

SCC WIRE AND CABLE

HIGH QUALITY ELECTRIC WIRE & CABLES

PREFACE

This manual comprises various kind of technical information including brief and concise data about the use, application and specification of copper and aluminum conductors.

SCC Wire And Cable Co.,Ltd. hopes that this manual will prove informative and useful to electrical engineers, electricians and contractors.

คำนำ

หนังสือคู่มือเล่มนี้ประกอบด้วยข้อมูลด้านเทคนิคหลายชนิด รวมทั้งฐานข้อมูลที่สั้นและกระชับเกี่ยวกับคุณลักษณะและการนำไปใช้งานของสายไฟฟ้าทองแดง และอะลูมิเนียม

บริษัท เอส ซี ซี ไวร์ แอนด์ เคเบิล จำกัด หวังว่าหนังสือคู่มือเล่มนี้คงให้ความรู้และเป็นประโยชน์แก่วิศวกรไฟฟ้า ช่างไฟฟ้า และผู้รับเหมาตามสมควร

TECHNICAL INFORMATION

VAF

300/500 V 70 °C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND SHEATHED. FLAT TYPE

REF. TIS 11
PART 101-2559
TABLE 1



CABLE STRUCTURE

Conductor : Solid and stranded annealed copper
: Sizes 1 mm² up to 16 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification : 2 Cores : Blue and Brown

Sheath : White polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70 °C
: Circuit voltage not exceeding 300/500 Volts

Rated voltage : 300 Volts between Line to Earth
: 500 Volts between Line to Line

Testing voltage : 2,000 Volts

Reference standard : Tis 11 Part 101-2559 Table 1

APPLICATION : Building wiring for surface or above ceiling wiring or direct ambeded in plaster.

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Lower limit (mm)	Upper limit (mm)					
2	1	1	0.6	0.9	4.0 x 6.2	4.7 x 7.4	18.1	0.0110	13	50	100/C
	1.5	1	0.7	0.9	4.4 x 7.0	5.4 x 8.4	12.1	0.0110	17	70	100/C
	2.5	1	0.8	1.0	5.2 x 8.4	6.2 x 9.8	7.41	0.0100	23	100	100/C
	4	2	0.8	1.1	5.6 x 9.6	7.2 x 11.5	4.61	0.0077	31	140	100/C
	6	2	0.8	1.1	6.4 x 10.5	8.0 x 13.0	3.08	0.0065	40	200	100/C
	10	2	1.0	1.2	7.8 x 13.0	9.6 x 16.0	1.83	0.0065	55	300	100/C
	16	2	1.0	1.3	9.0 x 15.5	11.0 x 18.5	1.15	0.0052	74	400	100/C

Class Of Conductor

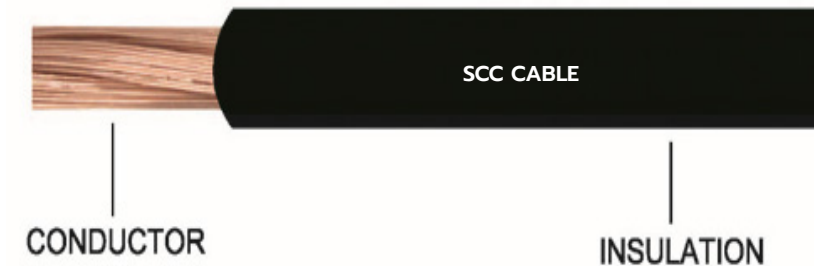
1 : Solid, 2 : Strand
C : Packing in coil

2, SINGLE CORES

THW 60227 IEC 06 IV (F)

300/500 V 70 °C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE

REF. TIS 11
PART 3-2553
TABLE 7



CABLE STRUCTURE

Conductor : Flexible annealed copper wire
: Sizes 0.5 mm² up to 1 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification : Single - Cores : Any Color

TECHNICAL DATA

Classification : Maximum conductor temperature 70 °C
: Circuit voltage not exceeding 300/500 Volts

Rated voltage : 300 Volts between Line to Earth
: 500 Volts between Line to Line

Testing voltage : 2,000 Volts

Reference standard : Tis 11 Part 3-2553 Table 7

APPLICATION : For indoor fixed installations in dry locations, for electrical panels connection or for electrical apparatus

Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
0.5	5	0.6	2.1	2.5	39.0	0.013	11	9	100/C
0.75	5	0.6	2.2	2.7	26.0	0.010	14	12	100/C
1	5	0.6	2.4	2.8	19.5	0.010	16	15	100/C

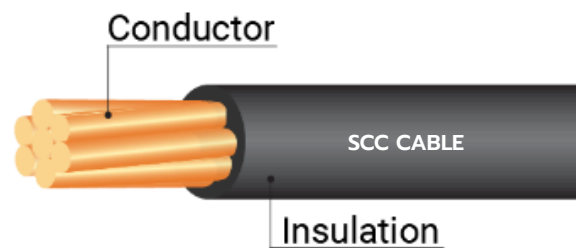
Class Of Conductor

5 : Flexible
C : Packing in coil (ussazıuuα)

THW 60227 IEC 01

450/750 V 70 °C SOLID AND
STRANDED CONDUCTOR PVC
INSULATED SINGLE CORE

REF. TIS 11
PART 3-2553
TABLE 1



CABLE STRUCTURE

Conductor : Solid and stranded annealed copper
: Sizes 1.5 mm² up to 400 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification : Single - Cores : Any Color

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 3-2553 Table 1

APPLICATION : Building wiring for Installation on
insulator or in raceway dry location.

Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
15	1	0.7	2.6	3.2	12.1	0.011	21	21	100/C
15	2	0.7	2.7	3.3	12.1	0.010	21	22	100/C
2.5	1	0.8	3.2	3.9	7.41	0.010	29	32	100/C
2.5	2	0.8	3.3	4.0	7.41	0.009	29	35	100/C
4	1	0.8	3.6	4.4	4.61	0.0085	39	47	100/C
4	2	0.8	3.8	4.6	4.61	0.0077	39	50	100/C
6	1	0.8	4.1	5.0	3.08	0.0070	49	65	100/C
6	2	0.8	4.3	5.2	3.08	0.0065	49	70	100/C
10	1	1.0	5.3	6.4	1.83	0.0070	69	110	100/C
10	2	1.0	5.6	6.7	1.83	0.0065	69	120	100/C

SINGLE CORES, SINGLE CORES

Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
16	2	1.0	6.4	7.8	1.15	0.0050	92	180	100/C
25	2	1.2	8.1	9.7	0.727	0.0050	125	280	100/C
35	2	1.2	9.0	10.9	0.524	0.0043	154	370	100/C
50	2	1.4	10.6	12.8	0.387	0.0043	188	500	500/D
70	2	1.4	12.1	14.6	0.268	0.0035	239	700	500/D
95	2	1.6	14.1	17.1	0.193	0.0035	297	1,000	500/D
120	2	1.6	15.6	18.8	0.153	0.0032	347	1,200	500/D
150	2	1.8	17.3	20.9	0.124	0.0032	398	1,500	500/D
185	2	2.0	19.3	23.3	0.0991	0.0032	461	1,900	500/D
240	2	2.2	22.0	26.6	0.0754	0.0032	552	2,500	500/D
300	2	2.4	24.5	29.6	0.0601	0.0030	640	3,100	500/D
400	2	2.6	27.5	33.2	0.0470	0.0028	749	3,900	500/D

Class Of Conductor

1 : Solid, 2 : Strand
C : Packing in coil (ussq̄lusuq), D : Packing in drum (ussq̄luãq)

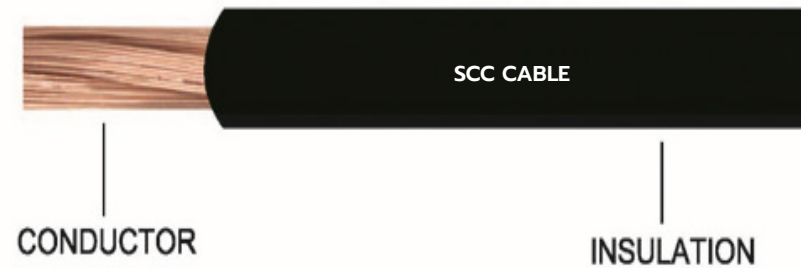
Size (mm ²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1.5 (1)	14.5	0.53540	0.1682	14.5010
1.5 (7)	14.5	0.52489	0.1649	14.5009
2.5 (1)	8.87	0.50866	0.1598	8.8714
2.5 (7)	8.87	0.50102	0.1574	8.8714
4 (1)	5.52	0.49847	0.1566	5.5222
4 (7)	5.52	0.48701	0.1530	5.5221
6 (1)	3.69	0.47174	0.1482	3.6930
6 (7)	3.69	0.47174	0.1482	3.6930
10 (1)	14.5	0.47174	0.1461	2.1949
10 (7)	14.5	0.46505	0.1461	2.1949
16	1.38	0.44786	0.1407	1.3872
25	0.861	0.44532	0.1399	0.8723
35	0.6271	0.43481	0.1366	0.6418
50	0.4633	0.43481	0.1366	0.4830
70	0.3210	0.42590	0.1338	0.3478
95	0.2314	0.42367	0.1331	0.2669
120	0.1837	0.41953	0.1318	0.2261
150	0.1492	0.41921	0.1317	0.1990
185	0.1196	0.41858	0.1315	0.1778
240	0.0915	0.41635	0.1308	0.1596
300	0.0736	0.41508	0.1304	0.1497
400	0.0583	0.41317	0.1298	0.1423

(L) : No of copper wire

THW 60227 IEC 02 (F)

300/500 V 70 °C FLEXIBLE
CONDUCTOR PVC INSULATED,
SINGLE CORE

REF. TIS 11 PART 3-2553 TABLE 3



CABLE STRUCTURE

Conductor : Flexible annealed copper wire
: Sizes 1.5 mm² up to 240 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification : Single - Cores : Any Color

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 3-2553 Table 3

APPLICATION : For indoor fixed installations in dry
locations, for electrical panels
connection or for electrical apparatus

Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
15	5	0.7	2.8	3.4	13.3	0.010	21	24	100/C
25	5	0.8	3.4	4.1	7.98	0.009	28	37	100/C
4	5	0.8	3.9	4.8	4.95	0.007	38	54	100/C
6	5	0.8	4.4	5.3	3.30	0.0060	48	75	100/C
10	5	1.0	5.7	6.8	1.91	0.0056	69	130	100/C
16	5	1.0	6.7	8.1	1.21	0.0046	92	185	100/C
25	5	1.2	8.4	10.2	0.780	0.0044	123	285	100/C
35	5	1.2	9.7	11.7	0.554	0.0038	154	400	100/C
50	5	1.4	11.5	13.9	0.386	0.0037	196	555	500/D

SINGLE CORES, SINGLE CORES

Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
70	5	1.4	13.2	16.0	0.272	0.0032	247	765	500/D
95	5	1.6	15.1	18.2	0.206	0.0032	296	1,000	500/D
120	5	1.6	16.7	20.2	0.161	0.0029	350	1,300	500/D
150	5	1.8	18.6	22.5	0.129	0.0029	405	1,600	500/D
185	5	2.0	20.6	24.9	0.106	0.0029	461	1,900	500/D
240	5	2.2	23.5	28.4	0.0801	0.0028	554	2,500	500/D

Class Of Conductor

5 : Flexible

C : Packing in coil (ussq̄uuu), D : Packing in drum (ussq̄uuā)

NY Y

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

REF. TIS 11
PART 101-2559
TABLE 3



CABLE STRUCTURE

- Conductor** : Solid and stranded annealed copper
: Single-core : Sizes 1 mm² up to 500 mm²
: Multi-cores : Sizes 50 mm² up to 300 mm²
- Insulation** : Polyvinyl chloride (PVC/C)
- Core identification** : Single-core : Black
: 2 Cores : Blue and Brown
: 3 Cores : Brown, Black and Grey
: 4 Cores : Blue, Brown, Black and Grey
- Inner sheath** : Black polyvinyl chloride (PVC), (Multi-cores only)
- Outer 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 101-2559 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 ²)	Class of Conductor	Insulation thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
								Free air at 40 °C (A)	Under ground at 30 °C (A)		
1	1	1	1.5	1.8	8.6	18.1	0.0207	19	25	80	100/C
	1	2	1.5	1.8	8.8	18.1	0.0200	19	25	80	100/C
	15	1	1.5	1.8	9.0	12.1	0.0184	24	31	85	100/C
	15	2	1.5	1.8	9.2	12.1	0.0175	24	31	90	100/C
	25	1	1.5	1.8	9.4	7.41	0.0157	32	41	100	100/C
	25	2	1.5	1.8	9.8	7.41	0.0146	32	41	110	100/C
	4	1	1.5	1.8	10.0	4.61	0.0135	43	53	120	100/C
	4	2	1.5	1.8	10.5	4.61	0.0124	43	53	130	100/C

