

XDRCU-ALT Single-core Cable 110/64 (123) kV

110/64 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 60840
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
mm ²	mm	kg/m	 mΩ/km	 mΩ/km	 mΩ/km	 mΩ/km	μF/km	mm	kN
240	71	7.6	97.2	97.0	146	250	0.139	1500	14
300	72	8.1	78.1	77.7	139	243	0.155	1500	18
400	73	9.1	61.8	61.3	131	234	0.177	1500	24
500	75	10.0	49.2	48.4	125	227	0.196	1500	30
630	76	11.0	39.5	38.3	118	218	0.227	1600	38
800	77	13.0	32.7	31.0	109	209	0.287	1600	48
1000	81	15.0	27.9	25.8	105	201	0.313	1700	60
1200	87	17.0	20.6	20.1	102	194	0.369	1800	72
1400	91	19.0	18.1	17.4	99	188	0.393	1900	84
1600	95	21.0	16.3	15.5	98	185	0.405	1900	96
2000	99	25.0	13.7	12.8	96	180	0.430	2000	120
2500	104	30.0	11.9	10.8	92	173	0.506	2100	150

HV-Cables XLPE (Cu)

Capacity

Installation Amb. temp. Soil resist. Load factor	⊖	⊖⊖	⊖	⊖⊖	⊖	⊖⊖
	1.0	1.0	0.7	0.7	-	-
Cross-section mm ²	A	A	A	A	A	A
240	531	590	630	682	628	699
300	600	670	715	777	719	805
400	683	767	819	898	834	942
500	774	875	933	1029	960	1093
630	876	1001	1063	1185	1109	1280
800	979	1136	1196	1358	1268	1499
1000	1070	1260	1315	1515	1418	1704
1200	1252	1443	1545	1744	1693	1996
1400	1345	1562	1665	1895	1851	2201
1600	1422	1660	1763	2018	1975	2363
2000	1552	1836	1929	2241	2188	2658
2500	1675	2022	2096	2485	2426	3018

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 110 kV to 115 kV acc. to IEC 60840