

# TR Bifacial 72M 515-535 Watt

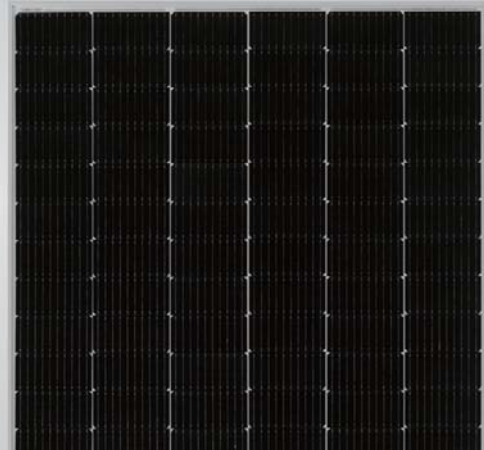
Tiling Ribbon (TR) Technology

Positive power tolerance of 0~+3%

ISO9001:2015, ISO14001:2015, ISO45001:2018  
certified factory

IEC61215, IEC61730 certified product

## TIGER Pro



### KEY FEATURES



#### TR technology + Half Cell

TR technology with Half cell aims to eliminate the cell gap to increase module efficiency (bi-facial up to 21.16%)



#### MBB instead of 5BB

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



#### Higher lifetime Power Yield

2% first year degradation,  
0.45% linear degradation



#### Best Warranty

12 year product warranty,  
30 year linear power warranty



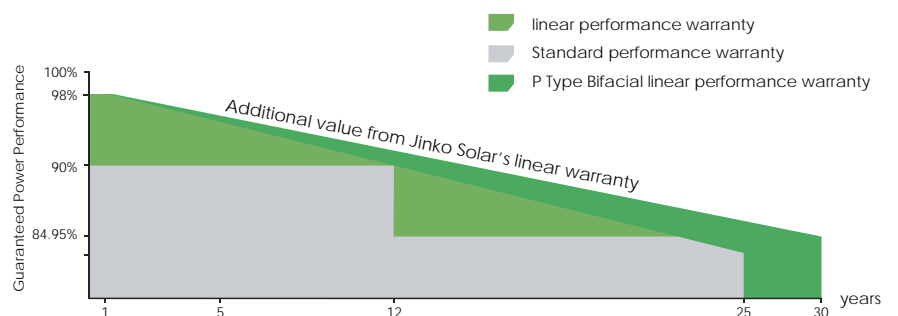
#### Strengthened Mechanical Support

5400 Pa snow load, 2400 Pa wind load

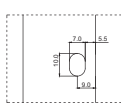
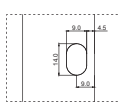
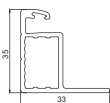
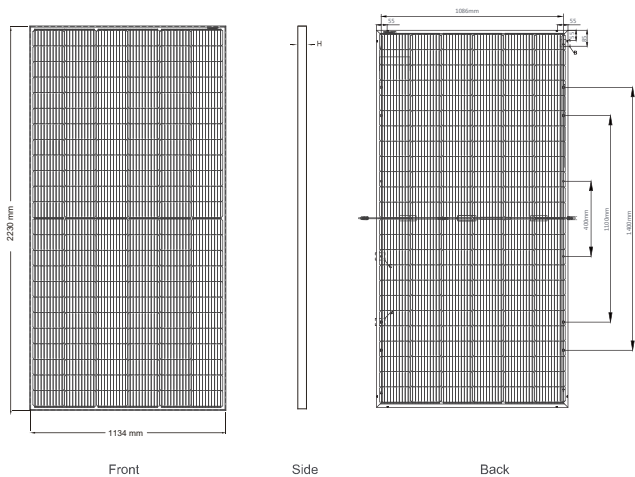


### LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty • 30 Year Linear Power Warranty  
0.45% Annual Degradation Over 30 years



## Engineering Drawings



Length: ±2mm  
Width: ±2mm  
Height: ±1mm  
Row Pitch: ±2mm

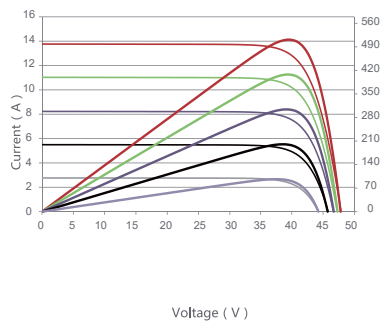
## Packaging Configuration

(Two pallets = One stack)

