

CU/MGT/XLPE/LSZH/SWA/LSZH (2 Cores - 5 Cores)

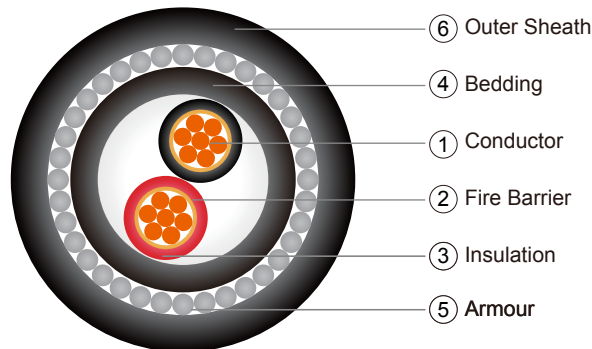
Mica Tape, XLPE Insulated, LSZH Bedded, Galvanised Steel Wire Armoured, LSZH Sheathed Cable

Application

These cables are suitable for indoor and outdoor applications, where a high safety against flame is required .
Public address and emergency voice communication system and traffic control centres.

Control and instrumentation service in industrial, commercial and residential buildings.

Such as: Schools&Universities, Hospital, Markets & Malls, Hotels, Theatres, Cinemas, Airports, Underground stations, Tunnels, Recreational places& Amusement parks, Indoor work places.



Construction

① Conductor: Plain annealed copper, class1 solid or class 2 stranded acc. to IEC 60228.
Flexible class 5 or tinned conductor could be offer upon request.

② Fire Barrier: Mica tape (MGT).

③ Insulation: Cross-linked polyethylene (XLPE) compound as per IEC 60502-1.
Insulation Color Code:

Number of Cores	Color Code to IEC 60502-1	Color Code to BS 5467
2	Red & Black	Brown & Blue
3	Red, Yellow and Blue	Brown, Black and Grey
4	Red, Yellow, Blue and Black	Blue, Brown, Black and Grey
5	Red, Yellow, Blue, Black and Green / Yellow	Green / Yellow, Blue, Brown, Black and Grey

Assembly: Cores cabled together with PP filler and covered with non-woven tape.

④ Bedding: Low Smoke Zero Halogen (LSZH) Compound Type ST8 (90°C) of IEC 60502-1.
Bedding Colour: Black.

⑤ Armour: Galvanized steel wire armoured (SWA).

⑥ Outer Sheath: Low smoke zero halogen (LSZH) compound type ST1 (80°C), ST2 (90°C) of IEC 60502-1.
Outer Sheath Color: Orange or other color as per customer request.

Electrical Characteristics

Recommended rated voltages U_0

Highest system voltage (U_m) (kV)	Rated voltage (U_0) (kV)	
	Categories A and B	Category C
1,2	0,6	0,6

Routine test voltages

Rated voltage U_0 (kV)	0,6
Test voltage (kV)	3,5

Maximum conductor temperatures for different types of insulating compound

Maximum conductor temperature (°C)	
Normal operation	Short-circuit (5 s maximum duration)
90	250

Operating Temperature: -15°C to 90°C

Test Voltage: 3.5 kV for 5 minutes

Reference Standards

Design Specification: IEC60502-1

Conductor: IEC60228, BS EN60228

Fire Resistance: BS6387(C,W,Z), SS299(C,W,Z), IEC60331

Flame Retardancy: IEC60332-3-22, BS EN60332-3-22

Low Smoke Zero Halogen: IEC61034-2, BS EN61034-2, IEC60754-1, IEC60754-2, BS EN50267-2-1, BS EN50267-2-2

