

Applications

Screened three core
 Fire Resistant cable for
 Building and Industrial
 Management Systems

Sector - **BT FIREPRO-TEC®**

Standard Fire Alarm Cables

Standard Put Up Length
 100 and 500 metres

Design

1. Conductor
 3 x Plain Annealed
 Copper wire
2. Insulation
 Silicon Rubber blend
 Core 1: Brown,
 Core 2: Black
 Core 3: Grey
3. Cable Core lay-up
 Two twisted wires
 10 twists per metre
4. Drain Wire
 Tinned
 Copper wire
5. Screen
 Aluminium/Polyester
 115% Coverage
6. Sheath Material
 Halogen Free
 Flame-Retardant (HFFR)



Physical Characteristics

BTCL Part Number	Unit	BTC1873	BTC1845	BTC1846	BTC1847
No of cores x cross section in sq. mm	mm ²	3 x 1.0	3 x 1.5	3 x 2.5	3 x 4.0
Nom. Diameter Conductor	mm	1 x 1.13	1 x 1.4	1 x 1.8	7 x 0.85 = 2.55
Nom. Radial Thickness Insulation	mm	0.7	0.7	0.8	0.9
Nom. Cross Section CPC	mm ²	1.0	1.5	2.5	4.0
Nom. Overall Diameter	mm	7.95	8.75	9.5	12.5
Cable weight	kg/km	95	129	191	250

Electrical Characteristics (at 20°C)

BTCL Part Number	Unit	BTC1873	BTC1845	BTC1846	BTC1847
No of cores x cross section in sq. mm	mm ²	3 x 1.0	3 x 1.5	3 x 2.5	3 x 4.0
Max. DC Resistance Conductor	Ω/km	18.1	12.1	7.41	4.61
Mutual Capacitance	pF/m	70	70	80	111
Min. Insulation Resistance	MΩ*km	200	200	200	200
Max. recommended current at 25°C	Amps	15	19.5	27	36
Max. Operating Voltage	Vrms	300/500	300/500	300/500	300/500

Miscellaneous

BTCL Part Number	Unit	BTC1873	BTC1845	BTC1846	BTC1847
No of cores x cross section in sq. mm	mm ²	3 x 1.0	3 x 1.5	3 x 2.5	3 x 4.0
Operating Temperature	°C	-40 to +90	-40 to +90	-40 to +90	-40 to +90
Installation Temperature	°C	0 to 70	0 to 70	0 to 70	0 to 70
Minimum bending radius	mm	48	53	57	75
Max. recommended pulling tension	N	265	405	670	1250
Fire Resistance to BSEN 50200 (PH30, PH60 & PH120)		Exposed to fire at 834°C and mechanical shock for 30, 60 or 120 minutes			
Fire Resistance to BSEN 50200 Annex E		Exposed to fire at 834°C and mechanical shock for 15, then exposed to fire at 834°C, mechanical shock and water spray for 15 minutes.			
Fire Resistance to BS6387, Cat. C		Exposed to fire at 950°C for 3 hours			
Fire Resistance to BS6387, Cat. W		Exposed to fire at 650°C for 15 minutes, then exposed to fire at 650°C with water for 15 minutes			
Fire Resistance to BS6387, Cat. Z		Exposed to fire at 650°C for 15 minutes, then exposed to fire at 650°C with mechanical shock for 15 minutes			
Fire Resistance to IEC 60331-21		Exposed to fire at 750°C for 90 minutes			
Fire Retardancy		IEC 60332-1			
Other relevant standards		BS EN 50267-2-1, BS EN 61034-2, BS 6234, BS 6360, BS 7655.1.1 and BS7655.6.1			