



# HW-M12/110H(535-555)

## High Efficiency Mono Solar Module

### Introduction

MBB and high-density interconnect technology improves power output and module efficiency.

Deploying advanced non-destructive cutting and half-cut technology, the Module features excellent Mechanical performance.



### Excellent power generation performance

0/+5W positive power tolerance  
Improved low light irradiance performance and low degradation



### Advanced production process

Optimized MBB design  
Cell efficiency >23.0%



### Stable mechanical performance

Passed rigorous hail test  
Withstands 5400Pa snow and 2400Pa wind loads



### Superior quality control

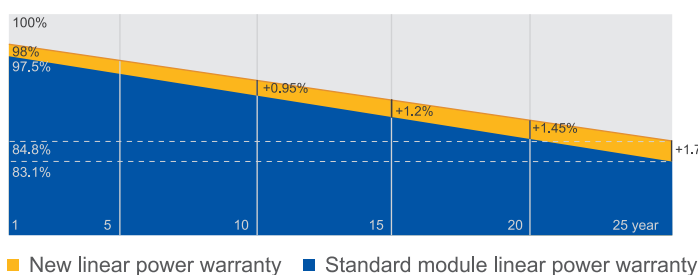
Full automatic production line  
100% three times EL and appearance inspection

### Certificate

TUV: EN IEC 61215, EN IEC 61730  
GB/T 19001-2016/ISO 9001:2015  
GB/T 24001-2016/ISO 14001:2015  
GB/T 45001-2020/ISO 45001:2018



### Warranty



## Hiwatt Solar Limited

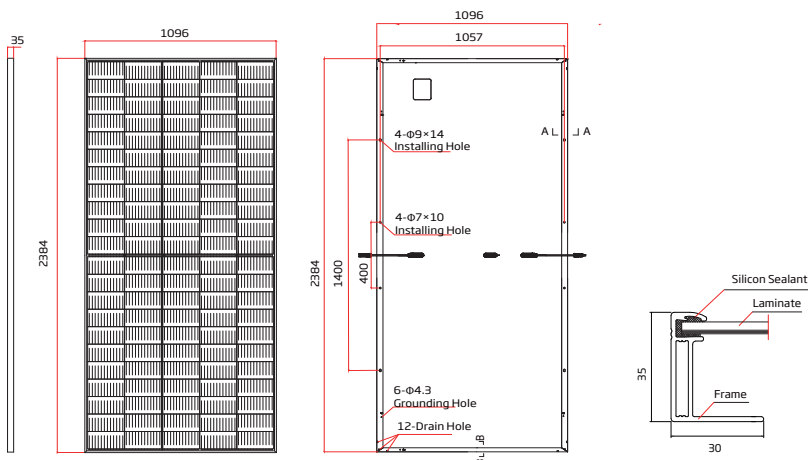
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## MECHANICAL DIAGRAMS



## SPECIFICATIONS

Solar Cells	Monocrystalline
No. Of Cells	110
Dimensions	2384x1096x35mm
Weight	28.6kgs
Junction Box	IP 68, 3 Diodes
Cables	4.0mm <sup>2</sup>
Connectors	QC 4.10-35(1500V)

## ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)	535	540	545	550	555
Power Tolerance-PMAX (W)	0 ~ +5				
Maximum Power Voltage -VMPP (V)	31.0	31.2	31.4	31.6	31.8
Maximum Power Current -IMPP (A)	17.28	17.33	17.37	17.40	17.45
Open Circuit Voltage -VOC (V)	37.3	37.5	37.7	37.9	38.1
Short Circuit Current -ISC (A)	18.36	18.41	18.47	18.52	18.56
Module Efficiency (%)	20.5	20.7	20.9	21.0	21.2

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.

## ELECTRICAL DATA (NOCT)

Maximum Power-PMAX (Wp)	405	409	413	417	420
Maximum Power Voltage -VMPP (V)	28.8	29.0	29.2	29.3	29.5
Maximum Power Current -IMPP (A)	14.06	14.10	14.15	14.19	14.23
Open Circuit Voltage -VOC (V)	35.1	35.3	35.5	35.7	35.9
Short Circuit Current -ISC (A)	14.80	14.84	14.88	14.92	14.96

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

## TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coe-cient of PMAX	- 0.34%/°C
Temperature Coe-cient of VOC	- 0.25%/°C
Temperature Coe-cient of ISC	0.04%/°C

## MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	30A

## PACKAGING

Modules per box:	31 pieces
Modules per 40' container:	620 pieces

## WARRANTY

12 year Product Workmanship Warranty  
 25 year Power Warranty  
 0.55% Annual Power Attenuation  
 2% first year degradation

## CHARACTERISTICS

