THERMFLEX® 180 EWKF-C silicone multicore cable,

halogen-free, screened, EMC-preferred type, meter marking

Technical data

- adapted to DIN VDE 0285-525-2-83/ DIN EN 50525-2-83
- **Temperature range**
  flexing -25°C to +180°C
  fixed installation -60°C to +180°C
- **Nominal voltage** U_0/U 300/500 V
- **Test voltage** 2000 V
- **Insulation resistance**
  min. 200 MOhm x km
- **Minimum bending radius**
  flexing 10x cable Ø
  fixed installation 5x cable Ø
- **Coupling resistance**
  max. 250 Ohm/km
- **Radiation resistance**
  up to 20x10^6 cJ/kg (up to 20 Mrad)

Tests

- Insulation integrity
  testet acc. to DIN VDE 0472 part 814 and IEC 60331
- Halogen-free
  acc. to DIN VDE 0482 part 267, DIN EN 50267-2-1, IEC 60754-1 (equivalent DIN VDE 0472 part 815)
- Behaviour in fire
  no flame propagation acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2,IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- Corrosiveness of combustion gases
  acc. to DIN VDE 0482 part 267, DIN EN 50267-2-2, IEC 60754-2

Cable structure

- Tinned copper-conductor, to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation of special silicone compound type EI2 to DIN VDE 0207-363-1 / DIN EN 50363-1
- Core identification to DIN VDE 0293-308
  - up to 5 cores coloured
  - from 6 cores, black with continuous white numbering
- GN-YE conductor, 3 cores and above in the outer layer
- Cores stranded in layers with optimal lay-length
- Inner sheath of special silicone
- Tinned copper braided screen, approx. 85% coverage
- Outer sheath of special silicone compound type 2GM1 to DIN VDE 0207-363-2-1/DIN EN 50363-2-1
- Sheath colour black (RAL 9005)
- with meter marking

Properties

- Smoke density - low
- Due to the special abrasive and notch resistance outer sheath, these cables are suitable for heavy loading of mechanical stresses than the usual standard silicone cables
- Hardly changes of dielectric strength and the insulation resistance also at high temperatures
- High ignition or flash point
- In case of fire, forms an insulating layer of SiO_2
- **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, ozone

Note

- G = with green-yellow conductor
  x = without green-yellow conductor
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- **EWKF** = Improved values to **E**=tearing resistance, **W**=breaking strength propagation, **K**=notch strength, **F**=flexibility
- unscreened analogue type:
  THERMFLEX® 180 EWKF, confer page 225

Application

These cables are ideal for use everywhere, where increased mechanical stresses for the installation and operation are required. Silicone-rubber-insulated cables are used for all applications where the cable insulation is subjected to high temperature fluctuations. For use in dry, damp and wet rooms as well outdoor. As flexible connecting cable for low mechanical stress i. e. sauna, solar installations, foundries and steel plants. This cable can be used for fixed installation only in open and ventilated cable tubes and cable ducts. An interference-free transmission of signals and pulse is assured by the high screening density.

EMC = Electromagnetic compatibillity

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

FRNC = **F**lame **R**etardant **N**on **C**orrosive

All silicon cables are available also in FRNC versions. The sheath designed with special-compound conform flame test method C to DIN VDE 0472 part 804 and IEC 60332-3 as well as HD 405.3. This special compound is self-extinguishing. Because of that these cables can be installed as security cable with functionality as for example in communal buildings, power stations, hotels, airports etc.

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

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
79804	2 x 0,75	9,0	61,4	124,0	19
79805	3 G 0,75	9,4	69,1	136,0	19
79806	4 G 0,75	10,4	86,7	160,0	19
79807	5 G 0,75	11,2	95,2	180,0	19
79808	2 x 1	9,4	66,7	132,0	18
79809	3 G 1	9,8	86,2	154,0	18
79810	4 G 1	10,7	96,8	176,0	18
79811	5 G 1	11,6	108,3	207,0	18
79812	2 x 1,5	10,8	87,7	170,0	16
79813	3 G 1,5	11,2	103,5	190,0	16
79814	4 G 1,5	12,0	131,7	231,0	16
79815	5 G 1,5	12,8	148,5	282,0	16
79816	7 G 1,5	13,6	193,4	342,0	16
701219	12 G 1,5	17,2	298,4	531,0	16

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
79817	16 G 1,5	20,0	362,3	660,0	16
79818	20 G 1,5	21,3	405,1	766,0	16
79819	2 x 2,5	12,0	122,3	230,0	14
79820	3 G 2,5	12,9	147,7	275,0	14
79821	4 G 2,5	13,9	188,6	340,0	14
79822	5 G 2,5	14,8	214,9	395,0	14
79823	2 x 4	14,2	137,0	308,0	12
79824	3 G 4	14,9	178,1	364,0	12
79825	4 G 4	16,0	294,0	511,0	12
79826	5 G 4	17,4	374,0	630,0	12
79827	2 x 6	15,8	185,0	418,0	10
79828	3 G 6	16,6	241,1	612,0	10
79829	4 G 6	18,1	449,0	781,0	10
79830	5 G 6	20,0	563,0	980,0	10

Dimensions and specifications may be changed without prior notice. (RE01)