



JS Cable

Electric Wire & Cable

One-stop Total Solution

■ Products & Systems of JS Cable



Marine & Offshore Cables



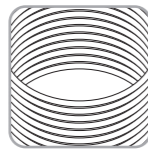
Rubber & Specialty Cables



Electric Cables



Data Cables



Copper Rod

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P r e f a c e

A new beginning to deliver the dream of customers - JS Cable

A new name of endless innovation and creative ideas - JS Cable

Since its foundation in 1968, JS Cable has been a pioneer in rubber cable industry and known for its excellence in quality and technology.

JS Cable is a world class leader in shipboard and offshore cable products with state of art facilities. We pursue global standard quality, safety and health and environment with full compliance of ISO 9001 (Quality Management), ISO 14001 (Environment Management) and OHSAS 18001 (Safety and Healthy working Environment Management) standards.

We continue to strive for a pace setter in cable manufacturing industry by implementing state of art R&D Center, best practice HR Program, and a new ERP initiative.

A mission to deliver light, energy, and information to global communities - JS Cable

A great leap into the future, relentless pursue for customer value - JS Cable

With our customers, we devote our full attention to make a better world tomorrow.

■ Products & Systems of JS Cable

Marine & Offshore Cables



Rubber & Specialty Cables



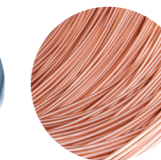
Electric Cables



Data Cables

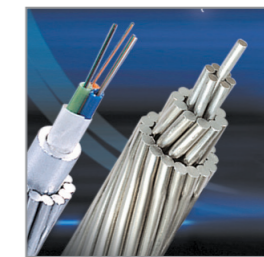


Copper Rod



C o m p a n y P r o f i l e

- 1968 ● The company incorporated in the name of YONHAP CABLE Co., Ltd.
- 1978 ● Designated as a specialized factory for shipbuilding materials & equipment.
- 1984 ● Stock listed for public subscription.
- 1987 ● Moved to new constructed factory site located in Cheon-An.
- 1990 ● Communication cable plant completed in Mokchon.
- 1992 ● Operation of the copper smelting furnace plant commenced.
- 1995 ● ISO 9001 certification acquired (LRQA).
- 1996 ● Corporate name changed to Jinro Industries Co., Ltd.
- 2000 ● LAN cable production line started its commercial operation.
- 2001 ● TL (Telecommunication Leadership) 9000 certification acquired (LRQA).
ETL for IEEE 45 Type P Off-shore and Marine structure cables acquired.
UL for UL 1309 Type Off-shore and Marine structure cables acquired.
- 2002 ● Korean World Class Products Award for Marine Cable in 2002.
(Minister of Commerce, Industry and Energy Republic of Korea)
- 2004 ● ISO 14001 certification acquired (LRQA).
- 2005 ● OHSAS 18001 certification acquired (LRQA).
The corporate governance of the company acquired by LS Group.
- 2007 ● Corporate name changed to JS Cable Co., Ltd.



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Copper Wire for Electrical Purpose

AS : Annealed copper stranded wire for electrical purpose

HS : Hard-drawn copper stranded wire for electrical purpose · For general purpose

KS C 3103

KS C 3104

Nominal Sectional Area	Composition	Min. Tensile Load	Reference data					
			Outer Diameter	Calculated Sectional Area	Max. Resistance of Conductor at 20°C		Approx. Weight	Standard Length
					HS	AS		
mm ²	No./mm	kgf	mm	mm ²	Ω/km	Ω/km	kg/km	m
0.9	7/0.4	37	1.2	0.8799	20.0	20.7	7.913	500
1.25	7/0.45	-	1.35	1.123	15.8	-	10.20	500
1.4	7/0.5	58	1.5	1.375	12.7	13.2	12.37	500
2.0	7/0.6	83	1.8	1.979	8.82	9.18	17.80	500
3.5	7/0.8	146	2.4	3.519	4.96	5.17	31.66	500
5.5	7/1.0	227	3.0	5.498	3.17	3.31	49.46	500
8	7/1.2	326	3.6	7.917	2.20	2.30	71.19	500
14	7/1.6	574	4.8	14.08	1.24	1.29	126.7	500
22	7/2.0	888	6.0	21.99	0.793	0.818	197.9	300
30	7/2.3	1,170	6.9	29.09	0.600	0.618	261.7	300
38	7/2.6	1,480	7.8	37.16	0.470	0.484	334.4	300
50	19/1.8	1,970	9.0	48.36	0.261	0.376	435.1	1,000
60	19/2.0	2,410	10.0	59.7	0.292	0.301	537.0	1,000
80	19/2.3	3,160	11.5	78.95	0.221	0.228	710.3	1,000
100	19/2.6	4,020	13.0	100.9	0.173	0.178	907.6	600
125	19/2.9	4,960	14.5	125.5	0.139	0.143	1,129	600
150	37/2.3	6,160	16.1	153.7	0.114	0.118	1,390	600
200	37/2.6	7,830	18.2	196.4	0.0893	0.0920	1,776	500
250	61/2.3	10,200	20.7	253.5	0.0694	0.0715	2,298	300
325	61/2.6	12,900	23.4	323.8	0.0543	0.0560	2,937	300
400	61/2.9	15,900	26.1	402.9	0.0436	0.0450	3,654	300
500	61/3.2	19,300	28.8	490.6	0.0359	0.0370	4,448	300
600	91/2.9	23,800	31.9	601.1	0.0293	0.0303	5,466	300
725	91/3.2	28,700	35.2	731.8	0.0241	0.0248	6,655	300
850	127/2.9	33,100	37.7	838.8	0.0211	0.0217	7,651	300
1,000	127/3.2	40,100	41.6	1,021	0.0173	0.0179	9,315	300

PH : Hard-drawn copper stranded wire for electrical purpose

· For overhead transmission purpose

KS C 3104

Nominal Sectional Area	Composition	Min. Tensile Load	Outer Diameter	Calculated Sectional Area	Max. Resistance of Conductor at 20°C	Approx. Weight	Standard Length
mm ²	No./mm	kgf	mm	mm ²	Ω/km	kg/km	m
22	7/2.0	888	6.0	21.99	0.818	197.9	1,200
30	7/2.3	1,170	6.9	29.09	0.618	261.7	1,200
38	7/2.6	1,480	7.8	37.16	0.484	334.4	1,000
45	7/2.9	1,830	8.7	46.24	0.389	416.0	1,000
55	7/3.2	2,210	9.6	56.29	0.320	506.4	1,000
75	7/3.7	2,910	11.1	75.25	0.239	677.0	700
100	7/4.3	3,880	12.9	101.6	0.177	914.5	600
125	19/2.9	4,960	14.5	125.5	0.143	1,129	1,000
150	19/3.2	6,000	16.0	152.8	0.118	1,375	1,000
180	19/3.5	7,130	17.5	182.8	0.0984	1,645	800
200	19/3.7	7,900	18.5	204.3	0.0880	1,838	700
240	19/4.0	9,180	20.0	208.8	0.0753	2,148	600

Copper & Aluminum Wires

» Copper Wire for Electrical Purpose

- AS : Annealed copper stranded wire for Electrical Purpose
- HS : Hard-drawn copper stranded wire for Electrical Purpose
- PH : Hard-drawn copper stranded wire for Electrical Purpose
- Class 2 stranded conductors for single-core and multicore cables
- Class 5 flexible copper conductors for single-core and multicore cables

» Aluminum Wire for Electrical Purpose

- ACSR : Aluminum conductor steel reinforced
- ACSR/AW : Aluminum conductors, Aluminum-clad steel reinforced
- ACSR-OC : Aluminum conductor steel reinforced
- ACSR/AW-OC : Aluminum conductors, Aluminum-clad steel reinforced
- 22.9kV ACSR/AW-TR/OC : 22.9kV Outdoor tracking retardant cross-linked polyethylene insulated wires
- 22.9kV OC-W : 22.9kV Outdoor used XLPE insulated copper wire-water proof
- 22.9kV FR ABC-W : 22.9kV Flame retardant and water-proof type aerial bundled cable

Aluminum Wire for Electrical Purpose

Class 2 stranded conductors for single-core and multicore cables

KS C IEC 60228

Nominal Sectional Area mm ²	Minimum Number of Wires in the Conductor		Maximum Resistance of Conductor at 20°C	
	Circular Non-Compacted Cu	Circular Compacted Cu	Annealed copper conductor	
			Plain Wires Ω/km	Metal-Coated Wires Ω/km
0.5	7	-	36.0	36.7
0.75	7	-	24.5	24.7
1.0	7	-	18.1	18.2
1.5	7	6	12.1	12.2
2.5	7	6	7.41	7.56
4	7	6	4.61	4.70
6	7	6	3.08	3.11
10	7	6	1.83	1.84
16	7	6	1.15	1.16
25	7	6	0.727	0.734
35	7	6	0.524	0.529
50	19	6	0.387	0.391
70	19	12	0.268	0.270
95	19	15	0.193	0.195
120	37	18	0.153	0.154
150	37	18	0.124	0.126
185	37	30	0.0991	0.100
240	61	34	0.0754	0.0762
300	61	34	0.0601	0.0607
400	61	53	0.0470	0.0475

Class 5 flexible copper conductors for single-core and multicore cables

KS C IEC 60228

Nominal Sectional Area mm ²	Maximum Diameter of Wire in conductor mm	Composition No. / mm	Approx. Outer Diameter mm	Maximum Resistance of Conductor at 20°C	
				Annealed copper conductor	
				Plain Wires Ω/km	Metal-Coated Wires Ω/km
0.5	0.21	20 / 0.18	0.9	39.0	40.1
0.75	0.21	30 / 0.18	1.1	26.0	26.7
1.0	0.21	40 / 0.18	1.3	19.5	20.0
1.5	0.26	31 / 0.25	1.6	13.3	13.7
2.5	0.26	51 / 0.25	2.1	7.98	8.21
4	0.31	75 / 0.26	2.6	4.95	5.09
6	0.31	7 / 16 / 0.32	3.6	3.30	3.39
10	0.41	7 / 19 / 0.32	4.8	1.91	1.95
16	0.41	7 / 29 / 0.32	6.0	1.21	1.24
25	0.41	7 / 45 / 0.32	7.4	0.78	0.795
35	0.41	7 / 62 / 0.32	8.7	0.554	0.565
50	0.41	19 / 32 / 0.45	10.4	0.386	0.393
70	0.51	19 / 23 / 0.45	12.5	0.272	0.277
95	0.51	19 / 31 / 0.45	14.5	0.206	0.210
120	0.51	19 / 39 / 0.45	16.2	0.161	0.164
150	0.51	19 / 49 / 0.45	18.2	0.129	0.132
185	0.51	37 / 31 / 0.45	20.2	0.106	0.108
240	0.51	37 / 41 / 0.45	23.3	0.0801	0.0817
300	0.51	37 / 51 / 0.45	26.0	0.0641	0.0654
400	0.51	61 / 42 / 0.45	30.3	0.0486	0.0495

ACSR : Aluminum conductor steel reinforced

KS C 3113, KEPCO ES -6145-0005/PS-6145-0023

Nominal Sectional Area mm ²	Composition		Outer Diameter mm	Min. Tensile Load kgf	Reference data			
	Aluminum No./mm	Steel No./mm			Ampacity A	Approx. Weight kg/km	Max. Resistance of Conductor at 20°C Ω/km	Standard Length m
19	6 / 2.0	1 / 2.0	6.0	698	111	76.1	1.52	1,000
32	6 / 2.6	1 / 2.6	7.8	1,140	156	128.6	0.899	1,000
58	6 / 3.5	1 / 3.5	10.5	1,980	227	233.1	0.497	1,000
65	12 / 2.6	7 / 2.6	13.0	5,415	251	465.0	0.4565	2,000
80	6 / 4.2	1 / 4.2	12.6	2,770	286	335.5	0.345	1,000
95	6 / 4.5	1 / 4.5	13.5	3,180	313	385.2	0.301	1,300
97	12 / 3.2	7 / 3.2	16.0	10,600	328	708.9	0.301	1,000
120	12 / 3.5	7 / 3.5	17.5	9,590	388	45.9	0.250	2,000
120	30 / 2.3	7 / 2.3	16.1	5,550	388	573.7	0.233	1,300
160	30 / 2.6	7 / 2.6	18.2	6,990	454	732.8	0.182	1,900
200	30 / 2.9	7 / 2.9	20.3	8,620	521	911.7	0.147	1,400
240	30 / 3.2	7 / 3.2	22.4	10,210	593	1,110	0.120	1,400
330	26 / 4.0	7 / 3.1	25.3	10,930	712	1,320	0.0888	1,000
410	26 / 4.5	7 / 3.5	28.5	13,890	828	1,673	0.0702	1,000
480(Rail)	45 / 3.7	7 / 2.47	29.6	11,800	891	1,599	0.059	2,000
480(Cardinal)	54 / 3.38	7 / 3.38	30.42	15,300	899	1,836	0.0599	1,000, 2,000
520	54 / 3.5	7 / 3.5	31.5	15,600	909	1,969	0.0559	1,000
610	54 / 3.8	7 / 3.8	34.2	18,150	1,043	2,320	0.0474	1,000

ACSR/AW : Aluminum conductors, Aluminum-clad steel reinforced

KEPCO PS -6145-0020

Nominal Sectional Area mm ²	Composition		Outer Diameter mm	Min. Tensile Load kgf	Reference data			
	Aluminum No./mm	Steel No./mm			Ampacity A	Approx. Weight kg/km	Max. Resistance of Conductor at 20°C Ω/km	Standard Length m
32	6 / 2.6	1 / 2.6	7.8	1,140	160	120.6	0.852	1,000
58	6 / 3.5	1 / 3.5	10.5	1,980	233	299.7	0.471	1,000
65	12 / 2.6	7 / 2.6	13.0	5,415	275	401	0.380	2,000
95	6 / 4.5	1 / 4.5	13.5	3,180	321	362	0.285	1,000
97	12 / 3.2	7 / 3.2	16.0	10,600	331	608	0.295	2,000
120	12 / 3.5	7 / 3.5	17.5	9,590	402	737	0.210	2,000
160	30 / 2.6	7 / 2.6	18.2	6,990	471	676.4	0.169	2,000
240	30 / 3.2	7 / 3.2	22.4	10,210	616	1,024	0.111	2,000
330	26 / 4.0	7 / 3.1	25.3	10,930	731	1,239	0.0842	2,000
410	26 / 4.5	7 / 3.5	28.5	13,890	850	1,578	0.0665	2,000
480(Rail)	45 / 3.7	7 / 2.47	29.61	11,800	900	1,544	0.0586	2,000
480(Cardinal)	54 / 3.38	7 / 3.38	30.42	15,300	959	1,760	0.0574	2,000
520	54 / 3.5	7 / 3.5	31.5	15,600	918	1,848	0.0536	2,000

Copper & Aluminum Wires
Insulated Wires
Power Cables
Control Cables
Fire Proof Cables
Elevators Cables
Telecommunication Cables
Appendix

Copper & Aluminum Wires
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Appendix

ACSR-OC : Aluminum conductor steel reinforced

KEPCO ES 6145-0007

Voltage Grade	Nominal Sectional Area	Conductor			Thickness of Insulation	Approx. Overall Diameter	Max. Insulation Resistance at 20°C	Test Voltage	Min. Insulation Resistance at 20°C	Conductor Tensile Load	Approx. Weight	Standard Length
		Composition		Outer Diameter								
		Aluminum	Steel									
kV	mm ²	No./mm	No./mm	mm	mm	mm	Ω/km	kV	MΩ·km	kgf	kg/km	m
6.6	32	6 / SB*	1 / 2.6	7.2	2.0	11.2	0.928	12	1,500	1,090	185	900
	58	6 / SB	1 / 3.5	9.7	2.5	14.7	0.512	12	1,500	1,900	325	600
	95	6 / SB	1 / 3.5	12.0	2.5	17.0	0.313	12	1,500	2,360	455	300
22.9	32	6 / SB	1 / 2.6	7.2	3.0	13.2	0.928	25	2,000	1,090	215	900
	58	6 / SB	1 / 3.5	9.7	3.0	15.7	0.512	25	1,500	1,900	340	600
	95	6 / SB	1 / 3.5	12.0	3.5	19.0	0.313	25	1,500	2,360	540	600
	160	18 / SB	1 / 3.2	15.4	4.0	23.4	0.186	25	1,500	3,080	740	600

*SB : Smooth Body

ACSR/AW-OC : Aluminum conductors, Aluminum-clad steel reinforced

KEPCO ES 6145-0006

Voltage Grade	Nominal Sectional Area	Conductor			Thickness of Insulation	Approx. Overall Diameter	Max. Insulation Resistance at 20°C	Test Voltage	Min. Insulation Resistance at 20°C	Conductor Tensile Load	Approx. Weight	Standard Length
		Composition		Outer Diameter								
		Aluminum	Steel									
kV	mm ²	No./mm	No./mm	mm	mm	mm	Ω/km	kV	MΩ·km	kgf	kg/km	m
6.6	32	6 / SB*	1 / 2.6	7.2	2.0	11.2	0.877	12	1,500	1,090	185	900
	58	6 / SB	1 / 3.5	9.7	2.5	14.7	0.484	12	1,500	1,900	315	600
	95	6 / SB	1 / 3.5	12.0	2.5	17.0	0.302	12	1,500	2,360	445	300
22.9	32	6 / SB	1 / 2.6	7.2	3.0	13.2	0.877	25	2,000	1,090	210	900
	58	6 / SB	1 / 3.5	9.7	3.0	15.7	0.484	25	1,500	1,900	330	600
	95	6 / SB	1 / 3.5	12.0	3.5	19.0	0.305	25	1,500	2,360	530	600
	160	18 / SB	1 / 3.2	15.4	4.0	23.4	0.183	25	1,500	3,080	730	600
	240	18 / SB	1 / 4.0	18.9	4.0	27.0	0.123	25	1,500	4,500	1,040	600

*SB : Smooth Body

22.9kV ACSR/AW-TR/OC : 22.9kV Outdoor tracking retardant cross-linked polyethylene insulated wires

KEPCO ES 6145-0021

Voltage Grade	Nominal Sectional Area	Conductor			Thickness			Approx. Overall Diameter	Max. Insulation Resistance at 20°C	Test Voltage	Min. Insulation Resistance at 20°C	Conductor Tensile Load	Approx. Weight	Standard Length
		Composition		Outer Diameter	Inter Semi-Conducting Layer	Insulation	Outer Covering							
		Aluminum	Steel											
kV	mm ²	No./mm	No./mm	mm	mm	mm	mm	mm	Ω/km	kV	MΩ·km	kgf	kg/km	m
22.9	58	6 / SB	1 / 3.5	9.7	0.6	1.2	1.2	15.7	0.484	25	1,500	1,900	360	600
	95	6 / SB	1 / 3.5	12.0	0.6	1.4	1.5	19.0	0.305	25	1,500	2,360	520	600
	160	18 / SB	1 / 3.2	15.4	0.6	1.7	1.7	23.4	0.183	25	1,500	3,080	750	600
	240	18 / SB	1 / 4.0	18.9	0.6	1.7	1.7	27.0	0.123	25	1,500	4,500	1,040	600

