HELUPOWER® ROBOFLEX®

Motor cable, 90°C UL-Style

TECHNICAL DATA

PUR robot cable acc. to UL-Std. 758 (AWM) Style 21209, CSA-Std. C22.2 No. 210 - AWM I/II A/B

Temperature range	flexible -30°C to +90°C fixed -40°C to +90°C
Nominal voltage	VDE AC U_0/U 600/1000 V UL (AWM) AC 1000 V
Test voltage core/core	3000 V
Minimum bending radius	flexible 10x Outer-Ø fixed 5x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, extra finely stranded acc. to DIN VDE 0295 Class 6 / IEC 60228 Class 6
- Core insulation: Polyolefin
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- G = with protective conductor GN-YE
- Cores stranded in layers with optimally matched lay lengths
- Fleece wrapping
- Outer sheath: Special grade of full polyurethane acc. to DIN VDE 0207-363-10-2 / DIN EN 50363-10-2 (compound type TMPU)
- Sheath colour: see table
- Length marking: in metres

PROPERTIES

- resistant to: oil, UV radiation, ozone, oxygen, weathering effects, hydrolysis, microbes, coolants, hydraulic fluids, acids, alkalis, greases, seawater and wastewater
- highly abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion
- smooth, high-quality core insulation for eased sliding and optimized core stranding ensure long service-life within applications that request combined bending and torsion movements
- for outdoor use
- torsion rated
- 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
- Torsion load / cycles:
  5 Mio. at +/- 360°/m
  10 Mio. at +/- 180°/m
- Bending cycles: 10 Mio.

TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, UL VW-1, CSA FT1
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404

APPLICATION

Motor power supply cable designed for combined torsion and bending movements; for use in assembly and welding robots, in material handlings and automation centres, in transport and conveyor systems, on rotary and swivel tables and wherever a defined cable routing with only alternating bending movements is not applicable, but 3D-movements and torsional load have an impact on the cable; for applications with the highest requirements on mechanical, chemical and thermal resilience.

NOTES

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

Sheath color: black (RAL 9005)

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
25481	3 G 2.5	14	8.4	72.0	136.0
25482	4 G 2.5	14	9.1	96.0	170.0
25483	3 G 4	12	10.3	116.0	227.0
25530	4 G 4	12	11.2	153.6	261.0
25510	4 G 6	10	14.1	230.4	341.0
25484	3 G 10	8	15.6	288.0	518.0
25485	3 G 16	6	18.2	460.8	722.0
25486	3 G 25	4	22.9	720.0	1180.0
25487	3 G 35	2	26.5	1008.0	1600.0
17002090	3 G 50	1	30.9	1440.0	2550.0

Sheath colour: yellow (RAL 1018)

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
709195	3 G 25	4	22.9	720.0	1180.0

Sheath colour: orange (RAL 2003)

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
708314	3 G 35	2	26.5	1008.0	1600.0