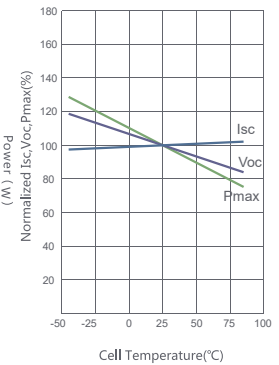
31pcs/pallets, 62pcs/stack, 620pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (515W)



Temperature Dependence of Isc, Voc, Pmax



## Mechanical Characteristics

|               |   |
|---------------|---|
| Cell Type     | P type Mono-crystalline   |
| No. of cells  | 144 (2×72)  |
| Dimensions    | 2230×1134×35mm (87.80×44.65×1.38 inch)                                      |
| Weight        | 28.9 kg (63.71 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 1×4.0mm <sup>2</sup><br>(+): 290mm, (-): 145mm or Customized Length     |

## SPECIFICATIONS

| Module Type                               | JKM515M-7TL4-TV |        | JKM520M-7TL4-TV |        | JKM525M-7TL4-TV |        | JKM530M-7TL4-TV |        | JKM535M-7TL4-TV |        |
|---|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|
|   | SCT             | NOCT   | SCT             | NOCT   | SCT             | NOCT   | SCT             | NOCT   | SCT             | NOCT   |
| Maximum Power (Pmax)                      | 515Wp           | 383Wp  | 520Wp           | 387Wp  | 525Wp           | 391Wp  | 530Wp           | 394Wp  | 535Wp           | 398Wp  |
| Maximum Power Voltage (Vmp)               | 40.08V          | 37.27V | 40.22V          | 37.42V | 40.36V          | 37.56V | 40.49V          | 37.70V | 40.63V          | 37.84V |
| Maximum Power Current (Imp)               | 12.85A          | 10.28A | 12.93A          | 10.34A | 13.01A          | 10.40A | 13.09A          | 10.46A | 13.17A          | 10.52A |
| Open-circuit Voltage (Voc)                | 48.58V          | 45.85V | 48.72V          | 45.99V | 48.86V          | 46.12V | 48.99V          | 46.24V | 49.13V          | 46.37V |
| Short-circuit Current (Isc)               | 13.53A          | 10.93A | 13.61A          | 10.99A | 13.69A          | 11.06A | 13.77A          | 11.12A | 13.85A          | 11.19A |
| Module Efficiency STC (%)                 | 20.37%          |        | 20.56%          |        | 20.76%          |        | 20.96%          |        | 21.16%          |        |
| Operating Temperature(°C)                 | -40°C~+85°C     |        |                 |        |                 |        |                 |        |                 |        |
| Maximum system voltage                    | 1500VDC (IEC)   |        |                 |        |                 |        |                 |        |                 |        |
| Maximum series fuse rating                | 25A             |        |                 |        |                 |        |                 |        |                 |        |
| 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          |        |                 |        |                 |        |                 |        |                 |        |
| Refer. Bifacial Factor                    | 70±5%           |        |                 |        |                 |        |                 |        |                 |        |

## BIFACIAL OUTPUT-REAR SIDE POWER GAIN

|     |                           | 5%                   |                           | 15%                  |                           | 25%                  |                           |
|-----|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|
|     |                           | Maximum Power (Pmax) | Module Efficiency STC (%) | Maximum Power (Pmax) | Module Efficiency STC (%) | Maximum Power (Pmax) | Module Efficiency STC (%) |
| 5%  | Maximum Power (Pmax)      | 541Wp                | 546Wp                     | 551Wp                | 557Wp                     | 562Wp                |                           |
|     | Module Efficiency STC (%) | 21.38%               | 21.59%                    | 21.80%               | 22.01%                    | 22.21%               |                           |
| 15% | Maximum Power (Pmax)      | 592Wp                | 598Wp                     | 604Wp                | 610Wp                     | 615Wp                |                           |
|     | Module Efficiency STC (%) | 23.42%               | 23.65%                    | 23.87%               | 24.10%                    | 24.33%               |                           |
| 25% | Maximum Power (Pmax)      | 644Wp                | 650Wp                     | 656Wp                | 663Wp                     | 669Wp                |                           |
|     | Module Efficiency STC (%) | 25.46%               | 25.70%                    | 25.95%               | 26.20%                    | 26.45%               |                           |

\* 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