



HDT-72GHF

410-430

HDT DOUBLE GLASSES HALF-CELL SOLAR MODULE



Module characteristics



High efficiency

- 10%-20% higher than traditional crystalline solar module
- Lower cost of land, frames, cable, transportation and maintenance



Excellent temperature performance

- Power -temperature coefficient ($-0.252\%/^{\circ}\text{C}$) is 40% lower than traditional crystalline silicon solar modules
- Higher power output than traditional solar module in high temperature environment



Double-sided power generation

- Increasing power output by at 8%~20% over single glass module



High stability

- The LID is 50% lower than traditional crystalline silicon solar modules

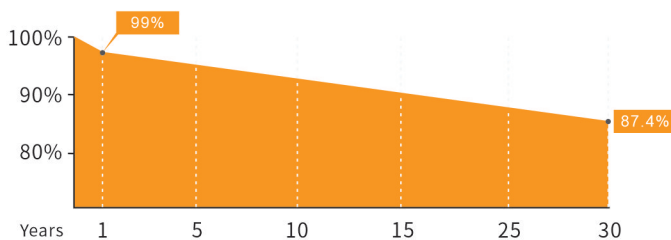


High ROI

- HDT solar modules have lower LCOE for solar farm than that the traditional crystalline silicon solar module
- Higher return on investment

Linear power warranty

Linear Performance Warranty



12 years

 product warranty

1st year degradation less than 1.0%

30 years power output 87.4% guaranteed

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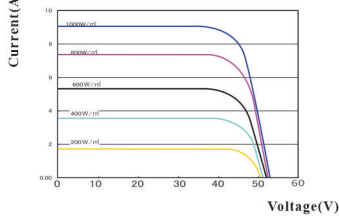
Electrical Data

Spec/Model	HDT-72GHF-410	HDT-72GHF-415	HDT-72GHF-420	HDT-72GHF-425	HDT-72GHF-430
Maximum Power at STC/W	410	415	420	425	430
Open Circuit Voltage/V	53.2	53.3	53.4	53.5	53.6
Max Power Voltage/V	45.0	45.3	45.6	45.9	46.2
Short Circuit Current/A	9.71	9.73	9.75	9.77	9.79
Max Power Current/A	9.12	9.17	9.22	9.27	9.32
Module Efficiency/%	20.37	20.62	20.86	21.11	21.36
Output Power Tolerance/W	0 ~ +5W				
STC: (AM1.5, 1000W/m ² , Cell Temperature 25°C); bifaciality: ≥80%;					

Electrical parameters under 10% irradiation intensity ratio (back/front)

Spec/Model	HDT-72GHF-410	HDT-72GHF-415	HDT-72GHF-420	HDT-72GHF-425	HDT-72GHF-430
Maximum Power at STC/W	443	448	453	459	464
Open Circuit Voltage/V	53.2	53.3	53.4	53.5	53.6
Max Power Voltage/V	45.0	45.3	45.6	45.9	46.2
Short Circuit Current/A	10.49	10.51	10.53	10.55	10.57
Max Power Current/A	9.85	9.90	9.95	10.00	10.05
Irradiation intensity ratio (back/front)	10%				
Backside Gain: Under standard test conditions, the power gain of backside vary on parameters such as module mounting structure, installation height, angle, and ground reflectivity, etc.					

I-V curves at different irradiance



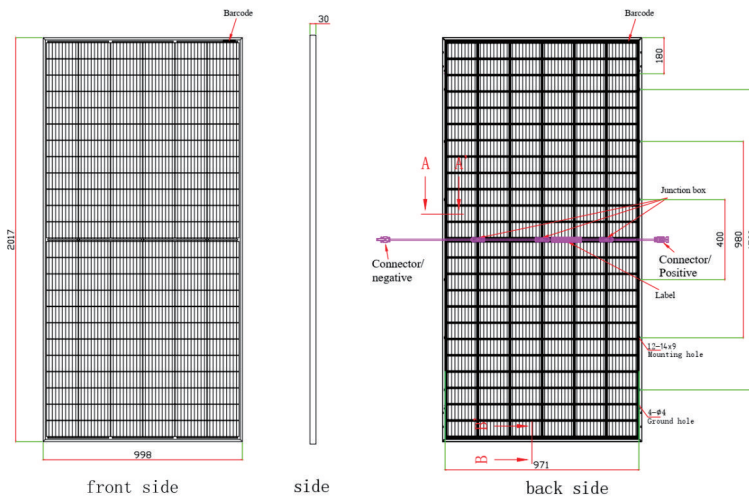
Electrical Data

Temperature Coefficient of Isc α (%/°C)	0.031
Temperature Coefficient of Voc β (%/°C)	-0.227
Temperature Coefficient of Pmax γ (%/°C)	-0.252

Operating Conditions

Maximum System Voltage	1500VDC(IEC)
Operating Temperature	-40°C ~ 85°C
Maximum Fuse Rating	15A
Front Static Load Test (Snow)	5400Pa
Rear Static Load Test (Wind)	2400Pa
Hail Stone Impact Test	Distance 1m, Hail stone Diameter 25mm, Speed 23m/s
Nominal Operating Cell Temperature	45°C ± 2°C
Applications Class	Class A

Double Glasses Module Physical Dimensions



Mechanical Data

Solar Cells	144 pieces
Dimensions(mm)	2017mm*998mm*30mm
Weight(kg)	25±0.5kg
Front Glass	2.0mm
Rear Glass	2.0mm
Junction Box (protection grade)	IP68
Output Cables	0.2m(+)/0.4m(-), 4mm ²
Connector	Mc4 Compatibility
Modules per Pallet	34pieces
Pallets per 40' HQ Container	748pieces, 22pallets
Pallets per Shipping Flat Car (13.5m)	816pieces, 24pallets

Certifications

Fire Safety Class	Class C
Certification	TUV NORD/IEC61215, IEC61730



CAUTION:

Handle, install and use of the module must be followed the installation instruction manual officially issued by GS technical service.