Halogen-free 1kV power cables, functional for 180 min. in fire, with circuit integrity in fire for duration of 60 or 90 min.




## Application:

Power cables with circuit integrity in fire for duration of 60 or 90 min. according to STN 92 0205 (DIN 4102 Teil 12, ZP – 27/2008), with resistance to flame propagation according to STN EN 60332-3-... (STN EN 50266-2-…), halogen-free, with low density of smoke according to STN EN 61034-2 and low corrosivity of combustion gases according to STN EN 50267-2-3. Cables are functional in fire for time period 180 min. according to IEC 60331-21. These are used for nominal voltage of 0,6/1 kV for fixed installation both in normal and moist environments (STN 33 2000-5-51). Cables can be used in the fire hazard conditions and can be installed on flammable material.

## Cable construction:

- **Number of cores:** 2 - 19
- **Cable cores:** copper conductor cl. 1 or cl. 2
- **Nominal cross-section:** 1 $mm^2$, 1,5 $mm^2$, 2,5 $mm^2$, 4 $mm^2$
- **Insulation:** mica-glass tape + cross-linked homo- / copolymer ethylene, HFFR
- halogen-free, flame-retarding filler is placed above the coiled cores
- **Sheath cable:** halogen-free, flame-retardant material
- **Colour of sheath:** orange or other if required

## Technical data:

- **Nominal voltage Uo/U (kV):** 0,6/1
- **Test voltage [kV]:** 4
- **Max. short-circuit temperature:** 90 °C
- **Operating temperature:** -40 °C to +70 °C
- **Min. temperature for laying:** -5 °C
- **Min. bending radius:** 15 x cable diameter

## Marking:

- **Core identification:** Acc. to STN EN 60446
- **Letter code:**

| position | letter | meaning |
|---|---|---|
| 1. | N | VDE standard |
| 2. | HX | mica-glass tape + cross-linked homo- / copolymer ethylene, HFFR |
| 3. | H | homo- / copolymer ethylene, HFFR |
| 4. | RE | copper conductor cl. 1 |
| | RM | copper conductor cl. 2 |
| 5. | FE180 | cable is flame-retardant with maintaining its functionality at fire |
| 6. | E60, E90 | cable with circuit integrity in fire for duration of 60 or 90 min. |





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**Aplication table:**

| Number of cores | Nominal cross-section | Effective resistance of conductors | Total weight (appr.) | Outer diameter (appr.) |
|---|---|---|---|---|
| | $mm^2$ | Ω/km | kg/km | mm |
| 2 | 1 | 18,1 | 130 | 11 |
| | 1,5 | 12,1 | 160 | 11,5 |
| | 2,5 | 7,41 | 190 | 12,5 |
| | 4 | 4,61 | 220 | 14 |
| 3 | 1 | 18,1 | 160 | 11,5 |
| | 1,5 | 12, 1 | 190 | 12 |
| | 2,5 | 7,41 | 235 | 13 |
| | 4 | 4,61 | 295 | 15 |
| 4 | 1 | 18,1 | 180 | 12 |
| | 1,5 | 12,1 | 225 | 13 |
| | 2,5 | 7,41 | 280 | 14 |
| | 4 | 4,61 | 360 | 16 |
| 5 | 1 | 18,1 | 200 | 12,5 |
| | 1,5 | 12, 1 | 260 | 14 |
| | 2,5 | 7,41 | 330 | 15 |
| | 4 | 4,61 | 410 | 17 |
| 7 | 1 | 18,1 | 260 | 14 |
| | 1,5 | 12,1 | 310 | 15 |
| | 2,5 | 7,41 | 420 | 16,5 |
| 12 | 1,5 | 12,1 | 480 | 18,5 |
| | 2,5 | 7,41 | 630 | 20,5 |
| 19 | 1,5 | 12,1 | 650 | 23 |
| | 2,5 | 7,41 | 850 | 25 |





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