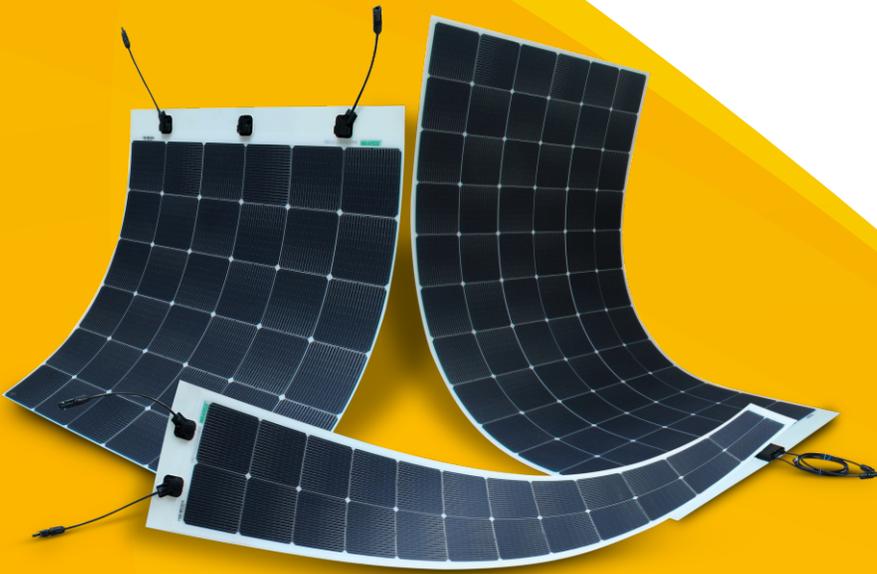


# WAAREE®

One with the Sun



## WM-315-FX

### WEL MERLIN FLEXIBLE MONO SERIES

144-CELLS – FLEXIBLE MODULE

Waaree Energies introduces the first energy efficient modules in India which are designed to protect against vibration induced damages and increase the power performance through strengthened solar cell by sandwiching the fragile Silicon cell between two copper grids, and by collecting current in a distributed fashion which eliminates the electrical impact of cell crack which in turn improves the power performance and long life reliability. WM FX panels are glass-free and made with high quality ETFE Polymer and Waaree Merlin mono crystalline solar cells. Due to very light weight, it's much easier to fix on roof without any heavy load.



### KEY FEATURES

- Hundred and forty-four (144) cells series connected, high efficiency, Merlin solar cells optimize panel performance
- Low-weight non-penetrating mounting solutions take advantage of light weight module characteristics
- Completely glass-free module
- Multi bus-bar is swapped by ultra thin copper grids
- Higher open circuit voltage
- Better current distribution results in low series resistance
- Eliminate bottom tabbing ribbons by using cell orientation to complete the interconnect
- Enhanced fill factor of >79% compared to conventional fill factor.
- Lifetime high interconnect service
- By pass diodes allow for maximum performance under shadow condition
- Crack tolerance because of the grid that holds the solar cells
- Low system installation cost
- Superior low light and low sun angle performance
- Maintain module integrity and power performance
- Modules built and tested to UL and IEC Standard

