

## MONO CRYSTALLINE HALF-CUT BIFACIAL MODULE

400 / 405 / 410 Watts

### Panther Series



### Overview

Ground breaking technology; higher power output, improved system performance - the ideal solution for end users who want a fast turnaround on their investments. A fully certified premium quality and high efficiency module made with A Grade materials.

### Key Benefits



Certified by Independent Engineering Bodies



Product Liability Insurance



Ultra High Power Output



25 Years Limited Product Warranty



Low Resistive Losses



Higher Light Conversion



Guaranteed mechanical resistance to severe weather conditions



Positive Tolerance

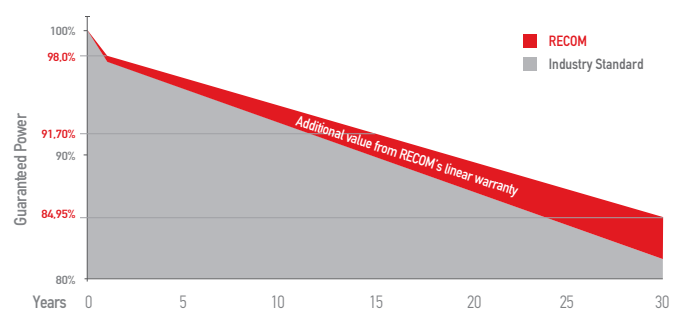


100 % electro-luminescence tested

### Tests, Certifications and Warranties

Standard Tests	IEC 61215, IEC 61730 & UL 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)
Power Tolerance	Guaranteed +0/+5W (STC condition)
Warranties	<ul style="list-style-type: none"> <li>25-year limited product warranty</li> <li>15-year manufacturer warranty on 91.70% of the nominal performance</li> <li>30-year transferable linear power output warranty</li> </ul>

### Linear Performance Warranty



First Year Output  $\geq 98\%$     2-30 Year Decline  $\leq 0.45\%$     30 Year Output  $\geq 84.95\%$

## MONO CRYSTALLINE HALF-CUT BIFACIAL MODULE

RCM-xxx-7BMG (xxx=400-410)

### Electrical Characteristics

POWER CLASS <sup>(1)</sup>		400		405		410	
Testing Condition		STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	P <sub>max</sub> [Wp]	400	289,9	405	302,4	410	306
Maximum Power Voltage	V <sub>mp</sub> [V]	31,00	28,90	31,27	29,14	31,52	29,38
Maximum Power Current	I <sub>mp</sub> [A]	12,92	10,34	12,96	10,38	13,01	10,42
Open Circuit Voltage	V <sub>oc</sub> [V]	37,15	34,74	37,34	34,92	37,55	35,12
Short Circuit Current	I <sub>sc</sub> [A]	13,55	10,94	13,59	10,97	13,66	11,02
Module Efficiency	Eff [%]	20,5		20,8		21,0	
Maximum Series Fuse	I <sub>r</sub> [A]			25			
Maximum System Voltage	V <sub>sys</sub> [V]			1500 V DC			

(1) Measurement Tolerances: P<sub>max</sub> (± 3%), I<sub>sc</sub> & V<sub>oc</sub> (± 3%) - Power Classification 0/+5W  
(2) STC (Standard Testing Condition): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM 1.5  
(3) NMOT (Nominal Operating Module Temperature): Irradiance 800W/m<sup>2</sup>, NMOT, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

#### Bi Facial Output (4)

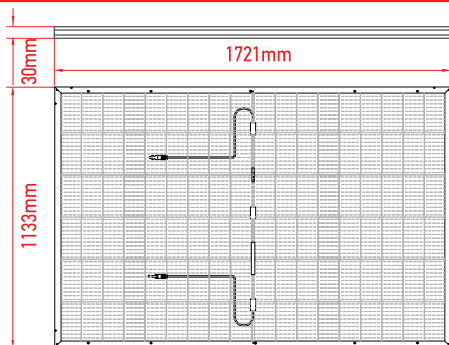
POWER CLASS		400		405		410		
Power with Backside Gain		Pmax [Wp]	Eff[%]	Pmax [Wp]	Eff[%]	Pmax [Wp]	Eff[%]	
	+5	[%]	420,0	21,5%	425,3	21,8%	430,5	22,1%
	+10	[%]	440,0	22,6%	445,5	22,8%	451,0	23,1%
	+15	[%]	460,0	23,6%	465,8	23,9%	471,5	24,2%
	+20	[%]	480,0	24,6%	486,0	24,9%	492,0	25,2%
	+25	[%]	500,0	25,6%	506,3	26,0%	512,5	26,3%
	+30	[%]	520,0	26,7%	526,5	27,0%	533,0	27,3%

(4) Bifaciality Factor > 70% - Back-side power gain depends upon the specific project albedo - Efficiency is according to the surface of the module

### Mechanical Data

Dimensions	1721 x 1133 x 30mm (67.76 x 44.60 x 1.18 in)
Weight	20.5 Kg (45.19 lb)
Cell Type	Mono Perc – 182 x 91mm (7.17 x 3.59 in) (2x54 Pcs) – M10
Front Glass	3.2 mm (0.13 in) Tempered and low iron glass + ARC
Rear Side	Anti-age film (Clear)
Frame	Anodized Aluminium Alloy (Black)
Junction Box	IP68 - 3 Bypass Diodes
Connector	Original MC4-EV02
Output cable	4mm <sup>2</sup> (0.16 in <sup>2</sup> ) - Length = 1200 mm (47.24in)

### Dimensions

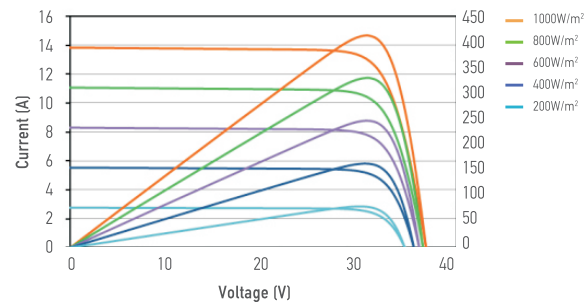


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### I-V Curve

The module relative power loss at low light irradiance of 200W/m<sup>2</sup> is less than 3%.



### Temperature Characteristics

P <sub>max</sub> Temperature Coefficient	-0.35% / °C
V <sub>oc</sub> Temperature Coefficient	-0.22% / °C
I <sub>sc</sub> Temperature Coefficient	+0.05% / °C
Operating Temperature (IEC)	-40~+85 °C
Operating Temperature (UL)	-40~+90 °C
Nominal Operating Module Temperature (NMOT)	42 ± 2 °C

### Packing Configuration

Container	40'HC
Pieces per Pallet	37
Pallets per Container	26
Pieces per Container	(37+37) x13 = 962 pcs

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