

# Tiger 78TR

## 470-490 Watt

### MONO-FACIAL MODULE

#### P-Type

Positive power tolerance of 0~+3%

IEC 61215(2016), IEC 61730(2016)

ISO 9001:2015: Quality Management System

ISO 14001:2015: Environment Management System

ISO 45001:2018

Occupational health and safety management systems



Tiling Ribbon (TR) Technology

## Key Features



#### TR technology + Half Cell

TR technology with Half cell aims to eliminate the cell gap to increase module efficiency (mono-facial up to 21.38%)



#### Best Warranty

12 year product warranty,  
25 year linear power warranty



#### 9BB instead of 5BB

9BB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.



#### Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



#### Higher life time Power Yield

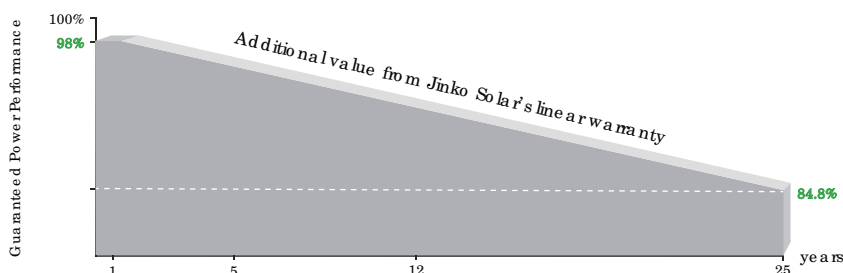
2% first year degradation,  
0.55% linear degradation



#### Avoid debris, cracks and broken gate risk effectively

9BB technology using circular ribbon that could avoid debris, cracks and broken gate risk effectively

## LINEAR PERFORMANCE WARRANTY

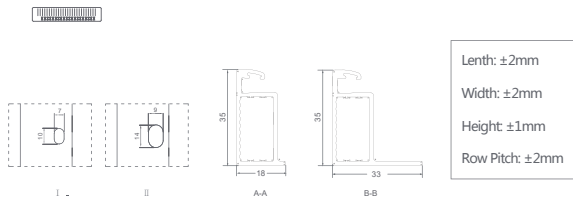
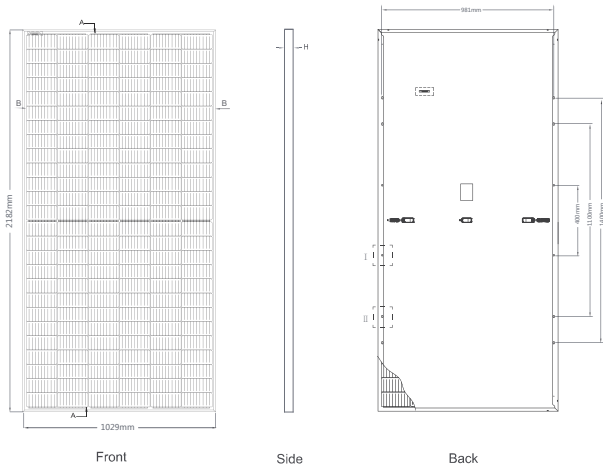


**12** Year Product Warranty

**25** Year Linear Power Warranty

**0.55%** Annual Degradation Over 25 years

## Engineering Drawings

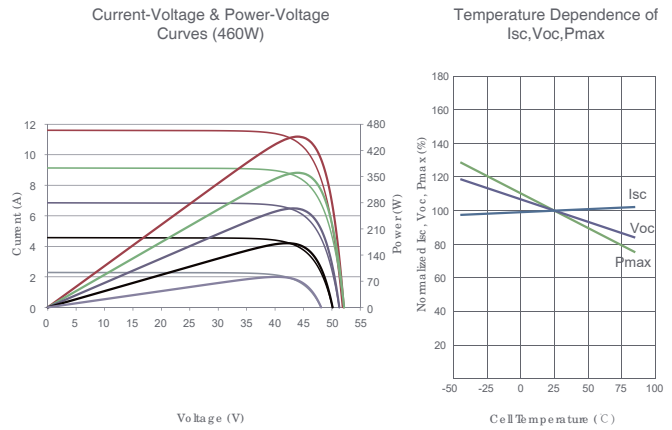


## Packaging Configuration

(Two pallets = One stack)

31pc s/pallets, 62pc s/stack, 620pc s/40'HQ Container

## Electric Performance & Temperature Dependence



## Mechanical Characteristics

Cell Type	P type Mono-crystalline
No. of cells	156(2x78)
Dimensions	2182x1029x35mm (85.91x40.51x1.38 inch)
Weight	25.0kg (55.12 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1x4.0mm <sup>2</sup> (+): 290mm, (-): 145mm or Customize Length

## SPECIFICATIONS

Module Type	JKM470M-7RL3		JKM475M-7RL3		JKM480M-7RL3		JKM485M-7RL3		JKM490M-7RL3	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	470Wp	350Wp	475Wp	353Wp	480Wp	357Wp	485Wp	361Wp	490Wp	365Wp
Maximum Power Voltage (Vmp)	43.28V	39.69V	43.38V	39.75V	43.48V	39.90V	43.58V	40.05V	43.68V	40.05V
Maximum Power Current (Imp)	10.86A	8.81A	10.95A	8.89A	11.04A	8.95A	11.13A	9.01A	11.22A	9.08A
Open-circuit Voltage (Voc)	52.14V	49.21V	52.24V	49.31V	52.34V	49.40V	52.44V	49.50V	52.54V	49.59V
Short-circuit Current (Isc)	11.68A	9.43A	11.77A	9.51A	11.86A	9.58A	11.95A	9.65A	12.04A	9.72A
Module Efficiency STC (%)	20.93%		21.16%		21.38%		21.60%		21.82%	
Operating Temperature (°C)	-40°C~+85°C									
Maximum System Voltage	1000/1500VDC (IEC)									
Maximum Series Fuse Rating	20A									
Power Tolerance	0~+3%									
Temperature Coefficients of Pmax	-0.35%/°C									
Temperature Coefficients of Voc	-0.28%/°C									
Temperature Coefficients of Isc	0.048%/°C									
Nominal Operating Cell Temperature (NOCT)	45±2°C									

\*STC: Irradiance 1000W/m<sup>2</sup> Cell Temperature 25°C AM=1.5  
 NOCT: Irradiance 800W/m<sup>2</sup> Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s