

THERMFLEX® 180 EWKF silicone multicore cable,

halogen-free, 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** U₀/U 300/500 V
- **Test voltage** 2000 V
- **Insulation resistance**
min. 200 MOhm x km
- **Minimum bending radius**
flexing 7,5x cable Ø
fixed installation 4x cable Ø
- **Radiation resistance**
up to 20x10⁶ 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 (equivalent DIN VDE 0472 part 813)

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
- 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
- leave in case of fire an insulating layer of SiO₂, thereby ensuring a longer functional integrity
- **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
- screened analogue type:
THERMFLEX® 180 EWKF-C, confer page 234

Application

These cables are ideal for use everywhere, where they are exposed to high mechanical stresses, as well as wire insulation are subjected to high temperatures. For use in dry, damp and wet rooms, as well outdoor. Silicone cables are halogen free and are suitable for use in air conditioning and heating, for lighting, for the wiring of ovens, saunas and solariums, foundries, steel, cement and ceramic works and in the heating and cooling equipment.

FRNC = Flame Retardant Non Corrosive

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. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
74992	2 x 0,75	6,4	15,0	53,0	19
74993	3 G 0,75	7,0	22,0	64,0	19
74994	4 G 0,75	7,6	29,0	84,0	19
74995	5 G 0,75	8,5	36,0	101,0	19
74996	2 x 1	6,8	20,0	60,0	18
74997	3 G 1	7,2	29,0	78,0	18
74998	4 G 1	7,8	39,0	95,0	18
74999	5 G 1	8,8	48,0	116,0	18
75000	2 x 1,5	8,8	29,0	82,0	16
75001	3 G 1,5	8,9	43,0	98,0	16
75002	4 G 1,5	9,9	58,0	122,0	16
75003	5 G 1,5	10,8	72,0	148,0	16
75004	7 G 1,5	12,0	101,0	187,0	16
75005	12 G 1,5	16,1	173,0	315,0	16
75006	16 G 1,5	18,2	231,0	446,0	16
75007	20 G 1,5	19,4	288,0	566,0	16

Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
75008	2 G 2,5	9,8	48,0	135,0	14
75009	3 G 2,5	10,4	72,0	152,0	14
75010	4 G 2,5	11,5	96,0	189,0	14
75011	5 G 2,5	12,9	120,0	229,0	14
75012	2 x 4	11,6	77,0	180,0	12
75013	3 G 4	12,3	115,0	230,0	12
75014	4 G 4	13,6	154,0	300,0	12
75015	5 G 4	15,2	192,0	380,0	12
75016	2 x 6	13,2	115,0	321,0	10
75017	3 G 6	14,0	173,0	330,0	10
75018	4 G 6	15,5	230,0	430,0	10
75019	5 G 6	17,2	288,0	550,0	10

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