



SOLAHART SILHOUETTE SOLAR PANELS

SOLAHART310 - SOLAHART315 - SOLAHART320 - SOLAHART325

The new high-performance Solahart Silhouette panel, with stylish black appearance, is the ideal solution for Australian homes thanks to its innovative and premium cell technology.

The state-of-the-art PERC monocrystalline half-cell and six-busbar design was developed to achieve excellent performance under real conditions, even with low radiation intensity and on clear, hot summer days.

The black anodised aluminium frame has been built to withstand extreme weather conditions, including high winds, and reliable silicone connections ensure excellent stability and durability.

Other features include optimally positioned drainage holes to protect against frost damage, premium MC4 connecting plugs to secure a reliable connection, and a sealed junction box that offers corrosion protection and water resistance.

State-of-the-art half-cell technology:

For excellent performance under real conditions.

Innovative all-weather technology:

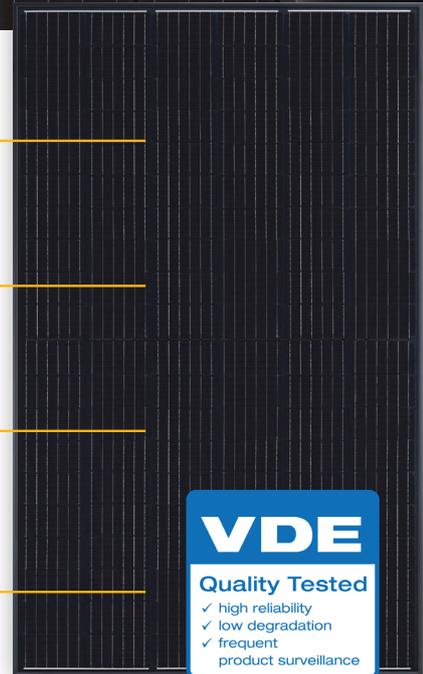
Optimal yields, whatever the weather.

Low electricity generation costs:

High energy produced per panel means you pay less for electricity generated.

Stylish, efficient and durable:

Designed in Germany, manufactured in Korea and only available through Solahart.



PREMIUM TECHNOLOGY WITH A TOUCH OF CLASS AND A STRIKING BLACK FINISH

HOW YOU BENEFIT



HIGH SOLAR YIELD

Innovative all-weather technology with excellent low-light and temperature behaviour results in more energy production per square metre.



HIGH PERFORMANCE

Long-term yield security with anti-LID technology, anti-PID Technology[^], Hot-Spot Protect and Solahart Quality Auditing.



EXTREME WEATHER RATING

High-tech aluminium alloy frame, certified for high wind loads and snow loads.



TRUSTED WARRANTIES

Enjoy a 12-year Solahart product warranty and a superior 25-year manufacturer's performance guarantee, for peace of mind.*

Technical Data

MODEL	SOLAHART310	SOLAHART315	SOLAHART320	SOLAHART325
Electrical Data				
Minimum performance at standard test conditions, STC ⁽¹⁾ (Power Tolerance +5 W / -0 W)				
Power at MPP ⁽²⁾ - P _{MPP}	310 Wp	315 Wp	320 Wp	325 Wp
Short circuit current ⁽²⁾ - I _{sc}	9.83 A	9.89 A	9.94 A	10.00 A
Open circuit voltage ⁽²⁾ - V _{oc}	40.02 V	40.29 V	40.56 V	40.83 V
Current at MPP [#] - I _{MPP}	9.36 A	9.41 A	9.47 A	9.52 A
Voltage at MPP [#] - V _{MPP}	33.12 V	33.46 V	33.80 V	34.14 V
Efficiency ⁽¹⁾ - η	≥18.4 %	≥18.7 %	≥19.0 %	≥19.3 %
Minimum performance at normal operating conditions, NMOT ⁽³⁾				
Power at MPP - P _{MPP}	231.6 Wp	235.3 Wp	239.1 Wp	243.3 Wp
Short circuit current [#] - I _{sc}	7.92 A	7.97 A	8.01 A	8.05 A
Open circuit voltage [#] - V _{oc}	37.66 V	37.91 V	38.17 V	38.50 V
Current at MPP [#] - I _{MPP}	7.37 A	7.41 A	7.45 A	7.49 A
Voltage at MPP [#] - V _{MPP}	31.44 V	31.76 V	32.08 V	32.46 V

⁽¹⁾1000 W/m², 25±2°C, AM 1.5 G. ⁽²⁾Measurement tolerances P_{MPP} ±3%; I_{sc}, V_{oc} ±5% at STC. ⁽³⁾800 W/m², NMOT spectrum AM 1.5 G. # Typical values, actual values may differ.

