

SOLAHART400S4



400 Wp | 132 Cells
20.4 % Maximum Module Efficiency

MODEL SOLAHART400S4



Breaking the 20% efficiency barrier

Q.ANTUM DUO Z technology with zero gap cell layout boosts module efficiency up to 20.4%.



A reliable investment

Inclusive 25-year product warranty and 25-year linear performance warranty².



Enduring high performance

Long-term yield security with Anti LeTID Technology, Anti PID Technology¹ and Hot-Spot Protect.



Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).



Innovative all-weather technology

Optimal yields, whatever the weather with excellent low-light and temperature behaviour.



The most thorough testing programme in the industry

Qcells is the first solar module manufacturer to pass the most comprehensive quality programme in the industry: The new "Quality Controlled PV" of the independent certification institute TÜV Rheinland.

¹ APT test conditions according to IEC/TS 62804-1:2015, method A (-1500 V, 96 h)
² See data sheet on rear for further information.

The ideal solution for:



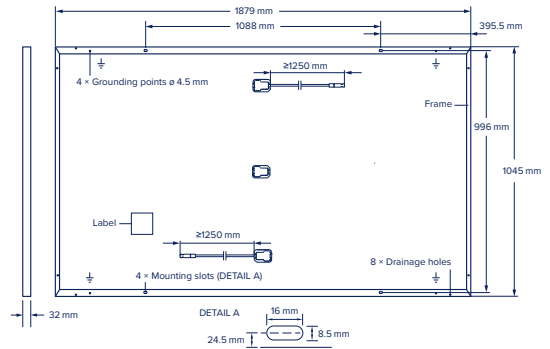
Rooftop arrays on residential buildings



SOLAHART400S4

Mechanical Specification

Format	1879 mm × 1045 mm × 32 mm (including frame)
Weight	22.0 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 22 monocrystalline Q.ANTUM solar half cells
Junction box	53-101 mm × 32-60 mm × 15-18 mm Protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥1250 mm, (-) ≥1250 mm
Connector	Stäubli MC4; IP68



Electrical Characteristics

POWER CLASS

400

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5W/-0W)

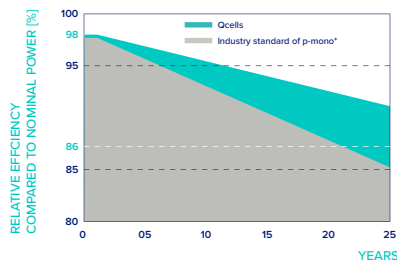
Minimum	Power at MPP ¹	P_{MPP}	[W]	400
	Short Circuit Current ¹	I_{SC}	[A]	11.14
	Open Circuit Voltage ¹	V_{OC}	[V]	45.30
	Current at MPP	I_{MPP}	[A]	10.77
	Voltage at MPP	V_{MPP}	[V]	37.13
	Efficiency ¹	η	[%]	≥20.4

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²

Minimum	Power at MPP	P_{MPP}	[W]	300.1
	Short Circuit Current	I_{SC}	[A]	8.97
	Open Circuit Voltage	V_{OC}	[V]	42.72
	Current at MPP	I_{MPP}	[A]	8.51
	Voltage at MPP	V_{MPP}	[V]	35.25

¹Measurement tolerances $P_{MPP} \pm 3\%$; I_{SC} ; $V_{OC} \pm 5\%$ at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • ²800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

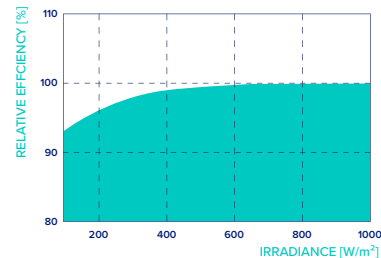


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86.00% of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organisation of your respective country.

^{*}Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

PERFORMANCE AT LOW IRRADIANCE



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

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	-0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°C]	43 ± 3

Properties for System Design

Maximum System Voltage	V_{SYS}	[V]	1000	PV module classification	Class II
Maximum Reverse Current	I_R	[A]	20	Fire Rating based on ANSI/UL 61730	C/TYPE 2
Max. Design Load, Push/Pull		[Pa]	3600/2400	Permitted Module Temperature on Continuous Duty	-40 °C - +85 °C
Max. Test Load, Push/Pull		[Pa]	5400/4000		

Qualifications and Certificates

Quality Controlled PV - TÜV Rheinland; IEC 61215:2016; IEC 61730:2016. This data sheet complies with DIN EN 50380.



Made in Malaysia

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.

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

Manufacturer: Lot 1, Jalan CV 2, Selangor Cyber Valley, 63300 Cyberjaya, Selangor Darul Ehsan, Malaysia