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Installation Reference

Min.Bending Radius (mm): 10 x cable overall diameter

Max.Pulling Tension (N/mm²): 70

Dimension

2 Cores

Nominal Conductor Area (mm ²)	No. and Diameter of Wires (no./mm)	Thickness of Insulation (mm)	Thickness of Bedding (mm)	Diameter Under Armour (mm)	Diameter of Armour Wire (mm)	Thickness of Sheath (mm)	Overall Diameter (mm)	Approximate Weight (kg/km)
2x1.5	7/0.53	0.7	1.0	9.8	0.80	1.8	15.0	379
2x2.5	7/0.67	0.7	1.0	10.6	1.25	1.8	16.7	545
2x4	7/0.85	0.7	1.0	11.7	1.25	1.8	17.8	624
2x6	7/1.04	0.7	1.0	12.8	1.25	1.8	18.9	717
2x10	7/1.35	0.7	1.0	14.7	1.25	1.8	20.8	886
2x16	7/1.70	0.7	1.0	16.8	1.60	1.8	23.6	1244
2x25	7/2.14	0.9	1.0	20.2	1.60	1.8	27.0	1627
2x35	7/2.52	0.9	1.0	22.5	1.60	1.9	29.5	1967
2x50	19/1.78	1.0	1.0	25.6	2.00	2.0	33.6	2652
2x70	19/2.14	1.1	1.2	30.0	2.00	2.1	38.2	3423
2x95	19/2.52	1.1	1.2	33.8	2.00	2.3	42.4	4266
2x120	37/2.03	1.2	1.4	37.8	2.50	2.4	47.6	5555
2x150	37/2.25	1.4	1.4	41.7	2.50	2.6	51.9	6505
2x185	37/2.52	1.6	1.4	46.3	2.50	2.7	56.7	7713
2x240	61/2.25	1.7	1.6	52.3	2.50	3.0	63.3	9578
2x300	61/2.52	1.8	1.6	57.6	2.50	3.1	68.8	11376
2x400	61/2.85	2.0	1.8	64.7	3.15	3.4	77.8	14918
2x500	61/3.20	2.2	1.8	71.8	3.15	3.7	85.5	17952
2x630	127/2.52	2.4	1.8	80.5	3.15	4.0	94.8	22069
2x800	127/2.85	2.6	2.0	90.3	3.15	4.3	105.2	27146
2x1000	127/3.20	2.8	2.0	100.2	3.15	4.7	115.9	32996

3 Cores

Nominal Conductor Area (mm ²)	No. and Diameter of Wires (no./mm)	Thickness of Insulation (mm)	Thickness of Bedding (mm)	Diameter Under Armour (mm)	Diameter of Armour Wire (mm)	Thickness of Sheath (mm)	Overall Diameter (mm)	Approximate Weight (kg/km)
3x1.5	7/0.53	0.7	1.0	10.4	1.25	1.8	16.5	540
3x2.5	7/0.67	0.7	1.0	11.3	1.25	1.8	17.4	611
3x4	7/0.85	0.7	1.0	12.4	1.25	1.8	18.5	712
3x6	7/1.04	0.7	1.0	13.7	1.25	1.8	19.8	832
3x10	7/1.35	0.7	1.0	15.7	1.60	1.8	22.5	1186
3x16	7/1.70	0.7	1.0	17.9	1.60	1.8	24.7	1494
3x25	7/2.14	0.9	1.0	21.6	1.60	1.8	28.4	2001
3x35	7/2.52	0.9	1.0	24.1	1.60	1.9	31.1	2459
3x50	19/1.78	1.0	1.2	27.8	2.00	2.1	36.0	3379
3x70	19/2.14	1.1	1.2	32.1	2.00	2.2	40.5	4363
3x95	19/2.52	1.1	1.2	36.2	2.50	2.4	46.0	5937
3x120	37/2.03	1.2	1.4	40.5	2.50	2.5	50.5	7143
3x150	37/2.25	1.4	1.4	44.7	2.50	2.7	55.1	8434
3x185	37/2.52	1.6	1.6	50.0	2.50	2.9	60.8	10204
3x240	61/2.25	1.7	1.6	56.1	2.50	3.1	67.3	12656
3x300	61/2.52	1.8	1.6	61.7	3.15	3.3	74.6	16105
3x400	61/2.85	2.0	1.8	69.4	3.15	3.6	82.9	19827
3x500	61/3.20	2.2	1.8	77.1	3.15	3.9	91.2	24061
3x630	127/2.52	2.4	2.0	86.8	3.15	4.2	101.5	29971
3x800	127/2.85	2.6	2.0	96.9	3.15	4.6	112.4	37036
3x1000	127/3.20	2.8	2.0	107.6	3.15	4.9	123.7	45272

