MEDIUM VOLTAGE COPPER CABLES







GaryLion®

CHANGFENG WIRE & CABLE CO.,LTD

connectingthe**world** www.changfenggroup.com

CORPORATE PROFILE

CHANGFENG WIRE & CABLE CO LTD is one of the Top 20 Cable Manufacturer in China.

We specializing in the manufacturing wire and cables supplies to the power generation & transmission, transportation, automation, building & construction and marine & offshore sectors.

We manufacture superior quality standard products complying to international standards such as AS/NZS, IEC, BS, ASTM, UL, CSA etc. and we can also supply special cables in accordance to customers' requirements.

Our products are sucessfully exported to more than 30 countries around the world .















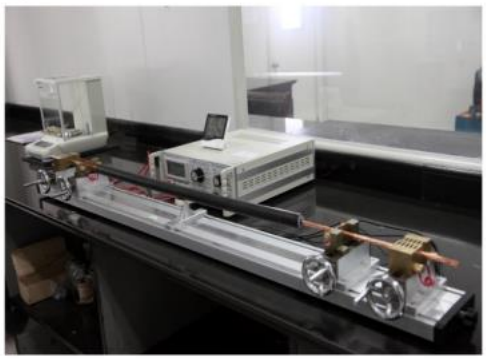
QUALITY ASSURANCE

Changfeng has made major investment in the testing facilities for its MV and HV cables factory. We have equipped ourselves with the latest and most advanced cable testing facility available in the world.

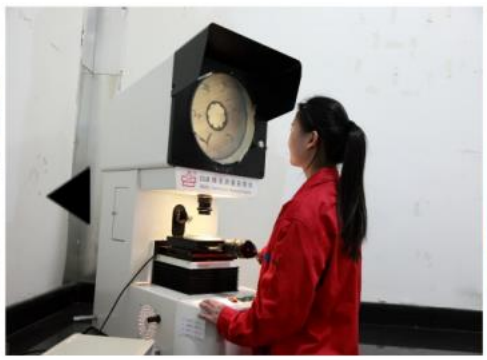
Effective quality assurance procedures are essential to ensure the consistency and long term reliability and performance of all products. Changfeng always recognises the importance of quality assurance and this commitment is reflected in the company achievement of ISO 9001 certification.

At Changfeng, quality assurance is an integrated part of the production process and maintained from order entry and manufacture through to testing, packaging and shipping. All the routine testing is carried to more stringent levels than that required by international standards.

we ensure to maintain close manufacturing tolerances, high accuracy to customer specifications as well as effective monitoring of the entire manufacturing process to offer a world class product.



Metal Conductor Resistance Testing Bridge Clamp, to determine the DC resistance of the conductors , higher the resistance, lesser the current will flow though the conductor



Measurement of insulation thickness to verify whether it is as per specified limit or not. These dimensions ensure safe and reliable performance of the cable



Flame Retardant Test to ensure the cables to reduce the spread of the fire during a fire emergency



Fire resistance test to ensure FR cales are resistance to fire alone, (950 °C ±40 °C for 3 hours)



Mechanical properties test on insulation to determine the tensile strength before ageing and after ageing



All manufactured cables are tested for withstand high voltages using the power frequency a.c., d.c.,and impulse voltage

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MEDIUM VOLTAGE CABLES
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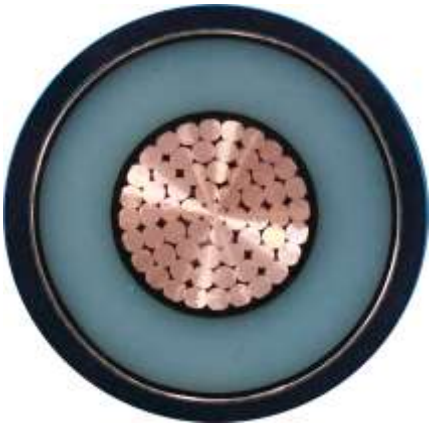
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MEDIUM VOLTAGE COPPER CABLES
1.8/3(3.6) kV, XLPE Insulated, PVC Sheathed Non-armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

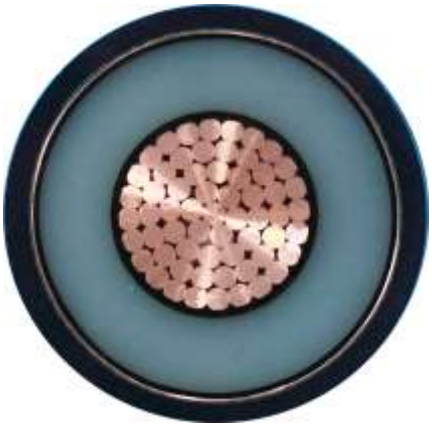
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	1.8/3(3.6) kV
Reference :	IEC 60228 & IEC 60502-1
AC Testing Voltage :	6.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties	Flame Retardant sheath
upon request :	LSHF sheath
	(PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	6	2.0	-	1.4	14	280	1.83	90	100
1 x 16	6	2.0	-	1.4	15	360	1.15	115	125
1 x 25	6	2.0	-	1.5	17	470	0.727	150	165
1 x 35	6	2.0	-	1.5	18	590	0.524	180	200
1 x 50	6	2.0	-	1.5	19	750	0.387	210	240
1 x 70	12	2.0	-	1.6	21	970	0.268	260	295
1 x 95	15	2.0	-	1.7	23	1250	0.193	310	365
1 x 120	18	2.0	-	1.7	24	1510	0.153	350	420
1 x 150	18	2.0	-	1.8	26	1820	0.124	395	475
1 x 185	30	2.0	-	1.8	28	2180	0.0991	450	545
1 x 240	34	2.0	-	1.9	30	2750	0.0754	520	640
1 x 300	34	2.0	-	2.0	33	3360	0.0601	585	740
1 x 400	53	2.0	-	2.1	36	4370	0.0470	670	850

MEDIUM VOLTAGE COPPER CABLES
3.6/6(7.2) kV, XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

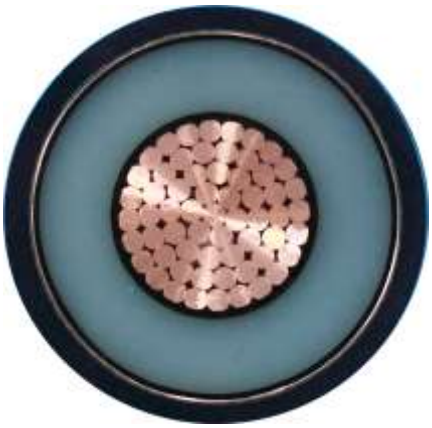
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	3.6/6 (7.2) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	12.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	6	2.5	-	1.4	16	310	1.83	90	100
1 x 16	6	2.5	-	1.5	17	400	1.15	115	125
1 x 25	6	2.5	-	1.5	18	510	0.727	150	165
1 x 35	6	2.5	-	1.5	19	620	0.524	180	200
1 x 50	6	2.5	-	1.6	21	800	0.387	210	240
1 x 70	12	2.5	-	1.6	22	1010	0.268	260	295
1 x 95	15	2.5	-	1.7	24	1290	0.193	310	365
1 x 120	18	2.5	-	1.7	25	1550	0.153	350	420
1 x 150	18	2.5	-	1.8	27	1870	0.124	395	475
1 x 185	30	2.5	-	1.9	29	2240	0.0991	450	545
1 x 240	34	2.6	-	2.0	32	2830	0.0754	520	640
1 x 300	34	2.8	-	2.0	35	3450	0.0601	585	740
1 x 400	53	3.0	-	2.2	38	4510	0.0470	670	850

MEDIUM VOLTAGE COPPER CABLES
6/10(12) kV, XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

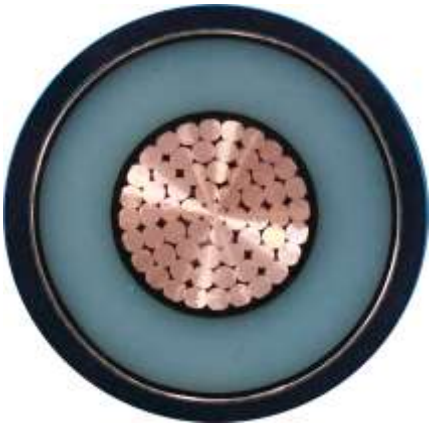
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	6/10(12) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	21kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	6	3.4	-	1.5	19	450	1.15	110	120
1 x 25	6	3.4	-	1.6	20	580	0.727	140	160
1 x 35	6	3.4	-	1.6	21	690	0.524	170	195
1 x 50	6	3.4	-	1.7	23	880	0.387	200	235
1 x 70	12	3.4	-	1.7	24	1100	0.268	250	290
1 x 95	15	3.4	-	1.8	26	1380	0.193	295	360
1 x 120	18	3.4	-	1.8	28	1650	0.153	335	415
1 x 150	18	3.4	-	1.9	29	1970	0.124	375	470
1 x 185	30	3.4	-	1.9	31	2330	0.0991	430	540
1 x 240	34	3.4	-	2.0	34	2920	0.0754	495	635
1 x 300	34	3.4	-	2.1	36	3540	0.0601	560	735
1 x 400	53	3.4	-	2.2	39	4560	0.0470	640	845

MEDIUM VOLTAGE COPPER CABLES
8.7/15(17.5) kV, XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

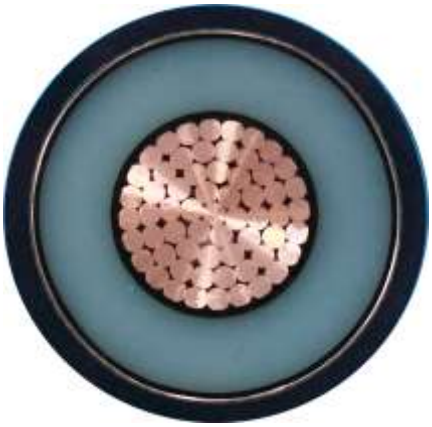
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	8.7/15(17.5) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	30.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	6	4.5	-	1.6	22	660	0.727	140	155
1 x 35	6	4.5	-	1.7	24	790	0.524	170	190
1 x 50	6	4.5	-	1.7	25	970	0.387	200	230
1 x 70	12	4.5	-	1.8	27	1210	0.268	250	285
1 x 95	15	4.5	-	1.8	28	1490	0.193	295	355
1 x 120	18	4.5	-	1.9	30	1770	0.153	335	410
1 x 150	18	4.5	-	1.9	31	2090	0.124	375	455
1 x 185	30	4.5	-	2.0	33	2470	0.0991	430	525
1 x 240	34	4.5	-	2.1	36	3060	0.0754	495	620
1 x 300	34	4.5	-	2.2	38	3700	0.0601	560	720
1 x 400	53	4.5	-	2.3	42	4730	0.0470	640	825

