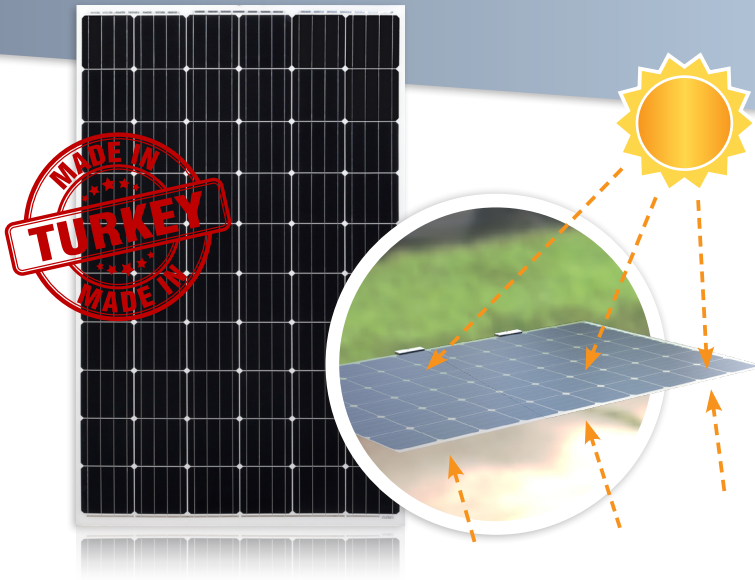


BIFACIAL DUAL GLASS MODULE

ULTRA POWER 300W MONO PERC+
BIFI GG1H-60

2G3G2HBIFI



GTC is a photovoltaic module producer based in Adiyaman, Turkey. Our automated production line of 135MW has been designed for the assembly of double glass modules, including automatic quality controls at all critical process steps. The new bifacial module developed by our accredited R&D Center maximizes the yield of any power plant at low cost. Another step to reduce LCOE for green energy producers!

The bifacial module can generate electricity from both sides. The backside uses the reflection of the ground depending on its Albedo factor and all potential diffused lights from the environment.

The module can be used in various applications like carport, fixed ground mount, trackers, rooftops, floating, sun breakers and more. The PV panel has been developed to resist to harsh environmental conditions beyond IEC standards (6X technology), such as salt mist, ammonia, and sulfur dioxide.

MADE ACCORDING TO

- IEC 61215: 2005 2 nd Ed
- IEC 61730 -01, IEC 61730-02
- IEC Extended Tests DH6000, HF60, TC1200
- Salt mist, ammonia, sulfur dioxide SO₂
- ISO 9001
- ISO 14001
- OHSAS 18001



OPTIMIZED YIELD

290 – 310W Front Side (STC)
%18.9 efficiency
 Bifacial boost up to **30%**, depending on Albedo
 Technology **6X**
 Excellent low light performance
 Better performance in hot climate



EXTREME ROBUST DESIGN

Double-Glass Frameless Design
 Up to 50 years Service Time
 Perfect to reduce LCOE
 Fire Safe Class AA
 100% PID free