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4 Cores

Nominal Conductor Area (mm ²)	No. and Diameter of Wires (no./mm)	Thickness of Insulation (mm)	Thickness of Bedding (mm)	Diameter Under Armour (mm)	Diameter of Armour Wire (mm)	Thickness of Sheath (mm)	Overall Diameter (mm)	Approximate Weight (kg/km)
4x1.5	7/0.53	0.7	1.0	11.4	1.25	1.8	17.5	608
4x2.5	7/0.67	0.7	1.0	12.4	1.25	1.8	18.5	695
4x4	7/0.85	0.7	1.0	13.7	1.25	1.8	19.8	821
4x6	7/1.04	0.7	1.0	15.1	1.60	1.8	21.9	1098
4x10	7/1.35	0.7	1.0	17.3	1.60	1.8	24.1	1393
4x16	7/1.70	0.7	1.0	19.9	1.60	1.8	26.7	1781
4x25	7/2.14	0.9	1.0	24.0	1.60	1.9	31.0	2434
4x35	7/2.52	0.9	1.0	26.8	2.00	2.0	34.8	3267
4x50	19/1.78	1	1.2	30.9	2.00	2.2	39.3	4134
4x70	19/2.14	1.1	1.2	35.7	2.50	2.4	45.5	5823
4x95	19/2.52	1.1	1.4	40.7	2.50	2.5	50.7	7402
4x120	37/2.03	1.2	1.4	45.1	2.50	2.7	55.5	8891
4x150	37/2.25	1.4	1.6	50.2	2.50	2.9	61.0	10620
4x185	37/2.52	1.6	1.6	55.7	2.50	3.1	66.9	12801
4x240	61/2.25	1.7	1.6	62.5	3.15	3.4	75.6	16907
4x300	61/2.52	1.8	1.8	69.2	3.15	3.6	82.7	20405
4x400	61/2.85	2	1.8	77.3	3.15	3.9	91.4	25088
4x500	61/3.20	2.2	2.0	86.3	3.15	4.2	101.0	30691
4x630	127/2.52	2.4	2.0	96.8	3.15	4.6	112.3	38271
4x800	127/2.85	2.6	2.0	108.2	3.15	5.0	124.5	47462
4x1000	127/3.20	2.8	2.0	120.1	3.15	5.4	137.2	58272

5 Cores

Nominal Conductor Area (mm ²)	No. and Diameter of Wires (no./mm)	Thickness of Insulation (mm)	Thickness of Bedding (mm)	Diameter Under Armour (mm)	Diameter of Armour Wire (mm)	Thickness of Sheath (mm)	Overall Diameter (mm)	Approximate Weight (kg/km)
5x1.5	7/0.53	0.7	1.0	12.5	1.25	1.8	18.6	680.8
5x2.5	7/0.67	0.7	1.0	13.6	1.25	1.8	19.7	784.3
5x4	7/0.85	0.7	1.0	15.1	1.60	1.8	21.9	1062.4
5x6	7/1.04	0.7	1.0	16.6	1.60	1.8	23.4	1252.3
5x10	7/1.35	0.7	1.0	19.1	1.60	1.8	25.9	1607.6
5x16	7/1.70	0.7	1.0	22.0	1.60	1.8	28.8	2076.5
5x25	7/2.14	0.9	1.0	26.6	2.00	2.0	34.6	3127.7
5x35	7/2.52	0.9	1.2	30.1	2.00	2.1	38.3	3916.6
5x50	19/1.78	1.0	1.2	34.3	2.00	2.3	42.9	4909.7
5x70	19/2.14	1.1	1.4	40.1	2.50	2.5	50.1	6984.4
5x95	19/2.52	1.1	1.4	45.2	2.50	2.7	55.6	8863.6
5x120	37/2.03	1.2	1.6	50.5	2.50	2.9	61.3	10758.9
5x150	37/2.25	1.4	1.6	55.7	2.50	3.1	66.9	12783.6
5x185	37/2.52	1.6	1.6	61.9	3.15	3.3	74.8	16349.9
5x240	61/2.25	1.7	1.8	69.9	3.15	3.6	83.4	20482.6
5x300	61/2.52	1.8	1.8	77.0	3.15	3.9	91.1	24698.4
5x400	61/2.85	2.0	2.0	86.5	3.15	4.2	101.2	30571.5
5x500	61/3.20	2.2	2.0	96.1	3.15	4.5	111.4	37322.7
5x630	127/2.52	2.4	2.0	107.8	3.15	4.9	123.9	46653.7
5x800	127/2.85	2.6	2.0	120.5	3.15	5.4	137.6	58048.8
5x1000	127/3.20	2.8	2.0	133.9	3.15	5.9	152.0	71469.4