XDRCU–ALT Single–core Cable 330/190 (362) kV

330/190 kV

with Copper wire screen and Aluminium laminated sheath

Construction

- Aluminium 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

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

Standards

IEC 62067
ICEA S-108-720
AEIC CS9-06

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
500	113	13	78.9	78.7	151	227	0.113	2300	15
630	113	13	61.9	61.5	141	217	0.131	2300	19
800	113	13	49.4	48.8	133	209	0.148	2300	24
1000	114	13	40.3	39.5	127	203	0.163	2300	30
1200	115	14	35.2	34.3	122	197	0.178	2300	36
1400	120	25	27.6	27.5	116	188	0.204	2400	42
1600	124	16	24.3	24.2	115	185	0.214	2500	48
2000	129	18	19.7	19.5	112	180	0.224	2600	60
2500	136	20	17.0	16.8	109	173	0.239	2800	75

Capacity

Installation			20 °C 1.0 Km/W			35 °C in air	
Amb. temp. Soil resist. Load factor	1.0	1.0	0.7	0.7	-	-
Cross-section mm²	A	A	A	A	A	A
500	597	647	704	750	728	792
630	683	747	812	872	853	936
800	773	852	925	1001	985	1092
1000	863	958	1039	1132	1119	1253
1200	928	1039	1122	1234	1224	1383
1400	1058	1174	1287	1404	1429	1609
1600	1129	1256	1377	1505	1540	1740
2000	1256	1405	1537	1690	1738	1978
2500	1358	1526	1670	1845	1919	2199

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 330 kV to 345 kV acc. to IEC 62067

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