

BIOFLEX-500®-JZ-HF-C Biofuel-resistant, abrasion-resistant, recyclable, environmentally friendly, drag-chain cable, bio-oil resistant ¹⁾, meter marking



Technical data

- Bio-oil resistant, abrasion resistant special high flexible control cable in adapted to DIN VDE 0245, 0281
- **Temperature range**
flexing -20 °C to +80 °C
fixed installation -40 °C to +80 °C
- **Nominal voltage** U₀/U 300/500 V
- **Test voltage** 3000 V
- **Insulation resistance**
min. 20 MΩm x km
- **Minimum bending radius**
flexing 15x cable ø
fixed installation 4x cable ø
- **Coupling resistance**
max. 250 Ωm/km
- **Radiation resistance**
up to 100x10⁶ cJ/kg (up to 100 Mrad)

Cable structure

- Bare copper, extra fine wire conductors, bunch stranded to DIN VDE 0295 cl. 6, BS 6360 cl. 6 and IEC 60228 cl. 6
- Special polymer core insulation, for better sliding abilities
- Black cores with continuous white figure imprint to DIN VDE 0293
- Green-yellow earth core in the outer layer (3 cores and above)
- Cores stranded in layers with optimal selected lay-length
- Core wrapping with fleece
- Special inner sheath
- Copper braided screening approx. 85% coverage
- Fleece separator, ensure good dismantling ability
- Special outer sheath polymer compound
- Colour dark green
- with meter marking, change-over in 2011

Properties

- **Resistant to**
Bio-fuel (diesel and petrol), highly resistant to biologically decomposable oils, Oxygene, Ozone, Hydrolysis and Microbes
- Low adhesion

Note

- G = with green-yellow earth core; x = without green-yellow earth core (OZ).
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- **unscreened analogue type:**
BIOFLEX-500®-JZ-HF see page C 26

Application

HELUKABEL® BIOFLEX-HF-500-C is an extremely robust and high flexible control cable with high abrasion and tear resistant properties. Due to its high resistance to Bio-fuel, Bio-oil and coolant emulsions. It is especially suited for use in the machine, tool making and plant industries as well as in the steel industry for difficult and problem areas. Suitable in combination with cable trays in dry, moist and wet rooms and outdoor installation. The high flexibility of this cable type makes it quick and easy to install. Suitable for outdoor lying. These screened cables are particularly suitable for the interference-free transmission in instrumentation and control engineering applications (electromagnetic compatibility). For the critical applications we advise for consultation. For applications which go beyond standard solutions (for example for composting appliances or high shelf conveyors with extremely high processing speeds etc.) we recommend for our especially developed enquiry sheet for energy guiding systems. Before installation in cable trays please read the instructions. Further technical details see selection table for drag chain cables, see lead text.

EMC = Electromagnetic compatibility

To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

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

| Part no. | No. cores x cross-sec. mm ² | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. |
|----------|--|--------------------|---------------------|------------------------|---------|
| 25826 | 2 x 0,5 | 7,5 | 47,0 | 90,0 | 20 |
| 25827 | 3 G 0,5 | 7,8 | 52,0 | 104,0 | 20 |
| 25828 | 4 G 0,5 | 8,2 | 55,0 | 123,0 | 20 |
| 25829 | 5 G 0,5 | 9,9 | 65,0 | 131,0 | 20 |
| 25830 | 7 G 0,5 | 10,0 | 84,0 | 172,0 | 20 |
| 25831 | 10 G 0,5 | 11,3 | 115,0 | 230,0 | 20 |
| 25832 | 12 G 0,5 | 12,5 | 117,0 | 250,0 | 20 |
| 25833 | 14 G 0,5 | 13,2 | 148,0 | 280,0 | 20 |
| 25834 | 18 G 0,5 | 14,5 | 157,0 | 321,0 | 20 |
| 25835 | 25 G 0,5 | 16,8 | 227,0 | 445,0 | 20 |
| 25836 | 2 x 0,75 | 8,3 | 53,0 | 106,0 | 18 |
| 25837 | 3 G 0,75 | 8,5 | 62,0 | 120,0 | 18 |
| 25838 | 4 G 0,75 | 9,5 | 77,0 | 150,0 | 18 |
| 25839 | 5 G 0,75 | 10,8 | 86,0 | 158,0 | 18 |
| 25840 | 7 G 0,75 | 11,5 | 107,0 | 205,0 | 18 |
| 25841 | 10 G 0,75 | 13,1 | 148,0 | 290,0 | 18 |
| 25842 | 12 G 0,75 | 14,0 | 156,0 | 304,0 | 18 |
| 25843 | 14 G 0,75 | 15,3 | 214,0 | 380,0 | 18 |
| 25844 | 18 G 0,75 | 17,3 | 235,0 | 418,0 | 18 |
| 25845 | 25 G 0,75 | 18,7 | 313,0 | 578,0 | 18 |
| 25846 | 2 x 1 | 10,0 | 60,0 | 116,0 | 17 |
| 25847 | 3 G 1 | 10,2 | 70,0 | 135,0 | 17 |
| 25848 | 4 G 1 | 11,0 | 86,0 | 178,0 | 17 |