SINGLE CORES, SINGLE CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
								Free air at 40 °C (mm)	Under ground at 30 °C (mm)		
1	6	2	1.5	1.8	11.0	3.08	0.0107	54	68	160	100/C
	10	2	1.5	1.8	12.0	0.0088	0.9	73	79	210	500/D
	16	2	1.5	1.8	13.0	0.0074	0.9	97	118	280	500/D
	25	2	1.5	1.8	14.5	0.0061	0.9	129	158	390	500/D
	35	2	1.5	1.8	16.0	0.0053	0.9	159	185	490	500/D
	50	2	1.5	1.8	17.0	0.0046	0.9	191	220	620	500/D
	70	2	1.5	1.8	19.0	0.0039	0.9	241	271	850	500/D
	95	2	1.7	1.8	21.5	0.0038	0.9	297	326	1,100	500/D
	120	2	1.7	1.8	23.0	0.0034	0.9	345	372	1,400	500/D
	150	2	1.9	2.0	26.0	0.0034	0.9	397	418	1,700	500/D
	185	2	2.1	2.0	28.0	0.0034	0.9	456	473	2,100	500/D
	240	2	2.3	2.2	31.5	0.0033	0.9	541	549	2,700	500/D
	300	2	2.5	2.2	35.0	0.0032	0.9	628	624	3,400	500/D
	400	2	2.7	2.2	38.5	0.0030	0.9	733	713	4,300	500/D
500	2	3.1	2.4	43.0	0.0031	0.9	848	810	5,400	500/D	

Class Of Conductor

1 : Solid, 2 : Strand
C : Packing in coil (ussq̄lũũũ), D : Packing in drum (ussq̄lũũũ)

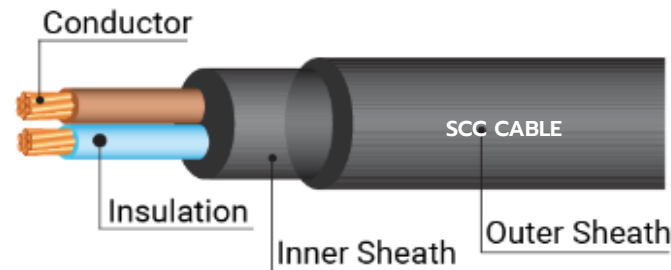
Number of core	Nominal cross sectional area (mm ²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1 (7)	21.6987	0.758	0.23808	21.70000	
15 (1)	14.4982	0.735	0.23082	14.50000	
15 (7)	14.4982	0.720	0.22632	14.50000	
2.5 (1)	8.8703	0.693	0.21775	8.87300	
2.5 (7)	8.8705	0.675	0.21222	8.87300	
4 (1)	5.5201	0.657	0.20650	5.52400	
4 (7)	5.5204	0.639	0.20063	5.52400	
6	3.6900	0.610	0.19176	3.69500	
10	2.1896	0.575	0.18068	2.19700	
16	1.3804	0.546	0.17162	1.39100	
25	0.8610	0.522	0.16403	0.87649	
35	0.6271	0.504	0.15837	0.64679	
50	0.4633	0.490	0.15379	0.48816	
70	0.3210	0.474	0.14896	0.35388	
95	0.2314	0.466	0.14636	0.27380	
120	0.1836	0.458	0.14393	0.23329	
150	0.1491	0.458	0.14380	0.20715	
185	0.1195	0.453	0.14243	0.18592	
240	0.0914	0.450	0.14140	0.16837	
300	0.0734	0.445	0.13994	0.15802	
400	0.0582	0.441	0.13846	0.15018	
500	0.0462	0.411	0.13844	0.14595	

(L) : No of copper wire

NYY (2 CORES)

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

REF. TIS 11
PART 101-2559
TABLE 4



CABLE STRUCTURE

Conductor	: Solid and stranded annealed copper, Multi-cores : Sizes 1 mm ² up to 300 mm ²
Insulation	: Polyvinyl chloride (PVC/C)
Core identification	: Single-core : Black : 2 Cores : Blue and Brown : 3 Cores : Brown, Black and Grey : 4 Cores : Blue, Brown, Black and Grey
Inner sheath	: Black polyvinyl chloride (PVC)
Outer 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 101-2559 Table 4
APPLICATION	: For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Inner Sheath thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
2	10	2	1.1	0.8	1.8	19.5	1.83	0.0069	60	76	460	500/D
	16	2	1.1	0.8	2.0	22.5	1.15	0.0057	80	99	650	500/D
	25	2	1.3	1.2	2.0	27.0	0.727	0.0054	127	128	950	500/D
	35	2	1.3	1.2	2.0	29.5	0.524	0.0047	157	154	1,300	500/D
	50	2	1.5	1.2	2.2	33.5	0.387	0.0046	191	181	1,800	500/D
	70	2	1.5	1.5	2.2	38.0	0.268	0.0039	244	233	2,400	500/D
	95	2	1.7	1.5	2.2	42.5	0.193	0.0038	297	267	3,200	500/D
	120	2	1.7	1.5	2.4	46.5	0.153	0.0034	345	304	3,900	500/D
150	2	1.9	1.8	2.6	52.0	0.124	0.0034	397	342	4,800	500/D	
185	2	2.1	1.8	2.8	57.0	0.0991	0.0034	453	386	6,000	500/D	
240	2	2.3	2.0	3.0	64.0	0.0754	0.0033	535	448	7,500	300/D	
300	2	2.5	2.0	3.2	70.5	0.0601	0.0032	617	507	9,500	300/D	

