

# Photowatt®

## PW72HT-CB-XF

### NEW GENERATION BIFACIAL MODULE

With Photowatt's industry leading bifacial cell technology and extensive knowhow in double glass module manufacturing, we have now developed a new generation of high efficiency bifacial modules. Bifacial modules will greatly increase solar system power generation, reducing system BOS cost, hence, lower LCOE.

**375-350 Wc**

Typical power

**24.33 %\***

Typical efficiency

**144 half-cells**

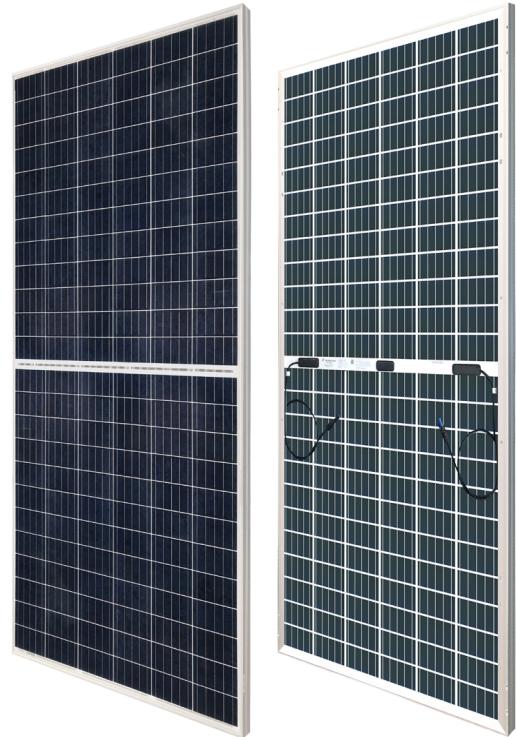
Multicrystalline module

**CO2**

Low-carbon

**0/+5 Wc**

Power tolerance



\* 5BB and MBB modules will be provided



### Environmental standards

- Priority over environmental requirements by limiting the carbon footprint
- Recycling of used panels (Photowatt is co-founder of Soren)



### Durability and performance

- Modules certified by international organizations (VDE)
- Better performance thanks to anti-reflective glass
- Cells sorted by reverse current and shunt resistance
- Better power thanks to the spacing uniform and optimized between cells

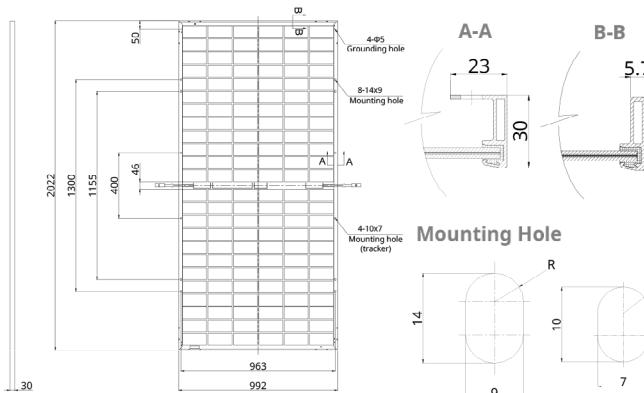


### Highly resistant and light framing

- Aluminum frame for resistance to extreme climatic conditions (5400Pa)
- Frost resistant frame
- Weight of module for easy handling

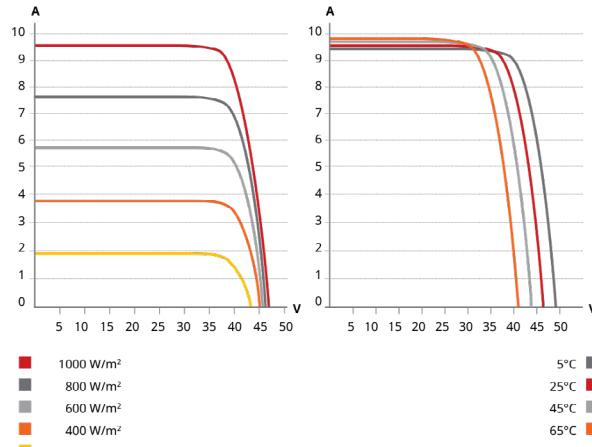
\* with 30% more efficiency from the rear

