

# BIFACIAL HJT MONO CRYSTALLINE HALF CUT MODULE - DOUBLE GLASS

410 / 415 / 420 / 425 / 430 / 435 Watts

# Lion Series



## **Overview**

Hetero Junction (HJT) photovoltaic module is a Ground breaking Technology. HJT technology guarantees high performance and low degradation of the PV module, substantially improving the results and the yield in the time. "Lion" 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**



Anti-PID & LID Technology



Higher yield per surface area



Low LCOE



30 Years Limited Product Warranty



Low Pmax at -0,24 % / °C



Higher Light Conversion





Guaranteed mechanical resistance to severe weather conditions



Positive Tolerance

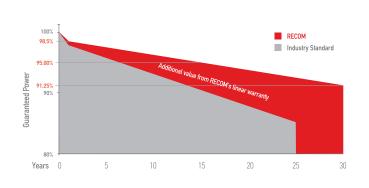


100 % electroluminescence tested

#### 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
Insurance	Third party liability insurance provided by Liberty Mutual
Wind and Snow Loads Testing	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	<ul> <li>30-year limited product warranty</li> <li>15-year manufacturer warranty on 95,0% of the nominal performance</li> <li>30-year transferable linear power output warranty</li> </ul>

## Linear Performance Warranty



First Year Output

≥ **98.5**%

2-30 Year Decline

≤ 0.25%

30 Year Output

≥ **91.25**%



# Lion

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RCM-xxx-8DBH0 (xxx=410-435)

#### **Electrical Characteristics**

POWER CLASS (1)			410		415		420		425		430		435	
Testing Condition			STC (2)	NMOT (3)	STC	NMOT								
Maximum Power	Pmax	[Wp]	410	314	415	318	420	321	425	325	430	329	435	333
Maximum Power Voltage	Vmp	[V]	25,5	24,46	25,7	24,62	25,8	24,68	25,9	24,80	26,1	25,00	26,3	25,21
Maximum Power Current	Imp	[A]	16,08	12,84	16,18	12,92	16,29	13.01	16.42	13.11	16.48	13.16	16.54	13.21
Open Circuit Voltage	Voc	[V]	29,8	28,62	29,9	28,72	30,1	28,91	30,6	29,20	30,6	29,39	30,8	29,58
Short Circuit Current	Isc	[A]	17,09	13.79	17.19	13.87	17.29	13,95	17.42	14.05	17.52	14.13	17.6	14.20
Module Efficiency	Eff	[%]	21,3 21,6 21,8 22,1 22.4 22.6						.,6					
Maximum Series Fuse	<b>I</b> R	[A]	30											
Maximum System Voltage	Vsys	[V]	1500 V											

<sup>(1)</sup> Measurement Tolerances: Pmax ( $\pm$  3%), Isc & Voc ( $\pm$  3%) - Power Classification 0/+5W

#### Bi Facial Output (4)

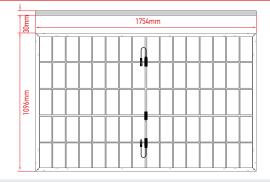
POWER CLASS	410		0	415		420		425		430		435		
			Pmax [Wp]	Eff [%]	Pmax	Eff								
	+5	[%]	430,5	21,6%	435,8	21,9%	441,0	22,2%	446,3	22,4%	451,5	22,7%	456,8	23,0%
Power	+10	[%]	451,0	22,7%	456,5	23,0%	462,0	23,2%	467,5	23,5%	473,0	23,8%	478,5	24,1%
with Backside Gain	+15	[%]	471,5	23,7%	477,3	24,0%	483,0	24,3%	488,8	24,6%	494,5	24,9%	500,3	25,2%
	+20	[%]	492,0	24,7%	498,0	25,0%	504,0	25,3%	510,0	25,6%	516,0	25,9%	522,0	26,2%
	+25	[%]	512,5	25,8%	518,8	26,1%	525,0	26,4%	531,3	26,7%	537,5	27,0%	543,8	27,3%
	+30	[%]	533,0	26,8%	539,5	27,1%	546,0	27,5%	552,5	27,8%	559,0	28,1%	565,5	28,4%

(4) Bifaciality Factor > 90% - Back-side power gain depends upon the specific project albedo - Efficiency is according to the surface of the module

#### Mechanical Data

Dimensions	1754 mm x 1096 mm x 30 mm
Weight	23.6 Kg
Cell Type	HJT - 210mm x 105mm (2 x 40 Pcs) - G12
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 compatible
Output cable	$4mm^2$ - Length = 1200mm or customized

#### **Dimensions**

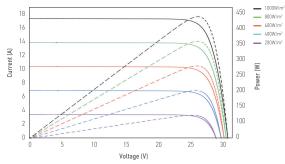


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#### I-V Curve

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



## Temperature Characteristics

Pmax Temperature Coefficient	-0.24% / °C
Voc Temperature Coefficient	-0.22% / °C
Isc Temperature Coefficient	+0.047% / °C
Operating Temperature	-40~+85 °C
Nominal Operating Module Temperature (NMOT)	42 ± 2 °C

## **Packing Configuration**

Container	40°HC
Pieces per Pallet	36
Pallets per Container	26
Pieces per Container	$(36+36) \times 13 = 936 pcs$

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

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