

PowerX+ -400R Advantage Series

The Solaria brand is now part of Maxison Solar Technologies. Achieving over 20.4% efficiency, Solaria PowerX+ Advantage solar panels feature Solaria's core cell cutting technology, offering higher-power and attractive black-on-black aesthetics compared to conventional solar panels. Solaria has been the market leader in cut-cell technologies for over a decade. With a comprehensive 30-year warranty, PowerX+ delivers the latest in power and reliability for homeowners.



High Efficiency, High Power

At 400 watts and 20.4% efficiency, Solaria PowerX+ solar panels are one of the highest power residential panels available.



High Quality and Reliability

State-of-the-art cell cutting technology and advanced panel construction ensure that PowerX+ panels are highly reliable and designed to far exceed the industry-leading 30-year warranty.



All Black Aesthetics

Compared to conventional panels, Solaria PowerX+ panels have a more uniform all-black appearance.



Best System Value

Solaria PowerX+ solar panels produce more power per square meter area. This reduces installation costs due to fewer balance of system components.



Improved Shading Tolerance

Sub-strings are interconnected in parallel, which dramatically lowers the shading losses and boosts energy yield.



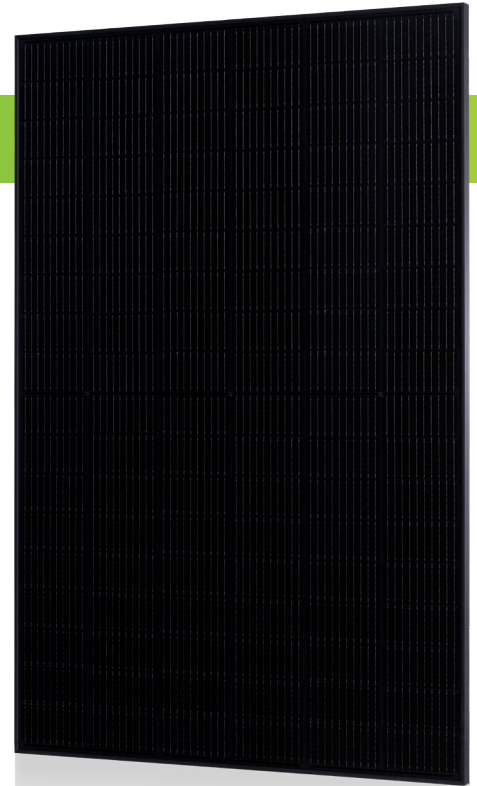
Low Light Performance

PowerX+ maintains high efficiency at low irradiance further ensuring maximum energy yield.



Bi-Facial Power Capacity

PowerX+ bi-facial panels are designed to support up to 30% more power production when both sides can be reached by sunlight. When sunlight does not reach both sides of the panel, this translates to an extra 30% margin of electrical safety and reliability.



PowerX+ transparent backsheet

Performance at STC (1000W/m², 25° C, AM 1.5)

PowerX-		390R-4T	395R-4T	400R-4T
Max Power (P _{max})	[W]	390	395	400
Efficiency	[%]	19.9	20.1	20.4
Open Circuit Voltage (V _{oc})	[V]	36.92	36.94	37.04
Short Circuit Current (I _{sc})	[A]	13.34	13.36	13.42
Max Power Voltage (V _{mp})	[V]	32.09	32.49	32.69
Max Power Current (I _{mp})	[A]	12.16	12.17	12.24
Power Tolerance	[%]	-0/+3	-0/+3	-0/+3

Performance at NOCT (800W/m², 20° C Amb, Wind 1 m/s, AM 1.5)

Max Power (P _{max})	[W]	290	293	297
Open Circuit Voltage (V _{oc})	[V]	34.3	34.3	34.4
Short Circuit Current (I _{sc})	[A]	10.83	10.85	10.91
Max Power Voltage (V _{mp})	[V]	28.94	29.18	29.23
Max Power Current (I _{mp})	[A]	10.02	10.04	10.10

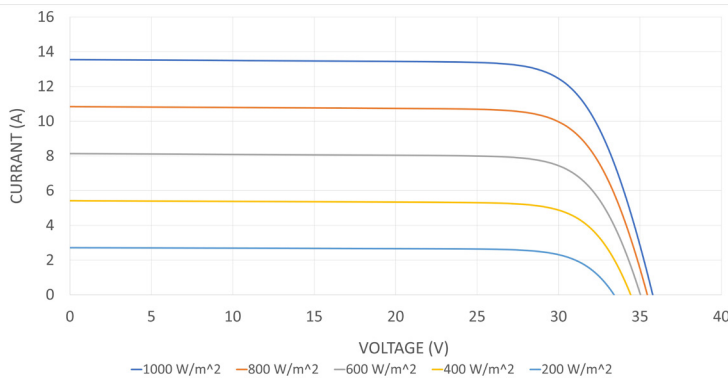
Temperature Characteristics

NOCT	[°C]	45 +/-2
Temp. Coeff. of P _{max}	[% / °C]	-0.36
Temp. Coeff. of V _{oc}	[% / °C]	-0.28
Temp. Coeff. of I _{sc}	[% / °C]	0.048

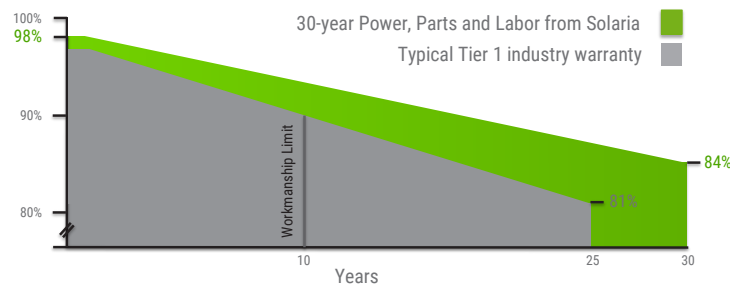
Design Parameters

Operating temperature	[°C]	-40 to +85
Max System Voltage	[V]	1000
Max Fuse Rating	[A]	25
Bypass Diodes	[#]	3

IV Curves vs. Irradiance (400W Panel)



Comprehensive 30-Year Warranty



Mechanical Characteristics

Cell Type	Monocrystalline Silicon
Dimensions (L x W x H)	68.2" x 44.6" x 1.4" 1731mm x 1133mm x 35mm
Weight	22.1 kg / 48.7 lbs
Glass Type / Thickness	AR Coated, Tempered / 3.2mm
Backsheet	Transparent, Black Mesh, Polymeric
Frame Type	Black Anodized Aluminum
Cable Type / Length	12 AWG PV Wire (UL) / 1100mm
Connector Type	Staubli MC4
Junction Box	IP68 / 3 diodes
Front Load	5400 Pa / 113 psf*
Rear Load	2400 Pa / 50 psf*

* Refer to Solaria Installation Manual for details

Certifications / Warranty

Certifications	UL 61730 / IEC 61215 / IEC 61730
Fire Type (UL 1703)	4
Power, Parts & Labor Warranty	30 years*

* Warranty details at www.solaria.com

Packaging

Stacking Method	Vertical / Palletized
Panels/ Pallet	31
Pallet Dims (L x W x H)	69.5" x 44.3" x 50.0" 1765mm x 1125mm x 1270mm
Pallet Weight	692 kg / 1525 lbs
Pallets / 40-ft Container	26
Panels / 40-ft Container	806

