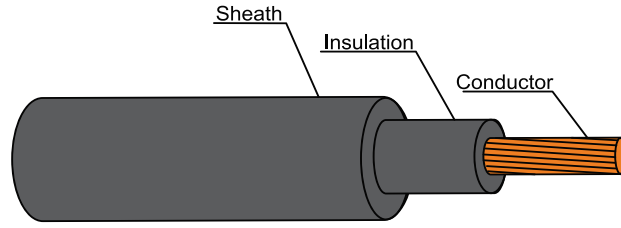


**450/750 V 70 °C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED**



TIS 11 Part 101-2553

**CABLE STRUCTURE**

**Conductor** : Solid and stranded annealed copper  
 : Single-core : Sizes 1 mm<sup>2</sup> up to 500 mm<sup>2</sup>

**Insulation** : polyvinyl chloride (PVC/C)

**Core identification** Single-cores : Black

**Sheath** : Black polyvinyl chloride (PVC/ST4)

**TECHNICAL DATA**

**Classification** : Maximum conductor temperature 70°C  
 : Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth  
 : 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2553 Table 3

**APPLICATION**

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

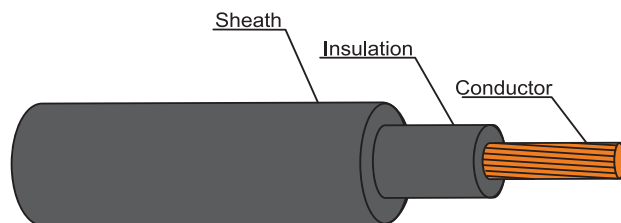
Number of core	Nominal cross sectional area (mm <sup>2</sup> )	Conductor type	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ·km)	Continuous current rating in free air at 40°C maximum (A)			Continuous current rating in ground at 30°C maximum (A)	Cable weight approx. (kg/km)	Standard Length (m)
								Spaced	Touching	Trefoil			
1	1	Solid	1.5	1.8	8.6	18.1	0.0207	19	16	15	21	80	100/C
	1	Stranded	1.5	1.8	8.8	18.1	0.0200	19	16	15	21	80	100/C
	1.5	Solid	1.5	1.8	9.0	12.1	0.0184	24	19	19	26	85	100/C
	1.5	Stranded	1.5	1.8	9.2	12.1	0.0175	24	19	19	26	90	100/C
	2.5	Solid	1.5	1.8	9.4	7.41	0.0157	32	24	26	35	100	100/C
	2.5	Stranded	1.5	1.8	9.8	7.41	0.0146	32	24	26	35	110	100/C
	4	Solid	1.5	1.8	10.0	4.61	0.0135	42	33	34	45	120	100/C
	4	Stranded	1.5	1.8	10.5	4.61	0.0124	42	33	34	45	130	100/C
	6	Stranded	1.5	1.8	11.0	3.08	0.0107	54	42	43	57	160	100/C
	10	Stranded	1.5	1.8	12.0	1.83	0.0088	73	57	59	76	210	500/D
	16	Stranded	1.5	1.8	13.0	1.15	0.0074	96	76	78	99	280	500/D
	25	Stranded	1.5	1.8	14.5	0.727	0.0061	127	99	96	128	390	500/D
	35	Stranded	1.5	1.8	16.0	0.524	0.0053	157	124	119	154	490	500/D
	50	Stranded	1.5	1.8	17.0	0.387	0.0046	191	151	145	181	620	500/D
	70	Stranded	1.5	1.8	19.0	0.268	0.0039	244	196	188	223	850	500/D
	95	Stranded	1.7	1.8	21.5	0.193	0.0038	297	239	230	267	1,100	500/D
	120	Stranded	1.7	1.8	23.0	0.153	0.0034	345	279	268	304	1,400	500/D
	150	Stranded	1.9	2.0	26.0	0.124	0.0034	397	324	310	342	1,700	500/D
	185	Stranded	2.1	2.0	28.0	0.0991	0.0034	453	371	356	386	2,100	500/D
	240	Stranded	2.3	2.2	31.5	0.0754	0.0033	535	441	422	448	2,700	500/D
300	Stranded	2.5	2.2	35.0	0.0601	0.0032	617	511	488	507	3,400	500/D	
400	Stranded	2.7	2.2	38.5	0.0470	0.0030	741	599	571	577	4,300	500/D	
500	Stranded	3.1	2.4	43.0	0.0366	0.0031	854	686	652	654	5,400	500/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

