

# MONO CRYSTALLINE DOUBLE-GLASS HALF CUT BIFACIAL MODULE

390 / 395 / 400 / 405 Watts

# Panther



## **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



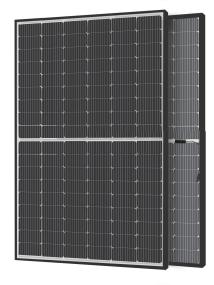
25 Years Limited Product Warranty



Low Resistive Losses



Higher Light Conversion





Guaranteed mechanical resistance to severe weather conditions



Positive Tolerance

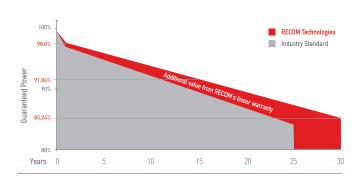


100 % electroluminescence tested

#### Tests, Certifications and Warranties

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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)
Power Tolerance	Guaranteed +0/+5W (STC condition)
Warranties	<ul> <li>25-year limited product warranty</li> <li>15-year manufacturer warranty on 91,84% of the nominal performance</li> <li>30-year transferable linear power output warranty</li> </ul>

## Linear Performance Warranty



First Year Output

**≥ 98.0%** 

2-30 Year Decline

≤ 0.44%

30 Year Output

≥ 85.24%



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RCM-xxx-7DBMG (xxx=390-405)

#### **Electrical Characteristics**

POWER CLASS (1)			390		395		400		405	
Testing Condition			STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	Pmax	[Wp]	390	287	395	291	400	295	405	298
Maximum Power Voltage	Vmp	[V]	30,64	28,56	30,84	28,75	31,04	28,93	31,2	29,12
Maximum Power Current	Imp	[A]	12,73	10,06	12,81	10,12	12,89	10,19	12,97	10,25
Open Circuit Voltage	Voc	[V]	36,96	35,49	37,05	35,68	37,14	35,86	37,23	36,05
Short Circuit Current	Isc	[A]	13,61	10,86	13,7	10,95	13,79	11,04	13,88	11,12
Module Efficiency	Eff	[%]	20,0		20,2		20,5		20,7	
Maximum Series Fuse	<b>I</b> R	[A]	25							
Maximum System Voltage	Vsys	[V]	1500 V DC							

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

#### Bi Facial Output (4)

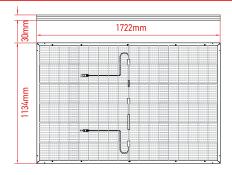
POWER CLASS			390		395		400		405	
			Pmax [Wp]	Eff [%]	Pmax [Wp]	Eff[%]	Pmax [Wp]	Eff[%]	Pmax [Wp]	Eff [%]
	+5	[%]	409,5	21,0%	414,8	21,2%	420,0	21,5%	425,3	21,8%
Power	+10	[%]	429,0	22,0%	434,5	22,3%	440,0	22,5%	445,5	22,8%
with Backside Gain	+15	[%]	448,5	23,0%	454,3	23,3%	460,0	23,6%	465,8	23,9%
	+20	[%]	468,0	24,0%	474,0	24,3%	480,0	24,6%	486,0	24,9%
	+25	[%]	487,5	25,0%	493,8	25,3%	500,0	25,6%	506,3	25,9%
	+30	[%]	507,0	26,0%	513,5	26,3%	520,0	26,6%	526,5	27,0%

(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	1722mm x 1134mm x 30mm
Weight	23,7 Kg
Cell Type	Mono Perc – 182mm x 91mm (2x54 Pcs) – M10
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 <sup>2</sup> - Length = 300mm or customized

#### **Dimensions**

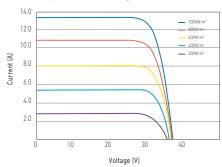


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### I-V Curve

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



## Temperature Characteristics

Pmax Temperature Coefficient	-0.350% / °C
Voc Temperature Coefficient	-0.275% / °C
Isc Temperature Coefficient	+0.045% / °C
Operating Temperature	-40~+85°C
Nominal Operating Module Temperature (NMOT)	42 ± 2 °C
Dealing Configuration	

#### Packing Configuration

Container	40'HC
Pieces per Pallet	36
Pallets per Container	26
Pieces per Container	$(36+36) \times 13 = 936 \text{ pcs}$

<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