MEDIUM VOLTAGE COPPER CABLES
12/20(24) kV, XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

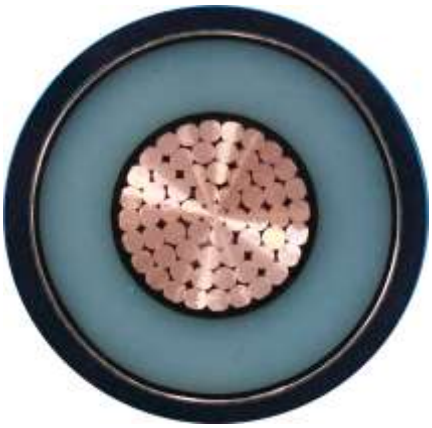
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	42kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	6	5.5	-	1.8	26	890	0.524	170	200
1 x 50	6	5.5	-	1.8	27	1070	0.387	200	240
1 x 70	12	5.5	-	1.9	29	1320	0.268	250	295
1 x 95	15	5.5	-	1.9	31	1600	0.193	295	365
1 x 120	18	5.5	-	2.0	32	1890	0.153	335	420
1 x 150	18	5.5	-	2.0	34	2210	0.124	375	475
1 x 185	30	5.5	-	2.1	36	2600	0.0991	430	545
1 x 240	34	5.5	-	2.2	38	3210	0.0754	495	640
1 x 300	34	5.5	-	2.2	41	3830	0.0601	560	740
1 x 400	53	5.5	-	2.3	44	4880	0.0470	640	850

MEDIUM VOLTAGE COPPER CABLES
18/30(36) kV, XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	18/30(36) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	63kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	-	-	-	-	-	-	-	-	-
1 x 50	6	8.0	-	2.1	33	1360	0.387	200	235
1 x 70	12	8.0	-	2.1	34	1600	0.268	250	290
1 x 95	15	8.0	-	2.2	36	1910	0.193	295	360
1 x 120	18	8.0	-	2.3	38	2220	0.153	335	415
1 x 150	18	8.0	-	2.3	39	2550	0.124	375	470
1 x 185	30	8.0	-	2.4	41	2960	0.0991	430	540
1 x 240	34	8.0	-	2.4	44	3570	0.0754	495	635
1 x 300	34	8.0	-	2.5	46	4230	0.0601	560	735
1 x 400	53	8.0	-	2.6	49	5300	0.047	640	845

MEDIUM VOLTAGE COPPER CABLES
1.8/3(3.6) kV, XLPE Insulated, PVC Sheathed Non-armour
3 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	1.8/3(3.6) kV
Reference :	IEC 60228 & IEC 60502-1
AC Testing Voltage :	6.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	6	2.0	-	1.8	27	900	1.83	85	80
3 x 16	6	2.0	-	1.9	30	1150	1.15	105	105
3 x 25	6	2.0	-	2.0	33	1510	0.727	135	140
3 x 35	6	2.0	-	2.1	36	1880	0.524	165	170
3 x 50	6	2.0	-	2.2	39	2430	0.387	195	205
3 x 70	12	2.0	-	2.3	43	3120	0.268	235	250
3 x 95	15	2.0	-	2.4	47	3990	0.193	280	305
3 x 120	18	2.0	-	2.5	50	4840	0.153	315	345
3 x 150	18	2.0	-	2.6	53	5820	0.124	350	390
3 x 185	30	2.0	-	2.7	57	6920	0.0991	395	445
3 x 240	34	2.0	-	2.9	63	8800	0.0754	450	520
3 x 300	34	2.0	-	3.1	68	10790	0.0601	495	580
3 x 400	53	2.0	-	3.3	75	14000	0.0470	545	655

MEDIUM VOLTAGE COPPER CABLES
3.6/6(7.2) kV, XLPE Insulated, PVC Sheathed Non-Armour
3 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	3.6/6 (7.2) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	12.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 20°C A	Ampacities in free air at 30°C (ambient) A
3 x 10	6	2.5	-	2.0	32	1010	1.83	85	80
3 x 16	6	2.5	-	2.0	33	1270	1.15	101	109
3 x 25	6	2.5	-	2.1	36	1640	0.727	129	142
3 x 35	6	2.5	-	2.1	38	2000	0.524	153	170
3 x 50	6	2.5	-	2.2	42	2560	0.387	181	204
3 x 70	12	2.5	-	2.3	45	3260	0.268	221	253
3 x 95	15	2.5	-	2.5	49	4160	0.193	262	304
3 x 120	18	2.5	-	2.6	52	5020	0.153	298	351
3 x 150	18	2.5	-	2.7	56	6010	0.124	334	398
3 x 185	30	2.5	-	2.8	59	7180	0.0991	377	455
3 x 240	34	2.6	-	3.0	66	9100	0.0754	434	531
3 x 300	34	2.8	-	3.2	72	11160	0.0601	489	606
3 x 400	53	3.0	-	3.4	85	14000	0.0470	553	696

MEDIUM VOLTAGE COPPER CABLES
6/10(12) kV, XLPE Insulated, PVC Sheathed Non-Armour
3 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	6/10(12) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	21kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	6	3.4	-	2.1	38	1490	1.15	105	105
3 x 25	6	3.4	-	2.2	40	1870	0.727	135	140
3 x 35	6	3.4	-	2.3	43	2270	0.524	165	170
3 x 50	6	3.4	-	2.4	46	2850	0.387	195	210
3 x 70	12	3.4	-	2.5	49	3570	0.268	235	255
3 x 95	15	3.4	-	2.6	53	4470	0.193	280	310
3 x 120	18	3.4	-	2.7	57	5360	0.153	315	350
3 x 150	18	3.4	-	2.8	60	6360	0.124	350	395
3 x 185	30	3.4	-	3.0	64	7590	0.0991	395	450
3 x 240	34	3.4	-	3.2	70	9480	0.0754	450	525
3 x 300	34	3.4	-	3.3	75	11450	0.0601	495	585
3 x 400	53	3.4	-	3.6	82	14760	0.0470	545	660

MEDIUM VOLTAGE COPPER CABLES
8.7/15(17.5) kV, XLPE Insulated, PVC Sheathed Non-Armour
3 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	8.7/15(17.5) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	30.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	6	4.5	-	2.4	46	2210	0.727	135	140
3 x 35	6	4.5	-	2.5	48	2630	0.524	165	170
3 x 50	6	4.5	-	2.6	52	3230	0.387	195	210
3 x 70	12	4.5	-	2.7	55	3980	0.268	235	255
3 x 95	15	4.5	-	2.8	59	4900	0.193	280	310
3 x 120	18	4.5	-	2.9	62	5810	0.153	315	350
3 x 150	18	4.5	-	3.0	65	6840	0.124	350	395
3 x 185	30	4.5	-	3.1	70	8070	0.0991	390	450
3 x 240	34	4.5	-	3.3	76	10000	0.0754	445	525
3 x 300	34	4.5	-	3.5	81	1240	0.0601	490	585
3 x 400	53	4.5	-	3.7	88	15370	0.0470	540	660

MEDIUM VOLTAGE COPPER CABLES
12/20(24) kV, XLPE Insulated, PVC Sheathed Non-Armour
3 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	42kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	-	-	-	-	-	-	-	-	-
3 x 35	6	5.5	-	2.6	53	2970	0.524	165	175
3 x 50	6	5.5	-	2.7	56	3590	0.387	195	215
3 x 70	12	5.5	-	2.8	60	4350	0.268	235	260
3 x 95	15	5.5	-	3.0	64	5340	0.193	280	315
3 x 120	18	5.5	-	3.1	67	6270	0.153	315	355
3 x 150	18	5.5	-	3.2	71	7320	0.124	350	400
3 x 185	30	5.5	-	3.3	75	8570	0.0991	390	455
3 x 240	34	5.5	-	3.5	81	10540	0.0754	445	525
3 x 300	34	5.5	-	3.7	86	12620	0.0601	490	585
3 x 400	53	5.5	-	3.9	93	15990	0.0470	540	660

MEDIUM VOLTAGE COPPER CABLES
18/30(36) kV, XLPE Insulated, PVC Sheathed Non-Armour
3 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	18/30(36) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	63kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	-	-	-	-	-	-	-	-	-
3 x 35	-	-	-	-	-	-	-	-	-
3 x 50	6	8.0	-	3.1	68	4660	0.387	195	215
3 x 70	12	8.0	-	3.2	72	5470	0.268	235	260
3 x 95	15	8.0	-	3.4	77	6530	0.193	275	315
3 x 120	18	8.0	-	3.5	80	7520	0.153	310	355
3 x 150	18	8.0	-	3.6	83	8620	0.124	345	400
3 x 185	30	8.0	-	3.7	87	9930	0.0991	390	455
3 x 240	34	8.0	-	3.9	93	11990	0.0754	445	525
3 x 300	34	8.0	-	4.1	98	14160	0.0601	490	585
3 x 400	53	8.0	-	4.3	105	17640	0.047	540	660

MEDIUM VOLTAGE COPPER CABLES
1.8/3(3.6) kV, XLPE Insulated, PVC Sheathed Double Aluminum Tape Armour 1 cores CU/XLPE/CTS/PVC/DATA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	1.8/3(3.6) kV
Reference :	IEC 60228 & IEC 60502-1
AC Testing Voltage :	6.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	6	2.0	2 X 0.5	1.8	20	500	1.83	90	100
1 x 16	6	2.0	2 X 0.5	1.8	21	590	1.15	115	125
1 x 25	6	2.0	2 X 0.5	1.8	22	710	0.727	150	165
1 x 35	6	2.0	2 X 0.5	1.8	23	840	0.524	180	200
1 x 50	6	2.0	2 X 0.5	1.8	25	1020	0.387	210	240
1 x 70	12	2.0	2 X 0.5	1.8	26	1250	0.268	260	295
1 x 95	15	2.0	2 X 0.5	1.8	28	1540	0.193	310	365
1 x 120	18	2.0	2 X 0.5	1.9	30	1830	0.153	350	420
1 x 150	18	2.0	2 X 0.5	1.9	31	2150	0.124	395	475
1 x 185	30	2.0	2 X 0.5	2.0	33	2540	0.0991	450	545
1 x 240	34	2.0	2 X 0.5	2.1	36	3150	0.0754	520	640
1 x 300	34	2.0	2 X 0.5	2.1	38	3770	0.0601	585	740
1 x 400	53	2.0	2 X 0.5	2.3	41	4830	0.0470	670	850

