

# Photowatt®

## PW66MAX-CB-XF

### SUPER HIGH POWER BIFACIAL POLY PERC MODULE

Thanks to Photowatt's Crystal Advanced®-PERC cell technology and extensive know-how in the manufacture of double-glass modules, we have developed a new generation of high-efficiency bifacial modules up to 635 Wp. Photowatt® has been a pioneer in the solar energy industry for 40 years.

**595 - 635 Wp**

Typical power

**20.4%\***

Typical efficiency

**132 half-cells**

Multicrystalline module

**CO2**

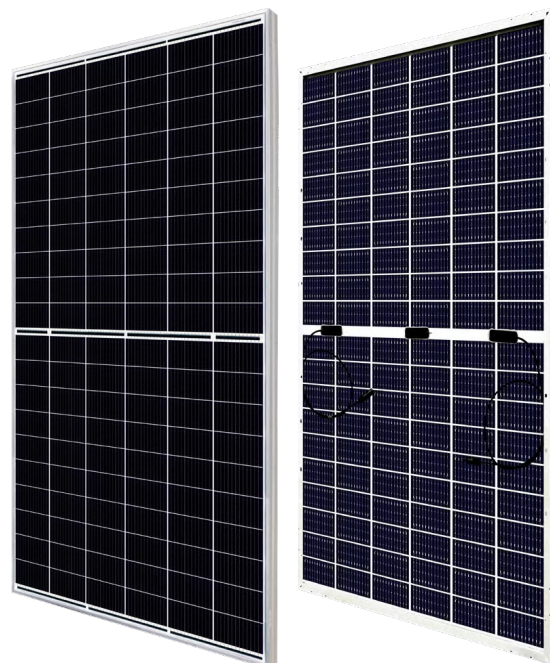
Low carbon footprint

**0/+5 Wc**

Power tolerance

**5400 Pa**

Load resistance



### French know-how

- Since 1979, our know-how has been evolving to meet market requirements, always manufacturing high performance, high quality and environmentally responsible products.



### Environmental standards

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



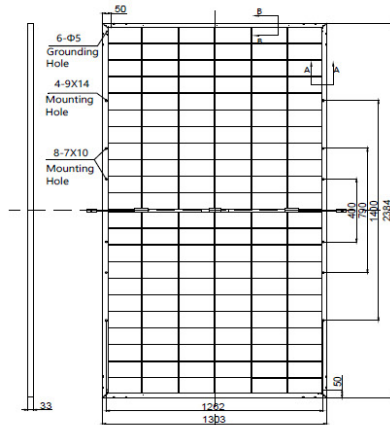
### Durability and performance

- 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

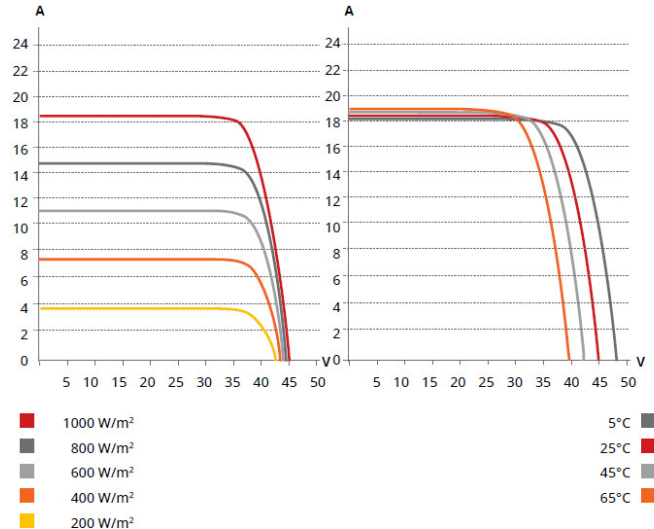
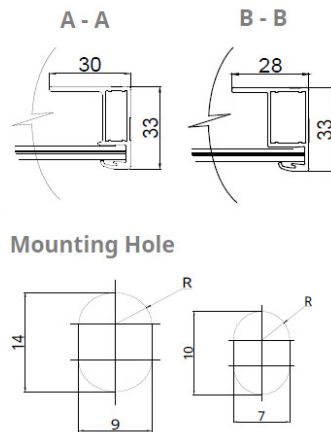
\* excluding potential gains from bifaciality

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

### Rear View



### Frame Cross Section



## MECHANICAL CHARACTERISTICS

Cell type	Multicrystalline
Module size	2384 x 1303 x 33 mm
Cells number	132 [ 2 x (11 x 6) ]
Module weight	37.8 kg
Front / Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 diodes
Cable Length	Customized length <sup>1</sup>
Connector	T4 series or MC4-EVO2 or H4 UTX
Per palette	33 pieces
Per Container (40'HQ)	594 pieces / 495 pieces (only for the USA)

<sup>1</sup> For detailed information, please contact your local EDF ENR PWT sales and technical representatives.