2, 2 CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Inner Sheath thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
2	10	2	1.1	0.8	1.8	19.5	1.83	0.0069	60	76	460	500/D
	16	2	1.1	0.8	2.0	22.5	1.15	0.0057	80	99	650	500/D
	25	2	1.3	1.2	2.0	27.0	0.727	0.0054	127	128	950	500/D
	35	2	1.3	1.2	2.0	29.5	0.524	0.0047	157	154	1,300	500/D
	50	2	1.5	1.2	2.2	33.5	0.387	0.0046	191	181	1,800	500/D
	70	2	1.5	1.5	2.2	38.0	0.268	0.0039	244	233	2,400	500/D
	95	2	1.7	1.5	2.2	42.5	0.193	0.0038	297	267	3,200	500/D
	120	2	1.7	1.5	2.4	46.5	0.153	0.0034	345	304	3,900	500/D
	150	2	1.9	1.8	2.6	52.0	0.124	0.0034	397	342	4,800	500/D
	185	2	2.1	1.8	2.8	57.0	0.0991	0.0034	453	386	6,000	500/D
	240	2	2.3	2.0	3.0	64.0	0.0754	0.0033	535	448	7,500	300/D
	300	2	2.5	2.0	3.2	70.5	0.0601	0.0032	617	507	9,500	300/D

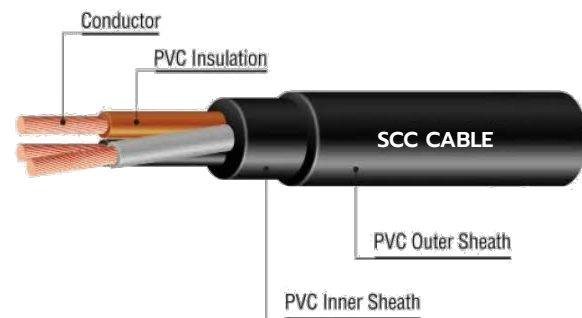
Class Of Conductor

1 : Solid, 2 : Strand
C : Packing in coil (ussq̄ũũũ), D : Packing in drum (ussq̄ũũũũ)
(_) : No of copper wire

NYY (3 CORES)

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

REF. TIS 11
PART 101-2559
TABLE 4



CABLE STRUCTURE

Conductor	: Solid and stranded annealed copper, Multi-cores : Sizes 1 mm ² up to 300 mm ²
Insulation	: Polyvinyl chloride (PVC/C)
Core identification	: Single-core : Black 2 Cores : Blue and Brown 3 Cores : Brown, Black and Grey 4 Cores : Blue, Brown, Black and Grey
Inner sheath	: Black polyvinyl chloride (PVC)
Outer 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 101-2559 Table 4
APPLICATION	: For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Inner Sheath thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
3	10	2	1.1	0.8	1.8	20.5	1.83	0.0069	60	76	660	500/D
	16	2	1.1	1.2	2.0	24.5	1.15	0.0057	80	99	970	500/D
	25	2	1.3	1.2	2.0	28.5	0.727	0.0054	127	128	1,410	500/D
	35	2	1.3	1.2	2.0	31.5	0.524	0.0047	157	154	1,810	500/D
	50	2	1.5	1.5	2.2	36.0	0.387	0.0046	191	181	2,410	500/D
	70	2	1.5	1.5	2.2	40.5	0.268	0.0039	244	233	3,200	500/D
	95	2	1.7	1.5	2.4	46.0	0.193	0.0038	297	267	4,300	500/D
	120	2	1.7	1.8	2.6	50.5	0.153	0.0034	345	304	5,320	500/D
150	2	1.9	1.8	2.8	56.0	0.124	0.0034	397	342	6,490	500/D	
185	2	2.1	2.0	3.0	61.5	0.0991	0.0034	453	386	8,060	500/D	
240	2	2.3	2.0	3.2	69.0	0.0754	0.0033	535	448	10,360	300/D	
300	2	2.5	2.2	3.4	76.0	0.0601	0.0032	617	507	12,810	300/D	

3, 3 CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Inner Sheath thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
3	10	2	1.1	0.8	1.8	20.5	1.83	0.0069	60	76	660	500/D
	16	2	1.1	1.2	2.0	24.5	1.15	0.0057	80	99	970	500/D
	25	2	1.3	1.2	2.0	28.5	0.727	0.0054	127	128	1,410	500/D
	35	2	1.3	1.2	2.0	31.5	0.524	0.0047	157	154	1,810	500/D
	50	2	1.5	1.5	2.2	36.0	0.387	0.0046	191	181	2,410	500/D
	70	2	1.5	1.5	2.2	40.5	0.268	0.0039	244	233	3,200	500/D
	95	2	1.7	1.5	2.4	46.0	0.193	0.0038	297	267	4,300	500/D
	120	2	1.7	1.8	2.6	50.5	0.153	0.0034	345	304	5,320	500/D
	150	2	1.9	1.8	2.8	56.0	0.124	0.0034	397	342	6,490	500/D
	185	2	2.1	2.0	3.0	61.5	0.0991	0.0034	453	386	8,060	500/D
	240	2	2.3	2.0	3.2	69.0	0.0754	0.0033	535	448	10,360	300/D
300	2	2.5	2.2	3.4	76.0	0.0601	0.0032	617	507	12,810	300/D	

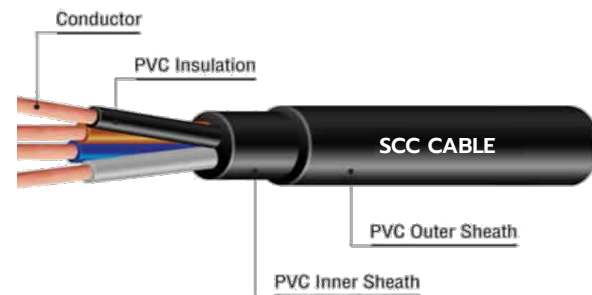
Class Of Conductor

1 : Solid, 2 : Strand
C : Packing in coil (ussq̄ũũũ), D : Packing in drum (ussq̄ũũũũ)
(_) : No of copper wire

NYY (4 CORES)

