

TRAYCONTROL 500 flexible, oil-resistant, open installation TC-ER,

PLTC-ER, ITC-ER, NFPA 79 Edition 2012



HELUKABEL TRAYCONTROL 500 P/N 63111 12AWG 2,5QMM 4C (UL) TC-ER 90°C DRY 75°C WET 600 V SUN RES. DIR BUR OIL RES I/II E330430 OR MTW "FLEXING" OR WTTC 1000 V OR c(UL)CIC TC FT4 LL41103 CSA AWM I/II 90°C 600 V FT4 CE ROHS



Technical data

- PVC control cable according to UL Standard 1277
- **Temperature range**
Flexing -5°C to +90°C
Fixed installation -40°C to +90°C
- **Nominal voltage**
TC 600 V
AWM 1000 V
TC Wind Turbine (WTTC) 1000 V
- **Test voltage** 3000 V
- **Minimum bending radius**
Flexing 4x cable Ø
- **Insulation resistance**
Min. 20 MOhm x km
- **Radiation resistance**
up to 80x10⁶ cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper conductor, fine wire stranded
- Special PVC core insulation with transparent nylon skin
- Black cores with continuous white numbering
- Green-yellow earth core in the outer layer, 3 cores and more
- Cores stranded in layers with optimal lay-lengths
- Separator
- Special PVC outer jacket
- Sheath colour - grey (RAL 7001)
- With length marking in feet

Properties

- Self-extinguishing and flame retardant in accordance with CSA FT4
- The materials used in manufacture are free of silicone, cadmium and substances that impair paint wetting
- **Tests**
UL: TC-ER, PLTC-ER (AWG 18 - AWG 12), ITC-ER (AWG 18 - AWG 12), MTW, NFPA 79 2007, WTTC 1000V, DP-1, OIL RES I & II, 90°C dry / 75°C wet, Class 1 Div. 2 per NEC Art 336, 392, 501, crush impact test in accordance with UL 1277
CSA: c(UL) CIC-TC FT4, CSA AWM I/II A/B FT4

Note

Advantages

- Highly-flexible, easy to install

Available on request

- with blue cores (DC)
- with red cores (AC)
- Black or TPE outer sheath

Application

HELUKABEL® TRAYCONTROL 500 is a 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 Edition 2007. Approved for open, unprotected installation in cable trays to the machine. Its outstanding oil resistance (OIL RES I & II) guarantees 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.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

| Part no. | No. cores x cross-sec. mm² | AWG-No. | Outer Ø app. mm | Cop. weight kg / km | Weight appl. kg / km |
|----------|----------------------------|---------|-----------------|---------------------|----------------------|
| 63079 | 2 x 0,5 | 20 | 6,4 | 10,0 | 58,0 |
| 63080 | 3 G 0,5 | 20 | 6,7 | 14,0 | 61,0 |
| 63081 | 4 G 0,5 | 20 | 7,2 | 19,0 | 76,0 |
| 63082 | 5 G 0,5 | 20 | 7,8 | 24,0 | 89,0 |
| 63083 | 7 G 0,5 | 20 | 8,4 | 34,0 | 120,0 |
| 63084 | 9 G 0,5 | 20 | 9,6 | 43,0 | 201,0 |
| 63085 | 12 G 0,5 | 20 | 10,7 | 58,0 | 250,0 |
| 63086 | 18 G 0,5 | 20 | 12,4 | 86,0 | 295,0 |
| 63087 | 25 G 0,5 | 20 | 14,9 | 120,0 | 362,0 |
| 63088 | 2 x 1 | 18 | 7,0 | 19,0 | 68,0 |
| 63089 | 3 G 1 | 18 | 7,1 | 29,0 | 88,0 |
| 63090 | 4 G 1 | 18 | 8,0 | 38,0 | 98,0 |
| 63091 | 5 G 1 | 18 | 8,6 | 48,0 | 116,0 |
| 63092 | 7 G 1 | 18 | 9,3 | 67,0 | 149,0 |
| 63093 | 9 G 1 | 18 | 10,7 | 86,0 | 186,0 |
| 63094 | 10 G 1 | 18 | 11,6 | 96,0 | 199,0 |
| 63095 | 12 G 1 | 18 | 11,9 | 115,0 | 245,0 |
| 63096 | 15 G 1 | 18 | 13,2 | 144,0 | 292,0 |
| 63097 | 16 G 1 | 18 | 13,3 | 154,0 | 306,0 |
| 63098 | 18 G 1 | 18 | 14,6 | 173,0 | 366,0 |
| 63099 | 19 G 1 | 18 | 14,7 | 182,0 | 384,0 |
| 63100 | 25 G 1 | 18 | 17,0 | 240,0 | 451,0 |
| 63101 | 27 G 1 | 18 | 17,4 | 259,0 | 521,0 |
| 63102 | 34 G 1 | 18 | 19,3 | 326,0 | 625,0 |
| 63103 | 37 G 1 | 18 | 19,8 | 355,0 | 684,0 |
| 63104 | 41 G 1 | 18 | 20,7 | 394,0 | 744,0 |
| 63105 | 50 G 1 | 18 | 23,5 | 480,0 | 933,0 |
| 63106 | 61 G 1 | 18 | 24,9 | 586,0 | 1095,0 |

