SKALA Industry stylish in industrial construction

KEY FEATURES

EFFICIENCY

- Photovoltaic module for large-scale industrial application: Design meets efficiency
- Simple mounting via proven in-joint mounting

SIMPLICITY

- Frameless thin-film solar module
- Without mechanical clamping on the front glass
- Elegant black module, unique in design
- · Available in standard dimensions:



Rear side of module

with backrail system for in-joint mounting

CERTIFICATION

Design qualification and type approval: IEC 61215:2016

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

















· Glass-glass construction ensures high robustness against various weather influences





MECHANICAL SPECIFICATION

Characteristic	Value
Dimensions	1,587 mm × 664 mm
Thickness	38 mm
Weight	17 kg
Cell type	CIGS
Frame	without
Front cover	3.2 mm ESG
Design load ¹⁾ - 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 (\ominus plug \oplus 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 ³⁾ B - s2, d0 ⁴⁾

 $^{^{\}rm 1)}$ IEC 61730, for standard SKALA mounting

ELECTRICAL SPECIFICATION

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

SKALA xxx ¹⁾ B901		
Nominal power P _{nom} II)	150 W	155 W
Sorting	-0/+5 W	
Module efficiency η	14.2%	14.7%
Aperture efficiency η	15.8%	16.2%
Open circuit voltage V _{oc} III)	89.8 V	90.1 V
Short circuit current I _{SC} II)	2.44 A	2.45 A
Voltage at mpp V _{mpp} II)	70.4 V	71.3 V
Current at mpp I _{mpp} II)	2.13 A	2.17 A
${\rm Max.\ over-current\ protection\ I_{_{\rm R}}}$	4.0 A	
Max. system voltage V _{sys}	1,000 V	

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

 $^{^{\}mbox{\tiny II})}$ Tolerance of manufacturing: $\pm\,5\%$

Temperature coefficient	Value
Temperature coefficient P _{nom}	-0.35%/°C
Temperature coefficient $V_{\rm oc}$	-230 mV/°C
Temperature coefficient I _{sc}	0 mA/°C

PACKAGING INFORMATION Data measured at low light intensity:

Packaging information (Standard packaging)		
Size including pallet (L × W × H)	1,650 mm × 800 mm × 1,000 mm	
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 (3 × 8 + 3 × 8)	
Max. 40 ft container load (24 t)	28 (1 × 14 + 1 × 14)	

The relative reduction of the module efficiency at a light intensity of $200 \, \text{W/m}^2 \, \text{is} \, 6\%$, compared to 1,000 W/m² 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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²⁾ ANSI/UL 790:2004

³⁾ DIN 4102-1:1998-05, depending on product characteristics

⁴⁾ DIN EN 13501-1:2019-05

STC: Irradiance 1,000 W/m², module temperature 25 °C, spectral light distribution according to atmospheric mass (AM) 1.5.

 $^{^{\}text{I})}$ "xxx" corresponds to power class in Wp (in steps of 5 W)