

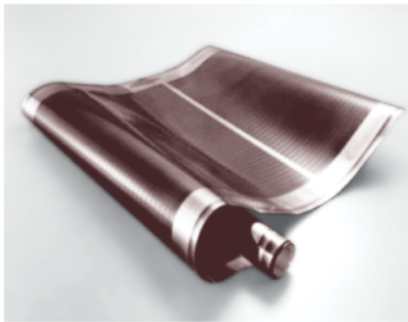


SUNROOF® ECO-ASR 92M

INNOVATION

PRODUCT DESCRIPTION

The flexible and light-weight thin-layer modules ECO-ASR 92M from ECO-Europe are creating new and safe applications for industrial roofs made of foil or trapezoidal sheet metal. The special foil material (ETFE = Teflon) is UV-stable and allows for optimal light transmission. This guarantees superior quality and long product life while providing excellent output with high efficiency.



- Flexible and light-weight
- Unbreakable
- Best results with weak light
- 20 year performance guarantee

LESS WEIGHT

The flexible foil modules from Sunroof® are approximately one third of the weight of photovoltaic modules made of glass, (5 kg/m² M-Version). It is therefore possible to cover a larger surface area with the same weight.

BETTER PERFORMANCE

The Sunroof® foil modules use a „tandem structure“ (a-Si + a-SiGe) in order to absorb energy from various wave lengths of the sun's rays. In this manner, efficiency is improved and the overall capacity of the module increased. The annual yield is thus approximately 10% higher than with crystalline solar panels. A further advantage is the low temperature coefficient of a-Si solar cells, whereby performance is not compromised at high temperatures and therefore more electricity is produced.

HIGH SYSTEM SAFETY

The modules are component units interlinked with each other in a serial connection, building a unit of 92W. Because of this special serial construction and the high output voltage, the modules can be directly connected to the power inverters, whereby the individual modules are connected parallel to each other. The results of this effective assemblage are high system safety and long lasting efficiency of the modules and components.

Status as at
January 2009, ENG
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GmbH & Co. KG

Alpha Technologies GmbH
Hansastraße 8, 91126 Schwabach
Deutschland

Tel +49 (0) 9122. 79 889-0
Fax +49 (0) 9122. 79 889-21
sales@alphatechnologies.de
www.alpha.com



SUNROOF[®] ECO-ASR 92M

INNOVATION

TECHNICAL DATA

DIMENSIONS AND WEIGHT

External dimensions	464 x 3404 mm
Module thickness	approx. 2 mm
Weight	8 kg

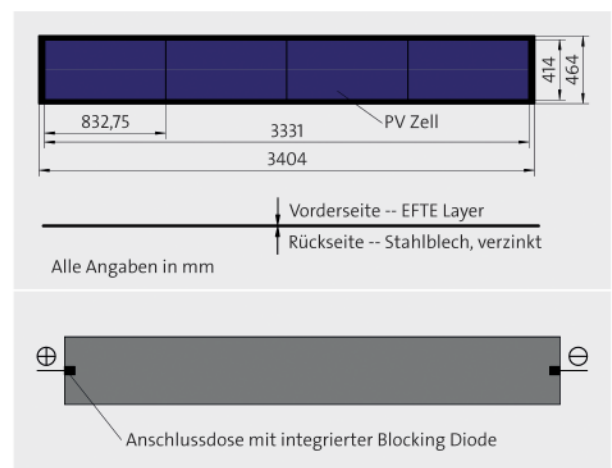
FEATURES

Solar cell type	a-Si + a-SiGe
Connection	Huber & Suhner
Laminate material	ETFE
Plating material	Sheet steel, tinned
Temperature range	-20° C to +90° C

ELECTRICAL MODULE DATA*

Effective power output P _{max}	92 W
Voltage U _{mp}	319 V
Power current I _{mp}	0,288 A
Open-circuit voltage U _{oc}	429 V
Short-circuit current I _{sc}	0,39 A
System voltage	1.000 V
TK I _{sc} (%/K)	0.08
TK U _{oc} (%/K)	-0.35

* Electrical data under STC = standard test conditions



QUALIFICATIONS

Sunroof ECO-ASR-92/M modules have been tested by the German Electrical Engineers Association, in accordance with IEC 61730, and are CE and SK II approved.

GUARANTEE

Product guarantee: 2 years; Performance guarantee: 10 years 90%, 20 years 80%

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