RECOM.

MONO CRYSTALLINE HALF-CUT BIFACIAL MODULE

400 / 405 / 410 Watts

BloombergNEF TIER 1

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

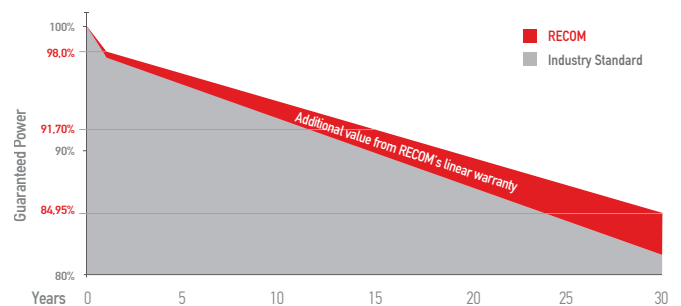Guaranteed mechanical resistance to severe weather conditions

Wp

Positive Tolerance

EL

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%/+5% (STC condition)
Warranties	• 25-year limited product warranty • 15-year manufacturer warranty on 91,70% of the nominal performance • 30-year transferable linear power output warranty

Linear Performance Warranty

Guaranteed Power

100%
98,0%
91,70%
90%
84,95%
80%

Years 0   5   10   15   20   25   30

RECOM
Industry Standard

Additional value from RECOM´s linear warranty

First Year Output	≥ 98%	2-30 Year Decline	≤ 0.45%	30 Year Output	≥ 84.95%

MONO CRYSTALLINE HALF-CUT BIFACIAL MODULE
RCM-xxx-7BMG (xxx=400-410)

Electrical Characteristics

POWER CLASS [1]			400		405		410	
Testing Condition			STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	Pmax	[Wp]	400	300,01	405	303,63	410	307,55
Maximum Power Voltage	Vmp	[V]	30,92	28,82	31,11	29,00	31,30	29,16
Maximum Power Current	Imp	[A]	12,94	10,41	13,02	10,47	13,10	10,54
Open Circuit Voltage	Voc	[V]	37,29	35,34	37,55	35,59	37,79	35,81
Short Circuit Current	Isc	[A]	13,66	11,08	13,73	11,13	13,81	11,20
Module Efficiency	Eff	[%]	20,48		20,74		21,00	
Maximum Series Fuse	I_R	[A]	25					
Maximum System Voltage	V_{SYS}	[V]	1500 V DC					

(1) Measurement Tolerances: Pmax (± 3%), Isc & Voc (± 3%) - Power Classification 0/+5W
(2) STC (Standard Testing Condition): Irradiance 1000W/m², Cell Temperature 25°C, AM 1.5
(3) NMOT (Nominal Operating Module Temperature): Irradiance 800W/m², NMOT, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

Bi Facial Output (4)

POWER CLASS			400		405		410	
			Pmax [Wp]	Eff [%]	Pmax [Wp]	Eff [%]	Pmax [Wp]	Eff [%]
	+5	[%]	420,0	21,5%	425,3	21,8%	430,5	22,0%
	+10	[%]	440,0	22,5%	445,5	22,8%	451,0	23,1%
Power with Backside Gain	+15	[%]	460,0	23,6%	465,8	23,9%	471,5	24,1%
	+20	[%]	480,0	24,6%	486,0	24,9%	492,0	25,2%
	+25	[%]	500,0	25,6%	506,3	25,9%	512,5	26,2%
	+30	[%]	520,0	26,6%	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	1722 x 1134 x 30mm (67.80 x 44.65 x 1.18 in)
Weight	20,7 Kg (45.63 lb)
Cell Type	Mono Perc — 182 x 91mm (7.17 x 3.59 in) (2x54 Pcs) — M10
Front Glass	3.2 mm (1.18 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	MC4 compatible
Output cable	4mm² (0.006 in²) - Length = 300mm (11.81 in) or customized

Dimensions
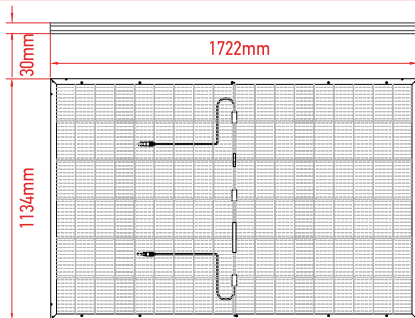
I-V Curve

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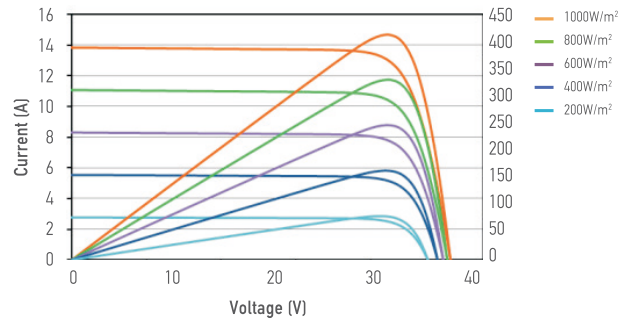
Temperature Characteristics

Pmax Temperature Coefficient	–0.341% / °C
Voc Temperature Coefficient	–0.262% / °C
Isc Temperature Coefficient	+0.054% / °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) x13 = 936 pcs

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