

# Energy efficiency & transparency: Certified high-performance modules from the leading expert for transparent PV roofs!

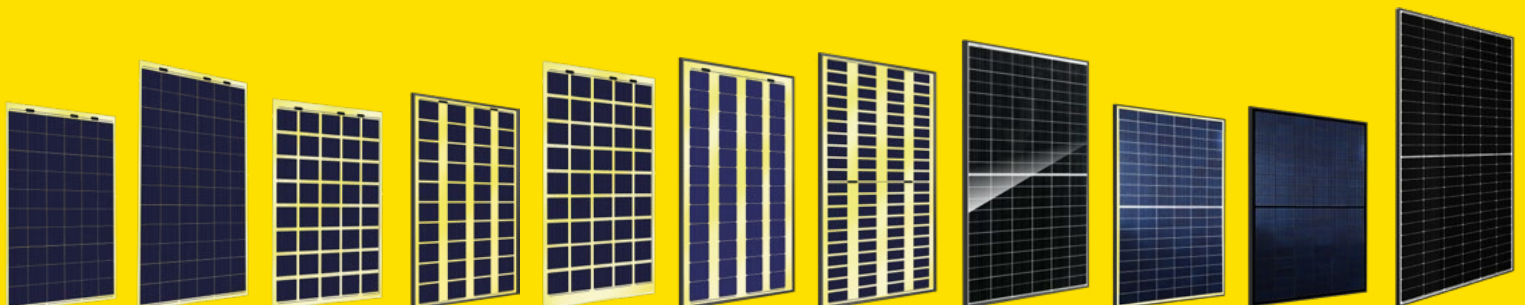


**March 2024**



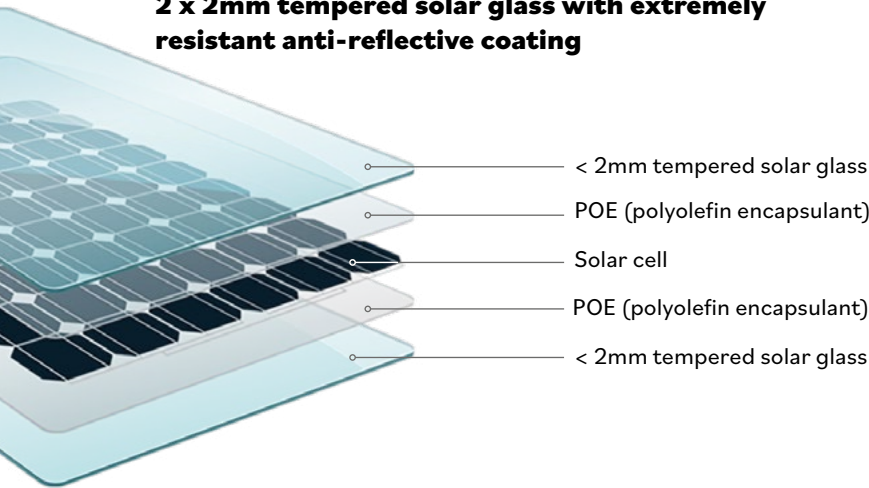
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

World's largest selection of transparent double glass modules!



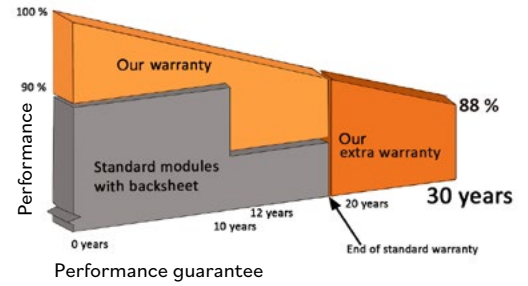
# Double glass modules

**2 x 2mm tempered solar glass with extremely resistant anti-reflective coating**



## Outstanding features of our modules

- Slim module design - Ultra-thin - Ultralight
- Highly transparent double glass design
- Excellent wind / snow load properties
- Resistant to environmental influences
- Self-cleaning or easy cleaning
- Micro-crack free
- Extreme fire resistance
- Superior low-light performance
- Extended warranty: 30 years performance, 25 years product
- Positive power tolerance (plus sorting)
- PID free
- High stability: snow loads >5400 Pa and wind loads >2400 Pa



**Transparent double glass PV modules combine the power of the sun with transparent design and offer a wealth of advantages that outshine the conventional idea of solar roofs.**

**Aesthetic elegance:** The contemporary and modern look blends harmoniously into the architecture and gives every building a touch of futuristic flair.

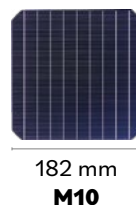
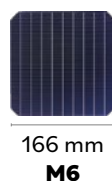
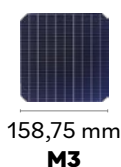
**Optimum light transmission:** The arrangement of the cells in transparent double glass PV modules enables optimum light transmission.

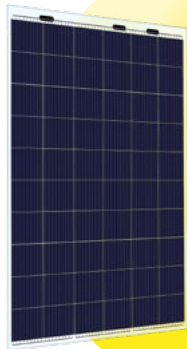
**Durability:** Quality is paramount, and transparent double glass PV modules offer just that. The high-quality materials and robust design ensure a long service life and minimize maintenance costs.

**Versatile application possibilities:** The flexibility of the transparent double glass PV modules opens up a wide range of possible applications. Whether for commercial buildings, residential buildings or even special architectural projects, these modules can be seamlessly integrated.

**Environmentally friendly energy:** Transparent double glass PV modules set a clear example for the environment by generating clean and environmentally friendly energy.

