

AL-XLPE-CTS-PVC 12/20 (24)kV

Unarmoured medium voltage cable with compacted aluminium conductor and XLPE insulation



Application

Single Core Aluminium Medium Voltage cable especially suitable for distribution of energy.

Construction

Conductor	: Compacted stranded circular aluminium, IEC60228 class 2
Extruded conductor screen	: Semi conductive material
Insulation	: Cross-linked polyethylene
Extruded insulation screen	: Semi conductive material
Tape screen	: Copper tape
Cable core tape	: Non-woven tape
Outer sheath	: Polyvinylchloride, ST2
Marking text	: E.g. "AL/XLPE/CTS/PVC 1x95 mm ² 12/20kV IEC60502-2 year xxxm"
Rated voltage	: 12/20 kV
Highest system voltage	: 24 kV

Outer Sheath Colours

Available colours : Black*

*other colours available on request

Installation recommendations

Min. Bending Radius during Installation	: 20xD
Min. Bending Radius Fix Installed	: 15xD
Max. Conductor Operating Temperature	: 90°C

Standards applied

IEC60332-1:2004-07	Flame Retardant
IEC60502-2	Cable design

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Range and Dimensions

Article Code	Number of Cores	Size Cross-Section in mm ²	Approx. Diameter over Conductor in mm	Insulation thickness mm	Approx. Overall Diameter in mm	Approx. Total Weight in kg/km
D2801C095BAK BK10	1	95	11.6	5.5	30.0	1065
D2801C120BAK BK10	1	120	13.0	5.5	31.6	1200
D2801C150BAK BK10	1	150	14.6	5.5	33.2	1342
D2801C185BAK BK10	1	185	16.2	5.5	35.0	1514
D2801C240BAK BK10	1	240	18.4	5.5	37.4	1765
D2801C300BAK BK10	1	300	20.6	5.5	39.6	2014
D2801C400BAK BK10	1	400	23.8	5.5	42.8	2430
D2801C500BAK BK10	1	500	26.6	5.5	46.6	2897

Note: Subject to change without prior notice.

Electrical Characteristics

Number of Cores	Size Cross-Section in mm ²	Conductor DC resist. at 20°C in Ohm/km	M.C.C.R. parallel in air in Amps	M.C.C.R. trefoil in air in Amps	Conductor max. short circuit current 1 sec. in Amps	Voltage Drop single phase system parallel/trefoil in V/A/km
1	95	0.98	334	281	9.0	0.42
1	120	0.253	386	325	11.3	0.33
1	150	0.206	440	370	14.2	0.27
1	185	0.164	506	425	17.5	0.22
1	240	0.125	598	502	22.7	0.17
1	300	0.1	690	577	28.3	0.13
1	400	0.0778	812	677	37.8	0.1
1	500	0.0605	943	787	47.2	0.08

Laid Parallel in air is calculated with a distance from cable axis to cable axis of 2 x D (D is cable overall diameter)

Note: Above values based on Cos Phi = 1.0, f=50Hz and conform IEC agreed standards or generally accepted in practice, in order to compare and calculate additional local circuit corrections and de-ratings.

M.C.C.R. Maximum Continuous Current Rating in air at 30°C.

NOTICE

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