

MEDIUM VOLTAGE XLPE INSULATED POWER CABLES

[6.35/ 11kV Copper XLPE Three-Core HDPE Sheathed]

APPLICATION

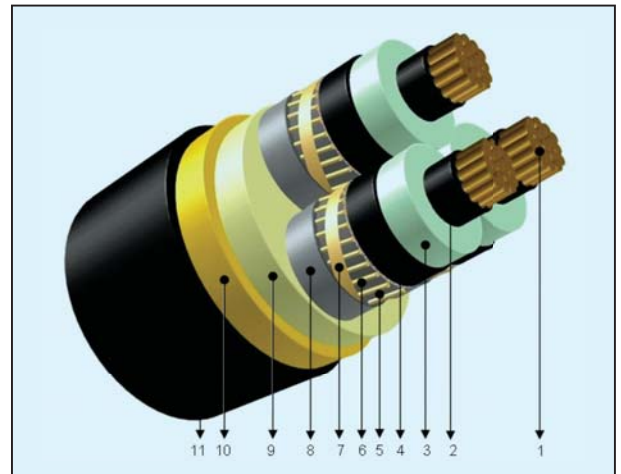
Mostly used as feeder electric cable for power distribution network such as power supply station, substation, switching system etc. They are suitable for installation on medium mechanical stress dry, indoors, outdoors, underground areas.

STANDARDS

- Australian/New Zealand - AS/NZS 1429.1:2006.
- International - IEC 60228, IEC 60502, IEC 60986.

CONSTRUCTION

- Phase Conductor: Plain annealed copper Class 2 compact stranded.
- Phase Core: Triple head extrusion - semi - conductive, thermosetting conductor shield, XLPE (cross-linked polyethylene) insulation and bonded semi conductive insulation screen, all dry nitrogen cured.
- Metallic Screen: Solid bare annealed copper wires uniformly spaced around the cable provides high conductivity for faulty current as earth wires. (Plain annealed copper wire has a minimum diameter of 0.85 mm) and a counter helix copper tape (0.1x30mm).
- Filler: Special PVC compound.
- Sheath: Combined layers of PVC V-90 and UV resistant black HDPE.



11000 volts, XLPE insulation, LD/HD screen, extruded overlaying HDPE sheath

1. Conductor: Compacted, copper conductor;
2. Conductor Shield: Extruded, semi-conductive, thermosetting compound;
3. Insulation: Extruded XLPE;
4. Insulation Shield: Extruded semi-conductive thermosetting compound;
5. Separated layer: Semi conductive tape;
6. Metallic Screen: Plain copper wires, helically applied;
7. Metallic Screen: Copper tape;
8. Separated layer: Polyester tape.
9. Filler: Special PVC compound.
10. Combined outer protective sheath: Extruded PVC V-90
11. Extruded HDPE black compound.

MEDIUM VOLTAGE XLPE INSULATED POWER CABLES

[6.35/11kV Copper XLPE Three-Core HDPE Sheathed]

