

XDRCU-ALT Single-core Cable 132/76 (145) kV

132/76 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 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	74	6.3	161.0	161.0	146	249	0.136	1500	7.2
300	74	6.4	129.0	129.0	140	242	0.150	1500	9.0
400	77	6.8	101.0	101.0	132	232	0.169	1600	12.0
500	77	6.9	79.1	78.7	126	227	0.189	1600	15.0
630	79	7.4	62.3	61.5	119	217	0.219	1600	19.0
800	83	8.3	49.9	48.8	114	209	0.240	1700	24.0
1000	86	8.8	41.0	39.5	109	203	0.271	1800	30.0
1200	90	9.7	36.0	34.3	106	197	0.289	1800	36.0
1400	97	11.0	27.7	27.5	103	188	0.325	2000	42.0
1600	101	12.0	24.5	24.2	101	185	0.338	2100	48.0
2000	106	14.0	19.9	19.5	100	180	0.349	2200	60.0
2500	112	15.0	17.3	16.8	96	173	0.381	2300	75.0

HV-Cables XLPE (AI)

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	414	458	490	529	491	544
300	467	519	556	602	560	624
400	537	598	642	699	656	735
500	612	685	736	805	757	855
630	700	788	848	934	887	1011
800	791	897	963	1068	1022	1174
1000	883	1009	1079	1208	1159	1350
1200	950	1093	1165	1313	1265	1487
1400	1093	1237	1346	1496	1490	1727
1600	1167	1325	1440	1605	1606	1867
2000	1298	1485	1607	1805	1812	2124
2500	1404	1619	1746	1979	2004	2375

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 132 kV to 138 kV acc. to IEC 60840