

# 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:



# SKALA

Valid for product variant 4.6

## ELECTRICAL SPECIFICATION

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

	SKALA 120	SKALA 125	SKALA 130	SKALA 135	SKALA 140	SKALA 145
Nominal power $P_{nom}^*$	120 W	125 W	130 W	135 W	140 W	145 W
Sorting	-0/+5 W					
Module efficiency $\eta$	11.4 %	11.9 %	12.3 %	12.8 %	13.3 %	13.8 %
Aperture efficiency $\eta$	12.6 %	13.2 %	13.7 %	14.2 %	14.8 %	15.3 %
Open circuit voltage $V_{OC}^*$	89.2 V	89.2 V	89.3 V	89.3 V	89.4 V	89.4 V
Short circuit current $I_{SC}^*$	2.00 A	2.07 A	2.14 A	2.21 A	2.28 A	2.35 A
Voltage at mpp $V_{mpp}^*$	69.4 V	69.4 V	69.4 V	69.4 V	69.4 V	69.4 V
Current at mpp $I_{mpp}^*$	1.73 A	1.80 A	1.87 A	1.95 A	2.02 A	2.09 A
Max. over-current protection $I_R$	4 A					
Max. system voltage $V_{sys}$	1000 V					

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

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, spectral light distribution according to atmospheric mass (AM) 1.5.

\* Tolerance of manufacturing: ±5 %

Data measured at nominal module operating temperature (NMOT)\*\* and AM 1.5:

	SKALA 120	SKALA 125	SKALA 130	SKALA 135	SKALA 140	SKALA 145
NMOT	40 °C					
Nominal power $P_{nom}$	90 W	94 W	97 W	101 W	105 W	109 W
Open circuit voltage $V_{OC}$	85 V	85 V	85 V	85 V	86 V	86 V
Short circuit current $I_{SC}$	1.60 A	1.66 A	1.71 A	1.77 A	1.82 A	1.88 A
Voltage at mpp $V_{mpp}$	66 V	66 V	66 V	66 V	66 V	66 V

\*\* NMOT: Module operating temperature at light intensity of 800W/m<sup>2</sup> on the module area, air temperature 20°C, wind speed 1m/s and operating at mpp.

Temperature coefficients:

SKALA	Value
Temperature coefficient $P_{nom}$	-0.39 %/°C
Temperature coefficient $V_{OC}$	-230 mV/°C
Temperature coefficient $I_{SC}$	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/m<sup>2</sup>, the relative increase of module efficiency is +1 %.

## PERFORMANCE WARRANTY

Performance after 10 years: 90% of minimum nominal power  
Performance after 25 years: 80% of minimum nominal power

For detailed information see warranty terms and conditions.

SKALA color code	Available classes
B001	SKALA 140, SKALA 145
G001	SKALA 140, SKALA 145
3001	SKALA 130, SKALA 135
3002	SKALA 120, SKALA 125
4001	SKALA 120, SKALA 125
4002	SKALA 130, SKALA 135
7003	SKALA 130, SKALA 135



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Valid for product variant 4.6

## MECHANICAL SPECIFICATION

SKALA	Value
Dimensions	1587 x 664 mm <sup>2</sup>
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 x 60 x 11.5 mm <sup>3</sup>
Cable lengths (⊖ plug   ⊕ socket)	200   320 mm
Cable cross section	2.5 mm <sup>2</sup> minimal bending radius: 6x outer diameter
Connector type	H4 (Amphenol)
Fire class rating	Class C (ANSI/UL 790:2004)
Classification of fire behavior (optional)	B - s2, d0 (DIN EN 13501-1:2019-05)

\* according to IEC 61730



- Design qualification and type approval: IEC 61215:2016
- Safety qualification: IEC 61730:2016
- German general building approval (abZ): Z-70.1-224

**MADE IN GERMANY**

Standard packaging:

Packaging information	Value
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 (1x14+1x14)

Variation of packaging size on individual request

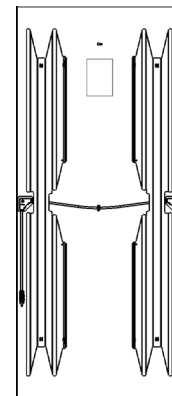
## PRODUCT WARRANTY

PV modules are free from defects in materials and workmanship under normal application, installation, use and service conditions for a period of 10 years. For detailed information see warranty terms and conditions.

As a result of ongoing research and product improvements, the specifications in this product data sheet are subject to changes without prior publication. This data sheet is not allowed to be used for deriving any rights, and AVANCIS does not accept any liability with regard to and resulting from the use of information contained herein. Installation equipment is not supplied with the product.



664 mm



Rear side of module with backrail system for hook-in mounting



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