

N-TYPE MONO CRYSTALLINE HALF CUT MODULE - BACK CONTACT TECHNOLOGY

475 / 480 / 485 / 490 / 495 Watts

BLACK TIGER SERIES



Overview

Black Tiger modules provide numerous benefits to customers seeking a high-quality product with exceptional performance and aesthetic, captivating design. The "Black Tiger" module utilizes N-Type cell technology in conjunction with a rear connection method known as BackContact. As a result, there is 0% front grid shadow loss, which increases the PV module's yield. Due to reduced shading on the front of the cell, the module maximizes total cell area realizing higher efficiency and resulting in a fast return on investment.

Key Benefits

	Zero Light Induced Degradation		High Power Generation
	0% Front Grid Shading Loss		Low Pmax Temperature Coefficient
	Low LCOE		Higher Light Conversion



Guaranteed mechanical resistance to severe weather conditions



Positive Tolerance

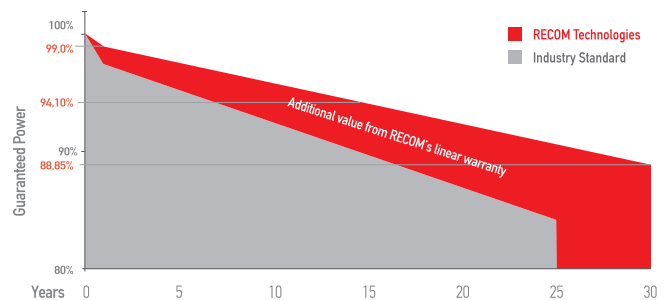


100 % electro-luminescence tested

Tests, Certifications and Warranties

Standard Tests	IEC 61215, IEC 61730
Factory Quality Tests	ISO 9001: 2015, ISO 14001: 2015
Certifications	Conformity to CE, PV CYCLE Fire safety Class C according to UL790
Wind and Snow Static Loads	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 style="list-style-type: none"> 25-year limited product warranty 15-year manufacturer warranty on 94,10% of the nominal performance 30-year transferable linear power output warranty

Linear Performance Warranty



First Year Output	≥ 99.0%	2-30 Year Decline	≤ 0.35%	30 Year Output	≥ 88,85%
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Black Tiger

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RCM-xxx-7RRCG (xxx=475-495)

Electrical Characteristics

POWER CLASS ⁽¹⁾			475		480		485		490		495	
Testing Condition			STC ⁽²⁾	NMOT ⁽³⁾	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	Pmax	[Wp]	475	362	480	365	485	369	490	373	495	377
Maximum Power Voltage	Vmp	[V]	33,16	31,52	33,28	31,63	33,40	31,74	33,51	31,85	33,62	31,95
Maximum Power Current	Imp	[A]	14,33	11,49	14,43	11,57	14,53	11,65	14,63	11,73	14,73	11,81
Open Circuit Voltage	Voc	[V]	40,18	38,18	40,29	38,29	40,40	38,39	40,52	38,51	40,64	38,62
Short Circuit Current	Isc	[A]	15,03	12,08	15,13	12,16	15,23	12,24	15,33	12,32	15,43	12,40
Module Efficiency	Eff	[%]	23,3		23,5		23,8		24,0		24,3	
Maximum Series Fuse	IR	[A]	25									
Maximum System Voltage	VSYS	[V]	1500V DC (IEC)									

(1) Measurement Tolerances: I_{sc} & V_{oc} (± 3%) - Power Classification 0/+5W

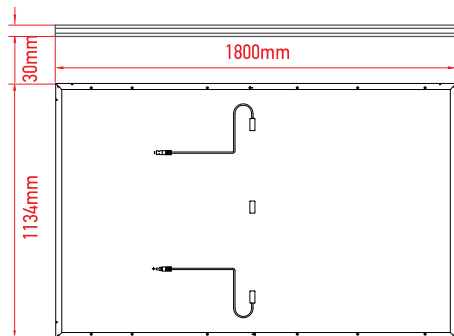
(2) STC (Standard Testing Condition): Irradiance 1000W/m², Cell Temperature 25°C, AM 1.5

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

Mechanical Data

Dimensions	1800 mm x 1134 mm x 30 mm
Weight	21,6 Kg
Cell Type	RC-N-type - 108 (2 x 54 Pcs) - M10R
Front Glass	3.2 mm Tempered and low iron glass + ARC
Rear Side	Anti-aging film
Frame	Anodized Aluminium Alloy (Black)
Junction Box	IP68, 3 Bypass diodes
Connector	MC4 compatible
Output cable	4mm ² - Length: 1200 mm

Dimensions



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

Temperature Characteristics

P _{max} Temperature Coefficient	-0.260% / °C
V _{oc} Temperature Coefficient	-0.200% / °C
I _{sc} Temperature Coefficient	+0.050% / °C
Operating Temperature	-40~+85 °C
Nominal Operating Module Temperature (NMOT)	45 ± 2 °C

Packing Configuration

Container	40'HC
Pieces per Pallet	36
Pallets per Container	24
Pieces per Container	(36+36)x12=864 pcs

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