

# 0.6/1kV XLPE Insulated Power Cables (Non-armoured & Armoured Type)

(0.6/1kV TFR-CV, TFR-CV-S, TFR-CVAWAV, TFR-CVWAV)

## SCOPE

This cable is designed for the purpose of using in power distribution lines.

## APPLICATION STANDARDS

IEC 60502-1 Power cables with extruded insulation and their accessories for rated voltages from 1 kV ( $U_m = 1,2$  kV) up to 30 kV ( $U_m = 36$  kV) - Part 1: Cables for rated voltages of 1 kV ( $U_m = 1,2$  kV) and 3 kV ( $U_m = 3,6$  kV)

IEC 60332-3-24 Tests on electric cables under fire conditions - Part 3-24 : Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C

## MATERIALS & CONSTRUCTION

<b>Conductor</b>	Annealed copper wires, Class 2 (Circular stranded or Compacted circular stranded type)
<b>Insulation</b>	XLPE (Max. operating conductor temperature, 90°C)
<b>Common Shield</b>	Annealed copper tape (for shielded cables only)
<b>Inner Covering</b>	Extruded PVC (for armoured cables only)
<b>Armour</b>	Hard-drawn aluminum round wires for single core or galvanized steel round wires for multi-cores (for armoured cables only)
<b>Oversheath</b>	Flame retardant black PVC (FR-PVC/ST2)

## CORE IDENTIFICATION

2cores	Brown and Black
3cores	Brown, Black and Gray
3cores + N	Brown, Black, Gray + Blue
3cores + PE	Brown, Black, Gray + Green/Yellow

## OPTION

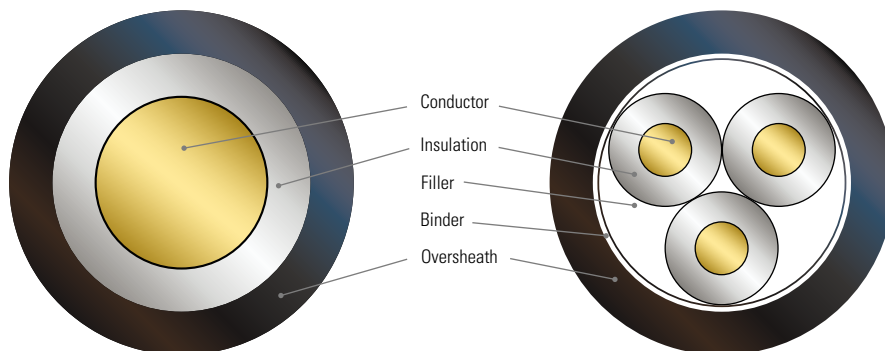
Different color of core identification and oversheath

Material of oversheath : Halogen free flame retardant polyolefin (ST8) or Polyethylene (ST7)

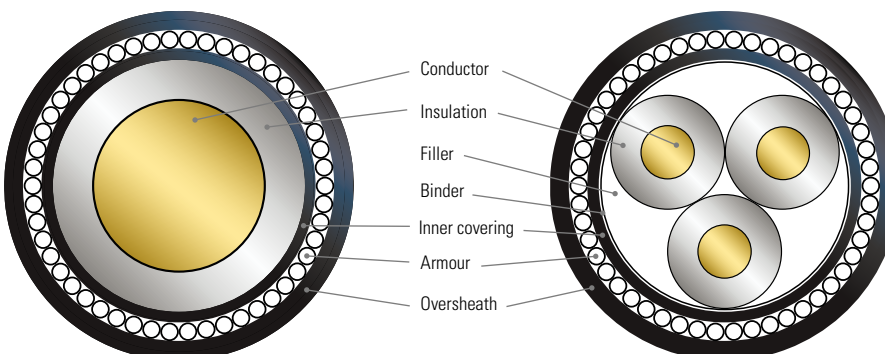
Flame Retardant : Cat. A or Cat. B in accordance with IEC 60332-3-22, -23

