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base de donnée "Photovoltaïque et Bâtiment"

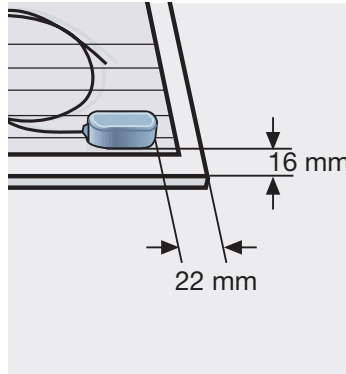
ASI THRU® thin-film solar module, semitransparent



ASITHRU-30-SG semitransparent 36 V_{DC}

Module type key:

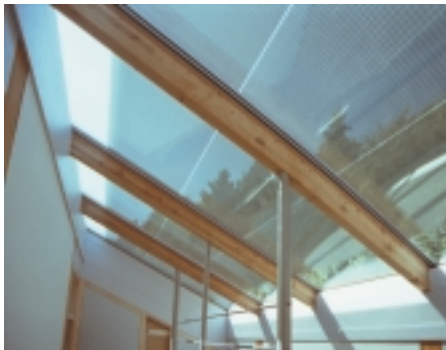
SG = laminated safety glass



Lateral mounting clearance from the connection button



MC²-plug connectors



New solar architecture: brilliant, colorless transparency

ASITHRU-30-SG solar modules are designed on the basis of silicon thin-film technology as ASI® tandem cells on a glass substrate.

The frameless ASI THRU® solar module consists of a glass front pane with ASI® tandem cells, PVB foil and a heat strengthened backing glass.

ASI THRU® solar modules demonstrably produce maximum energy yields.

ASI THRU® solar modules combine the features of solar electricity generation, shadowing glare reduction, transparency and sound glass construction in a single element.

Frameless ASITHRU-30-SG modules are ideally suited for installation in standard facades and roof profile systems.

The structural characteristics of the glass module meet nearly all of the installation requirements specified in DIN 1055. In order to ensure compliance with guide-lines for overhead glass construction, PVB is used as a laminating foil. A general approval for use in overhead glass construction has been issued by the Deutsches Institut für Bautechnik (DIBt-the German Institute of Architectural Engineering).

The modules are factory equipped with plug connectors and can be connected quickly and safely in series. The specific characteristics of ASI THRU® solar modules eliminate the need for bypass diodes.

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Technical Data

Electrical data



Initial nominal power		33 Wp
Nominal power*	P_{nom}	27 Wp
Voltage at maximum-power point*	U_{mpp}	36 V
Current at maximum-power point*	I_{mpp}	0.75 A
Short-circuit current*	I_{sc}	1.02 A
Open-circuit voltage*	U_{oc}	49 V

Dimensions and weights



Dimensions	1000 x 600 mm ²
Module glass thickness / module thickness with connection button	10 mm / 22 mm
Four-sided non-photoactive margin for clamp mounting	16 mm
Weight	14 kg

Characteristic data



Solar cell type	thin-film amorphous silicon in ASI® tandem cells
Appearance	uniformly dark-brown
Semitransparency	about 10 % transmission, colour-neutral
Electrical connection	double insulated cable (Huber & Suhner), 2.5 mm ² cross-section, 100 cm length per polarity, MC®-plug connectors

Temperature coefficients



Referred to nominal power	$T_K (P_n)$	- 0.2 % / K
Referred to open-circuit voltage	$T_K (U_{oc})$	- 0.33 % / K
Referred to short-circuit current	$T_K (I_{sc})$	+ 0.08 % / K

The temperature dependence of the power output is particularly low for ASI THRU®-solar modules.

Limits



Maximum system voltage	1000 V _{DC}
Temperature arrange	- 40 °C... + 85 °C
Maximum surface load	<ul style="list-style-type: none"> two-sided clamping along length: 3200 N/m² four-sided clamping: 4600 N/m²

Specifications subject to change without notice.

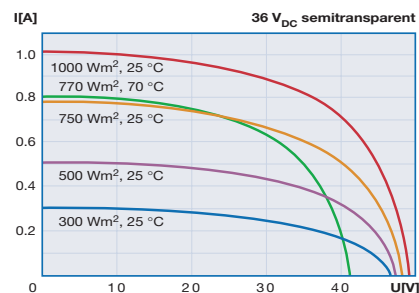
Qualifications



Qualification	IEC 61646 certified
	CE conformity
	Safety Class II

The quoted figures are subject to a production tolerance of ± 10%.

* These data represent stabilized electrical module performance at standard test conditions (STC – 1000 W/m², spectrum AM 1.5, 25 °C cell temperature). The nominal power may be initially approx. 18% higher than the quoted stabilized power data.



Current/voltage characteristics at different solar irradiation levels and module temperatures.

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MANAGEMENT SYSTEM
Certified by DQS according to
DIN EN ISO 9001:2000 · Reg.-No. 2184
DIN EN ISO 14001:1996 · Reg.-No. 2184

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