



45W/90W Solar Roof Tile

 **Light Weight**
16.5kg/m², half weight of traditional roof tile

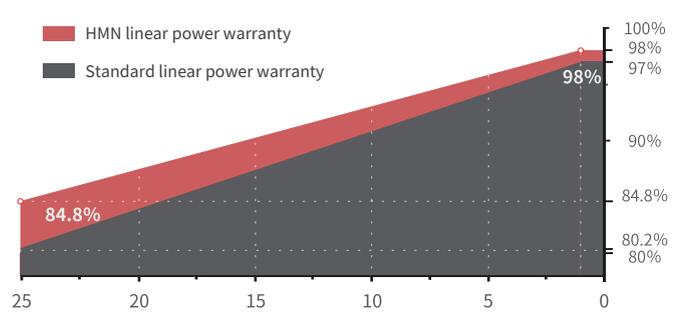
 **Shock Resistance**
Tempered Glass,
High Quality Aluminium Frame

 **Aesthetic Appearance**
Shingling Tech., High Consistency

 **Easy Installation**
Light weight, easy for handling

 **Customized**
Provide Customized Service

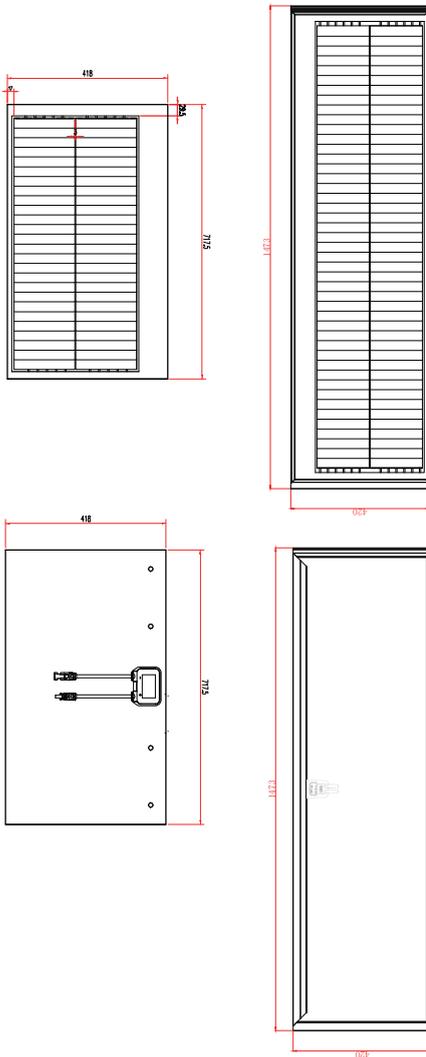
Linear Performance Warranty



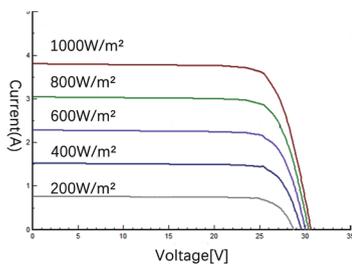
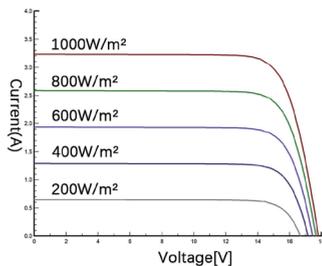
Linear power warranty

25 YEAR Linear Power Warranty **12** YEAR Product Warranty

Characteristics



I-V Curve



Electrical Characteristics

STC	HMN-45-DE2I	HMN-90-DE2I
Maximum Power (Pmax)	45W	90W
Maximum Power Voltage(Vmp)	14.6V	25.4V
Maximum Power Current(Imp)	3.08A	3.56A
Open-circuit Voltage(Voc)	17.8V	30.6V
Short-circuit Current(Isc)	3.23A	3.80A
Module Efficiency(%)	15.01%	14.55%
Operating Temperature	-40 °C to 85 °C	
Maximum System Voltage	600VDC	
Maximum Series Fuse Rating	15 A	
Application Class	Class A	
Power Tolerance	0~+5 W	

STC:Irradiance 1000W/m² , module temperature 25°C , AM=1.5

Mechanical Characteristics

Solar Cell	Monocrystalline silicon cell
Cell Size	158.75×31.75mm
No. of cells	52/90
Module Dimensions	L:717.5*W:418/L:1473*W:420 mm
Weight	5.1kg/10.2kg
Front Glass	3.2mm tempered AR Glass
Backsheet	Black PV Backsheet
J-Box	IP 67
Output cables	4mm ²
Cable length	(+)/(-) 300 mm
Connector	MC4 compatible

Temperature Characteristics

NOCT(Nominal Operating Cell Temperature)	45 ± 2°C
Temperature Coefficient of Pmax	-0.35%/°C
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	0.050%/°C

Packaging

Container	20'GP	40'HQ
Pieces per pallet	94/47	94/47
Pieces per container	2632/1316	5640/2820