

# MULTIFLEX 600-C



Oil Res I/II, exposed run: TC-ER, PLTC-ER, ITC-ER, NFPA 79, EMC-preferred type



## TECHNICAL DATA

PVC control and connection cable acc. to UL-Std. 1063 (MTW), CSA-Std. C22.2 No. 210 - AWM I/II A/B, 20 AWG - 12 AWG: UL-Std. 2250 (ITC-ER), UL-Std. 13 (PLTC-ER), 18 AWG - 2 AWG: UL-Std. 1277 (TC-ER), UL-Std. 2277 (WTTC), UL-Std. 1690 (DP-1), CSA-Std. C22.2 No. 230 & 239 - c(UL) CIC-TC

<b>Temperature range</b>	flexible +5°C to +50°C fixed -40°C to +105°C UL (TC) to +90°C
<b>Nominal voltage</b>	UL (TC) AC 600 V UL (WTTC) AC 1000 V UL (MTW) AC 600 V CIC-TC AC 600 V
<b>Test voltage core/core</b>	6000 V
<b>Test voltage core/screen</b>	6000 V
<b>Minimum bending radius</b>	flexible 7.5x Outer-Ø fixed 4x Outer-Ø

## CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to ASTM B 174 Class M, AWG sizes
- Core insulation: Special-PVC, with transparent nylon jacket
- Core identification: 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 optimally matched lay lengths
- Fleece wrapping
- Screen: braided screen of tinned copper wires, approx. coverage 85%
- Fleece wrapping
- Outer sheath: Special-PVC
- Sheath colour: black (RAL 9005)
- Length marking: in feet

## PROPERTIES

- resistant to: oil, UV radiation (SUN RES)
- for outdoor use
- direct burial (DIR BUR)
- suitable for use in drag chains

- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

## TESTS

- oil-resistant acc. to UL Std 1277 Tab. 12.2, Oil Res I / Oil Res II
- Impact Test (-ER) acc. to UL Std. 1277 No. 23
- Crushing Test (-ER) acc. to UL Std. 1277 No. 24
- direct burial (DIR BUR) acc. to UL Std. 1277 No. 5 (wet-locations insulation), No. 19 (crushing test)
- Vertical-Tray Flame Test (FT4) acc. to UL Std. 1277 No. 15 / UL Std. 1685
- certifications and approvals:  
EAC  
ECOLAB®  
Part numbers with protective conductor (GN-YE): for Class 1 Div. 2 explosive environments acc. to NEC Art. 501

## APPLICATION

HELUKABEL® MULTIFLEX 600-C is a highly flexible, oil resistant control cable. The special combination of TC-ER, PLTC-ER and ITC-ER allows this cable to be used as a connecting cable for industrial plant and machinery in accordance with NFPA 79. Approved for open, unprotected installation in cable trays to the machine. Its outstanding oil resistance (OIL RES I & II) allows for a long service life. For industrial applications in dry, damp and wet environments. Recommended applications: Production lines, bottling plants, machine construction, switch cabinets, conveyor systems, packaging machines, automotive industry. EMC = Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

## NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm<sup>2</sup>) are approximated and are for reference only
- for use in energy supply systems:  
1) the assembly instructions must be observed  
2) for special applications, we recommend contacting us and using our data entry form for energy supply systems

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
62556	2 x 20	0.52	7.4	24.9	81.0
62557	3 G 20	0.52	7.7	30.7	93.0
62558	4 G 20	0.52	8.2	37.5	108.0
62559	5 G 20	0.52	8.8	44.2	120.0
62560	7 G 20	0.52	10.2	58.9	159.0
62561	12 G 20	0.52	11.7	88.5	209.0
62562	18 G 20	0.52	14.4	124.0	282.0
62563	25 G 20	0.52	17.0	168.0	422.0
62564	34 G 20	0.52	18.5	217.0	534.0
62565	3 G 18	0.82	8.1	42.0	107.0

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
62566	4 G 18	0.82	8.6	50.3	126.0
62567	5 G 18	0.82	9.3	60.2	141.0
62568	7 G 18	0.82	10.8	80.7	189.0
62569	12 G 18	0.82	12.5	125.0	255.0
62570	15 G 18	0.82	13.7	152.0	311.0
62571	18 G 18	0.82	15.2	177.0	381.0
62572	25 G 18	0.82	18.2	255.0	549.0
62573	34 G 18	0.82	19.8	316.0	659.0
62574	3 G 16	1.31	9.0	57.3	135.0
62575	4 G 16	1.31	9.8	71.4	162.0

Continued on next page

# MULTIFLEX 600-C



Oil Res I/II, exposed run: TC-ER, PLTC-ER, ITC-ER, NFPA 79, EMC-preferred type

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
62576	5 G 16	1.31	10.5	87.2	184.0
62577	7 G 16	1.31	12.4	118.0	250.0
62578	9 G 16	1.31	14.8	148.0	347.0
62579	12 G 16	1.31	15.2	185.0	373.0
62580	18 G 16	1.31	17.7	283.0	535.0
62581	25 G 16	1.31	21.1	382.0	745.0
62582	34 G 16	1.31	24.0	499.0	958.0
62583	3 G 14	2.08	9.6	81.2	167.0
62584	4 G 14	2.08	10.4	101.6	203.0
62585	5 G 14	2.08	11.3	126.0	234.0
62586	7 G 14	2.08	13.3	173.0	321.0
62587	9 G 14	2.08	16.0	219.0	441.0
62588	12 G 14	2.08	16.4	279.0	486.0
62589	18 G 14	2.08	19.1	420.0	703.0

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
62590	25 G 14	2.08	23.9	601.0	1040.0
62591	3 G 12	3.31	11.2	121.0	224.0
62592	4 G 12	3.31	12.2	155.0	276.0
62593	5 G 12	3.31	13.2	190.0	323.0
62594	7 G 12	3.31	16.6	262.0	482.0
62595	4 G 10	5.21	15.4	230.0	424.0
62596	5 G 10	5.21	16.6	283.0	496.0
62597	7 G 10	5.21	20.0	407.0	716.0
62598	4 G 8	8.37	19.3	400.0	693.0
62599	5 G 8	8.37	21.1	485.0	817.0
62600	4 G 6	13.30	21.1	593.0	926.0
62602	5 G 6	13.30	24.1	732.0	1163.0
62603	4 G 4	21.20	27.2	991.0	1534.0
62605	4 G 2	33.60	32.3	1506.0	2187.0