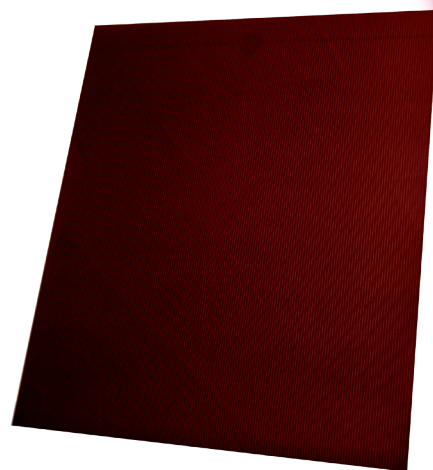


SUNSET

SUNone[®] SA Series 90-110 W_p

Advanced manufacturing technology enables the production of highly efficient and large-area, ultra-thin amorphous layers, we utilized in our new SUNone[®] SA Series. All SUNone[®] Modules are made from SUNsilicon[®] which ensures that systems are optimized for high performance and long term reliability. The frameless laminate SUNone[®] SA is especially designed for large scale, grid-connected solar power plants. The yield per year is at least comparable to that of crystalline silicon, especially in hot environment, due to the low temperature coefficient of the SUNone[®] SA modules. The advanced A-Si thin film design produces high energy across a wide range of climatic conditions with excellent low light response.

The frameless module design with a front side made of high class floating glass makes the SUNone[®] robust and allows thermal expansion. The modules surface has a uniform colour, allowing these environmentally friendly modules also to be installed on buildings in an aesthetically pleasing manner.



Sunset SA series at a glance

- Advanced A-Si thin film technology made from SUNsilicon[®]
- High energy efficiency even in diffused light conditions, poor module ventilation, warm locations or a non-ideal roof orientation
- Homogenous surface for aesthetical system solutions
- Manufactured under German quality standards
- Also suitable for SUNpower Roof[®] integration system and SUNpremium[®] field mounting system
- Use of non-toxic materials in all modules of the SUNSET SUNone[®] series

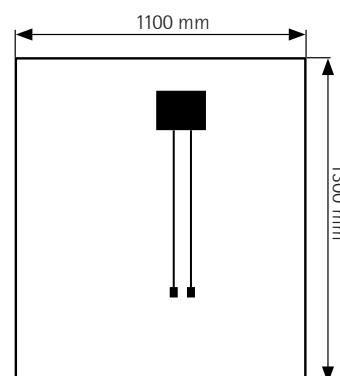
The world's future energy[®] by

Module series SUNone® SA

Technical specifications SUNone®

			SA 90	SA 95	SA 100	SA 105	SA 110
Nominal power ($\pm 5\%$)	P_{max}	[W _p]	90	95	100	105	110
Rated current	I_{MPP}	[A]	0.91	0.94	1.00	1.03	1.06
Rated voltage	V_{MPP}	[V]	102	103	103	103	104
Short circuit current	I_{SC}	[A]	1.15	1.20	1.24	1.27	1.30
Open circuit voltage	V_{OC}	[V]	137	137	138	138	139

Peak power under test conditions (STC: 1000 W/m², 25°C, spectrum AM 1,5)



Technical specifications SUNone®

			SA 90	SA 95	SA 100	SA 105	SA 110
Nominal power	P_{max}	[W _p]	67	72	78	80	83
Rated current	I_{MPP}	[A]	0.73	0.75	0.80	0.82	0.85
Rated voltage	V_{MPP}	[V]	95.0	96.0	97.0	97.0	98
Short circuit current	I_{SC}	[A]	0.94	0.98	1.03	1.05	1.08
Open circuit voltage	V_{OC}	[V]	127	127	129	129	130

Rated value with nominal operating cell temperature (NOCT: 800 W/m², 45 \pm 2°C, spectrum AM 1,5)

Properties for system design

Protection class			II	Temperature coefficient I_{SC}	α	[%/K]	+ 0.04
System voltage	V_{SYS}	[V]	1000	Temperature coefficient V_{OC}	β	[%/K]	- 0.34
Reverse current	I_R	[A]	2.0	Temperature coefficient P_{max}	γ	[%/K]	- 0.22

Mechanical properties

Front covering	3.2 mm Float-Glas	Protection class	junction box IP 65
Back covering	3.2 mm ESG	Cable connection	Multi Contact MC3 or compatible
Type of cell	a-Si thin film	Weight	24 kg
Dimensions	1300 x 1100 x 7 (21.2 with j-box) mm	HL-test	2400 Pa

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

Continuous tests guarantee a consistently high level of quality. Every module undergoes visual, mechanical, and electrical inspections. This is recognisable by means of the original SUNSET label, the serial number, and the SUNSET guarantee:

- 5 years product warranty
- 10 years linear performance warranty for a power output of 90%
- 25 years linear performance warranty for a power output of 80%
- Detailed warranty conditions and additional information can be found in our warranty terms
- Certified according to IEC 61646 and IEC 61730 KI. A



- Qualified, IEC 61646
- Safety tested, IEC 61730
- Periodic inspection

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Partner:

Specifications subject to technical changes.