



Photo: HELUKABEL®

# Components

Components for on-site electrical connection and assembly work.

## **Panel boxes**

For electrical connection and reliable operation of solar modules. (Page 19)

## **PV couplings and branches**

For connecting to solar cables and linking the various assemblies. (Page 20 onwards)

# Photovoltaic panel box PV-JB

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Suitable for connecting SOLARFLEX®-X PV1-F cables to the core cross-sections 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup> and 6 mm<sup>2</sup>. With two bypass diodes. Preventing condensation using a bronze air filter. A set of adhesive elements are included for tight and lasting mounting on any solar module.

We offer pre-assembled solutions in your desired cable lengths and cross-sections.  
If you need special capacity types please do not hesitate to contact us!

## Material

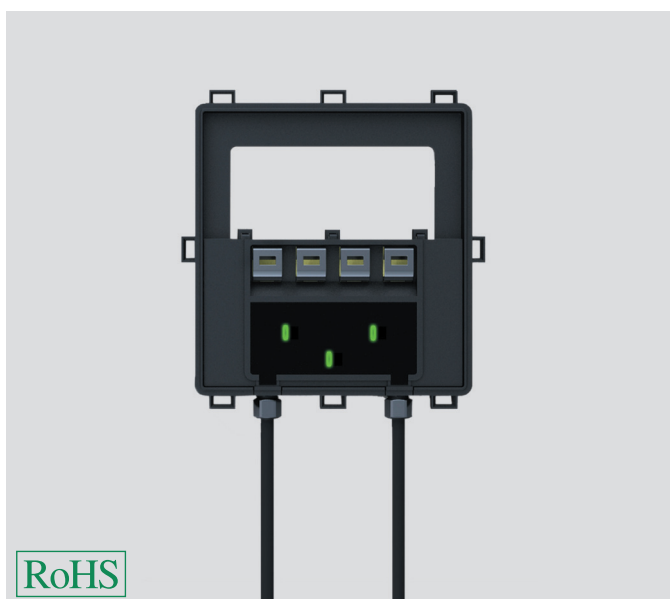
- Casing: PC (polycarbonate),
- UV-resistant

## Technical Data

- Temperature range: -40° C up to +125° C
- Operating power: 9-20 A
- Working voltage: 600 V
- Breakdown Voltage: 1000 V
- Contact resistance: <2 mΩ
- Isulation resistance: >500 mΩ
- Protection classification: IP 67

## Photovoltaic panel boxes according to your requirements

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Do you need a photovoltaic panel box customised to your special requirements?

Just contact us. Various sizes and design variants are possible.

We are happy to provide a customised solution for you. Use the contact details on the last page of the brochure.

# PV MC4 male coupling connector



## Technical Data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Protection type: II
- Rated voltage: 1000 V (IEC)
- Rated current: 22A (2.5 mm<sup>2</sup>), 30A (4 mm<sup>2</sup> u. 6 mm<sup>2</sup>)
- Contact resistance: <0.5 mΩ
- Contact system: MC contact fins
- Contact material: Copper, tinned, punched

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905206	PV MC4 male connector 2.5/3-6	2.5	3 - 6	50
905208	PV MC4 male connector 2.5/5.5-9	2.5	5.5 - 9	50
905210	PV MC4 male connector 4-6/3-6	4 - 6	3 - 6	50
904963	PV MC4 male connector 4-6/5.5-9	4 - 6	5.5 - 9	50
905863	PV MC4 male connector 10/5.5-9	10	5.5 - 9	50

# PV MC4 female coupling connector



## Technical Data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Protection type: II
- Rated voltage: 1000 V (IEC)
- Rated current: 22A (2.5 mm<sup>2</sup>), 30A (4 mm<sup>2</sup> u. 6 mm<sup>2</sup>)
- Contact resistance: <0.5 mΩ
- Contact system: MC contact fins
- Contact material: Copper, tinned, punched

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905207	PV MC4 female connector 2.5/3-6	2.5	3 - 6	50
905209	PV MC4 female connector 2.5/5.5-9	2.5	5.5 - 9	50
905211	PV MC4 female connector 4-6/3-6	4 - 6	3 - 6	50
904964	PV MC4 female connector 4-6/5.5-9	4 - 6	5.5 - 9	50
905864	PV MC4 female connector 10/5.5-9	10	5.5 - 9	50

# PV H4 male coupling connector

NEW



RoHS

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905593	PV-100508-M	4	4,5 - 7,8	100
905595	PV-100506-M	6	4,5 - 7,8	100
905937	PV-100510-M	10	4.5 - 7.8	100

## Technical Data

- Protection classification: IP 68
- Temperature range: -40°C up to +90°C (IEC)
- Rated voltage: 1000 A (IEC)
- Rated current: 45 A (4 mm<sup>2</sup>), 52 A (6 mm<sup>2</sup>)
- Contact resistance: 0.25 mΩ
- Contact material: Copper, tinned, cross-linked
- Insulation material: PBT
- Contact type: cross-linked

# PV H4 female coupling connector

NEW



RoHS

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905594	PV-100508-F	4	4,5 - 7,8	100
905596	PV-080506-F	6	4,5 - 7,8	100
905938	PV-100510-F	10	4.5 - 7.8	100

## Technical Data

- Protection classification: IP 68
- Temperature range: -40°C up to +90°C (IEC)
- Rated voltage: 1000 A (IEC)
- Rated current: 45 A (4 mm<sup>2</sup>), 52 A (6 mm<sup>2</sup>)
- Contact resistance: 0.25 mΩ
- Contact material: Copper, tinned, cross-linked
- Insulation material: PBT
- Conatct type: cross-linked