Oil Resistance, Anti-termite, Anti-rodent, Ozone resistance

Non-armoured Type



Non-armoured Type



**Unshielded Type, Non-armoured cables (0.6/1kV CU/XLPE/PVC) (0.6/1kV TFR-CV)**

Nos. of Core	Conductor			Thick. of Insulation (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	A.C Voltage Test	Net weight (approx.)
	Size	Construction	Outer Dia. (approx.)						
	mm <sup>2</sup>	Nos./mm	mm						
1	1.5	7/0.53	1.59	0.7	1.4	7	12.1	3500	53
	2.5	7/0.67	2.01	0.7	1.4	7	7.41	3500	66
	4	7/0.85	2.55	0.7	1.4	8	4.61	3500	85
	6	7/1.04	3.12	0.7	1.4	9	3.08	3500	110
	10	7/1.35	4.05	0.7	1.4	10	1.83	3500	158
	16	C.C	4.7	0.7	1.4	10	1.15	3500	212
	25	C.C	5.9	0.9	1.4	12	0.727	3500	316
	35	C.C	6.9	0.9	1.4	13	0.524	3500	415
	50	C.C	8.1	1.0	1.4	15	0.387	3500	544
	70	C.C	9.8	1.1	1.4	17	0.268	3500	759
	95	C.C	11.4	1.1	1.5	19	0.193	3500	1027
	120	C.C	12.9	1.2	1.5	21	0.153	3500	1279
	150	C.C	14.4	1.4	1.6	23	0.124	3500	1581
	185	C.C	15.9	1.6	1.6	25	0.0991	3500	1955
	240	C.C	18.3	1.7	1.7	28	0.0754	3500	2541
300	C.C	20.5	1.8	1.8	31	0.0601	3500	3174	
400	C.C	23.2	2.0	1.9	35	0.0470	3500	4032	
500	C.C	26.4	2.2	2.0	39	0.0366	3500	5143	
630	C.C	30.2	2.4	2.2	45	0.0283	3500	6671	
2	1.5	7/0.53	1.59	0.7	1.8	12	12.1	3500	129
	2.5	7/0.67	2.01	0.7	1.8	12	7.41	3500	146
	4	7/0.85	2.55	0.7	1.8	14	4.61	3500	204
	6	7/1.04	3.12	0.7	1.8	15	3.08	3500	261
	10	7/1.35	4.05	0.7	1.8	17	1.83	3500	373
	16	C.C	4.7	0.7	1.8	18	1.15	3500	489
	25	C.C	5.9	0.9	1.8	22	0.727	3500	725
	35	C.C	6.9	0.9	1.8	24	0.524	3500	943
	50	C.C	8.1	1.0	1.8	27	0.387	3500	1238
	70	C.C	9.8	1.1	1.8	31	0.268	3500	1726
	95	C.C	11.4	1.1	1.9	35	0.193	3500	2292
	120	C.C	12.9	1.2	2.0	39	0.153	3500	2889
	150	C.C	14.4	1.4	2.2	44	0.124	3500	3588
	185	C.C	15.9	1.6	2.3	48	0.0991	3500	4438
	240	C.C	18.3	1.7	2.5	55	0.0754	3500	5764
300	C.C	20.5	1.8	2.6	60	0.0601	3500	7141	
3	1.5	7/0.53	1.59	0.7	1.8	12	12.1	3500	152
	2.5	7/0.67	2.01	0.7	1.8	13	7.41	3500	190
	4	7/0.85	2.55	0.7	1.8	14	4.61	3500	250
	6	7/1.04	3.12	0.7	1.8	16	3.08	3500	332
	10	7/1.35	4.05	0.7	1.8	18	1.83	3500	480
	16	C.C	4.7	0.7	1.8	20	1.15	3500	649
	25	C.C	5.9	0.9	1.8	23	0.727	3500	972
	35	C.C	6.9	0.9	1.8	26	0.524	3500	1284
	50	C.C	8.1	1.0	1.8	29	0.387	3500	1691
	70	C.C	9.8	1.1	1.9	34	0.268	3500	2366
	95	C.C	11.4	1.1	2.0	38	0.193	3500	3193
	120	C.C	12.9	1.2	2.1	42	0.153	3500	4039
	150	C.C	14.4	1.4	2.3	47	0.124	3500	4990
	185	C.C	15.9	1.6	2.4	52	0.0991	3500	6200
	240	C.C	18.3	1.7	2.6	59	0.0754	3500	8042
300	C.C	20.5	1.8	2.7	64	0.0601	3500	10029	

