

# THERMFLEX® 180 EWKF

Silicone cable, temperature-resistant, increased mechanical strength



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

## TECHNICAL DATA

Silicone control and connection cable in alignment with DIN VDE 0285-525-2-83 / DIN EN 50525-2-83

<b>Temperature range</b>	flexible -25°C to +180°C fixed -60°C to +180°C
<b>Nominal voltage</b>	AC U <sub>0</sub> /U 300/500 V
<b>Test voltage core/core</b>	2000 V
<b>Minimum bending radius</b>	flexible 7.5x Outer-Ø fixed 4x Outer-Ø

## CABLE STRUCTURE

- Copper wire tinned, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: silicone
- Core identification acc. to DIN VDE 0293-308,  
2 - 5 core(s): colour coded  
7 - 20 core(s): black cores with consecutive labeling in white digits
- Protective conductor: starting with 3 cores,  
G = with protective conductor GN-YE, in the outer layer,  
x = without protective conductor
- Cores stranded in layers with optimal lay lengths
- Outer sheath: special silicone
- Sheath colour: black (RAL 9005)
- Length marking: in metres

## PROPERTIES

- resistant to: ozone, oxygen, weathering effects, alcohols, dilute acids, alkalis, saline solutions, oxidising agents, high molecular weight oils, vegetable and animal fats, plasticisers and clophen, seawater
- abrasion-resistant, notch-resistant, tear-resistant

- higher mechanical resilience, increased abrasion resistance and longer service life than conventional silicone cables due to EWKF quality (EWKF stands for Einreiß-, Weiterreiß- and KerbFestigkeit, meaning tear, tear propagation and notch resistance)
- for outdoor use
- halogen-free
- high flash point
- leaves an insulating layer of SiO<sub>2</sub> when exposed to flames
- no significant changes in dielectric strength and insulation resistance even at higher temperatures

## TESTS

- halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- corrosiveness of combustion gases acc. to DIN VDE 0482-754-2 / DIN EN 60754-2 / IEC 60754-2
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- certifications and approvals:  
EAC

## APPLICATION

Halogen-free silicone cable for applications that require an increased mechanical strength as well as a higher temperature resistance. For use in dry, damp and wet rooms as well as outdoors. Suitable for use in air conditioning and heating systems, in saunas and solariums, in foundries, in steel, cement and ceramic plants as well as in furnaces and lighting fixtures.

## NOTES

- the conductor is metrically (mm<sup>2</sup>) constructed, AWG numbers are approximated, and are for reference only
- for fixed installation, always install in open, ventilated pipe or duct systems; otherwise, a combination of high temperatures above 90°C and the absence of air would affect the mechanical properties of silicone

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.	AWG, approx.
74992	2 x 0.75	6.4	15.0	53.0	19
74993	3 G 0.75	6.8	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	6.6	20.0	60.0	18
74997	3 G 1	7.0	29.0	78.0	18
74998	4 G 1	7.9	39.0	95.0	18
74999	5 G 1	8.8	48.0	116.0	18
75000	2 x 1.5	7.6	29.0	82.0	16
75001	3 G 1.5	8.0	43.0	98.0	16
75002	4 G 1.5	8.8	58.0	122.0	16
75003	5 G 1.5	9.6	72.0	148.0	16
75004	7 G 1.5	10.4	101.0	187.0	16
75005	12 G 1.5	14.0	173.0	315.0	16

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.	AWG, approx.
75006	16 G 1.5	16.2	231.0	446.0	16
75007	20 G 1.5	17.5	288.0	566.0	16
75008	2 x 2.5	8.8	48.0	135.0	14
75009	3 G 2.5	9.7	72.0	152.0	14
75010	4 G 2.5	10.6	96.0	189.0	14
75011	5 G 2.5	11.6	120.0	229.0	14
75012	2 x 4	10.8	77.0	180.0	12
75013	3 G 4	11.5	115.0	230.0	12
75014	4 G 4	12.6	154.0	300.0	12
75015	5 G 4	13.9	192.0	380.0	12
75016	2 x 6	12.4	115.0	321.0	10
75017	3 G 6	13.2	173.0	330.0	10
75018	4 G 6	14.7	230.0	430.0	10
75019	5 G 6	16.6	288.0	550.0	10