XDRCU–ALT Single–core Cable 380/220 (420) kV

380/220 kV

with Copper wire screen and Aluminium laminated sheath

Construction

- Copper conductor, round stranded or segmented, optionally with longitudinal water barrier
- Inner semi-conductive layer firmly bonded to the XLPE insulation
- XLPE main insulation, cross-linked
- Outer semi-conductive layer firmly bonded to the XLPE insulation
- Copper wire screen with semi-conductive swelling tapes above and below as longitudinal water barrier
- Aluminium foil, overlapped and glued as radial diffusion barrier bonded to the oversheath
- Thermoplastic oversheath as mechanical protection, optionally with semi-conductive and/or flame-retardant layer

Remarks

The inner semi-conductive layer, the XLPE main insulation and the outer semi-conductive layer are extruded in a single operation applying a dry curing and a water or nitrogen cooling method.

Features

- Low weight
- Low losses
- Low cost
- Internationally proven design
- Suitable for most applications

Standards

IEC 62067

Technical data

Conductor cross-section	Outer diameter (approx.)	Cable weight (approx.)	AC resistance	AC resistance	Reactance	Reactance	Capacitance	Min. bending radius	Max. pulling force
mm²	mm	kg/m	mΩ/km	mΩ/km	mΩ/km	mΩ/km	µF/km	mm	kN
630	111	16	38.8	38.3	141	218	0.129	2300	38
800	112	18	31.7	31.0	133	209	0.148	2300	48
1000	114	20	26.8	25.8	126	201	0.165	2300	60
1200	118	22	20.4	20.1	121	194	0.186	2400	72
1400	122	24	17.8	17.4	117	188	0.199	2500	84
1600	128	27	15.9	15.5	117	185	0.201	2600	96
2000	132	31	13.3	12.8	114	180	0.212	2700	120
2500	136	36	11.4	10.8	109	173	0.239	2800	150

Capacity

Installation			20 °C				35 °C	
Amb. temp.			1.0 Km/W				in air	
Soil resist.								
Load factor	1.0	1.0	0.7	0.7	-	-		
Cross-section mm²	A	A	A	A	A	A		
630	857	945	1019	1102	1046	1176		
800	958	1069	1148	1257	1219	1365		
1000	1050	1185	1266	1403	1366	1550		
1200	1207	1355	1463	1612	1605	1813		
1400	1297	1465	1579	1751	1754	1995		
1600	1373	1555	1673	1861	1870	2131		
2000	1499	1716	1835	2062	2075	2389		
2500	1618	1883	1993	2278	2304	2700		

Calculation basis: Conductor temperature: 90°C, Frequency: 50 Hz, Laying depth: 1200 mm, Phase distance at flat formation: 30 cm, Earthing method: Single-Point Bonding or Cross-bonding
Values apply for cables with rated voltages from 380 kV to 400 kV acc. to IEC 62067

Subject to change without notice

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