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EnergyPal

Solar Panel Guide Specification Data Sheet

**Swisswatt AG
PW275-300 72c
PW280**

Also available on the web at
EnergyPal.com/swisswatt-ag-solar-panels/pw280



MODULE SERIES PW 275 - 300 - 72C

MODULE TYPES

PW275, PW280, PW285, PW290, PW295, PW300



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*The electrical parameters are typical values from historical production data. Measuring tolerance $\pm 3\%$.
Technical changes in the course of product development, mistakes and errors reserved. Data sheet PW275 - 300 60c V02-13*

PRODUCT FEATURES

POLYWATT Modules with 72 cells offer 6 performance classes designed for roof - or ground mounting. The modules are best suitable for small, medium and large scale solar systems for on- or off-grid operations. Technology, design and construction guarantee the highly efficient and reliable long term output of each and every module. Our automatic production and our latest flash tower technology guarantee a documented performance above industry standard.

- + Industry leading power tolerance 0 - + 3 %
- + Unique frame design for insolation and weather exposure
- + Automatic clean-room production for sustainable returns
- + Frame mounting concept for long- and short side mounting
- + High transmission low iron tempered glass
- + Enhanced strength and impact resistance
- + Advanced EVA component encapsulation, multilayer backsheet technology

WARRANTIES & ASSURANCES

Industry leading guaranty on material and manufacturing: 10 years

Output assurance: up to 12 years: 90 %, up to 25 years: 80%

Please refer to our warranty conditions

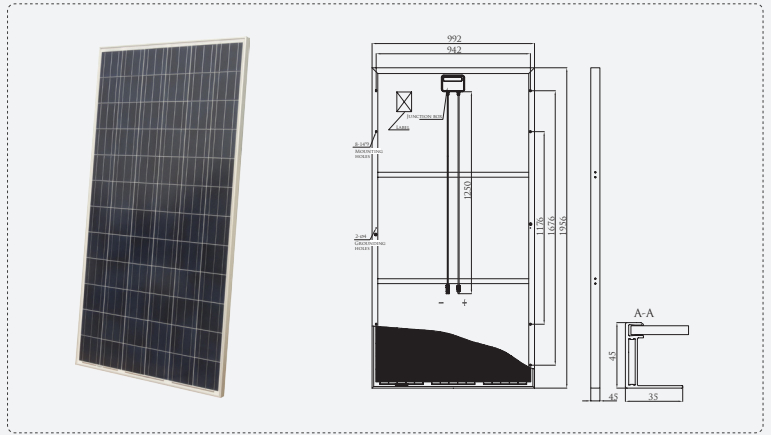
QUALIFICATIONS & CERTIFICATES

Ongoing quality control and performance testing executed by independent testing laboratories grant the maximal benefit of your environmentally friendly energy production.

IEC 61215.2 / IEC 61730 / safety class II 



TECHNICAL DATA MODULE SERIES PW 275 - 300 - 72C



MECHANICAL DATA & MEASURES

Cable type, Diameter, Length	4mm ² , TÜV certified, 900 mm
Connector type	RADOX® SOLAR or Typ IV compatible
Dimension (mm)	1956 x 992 x 45
Weight	26
Drainage Holes in Frame	10
Glass, Type, Thickness	High Transmission, Low Iron, 3,2 mm Tempered Glass
Junction box	IP 65 Typ IV or IP67 RADOX® SOLAR
Bypass-Diodes	3

ABSOLUTE RATINGS

Dielectric Insulation Voltage (V)	3000 V
Operating Temperature (°C)	-40 ~ +85
Storage Temperature (°C)	-40 ~ +85
Mechanical Load	5400 Pa up to 10000 Pa extrem

MODULE SERIES PW 275 - 300 - 72C

Max-System Voltage (VDC)	600V(UL) / 1000V(IEC)
Number, type and arrangement of cells	72, Poly-Crystalline Silicon (6 x 12)
Cell Size (mm)	156 x 156
Max. Series fuse (A)	15
Module variants	Indus, extrem , Shadow Black (275-295W)

ELECTRICAL DATA AT STC / NOCT (47 ± 2°C)

Module type	PW275	PW280	PW285	PW290	PW295	PW300
Rated output P _{MPP} (W)	275 Wp	280 Wp	285 Wp	290 Wp	295 Wp	300 Wp
Max-Power Voltage V _m (V)	36,11 / 31,68 V	36,24 / 31,99 V	36,36 / 32,31 V	36,49 / 32,73 V	36,61 / 33,01 V	36,75 / 33,28 V
Max-Power Current I _{MPP} (A)	7,68 / 6,37 A	7,8 / 6,63 A	7,91 / 6,68 A	8,02 / 6,71 A	8,13 / 6,77 A	8,23 / 6,83 A
Open circuit Voltage V _{OC} (V)	44,07 / 39,95 V	44,14 / 40,1 V	44,28 / 40,23 V	44,57 / 40,49 V	45,0 / 40,88 V	45,4 / 41,25 V
Short circuit current I _{SC} (A)	8,2 / 7,03 A	8,51 / 7,29 A	8,57 / 7,34 A	8,63 / 7,39 A	8,68 / 7,44 A	8,74 / 7,49 A
Cell Efficiency (%)	15,70%	16,00%	16,28%	16,80%	17,10%	17,40%
Module efficiency %	14,20%	14,40%	14,70%	14,90%	15,20%	15,40%

CURRENT-VOLTAGE CURVE (I-V-CURVE)

I-V Curve

The current in relation to the voltage, illustrates the cell performance at different irradiances and temperatures. (AM1.5; 25°C)

THERMAL CHARACTERISTICS

P _m Temperature Coefficient (%/K)	-0,4418
I _{sc} Temperature Coefficient (%/K)	0,0877
V _{oc} Temperature Coefficient (%/K)	-0,3522