Nos. of Core	Conductor			Thick. of Insulation (nom.)	Thickness of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	A.C Voltage Test	Net weight (approx.)
	Size	Construction	Outer Dia.(approx.)						
	mm <sup>2</sup>	Nos./mm	mm						
4	1.5	7/0.53	1.59	0.7	1.8	13	12.1	3500	182
	2.5	7/0.67	2.01	0.7	1.8	14	7.41	3500	231
	4	7/0.85	2.55	0.7	1.8	16	4.61	3500	313
	6	7/1.04	3.12	0.7	1.8	17	3.08	3500	410
	10	7/1.35	4.05	0.7	1.8	20	1.83	3500	605
	16	C.C	4.7	0.7	1.8	21	1.15	3500	828
	25	C.C	5.9	0.9	1.8	26	0.727	3500	1249
	35	C.C	6.9	0.9	1.8	28	0.524	3500	1658
	50	C.C	8.1	1.0	1.9	32	0.387	3500	2201
	70	C.C	9.8	1.1	2.0	37	0.268	3500	3108
	95	C.C	11.4	1.1	2.1	42	0.193	3500	4189
	120	C.C	12.9	1.2	2.3	47	0.153	3500	5281
	150	C.C	14.4	1.4	2.4	52	0.124	3500	6521
	185	C.C	15.9	1.6	2.6	58	0.0991	3500	8156
	240	C.C	18.3	1.7	2.8	65	0.0754	3500	10564
300	C.C	20.5	1.8	3.0	72	0.0601	3500	13212	

Note) C.C : Compacted circular stranded type

**Unshielded Type, Armoured cables (0.6/1kV CU/XLPE/PVC/AWA/PVC, CU/XLPE/PVC/SWA/PVC)  
(0.6/1kV TFR-CVAWAV, TFR-CVWAV)**

Nos. of Core	Conductor			Thickness		Dia. of Wire (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	Net weight (approx.)
	Conductor Size	Construction	Outer Dia.(approx.)	Insulation (nom.)	Inner Covering (approx.)					
	mm <sup>2</sup>	Nos./mm	mm	mm	mm					
1	50	C.C	8.1	1.0	1.0	1.6	1.8	22	0.387	816
	70	C.C	9.8	1.1	1.0	1.6	1.8	24	0.268	1063
	95	C.C	11.4	1.1	1.0	1.6	1.8	26	0.193	1356
	120	C.C	12.9	1.2	1.0	1.6	1.8	28	0.153	1644
	150	C.C	14.4	1.4	1.0	1.6	1.8	30	0.124	1972
	185	C.C	15.9	1.6	1.0	1.6	1.8	32	0.0991	2375
	240	C.C	18.3	1.7	1.0	1.6	1.9	35	0.0754	3009
	300	C.C	20.5	1.8	1.0	1.6	2.0	38	0.0601	3689
	400	C.C	23.2	2.0	1.2	2.0	2.1	43	0.0470	4734
	500	C.C	26.4	2.2	1.2	2.0	2.2	47	0.0366	5929
630	C.C	30.2	2.4	1.2	2.0	2.3	52	0.0283	7495	
2	1.5	7/0.53	1.59	0.7	1.0	0.8	1.8	16	12.1	342
	2.5	7/0.67	2.01	0.7	1.0	0.8	1.8	17	7.41	387
	4	7/0.85	2.55	0.7	1.0	0.8	1.8	18	4.61	459
	6	7/1.04	3.12	0.7	1.0	0.8	1.8	19	3.08	539
	10	7/1.35	4.05	0.7	1.0	0.8	1.8	21	1.83	657
	16	C.C	4.7	0.7	1.0	1.6	1.8	25	1.15	1080
	25	C.C	5.9	0.9	1.0	1.6	1.8	28	0.727	1449
	35	C.C	6.9	0.9	1.0	1.6	1.8	30	0.524	1743
	50	C.C	8.1	1.0	1.0	1.6	1.8	33	0.387	2134
	70	C.C	9.8	1.1	1.0	1.6	2.0	38	0.268	2804
	95	C.C	11.4	1.1	1.2	2.0	2.1	43	0.193	3797
	120	C.C	12.9	1.2	1.2	2.0	2.2	51	0.153	4574
	150	C.C	14.4	1.4	1.2	2.0	2.3	52	0.124	5409
	185	C.C	15.9	1.6	1.4	2.5	2.5	58	0.0991	6980
	240	C.C	18.3	1.7	1.4	2.5	2.7	64	0.0754	8633
300	C.C	20.5	1.8	1.6	2.5	2.8	70	0.0601	10347	