## Rear View



## Frame Cross Section

## I/V CURVES AT LOW IRRADIANCES AND DIFFERENT TEMPERATURES



## MECHANICAL CHARACTERISTICS

|                                    |  |
|------------------------------------|--|
| Cell type                          | Multicrystalline   |
| Module size                        | 2022 x 992 x 30 mm (79.6 x 39.1 x 1.18 in)   |
| Cells number                       | 144 [ 2x (12 x 6) ]  |
| Module weight                      | 25.7 kg (56.7 lbs)   |
| Front cover                        | 2.0 mm heat-strengthened glass   |
| Frame material                     | Anodized aluminum alloy  |
| J-BOX                              | IP 68, 3 bypass diodes   |
| Solar cable                        | 4.0 mm² (IEC), 12 AWG (UL)   |
| Cable Length (Including Connector) | Portrait: 400 mm (15.7 in) (+) / 280 mm (11.0 in) (-); landscape: 1400 mm (55.1 in); leap-frog connection: 1670 mm (65.7 in) |
| Connector type                     | Series T4 or MC4-EVO2 or H4 UTX  |
| Per Pallet                         | 35 pieces  |
| Per Container (40'HQ)              | 770 pieces or 595 pieces   |

## OPERATING CONDITIONS

|                            |   |
|----------------------------|---|
| Operating temperature      | -40°C à +85°C                                   |
| Maximum system voltage     | 1000V DC (IEC/UL) or 1500V (IEC)                |
| Fire resistance            | Type 3/Type 13 (UL 1703) or Class A (IEC 61730) |
| Maximal serie fuse rating  | 20 A  |
| Application classification | Class A   |
| Power tolerance            | 0 ~ + 5 W                                       |
| Bifaciality coefficient    | 70%   |

## ELECTRICAL DATA (NMOT\*)

|                  | Maximum rated power (Pmax) | Voltage nominal power (Vm) | Nominal power intensity (Im) | Open circuit voltage (Voc) | Short circuit current (Is) |
|------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|
| PW72HT-CB-XF-350 | 262 W                      | 36.6 V                     | 7.14 A                       | 43.9 V                     | 7.67 A                     |
| PW72HT-CB-XF-355 | 265 W                      | 36.7 V                     | 7.21 A                       | 44.0 V                     | 7.73 A                     |
| PW72HT-CB-XF-360 | 269 W                      | 36.9 V                     | 7.27 A                       | 44.2 V                     | 7.80 A                     |
| PW72HT-CB-XF-365 | 272 W                      | 37.1 V                     | 7.34 A                       | 44.4 V                     | 7.86 A                     |
| PW72HT-CB-XF-370 | 276 W                      | 37.3 V                     | 7.40 A                       | 44.6 V                     | 7.93 A                     |
| PW72HT-CB-XF-375 | 280 W                      | 37.5 V                     | 7.46 A                       | 44.8 V                     | 7.99 A                     |

\* Below the nominal operating temperature of the module: NMOTz (energy illumination of 800 W / m², spectrum AM 1.5, ambient temperature 20 °C, wind speed 1 m / s)

## TEMPERATURE COEFFICIENT\*

|                                |    |             |
|--------------------------------|----|-------------|
| Typical cells temperature NOCT | °C | 41 (±3 °C)  |
| Temperature coefficient Pmax   | γ  | -0.37% / °C |
| Temperature coefficient Voc    | β  | -0.29% / °C |
| Temperature coefficient Isc    | α  | +0.05% / °C |

\* 1000 W/m² ; temperature 25°C ; spectrum AM 1,5

## WARRANTY

|                               |          |
|-------------------------------|----------|
| Product warranty              | 10 years |
| Linear power output warranty* | 30 years |

