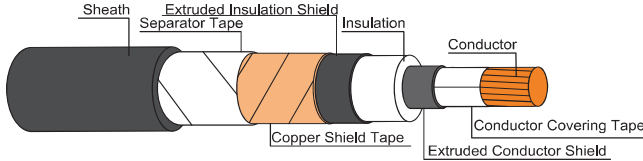


# 6/10KV-CV

## 6/10(12)kV 90 °C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED POWER CABLE

IEC 60502-2



### CABLE STRUCTURE

- Conductor** : Compacted round annealed copper  
Single-core : Sizes 16 mm<sup>2</sup> up to 1000 mm<sup>2</sup>
- 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 12,200 volts
- Rated voltage** : 6,000 Volts between Line to Earth  
: 10,000 Volts between Line to Line
- Testing voltage** : 21,000 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 core	Nominal cross sectional area (mm <sup>2</sup> )	Number of wires minimum (No.)	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			
								(A)	(A)	(A)			
1	16	6	3.4	1.5	18.5	1.15	3.100	135	114	112	109	440	500/D
	25	6	3.4	1.6	20	0.727	2.700	177	150	146	140	550	500/D
	35	6	3.4	1.6	21	0.524	2.450	216	182	177	167	700	500/D
	50	6	3.4	1.7	22	0.387	2.200	260	219	213	197	850	500/D
	70	12	3.4	1.7	24	0.268	1.900	324	273	265	241	1100	500/D
	95	15	3.4	1.8	26	0.193	1.700	397	334	325	289	1300	500/D
	120	18	3.4	1.8	27	0.153	1.550	459	386	375	328	1600	500/D
	150	18	3.4	1.9	29	0.124	1.450	521	439	426	367	1900	500/D
	185	30	3.4	1.9	31	0.0991	1.300	601	506	492	415	2300	500/D
	240	34	3.4	2.0	33	0.0754	1.150	713	601	583	481	2900	500/D
	300	34	3.4	2.1	36	0.0601	1.050	820	692	670	542	3500	500/D
	400	53	3.4	2.2	39	0.0470	950	954	804	777	614	4400	500/D
	500	53	3.4	2.3	42	0.0366	850	1116	939	905	695	5500	500/D
	630	53	3.4	2.4	46	0.0283	750	1299	1090	1045	781	7000	500/D
800	53	3.4	2.5	50	0.0221	650	1494	1247	1188	865	8500	500/D	
1000	53	3.4	2.6	56	0.0176	600	1708	1417	1340	945	11000	300/D	

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

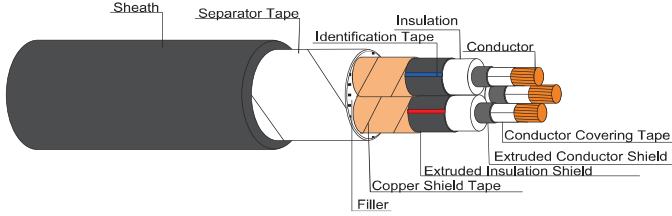
Deep of laying (For cable laid direct in ground) 0.8 m

