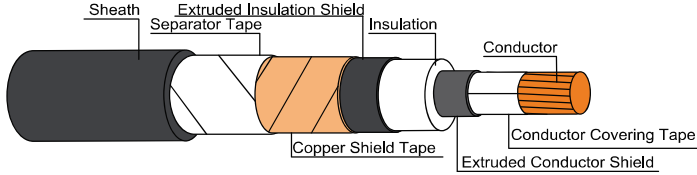


18/30(36)kV 90 °C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED POWER CABLE

IEC 60502-2



CABLE STRUCTURE

Conductor : Compacted round annealed copper
Single-core : Sizes 35 mm² up to 1000 mm²

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
Circuit voltage not exceeding 36,000 Volts

Rated voltage : 18,000 Volts between Line to Earth
30,000 Volts between Line to Line

Testing voltage : 63,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

Remark : Special protection can be produced

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

B

Number of core	Nominal cross sectional area (mm ²)	Number of wires minimum	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ·km)	Continuous current rating in free air at 40°C maximum			Continuous current rating in ground at 30°C maximum (A)	Cable weight approx. (kg/km)	Standard Length (m)
								Spaced 	Touching 	Trefoil 			
1	35	6	8.9	2.0	33	0.524	4,660	213	190	196	166	1,200	500D
	50	6	8.0	2.0	32	0.387	4,010	256	226	221	196	1,300	500D
	70	12	8.0	2.0	34	0.267	3,620	319	281	275	240	1,500	500D
	95	15	8.0	2.1	36	0.193	3,260	390	343	335	287	1,900	500D
	120	18	8.0	2.1	37	0.153	3,020	450	395	385	327	2,200	500D
	150	18	8.0	2.2	39	0.124	2,820	510	448	437	366	2,500	500D
	185	30	8.0	2.2	41	0.0991	2,620	586	514	501	414	2,900	500D
	240	34	8.0	2.3	43	0.0754	2,370	693	607	591	480	3,500	500D
	300	34	8.0	2.4	46	0.0601	2,190	796	696	678	541	4,200	500D
	400	53	8.0	2.5	48	0.0470	2,000	923	807	784	615	5,000	500D
	500	53	8.0	2.6	52	0.0366	1,800	1076	939	910	698	6,500	500D
	630	53	8.0	2.7	56	0.0283	1,630	1251	1088	1051	788	7,500	500D
	800	53	8.0	2.8	60	0.0221	1,480	1437	1243	1195	877	9,500	300D
	1000	53	8.0	3	66	0.0176	1,300	1640	1411	1348	962	12,000	300D