\* See general warranty terms and conditions

## CARACTÉRISTIQUES ÉLECTRIQUES (STC\*)

|                  | Typical power (Pmax) | Voltage at the point of maximum power (Vm) | Current at the point of maximum power (Im) | Open circuit voltage (Voc) | Short circuit current (Is) | Module Efficiency |
|------------------|----------------------|--|--|----------------------------|----------------------------|-------------------|
| PW72HT-CB-XF-350 | 350                  | 39.2 V                                     | 8.94 A                                     | 46.6 V                     | 9.51 A                     | 17.4 %            |
| Bifacial Gain**  | 5%                   | 368  | 39.2 V                                     | 9.39 A                     | 46.6 V                     | 9.99 A            |
|                  | 10%                  | 385  | 39.2 V                                     | 9.83 A                     | 46.6 V                     | 10.46 A           |
|                  | 20%                  | 420  | 39.2 V                                     | 10.73 A                    | 46.6 V                     | 11.41 A           |
|                  | 30%                  | 455  | 39.2 V                                     | 11.62 A                    | 46.6 V                     | 12.36 A           |
| PW72HT-CB-XF-355 | 355 W                | 39.4 V                                     | 9.02 A                                     | 46.8 V                     | 9.59 A                     | 17.7 %            |
| Bifacial Gain**  | 5%                   | 373 W                                      | 39.4 V                                     | 9.47 A                     | 46.8 V                     | 10.07 A           |
|                  | 10%                  | 391 W                                      | 39.4 V                                     | 9.92 A                     | 46.8 V                     | 10.55 A           |
|                  | 20%                  | 426 W                                      | 39.4 V                                     | 10.82 A                    | 46.8 V                     | 11.51 A           |
|                  | 30%                  | 462 W                                      | 39.4 V                                     | 11.73 A                    | 46.8 V                     | 12.47 A           |
| PW72HT-CB-XF-360 | 360 W                | 39.6 V                                     | 9.1 A                                      | 47 V                       | 9.67 A                     | 17.9 %            |
| Bifacial Gain**  | 5%                   | 378 W                                      | 39.6 V                                     | 9.56 A                     | 47 V                       | 10.15 A           |
|                  | 10%                  | 396 W                                      | 39.6 V                                     | 10.01 A                    | 47 V                       | 10.64 A           |
|                  | 20%                  | 432 W                                      | 39.6 V                                     | 10.92 A                    | 47 V                       | 11.6 A            |
|                  | 30%                  | 468 W                                      | 39.6 V                                     | 11.83 A                    | 47 V                       | 12.57 A           |
| PW72HT-CB-XF-365 | 365 W                | 39.8 V                                     | 9.18 A                                     | 47.2 V                     | 9.75 A                     | 18.2 %            |
| Bifacial Gain**  | 5%                   | 383 W                                      | 39.8 V                                     | 9.64 A                     | 47.2 V                     | 10.24 A           |
|                  | 10%                  | 402 W                                      | 39.8 V                                     | 10.1 A                     | 47.2 V                     | 10.73 A           |
|                  | 20%                  | 438 W                                      | 39.8 V                                     | 11.02 A                    | 47.2 V                     | 11.7 A            |
|                  | 30%                  | 475 W                                      | 39.8 V                                     | 11.93 A                    | 47.2 V                     | 12.68 A           |
| PW72HT-CB-XF-370 | 370 W                | 40.0 V                                     | 9.26 A                                     | 47.4 V                     | 9.83 A                     | 18.4 %            |
| Bifacial Gain**  | 5%                   | 389 W                                      | 40.0 V                                     | 9.72 A                     | 47.4 V                     | 10.32 A           |
|                  | 10%                  | 407 W                                      | 40.0 V                                     | 10.19 A                    | 47.4 V                     | 10.81 A           |
|                  | 20%                  | 444 W                                      | 40.0 V                                     | 11.11 A                    | 47.4 V                     | 11.80 A           |
|                  | 30%                  | 481 W                                      | 40.0 V                                     | 12.04 A                    | 47.4 V                     | 12.78 A           |
| PW72HT-CB-XF-375 | 375 W                | 40.2 V                                     | 9.34 A                                     | 47.6 V                     | 9.91 A                     | 18.7 %            |
| Bifacial Gain**  | 5%                   | 394 W                                      | 40.2 V                                     | 9.81 A                     | 47.6 V                     | 10.41 A           |
|                  | 10%                  | 413 W                                      | 40.2 V                                     | 10.27 A                    | 47.6 V                     | 10.9 A            |
|                  | 20%                  | 450 W                                      | 40.2 V                                     | 11.21 A                    | 47.6 V                     | 11.89 A           |
|                  | 30%                  | 488 W                                      | 40.2 V                                     | 12.14 A                    | 47.6 V                     | 12.88 A           |

\* STC: 1000 W / m²; 1.5 AM spectrum; cell temperature 25 °C

\*\* Bifacial gain: The additional gain at the rear compared to the power of the front panel under standard test conditions. It depends on the mounting (structure, height, tilt angle, etc.) and on the albedo of the ground.

## QUALITY CERTIFICATES

### MANAGEMENT



### PRODUCT

