SOLARIA®

Solaria PowerXT® | Residential

Solaria PowerXT®-360R-PD | Solaria PowerXT®-355R-BD

Achieving up to 20% efficiency, Solaria PowerXT solar modules are one of the highest power modules in the residential solar market. Compared to conventional modules, Solaria PowerXT modules have fewer gaps between the solar cells; this leads to higher power and superior aesthetics. Solaria PowerXT pure black residential modules are manufactured with black backsheet and frames, enhancing a home's architectural beauty.

Developed in California, Solaria's patented cell cutting and module assembly takes processed solar wafers and turns them into PowerXT solar modules. The process starts by creating a highly reliable PowerXT cell where busbars and ribbon interconnections are eliminated. Solaria then packages the cells into the PowerXT solar module, reducing inactive space between the cells. This process leads to an exceptionally cost effective and efficient solar module.

Higher Efficiency, Higher Power

Solaria PowerXT modules achieve up to 20% efficiency; conventional modules achieve 15% – 17% efficiency. Solaria PowerXT modules are one of the highest power modules available.

Lower System Costs

Solaria PowerXT modules 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, within each of the four module quadrants, which dramatically lowers the shading losses and boosts energy yield.

Improved Aesthetics

Compared to conventional modules, Solaria PowerXT modules have a more uniform appearance and superior aesthetics.

Durability and Reliability

Solder-less cell interconnections are highly reliable and designed to far exceed the industry leading 25 year warranty.

About Solaria

Established in 2000, The Solaria Corporation has created one of the industry's most respected IP portfolios, with over 100 patents encompassing materials, processes, applications, products, manufacturing automation and equipment. Headquartered in Oakland, CA, Solaria has developed a technology platform that unlocks the potential of solar energy.

TOP PERFORMER 2018 DNV·GL PV MODULE RELIABILITY SCORECARD

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Solaria PowerXT®-355R-BD

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

Solaria PowerXT-		350R-BD	355R-BD	355R-PD	360R-PD
Max Power (P_{max})	[W]	350	355	355	360
Efficiency	[%]	19.4	19.6	19.6	19.9
Open Circuit Voltage (V_{oc})	[V]	47.4	47.7	47.4	47.7
Short Circuit Current (I_{sc})	[A]	9.44	9.48	9.53	9.56
Max Power Voltage (V_{mp})	[V]	39.2	39.5	39.1	39.5
Max Power Current (I_{mp})	[A]	8.94	8.99	9.09	9.13
Power Tolerance	[%]	-0/+3	-0/+3	-0/+3	-0/+3

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

Max Power (Pmax)	[W]	258	261	261	265
Open Circuit Voltage (V_{oc})	[V]	44.6	44.8	44.6	44.8
Short Circuit Current (I_{sc})	[A]	7.61	7.64	7.68	7.71
Max Power Voltage (V_{mp})	[V]	36.1	36.3	36.0	36.3
Max Power Current (I_{mp})	[A]	7.15	7.19	7.27	7.30

Temperature Characteristics

NOCT	[°C]	45 +/-2
Temp. Coeff. of P_{max}	[% / °C]	-0.39
Temp. Coeff. of V_{oc}	[% / °C]	-0.29
Temp. Coeff. of Isc	[% / °C]	0.04

Design Parameters

Operating temperature	[°C]	-40 to +85
Max System Voltage	[V]	1000
Max Fuse Rating	[A]	15
Bypass Diodes	[#]	4

Mechanical Characteristics

Cell Type	Monocrystalline Silicon
Dimensions (L x W x H)	1621mm x 1116mm x 40mm
Weight	21 kg / 46 lbs
Glass Type / Thickness	AR Coated, Tempered / 3.2mm
Frame Type	Black Anodized Aluminum
Cable Type / Length	12 AWG PV Wire (UL) / 1000mm
Connector Type	MC4 compatible
Junction Box	IP67 / 4 diodes
Front Load	5400 Pa / 113 psf*
Rear Load	3600 Pa / 75 psf*