*SB : Smooth Body

22.9kV OC-W : 22.9kV Outdoor used XLPE insulated copper wire-water proof

KEPCO ES-6154-0022

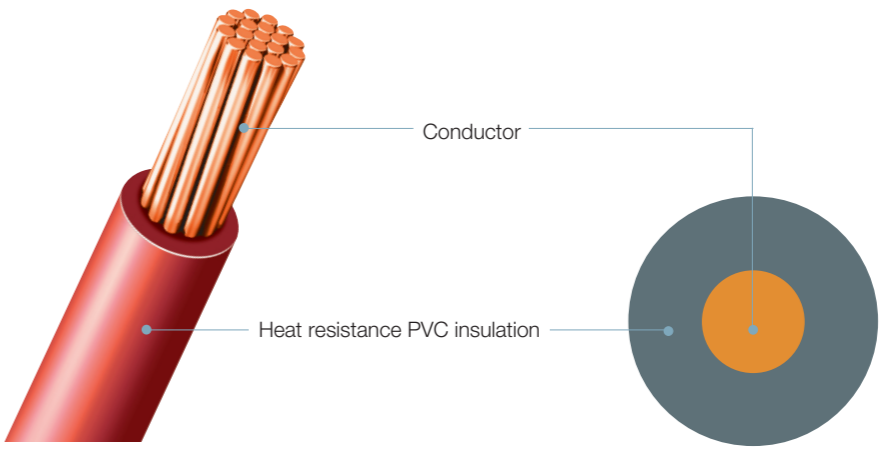
Nominal Sectional Area	Conductor		Thickness of Insulation	Overall Diameter	Max. Insulation Resistance at 20°C	Test Voltage	Close Adhesion Test Load	Conductor Tensile Load	Approx. Weight	Min. Insulation Resistance at 20°C	Standard Length
	No. of Wire / Wire Diameter	Outer Diameter									
mm ²	No./mm	mm	mm	mm	Ω/km	kV	kgf	kgf	kg/km	MΩ·km	m
38	7 / 2.6	7.8	3.0	13.8	0.502	25	67	1,480	444	1,500	600
60	19 / 2.0	10.0	3.5	17.0	0.313	25	75	2,410	701	1,500	600
100	19 / 2.6	13.0	3.5	20.0	0.185	25	82	4,010	1,119	1,500	600
150	19 / 3.2	16.0	3.5	23.0	0.120	25	89	5,990	1,665	1,500	600

22.9kV FR ABC-W : 22.9kV Flame retardant and water-proof type aerial bundled cable

KEPCO RS-6145-0026

Type	Nominal Sectional Area	Conductor Diameter	Inner Semi-Conducting Layer Thickness	Thickness of Insulation	Diameter of Insulation	Outer Semi-Conducting Layer Thickness	Thickness of Sheath	Neutral wire			Single Core Cable Diameter (Approx.)	Single Core Cable Weight (Approx.)	Overall Diameter (Approx.)	Max. DC Conductor Resistance at 20°C	Min. Insulation Resistance at 20°C	Cable Weight (Approx.)
								No. of Wire/Wire Diameter	Neutral wire Diameter (Approx.)	Nominal Sectional Area						
	mm ²	mm	mm	mm	mm	mm	mm	No./mm	mm	mm ²	mm	kg/km	mm	Ω/km	MΩ·km	kg/km
3 Phase	50	8.2±0.5	0.6	6.6	23.4	0.7	2.0	7 / 3.2	9.6	55	810	29	67	0.641	1,500	2,710
	95	11.8±0.5	0.6	6.6	27.0	0.7	2.0	7 / 3.5	10.5	70	1,550	32	75	0.320	1,100	3,580
	150	14.7±0.5	0.6	6.6	29.9	0.7	2.0	7 / 4.0	12.0	90	1,750	35	82	0.206	1,000	4,540
	240	13.8±0.5	0.6	6.6	33.5	0.7	2.0	7 / 4.0	12.0	90	2,340	39	89	0.125	900	5,570
Single Phase	50	8.2±0.5	0.6	6.6	23.4	0.7	2.0	7 / 3.2	9.6	55	810	29	-	0.641	1,500	-
	95	11.8±0.5	0.6	6.6	27.0	0.7	2.0	7 / 3.5	10.5	70	1,550	32	-	0.320	1,100	-

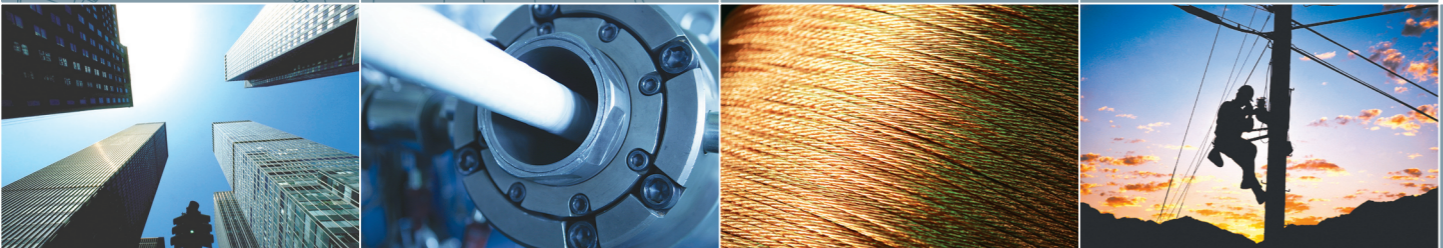
Insulated Wires



450/750V HIV : Heat resistance indoor PVC insulated wire

KS C 3328

Nominal Sectional Area	Conductor Class	Thickness of Insulation	Approx. Overall Diameter		Max. Resistance of Conductor at 20°C	Min. Insulation Resistance at 90°C	Test Voltage	Approx. Weight
			Min.	Max.				
mm ²	mm	mm	mm	mm	Ω/km	M Ω/km	kV	kg/km
1.5	1	0.7	2.6	3.2	12.1	0.011	2.5	20
1.5	2	0.7	2.7	3.3	12.1	0.010	2.5	20
2.5	1	0.8	3.2	3.9	7.41	0.009	2.5	40
2.5	2	0.8	3.3	4.0	7.41	0.009	2.5	40
4	1	0.8	3.6	4.4	4.61	0.0085	2.5	50
4	2	0.8	3.8	4.6	4.61	0.0077	2.5	50
6	1	0.8	4.1	5.0	3.08	0.0070	2.5	70
6	2	0.8	4.3	5.2	3.08	0.0065	2.5	70
10	1	1.0	5.3	6.4	1.83	0.0070	2.5	120
10	2	1.0	5.6	6.7	1.83	0.0065	2.5	120
16	2	1.0	6.4	7.8	1.15	0.0050	2.5	170
25	2	1.2	8.1	9.7	0.727	0.0050	2.5	260
35	2	1.2	9.0	10.9	0.524	0.0043	2.5	350
50	2	1.4	10.6	12.8	0.387	0.0043	2.5	480
70	2	1.4	12.1	14.6	0.268	0.0035	2.5	670
95	2	1.6	14.1	17.1	0.193	0.0035	2.5	920
120	2	1.6	15.6	18.8	0.153	0.0032	2.5	1,160
150	2	1.8	17.3	20.9	0.124	0.0032	2.5	1,430
185	2	2.0	19.3	23.3	0.0991	0.0032	2.5	1,780
240	2	2.0	22.0	26.6	0.0754	0.0032	2.5	2,320
300	2	2.4	24.5	29.6	0.0601	0.0030	2.5	2,930
400	2	2.6	27.5	33.2	0.0470	0.0028	2.5	3,730



Insulated Wires

» Insulated Wires

- 450/750V HIV : Heat resistance indoor PVC insulated wire
- 0.6/1kV TFR-GV : FR-PVC insulated grounding wire in tray use
- 450/750V KIV : PVC Insulated wire for electrical apparatus

Copper & Aluminum Wires
 Insulated Wires
 Power Cables
 Control Cables
 Fire Proof Cables
 Elevators Cables
 Telecommunication Cables
 Appendix

0.6/1kV TFR-GV : FR-PVC insulated grounding wire in tray use

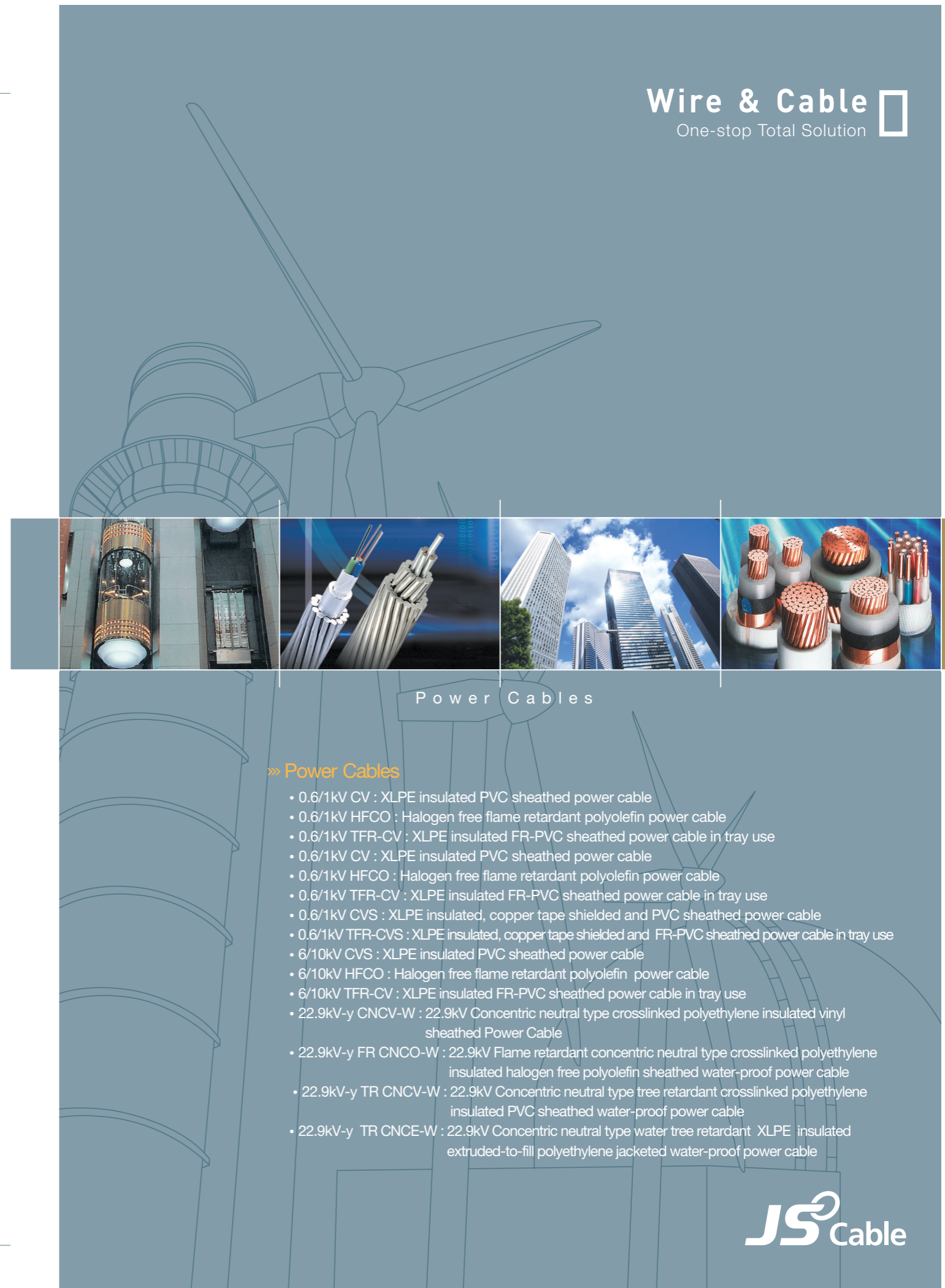
JSC Standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/Wire Diameter	Approx. Outer Diameter					
mm ²	No./mm	mm	mm	mm	Ω/km	kV	kg/km
1.5	7 / 0.53	1.59	2.2	6.1	12.1	3.5	60
2.5	7 / 0.67	2.01	2.2	7.0	7.41	3.5	73
4	7 / 0.85	2.55	2.4	8.0	4.61	3.5	104
6	7 / 1.04	3.12	2.4	8.5	3.08	3.5	139
10	7 / 1.35	4.05	2.4	9.5	1.83	3.5	200
16	7 / 1.70	5.10	2.4	10.0	1.15	3.5	282
25	7 / 2.14	6.42	2.6	12.0	0.727	3.5	396
35	7 / 2.52	7.56	2.6	13.0	0.524	3.5	513
50	19 / 1.78	8.90	2.8	14.5	0.387	3.5	643
70	19 / 2.14	10.7	2.8	16.0	0.268	3.5	854
95	19 / .52	12.6	3.1	18.5	0.193	3.5	1,115
120	37 / 2.03	14.21	3.1	20.0	0.153	3.5	1,406
150	37 / 2.25	15.75	3.4	22.0	0.124	3.5	1,731
185	37 / 2.52	17.64	3.7	25.0	0.0991	3.5	2,069
240	61 / 2.25	20.25	4.0	28.0	0.0754	3.5	2,668
300	61 / 2.52	22.68	4.3	30.0	0.0601	3.5	3,295

450/750V KIV : PVC Insulated wire for electrical apparatus

KS C IEC 60227-3

Nominal Sectional Area	Conductor			Thickness of Insulation	Approx. Overall Diameter		Max. Resistance of Conductor at 20°C	Min. Insulation Resistance at 90°C	Approx. Weight
	Conductor Class	No. of Wire/Wire Diameter	Approx. Outer Diameter		Min.	Max.			
mm ²	mm	No./mm	mm	mm	mm	mm	Ω/km	M Ω/km	kg/km
1.5	0.26	31 / 0.25	1.6	0.7	2.8	3.4	13.3	12.7	30
2.5	0.26	51 / 0.25	2.1	0.8	3.4	4.1	7.98	8.21	40
4	0.31	75 / 0.26	2.6	0.8	3.9	4.8	4.95	5.09	50
6	0.31	7 / 16 / 0.26	3.6	0.8	4.4	5.3	3.30	3.39	80
10	0.41	7 / 19 / 0.32	4.8	1.0	5.7	6.8	1.91	1.95	130
16	0.41	7 / 29 / 0.32	6.0	1.0	6.7	8.1	1.21	1.24	180
25	0.41	7 / 45 / 0.32	7.4	1.2	8.4	10.2	0.78	0.795	280
35	0.41	7 / 62 / 0.32	8.7	1.2	9.7	11.7	0.554	0.565	370
50	0.41	19 / 32 / 0.32	10.4	1.4	11.5	13.9	0.386	0.393	500
70	0.51	19 / 23 / 0.45	12.5	1.4	13.2	16.0	0.272	0.277	700
95	0.51	19 / 31 / 0.45	14.5	1.6	15.1	18.2	0.206	0.210	970
120	0.51	19 / 39 / 0.45	16.2	1.6	16.7	20.2	0.161	0.164	1,200
150	0.51	19 / 49 / 0.45	18.2	1.8	18.6	22.5	0.129	0.132	1,490
185	0.51	37 / 31 / 0.45	20.2	2.0	20.6	24.9	0.106	0.108	1,850
240	0.51	37 / 41 / 0.45	23.3	2.2	23.5	28.4	0.0801	0.0817	2,440



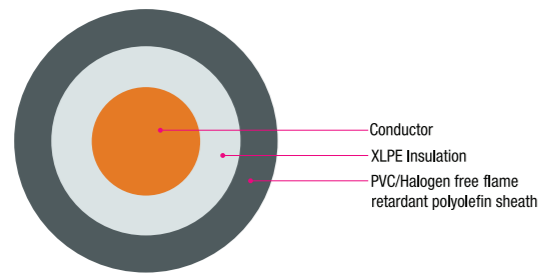
Power Cables

» Power Cables

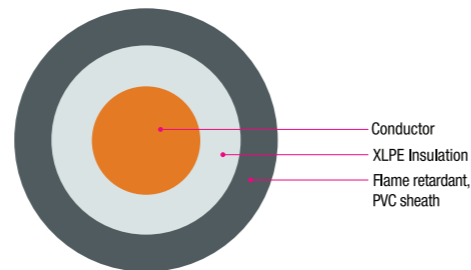
- 0.6/1kV CV : XLPE insulated PVC sheathed power cable
- 0.6/1kV HFCO : Halogen free flame retardant polyolefin power cable
- 0.6/1kV TFR-CV : XLPE insulated FR-PVC sheathed power cable in tray use
- 0.6/1kV CV : XLPE insulated PVC sheathed power cable
- 0.6/1kV HFCO : Halogen free flame retardant polyolefin power cable
- 0.6/1kV TFR-CV : XLPE insulated FR-PVC sheathed power cable in tray use
- 0.6/1kV CVS : XLPE insulated, copper tape shielded and PVC sheathed power cable
- 0.6/1kV TFR-CVS : XLPE insulated, copper tape shielded and FR-PVC sheathed power cable in tray use
- 6/10kV CVS : XLPE insulated PVC sheathed power cable
- 6/10kV HFCO : Halogen free flame retardant polyolefin power cable
- 6/10kV TFR-CV : XLPE insulated FR-PVC sheathed power cable in tray use
- 22.9kV-y CNCV-W : 22.9kV Concentric neutral type crosslinked polyethylene insulated vinyl sheathed Power Cable
- 22.9kV-y FR CNCO-W : 22.9kV Flame retardant concentric neutral type crosslinked polyethylene insulated halogen free polyolefin sheathed water-proof power cable
- 22.9kV-y TR CNCV-W : 22.9kV Concentric neutral type tree retardant crosslinked polyethylene insulated PVC sheathed water-proof power cable
- 22.9kV-y TR CNCE-W : 22.9kV Concentric neutral type water tree retardant XLPE insulated extruded-to-fill polyethylene jacketed water-proof power cable

Power Cables

0.6/1kV CV, 0.6/1kV HFCO



0.6/1kV TFR-CV



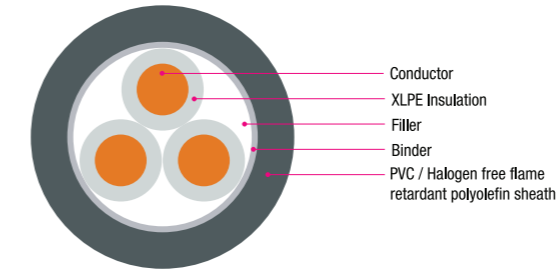
0.6/1kV CV : XLPE insulated PVC sheathed power cable

0.6/1kV HFCO : Halogen free flame retardant polyolefin power cable

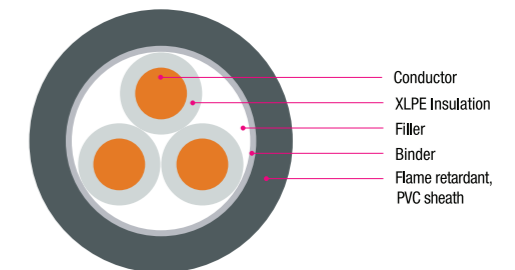
0.6/1kV TFR-CV : XLPE insulated FR-PVC sheathed power cable in tray use

KS C IEC 60502-1, JSC standard

0.6/1kV CV, 0.6/1kV HFCO



0.6/1kV TFR-CV



0.6/1kV CV : XLPE insulated PVC sheathed power cable

0.6/1kV HFCO : Halogen free flame retardant polyolefin power cable

0.6/1kV TFR-CV : XLPE insulated FR-PVC sheathed power cable in tray use

KS C IEC 60502-1, JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

Single Core

1.5	7 / 0.53	1.59	0.7	1.4	6.1	12.1	3.5	55
2.5	7 / 0.67	2.01	0.7	1.4	6.6	7.41	3.5	67
4	7 / 0.85	2.55	0.7	1.4	7.1	4.61	3.5	85
6	7 / 1.04	3.12	0.7	1.4	7.1	3.08	3.5	109
10	7 / 1.35	4.05	0.7	1.4	8.6	1.83	3.5	154
16	CC	4.7	0.7	1.4	9.3	1.15	3.5	218
25	CC	5.9	0.9	1.4	11.0	0.727	3.5	321
35	CC	6.9	0.9	1.4	12.1	0.524	3.5	419
50	CC	8.1	1.0	1.4	13.4	0.387	3.5	550
70	CC	9.8	1.1	1.4	15.4	0.268	3.5	763
95	CC	11.4	1.1	1.5	17.6	0.193	3.5	1,036
120	CC	12.9	1.2	1.5	19.2	0.153	3.5	1,295
150	CC	14.4	1.4	1.6	21.2	0.124	3.5	1,564
185	CC	15.9	1.6	1.6	23.4	0.0991	3.5	1,936
240	CC	18.3	1.7	1.7	26.3	0.0754	3.5	2,532
300	CC	20.5	1.8	1.8	28.7	0.0601	3.5	3,148
400	CC	23.2	2.0	1.9	32.0	0.0470	3.5	3,941
500	CC	26.4	2.2	2.0	36.0	0.0366	3.5	5,005
630	CC	30.2	2.4	2.2	40.6	0.0283	3.5	6,437

