

HTKSHekw FE180/PH120/E90

Fire resistant, halogen-free telecommunication cable



BITNER HTKSHekw FE180/PH120/E90



internal application



EN 60332-1-2



IEC 60332-3
EN 60332-3



halogen-free
EN 60754



low smoke emission
EN 61034



insulation resistance
to fire 180 min



PH120 fire
integrity function



E90 fire
integrity function



sprinklers zone

Technical data:

Thermal parameters:

Temperature range:

fixed installation: -30 °C to 80 °C

min. installation temp: -5 °C

Electrical parameters:

Operating voltage: 225 V

Test voltage:

AC 1500 V

DC 2250 V

Insulation resistance (minimum):

500 MΩ·km

Pair loop resistance at 20 °C (maximum):

0,8 mm - 75 Ω/km

1,0 mm - 48 Ω/km

1,4 mm - 26,6 Ω/km

1,8 mm - 14,96 Ω/km

2,3 mm - 9,6 Ω/km

2,8 mm - 6,4 Ω/km

Mutual capacitance of pair at 1 kHz

(maximum): 150 nF/km

Mechanical parameters:

Min. bending radius: 10 x Ø

Design:

Cores:

Insulation:

Core colours:

Core arrangement:

Wrapping:

Screen:

Outer sheath:

solid copper conductor class 1, acc. to EN 60228

mica tape wrapping and halogen-free compound

acc. to PN-T-90321:1992

cores twisted in pairs

polyester tape

aluminium backed polyester type with tinned copper drain

wire 0,4mm diameter

halogen-free polymer compound; colour: red

Cable characteristics:

- fire resistant
- halogen-free
- flame retardant
- no corrosive gases
- low smoke emission
- increased insulation resistance (FE180)
- fire integrity function (PH120)
- low fire load (calorific value)

Application:

Fire resistant, halogen-free telecommunication cables designed for emergency lighting installations, alarm-, signalling-, and teletransmission systems, in sound alarm systems as well as in fire warning systems, fire automation and other safety ensuring installations. Static screen (ekw) protects the cable against interferences of external magnetic fields. Under fire conditions those cables ensure proper operation of installations for at least 120 minutes (PH120) and durability of conductors insulation for 180 minutes (FE180). During burning cables do not emit corrosive gases or dense smoke. Cables are suitable for fixed installations inside buildings. HTKSHekw FE180/PH90 (E90) cables have been tested in accordance with the requirements of DIN 4102 p.12 and can be installed in E90 cable support systems as their elements (installation on clamps located every 30cm and 60cm).

Tests:

Flame propagation test for a single insulated cable: EN 60332-1, IEC 60332-1, VDE 0482-332-1

Flame propagation test for vertically-mounted bunched cables: EN 60332-3-24, IEC 60332-3-24, VDE 0482-332-3-24

Test on corrosive gases emitted during burning: EN 60754-2, IEC 60754-2, VDE 0482-754-2

Smoke density emission during burning: EN 61034-2, IEC 61034-2, VDE 0482-1034-2

Insulation resistance to long term fire exposure FE180: IEC 60331-21, VDE 0472-814

Fire integrity function of cable support system E90: DIN 4102-12

Fire integrity function of cable installation (PH120): EN 50200, IEC 60331-1

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Fire resistant, halogen-free telecommunication cable

Cat. no.	n x mm	Outer diameter [mm]	Approximate cable weight [kg/km]
B10170	1x2x0,8	6,5	48
B10180	1x4x0,8	7,3	68
B10174	2x2x0,8	8,7	85
B10177	3x2x0,8	9,4	95
B10178	4x2x0,8	10,7	118
B10181	5x2x0,8	11,6	146
B10182	7x2x0,8	12,7	174
B10183	8x2x0,8	13,3	193
B10184	10x2x0,8	14,7	231
B10171	1x2x1,0	7,1	59
B10185	1x4x1,0	8,0	85
B10175	2x2x1,0	9,6	106
B10186	3x2x1,0	10,4	122
B10187	4x2x1,0	11,9	152
B10179	5x2x1,0	13,0	190
B10189	7x2x1,0	14,3	231
B10190	8x2x1,0	14,9	256
B10191	10x2x1,0	16,6	309
B10172	1x2x1,4	8,2	82
B10192	1x4x1,4	9,3	126
B10176	2x2x1,4	11,4	159
B10193	3x2x1,4	12,4	183
B10194	4x2x1,4	14,3	233
B10195	5x2x1,4	15,6	296
B10196	7x2x1,4	17,2	365
B10197	8x2x1,4	18,4	425
B10198	10x2x1,4	20,5	515

Cat. no.	n x mm	Outer diameter [mm]	Approximate cable weight [kg/km]
B10173	1x2x1,8	9,7	119
B10199	1x4x1,8	11,1	188
B10200	2x2x1,8	13,6	238
B10201	3x2x1,8	14,9	276
B10202	4x2x1,8	17,1	351
B10203	5x2x1,8	19,1	465
B10204	7x2x1,8	21,0	575
B10205	8x2x1,8	22,0	642
B10206	10x2x1,8	25,0	805
B10207	1x2x2,3	11,0	161
B10208	1x4x2,3	12,5	264
B10209	2x2x2,3	15,5	327
B10210	3x2x2,3	17,0	388
B10211	4x2x2,3	20,1	518
B10212	5x2x2,3	22,0	660
B10213	7x2x2,3	24,7	851
B10214	8x2x2,3	25,8	953
B10215	10x2x2,3	29,2	1193
B10216	1x2x2,8	12,2	211
B10217	1x4x2,8	14,0	357
B10218	2x2x2,8	17,4	435
B10219	3x2x2,8	19,6	546
B10220	4x2x2,8	22,7	704
B10221	10x2x2,8	33,1	1286

Cable Factory BITNER reserves the right to modify specifications without prior notification
Note: On customer's request other cross sections or number of cores can be produced