Nos. of Core	Conductor			Thickness		Dia. of Wire (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	Net weight (approx.)
	Conductor Size	Construction	Outer Dia. (approx.)	Insulation (nom.)	Inner Covering (approx.)					
	mm <sup>2</sup>	Nos./mm	mm	mm	mm					
3	1.5	7/0.53	1.59	0.7	1.0	0.8	1.8	17	12.1	374
	2.5	7/0.67	2.01	0.7	1.0	0.8	1.8	18	7.41	434
	4	7/0.85	2.55	0.7	1.0	0.8	1.8	19	4.61	520
	6	7/1.04	3.12	0.7	1.0	0.8	1.8	20	3.08	625
	10	7/1.35	4.05	0.7	1.0	0.8	1.8	22	1.83	818
	16	C.C	4.7	0.7	1.0	1.6	1.8	26	1.15	1281
	25	C.C	5.9	0.9	1.0	1.6	1.8	29	0.727	1739
	35	C.C	6.9	0.9	1.0	1.6	1.8	32	0.524	2129
	50	C.C	8.1	1.0	1.0	1.6	1.9	35	0.387	2669
	70	C.C	9.8	1.1	1.0	2.0	2.0	41	0.268	3746
	95	C.C	11.4	1.1	1.2	2.0	2.2	46	0.193	4811
	120	C.C	12.9	1.2	1.2	2.0	2.3	50	0.153	5846
	150	C.C	14.4	1.4	1.4	2.5	2.5	57	0.124	7518
	185	C.C	15.9	1.6	1.4	2.5	2.6	61	0.0991	8967
	240	C.C	18.3	1.7	1.4	2.5	2.8	68	0.0754	11157
300	C.C	20.5	1.8	1.6	2.5	3.0	75	0.0601	13573	
4	1.5	7/0.53	1.59	0.7	1.0	0.8	1.8	17	12.1	422
	2.5	7/0.67	2.01	0.7	1.0	0.8	1.8	19	7.41	493
	4	7/0.85	2.55	0.7	1.0	0.8	1.8	20	4.61	597
	6	7/1.04	3.12	0.7	1.0	0.8	1.8	21	3.08	729
	10	7/1.35	4.05	0.7	1.0	0.8	1.8	24	1.83	972
	16	C.C	4.7	0.7	1.0	1.6	1.8	27	1.15	1534
	25	C.C	5.9	0.9	1.0	1.6	1.8	31	0.727	2091
	35	C.C	6.9	0.9	1.0	1.6	1.9	35	0.524	2615
	50	C.C	8.1	1.0	1.0	1.6	2.0	38	0.387	3281
	70	C.C	9.8	1.1	1.0	2.0	2.2	45	0.268	4742
	95	C.C	11.4	1.1	1.2	2.0	2.3	50	0.193	5988
	120	C.C	12.9	1.2	1.2	2.5	2.5	57	0.153	7809
	150	C.C	14.4	1.4	1.4	2.5	2.6	62	0.124	9296
	185	C.C	15.9	1.6	1.4	2.5	2.8	67	0.0991	11224
	240	C.C	18.3	1.7	1.4	2.5	3.0	75	0.0754	14084
300	C.C	20.5	1.8	1.6	2.5	3.2	82	0.0601	17123	