MEDIUM VOLTAGE COPPER CABLES
3.6/6(7.2) kV, XLPE Insulated, Sheathed Double Aluminum Tape Armour 1 cores CU/XLPE/CTS/PVC/DATA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	3.6/6 (7.2) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	12.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	6	2.5	2 X 0.5	1.8	21	540	1.83	90	100
1 x 16	6	2.5	2 X 0.5	1.8	22	630	1.15	115	125
1 x 25	6	2.5	2 X 0.5	1.8	23	760	0.727	150	165
1 x 35	6	2.5	2 X 0.5	1.8	24	890	0.524	180	200
1 x 50	6	2.5	2 X 0.5	1.8	26	1070	0.387	210	240
1 x 70	12	2.5	2 X 0.5	1.8	27	1310	0.268	260	295
1 x 95	15	2.5	2 X 0.5	1.9	29	1610	0.193	310	365
1 x 120	18	2.5	2 X 0.5	1.9	31	1890	0.153	350	420
1 x 150	18	2.5	2 X 0.5	2.0	32	2220	0.124	395	475
1 x 185	30	2.5	2 X 0.5	2.0	34	2610	0.0991	450	545
1 x 240	34	2.6	2 X 0.5	2.1	37	3230	0.0754	520	640
1 x 300	34	2.8	2 X 0.5	2.2	40	3900	0.0601	585	740
1 x 400	53	3.0	2 X 0.5	2.3	44	5000	0.0470	670	850

MEDIUM VOLTAGE COPPER CA BLES
6/10(12) kV, XLPE Insulated, PVC Sheathed Double Aluminum Tape Armour 1 cores CU/XLPE/CTS/PVC/DATA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	6/10(12) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	21kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	6	3.4	2 X 0.5	1.8	24	720	1.15	110	120
1 x 25	6	3.4	2 X 0.5	1.8	25	840	0.727	140	160
1 x 35	6	3.4	2 X 0.5	1.8	26	980	0.524	170	195
1 x 50	6	3.4	2 X 0.5	1.8	28	1170	0.387	200	235
1 x 70	12	3.4	2 X 0.5	1.9	29	1420	0.268	250	290
1 x 95	15	3.4	2 X 0.5	1.9	31	1710	0.193	295	360
1 x 120	18	3.4	2 X 0.5	2.0	33	2010	0.153	335	415
1 x 150	18	3.4	2 X 0.5	2.0	34	2330	0.124	375	470
1 x 185	30	3.4	2 X 0.5	2.1	36	2740	0.0991	430	540
1 x 240	34	3.4	2 X 0.5	2.2	39	3350	0.0754	495	635
1 x 300	34	3.4	2 X 0.5	2.2	41	3990	0.0601	560	735
1 x 400	53	3.4	2 X 0.5	2.4	45	5090	0.0470	640	845

MEDIUM VOLTAGE COPPER CABLES
8.7/15(17.5) kV, XLPE Insulated, PVC Sheathed Double Aluminum Tape Armour 1 cores CU/XLPE/CTS/PVC/DATA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	8.7/15(17.5) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	30.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	6	4.5	2 X 0.5	1.8	27	960	0.727	140	155
1 x 35	6	4.5	2 X 0.5	1.8	29	1090	0.524	170	190
1 x 50	6	4.5	2 X 0.5	1.9	30	1300	0.387	200	230
1 x 70	12	4.5	2 X 0.5	1.9	32	1540	0.268	250	285
1 x 95	15	4.5	2 X 0.5	2.0	33	1860	0.193	295	355
1 x 120	18	4.5	2 X 0.5	2.1	35	2160	0.153	335	410
1 x 150	18	4.5	2 X 0.5	2.1	37	2490	0.124	375	455
1 x 185	30	4.5	2 X 0.5	2.2	38	2900	0.0991	430	525
1 x 240	34	4.5	2 X 0.5	2.3	41	3530	0.0754	495	620
1 x 300	34	4.5	2 X 0.5	2.3	44	4190	0.0601	560	720
1 x 400	53	4.5	2 X 0.5	2.4	47	5270	0.0470	640	825

MEDIUM VOLTAGE COPPER CABLES
12/20(24) kV, XLPE Insulated, PVC Sheathed Double Aluminum Tape Armour 1 cores CU/XLPE/CTS/PVC/DATA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	42kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	6	5.5	2 X 0.5	1.9	31	1220	0.524	170	200
1 x 50	6	5.5	2 X 0.5	2.0	32	1430	0.387	200	240
1 x 70	12	5.5	2 X 0.5	2.0	34	1680	0.268	250	295
1 x 95	15	5.5	2 X 0.5	2.1	36	2000	0.193	295	365
1 x 120	18	5.5	2 X 0.5	2.1	37	2300	0.153	335	420
1 x 150	18	5.5	2 X 0.5	2.2	39	2650	0.124	375	475
1 x 185	30	5.5	2 X 0.5	2.2	41	3050	0.0991	430	545
1 x 240	34	5.5	2 X 0.5	2.3	44	3700	0.0754	495	640
1 x 300	34	5.5	2 X 0.5	24	46	4370	0.0601	560	740
1 x 400	53	5.5	2 X 0.5	2.5	50	5480	0.0470	640	850

MEDIUM VOLTAGE COPPER CABLES
18/30(36) kV, XLPE Insulated, PVC Sheathed Double Aluminum Tape Armour 1 cores CU/XLPE/CTS/PVC/DATA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	18/30(36) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	63kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	-	-	-	-	-	-	-	-	-
1 x 50	6	8.0	2 X 0.5	2.1	38	1770	0.387	200	235
1 x 70	12	8.0	2 X 0.5	2.2	40	2040	0.268	250	290
1 x 95	15	8.0	2 X 0.5	2.3	41	2380	0.193	295	360
1 x 120	18	8.0	2 X 0.5	2.3	43	2710	0.153	335	415
1 x 150	18	8.0	2 X 0.5	2.4	45	3080	0.124	375	470
1 x 185	30	8.0	2 X 0.5	2.4	47	3490	0.0991	430	540
1 x 240	34	8.0	2 X 0.5	2.5	50	4170	0.0754	495	635
1 x 300	34	8.0	2 X 0.5	2.6	52	4870	0.0601	560	735
1 x 400	53	8.0	2 X 0.5	2.7	56	6010	0.047	640	845

MEDIUM VOLTAGE COPPER CABLES
3.6/6(7.2) kV, XLPE Insulated, PVC Sheathed Steel Tape Armour
3 cores CU/XLPE/CTS/PVC/DSTA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	3.6/6 (7.2) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	12.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	6	2.5	2 x 0.2	2.0	34	1400	1.83	85	80
3 x 16	6	2.5	2 x 0.2	2.1	37	1690	1.15	105	105
3 x 25	6	2.5	2 x 0.5	2.2	41	2460	0.727	135	140
3 x 35	6	2.5	2 x 0.5	2.3	43	2920	0.524	165	170
3 x 50	6	2.5	2 x 0.5	2.4	47	3550	0.387	195	205
3 x 70	12	2.5	2 x 0.5	2.5	50	4360	0.268	235	250
3 x 95	15	2.5	2 x 0.5	2.7	54	5350	0.193	280	305
3 x 120	18	2.5	2 x 0.5	2.8	58	6330	0.153	315	345
3 x 150	18	2.5	2 x 0.5	2.9	61	7420	0.124	350	390
3 x 185	30	2.5	2 x 0.5	3.0	65	8690	0.0991	395	445
3 x 240	34	2.6	2 x 0.5	3.2	72	10800	0.0754	450	520
3 x 300	34	2.8	2 x 0.5	3.4	79	13060	0.0601	495	580
3 x 400	53	3.0	2 x 0.8	3.7	88	17520	0.0470	545	655

MEDIUM VOLTAGE COPPER CABLES
6/10(12) kV, XLPE Insulated, PVC Sheathed Steel Tape Armour
3 cores CU/XLPE/CTS/PVC/DSTA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	6/10(12) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	21kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	6	3.4	2 x 0.5	2.3	42	2360	1.15	105	105
3 x 25	6	3.4	2 x 0.5	2.4	45	2840	0.727	135	140
3 x 35	6	3.4	2 x 0.5	2.4	48	3270	0.524	165	170
3 x 50	6	3.4	2 x 0.5	2.6	51	3970	0.387	195	210
3 x 70	12	3.4	2 x 0.5	2.7	55	4790	0.268	235	255
3 x 95	15	3.4	2 x 0.5	2.8	59	5790	0.193	280	310
3 x 120	18	3.4	2 x 0.5	2.9	62	6790	0.153	315	350
3 x 150	18	3.4	2 x 0.5	3.0	66	7870	0.124	350	395
3 x 185	30	3.4	2 x 0.5	3.2	71	9230	0.0991	395	450
3 x 240	34	3.4	2 x 0.5	3.4	77	11290	0.0754	450	525
3 x 300	34	3.4	2 x 0.8	3.6	83	14260	0.0601	495	585
3 x 400	53	3.4	2 x 0.8	3.8	91	17870	0.0470	545	660

MEDIUM VOLTAGE COPPER CABLES
8.7/15(17.5) kV, XLPE Insulated, PVC Sheathed Steel Tape Armour
3 cores CU/XLPE/CTS/PVC/DSTA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	8.7/15(17.5) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	30.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	6	4.5	2 x 0.5	2.5	51	3300	0.727	135	140
3 x 35	6	4.5	2 x 0.5	2.6	53	3780	0.524	165	170
3 x 50	6	4.5	2 x 0.5	2.7	57	4480	0.387	195	210
3 x 70	12	4.5	2 x 0.5	2.9	60	5360	0.268	235	255
3 x 95	15	4.5	2 x 0.5	3.0	64	6380	0.193	280	310
3 x 120	18	4.5	2 x 0.5	3.1	68	7410	0.153	315	350
3 x 150	18	4.5	2 x 0.5	3.2	71	8520	0.124	350	395
3 x 185	30	4.5	2 x 0.5	3.3	76	9880	0.0991	390	450
3 x 240	34	4.5	2 x 0.8	3.6	84	12810	0.0754	445	525
3 x 300	34	4.5	2 x 0.8	3.8	89	15090	0.0601	490	585
3 x 400	53	4.5	2 x 0.8	4.0	97	18760	0.0470	540	660

