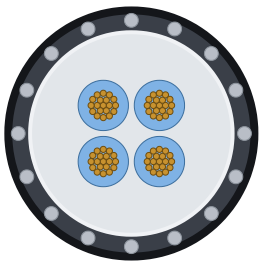
Cu/XLPE/SWA/LSZH Armoured Power Cable, 0.6/1 kV

SORIVO Product Series: **Halogen-free armoured cable** | 0.6/1 kV | BS 6724 · IEC 60502-1 | 4–400 mm²



- LSZH outer sheath — black, UV resistant
- Galvanised steel wire armour — not a screen
- Halogen-free filling compound / inner sheath
- XLPE insulation — 90 °C continuous

Schematic — layer thicknesses are exaggerated so the construction reads at print size. The tabulated dimensions govern.

APPLICATION

Four-core 0.6/1 kV armoured distribution cable for tunnels, stations, plant rooms, hospitals and any route where a fire has to be survivable and the cable may also be struck or crushed. The halogen-free construction keeps corrosive and opaque smoke out of the escape route; the steel wire armour keeps the cable intact where it is buried or exposed.

CONSTRUCTION

Conductor
Stranded copper, Class 2 to IEC 60228

Insulation
Extruded XLPE, 90 °C continuous

Bedding
Halogen-free filling compound

Armour
Single layer of galvanised round steel wires

Sheath
LSZH, black, UV resistant

MODEL DESIGNATION

Cu / XLPE / SWA / LSZH copper, cross-linked polyethylene, steel wire armour, low-smoke zero-halogen sheath · the BS 6724 construction, 0.6/1 kV

KEY FEATURES

- Every non-metallic component is halogen-free — sheath *and* bedding, not the sheath alone
- IEC 60332-3 Cat. C bunched-cable flame test, not just the single-cable test
- Smoke density to IEC 61034-2, acid gas to IEC 60754-2 — quoted separately, as they are separate properties
- Steel wire armour for crush and rodent protection; not an EMC screen

STANDARDS

- BS 6724 — XLPE insulated, LSZH sheathed armoured cables
- IEC 60502-1 — the equivalent international construction standard
- IEC 60754-1 — halogen-free
- IEC 60754-2 — acidity of evolved gases
- IEC 61034-2 — smoke density
- IEC 60332-3 Cat. C — bunched cable flame propagation

TECHNICAL PARAMETERS

Rated Voltage
0.6/1 kV (U_0/U), U_m 1.2 kV

Conductor
Copper, Class 2 stranded

Continuous Rating
+90 °C conductor

Short Circuit
+250 °C, 5 s maximum

Operating Range
-20 °C to +90 °C
Minimum installation 0 °C

Bend Radius
8 × overall diameter when laying

Routine Test
3.5 kV AC, 5 min

Armour
Galvanised round steel wires, single layer

Sheath
LSZH, black, UV resistant

Range
1.5–400 mm², by core count

LSZH	Cat. C	+90 °C
60754 · 61034	60332-3	XLPE

FOUR-CORE DIMENSIONS AND RATINGS

Table 1 — 4 × 4 to 4 × 120 mm², BS 6724

CROSS-section	NOMINAL OD mm	WEIGHT kg/km	R′ @20 °C Ω/km	IN AIR 30 °C, A	BURIED 20 °C, A
4	15.0	480	4.61	42	39
6	18.0	700	3.08	54	49
10	20.0	900	1.83	75	65
16	22.0	1200	1.15	100	84
25	27.0	1800	0.727	127	107
35	29.0	2250	0.524	158	129
50	31.0	2750	0.387	192	153
70	**36.0**	**4000**	**0.268**	**246**	**188**
95	41.0	5250	0.193	298	226
120	46.0	6750	0.153	346	257

The diameters and weights here are not the PVC version. BS 6724 and BS 5467 share a construction but not a sheath: at 4 × 4 the LSZH cable is 15.0 mm and 480 kg/km against 16 mm and 500 kg/km for PVC.

FIRE PERFORMANCE

Table 2 — four separate properties, four separate standards

PROPERTY	STANDARD	WHAT IT ACTUALLY PROVES
Halogen content	IEC 60754-1	No halogen in the evolved gases
Acidity / corrosivity	IEC 60754-2	Gases will not corrode steel or circuit boards
Smoke density	IEC 61034-2	Light transmission through the smoke
Bunched flame	IEC 60332-3 Cat. C	Fire does not climb a vertical tray of cables

Halogen-free does not mean low-smoke. IEC 60754-1 tests what comes off the cable when it burns, not how much light gets through the smoke. A cable can pass 60754-1 and still fill a stairwell. If the requirement is visibility on an escape route, the number to ask for is 61034-2.

Two-core 16 mm² is also available: 19.0 mm nominal, 850 kg/km, 1.15 Ω/km, 115 A in air and 100 A buried — the same conductor data as the four-core, on a smaller and lighter cable. Sizes above 120 mm² in four-core and three-core constructions are outside the scope of this table.

Disclaimer. The information in this datasheet is for guidance only and is subject to change without notice. Dimensions and masses are nominal and subject to manufacturing tolerance; confirm against the certificate of the delivered product. This document is uncontrolled once printed or forwarded — the current revision, issued under document number SORIVO-TM-SWALSZH-001, governs. © 2026 SORIVO. All rights reserved. Ratings assume one circuit, 30 °C air or 20 °C soil, standard depth and soil thermal resistivity. The 250 °C short-circuit figure is the IEC 60502-1 basis for a duration of not more than 5 s.