Note) C.C : Compacted circular stranded type

**Shielded Type with copper tape, Non-armoured Cables (0.6/1kV CU/XLPE/CTS/PVC)  
(0.6/1kV TFR-CV-S)**

Nos. of Core	Conductor			Thick. of Insulation (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	A.C Voltage Test	Net weight (approx.)
	Conductor Size	Construction	Outer Dia. (approx.)						
	mm <sup>2</sup>	Nos./mm	mm						
1	16	C.C	4.7	0.7	1.4	11	1.15	3500	237
	25	C.C	5.9	0.9	1.4	13	0.727	3500	345
	35	C.C	6.9	0.9	1.4	14	0.524	3500	448
	50	C.C	8.1	1.0	1.4	15	0.387	3500	582
	70	C.C	9.8	1.1	1.4	18	0.268	3500	802
	95	C.C	11.4	1.1	1.5	20	0.193	3500	1075
	120	C.C	12.9	1.2	1.5	22	0.153	3500	1334
	150	C.C	14.4	1.4	1.6	24	0.124	3500	1642
	185	C.C	15.9	1.6	1.6	26	0.0991	3500	2022
	240	C.C	18.3	1.7	1.7	29	0.0754	3500	2616
	300	C.C	20.5	1.8	1.8	32	0.0601	3500	3257
	400	C.C	23.2	2.0	1.9	36	0.0470	3500	4125
	500	C.C	26.4	2.2	2.0	40	0.0366	3500	5247
	630	C.C	30.2	2.4	2.2	45	0.0283	3500	6750
2	1.5	7/0.53	1.59	0.7	1.8	12	12.1	3500	151
	2.5	7/0.67	2.01	0.7	1.8	13	7.41	3500	184
	4	7/0.85	2.55	0.7	1.8	14	4.61	3500	232
	6	7/1.04	3.12	0.7	1.8	16	3.08	3500	294
	10	7/1.35	4.05	0.7	1.8	18	1.83	3500	413
	16	C.C	4.7	0.7	1.8	19	1.15	3500	535
	25	C.C	5.9	0.9	1.8	23	0.727	3500	776
	35	C.C	6.9	0.9	1.8	25	0.524	3500	1001
	50	C.C	8.1	1.0	1.8	28	0.387	3500	1301
	70	C.C	9.8	1.1	1.8	32	0.268	3500	1788
	95	C.C	11.4	1.1	1.9	36	0.193	3500	2380
	120	C.C	12.9	1.2	2.0	40	0.153	3500	2961
	150	C.C	14.4	1.4	2.2	45	0.124	3500	3665
	185	C.C	15.9	1.6	2.3	49	0.0991	3500	4518
240	C.C	18.3	1.7	2.5	55	0.0754	3500	5847	
300	C.C	20.5	1.8	2.6	61	0.0601	3500	7228	
3	1.5	7/0.53	1.59	0.7	1.8	13	12.1	3500	176
	2.5	7/0.67	2.01	0.7	1.8	14	7.41	3500	217
	4	7/0.85	2.55	0.7	1.8	15	4.61	3500	284
	6	7/1.04	3.12	0.7	1.8	16	3.08	3500	365
	10	7/1.35	4.05	0.7	1.8	19	1.83	3500	520
	16	C.C	4.7	0.7	1.8	20	1.15	3500	697
	25	C.C	5.9	0.9	1.8	24	0.727	3500	1033
	35	C.C	6.9	0.9	1.8	26	0.524	3500	1341
	50	C.C	8.1	1.0	1.8	30	0.387	3500	1766
	70	C.C	9.8	1.1	1.9	34	0.268	3500	2461
	95	C.C	11.4	1.1	2.0	38	0.193	3500	3305
	120	C.C	12.9	1.2	2.1	43	0.153	3500	4131
	150	C.C	14.4	1.4	2.3	48	0.124	3500	5094
	185	C.C	15.9	1.6	2.4	53	0.0991	3500	6316
240	C.C	18.3	1.7	2.6	59	0.0754	3500	8203	
300	C.C	20.5	1.8	2.7	65	0.0601	3500	10177	