MEDIUM VOLTAGE COPPER CABLES
12/20(24) kV, XLPE Insulated, PVC Sheathed Steel Tape Armour
3 cores CU/XLPE/CTS/PVC/DSTA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	42kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	-	-	-	-	-	-	-	-	-
3 x 35	6	5.5	2 x 0.5	2.8	58	4280	0.524	165	175
3 x 50	6	5.5	2 x 0.5	2.9	62	5010	0.387	195	215
3 x 70	12	5.5	2 x 0.5	3.0	65	5850	0.268	235	260
3 x 95	15	5.5	2 x 0.5	3.2	68	6970	0.193	280	315
3 x 120	18	5.5	2 x 0.5	3.3	74	8020	0.153	315	355
3 x 150	18	5.5	2 x 0.5	3.4	77	9150	0.124	350	400
3 x 185	30	5.5	2 x 0.5	3.5	81	10540	0.0991	390	455
3 x 240	34	5.5	2 x 0.8	3.7	88	13540	0.0754	445	525
3 x 300	34	5.5	2 x 0.8	3.9	94	15850	0.0601	490	585
3 x 400	53	5.5	2 x 0.8	4.2	101	19560	0.0470	540	660

MEDIUM VOLTAGE COPPER C ABLES
18/30(36) kV, XLPE Insulated, PVC Sheathed Steel Tape Armour
3 cores CU/XLPE/CTS/PVC/DSTA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel tape
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	18/30(36) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	63kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties	Flame Retardant sheath
upon request :	LSHF sheath
	(PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Thickness Of Armour Tape mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	-	-	-	-	-	-	-	-	-
3 x 35	-	-	-	-	-	-	-	-	-
3 x 50	6	8.0	2 x 0.5	3.3	75	6440	0.387	195	215
3 x 70	12	8.0	2 x 0.5	3.4	79	7380	0.268	235	260
3 x 95	15	8.0	2 x 0.8	3.6	84	9330	0.193	275	315
3 x 120	18	8.0	2 x 0.8	3.7	88	10490	0.153	310	355
3 x 150	18	8.0	2 x 0.8	3.8	91	11740	0.124	345	400
3 x 185	30	8.0	2 x 0.8	4.0	95	13240	0.0991	390	455
3 x 240	34	8.0	2 x 0.8	4.2	101	15560	0.0754	445	525
3 x 300	34	8.0	2 x 0.8	4.3	106	17930	0.0601	490	585
3 x 400	53	8.0	2 x 0.8	4.6	114	21820	0.047	540	660

MEDIUM VOLTAGE COPPER CABLES
1.8/3(3.6) kV, XLPE Insulated, PVC Sheathed Aluminum Wire Armour 1 cores CU/XLPE/CTS/PVC/AWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	1.8/3(3.6) kV
Reference :	IEC 60228 & IEC 60502-1
AC Testing Voltage :	6.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	6	2.0	1.25	1.8	20	540	1.83	90	100
1 x 16	6	2.0	1.25	1.8	21	630	1.15	115	125
1 x 25	6	2.0	1.6	1.8	23	800	0.727	150	165
1 x 35	6	2.0	1.6	1.8	24	940	0.524	180	200
1 x 50	6	2.0	1.6	1.8	26	1120	0.387	210	240
1 x 70	12	2.0	1.6	1.8	27	1360	0.268	260	295
1 x 95	15	2.0	1.6	1.9	29	1670	0.193	310	365
1 x 120	18	2.0	1.6	1.9	30	1950	0.153	350	420
1 x 150	18	2.0	1.6	2.0	32	2290	0.124	395	475
1 x 185	30	2.0	2.0	2.0	34	2760	0.0991	450	545
1 x 240	34	2.0	2.0	2.1	37	3380	0.0754	520	640
1 x 300	34	2.0	2.0	2.2	40	4040	0.0601	585	740
1 x 400	53	2.0	2.0	2.3	43	5110	0.0470	670	850

MEDIUM VOLTAGE COPPER CABLES
3.6/6(7.2) kV, XLPE Insulated, PVC Sheathed Aluminum Wire Armour 1 cores CU/XLPE/CTS/PVC/AWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	3.6/6 (7.2) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	12.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	6	2.5	1.25	1.8	22	580	1.83	90	100
1 x 16	6	2.5	1.6	1.8	24	720	1.15	115	125
1 x 25	6	2.5	1.6	1.8	25	860	0.727	150	165
1 x 35	6	2.5	1.6	1.8	26	990	0.524	180	200
1 x 50	6	2.5	1.6	1.8	28	1180	0.387	210	240
1 x 70	12	2.5	1.6	1.8	29	1420	0.268	260	295
1 x 95	15	2.5	1.6	1.9	31	1730	0.193	310	365
1 x 120	18	2.5	1.6	2.0	33	2030	0.153	350	420
1 x 150	18	2.5	2.0	2.0	35	2440	0.124	395	475
1 x 185	30	2.5	2.0	2.1	37	2850	0.0991	450	545
1 x 240	34	2.6	2.0	2.2	40	3490	0.0754	520	640
1 x 300	34	2.8	2.0	2.3	43	4190	0.0601	585	740
1 x 400	53	3.0	2.5	2.4	47	5450	0.0470	670	850

MEDIUM VOLTAGE COPPER CABLES
6/10(12) kV, XLPE Insulated, PVC Sheathed Aluminum Wire Armour 1 cores CU/XLPE/CTS/PVC/AWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	6/10(12) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	21kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	6	3.4	1.6	1.8	25	810	1.15	110	120
1 x 25	6	3.4	1.6	1.8	26	940	0.727	140	160
1 x 35	6	3.4	1.6	1.8	27	1080	0.524	170	195
1 x 50	6	3.4	1.6	1.9	29	1290	0.387	200	235
1 x 70	12	3.4	1.6	1.9	30	1530	0.268	250	290
1 x 95	15	3.4	1.6	2.0	32	1850	0.193	295	360
1 x 120	18	3.4	2.0	2.0	35	2230	0.153	335	415
1 x 150	18	3.4	2.0	2.1	36	2580	0.124	375	470
1 x 185	30	3.4	2.0	2.2	38	2990	0.0991	430	540
1 x 240	34	3.4	2.0	2.2	41	3610	0.0754	495	635
1 x 300	34	3.4	2.0	2.3	43	4270	0.0601	560	735
1 x 400	53	3.4	2.5	2.5	48	5540	0.0470	640	845

MEDIUM VOLTAGE COPPER CABLES
8.7/15(17.5) kV, XLPE Insulated, PVC Sheathed Aluminum Wire Armour 1 cores CU/XLPE/CTS/PVC/AWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	8.7/15(17.5) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	30.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	6	4.5	1.6	1.8	28	1070	0.727	140	155
1 x 35	6	4.5	1.6	1.9	30	1220	0.524	170	190
1 x 50	6	4.5	1.6	1.9	31	1425	0.387	200	230
1 x 70	12	4.5	1.6	2.0	33	1690	0.268	250	285
1 x 95	15	4.5	2.0	2.1	36	2095	0.193	295	355
1 x 120	18	4.5	2.0	2.1	37	2395	0.153	335	410
1 x 150	18	4.5	2.0	2.2	39	2755	0.124	375	455
1 x 185	30	4.5	2.0	2.2	41	3160	0.0991	430	525
1 x 240	34	4.5	2.0	2.3	43	3810	0.0754	495	620
1 x 300	34	4.5	2.5	2.4	47	4640	0.0601	560	720
1 x 400	53	4.5	2.5	2.5	50	5755	0.0470	640	825

MEDIUM VOLTAGE COPPER CABLES
12/20(24) kV, XLPE Insulated, PVC Sheathed Aluminum Wire Armour 1 cores CU/XLPE/CTS/PVC/AWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	42kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	6	5.5	1.6	2.0	32	1360	0.524	170	200
1 x 50	6	5.5	2.0	2.0	34	1645	0.387	200	240
1 x 70	12	5.5	2.0	2.1	36	1925	0.268	250	295
1 x 95	15	5.5	2.0	2.1	38	2240	0.193	295	365
1 x 120	18	5.5	2.0	2.2	39	2560	0.153	335	420
1 x 150	18	5.5	2.0	2.2	41	2905	0.124	375	475
1 x 185	30	5.5	2.0	2.3	43	3340	0.0991	430	545
1 x 240	34	5.5	2.5	2.4	47	4150	0.0754	495	640
1 x 300	34	5.5	2.5	2.5	49	4850	0.0601	560	740
1 x 400	53	5.5	2.5	2.6	53	6000	0.0470	640	850

MEDIUM VOLTAGE COPPER CABLES
18/30(36) kV, XLPE Insulated, PVC Sheathed Aluminum Wire Armour 1 cores CU/XLPE/CTS/PVC/AWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

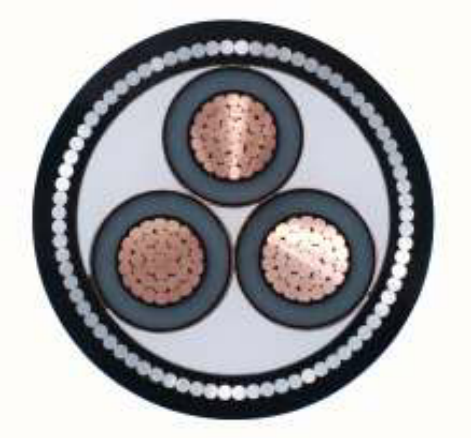
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Aluminum wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	18/30(36) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	63kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	-	-	-	-	-	-	-	-	-
1 x 50	6	8.0	2.0	2.2	40	2030	0.387	200	235
1 x 70	12	8.0	2.0	2.3	42	2320	0.268	250	290
1 x 95	15	8.0	2.0	2.3	43	2660	0.193	295	360
1 x 120	18	8.0	2.5	2.4	46	3160	0.153	335	415
1 x 150	18	8.0	2.5	2.5	48	3530	0.124	375	470
1 x 185	30	8.0	2.5	2.5	50	3980	0.0991	430	540
1 x 240	34	8.0	2.5	2.6	53	4690	0.0754	495	635
1 x 300	34	8.0	2.5	2.7	56	5400	0.0601	560	735
1 x 400	53	8.0	2.5	2.8	59	6580	0.047	640	845

