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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Sigma Energy Systems GmbH**

**MSD-55B.AX**

**MSD-55B.AX**

Also available on the web at  
[EnergyPal.com/sigma-energy-systems-gmbh-solar-panels/msd-55b-ax](http://EnergyPal.com/sigma-energy-systems-gmbh-solar-panels/msd-55b-ax)

# Solar roof tile MSD-55B.AX



**FINALLY** - roof-integrated photovoltaic  
**SIMPLE** - to lay  
**SAFE** - no connections in the roof interior  
**BEAUTIFUL** - uniform appearance

The solar roof panel MSD-55B.AX developed by SIGMA Energy Systems GmbH as roofing to produce electricity and is manufactured in Germany.

The roof panel is made of a proven polymer-mineral. It is characterized by a resistance to environmental influences, is suitable and recyclable for high snow loads.

## Weitere Vorteile der Solardachplatte

- 100% nominal value by plus (0 ~ 3%)
- Homogeneous, almost closed dark glass surface
- Innovative ventilation system
- Variable length deck and deck width
- Without gluing and movable
- Installation by roofers, connection by electricians
- Connection bricks Wienerberger Koramic "Actua 10" Version Germany or variable adapter plate
- Reinsured in Germany Production



3 Solar roof tiles match 1 m<sup>2</sup>, weight ca. 27 kg. 18 solar roof tiles produce a PV power of ca. 1kW.

**No penetration of the roof membrane and insulation**  
e.g. through the screw through the roof hooks

## Certification and testing

PV-Modul SOLUXTEC POWERSLATE FL12

IEC 61215, EN 61730

Solar roof tile:

Allgemeines bauaufsichtliches Prüfzeugnis

Otto-Graf Institut

MPA Universität Stuttgart

Further tests by the

Forschungs- und Prüfinstitut

Steine und Erden Karlsruhe e.V.



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# Solar roof tile MSD-55B.AX



Roof tile	MADE IN GERMANY	
Gauge cm (approx.)	34.0 - 38.5 cm	
Recommended Coverage length	35.0 cm	
Medium gauge cm (approx.)	36.3	
Coverage hold down (approx.)	99.0	
Coverage drown (approx.)	100.2	
Weight kg/piece incl module	9kg/Piece	
Weight kg/m <sup>2</sup> (approx.)	27 kg	(1)
Roof pitch/Inclination	25°	(2)
Minimum roof pitch	15°	

Roof tile module	MADE IN GERMANY	
Module size mm	980 x 390 x 3.2	
Number of cells per module	12 pieces monocrystalline, 6", (156 x156mm)	
Weight	4 kg	
Load-bearing capacity	5400 Pa	
Connectors	4mm <sup>2</sup> cable, interconnected MC3 connectors	
Innovative junction box	TÜV-certified, IP67	
Efficiency variable, ca. in deck length 350mm and deck width 992 mm	16,10 %	

## Electrical data of roof tile module under standard test conditions (STC)

(4)

Rated power	55.0 Wp
Power tolerance	0/+3% auf Pmpp, Pflash > Pmpp
MPP voltage at STC (Umpp)	6.50 V
MPP power at STC (Imp)	8.50 A
Short-circuit current at STC (Isc)	9.02 A
Open circuit voltage at STC (Voc)	8.20 V
Maximum system voltage	1000 Vdc
Temperature range	- 40°C till + 80°C
Power / m <sup>2</sup> applied surface	ca. 160 Wp/m <sup>2</sup> , at deck length (laths distance) 35 cm
Temperature coefficient	Current (Isc) + 0.042 %/°C Voltage (Voc) - 0.30 %/°C Power (Pmpp) - 0.39 %/°C
Limited power warranty <sup>(3)</sup>	Linear, 80% after 25 Jahren
Limited product warranty <sup>(3)</sup>	10 years

- (1) Local conditions are taken into account
- (2) Additional measures required notice be observed if higher requirements
- (3) in compliance with our warranty terms and conditions
- (4) 1000W/m<sup>2</sup> Irradiance, 25°C cell temperature, AM 1.5 spectrum (EN 60904-3)

This data sheet complies with the requirements of EN 50380th Flasher AAA, tolerance of +/- 3% power measurement

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