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

REF. TIS 11
PART 101-2559
TABLE 4



CABLE STRUCTURE

Conductor	: Solid and stranded annealed copper, Multi-cores : Sizes 1 mm ² up to 300 mm ²
Insulation	: Polyvinyl chloride (PVC/C)
Core identification	: Single-core : Black 2 Cores : Blue and Brown 3 Cores : Brown, Black and Grey 4 Cores : Blue, Brown, Black and Grey
Inner sheath	: Black polyvinyl chloride (PVC)
Outer 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 101-2559 Table 4
APPLICATION	: For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Inner Sheath thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
4	1	1	0.8	0.8	18	13.5	18.1	0.0141	15	21	210	100/C
	1	2	0.8	0.8	18	14.0	18.1	0.0135	15	21	220	100/C
	15	1	0.8	0.8	18	14.0	12.1	0.0123	19	27	240	100/C
	15	2	0.8	0.8	18	14.5	12.1	0.0116	19	27	260	100/C
	25	1	0.8	0.8	18	15.0	7.41	0.0102	25	35	300	100/C
	25	2	0.8	0.8	18	16.0	7.41	0.0093	25	35	320	100/C
	4	1	0.9	0.8	18	17.0	4.61	0.0094	33	47	400	100/C
	4	2	0.9	0.8	18	17.5	4.61	0.0085	33	47	440	100/C
	6	2	0.9	0.8	18	19.0	3.08	0.0073	44	57	550	100/C

4, 4 CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Inner Sheath thickness nominal (mm)	Outer 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 maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
4	10	2	1.1	0.8	2.0	23.0	1.83	0.0069	60	76	840	500/D
	16	2	1.1	1.2	2.0	26.5	1.15	0.0057	80	99	1,200	500/D
	25	2	1.3	1.2	2.0	31.0	0.727	0.0054	127	128	1,760	500/D
	35	2	1.3	1.5	2.2	35.0	0.524	0.0047	157	154	2,360	500/D
	50	2	1.5	1.5	2.2	39.5	0.387	0.0046	191	181	3,020	500/D
	70	2	1.5	1.5	2.4	44.5	0.268	0.0039	244	233	4,090	500/D
	95	2	1.7	1.8	2.6	51.5	0.193	0.0038	297	267	5,580	500/D
	120	2	1.7	1.8	2.8	56.0	0.153	0.0034	345	304	6,800	500/D
	150	2	1.9	2.0	3.0	62.0	0.124	0.0034	397	342	8,360	500/D
	185	2	2.1	2.0	3.2	68.0	0.0991	0.0034	453	386	10,310	500/D
	240	2	2.3	2.2	3.4	76.5	0.0754	0.0033	535	448	13,350	300/D
	300	2	2.5	2.2	3.8	85.0	0.0601	0.0032	617	507	16,500	300/D

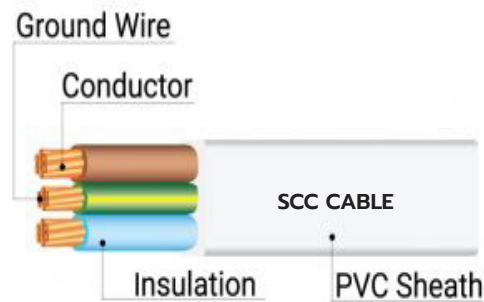
Class Of Conductor

1 : Solid, 2 : Strand
C : Packing in coil (ussq'uuu), D : Packing in drum (ussq'uuu)
(.) : No of copper wire

VAF + GROUND

300/500 V 70 °C SOLID AND
STRANDED CONDUCTOR PVC
INSULATED SINGLE CORE

REF. TIS 11 PART 3-2553 TABLE 1



CABLE STRUCTURE

Conductor	: Solid and stranded annealed copper : Sizes 1 mm ² up to 16 mm ²
Ground wire	: Solid and stranded annealed copper : Sizes 1 mm ² up to 16 mm ²
Insulation	: Polyvinyl chloride (PVC/C)
Core identification	: 2 cores : Blue and Brown : Ground-Cores : Green/Yellow
Sheath	: White polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification	: Maximum conductor temperature 70 °C : Circuit voltage not exceeding 300/500 Volts
Rated voltage	: 300 Volts between Line to Earth : 500 Volts between Line to Line
Testing voltage	: 2,000 Volts
Reference standard	: Tis 11 Part 101-2559 Table 1
APPLICATION	: Building wiring for surface or above ceiling wiring or direct ambeded in plaster.

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Lower limit (mm)	Upper limit (mm)					
2-G	1	1	0.6	0.9	4.0 x 8.4	4.7 x 9.8	18.1	0.0110	13	75	100/C
	1 (G)	1	0.6	0.9			18.1				
	15	1	0.7	0.9	4.4 x 9.8	5.4 x 11.5	12.1	0.0110	17	100	100/C
	15 (G)	1	0.7	0.9			12.1				
	25	1	0.8	1.0	5.2 x 11.5	6.2 x 13.5	7.41	0.0100	23	150	100/C
	25 (G)	1	0.8	1.0			7.41				
	4	2	0.8	1.1	5.8 x 13.4	7.4 x 16.5	4.61	0.0077	31	220	100/C
	4 (G)	2	0.8	1.1			4.61				

3, 3 CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Lower limit (mm)	Upper limit (mm)					
2-G	6	2	0.8	1.1	6.4 x 15.0	8.0 x 18.0	3.08	0.0065	40	290	100/C
	6 (G)	2	0.8	1.1			3.08				
	10	2	1.0	1.2	7.8 x 19.0	9.6 x 22.5	1.83	0.0065	55	460	100/C
	10 (G)	2	1.0	1.2			1.83				
	16	2	1.0	1.3	9.0 x 22.0	11.0 x 26.5	1.15	0.0052	74	650	500/D
	16 (G)	2	1.0	1.3			1.15				

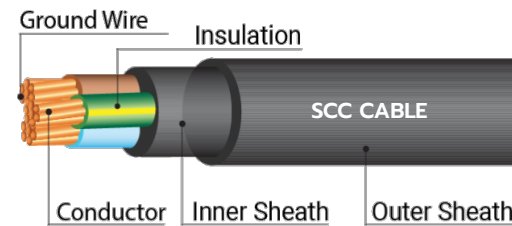
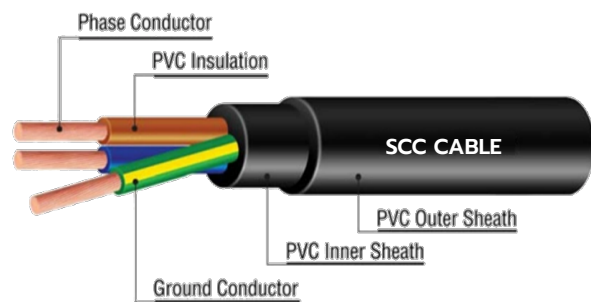
Class Of Conductor

