

THERMFLEX 180 EWKF (H05SS-F) halogen-free, silicone multicore cable



HELUKABEL THERMFLEX 180 EWKF 3G1,5 QMM / 75001 300/500 V 001042370 CE



Technical data

- Heat-resistant silicone-insulated flexible cable in adapted to DIN VDE 0250 part 816
- **Temperature range**
flexing -25°C to +180°C
fixed installation -60°C to +180°C
(short time operation +220°C)
- **Nominal voltage** U_0/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 20×10^6 cJ/kg (up to 20 Mrad)
- **Insulation integrity** continuance of insulation effects under fire condition according to IEC 60331 and DIN VDE 0472 part 814
- **Freedom from halogen** (corrosiveness of combustion gases) according to DIN VDE 0482 part 267/ EN 50267-2-2/ IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- **Behaviour in fire** no flame propagation, test according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Cable construction

- Tinned copper conductor, stranded to DIN VDE 0295, cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Silicone core insulation, 2G1 to DIN VDE 0207 part 20
- Core identification to DIN VDE 0293-308 up to 5 cores one-coloured, 6 and more cores black with white numbering
- Green-yellow earth core (3 cores and above)
- Cores stranded in layers with optimal lay-length
- Silicone outer jacket, 2GM1 to DIN VDE 0207 part 21
- Jacket colour black (RAL 9005)

Properties

- **Smoke density** - low
- Due to the special abrasive and notch resistance outer jacket, 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 earth core;
x = without green-yellow earth core.
- **EWKF** = Improved values to **E**=tearing resistance, **W**=breaking strength propagation, **K**=notch strength, **F**=flexibility

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. Suitable for installation at high temperature influence in dry, damp and in the open air. 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.

FRNC = Flame Retardant Non Corrosive

All silicon cables are available also in FRNC versions. The jacket 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 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
74992	2 x 0,75	6,4	15,0	53,0	18
74993	3 G 0,75	6,8	22,0	64,0	18
74994	4 G 0,75	7,8	29,0	84,0	18
74995	5 G 0,75	8,5	36,0	101,0	18
74996	2 x 1	6,6	20,0	60,0	17
74997	3 G 1	7,4	29,0	78,0	17
74998	4 G 1	8,0	39,0	95,0	17
74999	5 G 1	8,8	48,0	116,0	17
75000	2 x 1,5	8,0	29,0	82,0	16
75001	3 G 1,5	8,5	43,0	98,0	16
75002	4 G 1,5	9,5	58,0	122,0	16
75003	5 G 1,5	10,4	72,0	148,0	16
75004	7 G 1,5	11,2	101,0	187,0	16
75005	12 G 1,5	14,9	173,0	315,0	16
75006	16 G 1,5	17,1	231,0	446,0	16
75007	20 G 1,5	18,5	288,0	566,0	16

Part No.	No. cores x cross-sec. mm²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
75008	2 G 2,5	9,4	48,0	135,0	14
75009	3 G 2,5	9,8	72,0	152,0	14
75010	4 G 2,5	11,1	96,0	189,0	14
75011	5 G 2,5	12,4	120,0	229,0	14
75012	2 x 4	11,2	77,0	180,0	12
75013	3 G 4	11,4	115,0	230,0	12
75014	4 G 4	13,1	154,0	300,0	12
75015	5 G 4	14,4	192,0	380,0	12
75016	2 x 6	14,2	115,0	321,0	10
75017	3 G 6	16,2	173,0	330,0	10
75018	4 G 6	17,7	230,0	430,0	10
75019	5 G 6	17,7	288,0	550,0	10

Dimensions and specifications may be changed without prior notice.