



**HELUKABEL®**

**Wide product range  
available in-stock!**



PHOTOVOLTAIC

**Cables, Wires & Accessories**

# **Cable Solutions for Photovoltaic Systems**

**From the solar cells to the grid**

**Nominal voltage**  
AC 1 kV / DC 1.5 kV

## SOLARFLEX®-X H1Z2Z2-K

1500 V DC, EN 50618



### Technical data

- **Temperature range**  
-40°C to +90°C  
max. temperature at conductor +120°C
- **Nominal voltage**  
AC 1.0/1.0 kV / DC 1.5/1.5 kV
- **Test voltage**  
AC 6.5 kV
- **Minimum bending radius**  
fixed installation 5x cable Ø

### Cable structure

- Tinned copper conductor, fine wired acc. to DIN VDE 0295 cl.5, IEC 60228 cl.5
- 1<sup>st</sup> core insulation: special cross-linked compound
- 2<sup>nd</sup> core insulation: special cross-linked compound
- Sheath colour: see table

### Properties

- Double-insulated
- Complies with protection class II

| Part no. | No. cores x cross-sec. mm <sup>2</sup> | Sheath colour | Outer Ø app. mm | Cop. weight kg / km | Weight app. kg / km | AWG no. |
|----------|--|---------------|-----------------|---------------------|---------------------|---------|
| 713529   | 1 x 2.5                                | black         | 5.0             | 24.0                | 41.0                | 14      |
| 713544   | 1 x 2.5                                | blue          | 5.0             | 24.0                | 41.0                | 14      |
| 713543   | 1 x 2.5                                | red           | 5.0             | 24.0                | 41.0                | 14      |
| 713530   | 1 x 4                                  | black         | 5.4             | 38.4                | 55.0                | 12      |
| 713546   | 1 x 4                                  | blue          | 5.4             | 38.4                | 55.0                | 12      |
| 713545   | 1 x 4                                  | red           | 5.4             | 38.4                | 55.0                | 12      |
| 713531   | 1 x 6                                  | black         | 6.2             | 57.6                | 82.0                | 10      |
| 713570   | 1 x 6                                  | blue          | 6.2             | 57.6                | 82.0                | 10      |
| 713569   | 1 x 6                                  | red           | 6.2             | 57.6                | 82.0                | 10      |
| 713532   | 1 x 10                                 | black         | 7.4             | 96.0                | 123.0               | 8       |
| 713572   | 1 x 10                                 | blue          | 7.4             | 96.0                | 123.0               | 8       |
| 713571   | 1 x 10                                 | red           | 7.4             | 96.0                | 123.0               | 8       |

### Tests

- Halogen-free acc. to EN 50267, IEC 60754
- Flame retardant acc. to IEC 60332-1-2
- Smoke density acc. to IEC 61034

### Approvals

- EN 50618  
TÜV Rheinland 2 Pfg 1990/05.12  
TÜV R60115689

### Application

The SOLARFLEX®-X is used for cabling solar panels. **CE** = Product conforms with Low-Voltage Directive 2014/35/EU.

Dimensions and specifications may be changed without prior notice

## Connecting cable - from the inverter to the grid

HELUKABEL® supplies a wide range of connecting cables for wiring the inverter to the grid. With a wide range of stock and the most modern

logistics centre in the cable industry, we can deliver directly to the customer's location, quickly and on time. [www.helukabel.com/power-cables](http://www.helukabel.com/power-cables)

## With power cables, you have the choice - copper or aluminium



### NAYY Power Cable

0.6/1kV, Aluminium, VDE approved



- No. of cores:** 1 to 5
- Cross-section:** 16 mm<sup>2</sup> to 630 mm<sup>2</sup>
- Temperature range:** flexing: -5°C to +50°C, fixed installation: -40°C to +70°C

### NYN Power Cable

0.6/1kV, Copper, VDE approved



- No. of cores:** 1 to 61
- Cross-section:** 1.5 mm<sup>2</sup> to 240 mm<sup>2</sup>
- Temperature range:** flexing: -5°C to +50°C, fixed installation: -40°C to +70°C

## SOLARFLEX®-X H1Z2Z2-K

Version with rodent protection



Especially recommended for PV systems in the agriculture sector. Technical data, structure, and properties correspond with the standard version.

| Part no. | No. cores x cross-sec. mm <sup>2</sup> | Sheath colour | Outer Ø app. mm | Cop. weight kg / km | Weight app. kg / km | AWG no. |
|----------|--|---------------|-----------------|---------------------|---------------------|---------|
| 17000101 | 1 x 4                                  | black         | 4.0             | 38.4                | 85                  | 12      |
| 17000102 | 1 x 6                                  | black         | 6.0             | 57.6                | 112                 | 10      |
| 17000103 | 1 x 10                                 | black         | 10.0            | 96                  | 158                 | 8       |