# PV MC3 male coupling connector



## Technical Data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Protection type: II
- Rated voltage: 1000 V (IEC)
- Rated current: 20 A (2.5 mm<sup>2</sup> - 4 mm<sup>2</sup>), 30 A (6mm<sup>2</sup>)
- Contact resistance: 0.5 mΩ
- Contact material: Copper, tinned, cross-linked

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905202	PV MC3 male connector 2.5-4/3.2-4.8	2.5 - 4	3.2 - 4.8	50
904955	PV MC3 male connector 2.5-4/4.9-7.1	2.5 - 4	4.9 - 7.1	50

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905204	PV MC3 male connector 6/4.9-7.1	6	4.9 - 7.1	50
904957	PV MC3 male connector 6/6.5-7.6	6	6.5 - 7.6	50

# PV MC3 female coupling connector



## Technical Data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Protection type: II
- Rated voltage: 1000 V (IEC)
- Rated current: 20 A (2.5 mm<sup>2</sup> - 4 mm<sup>2</sup>), 30 A (6mm<sup>2</sup>)
- Contact resistance: 0.5 mΩ
- Contact material: Copper, tinned, cross-linked

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905203	PV MC3 female connector 2.5-4/3.2-4.8	2.5 - 4	3.2 - 4.8	50
904956	PV MC3 female connector 2.5-4/4.9-7.1	2.5 - 4	4.9 - 7.1	50

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905205	PV MC3 female connector 6/4.9-7.1	6	4.9 - 7.1	50
904958	PV MC3 female connector 6/6.5-7.6	6	6.5 - 7.6	50

# PV HC3 male coupling connector



## Technical Data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Protection type: II
- Rated voltage: 1000 V (IEC)
- Rated current: 20 A (2.5 mm<sup>2</sup> - 4 mm<sup>2</sup>), 30 A (6mm<sup>2</sup>)
- Contact resistance: 0.5 mΩ
- Contact material: Copper, tinned, cross-linked

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905244	PV HC3 male connector 2.5-4/3.2-6	2.5 - 4	3.2 - 6	50
904959	PV HC3 male connector 2.5-4/4.9-8.2	2.5 - 4	4.9 - 7.9	50

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905246	PV HC3 male connector 6/5.2-7	6	5.2 - 7	50
904961	PV HC3 male connector 6/6.5-9	6	6.5 - 9.1	50

# PV HC3 female coupling connector



## Technical Data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Protection type: II
- Rated voltage: 1000 V (IEC)
- Rated current: 20 A (2.5 mm<sup>2</sup> - 4 mm<sup>2</sup>), 30 A (6mm<sup>2</sup>)
- Contact resistance: 0.5 mΩ
- Contact material: Copper, tinned, cross-linked

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905245	PV HC3 female connector 2.5-4/3.2-6	2.5 - 4	3.2 - 6	50
904960	PV HC3 female connector 2.5-4/4.9-8.2	2.5 - 4	4.9 - 7.9	50

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
905247	PV HC3 female connector 6/5.2-7	6	5.2 - 7	50
904962	PV HC3 female connector 6/6.5-9	6	6.5 - 9.1	50



# PV Sunclix male coupling connector



## Technical Data

- Protection classification: IP 68
- Temperature range: -40°C up to +90°C (IEC)
- Rated voltage: 1000 A (IEC)
- Rated current: 40 A

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
909165	PV-CM-S	2.5 - 6	3.2 - 4.8	100

# PV Sunclix female coupling connector



## Technical Data

- Protection classification: IP 68
- Temperature range: -40°C up to +90°C (IEC)
- Rated voltage: 1000 A (IEC)
- Rated current: 40 A

Part No.	Designation	Core cross section mm <sup>2</sup>	Cable Ø mm	Unit Pcs.
906166	PV-CF-S	2.5 - 6	3.2 - 4.8	100

# PV MC4 female branch connector



## MC4 female branch connector

For secure and easy connection of PV modules in parallel  
MFF = Male connector/Female connector/Female connector

### Technical data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Contact material: CuSn
- Casing: PC/PA
- UV-resistant

### Properties

- Easy to assemble
- High degree of strain relief

### Note

- Can be combined with MC4 male/female coupling connector

Part No.	Designation	Unit Pcs.
905228	PV MC4 MFF branch	50

# PV MC4 male branch connector



## MC4 male branch connector

For secure and easy connection of PV modules in parallel  
FMM = Female connector/Male connector/Male connector

### Technical data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Contact material: CuSn
- Casing: PC/PA
- UV-resistant

### Properties

- Easy to assemble
- High degree of strain relief

### Note

- Can be combined with MC4 male/female coupling connector

Part No.	Designation	Unit Pcs.
905229	PV MC4 FMM branch	50



# PV MC3 female branch connector



Part No.	Designation	Unit Pcs.
905226	PV MC3 MFF branch	50

## MC3 female branch connector

For secure and easy connection of PV modules in parallel  
MFF = Male connector/Female connector/Female connector

### Technical data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Contact material: CuSn
- Casing: TPEPA
- UV resistant

### Properties

- High-quality contact

### Note

- Can be combined with MC3 male/female coupling connector

# PV MC3 male branch connector



Part No.	Designation	Unit Pcs.
905227	PV MC3 FMM branch	50

## MC3 male branch connector

For secure and easy connection of PV modules in parallel  
FMM = Female connector/Male connector/Male connector

### Technical data

- Protection classification: IP 67
- Temperature range: -40°C up to +90°C
- Contact material: CuSn
- Casing: TPEPA
- UV resistant

### Properties

- High-quality contact

### Note

- Can be combined with MC3 male/female coupling connector