2 Cores

1.5	7 / 0.53	1.59	0.7	1.8	10.1	12.1	3.5	126
2.5	7 / 0.67	2.01	0.7	1.8	11.0	7.41	3.5	155
4	7 / 0.85	2.55	0.7	1.8	12.0	4.61	3.5	198
6	7 / 1.04	3.12	0.7	1.8	13.2	3.08	3.5	252
10	7 / 1.35	4.05	0.7	1.8	15.0	1.83	3.5	355
16	CC	4.7	0.7	1.8	16.5	1.15	3.5	494
25	CC	5.9	0.9	1.8	19.9	0.727	3.5	729
35	CC	6.9	0.9	1.8	22.1	0.524	3.5	947
50	CC	8.1	1.0	1.8	25.0	0.387	3.5	1,241
70	CC	9.8	1.1	1.8	29.0	0.268	3.5	1,717
95	CC	11.4	1.1	1.9	32.8	0.193	3.5	2,294
120	CC	12.9	1.2	2.0	36.2	0.153	3.5	2,878
150	CC	14.4	1.4	2.2	40.6	0.124	3.5	3,524
185	CC	15.9	1.6	2.3	44.7	0.0991	3.5	4,343
240	CC	18.3	1.7	2.5	50.5	0.0754	3.5	5,677
300	CC	20.5	1.8	2.6	55.2	0.0601	3.5	7,019

* C.C : Circular compacted stranded conductor

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

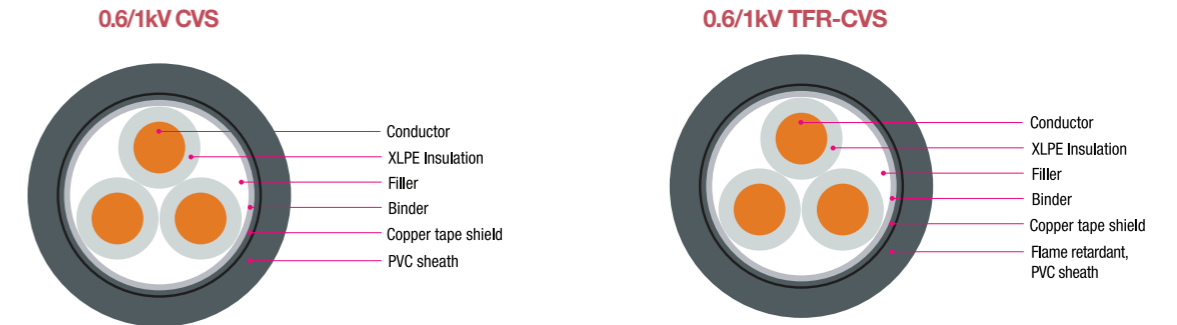
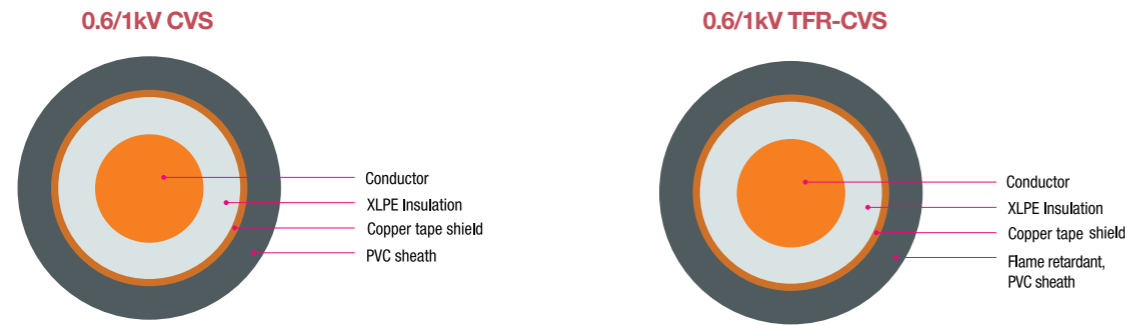
3 Cores

1.5	7 / 0.53	1.59	0.7	1.8	10.6	12.1	3.5	149
2.5	7 / 0.67	2.01	0.7	1.8	11.5	7.41	3.5	187
4	7 / 0.85	2.55	0.7	1.8	12.7	4.61	3.5	246
6	7 / 1.04	3.12	0.7	1.8	13.9	3.08	3.5	318
10	7 / 1.35	4.05	0.7	1.8	15.9	1.83	3.5	460
16	CC	4.7	0.7	1.8	17.5	1.15	3.5	658
25	CC	5.9	0.9	1.8	21.2	0.727	3.5	983
35	CC	6.9	0.9	1.8	23.6	0.524	3.5	1,292
50	CC	8.1	1.0	1.8	26.7	0.387	3.5	1,705
70	CC	9.8	1.1	1.9	31.2	0.268	3.5	2,394
95	CC	11.4	1.1	2.0	35.2	0.193	3.5	3,212
120	CC	12.9	1.2	2.1	38.9	0.153	3.5	4,042
150	CC	14.4	1.4	2.3	43.6	0.124	3.5	4,942
185	CC	15.9	1.6	2.4	48.0	0.0991	3.5	6,104
240	CC	18.3	1.7	2.6	54.2	0.0754	3.5	7,996
300	CC	20.5	1.8	2.7	59.7	0.0601	3.5	9,921

4 Cores

1.5	7 / 0.53	1.59	0.7	1.8	11.4	12.1	3.5	177
2.5	7 / 0.67	2.01	0.7	1.8	12.4	7.41	3.5	226
4	7 / 0.85	2.55	0.7	1.8	13.7	4.61	3.5	301
6	7 / 1.04	3.12	0.7	1.8	15.1	3.08	3.5	394
10	7 / 1.35	4.05	0.7	1.8	17.3	1.83	3.5	578
16	CC	4.7	0.7	1.8	19.2	1.15	3.5	837
25	CC	5.9	0.9	1.8	23.3	0.727	3.5	1,260
35	CC	6.9	0.9	1.8	25.9	0.524	3.5	1,663
50	CC	8.1	1.0	1.9	29.6	0.387	3.5	2,218
70	CC	9.8	1.1	2.0	34.6	0.268	3.5	3,119
95	CC	11.4	1.1	2.1	39.1	0.193	3.5	4,193
120	CC	12.9	1.2	2.3	43.4	0.153	3.5	5,304
150	CC	14.4	1.4	2.4	48.4	0.124	3.5	6,455
185	CC	15.9	1.6	2.6	53.5	0.0991	3.5	8,006
240	CC	18.3	1.7	2.8	60.8	0.0754	3.5	10,497
300	CC	20.5	1.8	3.0	66.7	0.0601	3.5	13,059

* C.C : Circular compacted stranded conductor



0.6/1kV CVS : XLPE insulated, copper tape shielded and PVC sheathed power cable
0.6/1kV TFR-CVS : XLPE insulated, copper tape shielded and FR-PVC sheathed power cable in tray use JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ωkm	kV	kg/km

Single Core

1.5	7 / 0.53	1.59	0.7	1.4	6.5	12.1	3.5	71
2.5	7 / 0.67	2.01	0.7	1.4	7.0	7.41	3.5	86
4	7 / 0.85	2.55	0.7	1.4	7.5	4.61	3.5	107
6	7 / 1.04	3.12	0.7	1.4	8.1	3.08	3.5	133
10	7 / 1.35	4.05	0.7	1.4	9.0	1.83	3.5	182
16	C.C	4.7	0.7	1.4	9.7	1.15	3.5	249
25	C.C	5.9	0.9	1.4	11.4	0.727	3.5	360
35	C.C	6.9	0.9	1.4	12.5	0.524	3.5	463
50	C.C	8.1	1.0	1.4	14.1	0.387	3.5	601
70	C.C	9.8	1.1	1.5	16.1	0.268	3.5	824
95	C.C	11.4	1.1	1.5	18.1	0.193	3.5	1,095
120	C.C	12.9	1.2	1.6	19.9	0.153	3.5	1,370
150	C.C	14.4	1.4	1.6	21.9	0.124	3.5	1,649
185	C.C	15.9	1.6	1.7	24.1	0.0991	3.5	2,029
240	C.C	18.3	1.7	1.8	27.0	0.0754	3.5	2,637
300	C.C	20.5	1.8	1.9	29.4	0.0601	3.5	3,263
400	C.C	23.2	2.0	2.0	32.7	0.0470	3.5	4,071
500	C.C	26.4	2.2	2.1	36.7	0.0366	3.5	5,151
630	C.C	30.2	2.4	2.3	41.3	0.0283	3.5	6,589

2 Cores

1.5	7 / 0.53	1.59	0.7	1.8	10.5	12.1	3.5	157
2.5	7 / 0.67	2.01	0.7	1.8	11.4	7.41	3.5	189
4	7 / 0.85	2.55	0.7	1.8	12.4	4.61	3.5	237
6	7 / 1.04	3.12	0.7	1.8	13.6	3.08	3.5	295
10	7 / 1.35	4.05	0.7	1.8	15.4	1.83	3.5	405
16	C.C	4.7	0.7	1.8	16.9	1.15	3.5	551
25	C.C	5.9	0.9	1.8	20.3	0.727	3.5	799
35	C.C	6.9	0.9	1.8	22.5	0.524	3.5	1,026
50	C.C	8.1	1.0	1.8	25.7	0.387	3.5	1,337
70	C.C	9.8	1.1	1.9	29.9	0.268	3.5	1,845
95	C.C	11.4	1.1	2.0	33.7	0.193	3.5	2,438
120	C.C	12.9	1.2	2.1	37.1	0.153	3.5	3,037
150	C.C	14.4	1.4	2.3	41.5	0.124	3.5	3,703
185	C.C	15.9	1.6	2.4	45.6	0.0991	3.5	4,541
240	C.C	18.3	1.7	2.6	51.4	0.0754	3.5	5,900
300	C.C	20.5	1.8	2.8	56.7	0.0601	3.5	7,313

* C.C : Circular compacted stranded conductor

0.6/1kV CVS : XLPE insulated, copper tape shielded and PVC sheathed power cable
0.6/1kV TFR-CVS : XLPE insulated, copper tape shielded and FR-PVC sheathed power cable in tray use JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ωkm	kV	kg/km

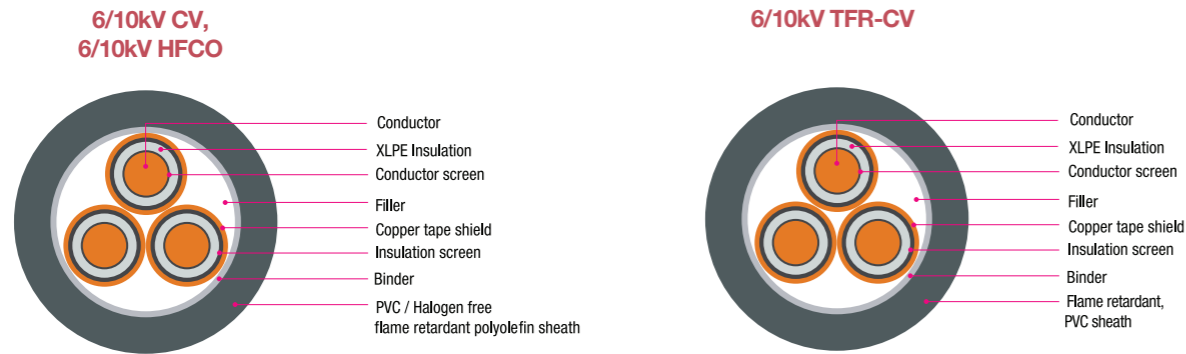
3 Cores

1.5	7 / 0.53	1.59	0.7	1.8	11.0	12.1	3.5	182
2.5	7 / 0.67	2.01	0.7	1.8	11.9	7.41	3.5	224
4	7 / 0.85	2.55	0.7	1.8	13.1	4.61	3.5	287
6	7 / 1.04	3.12	0.7	1.8	14.3	3.08	3.5	365
10	7 / 1.35	4.05	0.7	1.8	16.3	1.83	3.5	515
16	C.C	4.7	0.7	1.8	17.9	1.15	3.5	719
25	C.C	5.9	0.9	1.8	21.6	0.727	3.5	1,059
35	C.C	6.9	0.9	1.8	24.0	0.524	3.5	1,377
50	C.C	8.1	1.0	1.8	27.4	0.387	3.5	1,808
70	C.C	9.8	1.1	2.0	32.1	0.268	3.5	2,531
95	C.C	11.4	1.1	2.1	36.1	0.193	3.5	3,368
120	C.C	12.9	1.2	2.2	39.8	0.153	3.5	4,214
150	C.C	14.4	1.4	2.4	44.5	0.124	3.5	5,136
185	C.C	15.9	1.6	2.5	48.9	0.0991	3.5	5,318
240	C.C	18.3	1.7	2.7	55.1	0.0754	3.5	8,238
300	C.C	20.5	1.8	2.9	61.2	0.0601	3.5	10,243

4 Cores

1.5	7 / 0.53	1.59	0.7	1.8	11.8	12.1	3.5	211
2.5	7 / 0.67	2.01	0.7	1.8	12.8	7.41	3.5	263
4	7 / 0.85	2.55	0.7	1.8	14.1	4.61	3.5	343
6	7 / 1.04	3.12	0.7	1.8	15.5	3.08	3.5	441
10	7 / 1.35	4.05	0.7	1.8	17.7	1.83	3.5	633
16	C.C	4.7	0.7	1.8	19.6	1.15	3.5	899
25	C.C	5.9	0.9	1.8	23.7	0.727	3.5	1,335
35	C.C	6.9	0.9	1.8	26.3	0.524	3.5	1,748
50	C.C	8.1	1.0	1.9	30.3	0.387	3.5	2,319
70	C.C	9.8	1.1	2.1	35.5	0.268	3.5	3,252
95	C.C	11.4	1.1	2.2	40.0	0.193	3.5	4,342
120	C.C	12.9	1.2	2.4	44.3	0.153	3.5	5,465
150	C.C	14.4	1.4	2.5	49.3	0.124	3.5	6,630
185	C.C	15.9	1.6	2.7	54.4	0.0991	3.5	8,193
240	C.C	18.3	1.7	2.9	62.3	0.0754	3.5	10,739
300	C.C	20.5	1.8	3.1	68.2	0.0601	3.5	13,358

* C.C : Circular compacted stranded conductor



6/10kV CV : XLPE insulated PVC sheathed power cable
6/10kV HFCO : Halogen free flame retardant polyolefin power cable
6/10kV TFR-CV : XLPE insulated FR-PVC sheathed power cable in tray use

KS C IEC 60502-2
 @KS C 3341, JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20℃	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

Single Core

16	C.C	4.7	3.4	1.5	17.8	1.15	21	479
25	C.C	5.9	3.4	1.5	19.3	0.727	21	599
35	C.C	6.9	3.4	1.6	20.4	0.524	21	726
50	C.C	8.1	3.4	1.6	21.8	0.387	21	883
70	C.C	9.8	3.4	1.7	23.7	0.268	21	1,131
95	C.C	11.4	3.4	1.7	25.7	0.193	21	1,419
120	C.C	12.9	3.4	1.8	27.1	0.153	21	1,708
150	C.C	14.4	3.4	1.8	28.9	0.124	21	1,991
185	C.C	15.9	3.4	1.9	30.5	0.0991	21	2,375
240	C.C	18.3	3.4	2.0	33.2	0.0754	21	3,005
300	C.C	20.5	3.4	2.0	35.4	0.0601	21	3,629
400	C.C	23.2	3.4	2.2	38.7	0.0470	21	4,526
500	C.C	26.4	3.4	2.2	42.3	0.0366	21	5,605
630	C.C	30.2	3.4	2.3	46.5	0.0283	21	7,045

4 Cores

16	C.C	4.7	3.4	2.1	35.8	1.15	21	1,484
25	C.C	5.9	3.4	2.2	38.8	0.727	21	1,880
35	C.C	6.9	3.4	2.3	41.4	0.524	21	2,274
50	C.C	8.1	3.4	2.4	44.2	0.387	21	2,760
70	C.C	9.8	3.4	2.5	48.1	0.268	21	3,530
95	C.C	11.4	3.4	2.6	52.2	0.193	21	4,462
120	C.C	12.9	3.4	2.7	55.4	0.153	21	5,356
150	C.C	14.4	3.4	2.8	59.4	0.124	21	6,303
185	C.C	15.9	3.4	2.9	63.0	0.0991	21	7,497
240	C.C	18.3	3.4	3.1	68.8	0.0754	21	9,497
300	C.C	20.5	3.4	3.3	73.6	0.0601	21	11,523

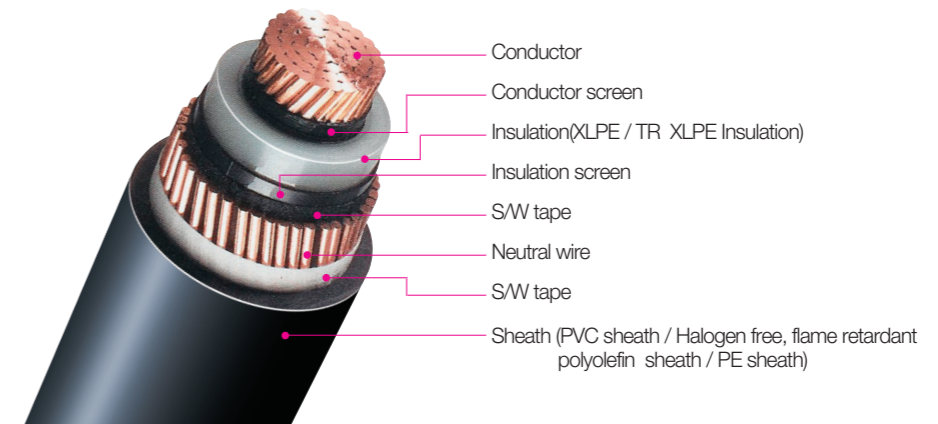
* C.C : Circular compacted stranded conductor

22.9kV-y CNCV-W
22.9kV Concentric neutral type crosslinked polyethylene insulated vinyl sheathed power cables

22.9kV-y FR CNCO-W
22.9kV Flame retardant concentric neutral type crosslinked polyethylene insulated halogen free polyolefin sheathed water-proof power cable

22.9kV-y TR CNCV-W
22.9kV Concentric neutral type tree retardant crosslinked polyethylene insulated PVC sheathed water-proof power cable

22.9kV-y TR CNCE-W
22.9kV-y Concentric neutral type water tree retardant XLPE insulated extruded to - fill - polyethylene jacketed water-proof power cable



