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Solar Panel Guide Specification Data Sheet

Sunset Energietechnik GmbH PX-72 275-305 PX 285-72

# SUNSET PX Series 275 - 305 W.

As a solar specialist with over 35 years of experience, SUNSET Energietechnik GmbH makes a significant contribution to a ground breaking progress in solar technology. A result of our long term experience is the PX series, a photovoltaic module with poly crystalline cells. The PX series is designed for applications with high power requirements. These outstanding modules produce a continuous and reliable yield, even under extreme conditions. The permanently sealed laminate protects the cells from humidity, allows thermal expansion and provides electrical insulation. The modules of the SUNSET PX series are suitable for on-grid and special off-grid applications.



### SUNSET PX series at a glance

- 72 high-performance poly crystalline silicon solar cells made from SUNsilicon® with an efficiency up to 21 %
- Textured cell surface for particularly high electricity yields
- Use of tempered white high resistant solar glass, EVA plastic and an anodised aluminium frame for long-term use
- Certified production facility in Germany
- Also suitable for SUNpower Roof integration system and SUNpremium<sup>®</sup> field mounting system

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## Module series /72 PX 275, 280, 285, 290, 295, 300, 305/72

Technical specifications PX (STC)*			275	280	285	290	295	300	305
Nominal power (±5% production tolerance)	$P_{\text{max}}$	$[W_p]$	275	280	285	290	295	300	305
Rated current	$I_{MP}$	[A]	7.65	7.75	7.85	7.95	8.05	8.15	8.25
Rated voltage	$V_{\mathrm{MP}}$	[V]	35.9	36.1	36.3	36.4	36.6	36.7	37.0
Short circuit current	$I_{SC}$	[A]	8.10	8.20	8.30	8.40	8.50	8.60	8.70
Open circuit voltage	$V_{oc}$	[V]	45.4	45.7	45.9	46.0	46.2	46.3	46.5

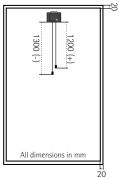
Rated values under Standard Test Conditions (STC: 1000 W/m², 25°C, spectrum AM 1,5)\*

			1973	
			20	

997

Technical specifications PX (NOCT)*		275	280	285	290	295	300	305	
Nominal power	$P_{\scriptscriptstylemax}$	$[W_p]$	199	202	206	210	213	217	221
Rated current	$I_{\mathrm{MP}}$	[A]	6.15	6.23	6.31	6.39	6.47	6.55	6.63
Rated voltage	$V_{MP}$	[V]	32.3	32.5	32.6	32.7	32.9	33.0	33.3
Short circuit current	I <sub>sc</sub>	[A]	6.49	6.57	6.65	6.73	6.81	6.89	6.97
Open circuit voltage	$V_{oc}$	[V]	41.8	42.0	42.2	42.3	42.5	42.6	42.8

Rated values under Nominal Operating Cell Temperature (NOCT: 800 W/m², 52± 2°C, spectrum AM 1,5)\*



#### Characteristics for system design\*

Protection class			II
System voltage	$V_{SYS}$	[V]	1000
Reverse current	I <sub>R</sub>	[A]	20
Relative efficiency ratio (@200W/m² based on STC efficiency)		[%]	97

Temperature range (TC)		[°C]	-40 +85 (± 0)
Temperature coefficient I <sub>sc</sub>	α	[%/K]	+ 0.037
Temperature coefficient V <sub>oc</sub>	β	[%/K]	- 0.325
Temperature coefficient P <sub>MPP</sub>	γ	[%/K]	- 0.456

#### Mechanical characteristics\*

Front covering 4 mm solar glass (Anti Reflective)
Back covering multi layer foil
Type of cell poly crystalline
Dimensions 1973 x 997 x 46 mm (± 3 mm)
Weight 25.7 kg (± 1 kg)

Protection class junction box IP 65

Cable connection Multi Contact MC4 or. compatible

Heavy load test 5400 Pa

Bypass-Diodes (no./voltage) 3 / 1000 V

Frame (material/colour) aluminium / silver (black as option)

Over the years SUNSET Energietechnik GmbH has set high benchmarks with its high quality standards.

Continuous tests guarantee a consistently high level of quality. All modules undergo visual, mechanical, and electrical inspections. Each module is high voltage (HV) tested and examined by electro luminescence (EL). This is recognisable by means of the original SUNSET label, the serial number and the SUNSET guarantee:

- 5 years product warranty
- 10 years linear warranty for a power output of 90% (according to warranty terms)
- 25 years linear warranty for a power output of 80% (according to warranty terms)
- Our warranty terms will be handed out on request or can be found on our homepage (see below)
- EL picture and HV test of each module
- Registered at PV-Cycle, WEEE-Nr.: DE 68887899
- Certified according to IEC 61215 and IEC 61730
- Production facility certified according to ISO 9001, 14001 and 18001



Specifications subject to technical changes.

\* All values/parameters vary up to ±10%, unless stated otherwise

Partner:







SUNSET Energietechnik GmbH