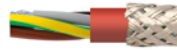


THERMFLEX® 180 EWKF-C



Silicone cable, temperature-resistant, increased mechanical strength, EMC-preferred type



HELUKABEL® THERMFLEX® 180 EWKF-C 4G1,5 QMM / 79814 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

Temperature range	flexible -25°C to +180°C fixed -60°C to +180°C
Nominal voltage	AC U ₀ /U 300/500 V
Test voltage core/core	2000 V
Coupling resistance	at 30 MHz, approx. 250 Ohm/km
Minimum bending radius	flexible 10x Outer-Ø fixed 5x 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 (OZ)
- Cores stranded in layers with optimal lay lengths
- Inner sheath: silicone
- Screen: braided screen of tinned copper wires, approx. coverage 85%
- Foil wrapping
- 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 SiO₂ 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

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. An interference-free transmission of signals and pulse is assured by the high screening density. EMC = Electro-magnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

NOTES

- the conductor is metrically (mm²) 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 ²	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.	AWG, approx.
79804	2 x 0.75	9.1	61.4	124.0	19
79805	3 G 0.75	9.5	69.1	136.0	19
79806	4 G 0.75	10.5	86.7	160.0	19
79807	5 G 0.75	11.4	95.2	180.0	19
79808	2 x 1	9.5	66.7	132.0	18
79809	3 G 1	9.9	86.2	154.0	18
79810	4 G 1	11.2	96.8	176.0	18
79811	5 G 1	12.1	108.3	207.0	18
79812	2 x 1.5	10.9	87.7	170.0	16
79813	3 G 1.5	11.3	103.5	190.0	16
79814	4 G 1.5	12.1	131.7	231.0	16
79815	5 G 1.5	12.9	148.5	282.0	16
79816	7 G 1.5	13.7	193.4	342.0	16
701219	12 G 1.5	17.3	298.4	531.0	16

Part no.	No. cores x cross-sec. mm ²	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.	AWG, approx.
79817	16 G 1.5	20.1	362.3	660.0	16
79818	20 G 1.5	21.4	405.1	766.0	16
79819	2 x 2.5	12.1	122.3	230.0	14
79820	3 G 2.5	13.0	147.7	275.0	14
79821	4 G 2.5	13.9	188.6	340.0	14
79822	5 G 2.5	14.9	214.9	395.0	14
79823	2 x 4	14.3	137.0	308.0	12
79824	3 G 4	15.0	178.1	364.0	12
79825	4 G 4	16.1	294.0	511.0	12
79826	5 G 4	17.4	374.0	630.0	12
79827	2 x 6	15.9	185.0	418.0	10
79828	3 G 6	16.7	241.1	612.0	10
79829	4 G 6	18.2	449.0	781.0	10
79830	5 G 6	20.1	563.0	980.0	10