## Our bifacial solar cells:





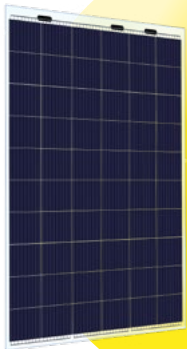
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B60 (330 Wp)

Double glass module with M3 bifacial cells

Art.no: M2633

1684 x 1002 x 5 mm



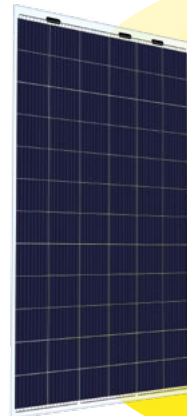
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B60/6 (370 Wp)

Double glass module with M6 bifacial cells

Art.no: M2637

1765 x 1043 x 5 mm



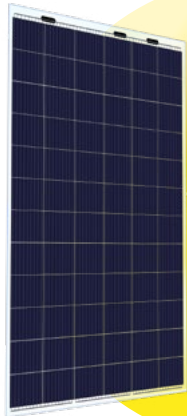
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B72 (400 Wp)

Double glass module with M3 bifacial cells

Art.no: M2740

2000 x 1002 x 5 mm



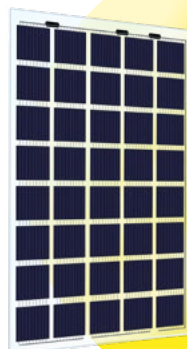
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B72/6 (450 Wp)

Double glass module with M6 bifacial cells

Art.no: M2745

2105 x 1043 x 5 mm



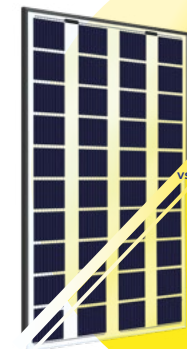
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B40 (250 Wp)

Double glass module with M6 bifacial cells

Art.no: M2325

1684 x 1002 x 5 mm



CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B40/10 (305Wp)

Double glass frame module with M10 bifacial cells

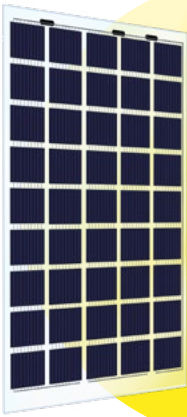
Art.no: M6430

2111 x 1049 x 30 mm

vs. Double-glazed module without frame

Art.no: M7430

2105 x 1043 x 5 mm



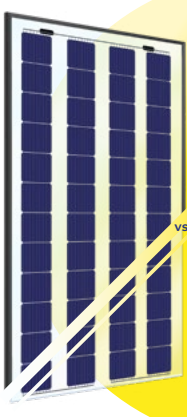
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B45 (275 Wp)

Double glass module with M6 bifacial cells

Art.no: M2427

2000 x 1002 x 5 mm



CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B48/6 (300 Wp)

Double glass frame module with M6 bifacial cells

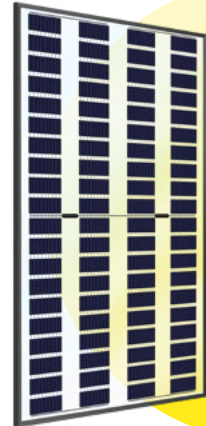
Art.no: M4430

2111 x 1049 x 35 mm

vs. Double glass module without frame

Art.no: M2430

2105 x 1043 x 5 mm



CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B80-HC(250 Wp)

Double glass module with M6 bifacial halfcut cells

Art.no: M2825

2111 x 1049 x 35 mm



CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B108 (430 Wp)

Double glass frame module with M10 bifacial halfcut cells

Art.no: M4643

1722 x 1134 x 30 mm

### B108 (430 Wp)

FullBlack frame module with M10 bifacial halfcut cells

Art.no: M5643

1722 x 1134 x 30 mm



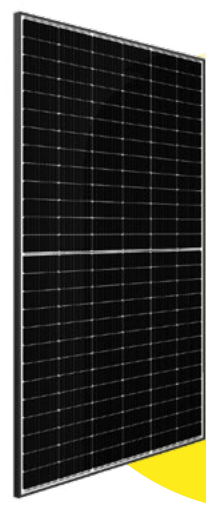
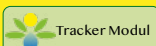
CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B132 (680 Wp)

Double glass module with bifacial halfcut cells

Art.no: M4668

2384 x 1303 x 35 mm



CERTIFIED DOUBLE GLASS MODULES ACCORDING TO EN12600 FOR OVERHEAD INSTALLATION

### B156 (625 Wp)

Bifacial module with M10 halfcut cells

Art.no: M4662

2465 x 1134 x 35 mm



# B60 - 330Wp

Double glass module with M3 bifacial cells

**Art.no: M2633**



approx. 5% Transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



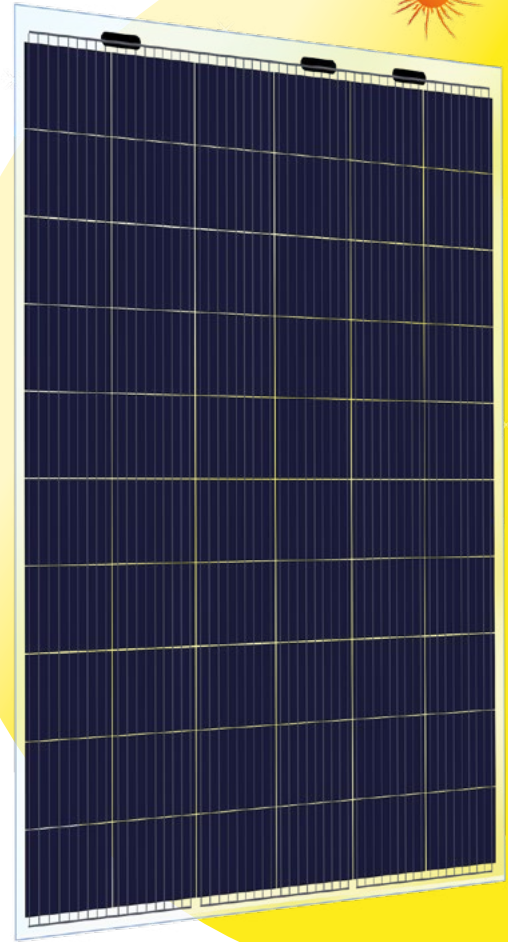
Bifacial Module



Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation



1684 x 1002 x 5 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 330 Wp           |
| Optimum operating voltage (Vmp)       | 33.8 V           |
| Optimum operating current (Imp)       | 9.77 A           |
| Open circuit voltage (Voc)            | 41.2 V           |
| Short-circuit current (Isc)           | 10.19 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |  |
|-----------------|--|
| Solar cell      | bifacial M3  |
| Number of cells | 60 (6 × 10)  |
| Dimensions      | 1684 × 1002 × 5 mm (without j-box)                     |
| Weight          | 20 kg  |
| Front/back      | 2 mm tempered glass                                    |
| Junction box    | Protection class IP68 (three bypass diodes)            |
| Output cable    | 4.0 mm <sup>2</sup> , symmetrical lengths (ca. 400 mm) |
| Plug connector  | MC4 compatible   |
| Fire safety     | Class C  |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 26  |
| Quantity per container | 858 |



