

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

132/76 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	73	7.8	97.2	97.0	147	250	0.134	1500	14
300	74	8.3	78.0	77.7	140	243	0.149	1500	18
400	75	9.3	61.8	61.3	132	234	0.169	1500	24
500	76	10.0	49.2	48.4	126	227	0.189	1600	30
630	78	12.0	39.4	38.3	119	218	0.216	1600	38
800	83	13.0	32.4	31.0	114	209	0.240	1700	48
1000	86	15.0	27.7	25.8	108	201	0.274	1800	60
1200	92	18.0	20.6	20.1	105	194	0.303	1900	72
1400	96	20.0	18.0	17.4	103	188	0.325	2000	84
1600	100	22.0	16.2	15.5	101	185	0.338	2100	96
2000	105	26.0	13.6	12.8	100	180	0.348	2200	120
2500	112	31.0	11.7	10.8	96	173	0.381	2300	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	588	629	680	627	696
300	600	667	713	775	718	801
400	683	765	818	894	832	937
500	774	873	931	1025	958	1088
630	876	997	1061	1180	1107	1273
800	978	1126	1191	1340	1263	1474
1000	1072	1251	1312	1499	1413	1978
1200	1250	1431	1536	1723	1681	1959
1400	1344	1549	1657	1873	1837	2160
1600	1421	1647	1756	1996	1962	2320
2000	1552	1820	1923	2212	2171	2600
2500	1679	1999	2089	2445	2405	2932

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