## OPERATING CONDITIONS

Operating Temperature	-40°C à +85°C
High resistance to extreme weather conditions	5400 Pa (snow) 2400 Pa (wind)
Max. System Voltage	1500 V (IEC/UL) or 1000 V (IEC/UL)
Module Fire Performance	Type 29 (UL 61730) or Class C (IEC 61730)
Max. Series Fuse Rating	35 A
Application Classification	Class A
Power Bifaciality <sup>2</sup>	70%

<sup>2</sup> Power Bifaciality =  $P_{max_{rear}} / P_{max_{front}}$ , both  $P_{max_{rear}}$  and  $P_{max_{front}}$  are tested under STC, Bifaciality Tolerance:  $\pm 5\%$

## TEMPERATURE COEFFICIENT <sup>3</sup>

Nominal Module Operating Temperature	°C	41 (±3 °C)
Temperature Coefficient (Pmax)	γ	-0.34 %/°C
Temperature Coefficient (Voc)	β	-0.26 %/°C
Temperature Coefficient (Isc)	α	0.05 %/°C

<sup>3</sup> With 1000 W/m<sup>2</sup>; temperature of 25°C; spectrum AM 1.5

## WARRANTY

Product warranty	10 years
Linear power warranty <sup>4</sup>	30 years

<sup>4</sup> See general warranty terms and conditions

## ELECTRICAL DATA (STC<sup>5</sup>)

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
<b>PW66MAX-CB-XF 595</b>	595 W	35.7 V	16.71 A	42.8 V	17.95 A	18.8 %
Bifacial Gain <sup>6</sup>	5 %	625 W	35.7 V	17.54 A	18.84 A	19.74 %
	10 %	655 W	35.7 V	18.38 A	19.74 A	20.68 %
	20 %	714 W	35.7 V	20.05 A	21.54 A	22.56 %
<b>PW66MAX-CB-XF 605</b>	605 W	36.1 V	16.79 A	43.2 V	18.03 A	19.2 %
Bifacial Gain <sup>6</sup>	5 %	635 W	36.1 V	17.62 A	18.93 A	20.16 %
	10 %	665 W	36.1 V	18.46 A	19.83 A	21.12 %
	20 %	726 W	36.1 V	20.14 A	21.63 A	23.04 %
<b>PW66MAX-CB-XF 615</b>	615 W	36.5 V	16.87 A	43.6 V	18.11 A	19.6 %
Bifacial Gain <sup>6</sup>	5 %	646 W	36.5 V	17.71 A	19.01 A	20.58 %
	10 %	677 W	36.5 V	18.55 A	19.92 A	21.56 %
	20 %	738 W	36.5 V	20.24 A	21.73 A	23.52 %
<b>PW66MAX-CB-XF 625</b>	625 W	36.9 V	16.95 A	44.0 V	18.19 A	20.0 %
Bifacial Gain <sup>6</sup>	5 %	656 W	36.9 V	17.79 A	19.09 A	21.0 %
	10 %	688 W	36.9 V	18.65 A	20.00 A	22.0 %
	20 %	752 W	36.9 V	20.34 A	21.82 A	24.0 %
<b>PW66MAX-CB-XF 635</b>	635 W	37.3 V	17.03 A	44.4 V	18.27 A	20.4 %
Bifacial Gain <sup>6</sup>	5 %	667 W	37.3 V	17.89 A	19.18 A	21.95 %
	10 %	699 W	37.3 V	18.74 A	20.10 A	22.5 %
	20 %	762 W	37.3 V	20.44 A	21.92 A	24.5 %

<sup>5</sup> Under Standard Test Conditions (STC) of irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C

<sup>6</sup> Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

## ELECTRICAL DATA (NMOT<sup>7</sup>)

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
<b>PW66MAX-CB-XF 595</b>	444 W	33.2 V	13.39 A	40.2 V	14.46 A
<b>PW66MAX-CB-XF 605</b>	452 W	33.6 V	13.45 A	40.6 V	14.53 A
<b>PW66MAX-CB-XF 615</b>	460 W	34.0 V	13.51 A	41.0 V	14.59 A
<b>PW66MAX-CB-XF 625</b>	468 W	34.4 V	13.57 A	41.4 V	14.67 A
<b>PW66MAX-CB-XF 635</b>	476 W	34.8 V	13.63 A	41.8 V	14.73 A

<sup>7</sup> Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

