

Photowatt® PW2450F

Crystal Advanced®



▶ The high quality photovoltaic module

The PW2450F Crystal Advanced® PV module benefits from the latest innovations developed by Photowatt®. This patented Crystal Advanced® technology significantly improves the crystallization process ensuring a best-in-class quality of the solar cells. The major steps of manufacturing are exclusively performed in France, with the most reliable components on the market.

60 CELLS

MULTICRYSTALLINE MODULE



285-260 Wp

TYPICAL POWER



17,2%

TYPICAL EFFICIENCY



CO2

LOW-CARBON



0/+5 Wp

POWER TOLERANCE



ENVIRONMENTAL STANDARDS

- Respect for the highest standards of the profession (ISO 14001)
- Recycling used panels (Photowatt® is co-founder of PV Cycle France)
- Priority on the environmental requirement by limiting the carbon footprint

DURABILITY AND PERFORMANCE

- Modules certified by international laboratories (VDE)
- Anti-reflective coated glass to maximize power output
- Cells' sorting according to reverse current and shunt resistance
- Better power thanks to uniform and optimized spacing between cells

RELIABILITY

- Electroluminescence inspection of cells and modules
- Reliability tests extended up to 2 times vs. IEC standards

HIGHLY RESISTANT AND LIGHT FRAMING

- Aluminum frame for maximum resistance to extreme weather conditions (5400Pa)
- Frame resistant to frost damage
- Module weight for easy handling

MECHANICAL CHARACTERISTICS

Cell type	Multicrystalline
Module size	1685 x 993 x 40 mm
Cell size	156.75 x 156.75 mm (± 1%)
Cells number	60
Module weight	20 kg
Front cover	3.2 mm anti-reflected tempered glass
Back cover	With Tedlar®
Frame material	Anodized aluminum alloy
J-BOX	IP 65
Solar cables	UV resistant, 4.0 mm ² , 1100mm
Connector type	MC4 or MC4 compatible

OPERATING CONDITIONS

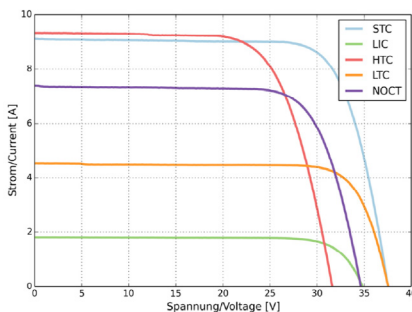
Operating temperature	-40°C à +85°C
High resistance to snow and wind load	5400 Pa (Snow) 2400 Pa (Wind)
Maximum system voltage	1500V (IEC) or 1000V DC (IEC)
Maximal reverse current	18A
PID	Free

TEMPERATURE COEFFICIENT *

Typical cells temperature NOCT	°C	47,3 (±2)
Temperature coefficient Pmax	γ	-0,42 %/°C
Temperature coefficient Voc	β	-0,34 %/°C
Temperature coefficient Isc	α	+0,06%/°C

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

TEMPERATURE CURVES



TECHNICAL CHARACTERISTICS (STC*)

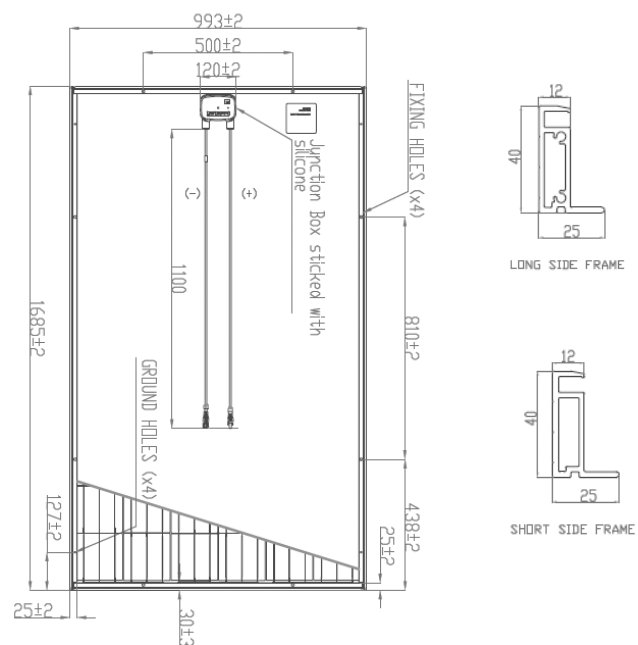
Typical power	W	285	280	275	270	265	260
Power tolerance	W	0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Voltage at typical power	V	31.4	31.3	31.1	30.9	30.7	30.5
Current at typical power	A	9.10	9.00	8.90	8.75	8.68	8.61
Open circuit voltage	V	38.6	38.5	38.4	38.2	38.1	37.9
Short circuit current	A	9.55	9.50	9.40	9.29	9.21	9.16
Module conversion efficiency	%	17.2	16.9	16.6	16.3	16.0	15.7

*Under Standard Test Conditions : STC
(1000 W/m²; spectrum AM 1,5; cells temperature 25°C)

TECHNICAL CHARACTERISTICS (NOCT*)

Typical power	W	285	280	275	270	265	260
Maximum power	W	203	200	197	194	191	188
Voltage at maximum power	V	29.0	28.8	28.6	28.4	28.2	28.0
Current operating income	A	7.20	7.10	7.00	6.90	6.80	6.70
Open circuit voltage	V	35.2	35.1	35.0	34.9	34.8	34.7
Short circuit current	A	7.80	7.70	7.60	7.50	7.40	7.30

*Nominal Operating Cell Temperature : NOCT
(800 W/m²; temperature 20°C; wind speed 1 m/s)



WARRANTY

Product warranty	10 years
Linear power output warranty*	25 years

*See general warranty terms and conditions

QUALITY CERTIFICATES