22.9kV-y CNCV-W / 22.9kV-y FR CNCO-W / 22.9kV-y TR CNCV-W

KEPCO RS-6145-0019
 KEPCO RS-6145-0027

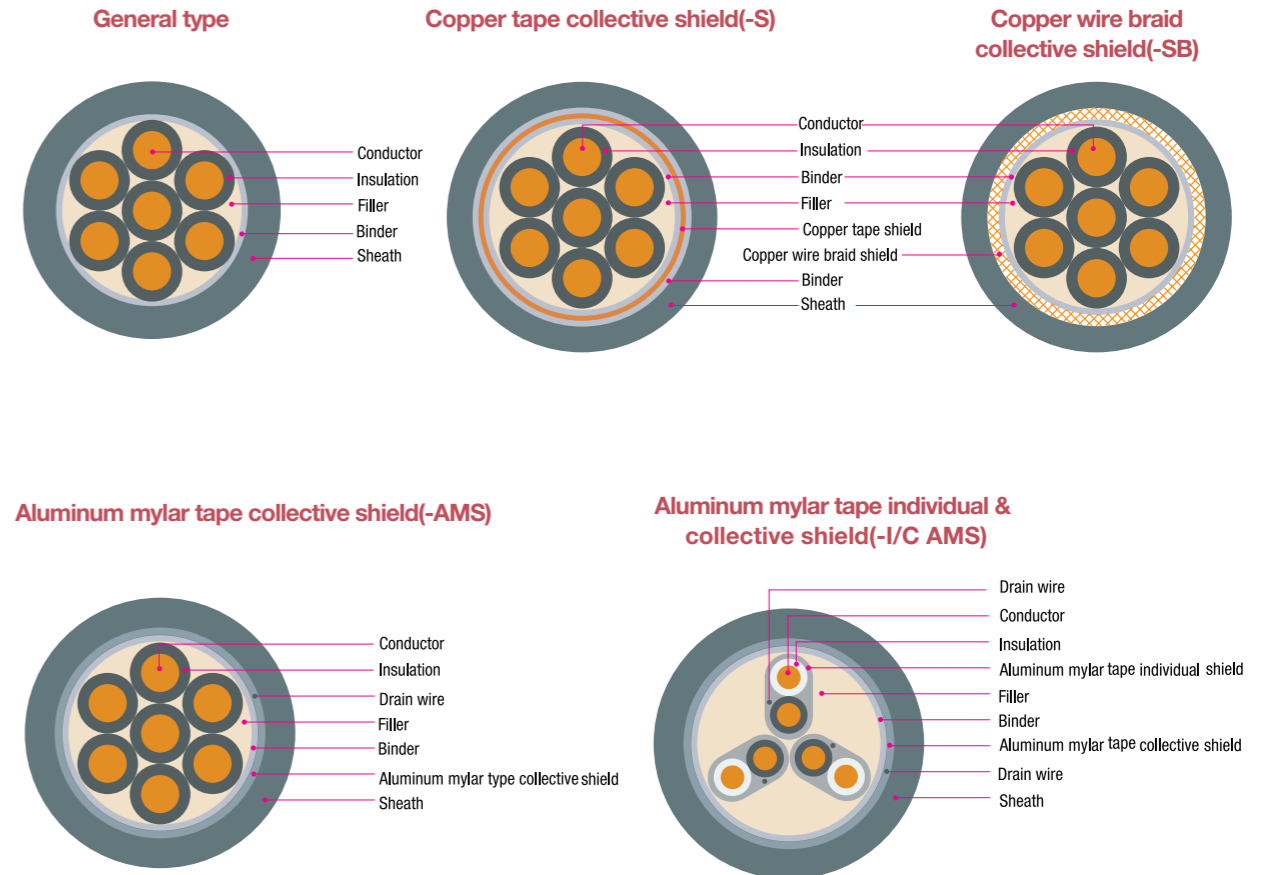
Nominal Sectional Area	Conductor Diameter	Thickness of Insulation	Insulation Diameter	Neutral Wire				Sheath Thickness	Overall Diameter	Max. Overall Diameter	Max. Resistance of Conductor at 20℃	Min. Insulation Resistance at 20℃	Electrostatic Capacity
				Wire Diameter	No. of Wire	Nominal Sectional Area	Diameter						
mm ²	mm	mm	mm	mm	No.	mm ²	mm	mm	mm	mm	Ω/km	Ω/km	μ/km
60	9.3±0.2	6.6	24.5	1.2	18	20	30	3.0	36	39	0.305	3,000	0.21
200	17.0±0.3	6.6	32.1	2.0	21	66	39	3.0	45	48	0.0915	2,000	0.32
325	21.7±0.3	6.6	36.8	2.3	26	108	44	3.0	51	54	0.0568	2,000	0.36
600	29.5±0.5	6.6	44.6	2.6	38	201	53	4.0	61	64	0.0308	1,500	0.47

22.9kV-y TR CNCE-W

KEPCO RS-6145-0034

Nominal Sectional Area	Conductor Diameter	Thickness of Insulation	Max. Insulation Diameter	Neutral Wire				Sheath Thickness	Overall Diameter	Max. Overall Diameter	Max. Resistance of Conductor at 20℃	Min. Insulation Resistance at 20℃	Electrostatic Capacity
				Wire Diameter	No. of Wire	Nominal Sectional Area	Diameter						
mm ²	mm	mm	mm	mm	No.	mm ²	mm	mm	mm	mm	Ω/km	Ω/km	μ/km
60	9.3±0.2	6.8	24.63	1.2	18	20	29.0	1.5	32.0	35	0.305	3,000	0.21
200	17.0±0.3	6.8	32.61	2.0	21	66	39.0	1.5	42.0	45	0.0915	2,000	0.32
325	21.7±0.3	6.8	37.56	2.3	26	108	43.5	2.4	49.5	53	0.0568	2,000	0.36
600	29.5±0.5	6.8	45.61	2.6	38	200	53.9	2.4	59.0	62	0.0308	1,500	0.47

Construction of control cables



Control Cables

» Construction of control cables

» Control Cables

- 0.6/1kV CW : PVC insulated PVC sheathed control cable
- 0.6/1kV TFR-CW : FR-PVC insulated FR-PVC sheathed control cable in tray use
- 0.6/1kV HFCCO : Halogen free flame retardant polyolefin control cable
- 0.6/1kV CWVS : PVC insulated, copper tape shielded and PVC sheathed control cable
- 0.6/1kV TFR-CWS : FR-PVC insulated, copper tape shielded and FR-PVC sheathed control cable in tray use
- 0.6/1kV CWVSB : PVC insulated, copper wire braid shielded and PVC sheathed control cable
- 0.6/1kV TFR-CVSB : FR-PVC insulated, copper wire braid shielded and FR-PVC sheathed control cable in tray use
- 0.6/1kV CWAMS : PVC insulated, Aluminum mylar tape collective shielded and PVC sheathed control cable
- 0.6/1kV TFR-CWAMS : FR-PVC insulated, Aluminum mylar tape collective shielded and FR-PVC sheathed control cable in tray use
- 0.6/1kV CW-I/C AMS : PVC insulated, Aluminum mylar tape individual & collective shielded and PVC sheathed control cable
- 0.6/1kV TFR-CW-I/C AMS : FR-PVC insulated, Aluminum mylar tape individual & collective shielded and FR-PVC sheathed control cable in tray use

Control Cables

0.6/1kV CVW : PVC insulated PVC sheathed control cable

0.6/1kV TFR-CVW : FR-PVC insulated FR-PVC sheathed control cable in tray use

KS C IEC 60502-1
JSC standard

No. of Core	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20℃	Test Voltage	Approx. Weight
	Nominal Sectional Area	No. of Wire / Wire Diameter	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km
2	1.5	7/0.53	1.59	0.8	1.8	11.0	12.1	3.5	146
	2.5	7/0.67	2.01	0.8	1.8	12.0	7.41	3.5	177
	4	7/0.85	2.55	1.0	1.8	14.0	4.61	3.5	244
	6	7/1.04	3.12	1.0	1.8	15.0	3.08	3.5	302
	10	7/1.35	4.05	1.0	1.8	17.0	1.83	3.5	413
3	1.5	7/0.53	1.59	0.8	1.8	11.5	12.1	3.5	174
	2.5	7/0.67	2.01	0.8	1.8	12.5	7.41	3.5	216
	4	7/0.85	2.55	1.0	1.8	14.5	4.61	3.5	304
	6	7/1.04	3.12	1.0	1.8	16.0	3.08	3.5	383
	10	7/1.35	4.05	1.0	1.8	18.0	1.83	3.5	537
4	1.5	7/0.53	1.59	0.8	1.8	12.5	12.1	3.5	209
	2.5	7/0.67	2.01	0.8	1.8	13.5	7.41	3.5	262
	4	7/0.85	2.55	1.0	1.8	16.0	4.61	3.5	374
	6	7/1.04	3.12	1.0	1.8	17.0	3.08	3.5	476
	10	7/1.35	4.05	1.0	1.8	19.5	1.83	3.5	675
5	1.5	7/0.53	1.59	0.8	1.8	13.5	12.1	3.5	245
	2.5	7/0.67	2.01	0.8	1.8	14.5	7.41	3.5	311
	4	7/0.85	2.55	1.0	1.8	17.0	4.61	3.5	445
	6	7/1.04	3.12	1.0	1.8	18.5	3.08	3.5	573
	10	7/1.35	4.05	1.0	1.8	21.0	1.83	3.5	820
6	1.5	7/0.53	1.59	0.8	1.8	14.5	12.1	3.5	283
	2.5	7/0.67	2.01	0.8	1.8	15.5	7.41	3.5	361
	4	7/0.85	2.55	1.0	1.8	18.5	4.61	3.5	523
	6	7/1.04	3.12	1.0	1.8	21.0	3.08	3.5	674
	10	7/1.35	4.05	1.0	1.8	23.0	1.83	3.5	968
7	1.5	7/0.53	1.59	0.8	1.8	14.5	12.1	3.5	303
	2.5	7/0.67	2.01	0.8	1.8	15.5	7.41	3.5	391
	4	7/0.85	2.55	1.0	1.8	18.5	4.61	3.5	571
	6	7/1.04	3.12	1.0	1.8	21.0	3.08	3.5	741
	10	7/1.35	4.05	1.0	1.8	23.0	1.83	3.5	1,072
8	1.5	7/0.53	1.59	0.8	1.8	15.5	12.1	3.5	342
	2.5	7/0.67	2.01	0.8	1.8	16.5	7.41	3.5	443
	4	7/0.85	2.55	1.0	1.8	20.0	4.61	3.5	649
	6	7/1.04	3.12	1.0	1.8	22.0	3.08	3.5	843
	10	7/1.35	4.05	1.0	1.8	25.0	1.83	3.5	1,224
10	1.5	7/0.53	1.59	0.8	1.8	18.0	12.1	3.5	429
	2.5	7/0.67	2.01	0.8	1.8	19.5	7.41	3.5	556
	4	7/0.85	2.55	1.0	1.8	23.0	4.61	3.5	820
	6	7/1.04	3.12	1.0	1.8	26.0	3.08	3.5	1,068
	10	7/1.35	4.05	1.0	1.8	29.0	1.83	3.5	1,552
12	1.5	7/0.53	1.59	0.8	1.8	18.5	12.1	3.5	481
	2.5	7/0.67	2.01	0.8	1.8	20.0	7.41	3.5	625
	4	7/0.85	2.55	1.0	1.8	24.0	4.61	3.5	934
	6	7/1.04	3.12	1.0	1.8	27.0	3.08	3.5	1,222
	10	7/1.35	4.05	1.0	1.8	30.0	1.83	3.5	1,789
15	1.5	7/0.53	1.59	0.8	1.8	19.5	12.1	3.5	571
	2.5	7/0.67	2.01	0.8	1.8	22.0	7.41	3.5	752
	4	7/0.85	2.55	1.0	1.8	26.0	4.61	3.5	1,124
	6	7/1.04	3.12	1.0	1.8	29.0	3.08	3.5	1,479
	20	1.5	7/0.53	1.59	0.8	1.8	22.0	12.1	3.5
2.5		7/0.67	2.01	0.8	1.8	24.0	7.41	3.5	957
4		7/0.85	2.55	1.0	1.8	29.0	4.61	3.5	1,444
6		7/1.04	3.12	1.0	1.8	32.0	3.08	3.5	1,911
30		1.5	7/0.53	1.59	0.8	1.8	26.0	12.1	3.5
	2.5	7/0.67	2.01	0.8	1.8	28.0	7.41	3.5	1,380
	4	7/0.85	2.55	1.0	1.8	35.0	4.61	3.5	2,116

0.6/1kV HFCCO : Halogen free flame retardant polyolefin control cable

KS C IEC 60502-1, JSC standard

No. of Core	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20℃	Test Voltage	Approx. Weight
	Nominal Sectional Area	No. of Wire / Wire Diameter	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km
2	1.5	7/0.53	1.59	0.7	1.8	10.6	12.1	3.5	130
	2.5	7/0.67	2.01	0.7	1.8	11.5	7.41	3.5	160
	4	7/0.85	2.55	0.7	1.8	12.6	4.61	3.5	203
	6	7/1.04	3.12	0.7	1.8	13.8	3.08	3.5	257
	10	7/1.35	4.05	0.7	1.8	15.7	1.83	3.5	360
3	1.5	7/0.53	1.59	0.7	1.8	11.1	12.1	3.5	153
	2.5	7/0.67	2.01	0.7	1.8	12.1	7.41	3.5	192
	4	7/0.85	2.55	0.7	1.8	13.2	4.61	3.5	250
	6	7/1.04	3.12	0.7	1.8	14.5	3.08	3.5	323
	10	7/1.35	4.05	0.7	1.8	16.6	1.83	3.5	466
4	1.5	7/0.53	1.59	0.7	1.8	11.9	12.1	3.5	181
	2.5	7/0.67	2.01	0.7	1.8	13.0	7.41	3.5	230
	4	7/0.85	2.55	0.7	1.8	14.3	4.61	3.5	305
	6	7/1.04	3.12	0.7	1.8	15.7	3.08	3.5	398
	10	7/1.35	4.05	0.7	1.8	18.0	1.83	3.5	583
5	1.5	7/0.53	1.59	0.7	1.8	12.8	12.1	3.5	210
	2.5	7/0.67	2.01	0.7	1.8	14.0	7.41	3.5	271
	4	7/0.85	2.55	0.7	1.8	15.6	4.61	3.5	363
	6	7/1.04	3.12	0.7	1.8	17.1	3.08	3.5	478
	10	7/1.35	4.05	0.7	1.8	19.7	1.83	3.5	705
6	1.5	7/0.53	1.59	0.7	1.8	13.8	12.1	3.5	242
	2.5	7/0.67	2.01	0.7	1.8	15.1	7.41	3.5	313
	4	7/0.85	2.55	0.7	1.8	16.7	4.61	3.5	423
	6	7/1.04	3.12	0.7	1.8	18.6	3.08	3.5	561
	10	7/1.35	4.05	0.7	1.8	21.4	1.83	3.5	831
7	1.5	7/0.53	1.59	0.7	1.8	13.8	12.1	3.5	257
	2.5	7/0.67	2.01	0.7	1.8	15.1	7.41	3.5	336
	4	7/0.85	2.55	0.7	1.8	16.7	4.61	3.5	459
	6	7/1.04	3.12	0.7	1.8	18.6	3.08	3.5	615
	10	7/1.35	4.05	0.7	1.8	21.4	1.83	3.5	920
8	1.5	7/0.53	1.59	0.7	1.8	14.8	12.1	3.5	289
	2.5	7/0.67	2.01	0.7	1.8	16.2	7.41	3.5	380
	4	7/0.85	2.55	0.7	1.8	18.0	4.61	3.5	521
	6	7/1.04	3.12	0.7	1.8	20.0	3.08	3.5	698
	10	7/1.35	4.05	0.7	1.8	23.1	1.83	3.5	1,049
10	1.5	7/0.53	1.59	0.7	1.8	17.0	12.1	3.5	361
	2.5	7/0.67	2.01	0.7	1.8	18.7	7.41	3.5	477
	4	7/0.85	2.55	0.7	1.8	20.9	4.61	3.5	655
	6	7/1.04	3.12	0.7	1.8	23.3	3.08	3.5	880
	10	7/1.35	4.05	0.7	1.8	27.1	1.83	3.5	1,327
12	1.5	7/0.53	1.59	0.7	1.8	17.5	12.1	3.5	401
	2.5	7/0.67	2.01	0.7	1.8	19.3	7.41	3.5	535
	4	7/0.85	2.55	0.7	1.8	23.2	4.61	3.5	759
	6	7/1.04	3.12	0.7	1.8	24.0	3.08	3.5	1,005
	10	7/1.35	4.05	0.7	1.8	28.0	1.83	3.5	1,528
15	1.5	7/0.53	1.59	0.7	1.8	18.7	12.1	3.5	472
	2.5	7/0.67	2.01	0.7	1.8	20.7	7.41	3.5	636
	4	7/0.85	2.55	0.7	1.8	23.2	4.61	3.5	891
	6	7/1.04	3.12	0.7	1.8	25.9	3.08	3.5	1,213
	20	1.5	7/0.53	1.59	0.7	1.8	20.7	12.1	3.5
2.5		7/0.67	2.01	0.7	1.8	23.0	7.41	3.5	805
4		7/0.85	2.55	0.7	1.8	25.9	4.61	3.5	1,139
6		7/1.04	3.12	0.7	1.8	28.9	3.08	3.5	1,562
30		1.5	7/0.53	1.59	0.7	1.8	24.7	12.1	3.5
	2.5	7/0.67	2.01	0.7	1.8	27.4	7.41	3.5	1,153
	4	7/0.85	2.55	0.7	1.8	31.0	4.61	3.5	1,647

0.6/1kV CWS : PVC insulated, copper tape shielded and PVC sheathed control cable
0.6/1kV TFR-CWS : FR-PVC insulated, copper tape shielded and FR-PVC sheathed control cable in tray use

KS C IEC 60502-1
JSC standard

No. of Core	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20 °C	Test Voltage	Approx. Weight
	Nominal Sectional Area	No. of Wire / Wire Diameter	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km
2	1.5	7 / 0.53	1.59	0.8	1.8	11.4	12.1	3.5	178
	2.5	7 / 0.67	2.01	0.8	1.8	12.3	7.41	3.5	213
	4	7 / 0.85	2.55	1.0	1.8	14.2	4.61	3.5	287
	6	7 / 1.04	3.12	1.0	1.8	15.4	3.08	3.5	350
	10	7 / 1.35	4.05	1.0	1.8	16.9	1.83	3.5	413
3	1.5	7 / 0.53	1.59	0.8	1.8	11.9	12.1	3.5	209
	2.5	7 / 0.67	2.01	0.8	1.8	12.9	7.41	3.5	254
	4	7 / 0.85	2.55	1.0	1.8	15.0	4.61	3.5	351
	6	7 / 1.04	3.12	1.0	1.8	16.2	3.08	3.5	435
	10	7 / 1.35	4.05	1.0	1.8	17.9	1.83	3.5	537
4	1.5	7 / 0.53	1.59	0.8	1.8	12.8	12.1	3.5	247
	2.5	7 / 0.67	2.01	0.8	1.8	13.9	7.41	3.5	305
	4	7 / 0.85	2.55	1.0	1.8	16.2	4.61	3.5	425
	6	7 / 1.04	3.12	1.0	1.8	17.6	3.08	3.5	533
	10	7 / 1.35	4.05	1.0	1.8	19.5	1.83	3.5	675
5	1.5	7 / 0.53	1.59	0.8	1.8	13.8	12.1	3.5	287
	2.5	7 / 0.67	2.01	0.8	1.8	15.0	7.41	3.5	357
	4	7 / 0.85	2.55	1.0	1.8	17.3	4.61	3.5	500
	6	7 / 1.04	3.12	1.0	1.8	19.2	3.08	3.5	636
	10	7 / 1.35	4.05	1.0	1.8	21.4	1.83	3.5	820
6	1.5	7 / 0.53	1.59	0.8	1.8	14.8	12.1	3.5	328
	2.5	7 / 0.67	2.01	0.8	1.8	16.1	7.41	3.5	412
	4	7 / 0.85	2.55	1.0	1.8	19.0	4.61	3.5	586
	6	7 / 1.04	3.12	1.0	1.8	20.8	3.08	3.5	744
	10	7 / 1.35	4.05	1.0	1.8	23.2	1.83	3.5	968
7	1.5	7 / 0.53	1.59	0.8	1.8	14.8	12.1	3.5	349
	2.5	7 / 0.67	2.01	0.8	1.8	16.1	7.41	3.5	442
	4	7 / 0.85	2.55	1.0	1.8	19.0	4.61	3.5	633
	6	7 / 1.04	3.12	1.0	1.8	20.8	3.08	3.5	810
	10	7 / 1.35	4.05	1.0	1.8	23.2	1.83	3.5	1,072
8	1.5	7 / 0.53	1.59	0.8	1.8	15.8	12.1	3.5	392
	2.5	7 / 0.67	2.01	0.8	1.8	17.3	7.41	3.5	498
	4	7 / 0.85	2.55	1.0	1.8	20.5	4.61	3.5	718
	6	7 / 1.04	3.12	1.0	1.8	21.7	3.08	3.5	919
	10	7 / 1.35	4.05	1.0	1.8	24.5	1.83	3.5	1,224
10	1.5	7 / 0.53	1.59	0.8	1.8	18.2	12.1	3.5	488
	2.5	7 / 0.67	2.01	0.8	1.8	19.9	7.41	3.5	622
	4	7 / 0.85	2.55	1.0	1.8	23.8	4.61	3.5	902
	6	7 / 1.04	3.12	1.0	1.8	22.4	3.08	3.5	1,159
	10	7 / 1.35	4.05	1.0	1.8	29.6	1.83	3.5	1,552
12	1.5	7 / 0.53	1.59	0.8	1.8	18.7	12.1	3.5	542
	2.5	7 / 0.67	2.01	0.8	1.8	20.5	7.41	3.5	697
	4	7 / 0.85	2.55	1.0	1.8	24.6	4.61	3.5	1,018
	6	7 / 1.04	3.12	1.0	1.8	27.0	3.08	3.5	1,316
	10	7 / 1.35	4.05	1.0	1.8	30.5	1.83	3.5	1,789
15	1.5	7 / 0.53	1.59	0.8	1.8	20.0	12.1	3.5	637
	2.5	7 / 0.67	2.01	0.8	1.8	22.1	7.41	3.5	827
	4	7 / 0.85	2.55	1.0	1.8	26.4	4.61	3.5	1,216
	6	7 / 1.04	3.12	1.0	1.8	29.1	3.08	3.5	1,582
	10	7 / 1.35	4.05	1.0	1.8	35.6	1.83	3.5	2,244
20	1.5	7 / 0.53	1.59	0.8	1.8	22.1	12.1	3.5	796
	2.5	7 / 0.67	2.01	0.8	1.8	24.5	7.41	3.5	1,041
	4	7 / 0.85	2.55	1.0	1.8	29.5	4.61	3.5	1,547
	6	7 / 1.04	3.12	1.0	1.8	32.5	3.08	3.5	2,026
	10	7 / 1.35	4.05	1.0	1.8	35.6	1.83	3.5	2,244
30	1.5	7 / 0.53	1.59	0.8	1.8	26.3	12.1	3.5	1,122
	2.5	7 / 0.67	2.01	0.8	1.8	28.2	7.41	3.5	1,482
	4	7 / 0.85	2.55	1.0	1.9	35.6	4.61	3.5	2,244
	6	7 / 1.04	3.12	1.0	1.9	35.6	4.61	3.5	2,244
	10	7 / 1.35	4.05	1.0	1.9	35.6	4.61	3.5	2,244