CERTIFIED TO  
IEC61215 / IEC61730



# B60/6 - 370Wp

Double glass module with M6 bifacial cells

**Art.no: M2637**



approx. 5% transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



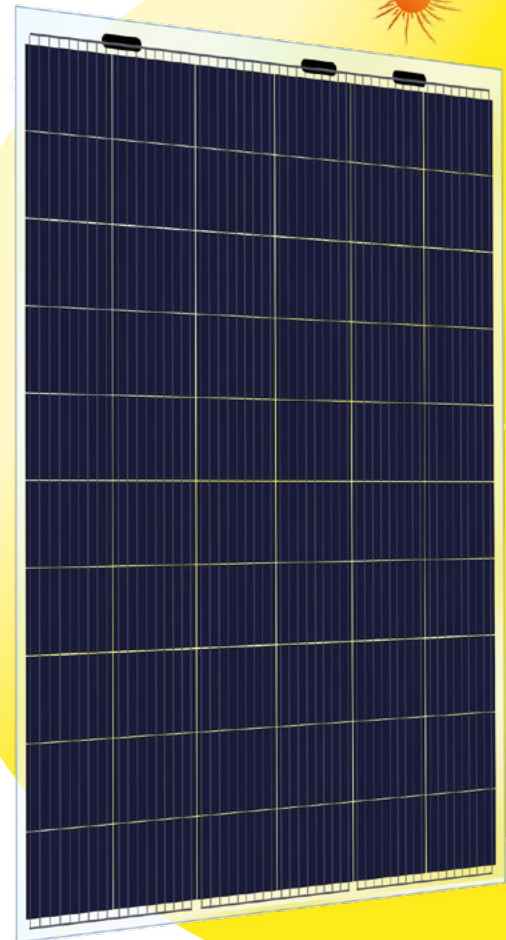
Bifacial Module



Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation



1765 x 1043 x 5 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 370 Wp           |
| Optimum operating voltage (Vmp)       | 36.9 V           |
| Optimum operating current (Imp)       | 10.03 A          |
| Open circuit voltage (Voc)            | 42.2 V           |
| Short-circuit current (Isc)           | 11.25 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |   |
|-----------------|---|
| Solar cell      | Bifacial M6, 9BB                            |
| Number of cells | 60 (6 × 10)                                 |
| Dimensions      | 1765 × 1043 × 5 mm (without j-box)          |
| Weight          | 22 kg                                       |
| Front/back      | 2 mm tempered glass                         |
| Junction box    | Protection class IP68 (three bypass diodes) |
| Output cable    | 4.0 mm <sup>2</sup>                         |
| Plug connector  | MC4 compatible                              |
| Fire safety     | Class C                                     |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 26  |
| Quantity per container | 858 |



# B72 - 400Wp

Double glass module with M3 monofacial cells

Art.no: **M2740**



approx. 5% Transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



Bifacial Module



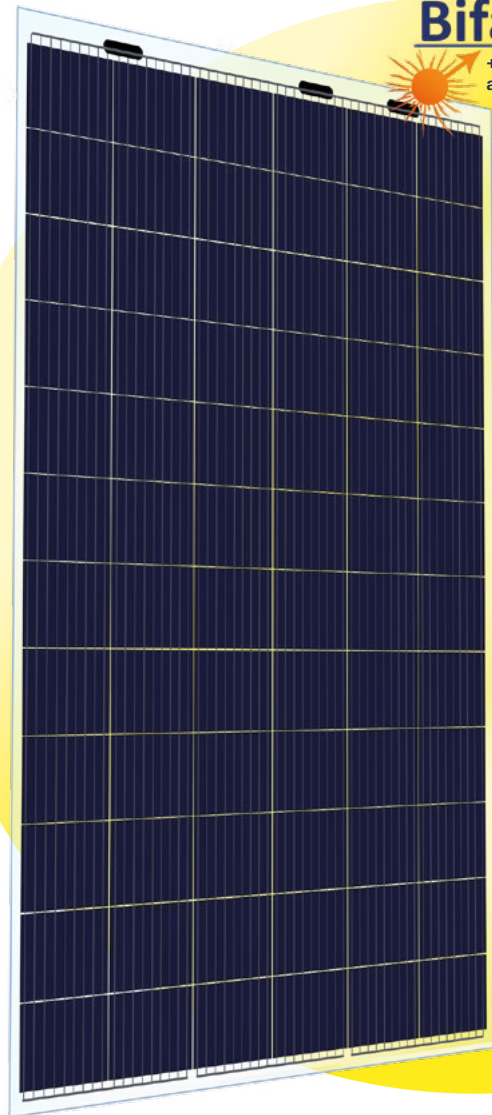
Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation



**Bifacial**  
+ 10 to 30 %  
additional yield



2000 x 1002 x 5 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 400 Wp           |
| Optimum operating voltage (Vmp)       | 40.6 V           |
| Optimum operating current (Imp)       | 9.86 A           |
| Open circuit voltage (Voc)            | 49.3 V           |
| Short-circuit current (Isc)           | 10.37 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |  |
|-----------------|--|
| Solar cell      | Bifacial M3  |
| Number of cells | 72 (6 x 12)  |
| Dimensions      | 2000 × 1002 × 5 mm (without j-box)                         |
| Weight          | 24 kg  |
| Front/back      | 2 mm tempered glass  |
| Junction box    | Protection class IP68 (three bypass diodes)                |
| Output cable    | 4.0 mm <sup>2</sup> , symmetrical lengths (approx. 400 mm) |
| Plug connector  | MC4 compatible   |
| Fire safety     | Class C  |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 22  |
| Quantity per container | 726 |



# B72/6 - 450Wp

Doppelglas Modul mit M6 bifazialen Zellen

Art.no: **M2745**



approx. 5% transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



Bifacial Module



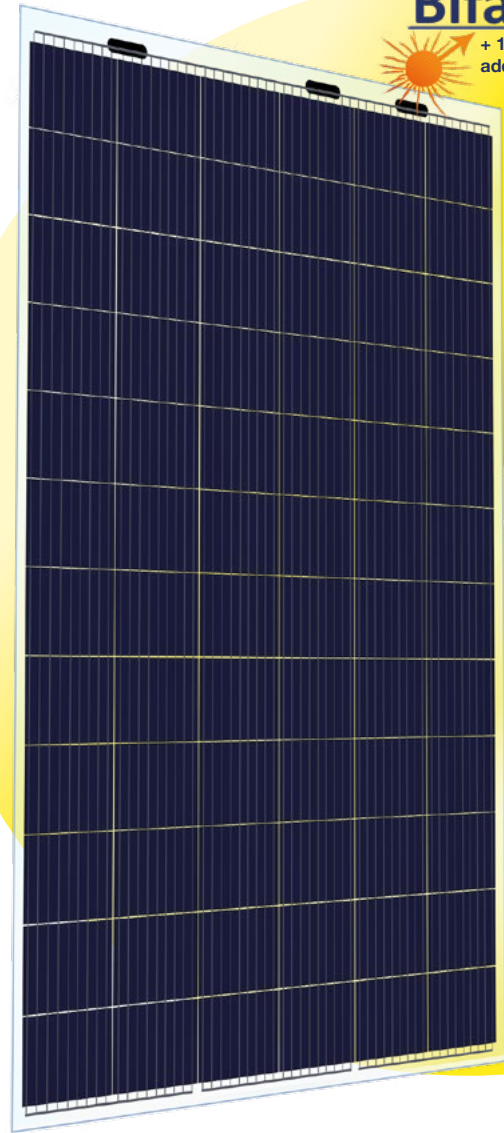
Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation

**Bifacial**

+ 10 to 30 %  
additional yield



2105 x 1043 x 5 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 450 Wp           |
| Optimum operating voltage (Vmp)       | 44.5 V           |
| Optimum operating current (Imp)       | 10.11 A          |
| Open circuit voltage (Voc)            | 51.0 V           |
| Short-circuit current (Isc)           | 11.33 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |   |
|-----------------|---|
| Solar cell      | Bifacial M6, 9BB                            |
| Number of cells | 72 (6 × 12)                                 |
| Dimensions      | 2105 × 1043 × 5 mm (without j-box)          |
| Weight          | 26 kg                                       |
| Front/back      | 2 mm tempered glass                         |
| Junction box    | Protection class IP68 (three bypass diodes) |
| Output cable    | 4.0 mm <sup>2</sup>                         |
| Plug connector  | MC4 compatible                              |
| Fire safety     | Class C                                     |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 22  |
| Quantity per container | 726 |



CERTIFIED TO  
IEC61215 / IEC61730



# B40 - 250Wp

Double glass module with M6 bifacial cells

**Art.no: M2325**



approx. 35% Transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



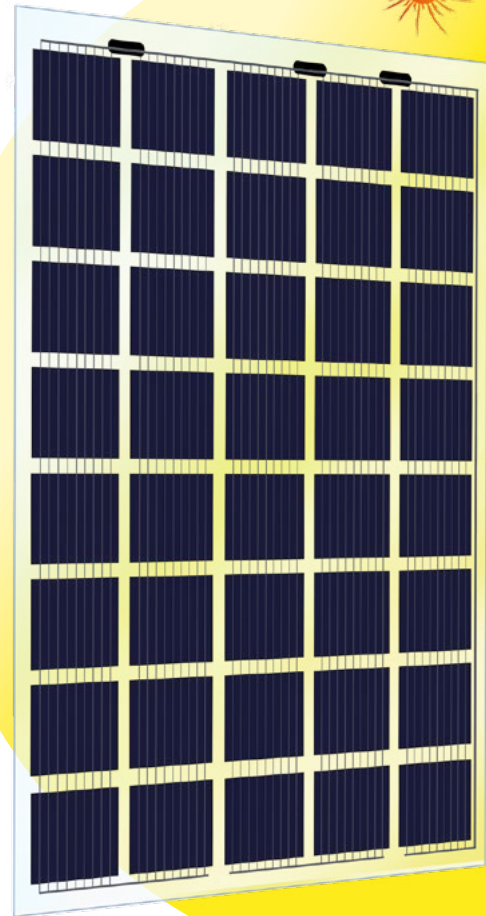
Bifacial Module



Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation



1684 x 1002 x 5 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 250 Wp           |
| Optimum operating voltage (Vmp)       | 24.8 V           |
| Optimum operating current (Imp)       | 10.08 A          |
| Open circuit voltage (Voc)            | 28.4 V           |
| Short-circuit current (Isc)           | 11.1 A           |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |  |
|-----------------|--|
| Solar cell      | Bifacial M6, 9BB   |
| Number of cells | 40 (5 × 8)   |
| Dimensions      | 1684 × 1002 × 5 mm (without j-box)                         |
| Weight          | 20 kg  |
| Front/back      | 2 mm tempered glass  |
| Junction box    | Protection class IP68 (three bypass diodes)                |
| Output cable    | 4.0 mm <sup>2</sup> , symmetrical lengths (approx. 400 mm) |
| Plug connector  | MC4 compatible   |
| Fire safety     | Class C  |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 26  |
| Quantity per container | 858 |



CERTIFIED TO  
IEC61215 / IEC61730





# B40/10 - 305Wp

Double glass module with M10 bifacial cells

**Art.no: M6430**



approx. 40% transparency



25-year product guarantee

optional ohne  
Rahmen: M7430



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



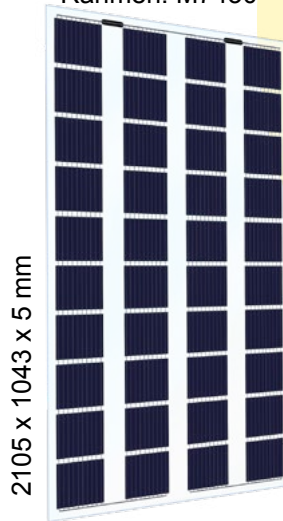
Bifacial Module



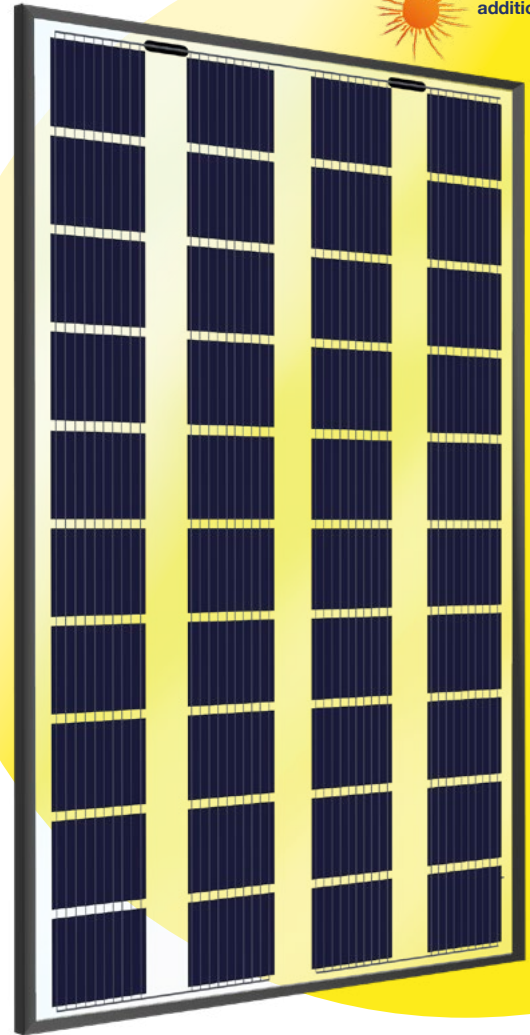
Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation



