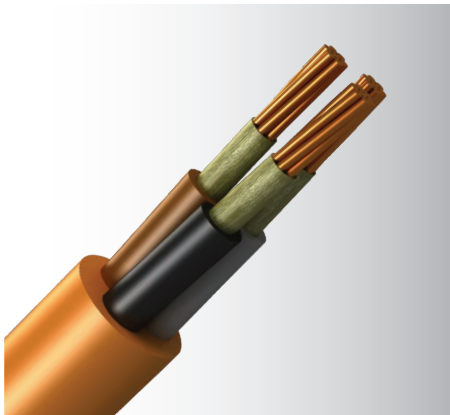


# LSZH Fire Resistant Cables

300/500V 2-Core ~ 4-Core  
Mica Tape, XLPE Insulated, LSZH Sheathed Cable  
Description: CU/MT/XLPE/LSZH-AT-UV  
Model Code: MXL-AT-UV



Application :	This cable is designed for areas where the integrity of the electrical circuit is critical in maintaining power supply. Applications include emergency lightings, control and power circuits, power stations, fire alarm systems, underground tunnels, sewage treatment plants, and high-rise buildings.
Voltage rating :	300/500V
Construction :	Plain annealed copper (IEC 60228 Class 2), mica tape fire barrier, XLPE insulated, anti-termites and UV resistant LSZH compound sheathed cable
Insulation colour :	2-Core: Brown, Blue; 3-Core: Brown, Black, Grey; Brown, Blue, Green/Yellow; 4-Core: Brown, Black, Grey, Blue; Brown, Black, Grey, Green/Yellow; (Other colour upon request)
Sheath colour :	Orange (Other colour upon request)
Specification :	SS 299 Part 1:1998, IEC 60331, IEC 60332-1-2, IEC 60754, IEC 61034-2
Operating temperature :	90°C

### 2-CORE [2C]

(Brown, Blue) (1-phase and neutral)

Conductor		Part No.	Insulation	Approx. Overall Diam.	Approx. Weight
Nominal Area	No./Diam. of Strand		Thickness		
(mm <sup>2</sup> )	(no./mm)		(mm)		
1.5	7/0.53	<b>07024667</b>	0.5	8.5	70
2.5	7/0.67	<b>08024667</b>	0.5	9.3	93
4	7/0.85	<b>09024667</b>	0.5	10.4	128

### 3-CORE [3C]

(Brown, Black, Grey) (3-phase, three wire)

Conductor		Part No.	Insulation	Approx. Overall Diam.	Approx. Weight
Nominal Area	No./Diam. of Strand		Thickness		
(mm <sup>2</sup> )	(no./mm)		(mm)		
1.5	7/0.53	<b>07034102</b>	0.5	9.0	95
2.5	7/0.67	<b>08034102</b>	0.5	10.0	128
4	7/0.85	<b>09034102</b>	0.5	11.2	190

### 3-CORE [3G]

(Brown, Blue, Green/Yellow) (1-phase and earth)

Conductor		Part No.	Insulation	Approx. Overall Diam.	Approx. Weight
Nominal Area	No./Diam. of Strand		Thickness		
(mm <sup>2</sup> )	(no./mm)		(mm)		
1.5	7/0.53	<b>07034665</b>	0.5	9.0	95
2.5	7/0.67	<b>08034665</b>	0.5	10.0	128
4	7/0.85	<b>09034665</b>	0.5	11.2	190

Current rating and voltage drop  
Please refer to Table 14 & 15 (Page 60)

# LSZH Fire Resistant Cables



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www.keystone-cable.com

300/500V 2-Core ~ 4-Core  
Mica Tape, XLPE Insulated, LSZH Sheathed Cable

Description: CU/MT/XLPE/LSZH-AT-UV

Model Code: MXL-AT-UV

<b>4-CORE [4C]</b>					
(Brown, Black, Grey, Blue) (3-phase and neutral)					
Conductor		Part No.	Insulation	Approx. Overall Diam.	Approx. Weight
Nominal Area	No./Diam. of Strand		Thickness		
(mm <sup>2</sup> )	(no./mm)		(mm)	(mm)	(kg/km)
1.5	7/0.53	<b>07044668</b>	0.5	10.0	134
2.5	7/0.67	<b>08044668</b>	0.5	11.0	180
4	7/0.85	<b>09044668</b>	0.5	12.4	255

<b>4-CORE [4G]</b>					
(Brown, Black, Grey, Green/Yellow) (3-phase and earth)					
Conductor		Part No.	Insulation	Approx. Overall Diam.	Approx. Weight
Nominal Area	No./Diam. of Strand		Thickness		
(mm <sup>2</sup> )	(no./mm)		(mm)	(mm)	(kg/km)
1.5	7/0.53	<b>07044643</b>	0.5	10.0	134
2.5	7/0.67	<b>08044643</b>	0.5	11.0	180
4	7/0.85	<b>09044643</b>	0.5	12.4	255

**Current rating and voltage drop**  
Please refer to Table 14 & 15 (Page 60)

# Current Rating and Voltage Drop

XLPE (or LSZH) Insulated Cables  
Multi-Core, Unarmoured



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Multi-Core Cables with XLPE (or LSZH) Insulation, PVC (or LSZH) Outersheath 300/500V or 0.6/1kV

**Table 14 : Current-Carrying Capacities (Amp)**  
**[CU/XLPE/PVC, CU/XLPE/LSZH or CU/MT/XLPE/LSZH Cables]**

Conductor Operating Temperature : 90°C  
Ambient Temperature : 30°C

IEC 60502-1

Conductor Cross-sectional Area	Reference Method 4 (enclosed in an conduit insulated wall etc)	Reference Method 3 (enclosed in conduit on a wall or ceiling, or in trunking)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray), or Reference Method 13 (in free air)	
	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.
1	2	3	4	5	6	7	8
mm <sup>2</sup>	A	A	A	A	A	A	A
1.5	16.5	22	19.5	24	22	26	23
2.5	22	30	26	33	30	36	32
4	30	40	35	45	40	49	42
6	38	51	44	58	52	63	54
10	51	69	60	80	71	86	75
16	68	91	80	107	96	115	100
25	89	119	105	138	119	149	127
35	109	146	128	171	147	185	158
50	130	175	154	209	179	225	192
70	164	221	194	269	229	289	246
95	197	265	233	328	278	352	298
120	227	305	268	382	322	410	346
150	259	334	300	441	371	473	399
185	295	384	340	506	424	542	456
240	346	459	398	599	500	641	538
300	396	532	455	693	576	741	621
400	472	625	536	803	667	865	741

Note : For rating factors of ambient temperature other than 30°C, please refer to Table 25 (Page 66)

**Table 15 : Voltage Drop (Per Amp Per Meter)**  
**[CU/XLPE/PVC, CU/XLPE/LSZH or CU/MT/XLPE/LSZH Cables]**

Conductor Operating Temperature : 90°C

IEC 60502-1

Conductor Cross-sectional Area	2-core cable, d.c.	2-core cable, 1-phase a.c.			3-core or 4-core cables, 3-phase a.c.		
	2	3			4		
1	2	3			4		
mm <sup>2</sup>	mV/A/m	mV/A/m			mV/A/m		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4.0		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.140	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.200	0.140	0.24	0.175	0.125	0.21
300	0.155	0.160	0.140	0.21	0.140	0.120	0.185
400	0.120	0.130	0.140	0.190	0.115	0.120	0.165

Note : r = resistive component; x = reactive component; z = impedance value