Catalog No.	Size	Nominal conductor diameter	Minimum average insulation thickness	Diameter over insulation screen	Nominal cable diameter, 20°C	Max. DC resistance of conductor at 20°C	Screen		1 sec. fault rating, kA(1)		Minimum bending radius, mm		Approx. Weight, kg/km
							Nominal area, mm ²	Number & diameter of wires per core	3 phase symmetrical	Screen	Installed	During installation	
	mm ²	mm	mm	min/max mm	mm	Ohm/km							
LIGHT DUTY SCREEN													
35MM3C11KVLD	35	7.0	3.4	16.9/17.4	47.9	0.52	22.2	13x0.85	5.0	3.3	720	1200	3190
50MM3C11KVLD	50	8.2	3.4	18.1/18.6	50.7	0.39	23.7	14x0.85	7.2	3.5	760	1270	3740
70MM3C11KVLD	70	9.9	3.4	19.8/20.3	54.6	0.27	25.6	15x0.85	10.0	3.8	820	1370	4600
95MM3C11KVLD	95	11.6	3.4	21.5/22.0	58.7	0.19	27.0	16x0.85	13.6	4.0	880	1470	5700
120MM3C11KVLD	120	13.2	3.4	23.3/23.8	62.8	0.15	28.9	17x0.85	17.2	4.3	940	1570	6750
150MM3C11KVLD	150	14.5	3.4	24.6/25.1	65.8	0.12	31.0	18x0.85	21.5	4.6	990	1650	7760
185MM3C11KVLD	185	16.3	3.4	26.4/26.9	69.9	0.1	32.4	19x0.85	26.5	4.8	1050	1750	9180
240MM3C11KVLD	240	18.5	3.4	28.6/29.1	75.0	0.08	35.7	21x0.85	34.3	5.3	1130	1880	11250
300MM3C11KVLD	300	20.9	3.4	31.0/31.5	80.6	0.06	37.5	22x0.85	42.9	5.6	1210	2020	13500
HEAVY DUTY SCREEN													
35MM3C11KV	35	7.0	3.4	16.9/17.4	47.9	0.52	34.3	20x0.85	5.0	5.1	720	1200	3300
50MM3C11KV	50	8.2	3.4	18.1/18.6	50.7	0.39	49.1	29x0.85	7.2	7.3	760	1270	3980
70MM3C11KV	70	9.9	3.4	19.8/20.3	54.7	0.27	68.0	38x0.87	10.0	10.1	820	1370	5000
95MM3C11KV	95	11.6	3.4	21.5/22.0	60.3	0.19	82.2	25x1.22	13.6	13.1	910	1510	6380
120MM3C11KV	120	13.2	3.4	23.3/23.8	64.4	0.15	88.2	25x1.22	17.2	13.1	970	1610	7400
150MM3C11KV	150	14.5	3.4	24.6/25.1	67.6	0.12	88.2	25x1.22	21.5	13.1	1020	1690	8430
185MM3C11KV	185	16.3	3.4	26.4/26.9	71.7	0.1	88.2	25x1.22	26.5	13.1	1080	1790	9840
240MM3C11KV	240	18.5	3.4	28.6/29.1	76.6	0.08	88.2	25x1.22	34.3	13.1	1150	1920	11860
300MM3C11KV	300	20.9	3.4	31.0/31.5	82.2	0.06	88.2	25x1.22	42.9	13.1	1230	2060	14100

For fault durations other than one second, divide the appropriate given value by the square root of the required time [in seconds]

Screen fault ratings are based on an initial temperature of 80°C and a final temperature of 250°C.

Conductor fault ratings are based on an initial temperature of 90°C and a final temperature of 250°C.

LIGHT DUTY SCREEN DESIGN - It corresponds to a fault rating equal to the conductor fault rating, but not higher than 2.7kA for 1 second.

HEAVY DUTY SCREEN DESIGN - It corresponds to a fault rating equal to the conductor fault rating, but not higher than 13.1kA for 1 second and not exceeding the conductor rating..

MEDIUM VOLTAGE XLPE INSULATED POWER CABLES

[12.7/22kV Copper XLPE Three-Core HDPE Sheathed]

APPLICATION

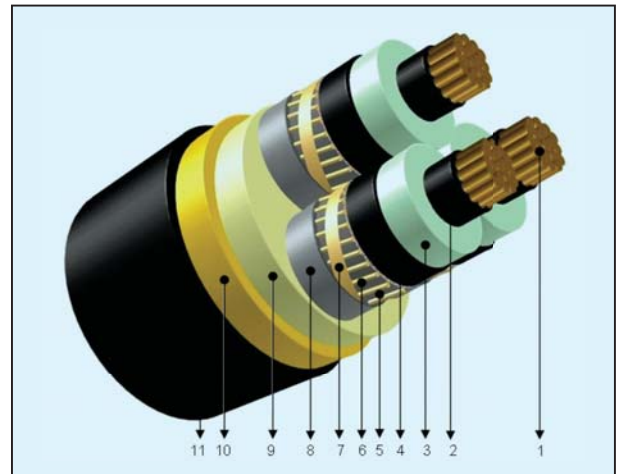
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STANDARDS

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- International - IEC 60228, IEC 60502, IEC 60986.