2105 x 1043 x 5 mm



2111 x 1049 x 30 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 305 Wp           |
| Optimum operating voltage (Vmp)       | 24.43 V          |
| Optimum operating current (Imp)       | 12.5 A           |
| Open circuit voltage (Voc)            | 27.5 V           |
| Short-circuit current (Isc)           | 13.55 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.42 %/°C |
| Temperature coefficient of Voc                   | -0.32 %/°C |
| Temperature coefficient of Isc                   | 0.04 %/°C  |

## Mechanical specifications

|                 |  |
|-----------------|--|
| Solar cell      | Bifacial M10, 9BB  |
| Number of cells | 40 (4 x 10)  |
| Dimensions      | 2111 x 1049 x 30 mm (with frame)<br>2105 x 1043 x 5 mm (without frame) |
| Weight          | 29 kg (with frame) / 26 kg (without frame)                             |
| Front/back      | 2 mm tempered glass  |
| Junction box    | Protection class IP68 (two bypass diodes)                              |
| Output cable    | 4.0 mm <sup>2</sup> , symmetrical length (approx. 400 mm)              |
| Plug connector  | MC4 compatible   |
| Fire safety     | Class C  |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 38  |
| Pallets per container  | 26  |
| Quantity per container | 858 |



CERTIFIED TO  
IEC61215 / IEC61730



# B45 - 275Wp

Double glass module with M6 bifacial cells

**Art.no: M2427**



approx. 40% Transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



Bifacial Module



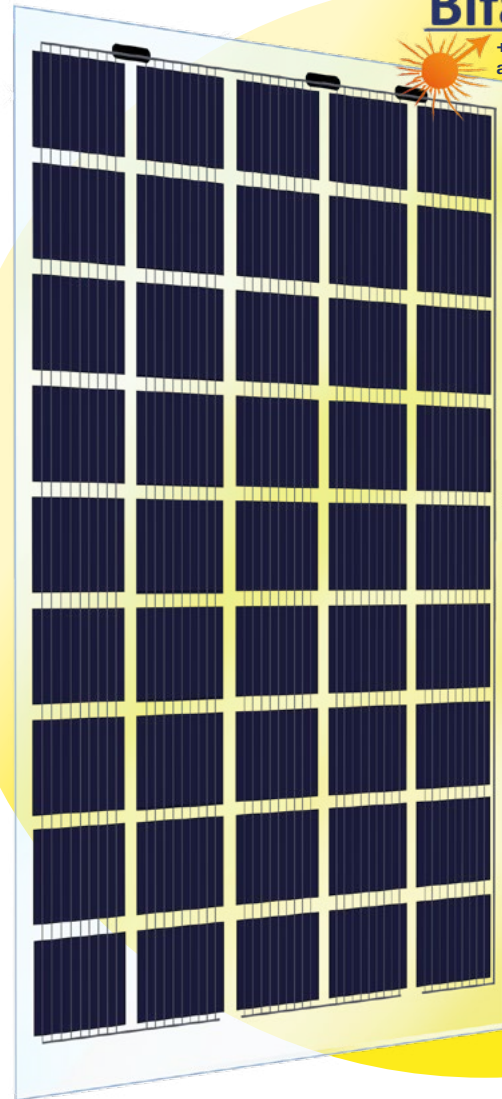
Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation

**Bifacial**

+ 10 to 30 %  
additional yield



2000 x 1002 x 5 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 275 Wp           |
| Optimum operating voltage (Vmp)       | 27.5 V           |
| Optimum operating current (Imp)       | 10.0 A           |
| Open circuit voltage (Voc)            | 31.6 V           |
| Short-circuit current (Isc)           | 10.28 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |  |
|-----------------|--|
| Solar cell      | Bifacial M6, 9BB   |
| Number of cells | 45 (5 × 9)   |
| Dimensions      | 2000 × 1002 × 5 mm (without j-box)                         |
| Weight          | 24 kg  |
| Front/back      | 2 mm tempered glass  |
| Junction box    | Protection class IP68 (three bypass diodes)                |
| Output cable    | 4.0 mm <sup>2</sup> , symmetrical lengths (approx. 400 mm) |
| Plug connector  | MC4 compatible   |
| Fire safety     | Klasse C   |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 22  |
| Quantity per container | 726 |



CERTIFIED TO  
IEC61215 / IEC61730



# B48/6 - 300Wp

Double glass module with M6 bifacial cells

**Art.no: M4430**



approx. 40% Transparency



25-year product guarantee

optional without frame  
Art. no.: M2430



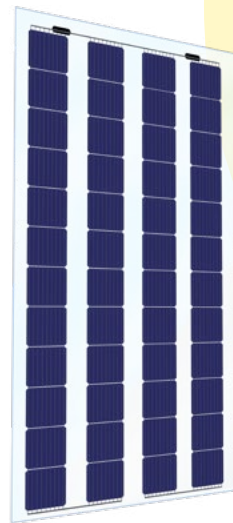
Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



