

## MONO CRYSTALLINE HALF-CUT CELL MODULE

320 / 325 / 330 / 335 / 340 / 345 / 350 Watts

# Black Panther



## **Overview**

Ground breaking technology; higher power output of up to 10W, 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



Boost Power Output up to 10W



Engineered in EU



Reduce Resistive Losses



Better Performance in Reduced Irradiance Conditions



Higher Light Conversion





Guaranteed mechanical resistance to severe weather conditions



Guaranteed Positive Tolerance up to 5W

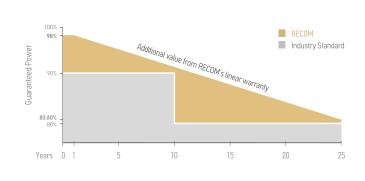


100 % electroluminescence tested

#### Tests. Certifications and Warranties

Standard Tests	IEC 61215, IEC 61730
Factory Quality Tests	ISO 9001: 2008, ISO 14001: 2004
Certifications	Fire Rating Type 1, conformity to CE, PV CYCLE
Insurance	Product liability insurance provided by Allianz
Surface Maximum Load Capacity	Above 5400Pa
Positive Tolerance	Guaranteed positive tolerance of up to 5W
Junction Box	IP68 Rated, 3 diodes
Warranties	<ul> <li>15-year limited product warranty</li> <li>15-year manufacturer warranty on 88.55% of the nominal performance</li> <li>25-year transferable linear power output warranty</li> </ul>

## Linear Performance Warranty



First Year Output

≥ **98**%

2-24 Year Decline

≤ 0.60%

25 Year Output

≥ 83.60%

## **Electrical Characteristics**

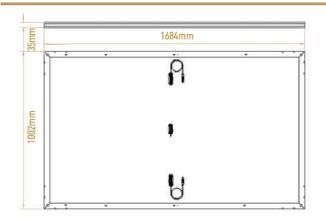
Rated Power	320W	325W	330W	335W	340W	345W	350W
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W
Maximum Power Voltage (Vmp)	33.40V	33.60V	33.80V	34.00V	34.20V	34.40V	34.60V
Maximum Power Current (Imp)	9.58A	9.68A	9.76A	9.85A	9.94A	10.03A	10.12A
Open Circuit Voltage (Voc)	40.90V	41.10V	41.30V	40.80V	41.10V	41.30V	41.50V
Short Circuit Current (Isc)	10.15A	10.20A	10.24A	10.50A	10.60A	10.65A	10.70A
Module Efficiency	19.00%	19.30%	19.60%	19.90%	20.10%	20.40%	20.70%
Maximum Series Fuse	15A	15A	15A	15A	15A	15A	15A
Maximum System Voltage		1.000 / 1.500 VDC (IEC)					

Tested at Standard Test Conditions. Measurement tolerances:  $\pm$  3%

#### Mechanical Data

Dimensions	1684mm x 1002mm x 35mm
Weight	19.0 Kg
Frame	Aluminum Alloy
Cell number	120 (60 x 2 pcs)
Output Cables	TUV (2Pfg 1169:2007), UL 4703, UL44 $4.0$ mm² (0.006 in²), symmetrical lengths Land scape : (-) 1100mm and (+) 1100mm, Portrait: (~)150mm and (+) 300mm MC4 compatible

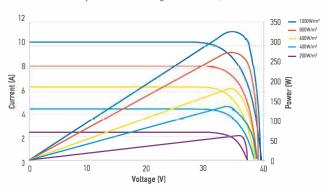
## **Dimensions**



RECOM assumes no liability or responsibility for any typographical error, layout error, misinformation, any other error, amission, contained herein.

## I-V Curve

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



## **Temperature Characteristics**

Pmax Temperature Coefficient	-0.36%/°C
Voc Temperature Coefficient	-0.28% / ºC
Isc Temperature Coefficient	+0.05% / °C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45 ± 3 °C

## **Packing Configuration**

Container	40'
Pieces per Pallet	30
Pallets per Container	26
Pieces per Container	858/780

#### recom-solar.com