Nos. of Core	Conductor			Thick. of Insulation (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	A.C Voltage Test	Net weight (approx.)
	Conductor Size	Construction	Outer Dia.(approx.)						
	mm <sup>2</sup>	Nos./mm	mm						
4	1.5	7/0.53	1.59	0.7	1.8	14	12.1	3500	210
	2.5	7/0.67	2.01	0.7	1.8	15	7.41	3500	262
	4	7/0.85	2.55	0.7	1.8	16	4.61	3500	342
	6	7/1.04	3.12	0.7	1.8	18	3.08	3500	447
	10	7/1.35	4.05	0.7	1.8	20	1.83	3500	650
	16	C.C	4.7	0.7	1.8	22	1.15	3500	879
	25	C.C	5.9	0.9	1.8	26	0.727	3500	1311
	35	C.C	6.9	0.9	1.8	29	0.524	3500	1737
	50	C.C	8.1	1.0	1.9	33	0.387	3500	2294
	70	C.C	9.8	1.1	2.0	38	0.268	3500	3193
	95	C.C	11.4	1.1	2.1	43	0.193	3500	4285
	120	C.C	12.9	1.2	2.3	48	0.153	3500	5395
	150	C.C	14.4	1.4	2.4	53	0.124	3500	6638
	185	C.C	15.9	1.6	2.6	59	0.0991	3500	8250
	240	C.C	18.3	1.7	2.8	66	0.0754	3500	10723
	300	C.C	20.5	1.8	3.0	73	0.0601	3500	13369

Note) C.C : Compacted circular stranded type

**Shielded Type with copper tape, Armoured Cables**  
**(0.6/1kV CU/XLPE/CTS/PVC/AWA/PVC, CU/XLPE/CTS/PVC/SWA/PVC)**  
**(0.6/1kV TFR-CVAVAV-S, TFR-CVWAV-S)**

Nos. of Core	Conductor			Thickness		Dia. of Wire (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	Net weight (approx.)
	Conductor Size	Construction	Outer Dia.(approx.)	Insulation (nom.)	Inner Covering (approx.)					
	mm <sup>2</sup>	Nos./mm	mm	mm	mm					
1	50	C.C	8.1	1.0	1.0	1.6	1.8	22	0.387	869
	70	C.C	9.8	1.1	1.0	1.6	1.8	25	0.268	1122
	95	C.C	11.4	1.1	1.0	1.6	1.8	26	0.193	1421
	120	C.C	12.9	1.2	1.0	1.6	1.8	28	0.153	1708
	150	C.C	14.4	1.4	1.0	1.6	1.8	30	0.124	2042
	185	C.C	15.9	1.6	1.0	1.6	1.8	32	0.0991	2457
	240	C.C	18.3	1.7	1.0	1.6	1.9	36	0.0754	3100
	300	C.C	20.5	1.8	1.0	1.6	2.0	38	0.0601	3782
	400	C.C	23.2	2.0	1.2	2.0	2.1	43	0.0470	4840
	500	C.C	26.4	2.2	1.2	2.0	2.2	48	0.0366	6047
630	C.C	30.2	2.4	1.2	2.0	2.3	53	0.0283	7628	
2	1.5	7/0.53	1.59	0.7	1.0	0.8	1.8	17	12.1	385
	2.5	7/0.67	2.01	0.7	1.0	0.8	1.8	18	7.41	432
	4	7/0.85	2.55	0.7	1.0	0.8	1.8	19	4.61	503
	6	7/1.04	3.12	0.7	1.0	1.25	1.8	20	3.08	699
	10	7/1.35	4.05	0.7	1.0	1.25	1.8	22	1.83	873
	16	C.C	4.7	0.7	1.0	1.6	1.8	25	1.15	1164
	25	C.C	5.9	0.9	1.0	1.6	1.8	29	0.727	1526
	35	C.C	6.9	0.9	1.0	1.6	1.8	31	0.524	1826
	50	C.C	8.1	1.0	1.0	1.6	1.8	34	0.387	2243
	70	C.C	9.8	1.1	1.0	2.0	2.0	39	0.268	3124
	95	C.C	11.4	1.1	1.2	2.0	2.1	44	0.193	3922
	120	C.C	12.9	1.2	1.2	2.5	2.2	48	0.153	5061
	150	C.C	14.4	1.4	1.2	2.5	2.3	52	0.124	5983
	185	C.C	15.9	1.6	1.4	2.5	2.5	59	0.0991	7157
	240	C.C	18.3	1.7	1.4	2.5	2.7	65	0.0754	8786
	300	C.C	20.5	1.8	1.6	2.5	2.8	71	0.0601	10558