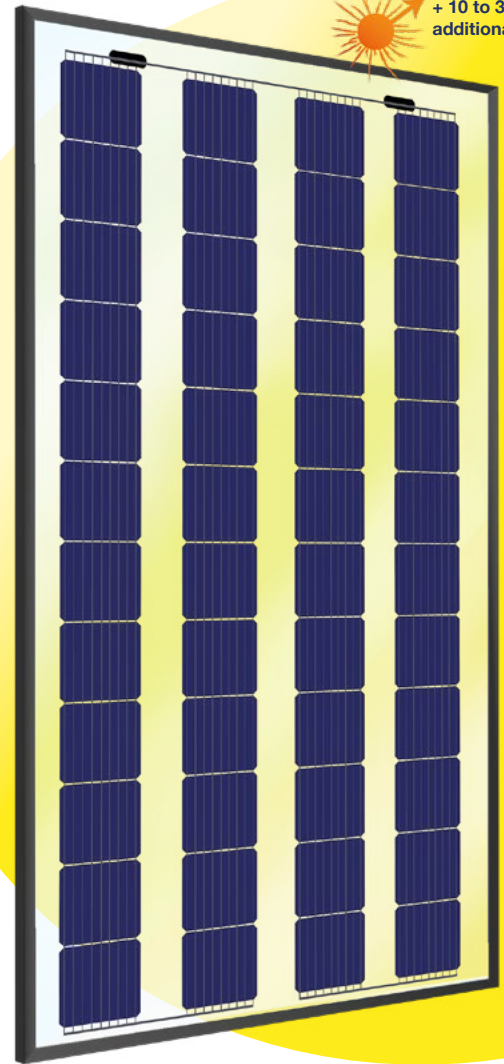
Bifacial Module



Engineered in Germany



2105 x 1043 x 5 mm



2111 x 1049 x 35 mm



Certified double glass module according EN12600 for overhead installation



CERTIFIED TO IEC61215 / IEC61730



Special design for AgriPV system

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 300 Wp           |
| Optimum operating voltage (Vmp)       | 29.7 V           |
| Optimum operating current (Imp)       | 10.11 A          |
| Open circuit voltage (Voc)            | 34.2 V           |
| Short-circuit current (Isc)           | 11.26 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |  |
|-----------------|--|
| Solar cell      | Bifacial M6, 9BB   |
| Number of cells | 48 (4 × 12)  |
| Dimensions      | 2105 × 1043 × 5 mm (without j-box)<br>2111 × 1049 × 35 mm (with frame) |
| Weight          | 26 kg  |
| Front/back      | 2 mm tempered glass  |
| Junction box    | Protection class IP68 (two bypass diodes)                              |
| Output cable    | 4.0 mm <sup>2</sup>  |
| Plug connector  | MC4 compatible   |
| Fire safety     | Class C  |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 33  |
| Pallets per container  | 22  |
| Quantity per container | 726 |

# B80-HC - 250Wp

Double glass module with M6 bifacial halfcut cells

**Art.no: M2825**



approx. 50% Transparency



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



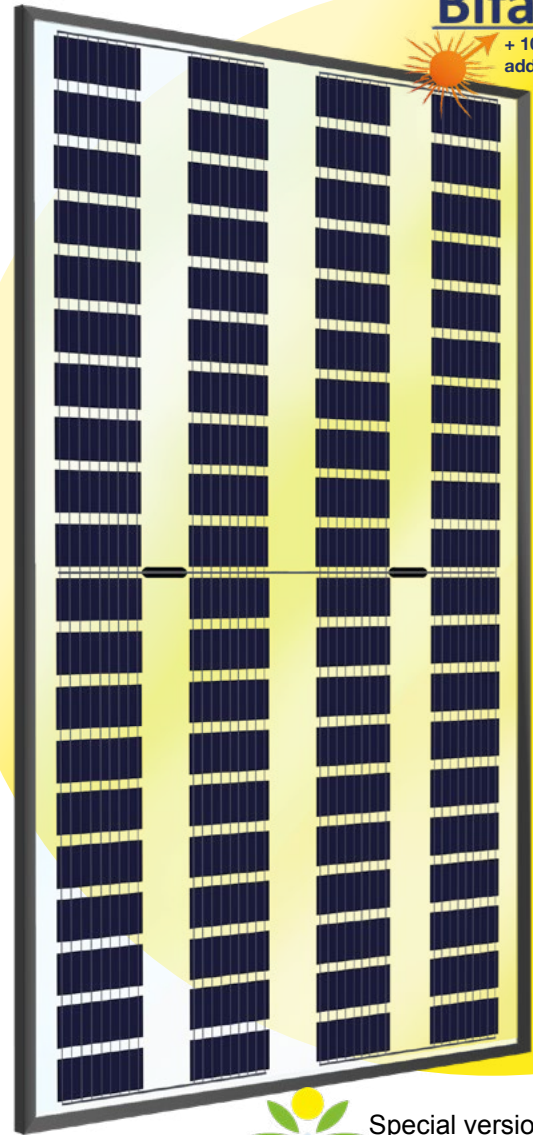
Bifacial Module



Engineered in Germany



Certified double glass module according  
EN12600 for overhead installation



**Bifacial**  
+ 10 to 30 %  
additional yield

2111 x 1049 x 35 mm



Special version for  
AgriPV system

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 250 Wp           |
| Optimum operating voltage (Vmp)       | 23.1 V           |
| Optimum operating current (Imp)       | 10.82 A          |
| Open circuit voltage (Voc)            | 27.7 V           |
| Short-circuit current (Isc)           | 11.36 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C     |
| Temperature coefficient of Pmax                  | -0.40 %/°C |
| Temperature coefficient of Voc                   | -0.34 %/°C |
| Temperature coefficient of Isc                   | 0.060 %/°C |

## Mechanical specifications

|                 |   |
|-----------------|---|
| Solar cell      | Halfcut Bifacial M6, 9BB                    |
| Number of cells | 80 (4 × 20)                                 |
| Dimensions      | 2111 × 1049 × 35 mm (without j-box)         |
| Weight          | 28 kg                                       |
| Front/back      | 2 mm tempered glass                         |
| Junction box    | Protection class IP68 (three bypass diodes) |
| Output cable    | 4.0 mm <sup>2</sup>                         |
| Plug connector  | MC4 compatible                              |
| Fire safety     | Class C                                     |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 38  |
| Pallets per container  | 26  |
| Quantity per container | 858 |



CERTIFIED TO  
IEC61215 / IEC61730



# B108 (430Wp)

Double glass frame module  
with M10 bifacial half-cut cells

**Art.no: M4643**



**BLACK**

# B108Black (430Wp)

FullBlack PV module with M10  
bifacial half-cut cells

**Art.no: M5643**



approx. 5% transparency



Certified double glass  
module according  
EN12600 for overhead  
installation



full black design,  
0% transparency

1722 x 1134 x 30 mm



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 430 Wp           |
| Optimum operating voltage (Vmp)       | 31.8 V           |
| Optimum operating current (Imp)       | 13.52 A          |
| Open circuit voltage (Voc)            | 38.0 V           |
| Short-circuit current (Isc)           | 14.24 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 20 A             |
| Power tolerance                       | 0/+5 W           |

## Mechanical specifications

|                 |   |
|-----------------|---|
| Solar cell      | M182 HC Topcon  |
| Number of cells | 108 (6 × 18)  |
| Dimensions      | 1722 × 1134 × 30 mm (with frame)  |
| Weight          | 21,2 kg   |
| Front/back      | Art. M4643: 2mm tempered glass<br>Art. M5643: 2mm tempered glass / black foil |
| Junction box    | Protection class IP68   |
| Output cable    | 4.0 mm <sup>2</sup> symmetrical length (approx. 1020mm)                       |
| Plug connector  | MC4 compatible  |
| Fire safety     | Class C   |