1 : Solid, 2 : Strand
G : Ground conductor, C : Packing in coil (ussq̄ũũũ), D : Packing in drum (ussq̄ũũũũũ)

NY Y + GROUND (2 CORES)

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

REF. TIS 11 PART 101-2559 TABLE 5



CABLE STRUCTURE

- Conductor** : Solid and stranded annealed copper,
Multi-cores : Sizes 1 mm² up to 300 mm²
- Insulation** : Polyvinyl chloride (PVC/C)
- Core identification** : Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
- Inner sheath** : Black polyvinyl chloride (PVC)
- Outer 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 101-2559 Table 5
- APPLICATION** : For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area		Class of Conductor		Insulation thick-ness nominal		Inner Sheath thick-ness nominal (mm)	Outer Sheath thick-ness nominal (mm)	Overall diameter (mm)	Conductor resistance at 20 °C maximum		Insula-tion re-sistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum		Cable weight approx. (kg/km)	Stand-ard length (m)
	Phase (mm ²)	Ground (mm ²)	Phase	Ground	Phase (mm)	Ground (mm)				Phase (Ω/km)	Ground (Ω/km)		Free air at 40 °C (A)	Under ground at 30 °C (A)		
2+G	1	1	1	1	0.8	0.8	0.8	1.8	13.0	18.1	18.1	0.0141	15	21	180	500/C
	1	1	2	2	0.8	0.8	0.8	1.8	13.5	18.1	18.1	0.0135	15	21	190	500/D
	15	15	1	1	0.8	0.8	0.8	1.8	13.5	12.1	12.1	0.0123	19	27	210	500/D
	15	15	2	2	0.8	0.8	0.8	1.8	14.0	12.1	12.1	0.0116	19	27	220	500/D
	25	25	1	1	0.8	0.8	0.8	1.8	14.5	7.41	7.41	0.0102	25	35	260	500/D
	25	25	2	2	0.8	0.8	0.8	1.8	15.0	7.41	7.41	0.0093	25	35	270	500/D
	4	4	1	1	0.9	0.9	0.8	1.8	16.0	4.61	4.61	0.0094	33	47	340	500/D
	4	4	2	2	0.9	0.9	0.8	1.8	16.5	4.61	4.61	0.0085	33	47	360	500/D
6	6	2	2	0.9	0.9	0.8	1.8	18.0	3.08	3.08	0.0073	43	60	450	500/D	

2, 2 CORES

Number of core	Nominal cross sectional area		Class of Conductor		Insulation thick-ness nominal		Inner Sheath thick-ness nominal (mm)	Outer Sheath thick-ness nominal (mm)	Overall diameter (mm)	Conductor resistance at 20 °C maximum		Insula-tion re-sistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum		Cable weight approx. (kg/km)	Stand-ard length (m)
	Phase (mm ²)	Ground (mm ²)	Phase	Ground	Phase (mm)	Ground (mm)				Phase (Ω/km)	Ground (Ω/km)		Free air at 40 °C (A)	Under ground at 30 °C (A)		
2+G	10	1	1	1	0.8	0.8	0.8	1.8	13.0	18.1	18.1	0.0141	15	21	180	500/C
	16	1	2	2	0.8	0.8	0.8	1.8	13.5	18.1	18.1	0.0135	15	21	190	500/D
	25	15	1	1	0.8	0.8	0.8	1.8	13.5	12.1	12.1	0.0123	19	27	210	500/D
	35	15	2	2	0.8	0.8	0.8	1.8	14.0	12.1	12.1	0.0116	19	27	220	500/D
	50	25	1	1	0.8	0.8	0.8	1.8	14.5	7.41	7.41	0.0102	25	35	260	500/D
	70	25	2	2	0.8	0.8	0.8	1.8	15.0	7.41	7.41	0.0093	25	35	270	500/D
	95	4	1	1	0.9	0.9	0.8	1.8	16.0	4.61	4.61	0.0094	33	47	340	500/D
	120	4	2	2	0.9	0.9	0.8	1.8	16.5	4.61	4.61	0.0085	33	47	360	500/D
	150	6	2	2	0.9	0.9	0.8	1.8	18.0	3.08	3.08	0.0073	43	60	450	500/D
	185	4	1	1	0.9	0.9	0.8	1.8	16.0	4.61	4.61	0.0094	33	47	340	500/D
	240	4	2	2	0.9	0.9	0.8	1.8	16.5	3.08	4.61	0.0085	33	47	360	500/D
	300	6	2	2	0.9	0.9	0.8	1.8	18.0	3.08	3.08	0.0073	43	60	450	500/D

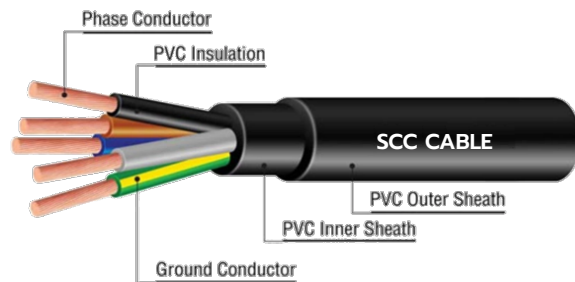
Class Of Conductor

- 1 : Solid, 2 : Strand
- C : Packing in coil (ussq'uuu), D : Packing in drum (ussq'uuu)
- (.) : No of copper wire

NY Y + GROUND (4 CORES)

