

JE-H(St)H Bd FE 180/E 30 bis E 90 (orange), halogen-free



Technical data

- Flame retardant, halogen-free installation cable, adapted to DIN VDE 0815
- **Insulation integrity** 180 min tested to DIN VDE 0472 part 814 and IEC 60331
- **Functionality** E 30 to E 90 min (dependant on corresponding installation technique)
- **Loop resistance** max. 73,2 Ohm/km
- **Temperature range**
flexing -5 °C to +50 °C
fixed installation -30 °C to +70 °C
- **Operating top level voltage**
225 V (not for purposes of high current and power installation)
- **Test voltage**
core/core 500 V
core/screen 2000 V
- **Insulation resistance**
min. 100 MOhm x km
- **Mutual capacitance**
max. 120 nF/km at 800 Hz
(this values may be extended at 20% with a make-up up to 4 pairs)
- **Capacitance unbalance**
max. 200 pF/100 m (20% of the values, but one value up to 400 pF is allowed)
- **Minimum bending radius**
approx. 6x cable ø
- **Radiation resistance**
up to 100x10⁶ cJ/kg (up to 100 Mrad)
- **Caloric load values**
see Technical Informations

Cable structure

- Bare copper conductor, solid, 0,8 mm ø
- Special core insulation halogen-free, cross-linked polymer to DIN VDE 0207 part 23, HI1 flame retardant (E90 with special foil wrapping over conductor)
- Core identification with colour rings and ring-groups to DIN VDE 0815
- Cores twisted to pairs, 4 pairs consist to unit, several units stranded to layers
- Units identified by numbered tape
- Core wrapping with special polyester and glass-fibre tape
- Screening with alu-laminated polyester tape and solid tinned copper drain wire 0,8 mm ø
- Halogen-free outer jacket, flame retardant to DIN VDE 0207 part 24 HM2
- Jacket colour orange

Tests

- Flame test to VDE 0482-332-3, BS 4066 part 3/ DIN EN60332-3/ IEC 60332-3 (equivalent DIN VDE 0472 part 804 test method C)
- Corrosiveness of combustion gases according to VDE 0482 part 267/ DIN EN 50267-2-2/ IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- Smoke density according to VDE 0482 part 1034-1+2 / IEC 61034-1+2 / DIN EN 61034-1+2 / BS 7622 part 1+2 (equivalent DIN VDE 0472 part 816)
- **LSOH** = Low Smoke Zero Halogen-free.

Properties

- No fire propagation
- Low smoke density
- **FE 180: Insulation integrity** for 180 minutes.
Tests to DIN VDE 0472 part 814 IEC 60331. **Insulation integrity** under direct flame propagation for the test period of 180 minutes.
- **E 30: Functionality** of electrical cable systems for minimum 30 minutes. Test to DIN 4102 part 12.
The **functionality** for 30 minutes assures when persons and animals are to be saved from a burning building. 30 minutes secures the functional performance of the fire warning and alarm systems, safety and spare lighting, passenger lifts with evacuation circuits, except the cables which are installed within the ladder shafts and engine rooms.
- **E 90: Functionality** of electrical cable systems for minimum 90 minutes. Test method to DIN 4102 part 12.
The **functionality** for 90 minutes assures the functional performance of water-pressure-rising stations for the supply to avoid smoke and heat in safety-stairs and inner rooms, ladder shafts and engine rooms for fire brigade lifts, emergency lifts for sickbeds in hospitals and the fire brigade lifts.

Note

- **E 30 to E 90**
Functionality (burning behaviour) is dependant on corresponding installation technique.
- Not for purposes of high current and power installation as well as underground laying.

Application

Flame resistant, halogen-free, static screened installation cables for telecommunication purpose. The static screen prevents strong interference impulse. Suitable for fixed installation everywhere, where in case of fire human life and material assets are to be protected and a safety consciousness take a special significance, e.g. in industrial complexes, public buildings, hotels, airports, under ground railway networks, hospitals.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Functionality E 30 to E 90

Part no.	No. pairs x cross-sec. mm	Outer ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
34081	2 x 2 x 0,8	7,4	25,0	74,0
34082	4 x 2 x 0,8	10,8	45,0	127,0
34083	8 x 2 x 0,8	16,9	85,0	300,0
34084	12 x 2 x 0,8	18,5	126,0	336,0
34085	16 x 2 x 0,8	20,1	166,0	426,0
34086	20 x 2 x 0,8	22,2	206,0	529,0
34087	32 x 2 x 0,8	29,1	326,0	859,0
34088	40 x 2 x 0,8	34,2	407,0	1094,0
34089	52 x 2 x 0,8	37,3	529,0	1280,0

Functionality E 30

Part no.	No. pairs x cross-sec. mm	Outer ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
34148	2 x 2 x 0,8	7,5	25,0	74,0
34149	4 x 2 x 0,8	9,3	45,0	127,0
34150	8 x 2 x 0,8	11,4	85,0	300,0
34151	12 x 2 x 0,8	13,0	126,0	336,0
34152	16 x 2 x 0,8	15,7	166,0	426,0
34153	20 x 2 x 0,8	16,5	206,0	529,0
34154	32 x 2 x 0,8	20,3	326,0	859,0
34155	40 x 2 x 0,8	23,4	407,0	1094,0
34156	52 x 2 x 0,8	25,2	529,0	1280,0

Dimensions and specifications may be changed without prior notice. (RQ02)