## Temperature specifications

|  |            |
|--|------------|
| Nominal operating temperature of the cell (NOCT) | 43±2°C     |
| Temperature coefficient of Pmax                  | -0.30 %/°C |
| Temperature coefficient of Voc                   | -0.25 %/°C |
| Temperature coefficient of Isc                   | 0.046 %/°C |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 36  |
| Pallets per container  | 26  |
| Quantity per container | 936 |



# B132 - 680Wp

Bifacial modules with half-cut cells

**Art.no: M4668**



25-year product guarantee



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



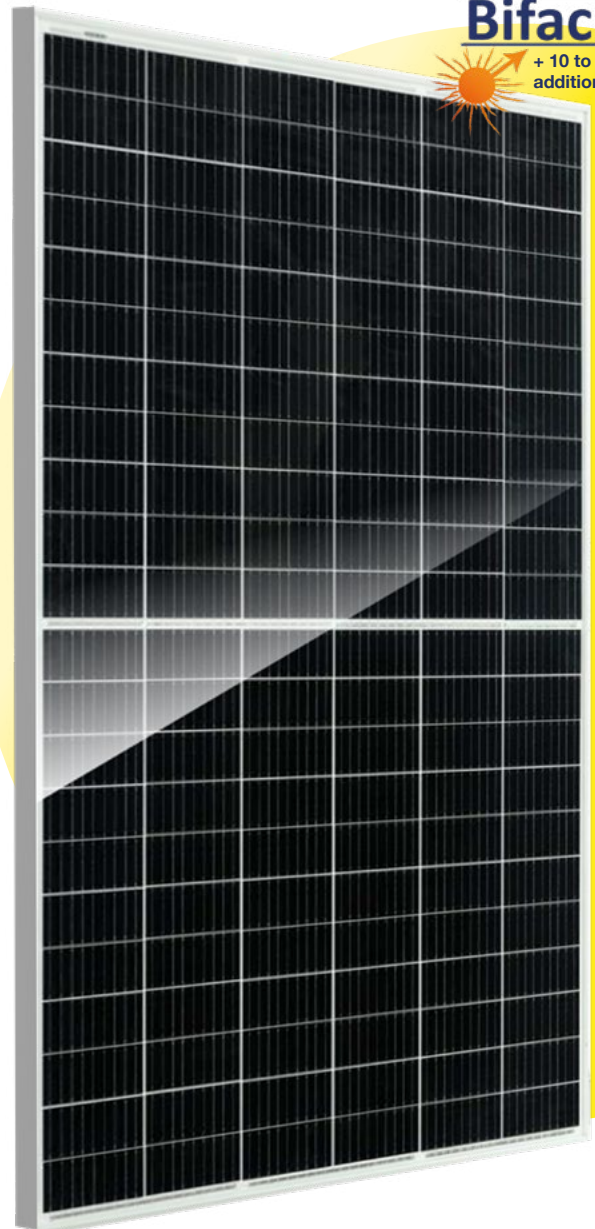
Bifacial Module



Engineered in Germany



Special version for AgriPV systems:  
Tracker module



2384 x 1303 x 35 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 680 Wp           |
| Optimum operating voltage (Vmp)       | 42,08 V          |
| Optimum operating current (Imp)       | 16,16 A          |
| Open circuit voltage (Voc)            | 49,51 V          |
| Short-circuit current (Isc)           | 17,13 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 35 A             |
| Power tolerance                       | 0/+5 W           |

## Temperature specifications

|  |             |
|--|-------------|
| Nominal operating temperature of the cell (NOCT) | 45±2°C      |
| Temperature coefficient of Pmax                  | -0.340 %/°C |
| Temperature coefficient of Voc                   | -0.265 %/°C |
| Temperature coefficient of Isc                   | 0.049 %/°C  |

## Mechanical specifications

|                 |                       |
|-----------------|-----------------------|
| Solar cell      | bifacial halfcut      |
| Number of cells | 132 (6 x 22)          |
| Dimensions      | 2384 x 1303 x 35 mm   |
| Weight          | 38,7 kg               |
| Front/back      | 2 mm tempered glass   |
| Junction box    | Protection class IP68 |
| Output cable    | 4.0 mm <sup>2</sup>   |
| Plug connector  | MC4 compatible        |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 31  |
| Quantity per container | 558 |