MEDIUM VOLTAGE COPPER CABLES
1.8/3(3.6) kV, XLPE Insulated, PVC Sheathed Steel Wire Armour
3 cores CU/XLPE/CTS/PVC/SWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

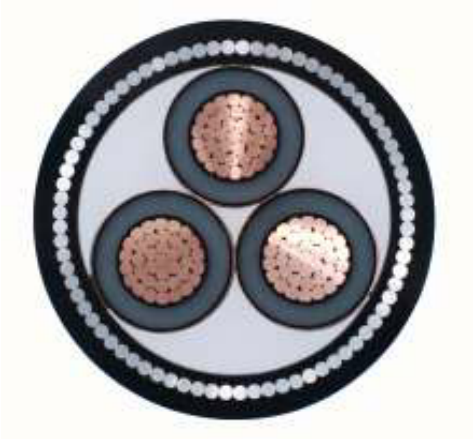
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	6.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties	Flame Retardant sheath
upon request :	LSHF sheath
	(PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	6	2.0	2.0	2.0	35	2160	1.83	85	80
3 x 16	6	2.0	2.0	2.1	38	2500	1.15	105	105
3 x 25	6	2.0	2.0	2.2	40	2980	0.727	135	140
3 x 35	6	2.0	2.0	2.3	43	3450	0.524	165	170
3 x 50	6	2.0	2.5	2.4	47	4540	0.387	195	205
3 x 70	12	2.0	2.5	2.5	51	5420	0.268	235	250
3 x 95	15	2.0	2.5	2.7	55	6560	0.193	280	305
3 x 120	18	2.0	2.5	2.8	59	7620	0.153	315	345
3 x 150	18	2.0	2.5	2.9	62	8740	0.124	350	390
3 x 185	30	2.0	2.5	3.0	66	10160	0.0991	395	445
3 x 240	34	2.0	2.5	3.2	72	12350	0.0754	450	520
3 x 300	34	2.0	3.15	3.5	80	15520	0.0601	495	580
3 x 400	53	2.0	3.15	3.7	87	19220	0.0470	545	655

MEDIUM VOLTAGE COPPER CABLES
3.6/6(7.2) kV, XLPE Insulated, PVC Sheathed Steel Wire Armour
3 cores CU/XLPE/CTS/PVC/SWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

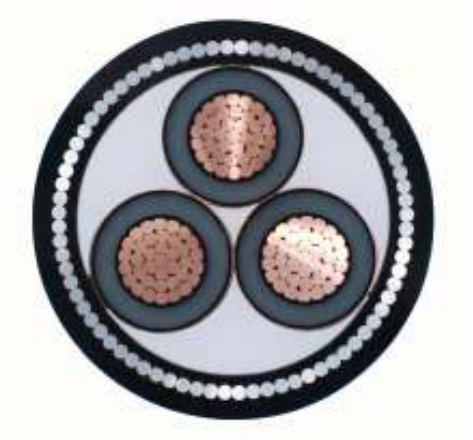
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	3.6/6 (7.2) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	12.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	6	2.5	2.0	2.1	38	2360	1.83	85	80
3 x 16	6	2.5	2.0	2.2	40	2720	1.15	105	105
3 x 25	6	2.5	2.0	2.3	43	3200	0.727	135	140
3 x 35	6	2.5	2.5	2.4	47	4090	0.524	165	170
3 x 50	6	2.5	2.5	2.5	50	4830	0.387	195	205
3 x 70	12	2.5	2.5	2.6	53	5740	0.268	235	250
3 x 95	15	2.5	2.5	2.8	57	6830	0.193	280	305
3 x 120	18	2.5	2.5	2.9	61	7900	0.153	315	345
3 x 150	18	2.5	2.5	3.0	64	9100	0.124	350	390
3 x 185	30	2.5	2.5	3.1	69	10510	0.0991	395	445
3 x 240	34	2.6	3.15	3.4	77	13680	0.0754	450	520
3 x 300	34	2.8	3.15	3.6	84	16160	0.0601	495	580
3 x 400	53	3.0	3.15	3.9	92	20160	0.0470	545	655

MEDIUM VOLTAGE COPPER CABLES
6/10(12) kV, XLPE Insulated, PVC Sheathed Steel Wire Armour
3 cores CU/XLPE/CTS/PVC/SWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	6/10(12) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	21kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	6	3.4	2.0	2.3	44	3120	1.15	105	105
3 x 25	6	3.4	2.5	2.5	49	4090	0.727	135	140
3 x 35	6	3.4	2.5	2.6	50	4590	0.524	165	170
3 x 50	6	3.4	2.5	2.7	54	5370	0.387	195	210
3 x 70	12	3.4	2.5	2.8	58	6300	0.268	235	255
3 x 95	15	3.4	2.5	2.9	62	7390	0.193	280	310
3 x 120	18	3.4	2.5	3.0	66	8530	0.153	315	350
3 x 150	18	3.4	2.5	3.1	69	9680	0.124	350	395
3 x 185	30	3.4	2.5	3.3	73	11180	0.0991	395	450
3 x 240	34	3.4	3.15	3.5	81	14270	0.0754	450	525
3 x 300	34	3.4	3.15	3.7	87	16680	0.0601	495	585
3 x 400	53	3.4	3.15	3.9	94	20540	0.0470	545	660

MEDIUM VOLTAGE COPPER CABLES
8.7/15(17.5) kV, XLPE Insulated, PVC Sheathed Steel Wire Armour
3 cores CU/XLPE/CTS/PVC/SWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

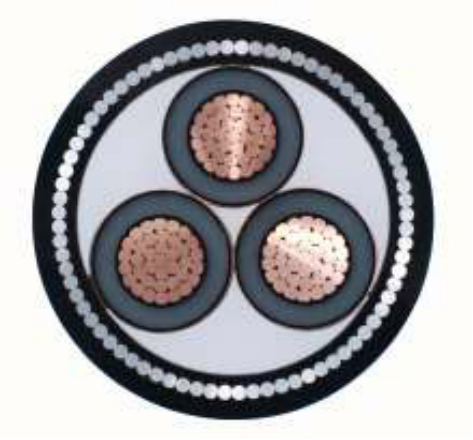
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	8.7/15(17.5) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	30.5kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	6	4.5	2.5	2.7	54	4730	0.727	135	140
3 x 35	6	4.5	2.5	2.7	56	5220	0.524	165	170
3 x 50	6	4.5	2.5	2.8	60	6030	0.387	195	210
3 x 70	12	4.5	2.5	3.0	64	7020	0.268	235	255
3 x 95	15	4.5	2.5	3.1	68	8180	0.193	280	310
3 x 120	18	4.5	2.5	3.2	72	9310	0.153	315	350
3 x 150	18	4.5	3.15	3.4	77	11340	0.124	350	395
3 x 185	30	4.5	3.15	3.5	81	12890	0.0991	390	450
3 x 240	34	4.5	3.15	3.7	87	15220	0.0754	445	525
3 x 300	34	4.5	3.15	3.9	92	17680	0.0601	490	585
3 x 400	53	4.5	3.15	4.1	100	21540	0.0470	540	660

MEDIUM VOLTAGE COPPER CABLES
12/20(24) kV, XLPE Insulated, PVC Sheathed Steel Wire Armour
3 cores CU/XLPE/CTS/PVC/SWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

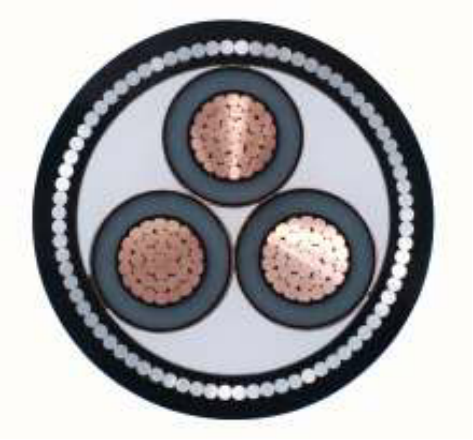
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	12/20(24) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	42kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	-	-	-	-	-	-	-	-	-
3 x 35	6	5.5	2.5	2.9	62	5980	0.524	165	175
3 x 50	6	5.5	2.5	3.0	65	6720	0.387	195	215
3 x 70	12	5.5	2.5	3.1	69	7670	0.268	235	260
3 x 95	15	5.5	2.5	3.3	73	8880	0.193	280	315
3 x 120	18	5.5	3.15	3.4	79	10910	0.153	315	355
3 x 150	18	5.5	3.15	3.5	82	12180	0.124	350	400
3 x 185	30	5.5	3.15	3.7	86	13730	0.0991	390	455
3 x 240	34	5.5	3.15	3.9	92	16170	0.0754	445	525
3 x 300	34	5.5	3.15	4.0	97	18560	0.0601	490	585
3 x 400	53	5.5	3.15	4.2	105	22530	0.0470	540	660

MEDIUM VOLTAGE COPPER CABLES
18/30(36) kV, XLPE Insulated, PVC Sheathed Steel Wire Armour
3 cores CU/XLPE/CTS/PVC/SWA/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

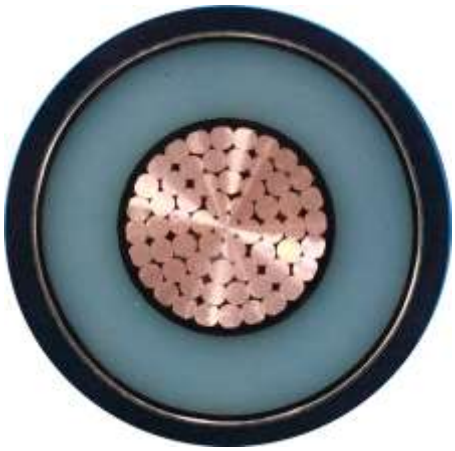
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	Black PVC (Polyvinyl Chloride)
Armour :	Galvanized steel wire
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Voltage :	18/30(36) kV
Reference :	IEC 60228 & IEC 60502-2
AC Testing Voltage :	63kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
3 x 10	-	-	-	-	-	-	-	-	-
3 x 16	-	-	-	-	-	-	-	-	-
3 x 25	-	-	-	-	-	-	-	-	-
3 x 35	-	-	-	-	-	-	-	-	-
3 x 50	6	8.0	3.15	3.5	80	9400	0.387	195	215
3 x 70	12	8.0	3.15	3.6	83	10480	0.268	235	260
3 x 95	15	8.0	3.15	3.7	87	11790	0.193	275	315
3 x 120	18	8.0	3.15	3.8	91	13040	0.153	310	355
3 x 150	18	8.0	3.15	3.9	95	14400	0.124	345	400
3 x 185	30	8.0	3.15	4.1	98	15990	0.0991	390	455
3 x 240	34	8.0	3.15	4.3	105	18540	0.0754	445	525
3 x 300	34	8.0	3.15	4.4	110	21080	0.0601	490	585
3 x 400	53	8.0	3.15	4.7	117	25160	0.047	540	660

