

COPPER CONDUCTOR CABLES

◆ BUILDING WIRES AND CABLES ◆

TIS 11 Part 3-2553 : Non-Sheathed Cables for Fixed Wiring

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



CONDUCTOR

INSULATION

CABLE STRUCTURE		TECHNICAL DATA	
Conductor	: Soil and Stranded annealed copper : Size 1.5 mm ² up to 400 mm ²	Classification	: Maximum conductor temperature 70°C : Circuit voltage not exceeding 450/750 Volts 450 Volts between Line-to-Earth 750 Volts between Line-to-Line
Insulation	: Polyvinyl chloride (PVC/C)	Testing voltage	: 2,500 Volts
Core identification	: Single-core :Any color	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)					
1.5	1	0.7	2.6	3.2	12.1	0.011	21	13	100/C
1.5	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
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	0.003	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

D: Packing in drum



60227 IEC 02 THW (f)



TIS 11 Part 3-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE



CABLE STRUCTURE		TECHNICAL DATA	
Conductor	: Flexible annealed copper wire Size 1.5 mm ² up to 240 mm ²	Classification	: Maximum conductor temperature 70°C : Circuit voltage not exceeding 450/750 Volts 450 Volts between Line-to-Earth 750 Volts between Line-to-Line
Insulation	: Polyvinyl chloride (PVC/C)	Testing voltage	: 2,500 Volts
Core identification	: Single-core : Any color	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)					
1.5	5	0.7	2.8	3.4	13.3	0.010	16	13	100/C
2.5	5	0.8	3.4	4.1	7.98	0.009	25	37	100/C
4	5	0.8	3.9	4.8	4.95	0.007	30	54	100/C
6	5	0.8	4.4	5.3	3.30	0.0060	39	75	100/C
10	5	1.0	5.7	6.8	1.91	0.0056	51	130	100/C
16	5	1.0	6.7	8.1	1.21	0.0046	73	185	100/C
25	5	1.2	8.4	10.2	0.780	0.0044	97	285	100/C
35	5	1.2	9.7	11.7	0.554	0.0038	140	400	100/C
50	5	1.4	11.5	13.9	0.386	0.0037	175	555	500/D
70	5	1.4	13.2	16.0	0.272	0.0032	216	765	500/D
95	5	1.6	15.1	18.2	0.206	0.0032	258	1,000	500/D
120	5	1.6	16.7	20.2	0.161	0.0029	302	1,300	500/D
150	5	1.8	18.6	22.5	0.129	0.0029	347	1,600	500/D
185	5	2.0	20.6	24.9	0.106	0.0029	394	1,900	500/D
240	5	2.2	23.5	28.4	0.0801	0.0028	471	2,500	500/D

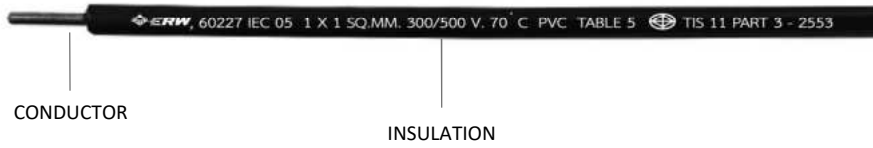
Class of conductor 5: Flexible

C: Packing in coil

D: Packing in drum



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



CABLE STRUCTURE		TECHNICAL DATA	
Conductor	: Solid annealed copper, Size 0.5 mm ² up to 1 mm ²	Classification	: Maximum conductor temperature 70°C : Circuit voltage not exceeding 300/500 Volts 300 Volts between Line-to-Earth 500 Volts between Line-to-Line
Insulation	: Polyvinyl chloride (PVC/C)	Testing voltage	: 2,000 Volts
Core identification	: Single-core : Any color	Reference standard	: TIS 11 Part 3-2553, Table 5
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)					
0.5	1	0.6	1.9	2.3	36.0	0.015	11	13	100/C
0.75	1	0.6	2.1	2.5	24.5	0.012	14	12.0	100/C
1	1	0.6	2.2	2.7	18.1	0.011	16	14.0	100/C