0.6/1kV CWSB : PVC insulated, copper wire braid shielded and PVC sheathed control cable
0.6/1kV TFR-CWSB : FR-PVC insulated, copper wire braid shielded and FR-PVC sheathed control cable in tray use

KS C IEC 60502-1, JSC standard

No. of Core	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20 °C	Test Voltage	Approx. Weight
	Nominal Sectional Area	No. of Wire / Wire Diameter	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km
2	1.5	7 / 0.53	1.59	0.8	1.8	11.7	12.1	3.5	180
	2.5	7 / 0.67	2.01	0.8	1.8	12.6	7.41	3.5	212
	4	7 / 0.85	2.55	1.0	1.8	14.5	4.61	3.5	285
	6	7 / 1.04	3.12	1.0	1.8	15.8	3.08	3.5	317
	10	7 / 1.35	4.05	1.0	1.8	16.9	1.83	3.5	465
3	1.5	7 / 0.53	1.59	0.8	1.8	12.3	12.1	3.5	212
	2.5	7 / 0.67	2.01	0.8	1.8	13.2	7.41	3.5	253
	4	7 / 0.85	2.55	1.0	1.8	15.4	4.61	3.5	355
	6	7 / 1.04	3.12	1.0	1.8	16.6	3.08	3.5	399
	10	7 / 1.35	4.05	1.0	1.8	17.9	1.83	3.5	592
4	1.5	7 / 0.53	1.59	0.8	1.8	13.1	12.1	3.5	250
	2.5	7 / 0.67	2.01	0.8	1.8	14.2	7.41	3.5	303
	4	7 / 0.85	2.55	1.0	1.8	16.6	4.61	3.5	429
	6	7 / 1.04	3.12	1.0	1.8	18.0	3.08	3.5	492
	10	7 / 1.35	4.05	1.0	1.8	19.5	1.83	3.5	737
5	1.5	7 / 0.53	1.59	0.8	1.8	14.1	12.1	3.5	291
	2.5	7 / 0.67	2.01	0.8	1.8	15.4	7.41	3.5	361
	4	7 / 0.85	2.55	1.0	1.8	17.7	4.61	3.5	504
	6	7 / 1.04	3.12	1.0	1.8	19.6	3.08	3.5	591
	10	7 / 1.35	4.05	1.0	1.8	21.4	1.83	3.5	889
6	1.5	7 / 0.53	1.59	0.8	1.8	15.1	12.1	3.5	333
	2.5	7 / 0.67	2.01	0.8	1.8	16.5	7.41	3.5	416
	4	7 / 0.85	2.55	1.0	1.8	19.4	4.61	3.5	590
	6	7 / 1.04	3.12	1.0	1.8	21.2	3.08	3.5	693
	10	7 / 1.35	4.05	1.0	1.8	23.2	1.83	3.5	1054
7	1.5	7 / 0.53	1.59	0.8	1.8	15.1	12.1	3.5	355
	2.5	7 / 0.67	2.01	0.8	1.8	16.5	7.41	3.5	446
	4	7 / 0.85	2.55	1.0	1.8	19.4	4.61	3.5	637
	6	7 / 1.04	3.12	1.0	1.8	21.2	3.08	3.5	759
	10	7 / 1.35	4.05	1.0	1.8	23.2	1.83	3.5	1,158
8	1.5	7 / 0.53	1.59	0.8	1.8	16.2	12.1	3.5	406
	2.5	7 / 0.67	2.01	0.8	1.8	17.7	7.41	3.5	502
	4	7 / 0.85	2.55	1.0	1.8	20.9	4.61	3.5	722
	6	7 / 1.04	3.12	1.0	1.8	22.9	3.08	3.5	865
	10	7 / 1.35	4.05	1.0	1.8	25.2	1.83	3.5	1,319
10	1.5	7 / 0.53	1.59	0.8	1.8	18.6	12.1	3.5	504
	2.5	7 / 0.67	2.01	0.8	1.8	20.3	7.41	3.5	626
	4	7 / 0.85	2.55	1.0	1.8	24.3	4.61	3.5	916
	6	7 / 1.04	3.12	1.0	1.8	26.7	3.08	3.5	1,092
	10	7 / 1.35	4.05	1.0	1.8	29.6	1.83	3.5	1,666
12	1.5	7 / 0.53	1.59	0.8	1.8	19.1	12.1	3.5	560
	2.5	7 / 0.67	2.01	0.8	1.8	21.0	7.41	3.5	701
	4	7 / 0.85	2.55	1.0	1.8	25.1	4.61	3.5	1,033
	6	7 / 1.04	3.12	1.0	1.8	27.5	3.08	3.5	1,247
	10	7 / 1.35	4.05	1.0	1.8	30.5	1.83	3.5	1,921
15	1.5	7 / 0.53	1.59	0.8	1.8	20.4	12.1	3.5	659
	2.5	7 / 0.67	2.01	0.8	1.8	22.7	7.41	3.5	841
	4	7 / 0.85	2.55	1.0	1.8	26.9	4.61	3.5	1,231
	6	7 / 1.04	3.12	1.0	1.8	29.6	3.08	3.5	1,505
	10	7 / 1.35	4.05	1.0	1.8	35.6	1.83	3.5	2,244
20	1.5	7 / 0.53	1.59	0.8	1.8	22.7	12.1	3.5	834
	2.5	7 / 0.67	2.01	0.8	1.8	25.0	7.41	3.5	1,056
	4	7 / 0.85	2.55	1.0	1.8	30.0	4.61	3.5	1,564
	6	7 / 1.04	3.12	1.0	1.8	33.1	3.08	3.5	1,942
	10	7 / 1.35	4.05	1.0	1.8	35.6	1.83	3.5	2,244
30	1.5	7 / 0.53	1.59	0.8	1.8	26.8	12.1	3.5	1,174
	2.5	7 / 0.67	2.01	0.8	1.8	29.7	7.41	3.5	1,499
	4	7 / 0.85	2.55	1.0	1.9	36.2	4.61	3.5	2,280
	6	7 / 1.04	3.12	1.0	1.9	36.2	4.61	3.5	2,280
	10	7 / 1.35	4.05	1.0	1.9	36.2	4.61	3.5	2,280

0.6/1kV CVWAMS : PVC insulated, Aluminum mylar tape collective shielded and PVC sheathed control cable

0.6/1kV TFR-CVWAMS : FR-PVC insulated, Aluminum mylar tape collective shielded and FR-PVC sheathed control cable in tray use

KS C IEC 60502-1, JSC standard

No. of Core	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20℃	Test Voltage	Approx. Weight
	Nominal Sectional Area	No. of Wire / Wire Diameter	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km
2	1.5	7/0.53	1.59	0.8	1.8	11.3	12.1	3.5	159
	2.5	7/0.67	2.01	0.8	1.8	12.2	7.41	3.5	192
	4	7/0.85	2.55	1.0	1.8	14.1	4.61	3.5	259
	6	7/1.04	3.12	1.0	1.8	15.3	3.08	3.5	319
3	10	7/1.35	4.05	1.0	1.8	16.8	1.83	3.5	431
	1.5	7/0.53	1.59	0.8	1.8	11.8	12.1	3.5	188
	2.5	7/0.67	2.01	0.8	1.8	12.8	7.41	3.5	231
	4	7/0.85	2.55	1.0	1.8	14.9	4.61	3.5	321
4	6	7/1.04	3.12	1.0	1.8	16.1	3.08	3.5	401
	10	7/1.35	4.05	1.0	1.8	17.8	1.83	3.5	556
	1.5	7/0.53	1.59	0.8	1.8	12.7	12.1	3.5	223
	2.5	7/0.67	2.01	0.8	1.8	13.8	7.41	3.5	278
5	4	7/0.85	2.55	1.0	1.8	16.1	4.61	3.5	391
	6	7/1.04	3.12	1.0	1.8	17.5	3.08	3.5	494
	10	7/1.35	4.05	1.0	1.8	19.4	1.83	3.5	695
	1.5	7/0.53	1.59	0.8	1.8	13.7	12.1	3.5	261
6	2.5	7/0.67	2.01	0.8	1.8	14.9	7.41	3.5	327
	4	7/0.85	2.55	1.0	1.8	17.2	4.61	3.5	466
	6	7/1.04	3.12	1.0	1.8	19.1	3.08	3.5	593
	10	7/1.35	4.05	1.0	1.8	21.3	1.83	3.5	841
7	1.5	7/0.53	1.59	0.8	1.8	14.7	12.1	3.5	299
	2.5	7/0.67	2.01	0.8	1.8	16.0	7.41	3.5	378
	4	7/0.85	2.55	1.0	1.8	18.9	4.61	3.5	543
	6	7/1.04	3.12	1.0	1.8	20.7	3.08	3.5	695
8	10	7/1.35	4.05	1.0	1.8	23.1	1.83	3.5	991
	1.5	7/0.53	1.59	0.8	1.8	14.7	12.1	3.5	320
	2.5	7/0.67	2.01	0.8	1.8	16.0	7.41	3.5	408
	4	7/0.85	2.55	1.0	1.8	18.9	4.61	3.5	590
9	6	7/1.04	3.12	1.0	1.8	20.7	3.08	3.5	762
	10	7/1.35	4.05	1.0	1.8	23.1	1.83	3.5	1,095
	1.5	7/0.53	1.59	0.8	1.8	15.7	12.1	3.5	360
	2.5	7/0.67	2.01	0.8	1.8	17.2	7.41	3.5	461
10	4	7/0.85	2.55	1.0	1.8	20.4	4.61	3.5	670
	6	7/1.04	3.12	1.0	1.8	26.1	3.08	3.5	866
	10	7/1.35	4.05	1.0	1.8	25.1	1.83	3.5	1,249
	1.5	7/0.53	1.59	0.8	1.8	18.1	12.1	3.5	448
11	2.5	7/0.67	2.01	0.8	1.8	19.8	7.41	3.5	576
	4	7/0.85	2.55	1.0	1.8	23.7	4.61	3.5	843
	6	7/1.04	3.12	1.0	1.8	22.3	3.08	3.5	1,093
	10	7/1.35	4.05	1.0	1.8	29.5	1.83	3.5	1,580
12	1.5	7/0.53	1.59	0.8	1.8	18.6	12.1	3.5	500
	2.5	7/0.67	2.01	0.8	1.8	20.4	7.41	3.5	649
	4	7/0.85	2.55	1.0	1.8	24.5	4.61	3.5	957
	6	7/1.04	3.12	1.0	1.8	26.9	3.08	3.5	1,248
13	10	7/1.35	4.05	1.0	1.8	30.4	1.83	3.5	1,818
	1.5	7/0.53	1.59	0.8	1.8	19.9	12.1	3.5	591
	2.5	7/0.67	2.01	0.8	1.8	22.0	7.41	3.5	773
	4	7/0.85	2.55	1.0	1.8	26.3	4.61	3.5	1,149
14	6	7/1.04	3.12	1.0	1.8	29.0	3.08	3.5	1,506
	1.5	7/0.53	1.59	0.8	1.8	22.0	12.1	3.5	743
	2.5	7/0.67	2.01	0.8	1.8	24.4	7.41	3.5	981
	4	7/0.85	2.55	1.0	1.8	29.4	4.61	3.5	1,471
15	6	7/1.04	3.12	1.0	1.8	32.4	3.08	3.5	1,940
	1.5	7/0.53	1.59	0.8	1.8	26.2	12.1	3.5	1,056
	2.5	7/0.67	2.01	0.8	1.8	28.1	7.41	3.5	1,407
	4	7/0.85	2.55	1.0	1.9	35.5	4.61	3.5	2,148

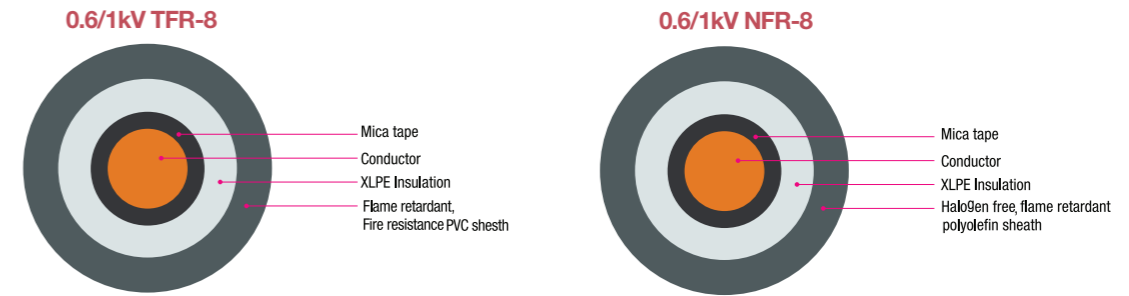
0.6/1kV CVW-I/C AMS : PVC insulated, Aluminum mylar tape individual & collective shielded and PVC sheathed control cable

0.6/1kV TFR-CVW-I/C AMS : FR-PVC insulated, Aluminum mylar tape individual & collective shielded and FR-PVC sheathed control cable in tray use

KS C IEC 60502-1 JSC standard

No. of Pair / Triad	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20℃	Test Voltage	Approx. Weight
	Nominal Sectional Area	No. of Wire / Wire Diameter	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km
Pair									
1 P	1.5	7/0.53	1.59	0.8	1.8	11.5	12.1	3.5	145
2 P	1.5	7/0.53	1.59	0.8	1.8	16.5	12.1	3.5	265
3 P	1.5	7/0.53	1.59	0.8	1.8	18.5	12.1	3.5	351
4 P	1.5	7/0.53	1.59	0.8	1.8	20.5	12.1	3.5	426
5 P	1.5	7/0.53	1.59	0.8	1.8	22.5	12.1	3.5	502
10 P	1.5	7/0.53	1.59	0.8	1.9	28.4	12.1	3.5	899
20 P	1.5	7/0.53	1.59	0.8	2.3	39.6	12.1	3.5	1,952
1 P	2.5	7/0.85	2.55	0.8	1.8	12.5	7.41	3.5	179
2 P	2.5	7/0.85	2.55	0.8	1.8	17.2	7.41	3.5	325
3 P	2.5	7/0.85	2.55	0.8	1.8	20.5	7.41	3.5	436
4 P	2.5	7/0.85	2.55	0.8	1.8	22.4	7.41	3.5	530
5 P	2.5	7/0.85	2.55	0.8	1.8	24.3	7.41	3.5	635
10 P	2.5	7/0.85	2.55	0.8	1.9	31.3	7.41	3.5	1,150
20 P	2.5	7/0.85	2.55	0.8	2.4	43.5	7.41	3.5	2,158
Triad									
1 T	1.5	7/0.53	1.59	0.8	1.8	12.0	12.1	3.5	172
2 T	1.5	7/0.53	1.59	0.8	1.8	19.5	12.1	3.5	362
3 T	1.5	7/0.53	1.59	0.8	1.8	20.5	12.1	3.5	448
4 T	1.5	7/0.53	1.59	0.8	1.8	22.5	12.1	3.5	553
5 T	1.5	7/0.53	1.59	0.8	1.8	24.5	12.1	3.5	662
10 T	1.5	7/0.53	1.59	0.8	2.0	34.5	12.1	3.5	1,232
1 T	2.5	7/0.85	2.55	0.8	1.8	12.8	7.41	3.5	222
2 T	2.5	7/0.85	2.55	0.8	1.8	20.5	7.41	3.5	428
3 T	2.5	7/0.85	2.55	0.8	1.8	21.5	7.41	3.5	550
4 T	2.5	7/0.85	2.55	0.8	1.8	23.2	7.41	3.5	675
5 T	2.5	7/0.85	2.55	0.8	1.8	25.6	7.41	3.5	826
10 T	2.5	7/0.85	2.55	0.8	2.1	35.6	7.41	3.5	1,578

Fire Proof Cables



0.6/1kV TFR-8 : XLPE insulated FR-PVC sheathed flame retardant & fire resistance cable in tray use

0.6/1kV NFR-8 : XLPE insulated and halogen free polyolefin sheathed flame retardant & fire resistance cable

KS C IEC 60502-1, JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

Single Core

1.5	7 / 0.53	1.59	0.7	1.4	7.17	12.1	3.5	45
2.5	7 / 0.67	2.01	0.7	1.4	7.59	7.41	3.5	48
4	7 / 0.85	2.55	0.7	1.4	8.13	4.61	3.5	53
6	7 / 1.04	3.12	0.7	1.4	8.70	3.08	3.5	58
10	7 / 1.35	4.05	0.7	1.4	9.63	1.83	3.5	66
16	CC	4.7	0.7	1.4	10.38	1.15	3.5	73
25	CC	5.9	0.9	1.4	12.08	0.727	3.5	92
35	CC	6.9	0.9	1.4	13.18	0.524	3.5	102
50	CC	8.1	1.0	1.4	14.48	0.387	3.5	117
70	CC	9.8	1.1	1.5	16.68	0.268	3.5	148
95	CC	11.4	1.1	1.6	18.68	0.193	3.5	176
120	CC	12.9	1.2	1.6	20.28	0.153	3.5	198
150	CC	14.4	1.4	1.7	22.48	0.124	3.5	240
185	CC	15.9	1.6	1.7	24.43	0.0991	3.5	274
240	CC	18.3	1.7	1.8	27.33	0.0754	3.5	328
300	CC	20.5	1.8	1.9	29.78	0.0601	3.5	379
400	CC	23.2	2.0	2.0	33.08	0.0470	3.5	453
500	CC	26.4	2.2	2.2	37.28	0.0366	3.5	563
630	CC	30.2	2.4	2.3	41.68	0.0283	3.5	673