MEDIUM VOLTAGE COPPER CABLES
15 kV, 133% XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

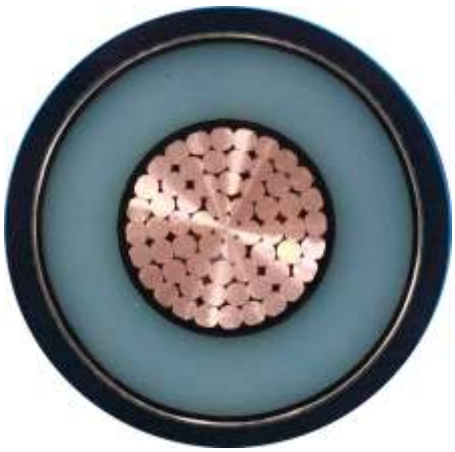
Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data

Max Circuit Voltage :	15 kV
Reference :	ICEA S-93-639 & IEC 60502-2
AC Testing Voltage :	44kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties	Flame Retardant sheath
upon request :	LSHF sheath
	(PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm²	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	6	5.59	-	1.8	27	790	0.727	170	190
1 x 35	6	5.59	-	1.8	28	925	0.524	200	230
1 x 50	6	5.59	-	1.8	30	1084	0.387	250	285
1 x 70	12	5.59	-	1.9	32	1327	0.268	295	355
1 x 95	15	5.59	-	1.9	33	1642	0.193	335	410
1 x 120	18	5.59	-	2.0	35	1920	0.153	375	455
1 x 150	18	5.59	-	2.0	37	2225	0.124	430	525
1 x 185	30	5.59	-	2.1	39	2619	0.0991	495	620
1 x 240	34	5.59	-	2.2	42	3224	0.0754	650	720
1 x 300	34	5.59	-	2.2	46	3853	0.0601	640	825
1 x 400	53	5.59	-	2.3	50	4770	0.0470	725	950

MEDIUM VOLTAGE COPPER CABLES
25 kV, 133% XLPE Insulated, PVC Sheathed Non-Armour
1 cores CU/XLPE/CTS/PVC



Application

Used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

Construction :

Conductor :	Compact round stranded anneal copper
Conductor Screen :	Semi-conducting Cross-linked polyethylene
Insulation :	XLPE (Cross-linked Polyethylene)
Insulation Screen :	Semi-conducting Cross-linked polyethylene
Metallic Shield :	Annealed copper tape (CTS)
Filler :	Non-hygroscopic material
Wrapping Tape :	Polyester / Non-woven tape
Inner Sheath :	-
Armour :	-
Wrapping Tape :	Polyester / Non-woven tape
Outer Sheath :	Black PVC (Polyvinyl Chloride)

Technical Data :

Max Circuit Voltage :	25 KV
Reference :	ICEA S-93-639 & IEC 60502-2
AC Testing Voltage :	64kV
Max. Conductor Temperature :	90°C (normal operation)
Max. Conductor Temperature :	250°C (short circuit at 5s max. duration)
Special Properties upon request :	Flame Retardant sheath LSHF sheath (PE) Polyethylene sheath

Nominal cross-sectional area of conductor Core x mm^2	Number and diameter of wires no/mm	Thickness of insulation mm	Nom. Dia. Of Armour Wire mm	Thickness of oversheath mm	Approx overall diameter mm	Approx net weight Kg/km	Maximum Conductor Resistance at 20°C Ohm/km	Ampacities direct burial in ground at 30°C A	Ampacities in free air at 40°C (ambient) A
1 x 10	-	-	-	-	-	-	-	-	-
1 x 16	-	-	-	-	-	-	-	-	-
1 x 25	-	-	-	-	-	-	-	-	-
1 x 35	6	8.13	-	2.0	33	1274	0.524	180	210
1 x 50	6	8.13	-	2.0	35	1448	0.387	215	255
1 x 70	12	8.13	-	2.1	36	1710	0.268	260	320
1 x 95	15	8.13	-	2.2	38	2045	0.193	315	385
1 x 120	18	8.13	-	2.2	40	2339	0.153	360	445
1 x 150	18	8.13	-	2.2	41	2657	0.124	400	505
1 x 185	30	8.13	-	2.3	43	3073	0.0991	455	580
1 x 240	34	8.13	-	2.4	45	3703	0.0754	530	680
1 x 300	34	8.13	-	2.5	48	4356	0.0601	600	780
1 x 400	53	8.13	-	2.6	51	5306	0.0470	680	910

MEDIUM VOLTAGE CABLES TECHNICAL DATA AND GENERAL INFORMATION

TABLE 1
D.C. CONDUCTOR RESISTANCE

Nominal cross-sectional area of conductor	Max. D.C. resistance of conductor at 20°C	
	Copper Conductor	Aluminum Conductor
mm^2	Ω/km	Ω/km
25	0.727	1.20
35	0.524	0.868
50	0.387	0.641
70	0.268	0.443
95	0.193	0.320
120	0.153	0.253
150	0.124	0.206
185	0.0991	0.164
240	0.0754	0.125
300	0.0601	0.100
400	0.0470	0.078
500	0.0366	0.0605
630	0.0283	0.0469

TABLE 2
VOLTAGE TEST AND PARTIAL DISCHARGE TEST

No.	Test items	Rated voltage kV				
		3.6/6	**6/10**	**8.7/15**	**12/20**	**18/30**
1	Power frequency A.C. voltage test kV/5min	12.5	21	30.5	42	63
2	A.C. Voltage test for 4 hours. kV	14.4	24	34.8	48	72
3	Impulse voltage test, kV	60	75	95	125	170
4	Partial discharge test Maximum discharge at I.73U。 pC	PASS	PASS	PASS	PASS	PASS

TABLE 3 - MAXIMUM SHORT CIRCUIT CURRENT

Nominal cross-sectional area of conductor	MAXIMUM SHORT CIRCUIT CURRENT	
	Copper Conductor	Aluminum Conductor
mm^2	KA	KA
25	3.58	2.36
35	5.01	3.31
50	7.15	4.72
70	10.02	6.61
95	13.59	8.98
120	17.17	11.34
150	21.46	14.17
185	26.47	15.48
240	34.34	22.68
300	42.93	28.35
400	57.23	37.79
500	71.54	47.24
630	90.14	59.52

TABLE 4 - CAPACITANCE OF CABLE (reference value KV)

Nominal cross-sectional area of conductor	Rated voltage, kV				
	3.6/6	6/10	8.7/15	12/20	18/30
mm^2	Capacitance / phase µF/km				
25	0.2423	0.1922	0.1576	0.1378	0.1163
35	0.2684	0.2116	0.1725	0.1502	0.1251
50	0.3022	0.2367	0.1917	0.1661	0.1363
70	0.3462	0.2693	0.2167	0.1868	0.1508
95	0.3875	0.2999	0.2400	0.2060	0.1643
120	0.4236	0.3266	0.2603	0.2228	0.1760
150	0.4647	0.3570	0.2834	0.2418	0.1893
185	0.5059	0.3873	0.3123	0.2656	0.2026
240	0.5430	0.4290	0.3439	0.2916	0.2207
300	0.5589	0.4706	0.3755	0.3175	0.2387
400	0.5940	0.5311	0.4213	0.3551	0.2648
500	0.6167	0.5839	0.4613	0.3880	0.2876
630	0.6848	0.6481	0.5099	0.4278	0.3151

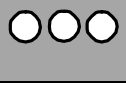
TABLE 5 - INDUCTANCE OF SINGLE CORE CABLE

Nominal cross-sectional area of conductor	Rated voltage,kV				
	3.6/6	6/10	8.7/15	12/20	18/30
mm^2	Inductance mH / km				
25	0.5954	0.6143	0.6474	-	-
35	0.5753	0.5932	0.6248	0.6390	-
50	0.5543	0.5711	0.6011	0.6145	0.6501
70	0.5357	0.5486	0.5765	0.5919	0.6252
95	0.5172	0.5318	0.5608	0.5726	0.6043
120	0.5059	0.5197	0.5473	0.5586	0.5891
150	0.4949	0.5079	0.5341	0.5449	0.5740
185	0.4885	0.5006	0.5252	0.5354	0.5640
240	0.4790	0.4890	0.5143	0.5216	0.5487
300	0.4749	0.4818	0.5032	0.5102	0.5376
400	0.4660	0.4702	0.4927	0.4991	0.5219
500	0.4600	0.4619	0.4848	0.4907	0.5128
630	0.4547	0.4563	0.4748	0.4827	0.5012

TABLE 6 - INDUCTANCE OF THREE CORES CABLE

Nominal cross-sectional area of conductor	Rated voltage, kV				
	3.6/6	6/10	8.7/15	12/20	18/30
mm^2	Inductance mH / km				
25	0.3552	0.3797	0.4061	-	-
35	0.3384	0.3613	0.3862	0.4064	-
50	0.3211	0.3423	0.3655	0.3845	0.4396
70	0.3040	0.3232	0.3445	0.3620	0.4145
95	0.2915	0.3092	0.3290	0.3454	0.3956
120	0.2826	0.2992	0.3178	0.3392	0.3799
150	0.2742	0.2897	0.3071	0.3217	0.3642
185	0.2672	0.2817	0.3009	0.3145	0.3485
240	0.2608	0.2726	0.2904	0.3030	0.3360
300	0.2576	0.2651	0.2817	0.2935	0.3266
400	0.2516	0.2564	0.2714	0.2822	0.3014
500	0.2480	0.2503	0.2641	0.2742	-
630	0.2421	0.2442	0.2596	0.2661	-

