



HELUKABEL®

GREEN LINE

**Wide product range
available ex-stock**



PHOTOVOLTAIC

Cables & Wires | Photovoltaic

Cable Solutions for Photovoltaic Systems

From the solar cell to the grid



SOLARFLEX[®]-X – The perfect cables for photovoltaic systems

Technical Data

- **Temperature range**
-40°C up to +90°C
max. temp. at conductor +120°C
- **Nominal voltage**
according to VDE U0/U 600/1000 V AC
1800 V DC conductor/conductor
- **AC test voltage** 10000 V
- **minimum bending radius**
fixed installation approx. 10 x outer Ø
flexing (occasional) approx. 4 x cable Ø

Cable structure

- Bare copper, tinned, finely stranded
- Double-insulated
- Insulation cross-linked Polyolefin
- Outer sheath cross-linked Polyolefin
- Sheath colours: black, red, blue
- With meter marking

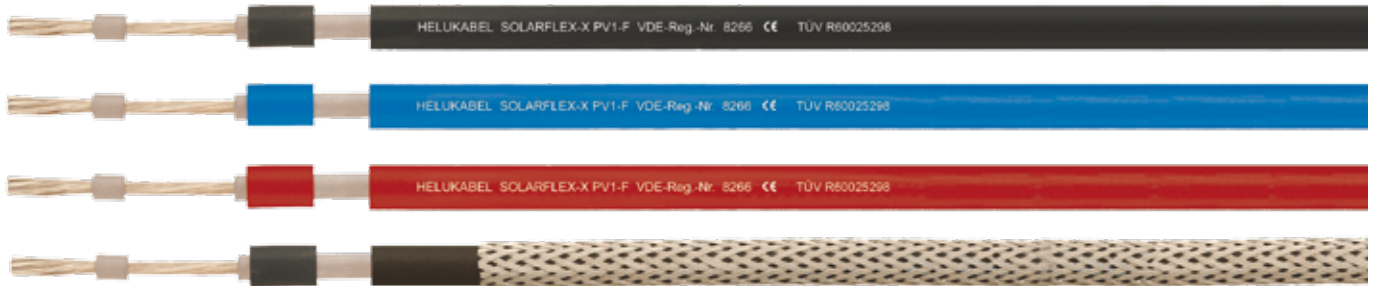
Notes

- Version with rodent protection available
- Version with **UL approval** on request
- not qualified for direct burial

Properties

- Ozone resistant
- Weather and UV resistant
- Halogen-free
- Resistant to acids and bases
- Flame-resistant
- Hydrolysis and ammoniac resistant
- Very robust and abrasion-resistant sheath
- Resistant to short-circuits up to 200°C thanks to double insulation; short-circuit temperature 200°C/ 5 sec.
- Anticipated service life - 25 years

SOLARFLEX[®]-X PV1-F



Part No.	No. cores x cross-sec mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	Current-carrying capacity [A] at 60°C	Conductor resistance Ω / km at 20°C	Core / sheath colour
704225	1 x 2,5	4,5	24,0	42	41	8,210	natural/black
705891	1 x 2,5	4,5	24,0	42	41	8,210	natural/red
705892	1 x 2,5	4,5	24,0	42	41	8,210	natural/blue
704226	1 x 4	5,2	38,4	60	55	5,090	natural/black
705775	1 x 4	5,2	38,4	60	55	5,090	natural/red
705776	1 x 4	5,2	38,5	60	55	5,090	natural/blue
706307	1 x 4	5,8	38,5	80	55	5,090	black/V2A
704227	1 x 6	5,9	57,6	82	70	3,390	natural/black
705777	1 x 6	5,9	57,6	82	70	3,390	natural/red
705778	1 x 6	5,9	57,6	82	70	3,390	natural/blue
706308	1 x 6	6,5	57,6	105	70	3,390	black/V2A
704228	1 x 10	6,9	96,0	123	98	1,950	natural/black
705893	1 x 10	6,9	96,0	123	98	1,950	natural/red
705894	1 x 10	6,9	96,0	123	98	1,950	natural/blue
706309	1 x 10	7,5	96,0	152	98	1,950	black/V2A
704229	1 x 16	8,3	153,6	190	132	1,240	natural/black
706839	1 x 16	8,3	153,6	190	132	1,240	natural/red
706840	1 x 16	8,3	153,6	190	132	1,240	natural/blue
704230	1 x 25	10,0	240,0	285	176	0,795	natural/black
704231	1 x 35	11,0	336,0	376	218	0,565	natural/black
704232	1 x 50	13,0	480,0	530	276	0,393	natural/black
704233	1 x 70	15,3	672,0	745	347	0,277	natural/black
704234	1 x 95	17,0	912,0	960	416	0,210	natural/black
705738	1 x 120	19,1	1152,0	1220	488	0,164	natural/black
705739	1 x 150	22,7	1440,0	1550	566	0,132	natural/black
706288	1 x 185	25,5	1776,0	1930	644	0,108	natural/black
706289	1 x 240	28,3	2304,0	2550	775	0,0817	natural/black



Assembling tools for photovoltaic cables



All tools are sold separately.

HELUKABEL® offers tools for cutting and stripping solar cables and can also be used high-grade sheath material.

Crimping and assembling

Range also includes assembly tools for connecting solar cables to the plug-in connectors, making neat crimped contacts. We can also supply specialised assembly accessories if required.

We have the right cable accessories!



