

## CU/MGT/XLPE/LSZH/AWA/LSZH (Single Core)

Mica Tape, XLPE Insulated, LSZH Bedded, Aluminium Wire Armoured, LSZH Sheathed Cable

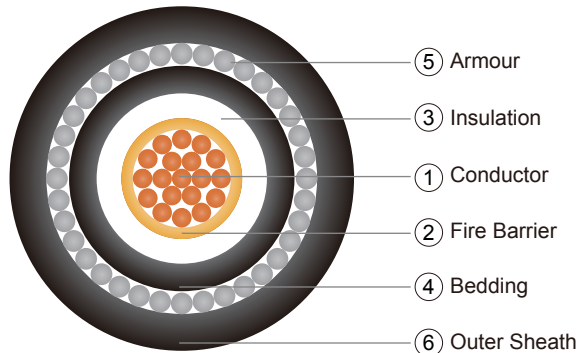
### Application

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 |
|-----------------|---------------------------|-----------------------|
| 1               | Red or Black              | Brown or Blue         |

④ Bedding: Low smoke zero halogen (LSZH) compound type ST8 (90°C) of IEC 60502-1.  
Bedding Colour: Black.

⑤ Armour: Aluminium Wire Armoured (AWA).

⑥ Outer Sheath: Low smoke zero halogen (LSZH) compound Type ST8 (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<br>( $U_m$ ) (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

### Installation Reference

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

Max.Pulling Tension (N/mm<sup>2</sup>): 50

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### 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

### Dimension

| Nominal Conductor Area (mm <sup>2</sup> ) | 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) |
|---|------------------------------------|------------------------------|---------------------------|----------------------------|------------------------------|--------------------------|-----------------------|----------------------------|
| 1x50                                      | 19/1.78                            | 1.0                          | 1.0                       | 13.8                       | 1.25                         | 1.8                      | 19.9                  | 1141                       |
| 1x70                                      | 19/2.14                            | 1.1                          | 1.0                       | 15.8                       | 1.60                         | 1.8                      | 22.6                  | 1588                       |
| 1x95                                      | 19/2.52                            | 1.1                          | 1.0                       | 17.7                       | 1.60                         | 1.8                      | 24.5                  | 1965                       |
| 1x120                                     | 37/2.03                            | 1.2                          | 1.0                       | 19.5                       | 1.60                         | 1.8                      | 26.3                  | 2326                       |
| 1x150                                     | 37/2.25                            | 1.4                          | 1.0                       | 21.5                       | 1.60                         | 1.8                      | 28.3                  | 2726                       |
| 1x185                                     | 37/2.52                            | 1.6                          | 1.0                       | 23.7                       | 1.60                         | 1.9                      | 30.7                  | 3266                       |
| 1x240                                     | 61/2.25                            | 1.7                          | 1.0                       | 26.6                       | 2.00                         | 2.0                      | 34.6                  | 4296                       |
| 1x300                                     | 61/2.52                            | 1.8                          | 1.2                       | 29.6                       | 2.00                         | 2.1                      | 37.8                  | 5184                       |
| 1x400                                     | 61/2.85                            | 2.0                          | 1.2                       | 33.0                       | 2.00                         | 2.2                      | 41.4                  | 6331                       |
| 1x500                                     | 61/3.20                            | 2.2                          | 1.2                       | 36.5                       | 2.50                         | 2.4                      | 46.3                  | 8110                       |
| 1x630                                     | 127/2.52                           | 2.4                          | 1.4                       | 41.3                       | 2.50                         | 2.6                      | 51.5                  | 10084                      |
| 1x800                                     | 127/2.85                           | 2.6                          | 1.4                       | 46.0                       | 2.50                         | 2.7                      | 56.4                  | 12368                      |
| 1x1000                                    | 127/3.20                           | 2.8                          | 1.6                       | 51.3                       | 2.50                         | 2.9                      | 62.1                  | 15151                      |