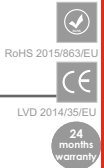


HTKSHekw FE180/PH90 E90



Fire resistant, halogen-free telecommunication cable



Technical data:

Thermal parameters:

Temperature range:
Fixed installation: -25 °C to 70 °C
Min. installation temp: -5 °C

Electrical parameters:

Operating voltage: 225 V
Test voltage:
AC 1500 V
DC 2250 V
Insulation resistance (min.): 500 MΩ*km
Pair loop resistance at 20 °C (max.):
1,0 mm - 48 Ω/km
Mutual capacitance of pair at 1kHz (maximum): 150 nF/km
Inductance: 0,7 mH/km

Mechanical parameters:

Min. bending radius: 10 x Ø

Design:

Cores: solid copper conductor class 1, acc. to EN 60228
Insulation: mica tape wrapping and halogen-free compound acc. to table „conductor insulation colour” in Technical Data chapter (acc. to PN-T-90321:1992)
Core colours: cores twisted in pairs
Core arrangement: polyester tape
Wrapping: aluminium backed polyester type with tinned copper drain wire 0,8mm diameter
Outer sheath: halogen-free polymer compound; colour: red

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 90 minutes (PH90) 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 4102-12 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 E30-E90: DIN 4102-12
Fire integrity function of cable installation (PH90): EN 50200
Fire integrity function of cable installation in sprinklers zone: EN 50200 + Annex E

Cable characteristics:

- fire resistant
- halogen-free
- flame retardant
- no corrosive gases (acidity pH ≥ 4,3; conductivity < 10 µS/mm)
- low smoke emission (light transmittance over 60%)
- increased insulation resistance (FE180)
- fire integrity function (PH90)
- installation on clamps located every 30 - 60cm in E30 - E90 systems
- low fire load (calorific value)
- installation in sprinklers zone

Cat. no.	n x mm	Approximate outer diameter [mm]	Approximate cable weight [kg/km]
	1x2x1,0	7,4	65

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