Everything under one roof - HELUKABEL® has the right accessory for every cable:

Cable Glands • Conduits • Insulating, Shrink, Braided and High Temperature Tubes • Termination and Connection Sleeves • Bundling, Binding and Fastening • Identification and Marking • Ferrules and Cable Lugs • Tools

Complete product range:
www.helukabel.de/accessories

Pre-assembled cable system solutions



We offer individual cable solutions for professional and safe cabling. Pre-assembled solutions ensure consistently high levels of quality and speeds up assembly time. Costs are reduced thanks to standardization. Pre-assembled cable systems are perfect for panel box and inverter connections, and connecting modules. They are available in any length, and come with male and/or female connectors. SOLARFLEX® cables are assembled, connected and sealed (Macromelt melting process). This significantly reduces the number of parts involved and, in turn, the failure rate.

More pre-assembled cables are available on request.



SOLARFLEX®-X PV1-F TWIN



Part No.	No. cores x cross-sec mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	Current-carrying capacity [A] at 60°C	Conductor resistance Ω / km at 20°C	Core / sheath colour
707234	2 x 2,5	4,8 x 9,6	50,0	95	41	8,210	black-red/ black-black
705769	2 x 6,0	6,8 x 13,6	120,0	187	70	3,390	black-red/ black-black

Other cross-sections available on request.

Dimensions and specifications may be changed without prior notice

Voltage equalising



Part No.	No. cores x cross-sec mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	Current-carrying capacity [A] at 60°C	Conductor resistance Ω / km at 20°C	Core / sheath colour
708161	1 x 6	5,9	57,6	82	70	3,390	natural/ green-yellow
707961	1 x 16	8,3	153,6	190	132	1,240	natural/ green-yellow

Other cross-sections available on request.

Dimensions and specifications may be changed without prior notice

Connection technology for solar cables

PV MC4 male/female coupling connector

- Protection classification: IP 67
- Protection type: II
- Temperature range: -40°C up to +90°C
- Rated voltage: 1000 V (IEC)
- Rated current: 22A (2,5 mm²), 30A (4 mm² and 6 mm²)
- Contact resistance: <0,5 mΩ
- Contact system: MC contact fins
- Contact material: Copper, tinned, cross-linked



Available connecting systems include H4, Sunclix, Solarlok, Soling and many more.



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.

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



NYY power cable 0,6/1kV, VDE approved

No. cores: 1 up to 5
 Cross-section: 16 mm² up to 630 mm²
 Temperature range: flexing -5°C up to +50°C,
 fixed installations -40°C up to +70°C



NYY power cable 0,6/1kV, VDE approved

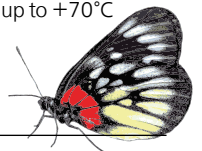
No. cores: 1 up to 61
 Cross-section: 1,5 mm² up to 240 mm²
 Temperature range: flexing -5°C up to +50°C,
 fixed installations -40°C up to +70°C

More flexibility with tight bending radii at the feed-in point

The WK POWERLINE ALU is a highly flexible aluminium cable using stranded fine wire conductors that is used for energy transmission, such as with photovoltaic systems. Due to the high flexibility and low weight, this cable is ideally suited for tight bending radii. Another benefit is the reliability of the connection technology.

Certified connection technology significantly reduces installation costs.

Note: The WK POWERLINE ALU may only be used with the certified WK connection technology, which includes either a C8 crimp or a screw connector.



WK POWERLINE ALU 105°C, 0,6/1kV or 1,8/3kV



Cross-section: 70 mm² up to 400 mm²
 Temperature range: flexing -20°C up to +105°C,
 fixed installations: -40°C up to +105°C

Connection equipment for WK POWERLINE ALU



WK Aluminum compression cable lug
 16 up to 500 mm²



WK Aluminum/Copper compression cable lug
 10 up to 625 mm²

Cable for underground installation available on request.

Monitoring the photovoltaic system

Data cable suitable for outdoor installation or direct burial

HELUKAT® 600 data cables are characterised by large power reserves and outstanding performance. These cables enable you to monitor the photovoltaic system without any problems. With its double PVC jacket, the HELUKAT® 600A series is designed specifically for

outdoor installation. The HELUKAT® 600AE series has a double FRNC / PE jacket and metallic rodent protection, making it suitable for direct burial.

HELUKAT® 600A S/FTP PVC/PVC LAN Cable Outdoor Cat. 7e



Cable structure: S/FTP 4x2xAWG 23/1 PVC/PVC
 Inner conductor diameter: 0,58 mm
 Conductor material: Copper, bare
 Outer sheath material: PVC
 Part-No.: 802167

HELUKAT® 600AE S/FTP FRNC/PE LAN Cable Outdoor Cat. 7e



Cable structure: S/FTP 4x2xAWG 23/1 FRNC/PE
 Inner conductor diameter: 0,58 mm
 Conductor material: Copper, bare
 Outer sheath material: PE
 Part-No.: 802168



Contact us - we are here for you!

PV cables

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PV accessories

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PV pre-assembling

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Fax request to: +49 7150 9209-5501

Enquiry - Cable Solutions for Photovoltaic Systems

Application

Roof-mounted Ground-mounted Other applications _____

What cabling options do you currently supply?

DC range AC range DC and AC range

Your requirement

_____ m One-off Ongoing Approximate yearly requirement _____ m

Which cable solutions do you currently use, and in which cross-sections?

What can we do for you?

- Cable Catalogue
- Cable Accessories Catalogue
- Data, Network & Bus Technology Catalogue
- Media Technology Catalogue
- Wind Power Catalogue
- Photovoltaic Brochure
- Call back
- Field visit

Company

Contact

Customer number

Address

ZIP, city

Phone / Fax

E-Mail

Want to order catalogues online?

Simply go to
www.helukabel.de/publication-order