| Part no. | No. cores x cross-sec. mm ² | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. |
|----------|--|--------------------|---------------------|------------------------|---------|
| 25849 | 5 G 1 | 11,8 | 99,0 | 188,0 | 17 |
| 25850 | 7 G 1 | 12,7 | 125,0 | 235,0 | 17 |
| 25851 | 10 G 1 | 14,6 | 178,0 | 340,0 | 17 |
| 25852 | 12 G 1 | 15,5 | 186,0 | 358,0 | 17 |
| 25853 | 14 G 1 | 16,7 | 250,0 | 415,0 | 17 |
| 25854 | 18 G 1 | 18,0 | 280,0 | 500,0 | 17 |
| 25855 | 25 G 1 | 21,0 | 378,0 | 678,0 | 17 |
| 25856 | 2 x 1,5 | 10,5 | 79,0 | 141,0 | 16 |
| 25857 | 3 G 1,5 | 10,8 | 94,0 | 164,0 | 16 |
| 25858 | 4 G 1,5 | 11,5 | 113,0 | 220,0 | 16 |
| 25859 | 5 G 1,5 | 12,5 | 129,0 | 233,0 | 16 |
| 25860 | 7 G 1,5 | 13,2 | 170,0 | 323,0 | 16 |
| 25861 | 8 G 1,5 | 14,4 | 226,0 | 369,0 | 16 |
| 25862 | 10 G 1,5 | 14,9 | 258,0 | 461,0 | 16 |
| 25863 | 12 G 1,5 | 16,2 | 280,0 | 481,0 | 16 |
| 25864 | 14 G 1,5 | 18,1 | 340,0 | 561,0 | 16 |
| 25865 | 18 G 1,5 | 20,3 | 395,0 | 672,0 | 16 |
| 25866 | 21 G 1,5 | 21,7 | 461,0 | 780,0 | 16 |
| 25867 | 25 G 1,5 | 23,1 | 533,0 | 927,0 | 16 |
| 25868 | 2 x 2,5 | 11,8 | 96,0 | 185,0 | 14 |
| 25869 | 3 G 2,5 | 13,0 | 150,0 | 278,0 | 14 |
| 25870 | 4 G 2,5 | 14,0 | 174,0 | 370,0 | 14 |
| 25871 | 5 G 2,5 | 15,1 | 200,0 | 412,0 | 14 |

Continuation ▶

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| Part no. | No. cores x cross-sec. mm ² | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. | Part no. | No. cores x cross-sec. mm ² | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. |
|----------|--|--------------------|---------------------|------------------------|---------|----------|--|--------------------|---------------------|------------------------|---------|
| 25872 | 7 G 2,5 | 16,2 | 240,0 | 470,0 | 14 | 25881 | 3 G 6 | 19,5 | 250,0 | 525,0 | 10 |
| 25873 | 12 G 2,5 | 21,0 | 410,0 | 738,0 | 14 | 25882 | 4 G 6 | 21,0 | 305,0 | 700,0 | 10 |
| 25874 | 14 G 2,5 | 23,4 | 480,0 | 870,0 | 14 | 25883 | 5 G 6 | 23,0 | 441,0 | 800,0 | 10 |
| 25875 | 18 G 2,5 | 25,7 | 620,0 | 1100,0 | 14 | 25884 | 3 G 10 | 18,8 | 370,0 | 855,0 | 8 |
| 25876 | 25 G 2,5 | 31,0 | 821,0 | 1512,0 | 14 | 25885 | 4 G 10 | 25,0 | 485,0 | 1140,0 | 8 |
| 25877 | 2 x 4 | 13,4 | 135,0 | 235,0 | 12 | 25886 | 5 G 10 | 26,4 | 610,0 | 1310,0 | 8 |
| 25878 | 3 G 4 | 15,8 | 178,0 | 350,0 | 12 | 25887 | 4 G 16 | 28,0 | 840,0 | 1391,0 | 6 |
| 25879 | 4 G 4 | 17,3 | 222,0 | 460,0 | 12 | | | | | | |
| 25880 | 5 G 4 | 19,0 | 328,0 | 550,0 | 12 | | | | | | |

Dimensions and specifications may be changed without prior notice. (RC03)

C

Core end sleeves and cable lugs

- Core end sleeves
- Solderless terminals
- Tubular cable lugs
- Compression joints



You can find core end sleeves and cable lugs in our catalogue Cable Accessories. Request it now at www.helukabel.de