TABLE 7 –
CURRENT CARRYING CAPACITY (A) FOR SINGLE CORE COPPER CABLES FROM 3.6/6KV TO 18/30KV

	Nominal cross-sectional area of conductor mm²	In air		In buried duct in ground		Buried direct in ground	
		Trefoil	Flat Spaced	Trefoil	Flat Touching	Trefoil	Flat Spaced
							
Conductor	**16**	125	150	103	104	109	113
	25	163	196	132	133	140	144
	35	198	238	157	159	166	172
	50	238	286	186	188	196	203
	70	296	356	227	229	239	246
	95	361	434	271	274	285	293
	120	417	500	308	311	323	332
	150	473	559	343	347	361	366
	185	543	637	387	391	406	410
	240	641	745	447	453	469	470
	300	735	846	504	510	526	524
	400	845	938	564	571	590	572

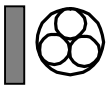
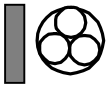
Condition:
1. Conductor temperature 90 °C
2. Ambient air temperature 30 °C
3. Ground temperature 20 °C
4. Depth of laying 0.8m in ground
5. Thermal resistivity of soil 1.5K-m/W
6. Thermal resistivity of earthenware ducts 1.2K-m/W
7. Screens bonded at both ends

TABLE 8
CURRENT CARRYING CAPACITY (A) FOR SINGLE CORE ALUMINIUM CABLES FROM 3.6/6KV TO 18/30KV

Conductor	Nominal cross-sectional area of conductor mm²	In air		In buried duct in ground		Buried direct in ground	
		Trefoil	Flat Spaced	Trefoil	Flat Touching	Trefoil	Flat Spaced
							
Aluminium conductor	**16**	97	116	80	81	84	88
	25	127	153	102	103	108	112
	35	154	185	122	123	129	134
	50	184	222	144	146	152	157
	70	230	278	176	178	186	192
	95	280	338	210	213	221	229
	120	324	391	240	242	252	260
	150	368	440	267	271	281	288
	185	424	504	303	307	317	324
	240	502	593	351	356	367	373
	300	577	677	397	402	414	419
	400	673	769	451	457	470	466

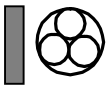
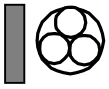
Condition:
1. Conductor temperature 90 °C
2. Ambient air temperature 30 °C
3. Ground temperature 20 °C
4. Depth of laying 0.8m in ground
5. Thermal resistivity of soil 1.5Km/W
6. Thermal resistivity of earthenware ducts 1.2K-m/W
7. Screens bonded at both ends

TABLE 9
CURRENT CARRYING CAPACITY (A) FOR THREE CORES COPPER CABLES ARMOURED AND UNARMOURED FROM 3.6/6KV TO 18/30KV

Conductor	Nominal cross-sectional area of conductor mm²	Unarmoured			Armoured		
		Buried Direct in ground	In buried duct in ground	In air	Buried Direct in ground	In buried duct in ground	In air
							
Copper conductor	**16**	101	87	109	101	88	110
	25	129	112	142	129	112	143
	35	153	133	170	154	134	172
	50	181	158	204	181	158	205
	70	221	193	253	220	194	253
	95	262	231	304	263	232	307
	120	298	264	351	298	264	352
	150	334	297	398	332	296	397
	185	377	336	455	374	335	453
	240	434	390	531	431	387	529
	300	489	441	606	482	435	599
	400	553	501	696	541	492	683

Condition:
1. Conductor temperature 90 °C
2. Ambient air temperature 30 °C
3. Ground temperature 20 °C
4. Depth of laying 0.8m in ground
5. Thermal resistivity of soil 1.5K-m/W
6. Thermal resistivity of earthenware ducts 1.2K-m/W

TABLE 10
CURRENT CARRYING CAPACITY (A) FOR THREE CORES ALUMINIUM CABLES ARMOURED AND UNARMOURED FROM 3.6/6KV TO 18/30KV

Conductor	Nominal cross-sectional area of conductor mm²	Unarmoured			Armoured		
		Buried Direct in ground	In buried duct in ground	In air	Buried Direct in ground	In buried duct in ground	In air
							
Aluminium conductor	**16**	78	67	84	78	68	85
	25	100	87	110	100	87	111
	35	119	103	132	119	104	133
	50	140	122	158	140	123	159
	70	171	150	196	171	150	196
	95	203	179	236	204	180	238
	120	232	205	273	232	206	274
	150	260	231	309	259	231	309
	185	294	262	355	293	262	354
	240	340	305	415	338	304	415
	300	384	346	475	380	343	472
	400	438	398	552	432	393	545

Condition:
1. Conductor temperature 90 °C
2. Ambient air temperature 30 °C
3. Ground temperature 20 °C
4. Depth of laying 0.8m in ground
5. Thermal resistivity of soil 1.5K-m/W
6. Thermal resistivity of earthenware ducts 1.2K-m/W

TABLE 11
RATING FACTORS CURRENT CARRYING FOR DIFFERENT AIR TEMPERATURE
(max conductor temperature 90°C)

Air temperature (°C)	20	25	30	35	40	45	50
Rating factor	1.08	1.04	1.00	0.96	0.91	0.87	0.82

TABLE 12
RATING FACTORS CURRENT CARRYING FOR DIFFERENT SOIL TEMPERATURE
(max conductor temperature 90°C)

Soil temperature(°C)	15	20	25	30	35	40	45	50
Rating factor	1.04	1.00	0.96	0.93	0.89	0.85	0.8	0.76

TABLE 13
CORRECTION FACTORS FOR DEPTHS OF LAYING FOR CABLE BURIED DIRECT AND CABLE IN BURIED DUCT

Depth of Laying	For Cables buried direct			For cables in buried duct		
	Single core		Three cores	Single core		Three cores
(M)	≤ 185mm²	> 185mm²		≤ 185mm²	> 185mm²	
0.5	1.04	1.06	1.04	1.04	1.05	1.03
0.6	1.02	1.04	1.03	1.02	1.03	1.02
0.8	1.00	1.00	1.00	1.00	1.00	1.00
1.0	0.98	0.97	0.98	0.98	0.97	0.99
1.25	0.96	0.95	0.96	0.96	0.95	0.97
1.5	0.95	0.93	0.95	0.95	0.93	0.96
1.75	0.94	0.91	0.94	0.94	0.92	0.95
2.0	0.93	0.90	0.93	0.93	0.91	0.94
2.5	0.91	0.88	0.91	0.91	0.89	0.93
3.0	0.90	0.86	0.90	0.90	0.88	0.92

TABLE 14
CORRECTION FACTORS FOR SOIL THERMAL RESISTIVITIES
FOR SINGLE CORE CABLES DIRECT BURIED IN GROUND

Area size (mm^2)	Values of soil thermal resistivity (K·m/W)							
	0.7	0.8	0.9	1.0	1.5	2.0	2.5	3.0
16	1.29	1.24	1.19	1.15	1.00	0.89	0.82	0.75
25	1.30	1.25	1.20	1.16	1.00	0.89	0.81	0.75
35	1.30	1.25	1.21	1.16	1.00	0.89	0.81	0.75
50	1.32	1.26	1.21	1.16	1.00	0.89	0.81	0.74
70	1.33	1.27	1.22	1.17	1.00	0.89	0.81	0.74
95	1.34	1.28	1.22	1.18	1.00	0.89	0.80	0.74
120	1.34	1.28	1.22	1.18	1.00	0.88	0.80	0.74
150	1.35	1.28	1.23	1.18	1.00	0.88	0.80	0.74
185	1.35	1.29	1.23	1.18	1.00	0.88	0.80	0.74
240	1.36	1.29	1.23	1.18	1.00	0.88	0.80	0.73
300	1.36	1.30	1.24	1.19	1.00	0.88	0.80	0.73
400	1.37	1.30	1.24	1.19	1.00	0.88	0.79	0.73

TABLE 15
CORRECTION FACTORS FOR SOIL THERMAL RESISTIVITIES
FOR SINGLE CORE CABLES IN BURIED DUCT IN GROUND

Area size (mm^2)	Values of soil thermal resistivity (K·m/W)							
	0.7	0.8	0.9	1.0	1.5	2.0	2.5	3.0
16	1.20	1.17	1.14	1.11	1.00	0.92	0.85	0.79
25	1.21	1.17	1.14	1.12	1.00	0.91	0.85	0.79
35	1.21	1.18	1.15	1.12	1.00	0.91	0.84	0.79
50	1.21	1.18	1.15	1.12	1.00	0.91	0.84	0.78
70	1.22	1.19	1.15	1.12	1.00	0.91	0.84	0.78
95	1.23	1.19	1.16	1.13	1.00	0.91	0.84	0.78
120	1.23	1.20	1.16	1.13	1.00	0.91	0.84	0.78
150	1.24	1.20	1.16	1.13	1.00	0.91	0.83	0.78
185	1.24	1.20	1.17	1.13	1.00	0.91	0.83	0.78
240	1.25	1.21	1.17	1.14	1.00	0.90	0.83	0.77
300	1.25	1.21	1.17	1.14	1.00	0.90	0.83	0.77
400	1.25	1.21	1.17	1.14	1.00	0.90	0.83	0.77

TABLE 16
CORRECTION FACTORS FOR SOIL THERMAL RESISTIVITIES
FOR THREE CORES CABLES DIRECT BURIED IN GROUND

Area size (mm^2)	Values of soil thermal resistivity (K·m/W)							
	0.7	0.8	0.9	1.0	1.5	2.0	2.5	3.0
16	1.23	1.19	1.16	1.13	1.00	0.91	0.84	0.78
25	1.24	1.20	1.16	1.13	1.00	0.91	0.84	0.78
35	1.25	1.21	1.17	1.13	1.00	0.91	0.83	0.78
50	1.25	1.21	1.17	1.14	1.00	0.91	0.83	0.77
70	1.26	1.21	1.18	1.14	1.00	0.90	0.83	0.77
95	1.26	1.22	1.18	1.14	1.00	0.90	0.83	0.77
120	1.26	1.22	1.18	1.14	1.00	0.90	0.83	0.77
150	1.27	1.22	1.18	1.15	1.00	0.90	0.83	0.77
185	1.27	1.23	1.18	1.15	1.00	0.90	0.83	0.77
240	1.28	1.23	1.19	1.15	1.00	0.90	0.83	0.77
300	1.28	1.23	1.19	1.15	1.00	0.90	0.82	0.77
400	1.28	1.23	1.19	1.15	1.00	0.90	0.82	0.76