| Part no. | No. cores x cross-sec. mm² | AWG-No. | Outer Ø app. mm | Cop. weight kg / km | Weight appl. kg / km |
|----------|----------------------------|---------|-----------------|---------------------|----------------------|
| 63107 | 2 x 1,5 | 16 | 7,7 | 29,0 | 80,0 |
| 63108 | 3 G 1,5 | 16 | 8,1 | 43,0 | 86,0 |
| 63109 | 4 G 1,5 | 16 | 8,8 | 58,0 | 115,0 |
| 63110 | 5 G 1,5 | 16 | 9,5 | 72,0 | 126,0 |
| 63111 | 4 G 2,5 | 14 | 9,8 | 96,0 | 141,0 |
| 63112 | 6 G 1,5 | 16 | 10,0 | 86,0 | 164,0 |
| 63113 | 7 G 1,5 | 16 | 10,3 | 101,0 | 171,0 |
| 63114 | 8 G 1,5 | 16 | 10,9 | 115,0 | 201,0 |
| 63115 | 9 G 1,5 | 16 | 11,9 | 130,0 | 237,0 |
| 63116 | 10 G 1,5 | 16 | 12,9 | 144,0 | 259,0 |
| 63117 | 12 G 1,5 | 16 | 14,2 | 173,0 | 301,0 |
| 63118 | 14 G 1,5 | 16 | 14,5 | 202,0 | 365,0 |
| 63119 | 15 G 1,5 | 16 | 15,2 | 216,0 | 379,0 |
| 63120 | 16 G 1,5 | 16 | 15,9 | 230,0 | 405,0 |
| 63121 | 18 G 1,5 | 16 | 16,4 | 259,0 | 443,0 |
| 63122 | 19 G 1,5 | 16 | 16,5 | 274,0 | 458,0 |
| 63123 | 20 G 1,5 | 16 | 17,0 | 288,0 | 491,0 |
| 63124 | 25 G 1,5 | 16 | 18,6 | 360,0 | 564,0 |
| 63125 | 27 G 1,5 | 16 | 19,0 | 389,0 | 629,0 |
| 63126 | 30 G 1,5 | 16 | 19,6 | 432,0 | 701,0 |
| 63127 | 34 G 1,5 | 16 | 20,5 | 490,0 | 775,0 |
| 63128 | 40 G 1,5 | 16 | 22,9 | 576,0 | 946,0 |
| 63129 | 41 G 1,5 | 16 | 23,4 | 590,0 | 967,0 |
| 63130 | 50 G 1,5 | 16 | 25,1 | 720,0 | 1137,0 |
| 63131 | 61 G 0,5 | 16 | 27,2 | 878,0 | 1345,0 |
| 63132 | 2 x 2,5 | 14 | 8,6 | 48,0 | 100,0 |
| 63133 | 3 G 2,5 | 14 | 8,9 | 72,0 | 112,0 |
| 63164 | 5 G 2,5 | 14 | 10,6 | 120,0 | 152,0 |

