

BIFACIAL N-TYPE MONO CRYSTALLINE HALF CUT MODULE - DOUBLE GLASS

445 / 450 / 455 / 460 / 465 / 470 Watts





Overview

N-type solar cells (TOPCon) are seen as the technology of the future. N-type (TopCon) technology guarantees high performance and low degradation of the PV module, substantially improving the results and the yield in the time. "Lynx" Series module is the ideal solution for end users who want a Quality PV & reliable product over time and a fast turnaround on their investments.

Key Benefits



Zero light induced Degradation



Higher yield per surface area



Low LCOE



30 Years Limited Product Warranty



Low Pmax Temperature Coefficient



Higher Light Conversion





Guaranteed mechanical resistance to severe weather conditions



Positive Tolerance

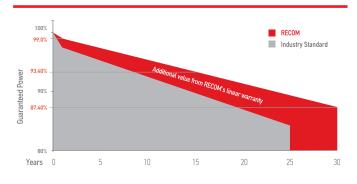


100 % electroluminescence tested

Tests, Certifications and Warranties

Standard Tests	IEC 61215, IEC 61730
Factory Quality Tests	ISO 9001: 2015, ISO 14001: 2015
Certifications	Conformity to CE, PV CYCLE Fire safety Class C according to UL790
Wind and Snow Static Loads	Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
Withstanding Hail	Maximum Diameter of 25 mm with impact speed of 23 m/s
Power Tolerance	Guaranteed +0/+5W (STC condition)
Warranties	30-year limited product warranty 15-year manufacturer warranty on 93.40% of the nominal performance 30-year transferable linear power output warranty

Linear Performance Warranty



First Year Output

≥ 99.0%

2-30 Year Decline

≤ 0.40%

30 Year Output ≥ 87.40%

Lynx

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RCM-xxx-RDBNAA (xxx=445-470)

Electrical Characteristics

POWER CLASS (1)			445		450		455		460		465		470	
Testing Condition			STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	Pmax	[Wp]	445	335,00	450	338,70	455	342,50	460	345,30	465	349,00	465	352,70
Maximum Power Voltage	Vmp	[V]	29,60	27,50	29,80	27,70	30,00	27,90	30,20	28,00	30,40	28,20	30,60	28,40
Maximum Power Current	lmp	[A]	15,04	12,18	15,11	12,24	15,17	12,29	15,24	12,31	15,30	12,37	15,37	12,43
Open Circuit Voltage	Voc	[V]	35,30	33,30	35,50	33,50	35,70	33,60	35,90	33,80	36,10	34,00	36,30	34,20
Short Circuit Current	Isc	[A]	15,96	12,82	16,03	12,87	16,10	12,93	16,17	12,99	16,24	13,05	16,31	13,10
Module Efficiency	Eff	[%]	22,27 22,52 22,77 23,02 23,27 23,52							,52				
Maximum Series Fuse	I R	[A]	30											
Maximum System Voltage	Vsys	[V]	1500V DC											

⁽¹⁾ Measurement Tolerances: Isc & Voc (± 3%) - Power Classification 0/+5W

Bi Facial Output (4)

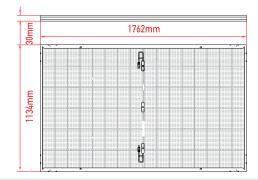
POWER CLASS			445		450		455		460		465		470	
			Pmax [Wp]	Eff [%]										
	+5	[%]	467,3	23,4%	472,5	23,6%	477,8	23,9%	483,0	24,2%	488,3	24,4%	493,5	24,7%
Power with Backside Gain	+10	[%]	489,5	24,5%	495,0	24,8%	500,5	25,0%	506,0	25,3%	511,5	25,6%	517,0	25,9%
	+15	[%]	511,8	25,6%	517,5	25,9%	523,3	26,2%	529,0	26,5%	534,8	26,8%	540,5	27,1%
	+20	[%]	534,0	26,7%	540,0	27,0%	546,0	27,3%	552,0	27,6%	558,0	27,9%	564,0	28,2%
	+25	[%]	556,3	27,8%	562,5	28,2%	568,8	28,5%	575,0	28,8%	581,3	29,1%	587,5	29,4%
	+30	[%]	578,5	29,0%	585,0	29,3%	591,5	29,6%	598,0	29,9%	604,5	30,3%	611,0	30,6%

(4) Bifaciality Factor > 80% - Back-side power gain depends upon the specific project albedo - Efficiency is according to the surface of the module

Mechanical Data

Dimensions	1762 mm x 1134 mm x 30 mm
Weight	21,0 Kg
Cell Type	N-type - 96 (2 x 48 Pcs) - G12R
Front Glass	2.0 mm Tempered and low iron glass + ARC
Rear Side	2.0 mm Tempered and low iron glass
Frame	Anodized Aluminium Alloy (Black)
Junction Box	IP68, 3 Bypass diodes
Connector	MC4-EV02 compatible
Output cable	4mm ² - Length: 1200 mm (or can be customized)

Dimensions

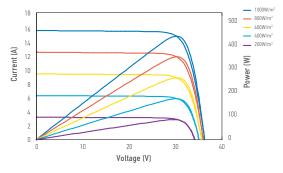


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I-V Curve

The module relative power loss at low light irradiance of 200W/m² is less than 3%.



Temperature Characteristics

Pmax Temperature Coefficient	-0.28% / °C
Voc Temperature Coefficient	-0.23% / °C
Isc Temperature Coefficient	+0.045% / °C
Operating Temperature	-40~+85 °C
Nominal Operating Module Temperature (NMOT)	44 ± 2 °C

Packing Configuration

Container	40°HC
Pieces per Pallet	36
Pallets per Container	26
Pieces per Container	(36+36)x13=936 pcs

⁽²⁾ STC (Standard Testing Condition): Irrandiance 1000W/m², Cell Temperature 25°C, AM 1.5

⁽³⁾ NMOT (Nominal Operating Module Temperature): Irrandiance 800W/m², NMOT, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s