2 Cores

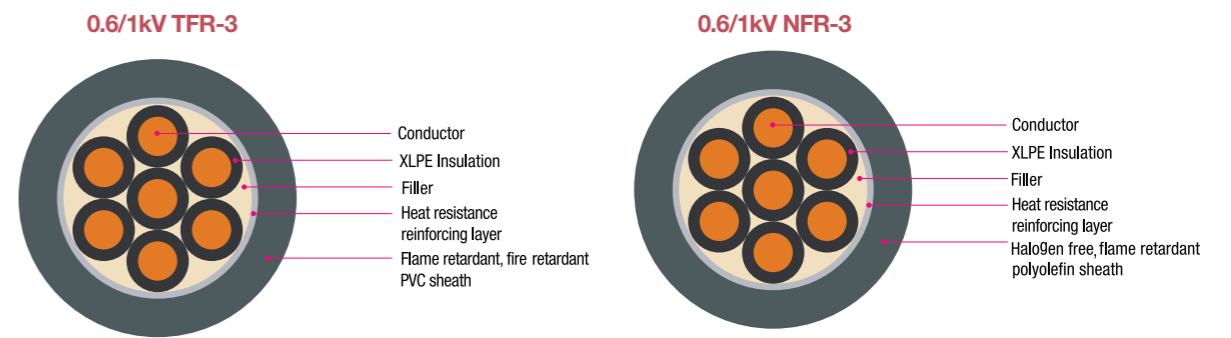
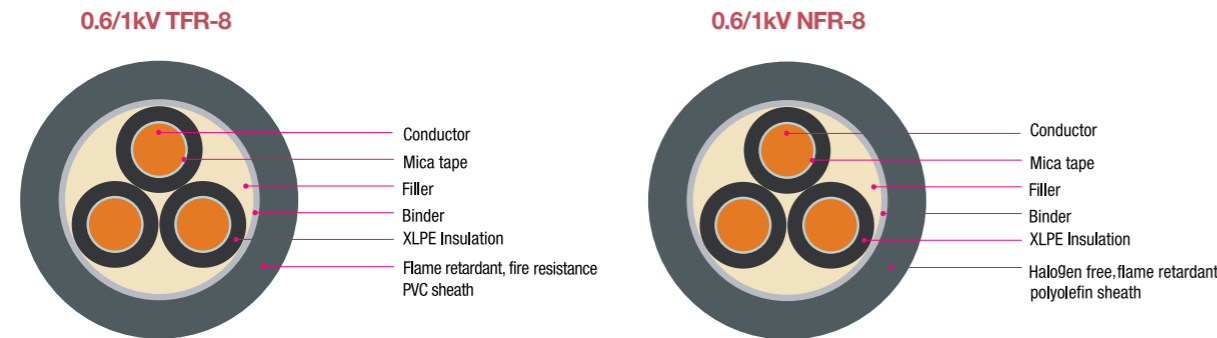
1.5	7 / 0.53	1.59	0.7	1.8	13.00	12.1	3.5	181
2.5	7 / 0.67	2.01	0.7	1.8	13.85	7.41	3.5	213
4	7 / 0.85	2.55	0.7	1.8	14.95	4.61	3.5	261
6	7 / 1.04	3.12	0.7	1.8	16.05	3.08	3.5	318
10	7 / 1.35	4.05	0.7	1.8	17.95	1.83	3.5	429
16	CC	4.7	0.7	1.8	19.45	1.15	3.5	574
25	CC	5.9	0.9	1.8	22.85	0.727	3.5	820
35	CC	6.9	0.9	1.8	25.05	0.524	3.5	1,047
50	CC	8.1	1.0	1.8	27.65	0.387	3.5	1,344
70	CC	9.8	1.1	2.0	32.05	0.268	3.5	1,863
95	CC	11.4	1.1	2.1	35.85	0.193	3.5	2,455
120	CC	12.9	1.2	2.2	39.25	0.153	3.5	3,053
150	CC	14.4	1.4	2.3	43.45	0.124	3.5	3,694
185	CC	15.9	1.6	2.5	47.75	0.0991	3.5	4,548
240	CC	18.3	1.7	2.7	53.55	0.0754	3.5	5,902
300	CC	20.5	1.8	2.8	58.25	0.0601	3.5	7,259

* C.C : Circular compacted stranded conductor

Fire Proof Cables

» Fire Proof Cables

- 0.6/1kV TFR-8 : XLPE insulated FR-PVC sheathed flame retardant & fire resistance cable in tray use
- 0.6/1kV NFR-8 : XLPE insulated and halogen free polyolefin sheathed flame retardant & fire resistance cable
- 0.6/1kV TFR-8 : XLPE insulated FR-PVC sheathed flame retardant & fire resistance cable in tray use
- 0.6/1kV NFR-8 : XLPE insulated and halogen free polyolefin sheathed flame retardant & fire resistance cable
- 0.6/1kV TFR-3 : XLPE insulated FR-PVC sheathed flame retardant & heat resistance cable in tray use
- 0.6/1kV NFR-3 : XLPE insulated and halogen free polyolefin sheathed flame retardant & heat resistance cable
- 0.6/1kV TFR-3 : XLPE insulated FR-PVC sheathed flame retardant & heat resistance cable in tray use
- 0.6/1kV NFR-3 : XLPE insulated and halogen free polyolefin sheathed flame retardant & heat resistance cable



0.6/1kV TFR-8 : XLPE insulated FR-PVC sheathed flame retardant & fire resistance cable in tray use

0.6/1kV NFR-8 : XLPE insulated and halogen free polyolefin sheathed flame retardant & fire resistance cable

KS C IEC 60502-1, JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

3 Cores

1.5	7 / 0.53	1.59	0.7	1.8	13.65	12.1	3.5	211
2.5	7 / 0.67	2.01	0.7	1.8	14.55	7.41	3.5	253
4	7 / 0.85	2.55	0.7	1.8	15.70	4.61	3.5	316
6	7 / 1.04	3.12	0.7	1.8	16.90	3.08	3.5	393
10	7 / 1.35	4.05	0.7	1.8	18.95	1.83	3.5	544
16	CC	4.7	0.7	1.8	20.55	1.15	3.5	748
25	CC	5.9	0.9	1.8	24.20	0.727	3.5	1,087
35	CC	6.9	0.9	1.8	26.60	0.524	3.5	1,405
50	CC	8.1	1.0	1.9	29.60	0.387	3.5	1,837
70	CC	9.8	1.1	2.0	34.10	0.268	3.5	2,543
95	CC	11.4	1.1	2.2	38.35	0.193	3.5	3,395
120	CC	12.9	1.2	2.3	42.00	0.153	3.5	4,240
150	CC	14.4	1.4	2.4	46.55	0.124	3.5	5,137
185	CC	15.9	1.6	2.6	51.15	0.0991	3.5	6,337
240	CC	18.3	1.7	2.8	57.35	0.0754	3.5	8,251
300	CC	20.5	1.8	3.0	62.60	0.0601	3.5	10,218

4 Cores

1.5	7 / 0.53	1.59	0.7	1.8	14.65	12.1	3.5	247
2.5	7 / 0.67	2.01	0.7	1.8	15.65	7.41	3.5	300
4	7 / 0.85	2.55	0.7	1.8	16.95	4.61	3.5	381
6	7 / 1.04	3.12	0.7	1.8	18.35	3.08	3.5	481
10	7 / 1.35	4.05	0.7	1.8	20.60	1.83	3.5	675
16	CC	4.7	0.7	1.8	22.40	1.15	3.5	942
25	CC	5.9	0.9	1.8	26.50	0.727	3.5	1,381
35	CC	6.9	0.9	1.9	29.25	0.524	3.5	1,809
50	CC	8.1	1.0	2.0	32.70	0.387	3.5	2,373
70	CC	9.8	1.1	2.2	37.95	0.268	3.5	3,314
95	CC	11.4	1.1	2.3	42.45	0.193	3.5	4,409
120	CC	12.9	1.2	2.4	46.55	0.153	3.5	5,517
150	CC	14.4	1.4	2.6	51.75	0.124	3.5	6,708
185	CC	15.9	1.6	2.8	56.85	0.0991	3.5	8,277
240	CC	18.3	1.7	3.0	63.80	0.0754	3.5	10,790
300	CC	20.5	1.8	3.2	69.60	0.0601	3.5	13,371

* C.C : Circular compacted stranded conductor

0.6/1kV TFR-3 : XLPE insulated FR-PVC sheathed flame retardant & heat resistance cable in tray use

0.6/1kV NFR-3 : XLPE insulated and halogen free polyolefin sheathed flame retardant & heat resistance cable

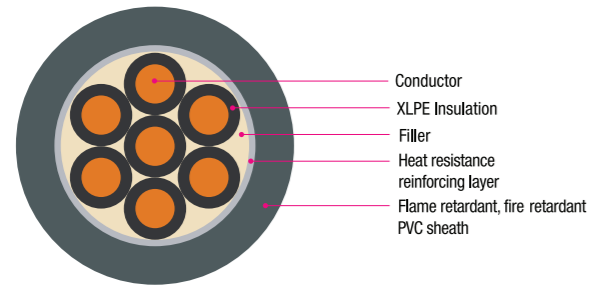
KS C IEC 60502-1, JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

Solid (Class 1)

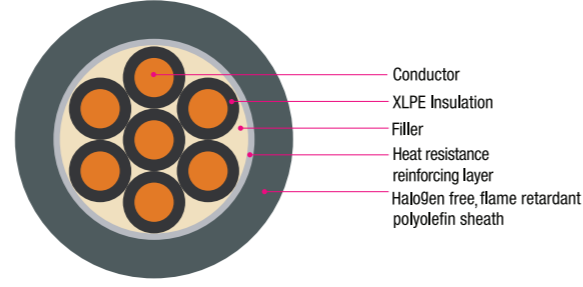
2	1.5	1 / 1.38	1.38	0.7	1.8	11.0	12.1	3.5	162
	2.5	1 / 1.78	1.78	0.7	1.8	11.5	7.41	3.5	194
3	4	1 / 2.25	2.25	0.7	1.8	12.5	4.61	3.5	238
	1.5	1 / 1.38	1.38	0.7	1.8	11.5	12.1	3.5	185
4	2.5	1 / 1.78	1.78	0.7	1.8	12.0	7.41	3.5	227
	4	1 / 2.25	2.25	0.7	1.8	13.0	4.61	3.5	286
5	1.5	1 / 1.38	1.38	0.7	1.8	13.5	12.1	3.5	244
	2.5	1 / 1.78	1.78	0.7	1.8	14.0	7.41	3.5	311
6	4	1 / 2.25	2.25	0.7	1.8	15.0	4.61	3.5	403
	1.5	1 / 1.38	1.38	0.7	1.8	13.5	12.1	3.5	276
7	2.5	1 / 1.78	1.78	0.7	1.8	15.0	7.41	3.5	354
	4	1 / 2.25	2.25	0.7	1.8	16.0	4.61	3.5	464
8	1.5	1 / 1.38	1.38	0.7	1.8	13.5	12.1	3.5	291
	2.5	1 / 1.78	1.78	0.7	1.8	15.0	7.41	3.5	378
10	4	1 / 2.25	2.25	0.7	1.8	16.0	4.61	3.5	500
	1.5	1 / 1.38	1.38	0.7	1.8	14.5	12.1	3.5	325
12	2.5	1 / 1.78	1.78	0.7	1.8	16.0	7.41	3.5	423
	4	1 / 2.25	2.25	0.7	1.8	17.5	4.61	3.5	563
15	1.5	1 / 1.38	1.38	0.7	1.8	16.5	12.1	3.5	398
	2.5	1 / 1.78	1.78	0.7	1.8	18.0	7.41	3.5	524
20	4	1 / 2.25	2.25	0.7	1.8	20.0	4.61	3.5	701
	1.5	1 / 1.38	1.38	0.7	1.8	17.0	12.1	3.5	438
30	2.5	1 / 1.78	1.78	0.7	1.8	18.5	7.41	3.5	583
	4	1 / 2.25	2.25	0.7	1.8	21.0	4.61	3.5	789
40	1.5	1 / 1.38	1.38	0.7	1.8	18.0	12.1	3.5	528
	2.5	1 / 1.78	1.78	0.7	1.8	20.0	7.41	3.5	656
50	4	1 / 2.25	2.25	0.7	1.8	22.0	4.61	3.5	939
	1.5	1 / 1.38	1.38	0.7	1.8	20.0	12.1	3.5	700
60	2.5	1 / 1.78	1.78	0.7	1.8	22.0	7.41	3.5	858
	4	1 / 2.25	2.25	0.7	1.8	25.0	4.61	3.5	1,188
70	1.5	1 / 1.38	1.38	0.7	1.8	24.0	12.1	3.5	955
	2.5	1 / 1.78	1.78	0.7	1.8	26.0	7.41	3.5	1,211
80	4	1 / 2.25	2.25	0.7	1.8	29.0	4.61	3.5	1,698

0.6/1kV TFR-3



- Conductor
- XLPE Insulation
- Filler
- Heat resistance reinforcing layer
- Flame retardant, fire retardant PVC sheath

0.6/1kV NFR-3



- Conductor
- XLPE Insulation
- Filler
- Heat resistance reinforcing layer
- Halogen free, flame retardant polyolefin sheath

0.6/1kV TFR-3 : XLPE insulated FR-PVC sheathed flame retardant & heat resistance cable in tray use

0.6/1kV NFR-3 : XLPE insulated and halogen free polyolefin sheathed flame retardant & heat resistance cable

KS C IEC 60502-1, JSC standard

Nominal Sectional Area	Conductor		Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Resistance of Conductor at 20°C	Test Voltage	Approx. Weight
	No. of Wire/ Wire Diameter	Approx. Outer Diameter						
mm ²	No./mm	mm	mm	mm	mm	Ω/km	kV	kg/km

Strand (Class 2)

2	1.5	7 / 0.53	1.59	0.7	1.8	11.9	12.1	3.5	170
	2.5	7 / 0.67	2.01	0.7	1.8	12.8	7.41	3.5	202
	4	7 / 8.85	2.55	0.7	1.8	13.9	4.61	3.5	249
3	1.5	7 / 0.53	1.59	0.7	1.8	12.4	12.1	3.5	195
	2.5	7 / 0.67	2.01	0.7	1.8	13.4	7.41	3.5	236
	4	7 / 8.85	2.55	0.7	1.8	14.5	4.61	3.5	299
4	1.5	7 / 0.53	1.59	0.7	1.8	13.3	12.1	3.5	225
	2.5	7 / 0.67	2.01	0.7	1.8	14.3	7.41	3.5	278
	4	7 / 8.85	2.55	0.7	1.8	15.6	4.61	3.5	357
5	1.5	7 / 0.53	1.59	0.7	1.8	14.1	12.1	3.5	257
	2.5	7 / 0.67	2.01	0.7	1.8	15.3	7.41	3.5	322
	4	7 / 8.85	2.55	0.7	1.8	16.8	4.61	3.5	419
6	1.5	7 / 0.53	1.59	0.7	1.8	15.1	12.1	3.5	292
	2.5	7 / 0.67	2.01	0.7	1.8	16.4	7.41	3.5	368
	4	7 / 8.85	2.55	0.7	1.8	18.0	4.61	3.5	482
7	1.5	7 / 0.53	1.59	0.7	1.8	16.1	12.1	3.5	307
	2.5	7 / 0.67	2.01	0.7	1.8	16.4	7.41	3.5	391
	4	7 / 8.85	2.55	0.7	1.8	18.0	4.61	3.5	519
8	1.5	7 / 0.53	1.59	0.7	1.8	16.1	12.1	3.5	343
	2.5	7 / 0.67	2.01	0.7	1.8	17.4	7.41	3.5	438
	4	7 / 8.85	2.55	0.7	1.8	19.3	4.61	3.5	585
10	1.5	7 / 0.53	1.59	0.7	1.8	18.3	12.1	3.5	422
	2.5	7 / 0.67	2.01	0.7	1.8	19.9	7.41	3.5	543
	4	7 / 8.85	2.55	0.7	1.8	22.1	4.61	3.5	729
12	1.5	7 / 0.53	1.59	0.7	1.8	18.7	12.1	3.5	463
	2.5	7 / 0.67	2.01	0.7	1.8	20.4	7.41	3.5	602
	4	7 / 8.85	2.55	0.7	1.8	22.8	4.61	3.5	819
15	1.5	7 / 0.53	1.59	0.7	1.8	20.0	12.1	3.5	539
	2.5	7 / 0.67	2.01	0.7	1.8	21.9	7.41	3.5	709
	4	7 / 8.85	2.55	0.7	1.8	24.4	4.61	3.5	972
20	1.5	7 / 0.53	1.59	0.7	1.8	21.9	12.1	3.5	664
	2.5	7 / 0.67	2.01	0.7	1.8	24.2	7.41	3.5	885
	4	7 / 8.85	2.55	0.7	1.8	27.0	4.61	3.5	1,228
30	1.5	7 / 0.53	1.59	0.7	1.8	25.9	12.1	3.5	922
	2.5	7 / 0.67	2.01	0.7	1.8	28.6	7.41	3.5	1,248
	4	7 / 8.85	2.55	0.7	1.8	32.1	4.61	3.5	1,753



Elevators Cables

» Traveling Cables for Elevators

- 300V EVVF-L : 300V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)
- 300V EVVF-H : 300V PVC Insulated & Sheathed flat type cable for elevators (with reinforcing wire)
- 600V EVVF-L : 600V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)
- 600V EVVF-H : 600V PVC Insulated & Sheathed flat type cable for elevators (with reinforcing wire)
- 300V EVVF-L : 300V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)
- 600V EVVF-H, 600V EVVF-L : 600V PVC Insulated & Sheathed flat type cable for elevators
- 600V EVVF-H, 600V EVVF-L : 600V PVC Insulated & Sheathed flat type cable for elevators
- 600V EVVF-H, 600V EVVF-L : 600V PVC Insulated & Sheathed flat type cable for elevators
- 300V EVVF-L : 300V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)

» Fixed Cable for Elevators

- 300V EV(E) Cable

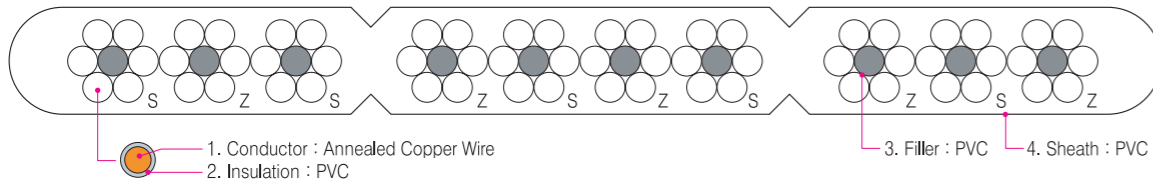
Traveling Cables for Elevators

300V EVVF-L

300V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter								
	mm ²	No./mm	mm	mm	mm	mm	V	Ωkm	Ωkm	kg/km	m
30(5 x 6)	0.75	30/0.18	1.1	0.5	1.3	9.0 x 43.0	1,000	20	25.6	610	500
40(5 x 8)	0.75	30/0.18	1.1	0.5	1.3	9.0 x 56.0	1,000	20	25.6	840	500
60(6 x 10)	0.75	30/0.18	1.1	0.5	1.4	9.2 x 73.0	1,500	20	25.6	1,145	500

Construction

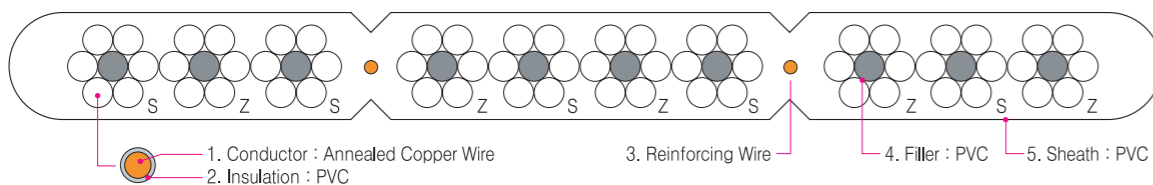


300V EVVF-H

300V PVC Insulated & Sheathed flat type cable for elevators (with reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Reinforcing Wire		Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter		No. of Cores	Diameter							
	mm ²	No./mm	mm	mm	mm	mm	mm	mm	V	Ωkm	Ωkm	kg/km	m
30(5 x 6)	0.75	30/0.18	1.1	0.5	2	2	1.3	9.0 x 46.0	1,000	20	25.6	660	500
40(5 x 8)	0.75	30/0.18	1.1	0.5	2	2	1.3	9.0 x 61.0	1,000	20	25.6	940	500
60(6 x 10)	0.75	30/0.18	1.1	0.5	2	2	1.4	9.2 x 83.0	1,500	20	25.6	1,294	500

Construction



600V EVVF-L

600V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter								
	mm ²	No./mm	mm	mm	mm	mm	V	Ωkm	Ωkm	kg/km	m
30(5 x 6)	0.75	30/0.18	1.1	0.8	1.3	10.5 x 53.0	1,500	20	25.6	780	500
40(5 x 8)	0.75	30/0.18	1.1	0.8	1.3	10.5 x 68.0	1,500	20	25.6	1,015	500

600V EVVF-H

600V PVC Insulated & Sheathed flat type cable for elevators (with reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Reinforcing Wire		Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter		No. of Cores	Diameter							
	mm ²	No./mm	mm	mm	mm	mm	mm	mm	V	Ωkm	Ωkm	kg/km	m
30(5 x 6)	0.75	30/0.18	1.1	0.8	2	2	1.3	10.5 x 58	1,500	20	25.6	885	500
40(5 x 8)	0.75	30/0.18	1.1	0.8	2	2	1.3	10.5 x 72	1,500	20	25.6	1,150	500

