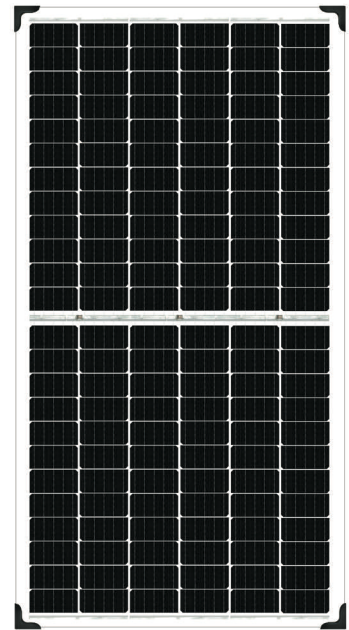




HETERO-JUNCTION TECHNOLOGY

HDT DOUBLE GLASSES SOLAR MODULE

-0.28%/°C
Temperature Coefficient

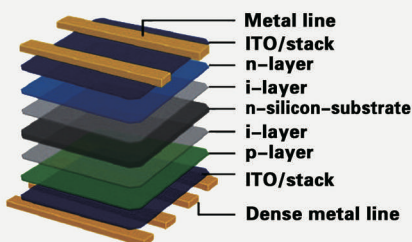
20.04%
Max Efficiency

375W-400W
Output Wattage

0
Not PID、LETID Effect

HDT double glasses solar module use high efficiency mono-crystalline hetero-junction double-sided solar cells technology (HDT), HDT solar cells can generate power from both sides. It uses N-type mono-crystalline silicon as substrate. A thin layer of un-doped (intrinsic) hydrogenated amorphous silicon is deposited on both sides of the silicon substrate followed by the P-type and N-type thin film silicon.

THE CHIP STRUCTURE OF HDT SOLAR CELL



HIGH EFFICIENCY

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



DOUBLE-SIDED POWER GENERATION

- Symmetrical structure which is suitable for double glasses encapsulation
- Generating power from both sides
- Increasing power output by at least 18% over single glass module



EXCELLENT TEMPERATURE PERFORMANCE

- Power-temperature coefficient(-0.28%/°C) is 40% lower than traditional crystalline silicon solar modules
- Higher power output than traditional solar module in high temperature environment



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

GS-SOLAR(CHINA) COMPANY LTD.

Website: <http://www.gs-solar.com>

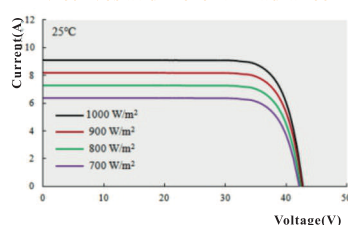
E-mail: sales@gs-solar.com



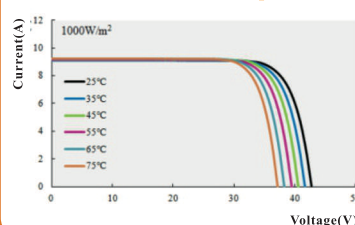
Electrical Data

Name		N-type monocrystalline silicon heterojunction double-glass solar module					
Module		HDT-GH-375	HDT-GH-380	HDT-GH-385	HDT-GH-390	HDT-GH-395	HDT-GH-400
STC AM1.5,1000W/m ² Cell Temperature 25℃	Maximum Power at STC/W	375	380	385	390	395	400
	Open Circuit Voltage/V	52.1	52.3	52.5	52.7	52.9	53.1
	Max Power Voltage/V	43.6	43.9	44.2	44.5	44.8	45.1
	Short Circuit Current/A	9.16	9.22	9.27	9.32	9.38	9.43
	Max Power Current/A	8.61	8.66	8.72	8.77	8.82	8.87
	Module Efficiency/%	18.79	19.04	19.29	19.54	19.79	20.04
BSTC AM1.5,E=(1+0.135BiFi) 1000W/m ² Cell Temperature 25℃	Maximum Power at BSTC/W	415	420	425	430	435	440
	Open Circuit Voltage/V	52.4	52.7	53.0	53.3	53.6	53.9
	Max Power Voltage/V	43.7	44.0	44.3	44.6	44.9	45.2
	Short Circuit Current/A	10.08	10.14	10.18	10.22	10.26	10.31
	Max Power Current/A	9.51	9.55	9.60	9.65	9.70	9.75
	Module Efficiency/%	20.79	21.04	21.29	21.54	21.79	22.04

I-V curves at different irradiance



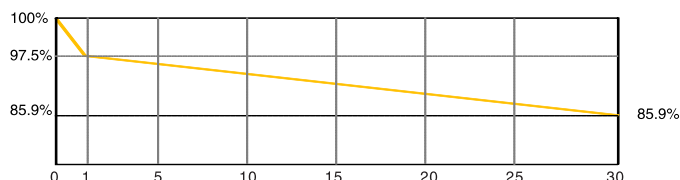
I-V curves at different temperatures



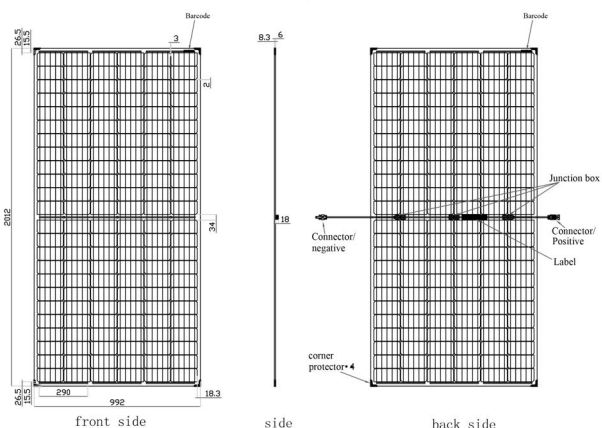
Operating Conditions

Maximum System Voltage	1500VDC(IEC)
Operating Temperature	- 40℃ ~ 85℃
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℃ ± 2℃
Applications Class	Class A

Linear Performance Warranty



Double Glasses Module Physical Dimensions



Warning:

Please read installation manuals carefully before handling, installing and using HDT double glasses solar module.

Mechanical Data

Solar Cells	144 pieces/156.75*78.375mm/5 busbar
Dimensions(mm)	2012*992*6mm
Weight(kg)	28 kg
Front Glass	Embossed Tempered/2.5mm
Encapsulation	POE/0.65mm
Rear Glass	Float semi-tempered/2.5mm
Junction Box	11 /3
Output Cables	0.2m+0.4m/4mm ²
Connector (Model / protection grade)	Compatibility MC4/IP67

Packaging Data

Modules per Pallet	34 pieces
Packaging Dimensions	2126*1136*1175mm
Weight per Pallet	1036kg
Pallets per 40' HQ Container	26 pallets
Pallets per Shipping Flat Car (17.5m)	38 pallets

Certifications

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



Warranty

Product	10 years product warranty
Power Output	10 years [93.9% of Pmin] 30 years [85.9% of Pmin]