D : Packing in drum

Number of core	Nominal cross sectional area (mm <sup>2</sup> )	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	16	1.4664	1.4664	1.4664	0.6597	0.5210	0.4748	0.6597	0.1637	0.1492	1.4810	1.4755	1.4740
	25	0.9271	0.9271	0.9271	0.6295	0.4908	0.4446	0.6295	0.1542	0.1397	0.9479	0.9398	0.9376
	35	0.6683	0.6683	0.6683	0.6093	0.4707	0.4244	0.6093	0.1479	0.1333	0.6952	0.6845	0.6815
	50	0.4936	0.4937	0.4937	0.5792	0.4406	0.3944	0.5792	0.1384	0.1239	0.5261	0.5127	0.5090
	70	0.3420	0.3420	0.3421	0.5576	0.4190	0.3728	0.5576	0.1316	0.1171	0.3842	0.3665	0.3616
	95	0.2465	0.2465	0.2466	0.5401	0.4015	0.3553	0.5401	0.1261	0.1116	0.2992	0.2769	0.2707
	120	0.1956	0.1957	0.1958	0.5245	0.3859	0.3397	0.5245	0.1212	0.1067	0.2557	0.2302	0.2230
	150	0.1587	0.1589	0.1590	0.5156	0.3770	0.3307	0.5156	0.1184	0.1039	0.2268	0.1981	0.1899
	185	0.1271	0.1273	0.1275	0.5068	0.3681	0.3219	0.5068	0.1157	0.1011	0.2037	0.1720	0.1627
	240	0.0971	0.0974	0.0977	0.4958	0.3569	0.3107	0.4958	0.1121	0.0976	0.1835	0.1485	0.1381
	300	0.0778	0.0783	0.0787	0.4868	0.3482	0.3020	0.4868	0.1094	0.0949	0.1716	0.1345	0.1232
	400	0.0615	0.0621	0.0626	0.4781	0.3394	0.2932	0.4781	0.1066	0.0921	0.1623	0.1234	0.1114
	500	0.0486	0.0495	0.0501	0.4709	0.3323	0.2861	0.4709	0.1044	0.0899	0.1557	0.1155	0.1029
	630	0.0386	0.0397	0.0406	0.4625	0.3239	0.2776	0.4625	0.1017	0.0872	0.1503	0.1092	0.0962
800	0.0313	0.0327	0.0338	0.4552	0.3166	0.2703	0.4552	0.0994	0.0849	0.1464	0.1047	0.0914	
1000	0.0262	0.0279	0.0292	0.4466	0.3080	0.2618	0.4466	0.0968	0.0822	0.1427	0.1007	0.0873	

6/10(12)kV 90 °C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED POWER CABLE

IEC 60502-2



**CABLE STRUCTURE**

- Conductor** : Compacted round annealed copper  
Single-core : Sizes 16 mm<sup>2</sup> up to 400 mm<sup>2</sup>
- 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 12,200 Volts
- Rated voltage** : 6,000 Volts between Line to Earth  
: 10,000 Volts between Line to Line
- Testing voltage** : 21,000 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 (mm <sup>2</sup> )	Number of wires minimum (No.)	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 (A)	Continuous current rating in ground at 30°C maximum (A)	Cable weight approx. (kg/km)	Standard Length (m)
3	16	6	3.4	2.0	30	1.15	2,500	109	108	1100	500/D
	25	6	3.4	2.1	35	0.727	2,150	142	139	1600	500/D
	35	6	3.4	2.2	38	0.524	1,900	173	166	1900	500/D
	50	6	3.4	2.3	40	0.387	1,700	207	196	2400	500/D
	70	12	3.4	2.4	44	0.268	1,500	257	239	3100	500/D
	95	15	3.4	2.5	48	0.193	1,300	313	285	4000	500/D
	120	18	3.4	2.6	52	0.153	1,200	360	323	49000	500/D
	150	18	3.4	2.8	55	0.124	1,100	407	361	6000	500/D
	185	30	3.4	2.9	59	0.0991	1,000	467	408	7000	500/D
	240	34	3.4	3.1	65	0.0754	900	549	471	9000	500/D
	300	34	3.4	3.3	71	0.0601	900	628	529	11000	300/D
	400	53	3.4	3.5	79	0.0470	800	721	597	13500	300/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 (mm <sup>2</sup> )	A.C. Resistance R	Inductance	Reactance	Impedance
		R (Ω/km)	L (mH/km)	XL (Ω/km)	Z (Ω/km)
3	16	1.4664	0.4267	0.1340	1.4726
	25	0.9271	0.3977	0.1250	0.9355
	35	0.6683	0.3803	0.1195	0.6789
	50	0.4937	0.3511	0.1103	0.5059
	70	0.3421	0.3327	0.1045	0.3577
	95	0.2467	0.3167	0.0995	0.2660
	120	0.1959	0.3034	0.0953	0.2179
	150	0.1592	0.2950	0.0927	0.1842
	185	0.1277	0.2886	0.0907	0.1566
	240	0.0980	0.2782	0.0874	0.1313
	300	0.0790	0.2705	0.0850	0.1160
	400	0.0631	0.2630	0.0826	0.1039

B