SOLARIA®

Solaria PowerXT® | Commercial

Solaria PowerXT®-430C-PD

Achieving up to 20% efficiency, Solaria PowerXT solar modules are one of the highest power modules in the commercial 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 commercial modules are manufactured with black backsheet and frames, giving them a striking appearance.

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 improved 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

TÜVRheinland® Precisely Right.

The Solaria Corporation 1700 Broadway, Oakland, CA 94612 P: (510) 270-2500 www.solaria.com
Product specifications are subject to change without notice.

Copyright © 2019 The Solaria Corporation
Rev 2G 02-05-2019

SOLARIA®

Solaria PowerXT®-430C-PD

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

Solaria PowerXT-		420C-PD	430C-PD
Max Power (P_{max})	[W]	420	430
Efficiency	[%]	19.4	19.8
Open Circuit Voltage (V_{oc})	[V]	47.1	47.3
Short Circuit Current (I_{sc})	[A]	11.39	11.43
Max Power Voltage (V_{mp})	[V]	38.8	39.3
Max Power Current (I_{mp})	[A]	10.82	10.93
Power Tolerance	[%]	-0/+3	-0/+3

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

Max Power (Pmax)	[W]	309	316
Open Circuit Voltage (V_{oc})	[V]	44.3	44.5
Short Circuit Current (I_{sc})	[A]	9.18	9.22
Max Power Voltage (V_{mp})	[V]	35.7	36.2
Max Power Current (I_{mp})	[A]	8.65	8.74

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]	20
Bypass Diodes	[#]	4

Mechanical Characteristics

Cell Type	Monocrystalline Silicon
Dimensions (L x W x H)	1939mm x 1116mm x 40mm
Weight	29 kg / 64 lbs
Glass Type / Thickness	AR Coated, Tempered / 4.0mm
Frame Type	Anodized Aluminum
Cable Type / Length	12 AWG PV Wire (UL) / 1200mm
Connector Type	MC4
Junction Box	IP67 / 4 diodes
Front Load (UL 1703)	5400 Pa / 113 psf*
Rear Load (UL 1703)	2400 Pa / 50 psf*

* Refer to Solaria Installation Manual for details

Certifications / Warranty

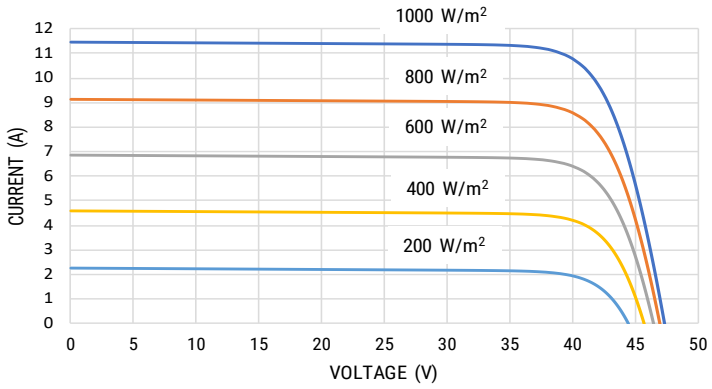
Certifications	UL 1703/IEC 61215/IEC 61730/CEC
Fire Type (UL 1703)	Type-1
Power & Product Warranty	25 years*

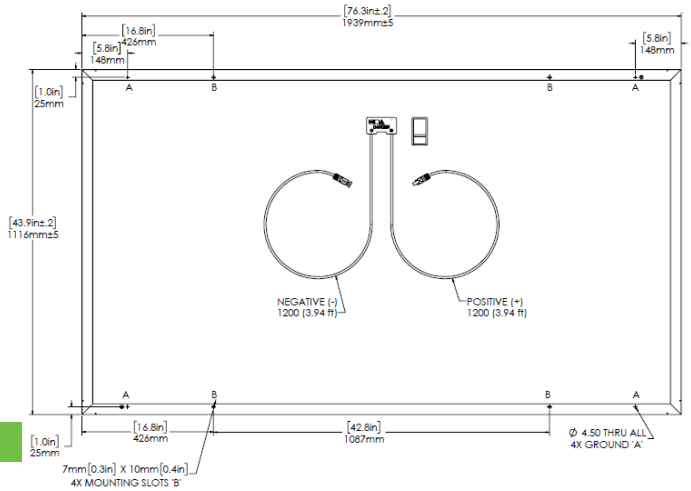
* Warranty details at www.solaria.com

Packaging

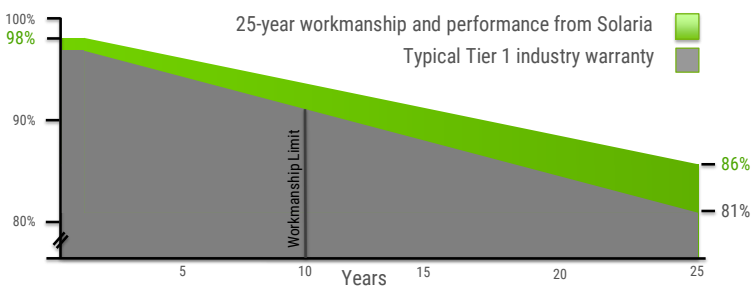
Stacking Method	Horizontal / Palletized
Pcs / Pallet	25
Pallet Dims	1988 x 1150 x 1230 mm
Pallet Weight	748 kg / 1650 lbs
Pallets / 40-ft Container	22
Pcs / 40-ft Container	550

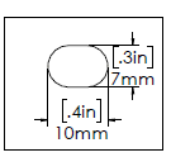
IV Curves vs. Irradiance (430W Module)



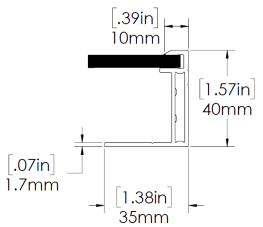


Comprehensive 25-Year Warranty





MOUNTING SLOT



The Solaria Corporation 1700 Broadway, Oakland, CA 94612 P: (510) 270-2500 www.solaria.com
Product specifications are subject to change without notice.

Copyright © 2019 The Solaria Corporation
Rev 2G 02-05-2019