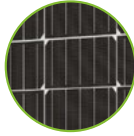
# B156 - 625Wp

Bifacial modules with M10 half-cut cells

**Art.no: M4662**



25-year product guarantee



SMBB Technologie:  
verbesserte Lichtabsorption und Stromtransport



Robust & stable:  
Wind load > 2400 Pa  
Snow load > 5400 Pa



PID Resisten



Bifacial Module



HOT 2.0 Technologie:  
N-Typ-Modul reduziert  
LID/LETID-Effekte



Engineered in Germany

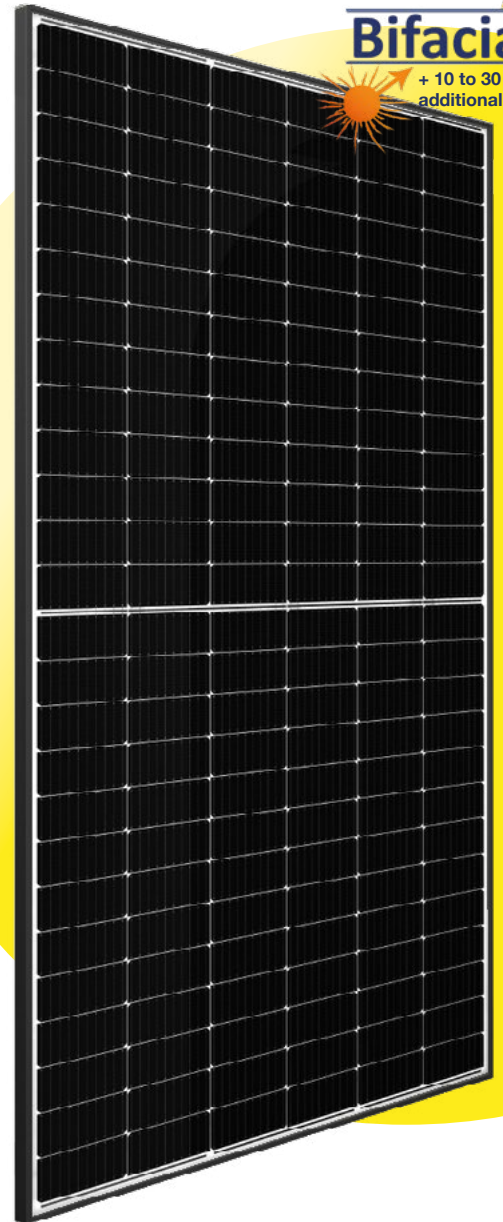


Special version for AgriPV systems:  
Tracker module



**Bifacial**

+ 10 to 30 %  
additional yield



2465 x 1134 x 35 mm

## Electrical specifications (STC)

|                                       |                  |
|---------------------------------------|------------------|
| Maximum power (Pmax)                  | 625 Wp           |
| Optimum operating voltage (Vmp)       | 46.10 V          |
| Optimum operating current (Imp)       | 13.56 A          |
| Open circuit voltage (Voc)            | 55.72 V          |
| Short-circuit current (Isc)           | 14.27 A          |
| Maximum system voltage                | 1500 V DC (IEC)  |
| Operating temperature of the module   | -40 °C to +85 °C |
| Maximum permissible series protection | 25 A             |
| Power tolerance                       | 0/+3 %           |

## Temperature specifications

|  |             |
|--|-------------|
| Nominal operating temperature of the cell (NOCT) | 44°C (±2°C) |
| Temperature coefficient of Pmax                  | -0.29 %/°C  |
| Temperature coefficient of Voc                   | -0.22 %/°C  |
| Temperature coefficient of Isc                   | 0.04 %/°C   |

## Mechanical specifications

|                 |                                  |
|-----------------|----------------------------------|
| Solar cell      | N-Type 16BB Bifacial Halfcut     |
| Number of cells | 182 (2 x 78)                     |
| Dimensions      | 2465 x 1134 x 35 mm (with frame) |
| Weight          | 36.4 kg                          |
| Front/back      | 2 mm solar glass                 |
| Junction box    | Protection class IP68            |
| Output cable    | 4.0 mm <sup>2</sup>              |
| Plug connector  | MC4 compatible                   |

## Pack configuration

40' HC Container

|                        |     |
|------------------------|-----|
| Quantity per pallet    | 31  |
| Quantity per container | 558 |



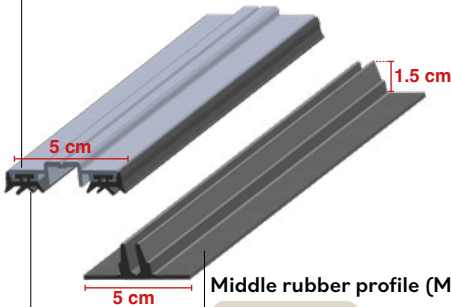
# Mounting instructions

for frameless double glass modules from GridParity AG

**Middle profile (M) for long module side**

Art.Nr: Z1006

with integrated rubber lips



**Middle rubber profile (M-G)**

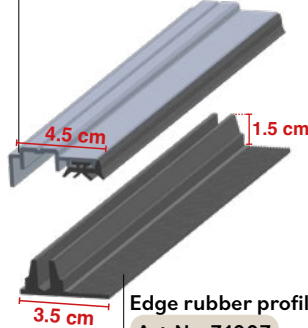
Art.Nr: Z1001

lies under the long module sides

**Edge profile (R) for long module side**

Art.Nr: Z1008

with integrated rubber lips



**Edge rubber profile (R-G)**

Art.Nr: Z1003

lies under the long module sides

**DachDicht**

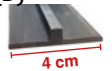
Art.Nr: Z7000



Sealing compound

**Rubber sealing profile (D)**

Art.Nr: Z1004



for water flow on the narrow side of the module

**Flat rubber (F)**

Art.Nr: Z1005



for the outer edges of the module narrow sides



Art.Nr: Z1002 Inserted rubber lip (E) in M and R profiles

(Z1009)



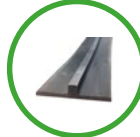
(Z1007)



(Z1005)



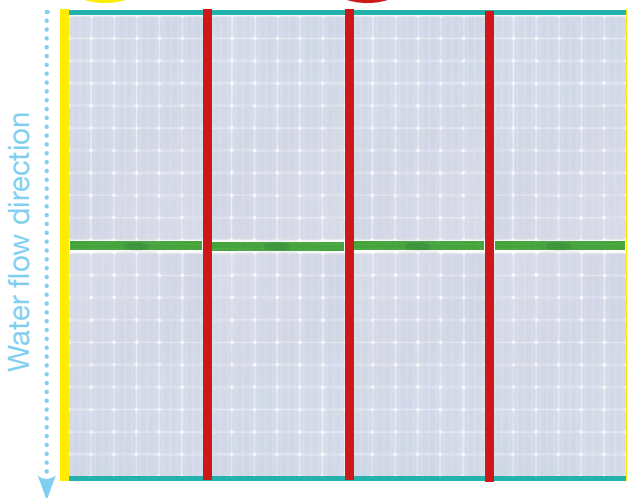
(Z1004)



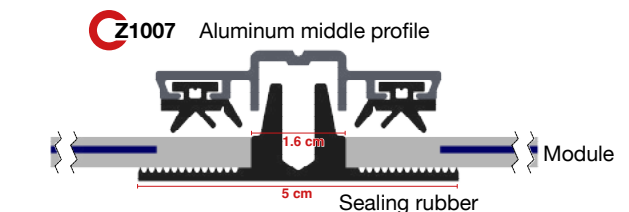
(Z7000)



(Z1005)



Example arrangement of a module layout on a GridParity kit (varies depending on the kit type and size)



**Order the complete package conveniently:**  
Necessary information: Number and type of modules, as well as the desired arrangement (in rows and columns)

**Sealing material set for size 1 modules (Art. no: Z1100)**

**Sealing material set for size 2 modules (Art. no: Z1200)**



**Note on water-resistant module installation:**

Waterproof or water-resistant means that moisture is kept out, but cannot be completely excluded. As the water resistance depends crucially on the quality of the installation of our fastening profiles in accordance with our installation instructions, we cannot guarantee that they are water-tight.

Please also note that our profiles are a very cost-effective sealing solution. The system cannot be compared with the sealing of conservatories, for example, for which completely different standards apply.

Our carports and patios are open systems in which condensation (as on any car windshield) and water droplets driven by the wind cannot be avoided due to temperature differences.