Nos. of Core	Conductor			Thickness		Dia. of Wire (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	Net weight (approx.)
	Conductor Size	Construction	Outer Dia. (approx.)	Insulation (nom.)	Inner Covering (approx.)					
	mm <sup>2</sup>	Nos./mm	mm	mm	mm					
3	1.5	7/0.53	1.59	0.7	1.0	0.8	1.8	17	12.1	414
	2.5	7/0.67	2.01	0.7	1.0	0.8	1.8	18	7.41	481
	4	7/0.85	2.55	0.7	1.0	0.8	1.8	20	4.61	570
	6	7/1.04	3.12	0.7	1.0	1.25	1.8	21	3.08	795
	10	7/1.35	4.05	0.7	1.0	1.25	1.8	23	1.83	1012
	16	C.C	4.7	0.7	1.0	1.6	1.8	26	1.15	1368
	25	C.C	5.9	0.9	1.0	1.6	1.8	33	0.727	1820
	35	C.C	6.9	0.9	1.0	1.6	1.8	33	0.524	2234
	50	C.C	8.1	1.0	1.0	1.6	1.9	36	0.387	2783
	70	C.C	9.8	1.1	1.0	2.0	2.0	42	0.268	3868
	95	C.C	11.4	1.1	1.2	2.0	2.2	46	0.193	4943
	120	C.C	12.9	1.2	1.2	2.0	2.3	51	0.153	5990
	150	C.C	14.4	1.4	1.4	2.5	2.5	57	0.124	7650
	185	C.C	15.9	1.6	1.4	2.5	2.6	62	0.0991	9159
	240	C.C	18.3	1.7	1.4	2.5	2.8	69	0.0754	11362
300	C.C	20.5	1.8	1.6	2.5	3.0	75	0.0601	13796	
4	1.5	7/0.53	1.59	0.7	1.0	0.8	1.8	18	12.1	469
	2.5	7/0.67	2.01	0.7	1.0	0.8	1.8	19	7.41	543
	4	7/0.85	2.55	0.7	1.0	0.8	1.8	21	4.61	651
	6	7/1.04	3.12	0.7	1.0	1.25	1.8	23	3.08	924
	10	7/1.35	4.05	0.7	1.0	1.25	1.8	26	1.83	1199
	16	C.C	4.7	0.7	1.0	1.6	1.8	28	1.15	1609
	25	C.C	5.9	0.9	1.0	1.6	1.8	32	0.727	2181
	35	C.C	6.9	0.9	1.0	1.6	1.9	35	0.524	2710
	50	C.C	8.1	1.0	1.0	2.0	2.0	40	0.387	3636
	70	C.C	9.8	1.1	1.2	2.0	2.2	46	0.268	4873
	95	C.C	11.4	1.1	1.2	2.5	2.3	52	0.193	6497
	120	C.C	12.9	1.2	1.4	2.5	2.5	57	0.153	7941
	150	C.C	14.4	1.4	1.4	2.5	2.6	62	0.124	9484
	185	C.C	15.9	1.6	1.4	2.5	2.8	68	0.0991	11428
	240	C.C	18.3	1.7	1.6	2.5	3.0	76	0.0754	14308
300	C.C	20.5	1.8	1.6	2.5	3.2	83	0.0601	17367	

Note) C.C : Compacted circular stranded type