Remark : Thermal resistivity of soil 1.2 K.m/W or °C.m/W

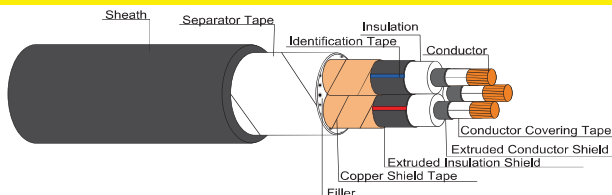
D : Packing in drum

Deep of laying (For cable laid direct in ground) 0.8 m

Number of core	Nominal cross sectional area (mm ²)	A.C. Resistance			Inductance			Reactance			Impedance		
		R (Ω/km)			L (mH/km)			XL (Ω/km)			Z (Ω/km)		
		Space	Touching	Trefoil	Space	Touching	Trefoil	Space	Touching	Trefoil	Space	Touching	Trefoil
1	35	0.6683	0.6683	0.6683	0.6990	0.5604	0.5142	0.2196	0.1760	0.1615	0.7034	0.6911	0.6875
	50	0.4936	0.4936	0.4937	0.6525	0.5139	0.4676	0.2050	0.1614	0.1469	0.5345	0.5194	0.5151
	70	0.3420	0.3420	0.3420	0.6268	0.4882	0.4420	0.1969	0.1534	0.1388	0.3946	0.3748	0.3691
	95	0.2464	0.2465	0.2465	0.6048	0.4681	0.4199	0.1900	0.1464	0.1319	0.3112	0.2867	0.2796
	120	0.1955	0.1956	0.1957	0.5862	0.4475	0.4013	0.1842	0.1406	0.1261	0.2686	0.2409	0.2328
	150	0.1587	0.1588	0.1588	0.5743	0.4357	0.3895	0.1804	0.1369	0.1224	0.2403	0.2096	0.2005
	185	0.1271	0.1272	0.1273	0.5622	0.4236	0.3774	0.1766	0.1331	0.1186	0.2176	0.1841	0.1739
	240	0.0971	0.0973	0.0974	0.5466	0.4080	0.3618	0.1717	0.1282	0.1137	0.1973	0.1609	0.1497
	300	0.0778	0.0781	0.0783	0.5349	0.3963	0.3501	0.1680	0.1245	0.1100	0.1852	0.1469	0.1350
	400	0.0614	0.0618	0.0621	0.5231	0.3845	0.3383	0.1643	0.1208	0.1063	0.1754	0.1357	0.1231
	500	0.0486	0.0491	0.0495	0.5124	0.3738	0.3275	0.1610	0.1174	0.1029	0.1681	0.1273	0.1142
	630	0.0385	0.0392	0.0398	0.5009	0.3622	0.3160	0.1574	0.1138	0.0993	0.1620	0.1204	0.1070
	800	0.0312	0.0321	0.0329	0.4908	0.3522	0.3059	0.1542	0.1106	0.0961	0.1573	0.1152	0.1016
	1000	0.0261	0.0272	0.0282	0.4802	0.3415	0.2953	0.1508	0.1073	0.0928	0.1531	0.1107	0.0970

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Insulation : Cross-Linked polyethylene (XLPE)

Core identification
3 Cores : White, Red, Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90 °C
: Circuit voltage not exceeding 36,000 Volts

Rated voltage : 18,000 Volts between Line to Earth
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Testing voltage : 63,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

Remark : Special protection can be produced

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

Number of cores	Nominal cross sectional area	Number of wires minimum	Insulation thickness nominal	Sheath thickness nominal	Overall diameter approx.	Conductor resistance at 20°C maximum	Insulation resistance at 20°C minimum	Continuous current rating in free air at 40°C maximum	Continuous current rating in ground at 30°C maximum	Cable weight approx.	Standard Length
	(mm ²)	(No.)	(mm)	(mm)	(mm)	(Ω/km)	(MΩ·km)	(A)	(A)	(kg/km)	(m)
3	35	6	8.9	3.1	68	0.524	4,680	141	139	4,300	500/D
	50	6	8.0	3.2	67	0.387	4,010	205	190	4,500	500/D
	70	12	8.0	3.3	71	0.267	3,620	262	236	5,500	300/D
	95	15	8.0	3.4	75	0.193	3,260	320	284	6,500	300/D
	120	18	8.0	3.5	79	0.153	3,020	368	323	7,500	300/D
	150	18	8.0	3.6	82	0.124	2,820	417	362	8,500	300/D
	185	30	8.0	3.7	86	0.0991	2,620	477	409	10,000	300/D
	240	34	8.0	3.9	91	0.0754	2,370	561	473	12,000	300/D
	300	34	8.0	4.0	97	0.0601	2,190	640	533	14,000	300/D
	400	53	8.0	4.3	103	0.0470	2,000	734	603	17,000	200/D

Remark : Thermal resistivity of soil 1.2 K.m/W or °C.m/W

D : Packing in drum

Deep of laying (For cable laid direct in ground) 0.8 m

Number of cores	Nominal cross sectional area	A.C. Resistance	Inductance	Reactance	Impedance
		R	L	XL	Z
	(mm ²)	(Ω/km)	(mH/km)	(Ω/km)	(Ω/km)
3	35	0.6683	0.4808	0.1510	0.6852
	50	0.4937	0.4336	0.1362	0.5121
	70	0.3420	0.4097	0.1287	0.3655
	95	0.2466	0.3883	0.1220	0.2751
	120	0.1957	0.3710	0.1166	0.2278
	150	0.1589	0.3593	0.1129	0.1949
	185	0.1274	0.3488	0.1096	0.1680
	240	0.0976	0.3340	0.1049	0.1433
	300	0.0785	0.3228	0.1014	0.1282
	400	0.0624	0.3117	0.0979	0.1161