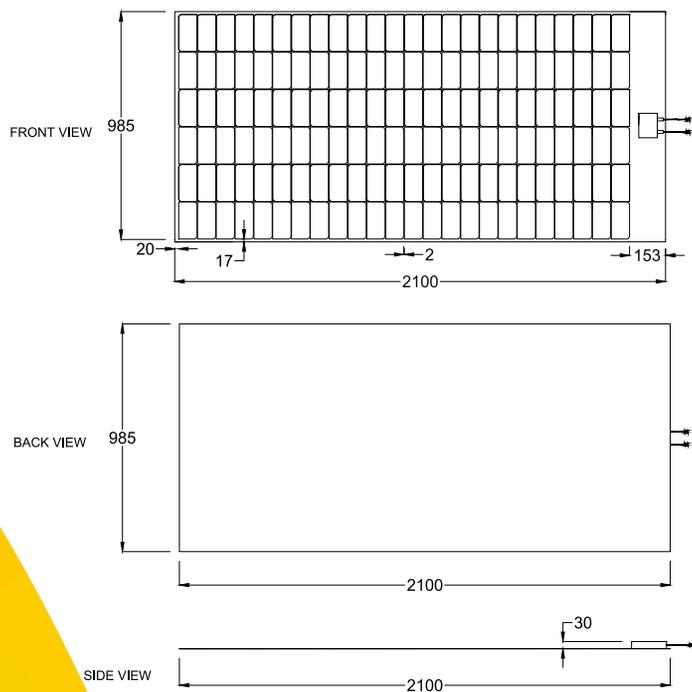
## MECHANICAL PROPERTIES

Cells	6x24
Cell Dimensions	78.375 x 156.75 (mm)
Cell Type	Mono-crystalline ( PERC/ NON PERC/BIFACIAL)
Module Dimensions (L x W x H)	2100 x 985 x 30 (mm)
Weight	6.50±0.5 KG
Junction Box	IP 67 with 3 by pass diodes
Connector Type	MC4 COMPATIBLE
Cable	4 SQM cross section 1200mm long
Superstrate type (e.g. – strengthened glass, tempered glass, etc.)	ETFE Polymer

## CERTIFICATION AND WARRANTY

Certifications	IEC-61215*:2005, IEC 61730*-1:2004, IEC61730*-2:2004, U.L 1703*
Fire Safety Class	Class-C
Limited Product Warranty	10 Years
Limited Power Output Warranty	25 Year

## MODULE DIMENSIONS



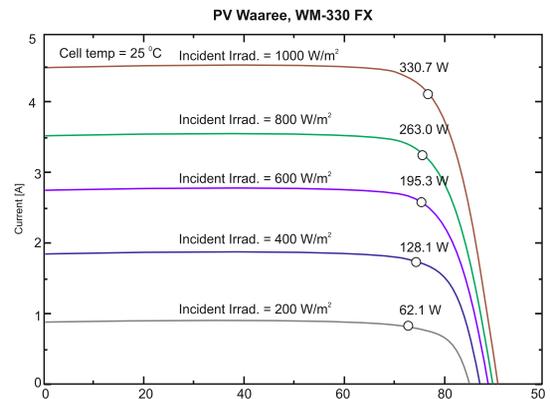
## ELECTRICAL PROPERTIES (STC\*)

Electrical Properties (STC*)	WM-315-FX	WM-320-FX	WM-325-FX	WM-330-FX
Model Number	WM-315-FX	WM-320-FX	WM-325-FX	WM-330-FX
Rated Power (Pmax) in Watt	315	320	325	330
Number in Series Numbers	72	72	72	72
Max Peak Voltage (Vmp) (Volt)	36.3	36.5	36.7	37
Max Peak Current (Imp) (Amp)	8.67	8.77	8.87	8.94
Open Circuit Voltage (Voc) (Volt)	45.65	45.75	45.8	46
Short Circuit Current (Isc) (Amp)	8.85	8.95	9.05	9.12
Module Efficiency (%)	15.46	15.71	15.95	16.2
Max System Voltage (V dc) (Volt)	600			
Power Tolerance (%)	+3			
Maximum Series Fuse Rating (Amp)	15			
Fill Factor (%)	>79			
Operating Temperature	-40°C to 85°C			

## TEMPERATURE COEFFICIENT

Voc	-2.108mV/K
Isc	4.48mA/K
FF	-0.1203%/K
Power	-0.432%/K

## Characteristic Curves



For contact & support:- [www.waaree.com](http://www.waaree.com)

Designed in USA; Manufactured in India by Waaree Energies Limited

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☐ 022 66 44 44 44, ☐ 022 66 44 44 00.

Toll-free : 1800 2121 321

☐ Email: [waaree@waaree.com](mailto:waaree@waaree.com)

NOTE: STC STANDS FOR STANDARD TEST CONDITION: 1000W/M<sup>2</sup> INTENSITY, A.M 1.5, 25°C CELL TEMPERATURE. AT STC, THE ELECTRICAL CHARACTERISTICS IS WITHIN ±10% UNLESS SPECIFIED OTHERWISE. \* INDICATED AS PER IEC TESTING DATA, IT MAY BE CHANGED ACCORDINGLY.

\*\*REFER TO WAAREE'S WARRANTY DOCUMENT FOR FURTHER TERMS AND CONDITIONS.