

# Mono S4 Halfcut | Trend Black

445 W / 450 W

Bifacial double glass module in a black design with a transparent back and N-TYPE/TOPCon cell technology. The power module for the residential and commercial sector makes optimum use of the classic module size.

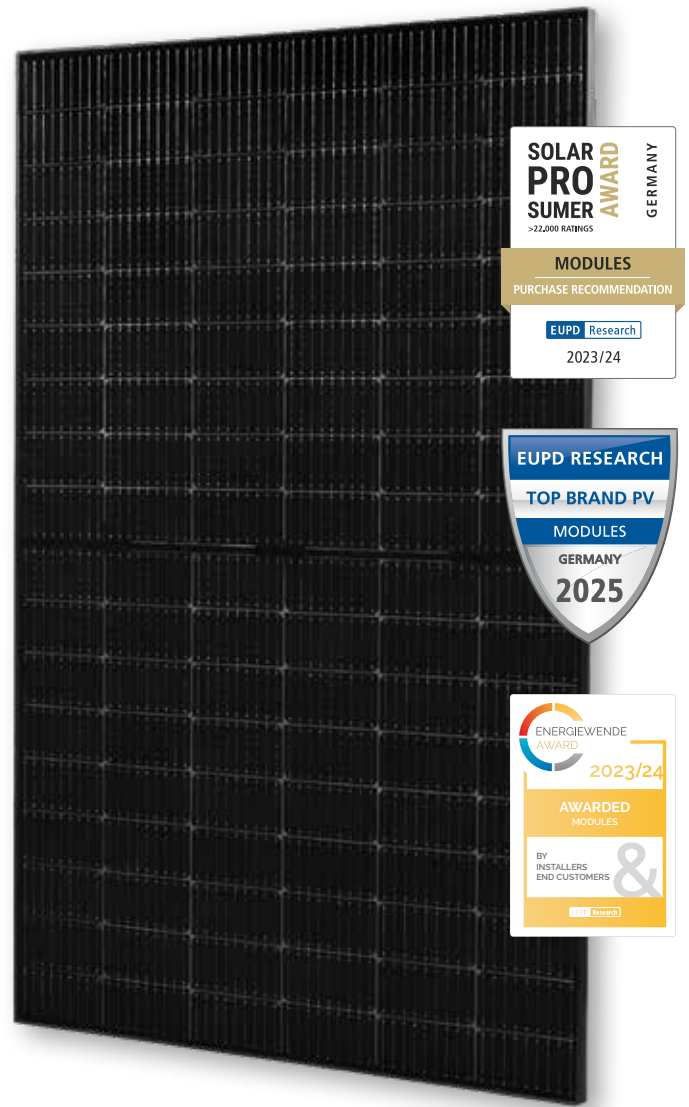
Especially suitable for:



Residential



Commercial



## German warranty

30-year guarantee on the product and 30 years on the module performance



## Hail protection class 4

Resistant to ice balls with a maximum diameter of 40 mm and a speed of 29.2 m/s



## Fire protection glass A

Best possible fire protection certification for solar modules with German TÜV certificate



## Area utilisation factor

223 W/m<sup>2</sup> at 445 W. Better comparability through watt output per square metre



## Transparent

Transparent double glass solar module



## Bifacial cell

Transparent cell with additional energy on the back of the cell



## N-type technology

TopCon solar module with N-Type technology for even more peak performance



## Half-cell module

Two-part cell for more efficiency, more safety and more reliability



## Low-light behaviour

Outstanding performance even under low light conditions



## Glass cover

Resistant to ammonia & salt spray  
Highly transparent, self-cleaning glass

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## Electrical data under STC

(Standard Test Conditions: 1000 W/m<sup>2</sup>, 25 °C, AM 1.5, Measuring tolerance: ± 3%)

|                               |           |         |         |
|-------------------------------|-----------|---------|---------|
| Rated power                   | $P_{max}$ | 445 W   | 450 W   |
| Sorting limits of performance |           | 0/+5 W  | 0/+5 W  |
| Voltage                       | $U_{MPP}$ | 33.71 V | 33.91 V |
| Open circuit voltage          | $U_{OC}$  | 40.05 V | 40.25 V |
| Current                       | $I_{MPP}$ | 13.20 A | 13.27 A |
| Short-circuit current         | $I_{SC}$  | 14.10 A | 14.17 A |
| Efficiency                    |           | 22.30 % | 22.50 % |