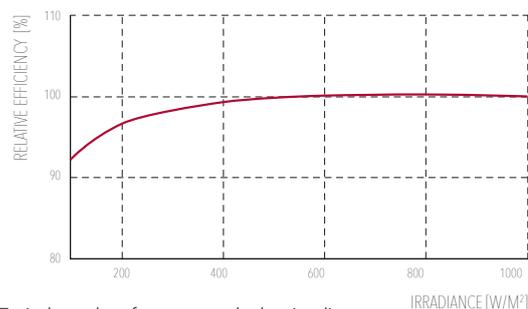
Other information				
Part Number	SOLAHART310	SOLAHART315	SOLAHART320	SOLAHART325
Solahart Warranty*	12 years			
Country of Manufacture	Korea			

Temperature Coefficients	
Normal module operating temperature (NMOT)	43±3 °C
Temperature coefficient of P _{MPP} - γ	-0.36 % / °C
Temperature coefficient of V _{oc} - β	-0.27 % / °C
Temperature coefficient of I _{sc} - α	+0.04 % / °C

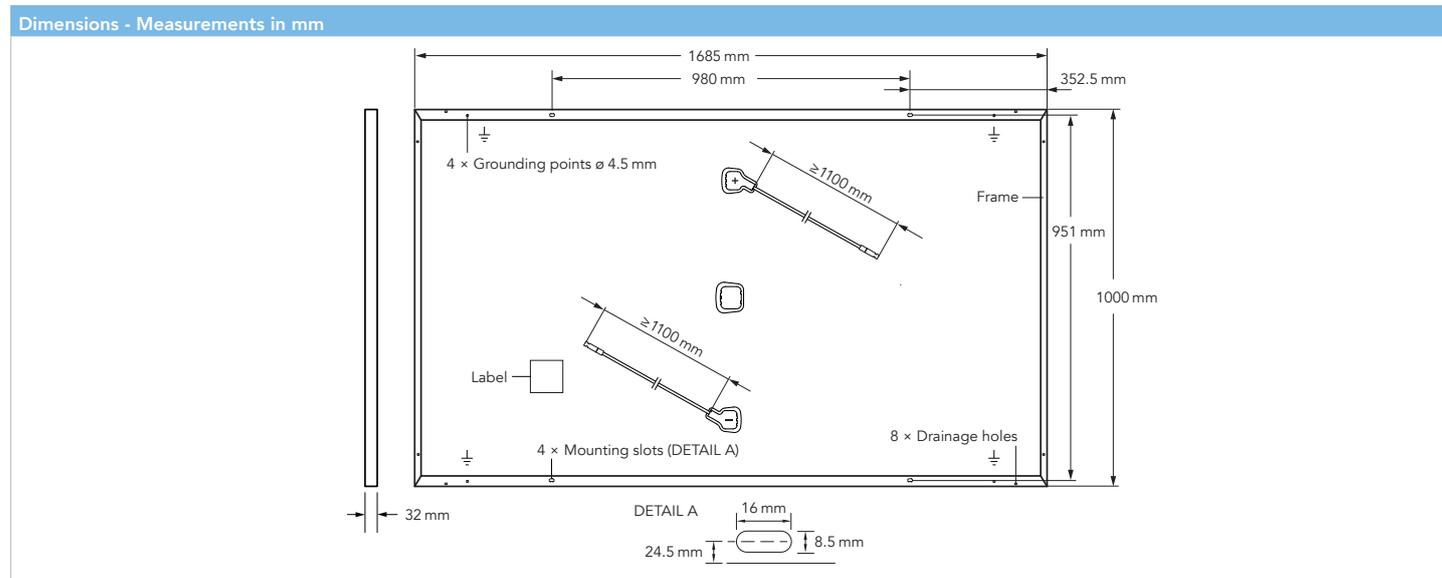
Properties for System Design	
Permitted module temperature on continuous duty	-40°C up to +85°C
Maximum system voltage - V _{sys}	1000 V
Maximum reverse current - I _r	20 A
Maximum design load, Push / Pull	3600 / 2667 Pa
Maximum test load, Push / Pull	5400 / 4000 Pa
Safety class	II
Fire rating	C

Qualifications and Certificates	
IEC 61215: 2016; IEC 61730: 2016, Application class II.	

Mechanical Data	
Dimensions (H x W x D)	1685 x 1000 x 32 mm (including frame)
Weight	18.7 Kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black Anodised Aluminium
Cell	6 x 20 monocrystalline solar half cells
Junction Box	Protection class ≥ IP67, with bypass diodes
Cable	4 mm ² solar cable; (+) 1100 mm, (-) 1100 mm
Connector	Stäubli MC4 connectors (PV-KST4 & PV-KSB4), IP68



Typical panel performance under low irradiance conditions in comparison to STC conditions (25°C, 1000 W/m²).



Licence Holder and importer: Solahart Industries Pty Ltd., 1 Alan St. Rydalmere, NSW 2116, Australia.

*For full details see Solahart Owner's Guide & Installation Instructions. ^APT test conditions according to IEC/TS 62804-1:2015, method B (-1500 V, 168 h).

Specifications and designs included in this data sheet are subject to change without notice.

Solahart Australia 1300 769 475 | www.solahart.com.au

Reorder code: SHDS/PV_SHSILH IH0113_SOLAHART SILHOUETTE SOLAR PANEL_310-315-320-325W_Dec 2019

