard packing
mm ²	mm	mm	mm	mm	mm	Copper	Aluminum	m
50	1.0	0.8	0.9	1.5	17.5	805	465	500/R
70	1.1	0.8	1.25	1.5	20.2	995	565	500/R
95	1.1	0.8	1.25	1.6	22.3	1285	695	500/R
120	1.2	0.8	1.25	1.6	24.2	1555	805	500/R
150	1.4	1.0	1.6	1.7	27.4	1905	975	500/R
185	1.6	1.0	1.6	1.8	30.0	2325	1155	500/R
240	1.7	1.0	1.6	1.8	32.8	2935	1385	500/R
300	1.8	1.0	1.6	1.9	35.6	3590	1645	500/R
400	2.0	1.2	2.0	2.0	40.5	4615	2140	500/R
500	2.2	1.2	2.0	2.1	44.2	5700	2620	500/R
630	2.4	1.2	2.0	2.2	48.8	7195	3195	500/R
800	2.6	1.4	2.5	2.4	55.4	9365	4255	500/R
1000	2.8	1.4	2.5	2.5	60.6	11550	5025	500/R

 $^{\rm 1)}$ Circular or compacted circular stranded conductor (class2). R = Packing in reel



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Current carrying capacities in amperes for 600/1000 V XLPE insulation Single core cable in free Air (30°C) and in ground (20°C)

Nominal Cross-sectional Area of Conductor1	Condu in Free Air	ctor @ 30°C	Conductor in Ground @ 20°C		
mm²	Copper	Aluminum	Copper	Aluminum	
50	207	159	144	112	
70	268	206	178	138	
95	328	253	211	164	
120	383	296	240	186	
150	444	343	271	210	
185	510	395	304	236	
240	607	471	351	272	
300	703	547	396	308	
400	823	663	-	-	
500	946	770	-	-	
630	1088	899	-	-	

* Ampacity for 1/C (Copper) in Air * **Note:** Ampacity of single core Copper conductor, XLPE insulation based on conductor temperature of 90°C and ambient air temperature of 30°C per Table A. 52-12(52-C11) of IEC Standard Publication No. 60364-5-52 : 2001 column 5

* Ampacity for 1/C (Aluminum) in Air * **Note:** Ampacity of single core copper Aluminum conductor, XLPE insulation based on conductor temperature of 90°C and ambient air temperature of 30°C per Table A. 52-13(52-C12) of IEC Standard Publication No. 60364-5-52 : 2001 column 5

* Ampacity Direct Burial 1/C * **Note:** Ampacity of single core cable, XLPE insulation based on conductor temperature of 90°C and ground temperature of 20°C per Table A. 52-5(52-C4) of IEC Standard Publication No. 60364-5-52 : 2001 column 7