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

REF. TIS 11 PART 101-2559 TABLE 5



CABLE STRUCTURE

Conductor	: Solid and stranded annealed copper, Multi-cores : Sizes 1 mm ² up to 300 mm ²
Insulation	: Polyvinyl chloride (PVC/C)
Core identification	: Single-core : Black 2 Cores : Blue and Brown 3 Cores : Brown, Black and Grey 4 Cores : Blue, Brown, Black and Grey
Inner sheath	: Black polyvinyl chloride (PVC)
Outer 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 101-2559 Table 5
APPLICATION	: For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area		Class of Conductor		Insulation thick-ness nominal		Inner Sheath thick-ness nominal (mm)	Outer Sheath thick-ness nominal (mm)	Overall diameter (mm)	Conductor resistance at 20 °C maximum		Insula-tion re-sistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum		Cable weight approx. (kg/km)	Stand-ard length (m)
	Phase (mm ²)	Ground (mm ²)	Phase	Ground	Phase (mm)	Ground (mm)				Phase (Ω/km)	Ground (Ω/km)		Free air at 40 °C (A)	Under ground at 30 °C (A)		
4+G	1	1	1	1	0.8	0.8	0.8	1.8	14.5	18.1	18.1	0.0141	13	18	250	500/C
	1	1	2	2	0.8	0.8	0.8	1.8	15.0	18.1	18.1	0.0135	13	18	260	500/D
	1.5	1.5	1	1	0.8	0.8	0.8	1.8	15.0	12.1	12.1	0.0123	16	22	280	500/D
	1.5	1.5	2	2	0.8	0.8	0.8	1.8	16.0	12.1	12.1	0.0116	16	22	300	500/D
	2.5	2.5	1	1	0.8	0.8	0.8	1.8	16.5	7.41	7.41	0.0102	22	30	360	500/D
	2.5	2.5	2	2	0.8	0.8	0.8	1.8	17.0	7.41	7.41	0.0093	22	30	390	500/D
	4	4	1	1	0.9	0.9	0.8	1.8	18.0	4.61	4.61	0.0094	30	39	480	500/D
	4	4	2	2	0.9	0.9	0.8	1.8	19.0	4.61	4.61	0.0085	30	39	500	500/D
6	6	2	2	0.9	0.9	0.8	1.8	20.5	3.08	3.08	0.0073	37	50	650	500/D	

4, 4 CORES

Number of core	Nominal cross sectional area		Class of Conductor		Insulation thick-ness nominal		Inner Sheath thick-ness nominal (mm)	Outer Sheath thick-ness nominal (mm)	Overall diameter (mm)	Conductor resistance at 20 °C maximum		Insula-tion re-sistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum		Cable weight approx. (kg/km)	Stand-ard length (m)
	Phase (mm ²)	Ground (mm ²)	Phase	Ground	Phase (mm)	Ground (mm)				Phase (Ω/km)	Ground (Ω/km)		Free air at 40 °C (A)	Under ground at 30 °C (A)		
2+G	10	1	1	1	0.8	0.8	0.8	1.8	13.0	18.1	18.1	0.0141	15	21	180	500/C
	16	1	2	2	0.8	0.8	0.8	1.8	13.5	18.1	18.1	0.0135	15	21	190	500/D
	25	1.5	1	1	0.8	0.8	0.8	1.8	13.5	12.1	12.1	0.0123	19	27	210	500/D
	35	1.5	2	2	0.8	0.8	0.8	1.8	14.0	12.1	12.1	0.0116	19	27	220	500/D
	50	2.5	1	1	0.8	0.8	0.8	1.8	14.5	7.41	7.41	0.0102	25	35	260	500/D
	70	2.5	2	2	0.8	0.8	0.8	1.8	15.0	7.41	7.41	0.0093	25	35	270	500/D
	95	4	1	1	0.9	0.9	0.8	1.8	16.0	4.61	4.61	0.0094	33	47	340	500/D
	120	4	2	2	0.9	0.9	0.8	1.8	16.5	4.61	4.61	0.0085	33	47	360	500/D
	150	6	2	2	0.9	0.9	0.8	1.8	18.0	3.08	3.08	0.0073	43	60	450	500/D
	185	4	1	1	0.9	0.9	0.8	1.8	16.0	4.61	4.61	0.0094	33	47	340	500/D
	240	4	2	2	0.9	0.9	0.8	1.8	16.5	3.08	4.61	0.0085	33	47	360	500/D
	300	6	2	2	0.9	0.9	0.8	1.8	18.0	3.08	3.08	0.0073	43	60	450	500/D

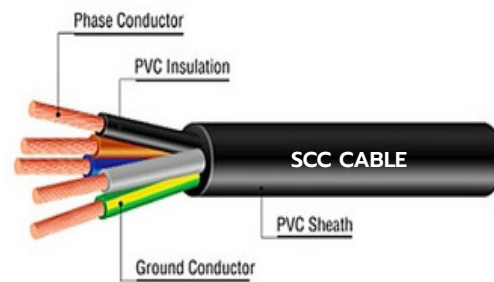
Class Of Conductor

5 : Flexible
C : Packing in coil (ussq'uuu), D : Packing in drum (ussq'uuu)

VCT

450/750 V 70 °C FLEXIBLE
CONDUCTOR PVC INSULATED
AND SHEATHED, ROUND TYPE

REF. TIS 11
PART 101-2553
TABLE 7



CABLE STRUCTURE

Conductor : Flexible annealed copper,
Single-core : Sizes 4 mm² up to
35 mm²
Multi-cores : Sizes 4 mm² up to
35 mm²

Insulation : Polyvinyl chloride (PVC/D)

Core identification : Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and
Grey

Sheath : Black polyvinyl chloride (PVC/ST5)

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 7

APPLICATION : For mobile-electrical equipment used
in mines, factories farm or household
appliances. This cable is suitable for
use in places where cables come in
contact with oils.