* Refer to Solaria Installation Manual for details

Certifications / Warranty

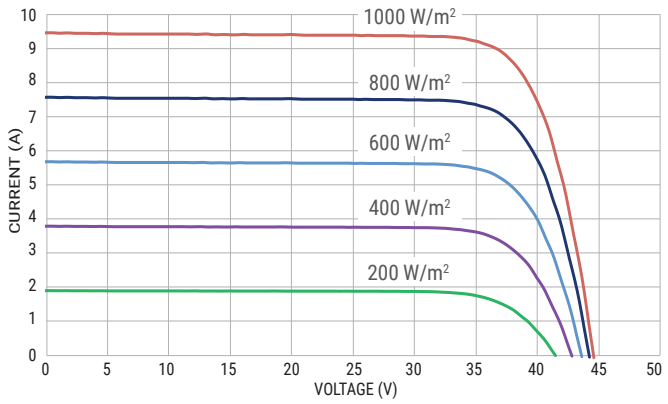
Certifications	UL 1703/IEC 61215/IEC 61730/CEC CAN/CSA-C22.2
Fire Type (UL 1703)	1
Power & Product Warranty	25 years*

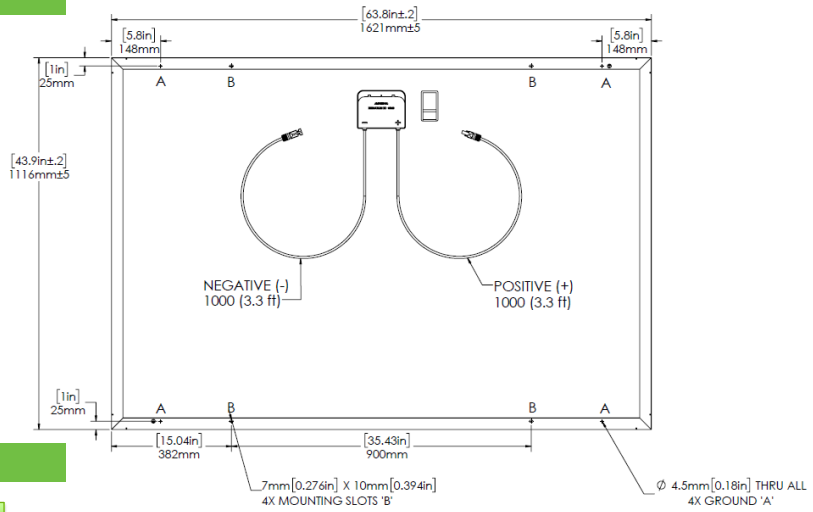
* Warranty details at www.solaria.com

Packaging

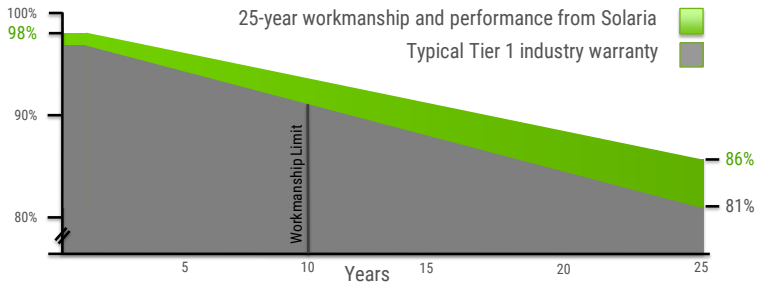
Stacking Method	Horizontal / Palletized
Pcs / Pallet	25
Pallet Dims	1668 x 1150 x 1230 mm
Pallet Weight	590 kg / 1300 lbs
Pallets / 40-ft Container	28
Pcs / 40-ft Container	700

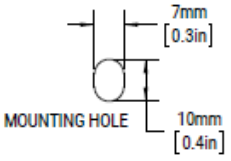
IV Curves vs. Irradiance (350W Module)

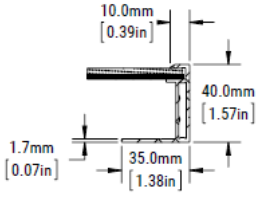




Comprehensive 25-Year Warranty







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