HELUPOWER® THERMFLEX® 145-Single

conductor stranded with optimal lay lengths, reinforced insulation, temperature-resistant, improved behaviour in case of fire

TECHNICAL DATA

Single core

Temperature range	flexible -40°C to +120°C fixed -55°C to +145°C
Short circuit temperature at the conductor	+250°C
Nominal voltage	AC U_0/U 600/1000 V
Max. permissible operating voltage	alternating current (AC) conductor/earth 700 V three-phase alternating current (AC) conductor/conductor 1200 V direct current (DC) conductor/earth 900 V direct current (DC) conductor/conductor 1800 V
Test voltage	4000 V
Minimum bending radius	flexible 12.5x 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: cross-linked polyolefin
- Core identification: black
- x = without protective conductor

PROPERTIES

- resistant to: oil, UV radiation, ozone, weathering effects
- abrasion-resistant, notch-resistant
- halogen-free
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers
- reduced fire propagation, no release of corrosive and toxic gases, low smoke development

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
- bundle fire test acc. to DIN VDE 0482-332-3-22 / DIN EN 60332-3-22 / IEC 60332-3-22
- smoke density acc. to DIN VDE 0482-1034-1+2 / DIN EN 61034-1+2 / IEC 61034-1+2
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404, IRM 902 4h at +70°C

APPLICATION

This cable is used as a generator connection cable in wind power plants and wherever a high current carrying capacity is required and a reduced outer diameter is beneficial due to limited installation space. Other areas of application: connection cable of thermal class B (130°C) for motors, transformers, relays, coils, magnets; power unit connections in the automotive industry; halogen-free wiring of switch and control cabinets; connecting cable for heating devices; supply cable for high-performance luminaires in industrial areas, sports facilities and traffic infrastructure; wiring of charging stations and pantographs within e-Mobility applications.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
75486	1 x 6	10	5.4	58.0	79.0
75487	1 x 10	8	6.8	96.0	156.0
75488	1 x 16	6	8.5	154.0	218.0
75489	1 x 25	4	10.3	240.0	331.0
75490	1 x 35	2	11.8	336.0	448.0
75491	1 x 50	1	13.9	480.0	632.0
75492	1 x 70	2/0	16.0	672.0	820.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
75493	1 x 95	3/0	17.3	912.0	1076.0
75494	1 x 120	4/0	20.0	1152.0	1392.0
75495	1 x 150	250 kcmil	22.1	1440.0	1788.0
71437	1 x 185	350 kcmil	24.8	1776.0	2106.3
75496	1 x 240	400 kcmil	27.7	2304.0	2749.0
706557	1 x 300	500 kcmil	30.0	2880.0	3910.0
706558	1 x 400	750 kcmil	38.7	3840.0	4870.0