B

450/750 V 70 °C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH



TIS 11 Part 101-2553

CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper  
 : Single-core : Sizes 1 mm<sup>2</sup> up to 500 mm<sup>2</sup>

**Insulation** : polyvinyl chloride (PVC/C)

**Core identification** Single-cores : Black,

**Sheath** : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C  
 : Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth  
 : 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2553 Table 3

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 <sup>2</sup> )	Conductor type	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	1	Solid	21.6567	21.6567	21.6567	0.7840	0.6454	0.5991	0.2463	0.2027	0.1882	21.6581	21.6576	21.6575
	1	Stranded	21.6567	21.6567	21.6567	0.7740	0.6353	0.5891	0.2431	0.1996	0.1851	21.6580	21.6576	21.6574
	1.5	Solid	14.4777	14.4777	14.4777	0.7485	0.6099	0.5637	0.2352	0.1916	0.1771	14.4796	14.4789	14.4787
	1.5	Stranded	14.4777	14.4777	14.4777	0.7388	0.6001	0.5539	0.2321	0.1885	0.1740	14.4795	14.4789	14.4787
	2.5	Solid	8.8661	8.8661	8.8661	0.7063	0.5677	0.5214	0.2219	0.1783	0.1638	8.8689	8.8679	8.8676
	2.5	Stranded	8.8661	8.8661	8.8661	0.7025	0.5639	0.5176	0.2207	0.1771	0.1626	8.8688	8.8678	8.8676
	4	Solid	5.5159	5.5159	5.5159	0.6698	0.5312	0.4850	0.2104	0.1669	0.1524	5.5199	5.5184	5.5180
	4	Stranded	5.5159	5.5159	5.5159	0.6649	0.5263	0.4801	0.2089	0.1653	0.1508	5.5198	5.5184	5.5179
	6	Stranded	3.6852	3.6852	3.6852	0.6360	0.4974	0.4512	0.1998	0.1563	0.1417	3.6907	3.6886	3.6880
	10	Stranded	2.1896	2.1896	2.1896	0.5999	0.4612	0.4150	0.1885	0.1449	0.1304	2.1977	2.1944	2.1935
	16	Stranded	1.3760	1.3761	1.3761	0.5702	0.4315	0.3853	0.1791	0.1356	0.1210	1.3876	1.3827	1.3814
	25	Stranded	0.8700	0.8700	0.8700	0.5450	0.4064	0.3602	0.1712	0.1277	0.1132	0.8866	0.8793	0.8773
	35	Stranded	0.6271	0.6272	0.6272	0.5175	0.3789	0.3327	0.1626	0.1190	0.1045	0.6478	0.6384	0.6358
	50	Stranded	0.4632	0.4633	0.4634	0.5023	0.3637	0.3175	0.1578	0.1143	0.0997	0.4894	0.4772	0.4740
	70	Stranded	0.3210	0.3211	0.3212	0.4862	0.3476	0.3014	0.1527	0.1092	0.0947	0.3555	0.3391	0.3348
	95	Stranded	0.2313	0.2315	0.2317	0.4772	0.3386	0.2923	0.1499	0.1064	0.0918	0.2757	0.2548	0.2492
	120	Stranded	0.1836	0.1838	0.1840	0.4664	0.3278	0.2816	0.1465	0.1030	0.0885	0.2349	0.2107	0.2042
	150	Stranded	0.1490	0.1493	0.1496	0.4663	0.3276	0.2814	0.1465	0.1029	0.0884	0.2090	0.1814	0.1737
	185	Stranded	0.1194	0.1198	0.1201	0.4622	0.3235	0.2773	0.1452	0.1016	0.0871	0.1880	0.1571	0.1484
	240	Stranded	0.0913	0.0918	0.0922	0.4568	0.3182	0.2719	0.1435	0.1000	0.0854	0.1701	0.1357	0.1257
300	Stranded	0.0733	0.0740	0.0745	0.4517	0.3131	0.2668	0.1419	0.0984	0.0838	0.1597	0.1231	0.1122	
400	Stranded	0.0580	0.0589	0.0596	0.4465	0.3079	0.2617	0.1403	0.0967	0.0822	0.1518	0.1132	0.1015	
500	Stranded	0.0460	0.0471	0.0480	0.4460	0.3074	0.2612	0.1401	0.0966	0.0820	0.1475	0.1074	0.0951	