

ISH PRIME

ISH-TM10R-60H

480-500 WATT

Bifacial Module With Dual Glass

Product of **INDIA**

12 Years

Product Warranty

30 Years

Linear Power Warranty

1%

First-Year Degradation

0.4%

Annual Degradation
(Over 30 years)



CERTIFICATIONS



IS 14286 (Part 1/ Sec 1): 2023
IS/IEC 61730-1:2023
IS/IEC 61730-2:2023
IEC 61215-1-1:2021

IEC 62804 - PID
IEC 61853 - Pan File
IEC 62716 - Ammonia
IEC 61701 - Salt Mist Corrosion



9001:2015
14001:2015
45001:2018



N-Type Technology

Up to 30% Additional Power Gain when compared with conventional P-type module



Higher Power Generation

Excellent anti-PID performance via optimized process and materials control. Lower susceptibility to LID & LETID



Lower LCOE

Lower balance of systems cost. Improved value proposition of the product with competitive ROI



0% Negative Power Tolerance

Positive power tolerance of upto 0~ 4.99Wp. Module current binning radically reduces string mismatch losses



Rigorous Testing Criteria

Four Stage EL inspection by AI to ensures high quality defect free Solar modules



Optimized Heat Resistance

Optimized temperature co-efficient via advanced graphical patterned busbar and multi cell technology



Electrical Data At 1000W/m², 25° C, Ambient Temperature, 1.5 m/s Wind Velocity

Model Name	ISHTM10R60H480	ISHTM10R60H485	ISHTM10R60H490	ISHTM10R60H495	ISHTM10R60H500
Peak Power Pmax (Wp)	480	485	490	495	500
Max Voltage Vmpp (V)	38.56	38.71	38.86	39.01	39.16
Max Current Impp (A)	12.47	12.55	12.63	12.71	12.79
Open Circuit Voltage Voc (V)	45.37	45.54	45.71	45.88	46.05
Short Circuit Current Isc (A)	13.14	13.22	13.30	13.38	13.46
Module Efficiency (%)	22.19	22.42	22.65	22.88	23.11

Electrical Data At NOCT At 800W/m², 20° C, Ambient Temperature, 1 m/s Wind Velocity

Peak Power Pmax (Wp)	349	353	357	361	365
Max Voltage Vmpp (V)	33.34	33.6	33.8	34	34.2
Max Current Impp (A)	10.47	10.51	10.56	10.63	10.67
Open Circuit Voltage Voc (V)	40.50	40.60	40.70	40.80	40.90
Short Circuit Current Isc (A)	11.26	11.33	11.4	11.47	11.53

Electrical Characteristics With Different Rear Side Power Gain

Pmax (Wp)	504	509	514	519	524
Efficiency (5%)	23.29	23.54	23.78	24.02	24.26
Pmax (Wp)	552	557	563	569	575
Efficiency (15%)	25.51	25.78	26.04	26.31	26.57
Pmax (Wp)	600	606	612	618	625
Efficiency (25%)	27.73	28.02	28.31	28.6	28.88

The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

Operating Condition

Power Tolerance	0~+5W
Maximum System Voltage	1500
Maximum Series Fuse Rating	30A
Nominal Operating Cell Temperature (NOCT)	42±2°C
Max. Surface Load Capacity, Pa	5400
Max. Wind Speed Capacity, Pa	2400
Safety Class	Class II
Hail Impact Velocity, m/sec	23

Mechanical Characteristics

Cell Type	N-Type TOPCon
No. Of Cells	120(60 x 2) Pcs
Dimensions	1908 x 1134 x 35mm
Weight	26.5 kg
Front Glass	2.0 mm, Low Iron, Heat Strengthened AR Coated
Back Glass	2.0 mm, Low Iron, Heat Strengthened Glass
Frame	T6 Anodized Aluminum Alloy
Junction Box	IP 68, Split Junction Box With Individual Bypass Diodes
Output Cables	4.0 mm ² (+): 400mm, (-): 400mm Or Customized Length

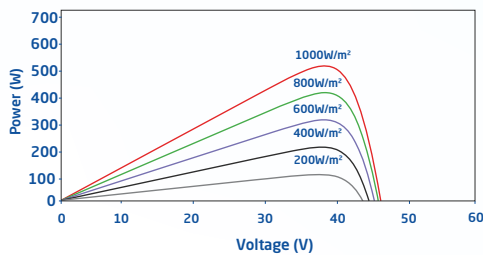
Packaging Configuration

Container	40'HC	
Height Of Modules (mm)	35	30
Number Of Modules Per Pallet	31	36
Number Of Pallets Per Container	24	24
Number Of Modules Per Container	744	864

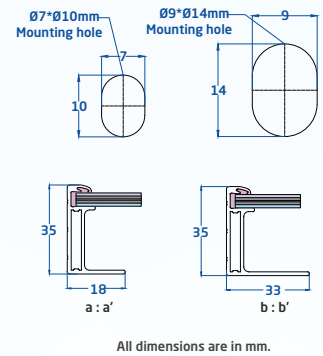
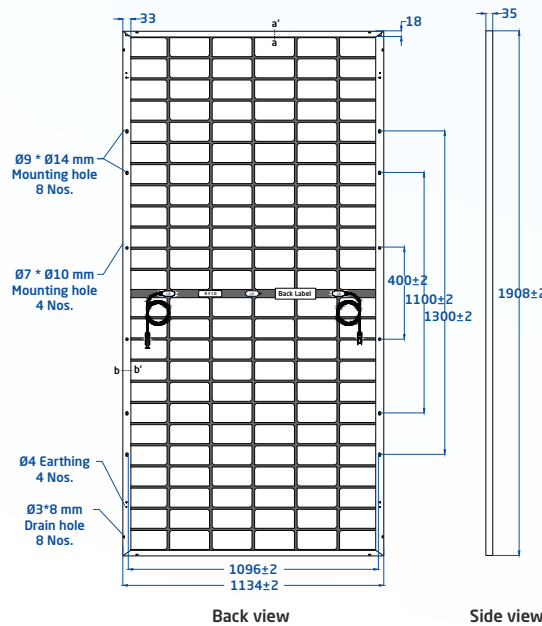
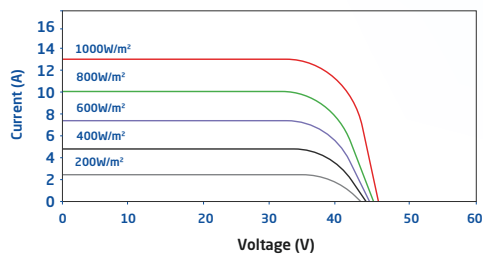
TEMPERATURE COEFFICIENTS

Tc Of Open Circuit Voltage (B)	-0.27% /°C
Tc Of Short Circuit Current (A)	0.045% /°C
Tc Of Power (I)	-0.3% /°C
Temperature Range	-40°C To +85°C

Power-Voltage Curves (ISHTM10R60H500)



Current-Voltage Curves (ISHTM10R60H500)



Linear Performance Warranty