CONSTRUCTION

- Phase Conductor: Plain annealed copper Class 2 compact stranded.
- Phase Core: Triple head extrusion - semiconductive, thermosetting conductor shield, XLPE (cross-linked polyethylene) insulation and bonded semi conductive insulation screen, all dry nitrogen cured.
- Metallic Screen: Solid bare annealed copper wires uniformly spaced around the each insulated core provides high conductivity for faulty current as earth wires. (Plain annealed copper wire has a minimum diameter of 0.85 mm) and a counter helix copper tape (0.1x30mm).
- Filler: Special PVC compound.
- Sheath: Combined layers of PVC V-90 and UV resistant black HDPE.



22000 volts, XLPE insulation, LD/HD screen, extruded overlaying HDPE sheath

1. Conductor: Compacted, copper conductor;
2. Conductor Shield: Extruded, semi-conductive, thermosetting compound;
3. Insulation: Extruded XLPE;
4. Insulation Shield: Extruded semi-conductive thermosetting compound;
5. Separated layer: Semi conductive tape;
6. Metallic Screen: Plain copper wires, helically applied;
7. Metallic Screen: Copper tape;
8. Separated layer: Polyester tape.
9. Filler: Special PVC compound.
10. Combined outer protective sheath: Extruded PVC V-90
11. Extruded HDPE black compound.

MEDIUM VOLTAGE XLPE INSULATED POWER CABLES

[12.7/22kV Copper XLPE Three-Core HDPE Sheathed]

Catalog No.	Size	Nominal conductor diameter	Minimum average insulation thickness	Diameter over insulation screen	Nominal cable diameter, 20°C	Max. DC resistance of conductor at 20°C	Screen		1 sec. fault rating, kA(1)		Minimum bending radius, mm		Approx. Weight, kg/km
							Nominal area, mm²	Number & diameter of wires per core	3 phase symmetrical	Screen	Installed	During installation	
	mm²	mm	mm	min/max mm	mm	Ohm/km							
LIGHT DUTY SCREEN													
35MM3C22KVLD	35	7.0	5.5	21.1/21.7	57.8	0.52	27.0	16x0.85	5	4	870	1450	4200
50MM3C22KVLD	50	8.2	5.5	22.3/22.9	60.6	0.39	28.9	17x0.85	7.2	4.3	910	1520	4800
70MM3C22KVLD	70	9.9	5.5	24.0/24.6	64.5	0.27	31.0	18x0.85	10	4.6	970	1610	5730
95MM3C22KVLD	95	11.6	5.5	25.7/26.3	68.3	0.19	32.4	19x0.85	13.6	4.8	1030	1710	6880
120MM3C22KVLD	120	13.2	5.5	27.5/28.1	72.4	0.15	34.3	20x0.85	17.2	5.1	1090	1810	7990
150MM3C22KVLD	150	14.5	5.5	28.8/29.4	75.4	0.12	35.7	21x0.85	21.5	5.3	1130	1890	9070
185MM3C22KVLD	185	16.3	5.5	30.6/31.2	79.7	0.1	37.5	22x0.85	26.5	5.6	1200	2000	10600
HEAVY DUTY SCREEN													
35MM3C22KV	35	7.0	5.5	21.1/21.7	57.8	0.52	34.30	20x0.85	5	5.1	870	1450	4260
50MM3C22KV	50	8.2	5.5	22.3/22.9	60.6	0.39	49.10	29x0.85	7.2	7.3	910	1520	4990
70MM3C22KV	70	9.9	5.5	24.0/24.6	64.6	0.27	68.00	38x0.87	10	10.1	970	1620	6080
95MM3C22KV	95	11.6	5.5	25.7/26.3	70.1	0.19	88.20	25x1.22	13.6	13.1	1050	1750	7530
120MM3C22KV	120	13.2	5.5	27.5/28.1	74.2	0.15	88.20	25x1.22	17.2	13.1	1110	1860	8650
150MM3C22KV	150	14.5	5.5	28.8/29.4	77.2	0.12	88.20	25x1.22	21.5	13.1	1160	1930	9700
185MM3C22KV	185	16.3	5.5	30.6/31.2	81.3	0.1	88.20	25x1.22	26.5	13.1	1220	2030	11200

For fault durations other than one second, divide the appropriate given value by the square root of the required time [in seconds]

Screen fault ratings are based on an initial temperature of 80°C and a final temperature of 250°C.