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter	Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Maximum (mm)					
1	4	5	0.9	1.4	8.6	4.95	0.0084	41	90	100/C
	6	5	0.9	1.4	9.4	3.30	0.0071	53	120	100/C
	10	5	1.1	1.8	12.0	1.91	0.0068	74	210	100/C
	16	5	1.1	1.8	13.5	1.21	0.0050	99	270	100/C
	25	5	1.3	2.2	16.0	0.780	0.0048	129	410	100/C
	35	5	1.3	2.2	17.5	0.554	0.0041	160	550	500/D
2	4	5	0.9	1.6	14.5	4.95	0.0084	34	230	100/C
	6	5	0.9	1.6	16.0	3.30	0.0071	44	320	100/C

4, 4 CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter	Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Maximum (mm)					
2	10	5	1.1	1.8	20.0	4.95	0.0084	41	90	100/C
	16	5	1.1	2.2	23.0	3.30	0.0071	53	120	100/C
	25	5	1.3	2.4	27.5	1.91	0.0068	74	210	100/C
	35	5	1.3	2.6	31.0	1.21	0.0050	99	270	100/C
3	4	5	0.9	1.6	15.5	0.780	0.0084	29	280	100/C
	6	5	0.9	1.8	17.5	0.554	0.0071	38	390	500/D
	10	5	1.1	2.0	21.5	4.95	0.0068	53	650	500/D
	16	5	1.1	2.4	25.0	3.30	0.0050	71	900	500/D
	25	5	1.3	2.6	30.0	0.780	0.0048	94	1,300	500/D
	35	5	1.3	2.8	33.5	0.554	0.0041	116	1,700	500/D
4	4	5	0.9	1.8	17.0	4.95	0.0084	29	350	100/C
	6	5	0.9	2.0	19.5	3.30	0.0071	38	490	100/C
	10	5	1.1	2.2	24.0	1.91	0.0068	53	800	500/D
	16	5	1.1	2.6	28.0	1.21	0.0050	71	1,100	500/D
	25	5	1.3	2.8	33.0	0.780	0.0048	94	1,700	500/D
	35	5	1.3	3.1	37.0	0.554	0.0041	116	2,200	500/D

Class Of Conductor

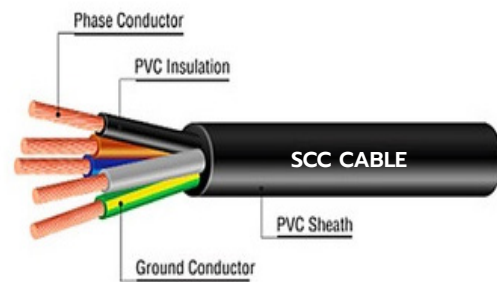
5 : Flexible
C : Packing in coil (ussq̄lũũũ), D : Packing in drum (ussq̄lũũũũ)

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)
1	4	5.9200	0.58267	0.18305	5.9228
	6	3.9500	0.54956	0.17265	3.9538
	10	2.2900	0.54230	0.17037	2.2963
	16	1.4500	0.52085	0.16363	1.4592
	25	0.9334	0.51783	0.16268	0.9475
	35	0.6630	0.49968	0.15698	0.6813
2	4	5.9200	0.29835	0.09373	5.9207
	6	3.9500	0.27741	0.08715	3.9510
	10	2.2900	0.29736	0.08474	2.4418
	16	1.4520	0.25745	0.08088	1.4543
	25	0.9369	0.25468	0.08001	0.9403
	35	0.6677	0.24497	0.07696	0.6721
3	4	5.9200	0.27741	0.09373	5.9207
	6	3.9500	0.27741	0.08715	3.9510
	10	2.2900	0.26977	0.08475	2.2916
	16	1.4500	0.25745	0.08088	1.4523
	25	0.9335	0.25468	0.08001	0.9369
	35	0.6632	0.24497	0.07696	0.6677
4	4	5.9200	0.34495	0.10837	5.9210
	6	3.9500	0.32410	0.10182	3.9513
	10	2.2900	0.31624	0.09935	2.2922
	16	1.4500	0.30417	0.09556	1.7366
	25	0.9335	0.30171	0.09469	0.9383
	35	0.6631	0.29062	0.09130	0.6694

VCT 60227 IEC 53 OR VCT + GROUND

300/500 V 70 °C FLEXIBLE
CONDUCTOR PVC INSULATED
AND SHEATHED, ROUND TYPE

REF. TIS 11 PART 5-2553 TABLE 9



CABLE STRUCTURE

Conductor	: Flexible annealed copper, Sizes 0.75 mm ² up to 2.5 mm ²
Insulation	: Polyvinyl chloride (PVC/D)
Core identification	: 2 Cores : Blue and Brown 3 Cores : Brown, Black and Grey or Blue, Brown and Green/ Yellow 4 Cores : Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow 5 Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/ Yellow
Sheath	: Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification	: Maximum conductor temperature 70 °C : Circuit voltage not exceeding 300/500 Volts
Rated voltage	: 300 Volts between Line to Earth : 500 Volts between Line to Line
Testing voltage	: 2,000 Volts
Reference standard	: Tis 11 Part 5-2553 Table 9
APPLICATION	: For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Minimum (mm)	Maximum (mm)					
2	0.75	5	0.6	0.8	5.7	7.2	26.0	0.011	12	60	100/C
	1	5	0.6	0.8	5.9	7.5	19.5	0.010	14	70	100/C
	1.5	5	0.7	0.8	6.8	8.6	13.3	0.010	18	93	100/C
	2.5	5	0.8	1.0	8.4	10.6	7.98	0.009	25	140	100/C
3	0.75	5	0.6	0.8	6.0	7.6	26.0	0.011	10	70	100/C
	1	5	0.6	0.8	6.3	8.0	19.5	0.010	12	82	100/C
	1.5	5	0.7	0.9	7.4	9.4	13.3	0.010	16	115	100/C
	2.5	5	0.8	1.1	9.2	11.4	7.98	0.009	21	175	100/C

4, 4 CORES

Number of core	Nominal cross sectional area (mm ²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20 °C maximum (Ω/km)	Insulation resistance at 70 °C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Minimum (mm)	Maximum (mm)					
4	0.75	5	0.6	0.8	6.6	8.3	26.0	0.011	10	84	100/C
	1	5	0.6	0.9	7.1	9.0	19.5	0.010	12	105	100/C
	1.5	5	0.7	1.0	8.4	10.5	13.3	0.010	16	145	100/C
	2.5	5	0.8	1.1	10.1	12.5	7.98	0.009	21	215	100/C
5	0.75	5	0.6	0.9	7.4	9.3	26.0	0.011	10	105	100/C
	1	5	0.6	0.9	7.8	9.8	19.5	0.010	12	125	100/C
	1.5	5	0.7	1.1	9.3	11.6	13.3	0.010	16	175	100/C
	2.5	5	0.8	1.2	11.2	13.9	7.98	0.009	21	265	100/C

Class Of Conductor

1 : Solid, 2 : Strand
G : Ground conductor, C : Packing in coil (ussqʹuսո), D : Packing in drum (ussqʹuսօ)