# SKALA Solid as diverse as your ideas

# **KEY FEATURES**

## **AESTHETICS**

- Frameless thin-film solar module
- Without mechanical clamping on the front glass
- Rear mounting system compatible with all common façade substructures
- Particularly suitable for rear-ventilated curtain wall façades
- · Matt, very homogeneous surface in terms of color

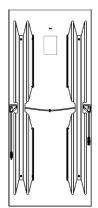
# **VARIATION**

- Can be installed in portrait and landscape format
- · Different colors and lengths
- · Can be combined with a variety of other façade materials

# RESISTANCE

- Glass-glass construction ensures high robustness against various weather influences
- · Available in standard dimensions:





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

# **CERTIFICATION**

- Design qualification and type approval according to IEC 61215:2016
- Safety qualification according to IEC 61730:2016
- Salt mist corrosion according to IEC 61701:2011
- German general building approval (abZ): Z-70.1-224
- WEEE number: DE33274866



**MADE IN GERMANY** 



# **MECHANICAL SPECIFICATION**

Valid for product variant 4.9

Characteristic	Value
Dimensions	1,587 mm × 664 mm
Thickness	39 mm
Weight	20 kg
Cell type	CIGS
Frame	without
Front cover	4.0 mm single-pane safety glass
Design load <sup>1)</sup> - Safety factor 1.5	upward 3,300 Pa   downward 3,500 Pa
Junction box protection class	IP67
Dimensions of junction box	60 mm × 60 mm × 11.5 mm
Cable lengths (⊖ plug   ⊕ socket)	200 mm   320 mm
Cable cross section	2.5 mm²; minimal bending radius: 6 × outer diameter
Connector type	H4 (Amphenol)
Fire rating (roof)	Class C 2)
Classification of fire behavior (building envelope)	B1 <sup>3)</sup> B-s2, d0 <sup>4)</sup>

 $<sup>^{1)}</sup>$  IEC 61730, for standard SKALA mounting

<sup>4)</sup> DIN EN 13501-1:2019-05



<sup>2)</sup> ANSI/UL 790:2004

<sup>3)</sup> DIN 4102-1:1998-05, depending on product characteristics

## **ELECTRICAL SPECIFICATION**

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

SKALA xxx <sup>I)</sup> a2bb <sup>II)</sup>		
Nominal power P <sub>nom</sub> III)	105 W	110 W
Sorting	-0/-	-5 W
Module efficiency η	10.0%	10.4%
Aperture efficiency η	11.3%	11.6%
Open circuit voltage V <sub>oc</sub> III)	90.0 V	90.0 V
Short circuit current I <sub>SC</sub> III)	1.72 A	1.74 A
Voltage at mpp V <sub>mpp</sub> III)	70.5 V	71.5 V
Current at mpp I <sub>mpp</sub> III)	1.49 A	1.54 A
Max. over-current protection $I_R$	4.0	DΑ
Max. system voltage V <sub>sys</sub>	1,00	00 V

STC values are valid after stabilization with light according to IEC 61215.

STC: Irradiance 1,000 W/m², module temperature 25 °C, spectral light distribution according to atmospheric mass (AM) 1.5.  $^{11}$  "xxx" corresponds to power class in Wp (in steps of 5 W)

SKALA color code (a2bb)	Available classes (xxx)
1202	105 W, 110 W

Temperature coefficient	Value
Temperature coefficient P <sub>nom</sub>	-0.35%/°C
Temperature coefficient $V_{\rm oc}$	-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  $200\,W/m^2$  is 6%, compared to  $1{,}000\,W/m^2$  at  $25^\circ$  C module temperature and spectrum AM 1.5. At  $500\,W/m^2$ , the relative increase of module efficiency is +1%.

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# **PACKAGING INFORMATION**

For packaging of SKALA-modules of standard size*	
Size including pallet (L × W × H)	1,650 mm × 800 mm × 1,000 mm
Approx. gross weight (full box)	435 kg
Modules per box	20
Maximum no. of stacked boxes	1 on 1 (batch of 2)
Max. truck loading	48 (3 × 8 + 3 × 8)
Max. 40 ft container load (24 t)	28 (1 × 14 + 1 × 14)

<sup>\*</sup>variation of packaging size for SKALA Short and on individual request





 $<sup>^{\</sup>mbox{\tiny IIII}}\mbox{Tolerance}$  of manufacturing:  $\pm 5\,\%$