300V EVVF-L

300V PVC Insulated & Sheathed flat type cable for elevators (without reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter								
	mm ²	No./mm	mm	mm	mm	mm	V	Ωkm	Ωkm	kg/km	m
24C	0.75	30/0.18	1.1	0.6	1.0	4.6 x 66.0	1,000	20	25.6	515	500
20C	0.75	30/0.18	1.1	0.6	1.1	5.8 x 62.5	1,000	20	25.6	600	500
2P	0.5	20/0.18	0.93	0.38			500	100	39.0		

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600V EVVF-H, 600V EVVF-L

600V PVC Insulated & Sheathed flat type cable for elevators

No. of Cores	Conductor			Thickness of Insulation	Reinforcing Wire		Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter		No. of Cores	Diameter							
	mm ²	No./mm	mm		mm	mm							
42C	0.75	30/0.18	1.1	0.5	-	-	-	11.0x77.4	1,000	20	25.6	-	-
50C	6C	2.0	30/0.26	1.8	0.8	2	2.0	1.4	11.0x77.4	1,500	50	9.98	1,351
	1P	0.5	30/0.18	0.93	0.4	-	-	-	-	500	100	39.0	-
50C	6C	2.0	30/0.26	1.8	0.8	-	-	1.4	11.0x70.4	1,500	50	9.98	1,107
	1P	0.5	30/0.18	0.93	0.4	-	-	-	-	500	100	39.0	-

600V EVVF-H, 600V EVVF-L

600V PVC Insulated & Sheathed flat type cable for elevators

No. of Cores	Conductor			Thickness of Insulation	Reinforcing Wire		Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter		No. of Cores	Diameter							
	mm ²	No./mm	mm		mm	mm							
28C	0.75	30/0.18	1.1	0.8	-	-	-	11.0x61.1	1,000	20	25.6	-	-
35C	3C	2.0	30/0.26	1.8	0.8	2	2.0	1.4	11.0x61.1	1,500	50	9.98	1,294
	2P	0.5	30/0.18	0.93	0.4	-	-	-	-	500	100	39.0	-
28C	0.75	30/0.18	1.1	0.8	-	-	-	11.0x54.1	1,000	20	25.6	-	-
35C	3C	2.0	30/0.26	1.8	0.8	-	-	1.4	11.0x54.1	1,500	50	9.98	1,011
	2P	0.5	30/0.18	0.93	0.4	-	-	-	-	500	100	39.0	-

600V EVVF-H, 600V EVVF-L

600V PVC Insulated & Sheathed flat type cable for elevators

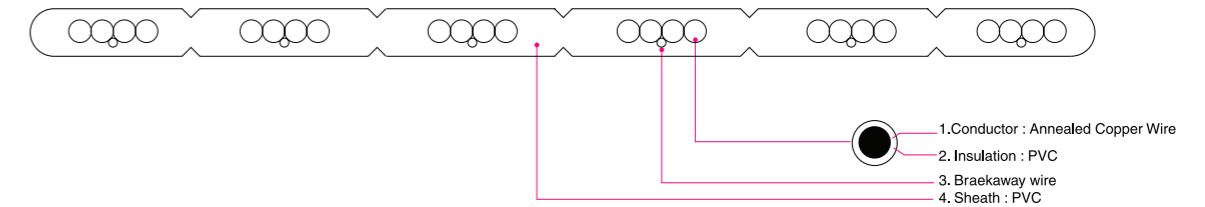
No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Reinforcing Wire		Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter			No. of Cores	Diameter						
	mm ²	No./mm	mm			No.	mm						
36C	0.75	30/0.18	1.1	0.5	-	-	-	73.4x11.0	1,000	20	25.6	-	-
44C	6C	2	37/0.26	1.8	0.8	2	2.0	1.4	73.4x11.0	1,500	50	9.98	1,351
	1P	0.5	20/0.18	0.9	0.4	-	-	-	-	500	100	39.0	-
36C	0.75	30/0.18	1.1	0.5	-	-	-	66.4x11.0	1,000	20	25.6	-	-
44C	6C	2	37/0.26	1.8	0.8	-	-	1.4	66.4x11.0	1,500	50	9.98	1,032
	1P	0.5	20/0.18	0.9	0.4	-	-	-	-	500	100	39.0	-

300V EVVF-L

300V PVC Insulated & Sheathed flat type cable for elevators(with reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter								
	mm ²	No./mm	mm								
24	0.75	30/0.18	1.1	0.6	1.00	4.6x66.0	56.6	20	1,000	515	500

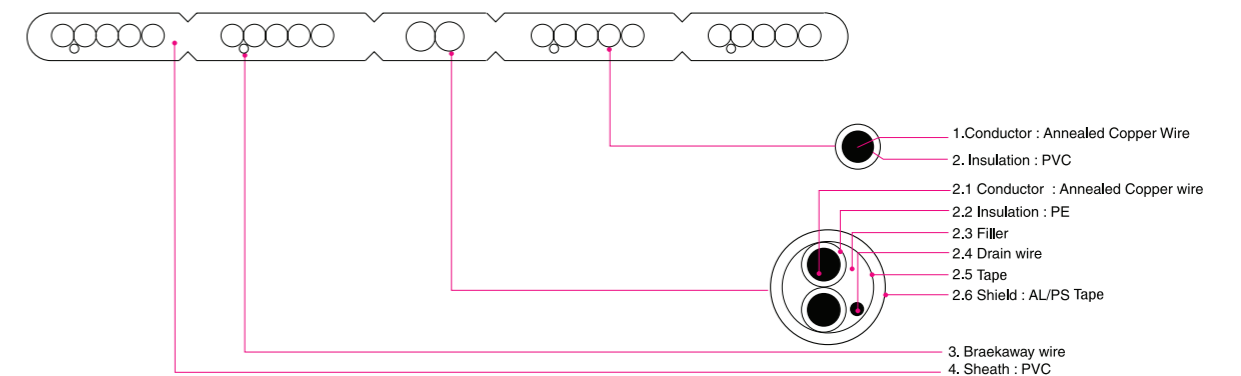
Construction



300V PVC Insulated & Sheathed flat type cable for elevators(with reinforcing wire)

No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Min. Insulation Resistance at 20°C	Max. Conductor Resistance at 20°C	Approx. Weight	Standard Length
	Nominal Sectional Area	Composition	Outer Diameter								
	mm ²	No./mm	mm								
24C	0.75	30/0.18	1.10	0.60	1.00	5.8x62.5	1,000	20	26.5	600	500
2P	0.5	20/0.18	0.93	0.38	1.00	5.8x62.5	500	100	39.0	600	500

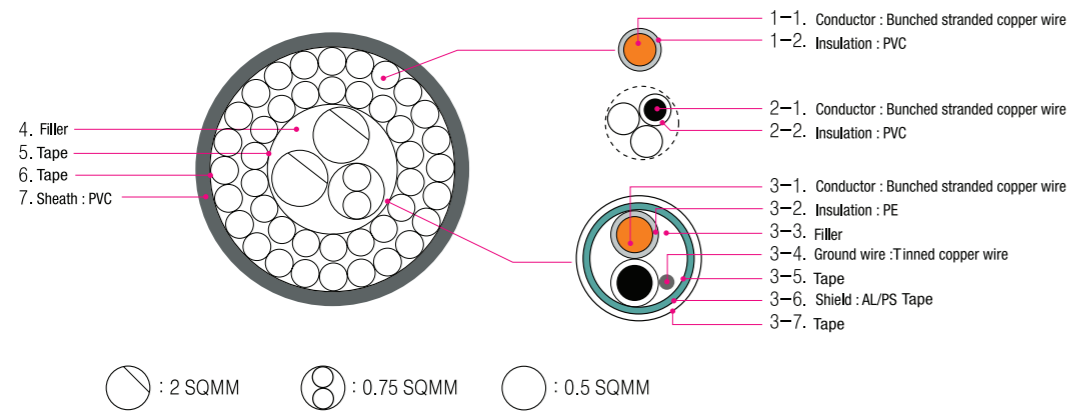
Construction



Fixed Cable for Elevators

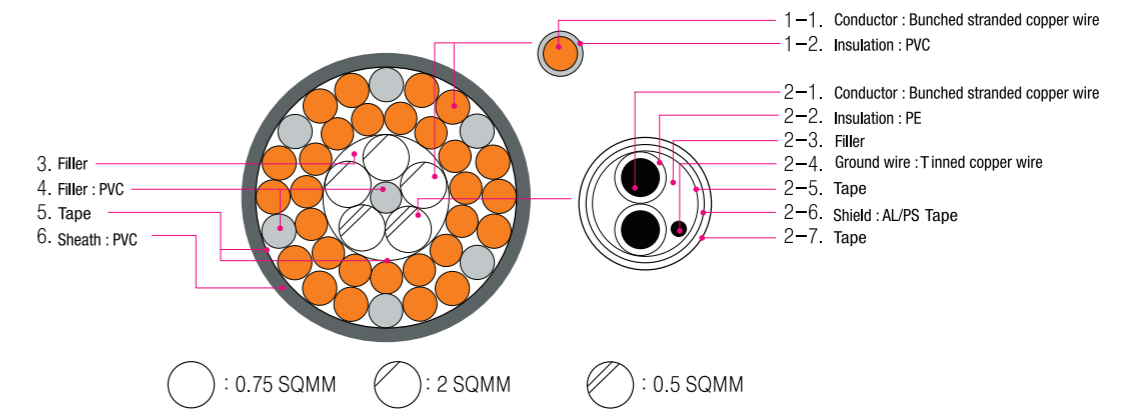
No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Conductor Resistance at 20 °C	Min. Insulation Resistance at 20 °C	Test Voltage	Approx. Weight
	Nominal Sectional Area	Composition	Outer Diameter							
	mm ²	No./mm	mm							
42C	0.75	30/0.18	1.1	0.5			25.6	20	1,000	
48C 6C	2.0	37/0.26	1.8	0.8	1.8	26.0	9.98	50	1,500	912
1P	0.5	20/0.18	0.93	0.4			39.0	100	500	

Construction



No. of Cores	Conductor			Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Conductor Resistance at 20 °C	Min. Insulation Resistance at 20 °C	Test Voltage	Approx. Weight
	Nominal Sectional Area	Composition	Outer Diameter							
	mm ²	No./mm	mm							
28C	0.75	30/0.18	1.1	0.8			25.6	20	1,000	
35C 3C	2.0	37/0.26	1.8	0.8	1.6	24.1	9.98	50	1,500	786
2P	0.5	20/0.18	0.93	0.4			39.0	100	500	

Construction



300V EVV(E) Cables

No. of Cores	Composition of Conductor	Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Max. Conductor Resistance at 20 °C	Min. Insulation Resistance at 20 °C	Test Voltage	Approx. Weight
2	30/0.18	0.4	1.1	6.2	25.6	20	1,000	40
3	30/0.18	0.4	1.1	6.7	25.6	20	1,000	48
4	30/0.18	0.4	1.1	7.5	25.6	20	1,000	59
7	30/0.18	0.4	1.1	8.8	25.6	20	1,000	80
8	30/0.18	0.4	1.1	9.4	25.6	20	1,000	92
9	30/0.18	0.4	1.1	10.0	25.6	20	1,000	104
13	30/0.18	0.4	1.2	11.6	25.6	20	1,000	138
19	30/0.18	0.4	1.3	13.5	25.6	20	1,000	185
21	30/0.18	0.4	1.3	14.2	25.6	20	1,000	202
25	30/0.18	0.4	1.4	15.9	25.6	20	1,000	250
31	30/0.18	0.4	1.5	17.0	25.6	20	1,000	290
37	30/0.18	0.4	1.5	18.0	25.6	20	1,000	331

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Telecommunication Cables

Foamed 3 layers shield low loss coaxial cable for image reception

Material

- Inner conductor : copper wire
- Outer Conductor : AL mylar tape + Tinned copper wire braid
- Insulation : Foamed Polyethylene
- Sheath : PVC

Characteristics

- Wide frequency range(5.75MHz ~ 750MHz)
- Excellent characteristic of shield
- Low loss

Application

- For transmitting data, TV and computer signals in wide band and multifunctional common network.

Construction

Symbol	Inner Conductor Diameter mm	Insulation		Outer Conductor Material			Sheath		Overall Diameter mm	Weight kg/km	Standard Length m
		Material	Diameter mm	First	Second	Third	Material	Diameter mm			
5C-FBT	1.05	Foamed	5					7.4	7.4 ±0.5	55	200
7C-FBT	1.5	PE	7.3					10	10.0 ±0.5	100	200
5C-HFBT	1.2		5	AL	Tinned copper wire	AL	PVC	7.4	7.4 ±0.5	56	200
7C-HFBT	1.8		7.3	mylar tape		mylar tape		10	10.0 ±0.5	102	200
10C-HFBT	2.4	Highly Foamed	9.4					12.3	12.3 ±0.5	144	200
RG-6/U/T (5C-HFBT)	1.02		4.57					6.95	6.95 ±0.5	42	200

Characteristics

Symbol	Insulation Resistance MΩ/km	Test voltage V	Electrostatic capacity nF/km	Characteristic Impedance Ω	Standard Attenuation dB/km							Standing-wave ratio
					10 MHz	50 MHz	150 MHz	250 MHz	350 MHz	450 MHz	750 MHz	
5C-FBT					23.8	47.2	77.2	98.9	117.1	137	185	
7C-FBT					15.7	30.7	55.1	71	86.2	95.9	124.3	
5C-HFBT					23.8	47.2	77.2	98.9	117.1	137	185	
7C-HFBT	1000	AC 1000	52-B	75	15.7	30.7	55.1	71	86.2	95.9	124.3	1.2 ↓
10C-HFBT					12	25.4	42.2	54	65.7	73.4	96.2	
RG-6/U/T (5C-HFBT)					23.8	47.2	77.2	98.9	117.1	137	185	

High-frequency Coaxial Cables(ECX)

Type	Inner Conductor		Insulation		Outer Conductor				Sheath thickness mm	Overall diameter mm	Conductor resistance (20℃) Ω/km	Test voltage V	Electrostatic capacity (100p) nF/km	Standrd Attenuation (100p) dB/km	Approx. Weight kg/km
	No. of wire/ Wire diameter mm	Dia- meter mm	Thick- ness mm	Outer diameter mm	Braid										
					Wire diameter mm	No. of wire per carrier	No. of carrier	Outer diameter mm							
[75Ω type]															
3C-2V	1/0.50	0.5	1.3	3.1	0.14	5	24	3.8	0.8	5.4	91.4	1000	67-B	42	42
5C-2V	1/0.80	0.8	2.05	4.9	0.14	7	24	5.6	0.9	7.4	35.9	1000	67-B	27	74
7C-2V	7/0.40	1.2	3.05	7.3	0.18	8	24	8.2	1.1	10.4	20.7	1000	67-B	22	140
10C-2V	7/0.50	1.5	3.95	9.4	0.2	10	24	10.4	1.3	13	13.1	1000	67-B	18	220

* Symbol (ex: 10C-2V) 10 : Put a mark on insulation diameter 2 : Fill-polyethylene type C : Put a mark on characteristic impedance(C: 75 Ω) V : PVC sheathed cable

Telecommunication Cables

» Telecommunication Cables

- Foamed 3 layers shield low loss coaxial cable for image reception
- High-frequency Coaxial Cables(ECX)
- Polyethylene Insulated AL tape shield pair cable for telephone

Polyethylene Insulated AL tape shield pair cable for telephone

Application

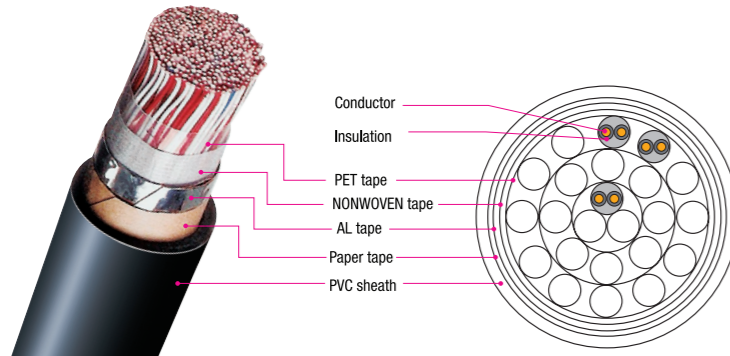
- Subscriber distribution network in local exchange area

Standard

- KS C 3603

Material

- Insulation - PE / Sheath - PVC



Type of pair

Type of pair in identification

Type of pair	Color	Remark
Pair of Category1	Red-White	White Color : Natural
Pair of Category2	Blue-White	or white color

Electrical Characteristics

Item	Unit	Outer Conductor			
		0.5 mm	0.65 mm	0.9 mm	
Conductor Resistance	Standard Value	Ω/km	181	107	55.8
	Max. Value	Ω/km	187	113	58
Insulation Resistance	MΩ/km		10,000 ↑		
Test Voltage	V	500	500	700	
Electrostatic Capacity	nF/km		60 ↓		
Attenuation	dB/km	1.47 ↓	1.15 ↓	0.84 ↓	

Nominal Diameter(mm)	No. of Pairs(P)	Insulation Thickness(mm)	Sheath Thickness (mm)	Approx. Overall Diameter(mm)	Standard Length(mm)
0.5	5	0.3	1.5	10	1,000
	10		1.5	12	1,000
	15		1.5	13	1,000
	20		1.5	14	1,000
	25		1.5	15	1,000
	30		1.5	16	1,000
	50		1.5	20	1,000
	100		1.7	26	1000
200	2	36	500		
0.65	5	0.3	1.5	11	1,000
	10		1.5	13	1,000
	15		1.5	14	1,000
	20		1.5	16	1,000
	25		1.5	17	1,000
	30		1.5	19	1,000
	50		1.6	23	1,000
	100		1.9	30	1,000
200	2.2	41	500		
0.9	5	0.4	1.5	12	1,000
	10		1.5	15	1,000
	15		1.5	18	1,000
	20		1.5	20	1,000
	25		1.6	22	1,000
	30		1.6	24	1,000
	50		1.8	29	1,000
	100		2.2	40	1,000
200	2.7	56	500		



Appendix

- » Type & Characteristic of XLPE Insulation Power Cables
- » Characteristics of Flame Retardant Cables in tray use
- » Current-carrying capacities (Reference standard: KS C IEC 60364-5-523)
- » Current-carrying capacities (Reference standard: KS C IEC 60364-5-523)
- » Correction factor of current carrying capacity
- » Short-Circuit Current (Cooper Conductor)
- » Installation Information

Type & Characteristic of XLPE Insulation Power Cables



0.6/1kV

Type	Composition Material		Application Standard	Main Feature
	Insulation	Sheath		
CV	XLPE	PVC	KSC IEC 60502-1	-
TFR-CV		Flame retardant PVC (FR-PVC)	KSC IEC 60502-1	Flame retardant (VTFT)
HFCO		Halogen free & Flame retardant Polyolefin(LSHF)	KSC IEC 60502-1	Flame retardant (VTFT), Halogen free, Low smoke

6/10kV

Type	Composition Material		Application Standard	Main Feature
	Insulation	Sheath		
CV	XLPE	PVC	KSC IEC 605502-2	-
TFR-CV		Flame retardant PVC (FR-PVC)	KSC IEC 605502-2	Flame retardant (VTFT)
HFCO		Halogen free & Flame retardant Polyolefin(LSHF)	KSC 3341	Flame retardant (VTFT), Halogen free, Low smoke

22.9kV-y

Type	Composition Material		Application Standard	Main Feature
	Insulation	Sheath		
CNCV-W	XLPE	PVC	KEPCO RS-6145-0019	-
TR CNCV-W	TR-XLPE	PVC	KEPCO RS-6145-0027	Tree retardant
FR CNCO-W	XLPE	Halogen free & Flame retardant Polyolefin(LSHF)	KEPCO RS-6145-0019	VTFT, Low smoke, Halogen free
TR CNCE-W	TR-XLPE	PE	KEPCO RS-6145-0034	Tree retardant

