

SOLAR POWER PANELS



SOLAHART SUNCELL®

N-TYPE RESIDENTIAL PANELS

SOLAHART440R2



The new high-performance Solahart SunCell® panel not only offers great value, but it's also custom-designed and built to Solahart's strict quality specifications.

With an attractive black frame design, this panel is easy to install and maintain, and is well suited to Australian roof designs. Solahart SunCell® also ticks all the boxes on durability, it has passed endurance testing of up to three times more cycles than the international standard, making it an ideal solution in Australia's harsh conditions.

The state-of-the-art n-type, monocrystalline half-cell and super multi-busbar design offers excellent performance under Australian conditions, on hot summer days, and even in low-light environments. The exceptional 30 year Performance Warranty assures at least 89.4% of nominal power at 25 years and at least 87.4% at 30 years.

Every Solahart system is backed by a trusted Solahart Australia Warranty that offers the advantage of local on-the-ground support to deliver true peace of mind. With more than 70 years of solar experience and over 60 Dealerships across Australia, we're here for the long haul.

How you benefit:



DURABLE DESIGN

Latest n-type technology and quality construction for excellent performance in Australian conditions.



HIGH SOLAR YIELD

Innovative half-cell technology with excellent power efficiency that results in more energy production per square metre.



HIGH PERFORMANCE

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



VALUE FOR MONEY

Cost-effective panel solution for a high return on your investment.



SOLAHART WARRANTY

25-Year Solahart Product Warranty for peace of mind, plus, 30-Year Performance Guarantee for long term returns.*

Model		SOLAHART440R2																									
Electrical Data																											
Minimum performance at Standard Test Conditions (STC) ⁽¹⁾ (Power Sorting +/- 5 W, Power Tolerance: +/-3%)																											
Power at MPP ⁽²⁾ - P _{MPP}	440 Wp																										
Short circuit current ⁽²⁾ - I _{sc}	14.30 A																										
Open circuit voltage ⁽²⁾ - V _{oc}	38.80 V																										
Current at MPP# - I _{MPP}	13.49 A																										
Voltage at MPP# - V _{MPP}	32.61 V																										
Efficiency ⁽¹⁾ - η	22.5%																										
Minimum performance at normal operating conditions, NMOT ⁽³⁾																											
Power at MPP - P _{MPP}	330.9 Wp																										
Short circuit current# - I _{sc}	11.54 A																										
Open circuit voltage# - V _{oc}	36.85 V																										
Current at MPP# - I _{MPP}	10.78 A																										
Voltage at MPP# - V _{MPP}	30.70 V																										
Other Information																											
Part Number	SOLAHART440R2																										
Solahart Product Warranty*	25 years																										
Performance Guarantee*	30 years																										
Country of manufacture	China																										
Mechanical Data		Performance Guarantee																									
Dimensions (H x W x D)	1722 x 1134 x 30 mm (including frame)	<table><caption>Performance Guarantee Data</caption><tr><th>Years</th><th>Solahart SunCell n-type (%)</th><th>Typical p-type (%)</th></tr><tr><td>0</td><td>99%</td><td>98%</td></tr><tr><td>5</td><td>97.4%</td><td>95.8%</td></tr><tr><td>10</td><td>95.4%</td><td>93.1%</td></tr><tr><td>15</td><td>93.4%</td><td>90.3%</td></tr><tr><td>20</td><td>91.4%</td><td>87.6%</td></tr><tr><td>25</td><td>89.4%</td><td>84.8%</td></tr><tr><td>30</td><td>87.4%</td><td>84.8%</td></tr></table>		Years	Solahart SunCell n-type (%)	Typical p-type (%)	0	99%	98%	5	97.4%	95.8%	10	95.4%	93.1%	15	93.4%	90.3%	20	91.4%	87.6%	25	89.4%	84.8%	30	87.4%	84.8%
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Weight	21.3 Kg																										
Glass thickness	3.2 mm																										
Backsheet	White																										
Frame	Black																										
Cell	6 x 18 monocrystalline solar half-cells																										
Number of diodes	3																										
Junction box	Protection class IP68, with bypass diodes																										
Cable	4 mm ² solar cable; (+) 1200 mm, (-) 1200 mm																										
Connector	Stäubli MC4 EVO2 connectors (PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy)																										
Temperature Coefficients		Dimensions - Measurements in mm																									
Normal module operating temp (NMOT)	41±2°C																										
Temp coefficient of P _{MPP} - γ	-0.29%/°C																										
Temp coefficient of V _{oc} - β	-0.25%/°C																										
Temp coefficient of I _{sc} - α	+0.043%/°C																										
Qualifications and Certificates																											
IEC 61215: 2021; IEC 61730: 2016, Application class II.																											
Properties for System Design																											
Max system voltage - V _{sys}	1500 V																										
Max reverse current - I _r	25 A																										
Max design load, Push/Pull	3600 / 1600 Pa																										
Max test load, Push/Pull	5400 / 2400 Pa																										
Fire rating based on IEC/UL	Class C / TYPE 4																										

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

⁽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.
* 25-year Solahart Product Warranty covers certain defects with the Solahart SunCell® solar panels. Please refer to the 'Solahart PV Systems Owner's Guide' for full details, available on Solahart's website www.solahart.com.au. 30-year Performance Guarantee is provided by the manufacturer of the Solahart SunCell® solar panels and guarantees the maximum reduction in power output performance of the panels over a 30-year period. Neither the Solahart Product Warranty nor the Performance Guarantee are intended to exclude, restrict or modify your rights under the Australian Consumer Law. Solahart Industries Pty Ltd (Solahart) operates a national network of dealers through which independent companies operate dealerships in designated geographic areas. To find your local Solahart Dealer, please visit solahart.com.au. © Solahart (2024). Solahart and the Solahart logo are registered trademarks of Solahart.