

Application

BS 6724 is a low-smoke zero-halogen armoured power and control cable for fixed installations at a rated voltage of 600/1000 V, manufactured in accordance with BS 6724. It has a stranded plain copper conductor of class 2, cross-linked polyethylene (XLPE) insulation, an extruded halogen-free bedding, galvanised steel wire armour (SWA) and a black low-smoke zero-halogen (LSZH) outer sheath. It is the halogen-free counterpart of the PVC-sheathed BS 5467 cable and is specified where fire performance matters, in public buildings, transport interchanges and other enclosed or densely occupied spaces, because in a fire it emits little smoke and no corrosive halogen gases. The cable is suitable for installation in ground, in ducts, on trays or in air for mains distribution, sub-mains and armoured control circuits. Single-core cables to BS 6724 have aluminium wire armour; see the datasheet BS 6724 single core AWA.



CONSTRUCTION

Conductor	Plain annealed copper, class 2 (stranded) acc. to BS EN 60228.
Insulation	Cross-linked polyethylene (XLPE), type GP8.
Bedding	Extruded low-smoke zero-halogen (LSZH) polymeric material.
Armour	Galvanised steel wire armour (SWA).
Sheath	Low-smoke zero-halogen (LSZH) compound, type LTS1, black.
Core identification	2-core brown, blue; 3-core brown, black, grey; 4-core brown, black, grey, blue; 5-core green/yellow, brown, black, grey, blue.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	600/1000 V.
Test voltage	3,500 V AC (routine voltage test acc. to BS 6724 / BS EN 60502-1).
Standard	BS 6724; conductors acc. to BS EN 60228; construction acc. to BS EN 60502-1.
Flame-retardant	Acc. to BS EN 60332-1-2 (single cable) and BS EN 60332-3-24 category C (bunched cables).
Halogen-free	Acc. to BS EN 60754-1 and BS EN 60754-2; low smoke emission acc. to BS EN 61034-2.
Max. conductor temperature	+90 °C in normal operation.
Max. short-circuit temperature	+250 °C (max. 5 s).
Min. bending radius, fixed	8 × overall diameter.
Reaction to fire (CPR)	Dca-s1,d2,a1 acc. to EN 50575; Cca-s1,d2,a1 on request.
Tunnels	The classes above do not meet the requirements for rail tunnels in Great Britain: at least B2ca-s1a,a1 (NTSN Safety in Railway Tunnels) and Cca-s1a,d0,a3 for London Underground (S1085). State the required class with your enquiry.

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Cond. R @20°C (Ω/km)	Overall dia. (mm)	Weight (kg/km)
2 × 1.5	12.1	12.1	302
3 × 1.5	12.1	12.6	330
4 × 1.5	12.1	13.5	365
5 × 1.5	12.1	14.3	410
2 × 2.5	7.41	13.6	346
3 × 2.5	7.41	14.1	390
4 × 2.5	7.41	15	438
5 × 2.5	7.41	16.3	470
2 × 4	4.61	14.7	410
3 × 4	4.61	15.3	464
4 × 4	4.61	16.4	532
5 × 4	4.61	17.8	710
2 × 6	3.08	15.9	499
3 × 6	3.08	16.6	568
4 × 6	3.08	18.7	764
5 × 6	3.08	20	876
2 × 10	1.83	18	648
3 × 10	1.83	19.5	866
4 × 10	1.83	21.1	1013
5 × 10	1.83	22.9	1165
2 × 16	1.15	20.4	978
3 × 16	1.15	21.6	1152
4 × 16	1.15	23.4	1360
5 × 16	1.15	26.6	1742
2 × 25	0.727	20.4	1290
3 × 25	0.727	23.6	1800
4 × 25	0.727	26.1	2160
5 × 25	0.727	31.5	2323
2 × 35	0.524	23.3	1500
3 × 35	0.524	25.7	2230
4 × 35	0.524	28.6	2690
5 × 35	0.524	34.8	2932
2 × 50	0.387	25.8	1890
3 × 50	0.387	28.5	2490
4 × 50	0.387	32	3130
5 × 50	0.387	40.4	4192
2 × 70	0.268	29	2450
3 × 70	0.268	32.2	3290
4 × 70	0.268	37.7	4500
5 × 70	0.268	43	5500
2 × 95	0.193	33.1	3300
3 × 95	0.193	37	4440
4 × 95	0.193	41.7	5600
2 × 120	0.153	39.3	4020
3 × 120	0.153	40.4	5470

Cores × mm ²	Cond. R @20°C (Ω/km)	Overall dia. (mm)	Weight (kg/km)
4 × 120	0.153	47.1	7400
2 × 150	0.124	39.3	4750
3 × 150	0.124	45.5	6930
4 × 150	0.124	51.4	8780
3 × 185	0.0991	49.8	8350
4 × 185	0.0991	56.6	10630
3 × 240	0.0754	55.1	10400
4 × 240	0.0754	63	13390
3 × 300	0.0601	60.2	12600
4 × 300	0.0601	63.6	14998
3 × 400	0.047	66.6	14600
4 × 400	0.047	78.1	19800

Overall diameters, weights and conductor resistances are nominal values of the leading reference source (class-2 plain copper conductor to BS EN 60228); all values are indicative and non-binding and may differ between manufacturers.