Characteristics of Halogen free & Flame retardant Cables

Item	Definition	Characteristics
Flame Retardant	▶ Property Flame retardant · No propagate the fire · Self - extinguishing	▶ Vertical Tray Flame Test (VTFT) · IEC 60332-3 Cat. C
Smoke Density	▶ Low smoke emission	▶ Smoke density : 150Dm ↓ ▶ Light transmissivity : 60% ↑
Corrosive Gas	▶ Low Acid Gas (Hcl) ▶ Low corrosive gas	▶ Halogen Acid Gas (Hcl) : 0.5% ↓ ▶ pH : 4.3 ↑

Characteristics of Flame Retardant Cables in tray use



Tray Flame Retardant Cables meet IEC-60332-3 (Vertical Tray Flame Test)

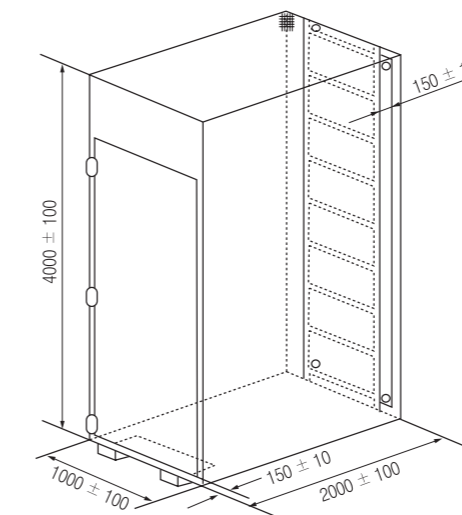
Test Method

- 1) Combustion chamber - Length 4m, Width 1m, Deep 2m
- 2) Length of test sample - 3.5m
- 3) The pieces shall be attached to the front of the standard ladder in a single layer up to a total maximum width of 300mm.
- 4) The total number of test pieces in the test sample shall be that number required to provide a nominal total volume of non-metallic material of 1.5 l/m of test sample.
- 5) Flame : Air 77.7 ± 0.8 l/min, Propane Gas 13.5 ± 0.5 l/min
- 6) Flame application time : 20min

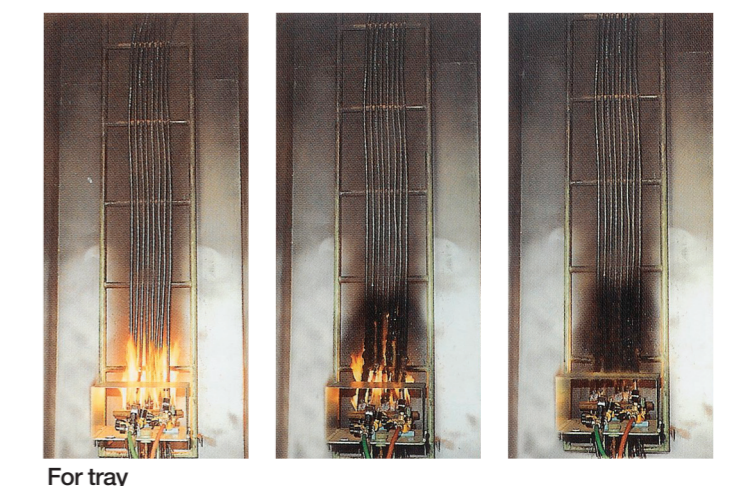
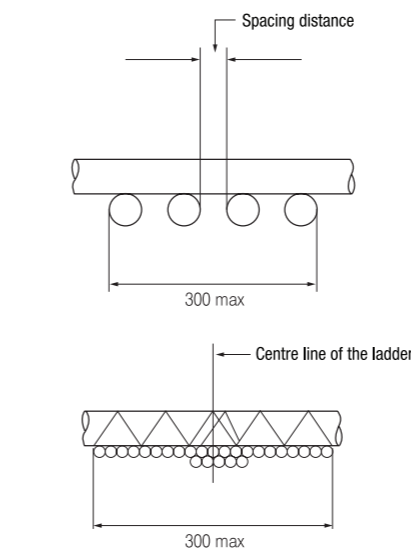
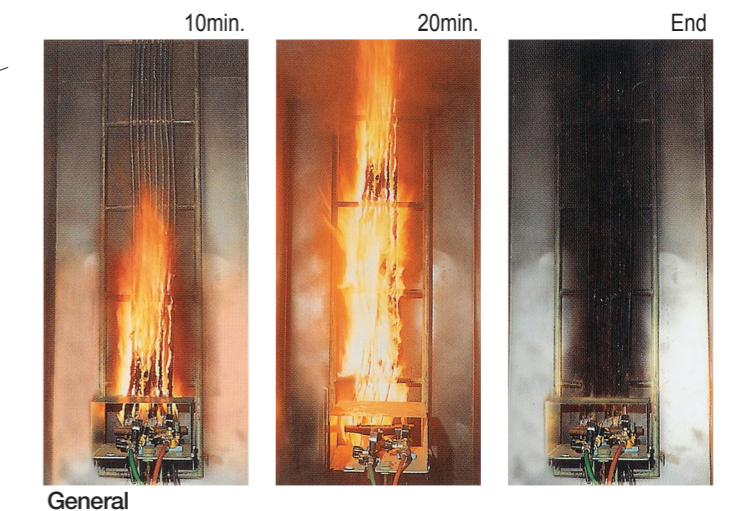
Estimate Method

- 1) The cable shall not reached a height exceeding 2.5m.
- 2) After flame test, cable shall be self-extinguished.

Test Apparatus



Test Scene



Current-carrying capacities → → → → → →

(Reference standard : KS C IEC 60364-5-523)

1. XLPE Insulation Cables

- Cable type : CV, CVS, TFR-CV, TFR-CVS, TFR-8, NFR-8, TFR-3, HFCO, HFCCO
- Voltage : 0.6/1kV
- Conductor temperature : 90°C
- Soil thermal resistivity : 2.5K · m/W
- Ambient temperature in air : 30°C
- Ground temperature : 20°C

Nominal Area [mm ²]	In air or In single-way ducts					Buried direct in the ground		
	Single-core				Multicore		Multicore	
	Three loaded conductors				Two loaded conductors	Three loaded conductors	Two loaded conductors	Three loaded conductors
	Trefoil formation	Flat formation (S=D)	Flat formation horizontal (S≥2D)	Flat formation vertical (S≥2D)				
Installation Method	Method F	Method F	Method G	Method G	Method E	Method E	Method D	Method D
1.5	-	-	-	-	26	23	26	22
2.5	-	-	-	-	36	36	34	29
4	-	-	-	-	49	49	44	37
6	-	-	-	-	63	63	56	46
10	-	-	-	-	86	86	73	61
16	-	-	-	-	115	115	95	79
25	135	141	182	161	149	149	121	101
35	169	176	226	201	185	185	146	122
50	207	216	275	246	225	225	173	144
70	268	279	353	318	289	289	213	178
95	328	342	430	389	352	352	252	211
120	383	400	500	454	410	410	287	240
150	444	464	577	527	473	473	324	271
185	510	533	661	605	542	542	363	304
240	607	634	781	719	641	641	419	351
300	703	736	902	833	741	741	474	396
400	823	868	1,085	1,008	-	-	-	-
500	946	998	1,253	1,169	-	-	-	-
630	1,088	1,151	1,454	1,362	-	-	-	-

2. XLPE Insulation Cables

- Cable type : CV, TFR-CV, HFCO
- Voltage : 6/10kV
- Conductor temperature : 90°C
- Soil thermal resistivity : 2.5K · m/W
- Ambient temperature in air : 30°C
- Ground temperature : 20°C

Nominal Area [mm ²]	In air or In single-way ducts		Buried direct in the ground	
	Single-core	Three-cores	Single-core	Three-cores
	Three cables in flat formation (S=D)	Single cable	Single cable	Single cable
	Installation Method	Method F	Method E	Method D
16	120	105	120	115
25	160	140	155	150
35	195	165	185	180
50	235	200	215	210
70	295	250	265	255
95	360	305	320	305
120	420	355	360	345
150	480	405	405	385
185	555	465	460	435
240	660	550	530	505
300	765	635	600	565
400	900	-	690	-
500	1,045	-	775	-
630	1,220	-	880	-

Copper & Aluminum Wires

Insulated Wires

Power Cables

Control Cables

Fire Proof Cables

Elevators Cables

Telecommunication Cables

Appendix

Copper & Aluminum Wires

Insulated Wires

Power Cables

Control Cables

Fire Proof Cables

Elevators Cables

Telecommunication Cables

Appendix

3. PVC Insulation Cables

- Cable type : CWV, CWVS, CWVSB, CWVAMS, CWV-I/C AMS, TFR-CWV, TFR-CWVS, TFR-CWVSB, TFR-CVAMS, TFR-CV-I/C AMS
- Voltage : 0.6/1kV
- Conductor temperature : 70°C
- Soil thermal resistivity : 2.5K · m/W
- Ambient temperature in air : 30°C
- Ground temperature : 20°C

Nominal Area [mm ²]	In air or In single-way ducts							Buried direct in the ground	
	Single core	Multicore						Multicore	
	Three loaded conductors Flat formation (S=D)	Two cores			Three cores			Two cores	Three cores
		Installation Method	Method A2	Method B2	Method E	Method A2	Method B2	Method E	Method D
1.5	a-	14	16.5	22	13	15	18.5	22	18
2.5	-	18.5	23	30	17.5	20	25	29	24
4	-	25	30	40	23	27	34	38	31
6	-	32	38	51	29	34	43	47	39
10	-	43	52	70	39	46	60	63	52
16	-	57	69	94	52	62	80	81	67
25	114	75	90	119	68	80	101	104	86
35	143	92	111	148	83	99	126	125	103
50	174	110	133	180	99	118	153	148	122
70	225	139	168	232	125	149	196	183	151
95	275	167	201	282	150	179	238	216	179
120	321	192	232	328	172	206	276	246	203
150	372	219	-	379	196	-	319	278	230
185	427	248	-	434	223	-	364	312	258
240	507	291	-	514	261	-	430	361	297
300	587	334	-	593	298	-	497	408	336
400	689	-	-	-	-	-	-	-	-
500	789	-	-	-	-	-	-	-	-
630	905	-	-	-	-	-	-	-	-

Installation Method

- A1 : Insulated conductors in conduit in insulating wall
- A2 : Multicore cable in conduit in insulating wall
- B1 : Insulated conductors in conduit on wall
- B2 : Multicore cable in conduit on wall
- C : Multicore cable on a wall
- D : Multicore cable in ducts in ground
- E : Twin or multicore cable in free air(Clearance to wall not less than 0.3 times cable diameter)
- F : Single-core cables in free air touching(Clearance to wall not less than one cable diameter)

4. Heat-resistant PVC Insulation Cable

- Cable type : HIV
- Voltage : 450/750V
- Conductor temperature : 90°C
- Soil thermal resistivity : 2.5K · m/W
- Ambient temperature in air : 30°C
- Ground temperature : 20°C

Nominal Area [mm ²]	Two loaded cores		
	Installation Method	Method A1	Method B1
1.5		19	23
2.5		26	31
4		35	42
6		45	54
10		61	75
16		81	100
25		106	133
35		131	164
50		158	198
70		200	253
95		241	306
120		278	354
150		318	407
185		362	464
240		424	546
300		486	628

Correction factor of current carrying capacity → → → → → →

Correction factors for ambient air temperatures other than 30°C

Ambient temperature °C	PVC(70°C)	XLPE(90°C)
10	1.22	1.22
15	1.17	1.17
20	1.12	1.12
25	1.06	1.06
30	1.00	1.00
35	0.94	0.94
40	0.87	0.87
45	0.79	0.79
50	0.71	0.71
55	0.61	0.61
60	0.50	0.50
65	-	-
70	-	-
75	-	-
80	-	-
85	-	-
90	-	-
95	-	-

Correction factors for groups of several circuits or of several multicore cables

Arrangement of cables	Number of circuits											
	1	2	3	4	5	6	7	8	9	12	16	20
Embedded or enclosed	1.00	0.80	0.70	0.65	0.60	0.57	0.54	0.52	0.50	0.45	0.41	0.38
Single layer on walls, floors or on unperforated trays	1.00	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.70	-	-	-
Single layer on ceiling	0.95	0.81	0.72	0.68	0.66	0.64	0.63	0.62	0.61	-	-	-
Single layer on perforated horizontal trays or on vertical trays	1.00	0.88	0.82	0.77	0.75	0.73	0.73	0.72	0.72	-	-	-
Single layer on cable ladder supports or cleats, etc.	1.00	0.87	0.82	0.80	0.80	0.79	0.79	0.78	0.78	-	-	-

Correction factors for soil thermal resistivity, cables laid in ducts in the ground

Thermal resistivity (K m/W)	1	1.5	2	2.5	3
Correction factor	1.8	1.1	1.05	1	0.96

Correction factors for more than one circuit, cables laid in ducts in the ground

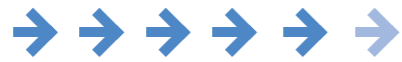
Multicore cables (Number of cables)	Nil (ducts touching)	0.25m	0.5m	1.0m
2	0.85	0.90	0.95	0.95
3	0.75	0.85	0.90	0.95
4	0.70	0.80	0.85	0.90
5	0.65	0.80	0.85	0.90
6	0.60	0.80	0.80	0.90

Number of single-core circuits of two or three cables (Number of cables)	Nil (ducts touching)	0.25m	0.5m	1.0m
2	0.80	0.90	0.90	0.95
3	0.70	0.80	0.85	0.90
4	0.65	0.75	0.80	0.90
5	0.60	0.70	0.80	0.90
6	0.60	0.70	0.80	0.90

Correction factors for ambient ground temperatures other than 20°C

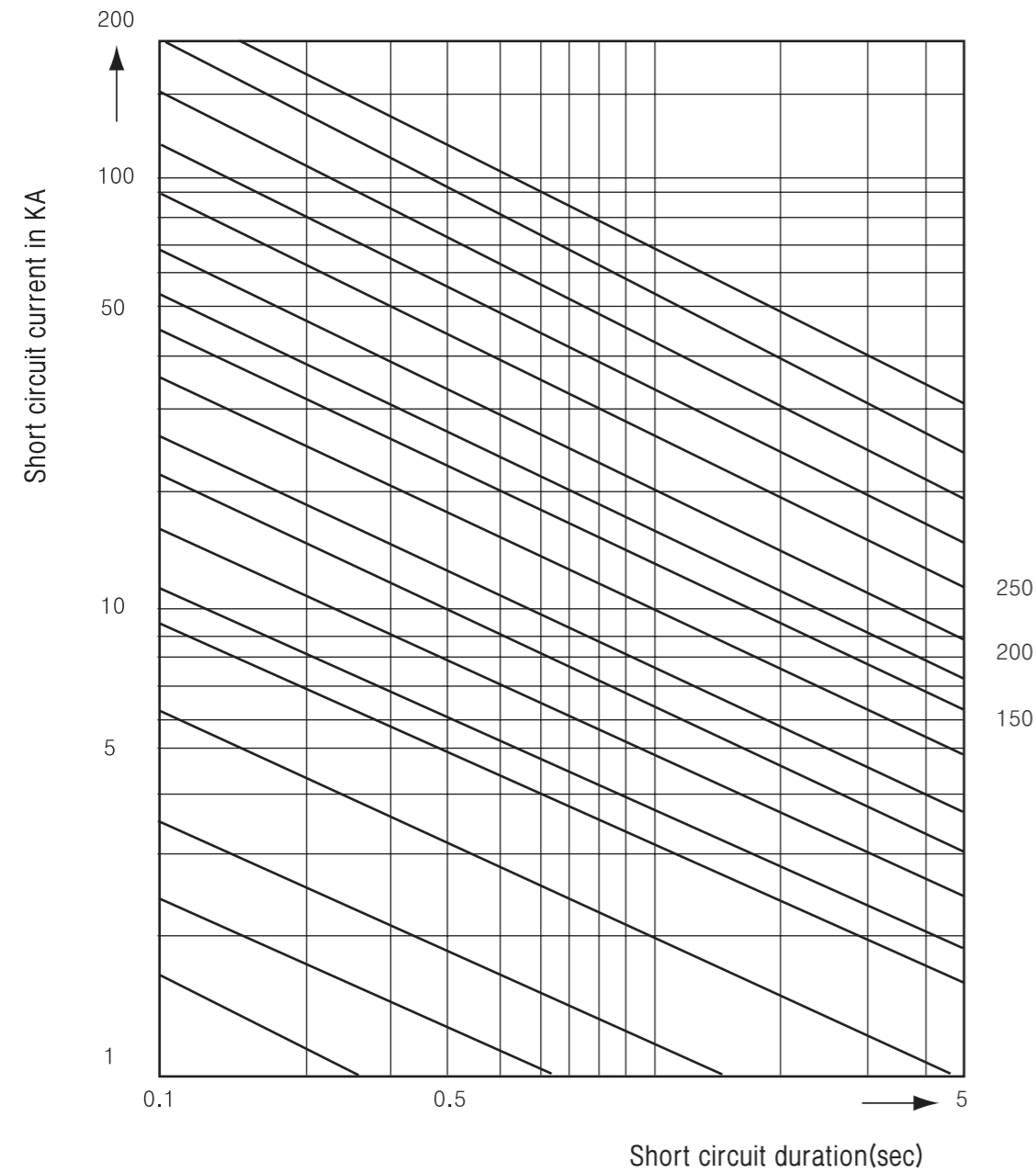
Ground temperature (°C)	PVC (70°C)	XLPE or EPR (90°C)
10	1.10	1.07
15	1.05	1.04
20	1.00	1.00
25	0.95	0.96
30	0.89	0.93
35	0.84	0.89
40	0.77	0.85
45	0.71	0.80
50	0.63	0.76
55	0.55	0.71
60	0.45	0.65
65	-	0.60
70	-	0.53
75	-	0.46
80	-	0.38

Short-Circuit Current (Cooper Conductor)



Current Carrying Capacity in High Temperature

Short-Circuit Current of CV Cable



Installation Information



Max. Allowable Tension

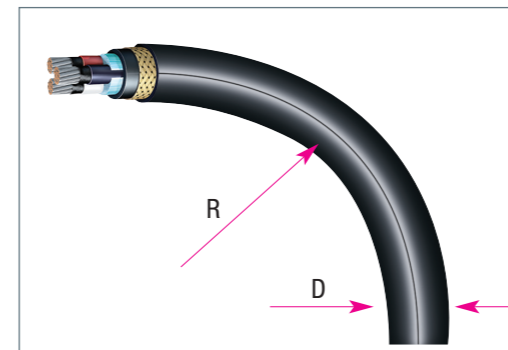
Lying Machine	Material of conductor	Max. Allowable Tension [kg]
Eye Pulling	Cu	7 ×(No. of cores) ×(Conductor nominal sectional area) kg
	Al	4 ×(No. of cores) ×(Conductor nominal sectional area) kg
Cable Grip	Cu	Cable grip is same condition as Eye Pulling
	Al	Not less than 2000kg

*In case of cable grip, past the end of cable at least, 500mm.

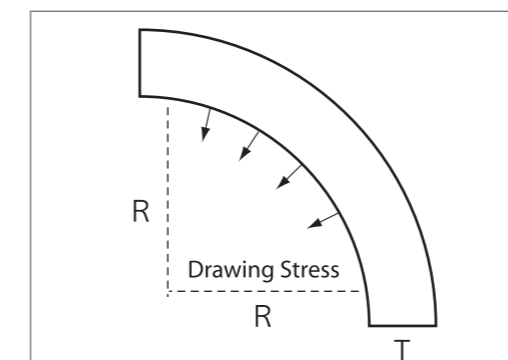
Min. Bending Radius

Cable Type	Single Core		Multi-Core
	Circular Stranded Conductor	Four Split Conductor	
600V Cable	8 D	12 D	6 D
Not less Than 3.5kV Cable	10 D	12 D	8 D
Triplex Cable	-	-	8 D
Wellmantal Armour Cable	10 D	12 D	8 D
Metal Tape Armour Cable	10 D	12 D	8 D
Wire Armour Cable	10 D	12 D	8 D
Lead Cable	10 D	12 D	10 D

D:Case Outer Diameter, R:Bending radius.



Max. Installation Drawing Stress



Maximum installation drawing stress is 500kg/m at bending position

$$\text{Drawing Stress} = \frac{T}{R}$$

T : Tension (kg)
R : Bending Radius (m)