TABLE 17
CORRECTION FACTORS FOR SOIL THERMAL RESISTIVITIES
FOR THREE CORES CABLES IN BURIED DUCT IN GROUND

Area size (mm^2)	Values of soil thermal resistivity (K·m/W)							
	0.7	0.8	0.9	1.0	1.5	2.0	2.5	3.0
16	1.12	1.11	1.09	1.08	1.00	0.94	0.89	0.84
25	1.14	1.12	1.10	1.08	1.00	0.94	0.89	0.84
35	1.14	1.12	1.10	1.08	1.00	0.94	0.88	0.84
50	1.14	1.12	1.10	1.08	1.00	0.94	0.88	0.84
70	1.15	1.13	1.11	1.09	1.00	0.94	0.88	0.83
95	1.15	1.13	1.11	1.09	1.00	0.94	0.88	0.83
120	1.15	1.13	1.11	1.09	1.00	0.93	0.88	0.83
150	1.16	1.13	1.11	1.09	1.00	0.93	0.88	0.83
185	1.16	1.14	1.11	1.09	1.00	0.93	0.87	0.83
240	1.16	1.14	1.12	1.10	1.00	0.93	0.87	0.82
300	1.17	1.14	1.12	1.10	1.00	0.93	0.87	0.82
400	1.17	1.14	1.12	1.10	1.00	0.92	0.86	0.81

TABLE 18
CORRECTION FACTORS FOR GROUPS OF THREE CORES CABLES IN HORIZONTAL FORMATION LAID DIRECT IN THE GROUND

Number of cables in group	Spacing between cable centres (mm)				
	Touching	200	400	600	800
2	0.80	0.86	0.90	0.92	0.94
3	0.69	0.77	0.82	0.86	0.89
4	0.62	0.72	0.79	0.83	0.87
5	0.57	0.68	0.76	0.81	0.85
6	0.54	0.65	0.74	0.80	0.84
7	0.51	0.63	0.72	0.78	0.83
8	0.49	0.61	0.71	0.78	-
9	0.47	0.60	0.70	0.77	-
10	0.46	0.59	0.69	-	-
11	0.45	0.57	0.69	-	-
12	0.43	0.56	0.69	-	-

TABLE 19
CORRECTION FACTORS FOR GROUPS OF THREE PHASE CIRCUITS OF SINGLE CORE CABLES LAID DIRECT IN THE GROUND

Number of cables in group	Spacing between group centres (mm)				
	Touching	200	400	600	800
2	0.73	0.83	0.88	0.90	0.92
3	0.60	0.73	0.79	0.83	0.86
4	0.54	0.68	0.75	0.80	0.84
5	0.49	0.63	0.72	0.78	0.82
6	0.46	0.61	0.70	0.76	0.81
7	0.43	0.58	0.68	0.75	0.80
8	0.41	0.57	0.67	0.74	-
9	0.39	0.55	0.66	0.73	-
10	0.37	0.54	0.65	-	-
11	0.36	0.53	0.64	-	-
12	0.35	0.52	0.64	-	-

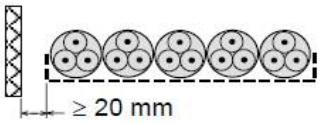
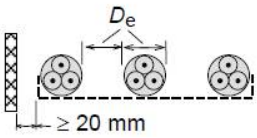
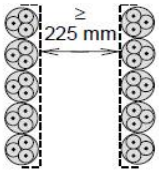
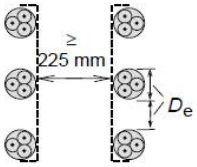
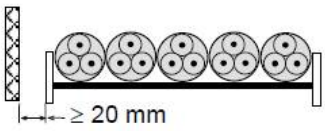
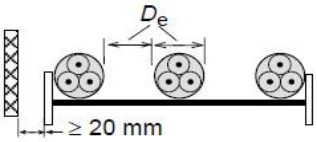
TABLE 20
CORRECTION FACTORS FOR GROUPS OF THREE CORES CABLES IN SINGLE WAY DUCTS IN HORIZONTAL FORMATION

Number of cables in group	Spacing between duct centres (mm)				
	Touching	200	400	600	800
2	0.85	0.88	0.92	0.94	0.95
3	0.75	0.80	0.85	0.88	0.91
4	0.69	0.75	0.82	0.86	0.89
5	0.65	0.72	0.79	0.84	0.87
6	0.62	0.69	0.77	0.83	0.87
7	0.59	0.67	0.76	0.82	0.86
8	0.57	0.65	0.75	0.81	-
9	0.55	0.64	0.74	0.80	-
10	0.54	0.63	0.73	-	-
11	0.52	0.62	0.73	-	-
12	0.51	0.61	0.72	-	-

TABLE 21
CORRECTION FACTORS FOR GROUPS OF THREE PHASE CIRCUITS OF SINGLE CORE CABLES IN SINGLE WAY DUCTS

Number of cables in group	Spacing between duct group centres (mm)				
	Touching	200	400	600	800
2	0.78	0.85	0.89	0.91	0.93
3	0.66	0.75	0.81	0.85	0.88
4	0.59	0.70	0.77	0.82	0.86
5	0.55	0.66	0.74	0.80	0.84
6	0.51	0.64	0.72	0.78	0.83
7	0.48	0.61	0.71	0.77	0.82
8	0.46	0.60	0.70	0.76	-
9	0.44	0.58	0.69	0.76	-
10	0.43	0.57	0.68	-	-
11	0.42	0.56	0.67	-	-
12	0.40	0.55	0.67	-	-

TABLE 22
REDUCTION FACTORS FOR GROUPS OF MORE THAN ONE MULTI-CORE CABLES IN AIR – TO BE APPLIED TO THE CURRENT CARRYING CAPACITY FOR ONE MULTI-CORE CABLES IN FREE AIR

Method of installation		Number of trays	Number of cables					
			1	2	3	4	5	6
Cables om perforated trays	Touching 	1	1.00	0.88	0.82	0.79	0.76	0.73
		2	1.00	0.87	0.80	0.77	0.73	0.68
		3	1.00	0.86	0.79	0.76	0.71	0.66
	Spaced 	1	1.00	1.00	0.98	0.95	0.91	-
		2	1.00	0.99	0.96	0.92	0.87	-
		3	1.00	0.98	0.95	0.91	0.85	-
Cables on vertical perforated trays	 Touching	1	1.00	0.88	0.82	0.78	0.73	0.72
		2	1.00	0.88	0.81	0.76	0.71	0.70
	 Spaced	1	1.00	0.91	0.89	0.88	0.87	-
		2	1.00	0.91	0.88	0.87	0.85	-
`Cables on ladder, supports, cleats, etc.	Touching 	1	1.00	0.87	0.82	0.80	0.79	0.78
		2	1.00	0.86	0.80	0.78	0.76	0.73
		3	1.00	0.85	0.79	0.76	0.73	0.70
	Spaced 	1	1.00	1.00	1.00	1.00	1.00	-
		2	1.00	0.99	0.98	0.97	0.96	-
		3	1.00	0.98	0.97	0.96	0.93	-

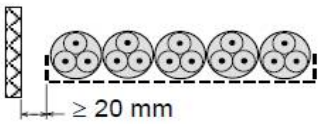
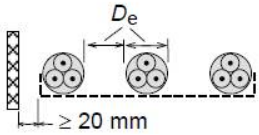
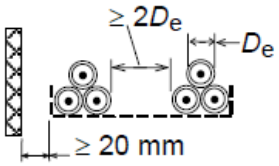
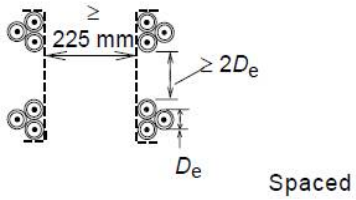
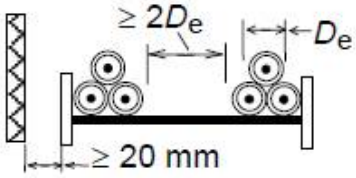
NOTE 1 Values given are averages for the cable types and range of conductor sizes considered. The spread of values is generally less than 5 %.

NOTE 2 Factors apply to single layer groups of cables as shown above and do not apply when cables are installed in more than one layer touching each other. Values for such installations may be significantly lower and must be determined by an appropriate method.

NOTE 3 Values are given for vertical spacings between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

NOTE 4 Values are given for horizontal spacing between trays of 225 mm with trays mounted back to back. For closer spacing, the factors should be reduced.

TABLE 23
REDUCTION FACTORS FOR GROUPS OF MORE THAN ONE CIRCUIT OF SINGLE CORE CABLES (NOTE 2) – TO BE APPLIED TO THE CURRENT CARRYING CAPACITY FOR ONE CIRCUIT OF SINGLE CORE CABLES IN FREE AIR

Method of installation		Number of trays	Number of three phase circuits (note 5)			Use as a multiplier to rating for
			1	2	3	
Perforated trays (note 3)	Touching 	1	0.98	0.91	0.87	Three cables in horizontal formation
		2	0.96	0.87	0.81	
		3	0.95	0.85	0.78	
Ladder supports, cleats etc. (note 3)	Spaced 	1	0.98	0.91	0.87	Three cables in horizontal formation
		2	0.96	0.87	0.81	
		3	0.95	0.85	0.78	
Perforated trays (note 3)		1	1.00	0.98	0.96	Three cables in trefoil formation
		2	0.97	0.93	0.89	
		3	0.96	0.92	0.86	
Vertical perforated trays (note 4)		1	1.00	0.91	0.89	
		2	1.00	0.90	0.86	
Ladder supports, cleats, etc (note 3)		1	1.00	1.00	1.00	
		2	0.97	0.95	0.93	
		3	0.96	0.94	0.90	

NOTE 1 Values given are averages for the cable types and range of conductor sizes considered. The spread of values is generally less than 5 %.

NOTE 2 Factors are given for single layers of cables (or trefoil groups) as shown in the table and do not apply when cables are installed in more than one layer touching each other. Values for such installations may be significantly lower and should be determined by an appropriate method.

NOTE 3 Values are given for vertical spacings between trays of 300 mm. For closer spacing, the factors should be reduced.

NOTE 4 Values are given for horizontal spacing between trays of 225 mm with trays mounted back to back. For closer spacing, the factors should be reduced.

NOTE 5 For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

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