

WRS-144HCLM

POWER RANGE

420W~460W

CELL FEATURE

166*83, 23.31%



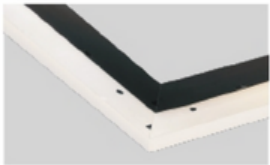
Front

Back



JUNCTION BOX

High waterproof rating
Protection Degree: IP67
Safety Class: Class II
Rated Voltage: 1500V



FRAME

Strong mechanical load
resistance up to 5400 Pa
Anodic oxidation layer resistant
to chemical corrosion
Available in silver and black



5BB



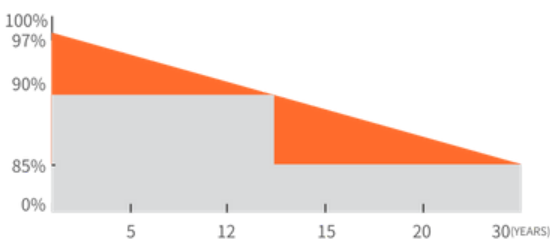
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QUALIFICATIONS AND CERTIFICATES



·IEC61215 / · IEC61730

WARRANTY



12 YEARS Guarantee on product material and workmanship

30 YEARS Linear Power output warranty



MBB CELLS

More uniform current collection reduces the current loss of the cell inside panels



Anti-reflective glass

Increases the light absorption, and reduces the power loss caused by the self-cleaning in rain.



Excellent performance in low irradiance

Enable solar panels to generate electricity in the morning, cloudy and rainy days.

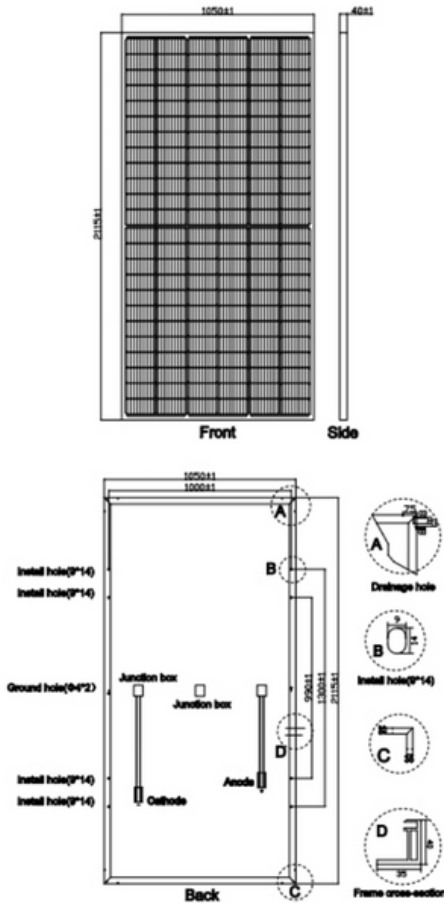


PID Resistant

Perfect resistance against PID (Potential Induced Degradation) to secure your investment.

PV DRAWINGS

Unit:mm



ELECTRICAL DATA (STC)

Model Type	WRS420-36-MH	WRS430-36-MH	WRS440-36-MH	WRS450-36-MH	WRS460-36-MH
Peak Power (Pmax)	420.00	430.00	440.00	450.00	460.00
Maximum Power Voltage (Vmp)	40.20	40.60	41.00	41.40	41.80
Maximum Power Current (Imp)	10.45	10.60	10.74	10.87	11.01
Open Circuit Voltage (Voc)	48.80	49.20	49.60	50.22	50.70
Short Circuit Current (Isc)	11.04	11.19	11.33	11.48	11.63
Cells Efficiency (%)	21.28	21.79	22.30	22.80	23.31
Module Efficiency (%)	18.91	19.36	19.81	20.26	20.71

* STC: irradiance 1000 W/m², AM 1.5, and cell temperature of 25° C

ELECTRICAL DATA (NOCT)

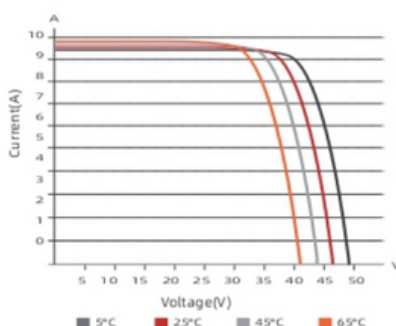
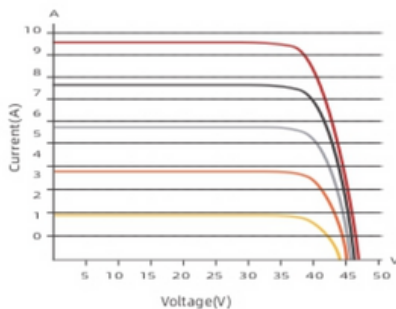
Model Type	WRS420-36-MH	WRS430-36-MH	WRS440-36-MH	WRS450-36-MH	WRS460-36-MH
Peak Power (Pmax)	311.10	318.50	326.00	334.00	342.00
Maximum Power Voltage (Vmp)	37.10	37.50	37.90	38.27	38.64
Maximum Power Current (Imp)	8.38	8.50	8.61	8.73	8.86
Open Circuit Voltage (Voc)	45.50	45.90	46.30	46.84	47.30
Short Circuit Current (Isc)	8.90	9.02	9.13	9.26	9.40

* NOCT: irradiance 800 W/m², AM 1.5, ambient temperature 20° C, wind speed 1 m/s

TEMPERATURE & MAXIMUM RATING

Maximum System Voltage (V)	1500
Maximum Series Fuse Rating (A)	20
Power Tolerance	0 ~ +3 %
Pmax Temperature Coefficients (W/°C)	-0.370 %
Voc Temperature Coefficients (V/°C)	-0.286 %
Isc Temperature Coefficients (A/°C)	+0.057 %
NOCT Nominal Operating Cell Temperature (°C)	45±2
Operating and Storage Temperature (°C)	-40 ~ +85

IV CURVE



MECHANICAL CHARACTERISTICS

Cell Type	166x83 Mono
No. of Cells	144(12x12)
Dimensions	2115*1050*40
Weight	23.5kg
Front Glass	3.2mm high transmission, low iron, tempered glass
Frame	Anodized Aluminium Alloy
Junction box	IP68 3 diodes
Output cables	4mm ² cable 90cm+mc4
MaxWind Load/Snow Load	2400Pa/5400Pa

PACKING WAY

20FT container	5 Packages/135PCS
40HQ container	22 Packages/594PCS

WARIS ENERGY SRL

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