Class of conductor 1: Solid

C: Packing in coil

60227 IEC 06 IV (f)



TIS 11 Part 3-2553

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



CONDUCTOR

INSULATION

CABLE STRUCTURE		TECHNICAL DATA	
Conductor	: Flexible annealed copper wire Size 0.5 mm ² up to 1 mm ²	Classification	: Maximum conductor temperature 70°C : Circuit voltage not exceeding 300/500 Volts 300 Volts between Line-to-Earth 500 Volts between Line-to-Line
Insulation	: Polyvinyl chloride (PVC/C)	Testing voltage	: 2,000 Volts
Core identification	: Single-core : Any color	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.			

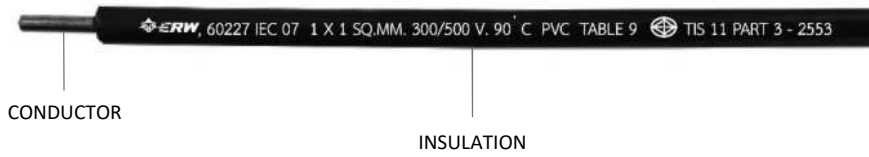
Nominal cross sectional area (mm ²)	Class of conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20° C maximum (Ω/km)	Insulation resistance at 70° C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
0.5	5	0.6	2.1	2.5	39.0	0.013	11	13	100/C
0.75	5	0.6	2.2	2.7	26.0	0.011	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



300/500 V 90°C SOLID CONDUCTOR PVC INSULATED, SINGLE CORE



CABLE STRUCTURE		TECHNICAL DATA	
Conductor	: Solid annealed copper, Size 0.5 mm ² up to 2.5 mm ²	Classification	:Maximum conductor temperature 90°C :Circuit voltage not exceeding 300/500 Volts 300 Volts between Line-to-Earth 500 Volts between Line-to-Line
Insulation	: Polyvinyl chloride (PVC/C)	Testing voltage	: 2,000 Volts
Core identification	: Single-core : Any color	Reference standard	: TIS 11 Part 3-2553, Table 9
		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)					
0.5	1	0.6	1.9	2.3	36.0	0.015	15	13	100/C
0.75	1	0.6	2.1	2.5	24.5	0.013	18	11.0	100/C
1	1	0.6	2.2	2.7	18.1	0.012	22	14.0	100/C
1.5	1	0.7	2.6	3.2	12.1	0.011	28	20.0	100/C
2.5	1	0.8	3.2	3.9	7.41	0.009	38	32.0	100/C

Class of conductor 1: Solid

C: Packing in coil

60227 IEC 08 HIV (f)



TIS 11 Part 3-2553

300/500 V 90°C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE



CONDUCTOR

INSULATION

CABLE STRUCTURE		TECHNICAL DATA	
Conductor	: Flexible annealed copper wire Size 0.5 mm ² up to 2.5 mm ²	Classification	: Maximum conductor temperature 90°C : Circuit voltage not exceeding 300/500 Volts 300 Volts between Line-to-Earth 500 Volts between Line-to-Line
Insulation	: Polyvinyl chloride (PVC/E)	Testing voltage	: 2,000 Volts
Core identification	: Single-core : Any color	Reference standard	: TIS 11 Part 3-2553, Table 11
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	14	13	100/C
0.75	5	0.6	2.2	2.7	26.0	0.012	18	12	100/C
1	5	0.6	2.4	2.8	19.5	0.010	21	15	100/C
1.5	5	0.7	2.8	3.4	13.3	0.009	27	21	100/C
2.5	5	0.8	3.4	4.1	7.98	0.009	37	33	100/C

Class of conductor 5: Flexible

C: Packing in coil