Conductor fault ratings are based on an initial temperature of 90°C and a final temperature of 250°C.

LIGHT DUTY SCREEN DESIGN - It corresponds to a fault rating equal to the conductor fault rating, but not higher than 2.7kA for 1 second.

HEAVY DUTY SCREEN DESIGN - It corresponds to a fault rating equal to the conductor fault rating, but not higher than 13.1kA for 1 second and not exceeding the conductor rating..

MEDIUM VOLTAGE XLPE INSULATED POWER CABLES

[19/33kV Copper XLPE Three-Core HDPE Sheathed]

APPLICATION

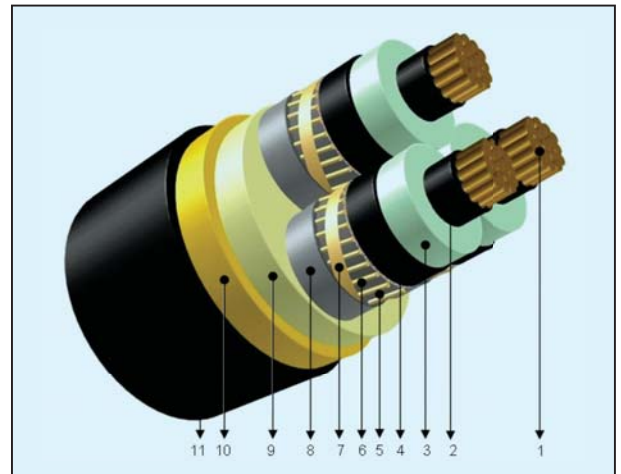
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- Filler: Special PVC compound.
- Sheath: Combined layers of PVC V-90 and UV resistant black HDPE.



33000 volts, XLPE insulation, LD/HD screen, extruded overlaying HDPE sheath

1. Conductor: Compacted, copper conductor;
2. Conductor Shield: Extruded, semi-conductive, thermosetting compound;
3. Insulation: Extruded XLPE;
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7. Metallic Screen: Copper tape;
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Catalog No.	Size	Nominal conductor diameter	Minimum average insulation thickness	Diameter over insulation screen	Nominal cable diameter, 20°C	Max. DC resistance of conductor at 20°C	Screen		1 sec. fault rating, kA(1)		Minimum bending radius, mm		Approx. Weight, kg/km
							Nominal area, mm²	Number & diameter of wires per core	3 phase symmetrical	Screen	Installed	During installation	
	mm²	mm	mm	min/max mm	mm	Ohm/km							
LIGHT DUTY SCREEN													
50MM3C33KVLD	50	8.2	8.0	27.3/28.0	72.2	0.39	34.3	20x0.85	7.2	5.1	1080	1810	6270
70MM3C33KVLD	70	9.9	8.0	29.0/29.7	76.1	0.27	35.7	21x0.85	10.0	5.3	1140	1900	7280
95MM3C33KVLD	95	11.6	8.0	30.7/31.4	79.9	0.19	37.5	22x0.85	13.6	5.6	1200	2000	8520
120MM3C33KVLD	120	13.2	8.0	32.5/33.2	84.0	0.15	39	23x0.85	17.2	5.8	1260	2100	9720
HEAVY DUTY SCREEN													
50MM3C33KV	50	8.2	8.0	27.3/28.0	72.2	0.39	49.1	29x0.85	7.2	7.3	1040	1810	6410
70MM3C33KV	70	9.9	8.0	29.0/29.7	76.2	0.27	68	38x0.87	10.0	10.1	1140	1910	7580
95MM3C33KV	95	11.6	8.0	30.7/31.4	81.5	0.19	88.2	25x1.22	13.6	13.1	1220	2040	9130
120MM3C33KV	120	13.2	8.0	32.5/33.2	85.6	0.15	88.2	25x1.22	17.2	13.1	1290	2140	10320

For fault durations other than one second, divide the appropriate given value by the square root of the required time [in seconds]

Screen fault ratings are based on an initial temperature of 80°C and a final temperature of 250°C.

Conductor fault ratings are based on an initial temperature of 90°C and a final temperature of 250°C.

LIGHT DUTY SCREEN DESIGN - It corresponds to a fault rating equal to the conductor fault rating, but not higher than 2.7kA for 1 second.

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