

Technical Specifications



Specifications	ECE072M450	
Power (Pm) in Watts (nominal)	450	
Open Circuit Voltage (Voc) in Volts	48.98	
Short Circuit Current (Isc) in Amps	11.12	
Voltage at Max Power (Vmp) in Volts	42.66	
Current at Max Power (Imp) in Amps	10.55	
Module Fill Factor (%)	82.63	
Module Efficiency (%)	20.93	
Maximum System Voltage (Vdc)	1500	
Solar Cells per Module (Units) & Module Matrix	72	12*6
No. of Cells per bypass Diode	24	
Diode used detail	20A 45	
Max Series Fuse Rating in Amps	20	

*All electrical parameters specified at STC: 25°C cell temperature; 1000W/M² irradiance; AM 1.5

Temp. Coefficient Tc

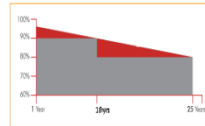
Tc of Open Circuit Voltage (β) -0.36%/°C ± 0.02
 Tc of Short Circuit Current (α) 0.07%/°C ± 0.01
 Tc of Power (γ) -0.38%/°C ± 0.02
 NOCT 45±2°C

Performance Warranty

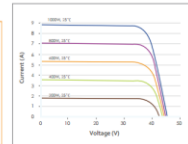
05 years Product Warranty
 12 years – 90% of Power
 25 Years – 80% of power

I-V Curve at STC

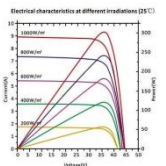
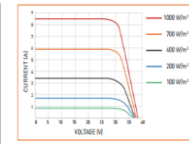
Performance Warranty



IV CURVE



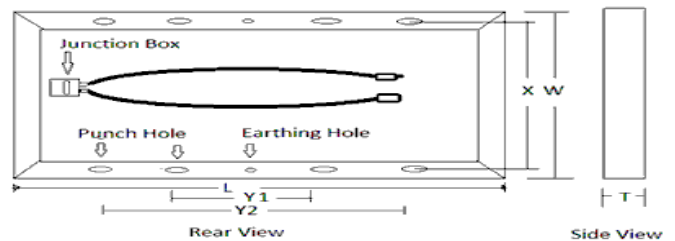
IV Curves



Mechanical Details

Solar Cells Type	Mono Perc solar cells -9 BB
Cell size	166 mm x166 mm
Solar Glass	3.2 mm High transmission low iron tempered glass AR coated
Length (L)x Width(W) x Height(T)	2060mmx1045mmx40mm (± 1.5 mm)
Area	2.15 SQM
Mounting Hole Pitch (Y)	Y1=900mm, Y2=1060mm
Mounting Hole Pitch (X)	1010mm(± 4 mm)
Mounting hole size	12mm*8mm(± 2 mm)
Weight	24.5 Kg.
Cell to Cell Gap	2 mm
Internal Circuit Connection	Copper Ribbon
Frame	Silver (more then 15 micron) Anodized Aluminium
Cells Encapsulant	EVA (Ethylene Vinyl Acetate)- FC/UFC
Junction Box (Model Type & current Rating)	Prepotted IP 68 rated with 3 Bypass diodes (4 T /3 D)
Cable & Connectors	4 sqm. (12AWG) solar cable 1200mmx2 nos black MC4 compatible connectors
Mechanical Load Condition	Sustain Heavy wind & snow loads (2400 Pa & 5400 Pa or 550 Kg/m²)
	Maximum diameter of 24 mm with Hail impact of 83 Km/h

Mounting Diagram Details



Packing Details

Container	20'GP	40'HC
Pallet/Container	10	28
Modules/container	300	840

*Due to constant product modifications, company reserves the right to amend the above specifications without prior notice.

ECE INDIA ENERGIES PRIVATE LIMITED

F-27, MIDC EXPRESS HIWAY , AMRAWATI

NAGPUR, PIN- 444607