Continuation ►

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| Part no. | No. cores x cross-sec. mm ² | AWG-No. | Outer Ø app. mm | Cop. weight kg / km | Weight appl. kg / km |
|----------|--|---------|-----------------|---------------------|----------------------|
| 63165 | 6 G 2,5 | 14 | 11,2 | 144,0 | 205,0 |
| 63166 | 7 G 2,5 | 14 | 11,6 | 168,0 | 216,0 |
| 63167 | 9 G 2,5 | 14 | 14,3 | 216,0 | 312,0 |
| 63168 | 10 G 2,5 | 14 | 15,5 | 240,0 | 378,0 |
| 63169 | 12 G 2,5 | 14 | 15,9 | 288,0 | 434,0 |
| 63170 | 16 G 2,5 | 14 | 17,6 | 384,0 | 550,0 |
| 63171 | 18 G 2,5 | 14 | 18,4 | 432,0 | 616,0 |
| 63172 | 19 G 2,5 | 14 | 18,6 | 456,0 | 634,0 |
| 63173 | 25 G 2,5 | 14 | 22,2 | 600,0 | 817,0 |
| 63174 | 2 x 4 | 12 | 9,5 | 76,8 | 132,0 |
| 63175 | 3 G 4 | 12 | 10,6 | 115,0 | 177,0 |
| 63176 | 4 G 4 | 12 | 11,5 | 154,0 | 201,0 |
| 63177 | 5 G 4 | 12 | 12,6 | 192,0 | 274,0 |
| 63178 | 6 G 4 | 12 | 14,1 | 230,0 | 315,0 |
| 63179 | 7 G 4 | 12 | 14,6 | 269,0 | 353,0 |
| 63180 | 9 G 4 | 12 | 16,9 | 346,0 | 476,0 |
| 63181 | 12 G 4 | 12 | 18,9 | 461,0 | 613,0 |
| 63182 | 16 G 4 | 12 | 19,8 | 614,0 | 783,0 |
| 63183 | 19 G 4 | 12 | 23,1 | 768,0 | 918,0 |
| 63184 | 20 G 4 | 12 | 24,3 | 768,0 | 961,0 |
| 63185 | 25 G 4 | 12 | 26,3 | 960,0 | 1236,0 |
| 63186 | 2 x 6 | 10 | 11,9 | 115,0 | 213,0 |
| 63187 | 3 G 6 | 10 | 12,6 | 173,0 | 283,0 |

| Part no. | No. cores x cross-sec. mm ² | AWG-No. | Outer Ø app. mm | Cop. weight kg / km | Weight appl. kg / km |
|----------|--|---------|-----------------|---------------------|----------------------|
| 63188 | 4 G 6 | 10 | 14,7 | 230,0 | 387,0 |
| 63189 | 5 G 6 | 10 | 16,0 | 288,0 | 473,0 |
| 63190 | 7 G 6 | 10 | 17,4 | 403,0 | 607,0 |
| 63191 | 9 G 6 | 10 | 20,4 | 518,0 | 771,0 |
| 63192 | 12 G 6 | 10 | 23,9 | 691,0 | 1061,0 |
| 63193 | 19 G 6 | 10 | 27,9 | 1094,0 | 1528,0 |
| 63194 | 3 G 10 | 8 | 17,0 | 288,0 | 420,0 |
| 63195 | 4 G 10 | 8 | 19,7 | 384,0 | 662,0 |
| 63196 | 5 G 10 | 8 | 21,7 | 480,0 | 784,0 |
| 63197 | 3 G 16 | 6 | 19,5 | 461,0 | 701,0 |
| 63198 | 4 G 16 | 6 | 21,9 | 614,0 | 908,0 |
| 63199 | 5 G 16 | 6 | 24,0 | 768,0 | 1149,0 |
| 62802 | 3 G 25 | 4 | 24,3 | 720,0 | 1061,0 |
| 62803 | 4 G 25 | 4 | 27,1 | 960,0 | 1366,0 |
| 62804 | 5 G 25 | 4 | 29,3 | 1200,0 | 1631,0 |
| 62805 | 3 G 35 | 2 | 27,9 | 1008,0 | 1480,0 |
| 62806 | 4 G 35 | 2 | 31,4 | 1344,0 | 1922,0 |
| 62807 | 5 G 35 | 2 | 34,0 | 1680,0 | 2363,0 |
| 62808 | 4 G 42,3 | 1 | 34,8 | 1624,0 | 2397,0 |
| 62809 | 4 G 52,9 | 1/0 | 37,9 | 2031,0 | 2938,0 |
| 62810 | 4 G 67,3 | 2/0 | 41,3 | 2584,0 | 3559,0 |
| 62811 | 4 G 84,4 | 3/0 | 48,6 | 3256,0 | 4181,0 |
| 62812 | 4 G 106,7 | 4/0 | 51,2 | 4097,0 | 5747,0 |

Dimensions and specifications may be changed without prior notice. (RN01)