

SKALA

FOR SOLAR FAÇADES



SKALA

- is a glass-glass module without disturbing frame
- has an opaque black colour as standard version
- does not need mechanical clamping on the front glass due to its backrail system fitting to all common façade substructures
- is most suitable for curtain wall / ventilated façades
- can be combined with a variety of other façade materials
- can be installed in portrait and landscape format (depends on regional building regulations)
- has the general building approval (abZ) from Deutsches Institut für Bautechnik (DIBt), certified as a non-regulated building component
- is developed and produced in Germany – approved according to all relevant certifications and guarantees
- is available in different colors and sizes:



Black



Anthracite



Green



Blue



Grey



Bronze

SKALA

MECHANICAL SPECIFICATIONS

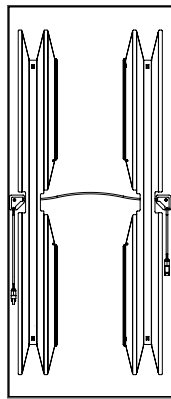
SKALA BLACK	Value
External dimensions	1,587 x 664 mm ²
Thickness	38 mm
Weight	17 kg
Cell type	CIGS
Frame	none
Front cover	3.2 mm tempered glass
Design load (safety factor 1.5)	upward 1600 Pa downward 3400 Pa
Junction box protection class	IP67
Dimensions of the junction boxes	60 x 60 x 11.5 mm ³
Cable lengths (⊖ plug ⊕ socket)	200 320 mm
Cable cross section	2.5 mm ²
Connector type	Amphenol Helios H4
Fire rating	Class C (ANSI/UL 790:2004)



- This datasheet is valid for product variant 4.4.
- Design qualification and type approval: IEC 61215:2016
- Safety qualification: IEC 61730:2016



664 mm



Backside of the module with backrail system

1587 mm

ELECTRICAL SPECIFICATIONS

Data measured under standard test conditions (STC):

SKALA BLACK	140
Nominal power P_{nom}^*	140 W
Sorting	-0/+10 W
Module efficiency η	13.3 %
Aperture efficiency η	14.7 %
Open-circuit voltage V_{oc}^*	79.5 V
Short-circuit current I_{sc}^*	2.51 A
Voltage at mpp V_{mpp}^*	61.9 V
Current at mpp I_{mpp}^*	2.26 A
Max. over-current protection I_R	4.0 A
Max. system voltage V_{sys}	1000 V

Insolation intensity 1000 W/m² in the plane of the module, module temperature 25 °C and a spectral distribution of the sunlight according to the atmospheric mass (AM) 1.5.

* Manufacturing tolerance: -5 %/+10 %

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

SKALA BLACK	140
NMOT	40 °C
Nominal power P_{nom}	105 W
Open-circuit voltage V_{oc}	76 V
Short-circuit current I_{sc}	2.01 A
Voltage at mpp V_{mpp}	58 V

** NMOT: Module operating temperature at 800 W/m² insolation intensity in the plane of the module, air temperature 20 °C, wind speed 1 m/s and open-circuit condition.

Temperature coefficients:

SKALA BLACK	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 in the module efficiency at a light intensity of 200 W/m² relative to 1000 W/m² at 25 °C module temperature and spectrum AM 1.5 is 6 %. At 500 W/m² the relative improvement in module efficiency is +1 %.

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