# **SKALA**FOR SOLAR FACADES



# **SKALA**

- is a glass-glass module without disturbing frame
- has an opaque black color as standard version
- does not need mechanical clamping on the front glass due to its backrail system fitting to all common facade substructures
- is most suitable for rainscreen ventilated facades
- can be combined with a variety of other facade materials
- can be installed in portrait and landscape orientation (depends on regional building regulations)
- has the general technical building approval (abZ) from Deutsches Institut für Bautechnik (DIBt)
- is developed and produced in Germany approved according to all relevant certifications
- is available in different colors and lengths:







## MECHANICAL SPECIFICATION

SKALA	Value
Dimensions	1587 x 664 mm²
Thickness	38 mm
Weight	17 kg
Cell type	CIGS
Frame	none
Front cover	3.2 mm single-pane safety glass
Design load (safety factor 1,5)*	upward 1600 Pa   downward 3400 Pa
Junction box protection class	IP67
Dimensions of junction box	60 × 60 × 11.5 mm <sup>3</sup>
Cable lengths ( $\ominus$ plug   $\oplus$ socket)	200   320 mm
Cable cross section	2.5 mm <sup>2</sup> minimal bending radius: 6x outer diameter
Connector type	H4
Fire rating	Class C (ANSI/UL 790:2004)
Classification of fire behavior (optional)	B - s2, d0 (DIN EN 13501-1:2019-05)

<sup>\*</sup> according to IEC 61730









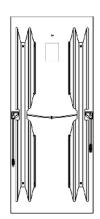




- Safety qualification: IEC 61730:2016
- Salt mist corrosion: IEC 61701
- German general building approval (abZ): Z-70.1-224



664 mm



Rear side of module with backrail system for hookin mounting

# **ELECTRICAL SPECIFICATION**

Data measured under standard test conditions (STC) for full size PV modules:

SKALA color code	3002 4001	3001 4002 7003	B001 G001
Nominal power P <sub>nom</sub> *	120 W	130 W	140 W
Sorting		-0/+10 W	
Module efficiency η	11.4 %	12.3 %	13.3 %
Aperture efficiency η	12.6 %	13.7 %	14.8 %
Open circuit voltage V <sub>oc</sub> *	89.2 V	89.3 V	89.4 V
Short circuit current I <sub>sc</sub> *	2.00 A	2.14 A	2.28 A
Voltage at mpp $V_{mpp}^*$	69.4 V	69.4 V	69.4 V
Current at mpp I <sub>mpp</sub> *	1.73 A	1.87 A	2.02 A
Max. over-current protection $\boldsymbol{I}_{\!\scriptscriptstyle R}$		4.0 A	
Max. system voltage V <sub>sys</sub>		1000 V	

STC values are valid after pretreatment with light according to IEC 61215:1-4.

STC: Irradiance 1000 W/m², module temperature 25 °C, spectral light distribution according to atmospheric mass (AM) 1.5.

### Temperature coefficients:

SKALA	Value
Temperature coefficient $P_{nom}$	-0.39 %/°C
Temperature coefficient V <sub>oc</sub>	-230 mV/°C
Temperature coefficient I <sub>sc</sub>	0 mA/°C

Data measured at low light intensity:

The relative reduction of the module efficiency at a light intensity of 200 W/m<sup>2</sup> is 6 %, compared to 1000 W/m<sup>2</sup> at 25° C module temperature and spectrum AM 1.5. At 500 W/m², the relative increase of module efficiency is +1 %.

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### Standard packaging:

Packaging information	
Size including pallet (LxWxH)	1650mm x 800mm x 1000mm
Approx. gross weight (full box)	375 kg
Modules per box	20
Maximum no. of stacked boxes	1 on 1 (batch of 2)
Max. truck loading	48 (3x8+3x8)
Max. 40ft container load (24t)	28 (1 x 14 + 1 x 14)

Variation of packaging size on individual request



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<sup>\*</sup> Tolerance of manufacturing: -5 %/+10 %.