SiF / SiFF silicon single cores, halogen-free



Technical data

- Spezial-silicon single core with higher heat-resistance range adapted to DIN VDE 0250 Teil 1 and part 502
- **Temperatue range**
  -60 °C to +180 °C
  (up to +220 °C for short time)
- **Temperature limit at the conductor**
  in operation +180 °C
- **Nominal voltage** U_0/U 300/500 V
- **Test voltage** 2000 V
- **Breakdown voltage** min. 5000 V
- **Minimum bending radius**
  6x cable ø
- **Radiation resistance**
  up to 20 x 10^6 cJ/kg (up to 20 Mrad)

Cable structure

Type SiF

- Tinned copper conductors
  0,5 mm² to DIN VDE 0295 Kl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
  for 0,25 mm² = 14x0,15 mm
- Silicone core insulation

Type SiFF

- as SiF but with high flexible copper strands (see content technical information)
- Strand make-up
  0,25 to 1,0 mm² - cl. 6 col. 7
  (single wire ø 0,05 mm)
  1,5 to 10 mm² - cl. 6 col. 6
  (single wire ø 0,07 mm)

Properties

- **Advantages**
  High ignition or flash point
- **Resistant to**
  High molecular oils, fats from vegetables and animals, alcohols, plasticizers and clophenes, diluted acids, lyes and salt dissolution, oxidation substances, tropical influences and weather, lake water, oxygen
- **Halogen-free**
  according to VDE 0482 part 267/ DIN EN 50267-2-2/ IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- **Behaviour in fire**
  no flame propagation
  test according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- For laying as a fixed installation only in open or ventilated pipe systems as well as in ducts. Otherwise the mechanical properties of the silicon are reduced by the enclosed air at temperatures exceeding 90 °C.

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Note

- Please complete the part number for these cables by adding the suffix for the colour required as per the list:
  00 = green, 01 = black, 02 = red,
  03 = blue, 04 = brown, 05 = white,
  06 = grey, 07 = violet, 08 = yellow,
  09 = orange, 10 = transparent,
  11 = pink, 12 = beige, 13 = twin colour

Application

Special cables for use in high, resp. low temperature areas. They are used mainly in the steel producing industries, in aviation industries as well as in ship building, cement, glas and ceramic factories. As this cables are halogen-free, especially suited for use in power stations.

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

SiF

Part no.	Cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
232xx	0,25	1,9	2,4	5,5	24
233xx	0,5	2,1	4,8	8,6	20
234xx	0,75	2,4	7,2	11,8	18
235xx	1	2,5	9,6	13,5	17
236xx	1,5	2,8	14,4	18,5	16
237xx	2,5	3,4	24,0	30,0	14
238xx	4	4,2	38,0	47,3	12
239xx	6	5,0	58,0	71,1	10
246xx	10	6,6	96,0	119,4	8
247xx	16	7,4	154,0	187,7	6
248xx	25	9,2	240,0	289,6	4

SiF (wire colour black)

Part no.	Cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
23953	35	10,3	336,0	398,3	2
23954	50	12,2	480,0	559,7	1
23955	70	14,2	672,0	765,8	2/0
23956	95	16,6	912,0	1031,5	3/0
23957	120	18,0	1152,0	1284,6	4/0
23958	150	20,0	1440,0	1563,4	300 kcmil
23959	185	22,5	1776,0	1858,2	350 kcmil

SiFF

Part no.	Cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
451xx	0,25	1,9	2,4	6,0	24
452xx	0,5	2,2	4,8	10,0	20
453xx	0,75	2,5	7,2	13,0	18
454xx	1	2,6	9,6	15,0	17
455xx	1,5	2,9	14,4	19,0	16
456xx	2,5	3,5	24,0	32,0	14
457xx	4	4,4	38,0	50,0	12
458xx	6	5,2	58,0	73,0	10
459xx	10	6,8	96,0	125,0	8

Dimensions and specifications may be changed without prior notice. (RK01)