## PV Plug Connectors MC4

Compatible with SOLARFLEX® -X H1Z2Z2-K



|                                   |   |
|-----------------------------------|---|
| <b>Protection classification:</b> | IP 67   |
| <b>Protection type:</b>           | II  |
| <b>Temperature range:</b>         | -40°C up to +90°C   |
| <b>Rated voltage:</b>             | 1000 V (IEC)  |
| <b>Rated current:</b>             | 22A (2.5 mm <sup>2</sup> ),<br>30A (4 mm <sup>2</sup> and 6 mm <sup>2</sup> ) |
| <b>Contact resistance:</b>        | <0.5 mΩ   |
| <b>Contact system:</b>            | MC contact lamination   |
| <b>Contact material:</b>          | Tinned copper,<br>punched   |

| Part no. | Type                     | Description    | Outer Ø app. mm | Cross-section mm <sup>2</sup> | Unit |
|----------|--------------------------|----------------|-----------------|-------------------------------|------|
| 905206   | MC4 PV-KST4/2,5I-UR      | male-coupler   | 3 to 6          | 2.5                           | 50   |
| 905207   | MC4 PV-KBT4/2,5I-UR      | female-coupler | 3 to 6          | 2.5                           | 50   |
| 905210   | MC4 PV-KST4/6I-UR        | male-coupler   | 3 to 6          | 4                             | 50   |
| 905211   | MC4 PV-KBT4/6I-UR        | female-coupler | 3 to 6          | 4                             | 50   |
| 904963   | MC4 PV-KST4/6II-UR       | male-coupler   | 5.5 to 9        | 6                             | 50   |
| 904964   | MC4 PV-KBT4/6II-UR       | female-coupler | 5.5 to 9        | 6                             | 50   |
| 905863   | MC4 PV-KST4/10 II        | male-coupler   | 5.5 to 9        | 10                            | 50   |
| 905864   | MC4 PV-KBT 4/10 II       | female-coupler | 5.5 to 9        | 10                            | 50   |
| 905228   | MC4 PV-AZB4              | branch socket  | x               | 2.5 to 10                     | 50   |
| 905229   | MC4 PV-AZS4              | branch plug    | x               | 2.5 to 10                     | 50   |
| 905516   | MC4-Metal insert B       | female-coupler | 3 to 6          | 4 to 6                        | 50   |
| 906227   | MC4-Metal insert S       | male-coupler   | 3 to 6          | 4 to 6                        | 50   |
| 904972   | MC4 Wrench               | Set of 2       | x               | 2.5 to 10                     | 1    |
| 904971   | Crimping pliers +Locator | MC4            | x               | 2.5 to 6                      | 1    |
| 905866   | Crimping pliers          | MC4            | x               | 4 to 10                       | 1    |

Other PV Connecting Systems like H4, Sunclix, Solarlok and many more available on request.

## Monitoring the photovoltaic system

HELUKAT® 600 data cables are characterised by large power reserves and outstanding performance. These cables enable problem-free monitoring of the photovoltaic system. With its double PVC sheath, the HELUKAT®

600A series is designed specifically for outdoor installations. The HELUKAT® 600AE series is equipped with a double FRNC / PE sheath and metallic rodent-protection, making it suitable for direct burial.

## CAT 7e LAN-data cable suitable for outdoor installation or direct burial

### HELUKAT® 600A S/FTP PVC/PVC

Outdoor use



|                                  |                            |
|----------------------------------|----------------------------|
| <b>Cable structure:</b>          | S/FTP 4x2xAWG 23/1 PVC/PVC |
| <b>Inner conductor diameter:</b> | 0.58 mm                    |
| <b>Conductor material:</b>       | bare copper                |
| <b>Outer sheath material:</b>    | PVC                        |
| <b>Part no.</b>                  | 802167                     |

### HELUKAT® 600AE S/FTP FRNC/PE

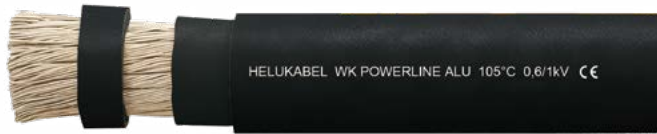
Burial



|                                  |                            |
|----------------------------------|----------------------------|
| <b>Cable structure:</b>          | S/FTP 4x2xAWG 23/1 FRNC/PE |
| <b>Inner conductor diameter:</b> | 0.58 mm                    |
| <b>Conductor material:</b>       | bare copper                |
| <b>Outer sheath material:</b>    | PE                         |
| <b>Part no.</b>                  | 802168                     |

## WK POWERLINE ALU 105°C

0.6/1kV or 1.8/3kV



**Cross-section:** 70 mm<sup>2</sup> to 400 mm<sup>2</sup>  
**Temperature range:** flexing: -20°C to +105°C,  
 fixed installation: -40°C to +105°C

### More flexibility for tight bending radii at the feed-in point

The WK POWERLINE ALU is a highly flexible aluminium cable constructed of fine-stranded wires that can be used for power cabling in the power engineering sector. Due to its high flexibility and low weight, this cable is ideal for tight bending radii.

Cable for laying underground available upon request.

## PHOTOVOLTAIC CABLE ACCESSORIES



### Assembling tools for photovoltaic cables

HELUKABEL® offers tools for cutting and stripping cables and wires, which can even be used on high-grade sheath materials.

#### Crimping and assembly

Also available in the product range are assembling tools for connecting solar cables to the fitting plug-connector, facilitating precise crimping of the contacts. If required, we also offer specialised assembling tools.

All tools can also be purchased individually.



### Everything from one source - HELUKABEL® has cable accessories covered:

Cable Glands · Cable Protection Tubing · Insulating, Shrink, Braided and High-Temperature Tubing · Sealing Ends and Straight-Joints Bundling Binding and Fastening · Identification and Marking · Wire End Ferrules and Cable Lugs · Tools

See the complete assortment at: [www.helukabel.com/accessories](http://www.helukabel.com/accessories)

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