## Temperature data

|                                    |                |                   |
|------------------------------------|----------------|-------------------|
| Operating temperature              |                | - 40° C ~ + 85° C |
| Nominal operating cell temperature |                | 42° C ± 2° C      |
| Power temperature coefficient      | $T_K(P_{MPP})$ | - 0.290 %/°C      |
| Voltage temperature coefficient    | $T_K(U_{OC})$  | - 0.250 %/°C      |
| Current temperature coefficient    | $T_K(I_{SC})$  | 0.048 %/°C        |

## Further information

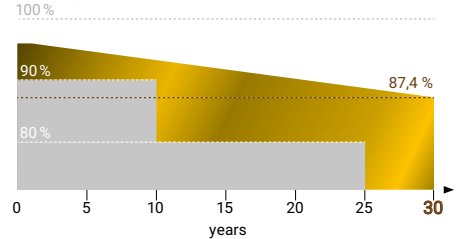
|                                    |  |
|------------------------------------|--|
| Number of cells                    | 108 N-Type bifacial monocrystalline half cells (6 x 18)                          |
| Module dimensions                  | 1762 x 1134 x 30 mm  |
| Type of Frame                      | black anodized aluminium alloy   |
| Max. system voltage                | 1500 V   |
| Reverse current loading capability | 30 A   |
| Glass thickness                    | Frontside/Backside: 2.0 mm/2.0 mm  |
| Weight                             | approx. 24.9 kg  |
| Module connection                  | MC4 or similar, 4.0 mm <sup>2</sup> , cable length: (+) ≥ 1100 mm, (-) ≥ 1100 mm |
| Junction box rating                | IP68   |
| Allowable Hail Load                | 40 mm iceball with velocity of 29.2 m/s  |
| Snow load                          | 5400 Pa ± 550 kg/m <sup>2</sup>  |
| Fire class                         | A according to IEC standard 61730-2 (UL 790, UL 1703)                            |

30 years product warranty, 30 years linear performance warranty according to our additional warranty conditions for solar power modules of the "Mono S4 Halfcut Trend Black" product series, which we will gladly send you. Due to the tolerance of the anti-reflective coating, colour differences in the solar modules may occur.

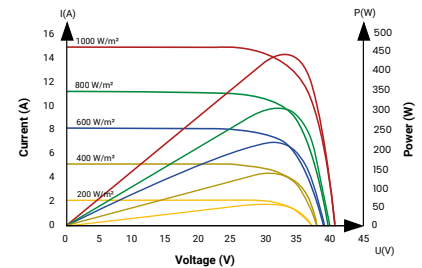
## Logistic

|                                |                |
|--------------------------------|----------------|
| Dimension pallet (L/W/H)       | 180/114/125 cm |
| Weight pallet                  | ca. 926 kg     |
| Modules per pallet             | 36             |
| Modules per Container [40' HC] | 936            |

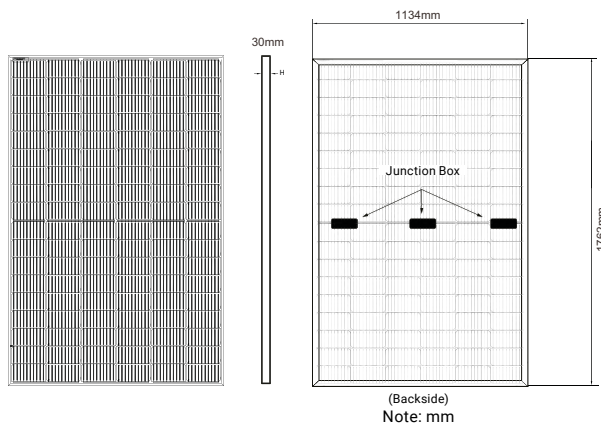
## Module performance



■ Linear performance warranty for Double-Glas Solar Modules  
 ■ Standard tiered warranty



### S4-DGXXX-108T (half cell module)



Note:  
 Ensure correct polarity!  
 Data with tolerance ± 1 mm

Your specialist dealer:

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