Photowatt® PW2450F

The high quality photovoltaic module

The module PW2450F benefits from the highest conversion efficiency of the Photowatt® range. The major steps of manufacturing are exclusively processed in France, with the most successful components on the market.

60 CELLS
MULTICRYSTALLINE MODULE

260-240 Wp
TYPICAL POWER

15,7%
TYPICAL EFFICIENCY

CO2
LOW-CARBON

0/+5 Wp
POWER TOLERANCE

ENVIRONMENTAL STANDARDS

- Respect the best standards of the profession (ISO 14001)
- Photowatt is co-founder of PV-CYCLE France for recycling used panels
- Priority to drastically limiting the carbon footprint

DURABILITY AND PERFORMANCE

- Modules certified by international laboratories (VDE)
- Anti-reflective coated glass to maximize power output
- Cells sorted out according to reverse current and shunt resistance
- Uniform and optimized spacing between solar cells

RELIABILITY

- 100% electroluminescence (EL) testing process to eliminate hidden defects
- Internal reliability tests are pushed up to 2 times compared to IEC standards
- Calibration controls are performed at least 4 times per year by independent laboratories (e.g. Fraunhofer Institute)

HIGHLY RESISTANT AND LIGHT FRAMING

- Automated assembly of aluminum frame by screwing and gluing provides a high resistance to extreme weather conditions (5400Pa)
- Framing resistant to frost damage
- Module weight for easy handling

PW2450F

Photowatt®

MECHANICAL CHARACTERISTICS

Cell type	Multicrystalline
Module size	1685 x 993 x 40 mm
Cell size	156 x 156 mm (± 1%)
Cells number	60 (6x10)
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 mm², 1100mm
Connector type	MC4 or MC4 compatible

TECHNICAL CHARACTERISTICS (STC*)

Typical power	W	260	255	250	245	240
Power tolerance	W	0/+5	0/+5	0/+5	0/+5	0/+5
Voltage at typical power	V	30.5	30.3	30.0	29.8	29.7
Current at typical power	A	8.61	8.51	8.41	8.32	8.19
Open circuit voltage	V	37.9	37.7	37.4	37.2	37.1
Short circuit current	A	9.16	9.06	8.95	8.85	8.73
Module conversion efficiency	%	15.7	15.4	15.1	14.8	14.5

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

OPERATING CONDITIONS

Operating temperature	-40°C à +85°C
High resistance to snow and wind load	5400 Pa (Snow) 2400 Pa (Wind)
Reverse current I_R	20A
Maximum system voltage	1000V DC (IEC)
Maximal serie fuse rating	15A
PID	Free

TECHNICAL CHARACTERISTICS (NOCT*)

Typical power	W	260	255	250	245	240
Maximum power	W	189	185	181	178	174
Voltage at maximum power	V	27.7	27.5	27.5	27.4	27.3
Current operating income	A	6.8	6.71	6.6	6.49	6.38
Open circuit voltage	V	34.5	34.4	34.2	34.1	34
Short circuit current	A	7.60	7.60	7.50	7.40	6.96

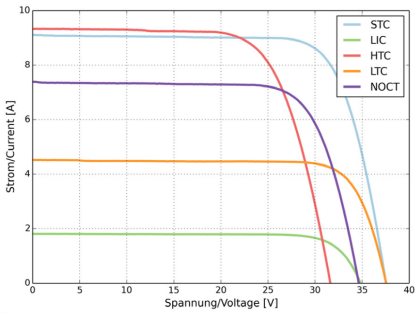
*Nominal Operating Cell Temperature : NOCT
(800 W/m² ; temperature 20°C ; wind speed 1 m/s)

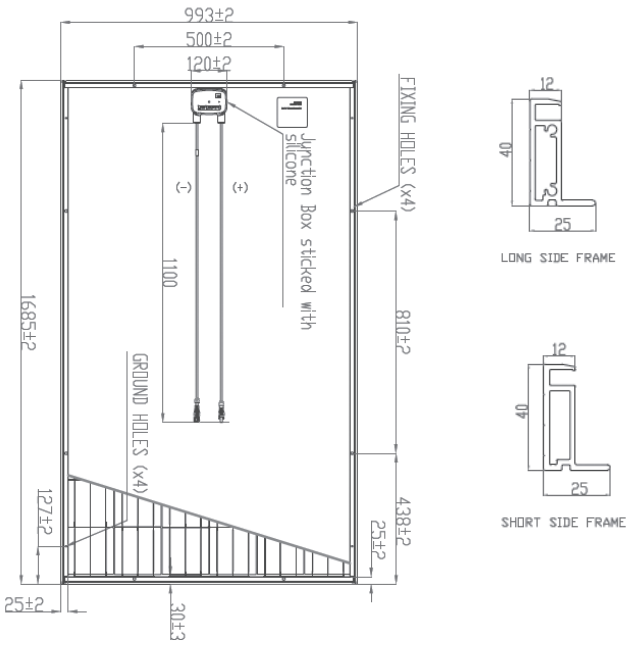
TEMPERATURE COEFFICIENT *

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

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

TEMPERATURE CURVES





WARRANTY

Product warranty	10 years
Linear power output warranty* *See general warranty terms and conditions	25 years

QUALITY CERTIFICATES

afaq ISO 14001 Environnement AFNOR CERTIFICATION
afaq ISO 9001 Qualité AFNOR CERTIFICATION
PV CYCLE
VDE
IEC 61215
IEC 61730
CE