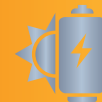
GUARANTEED PERFORMANCE

84% power output after 30th year
 10 years product warranty



INSTALLATION OPTIMIZATION

1500 V – Longer String
 Grounding free
 Reduce space
 Reduce BOS
 Light model **15,19 kg/m²**



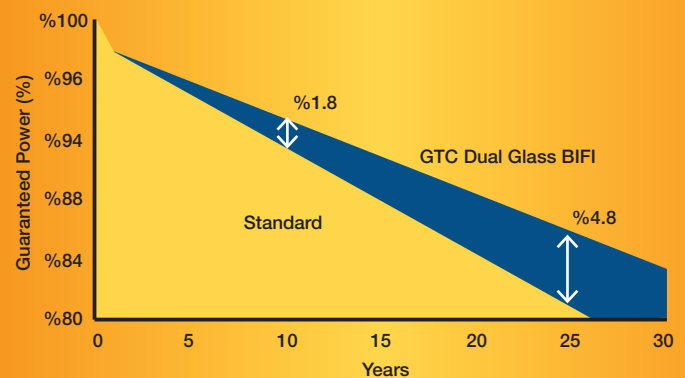
O&M COST REDUCTION

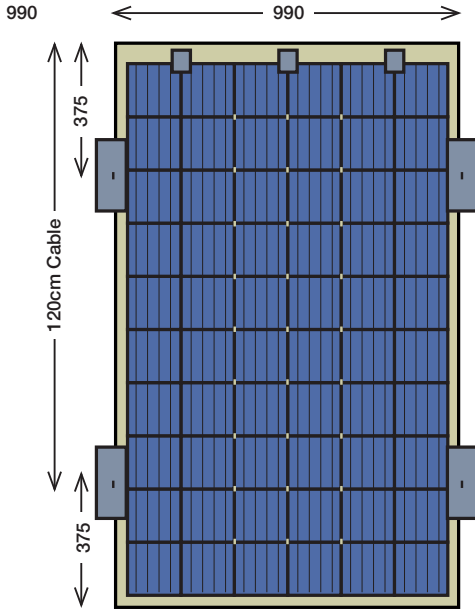
Frameless design, no dust/snow collection
 Better self cleaning



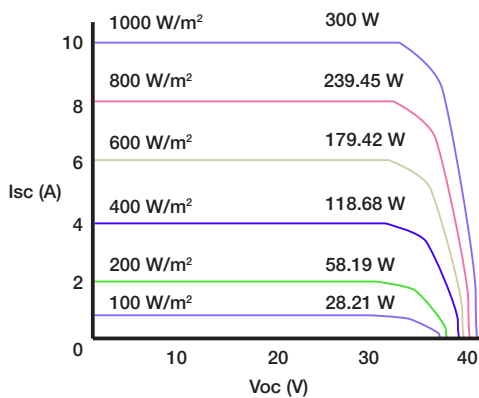
SUPERIOR AESTHETICS

Glass/Glass frameless
 10% module transparency

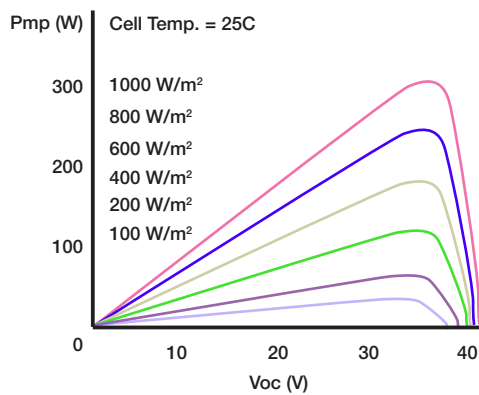




I-V CURVE (PV MODULE 300W)



P-V CURVE (PV MODULE 300W)



ELECTRICAL PERFORMANCE

Nominal Power P _{max} (W)	290	295	300	305	310
Nominal Power Voltage V _{MPP} (V)	30.98	31.32	31.72	32.00	32.39
Nominal Power Current I _{MPP} (A)	9.36	9.42	9.48	9.53	9.59
Open-Circuit Voltage V _{oc} (V)	39.14	39.44	39.80	40.05	40.39
Open-Circuit Current I _{sc} (A)	9.38	9.47	9.56	9.64	9.73
Performance η _m (%)	17.63	17.93	18.28	18.53	18.88

Standard Test Conditions (STC); 1000 W/m², AM1.5, 25 °C, Power Measuring Output tolerance (W) +/- 3%

BOOST FROM THE BACKSIDE

+7%	Power (W)	310	316	322	326	332
	Performance (%)	18.86	19.19	19.55	19.83	20.2
+15%	Power (W)	333	338	344	351	356
	Performance (%)	20.27	20.62	21.02	21.31	21.71

Bifaciality depends on Albedo

ELECTRICAL PARAMETERS AT NOMINAL OPERATING CELL TEMP.

Power Output P _{MAX} (W)	233	237	241	245	249
Nominal Power Voltage V _{MPP} (V)	30.70	31.04	31.43	31.72	32.10
Nominal Power Current I _{MPP} (A)	7.50	7.55	7.59	7.63	7.68
Open-Circuit Voltage V _{oc} (V)	38.79	39.09	39.44	39.69	40.03
Open-Circuit Current I _{sc} (A)	7.51	7.58	7.66	7.72	7.79

NOCT: open-circuit module operation temperature at 800W/m² irradiance, 20°C ambient temperature, 1m/s wind speed

OPERATING CONDITIONS

Operating Temperature	-40°C/+85°C
Max. System Voltage	1500V
Max. Series Fuse Rating	20A
Wind Load	2400 Pa
Snow Load	7000 Pa

TEMP. CHARACTERISTICS

Temp. coefficient P _{MAX}	-0.38%/K
Temp. coefficient V _{oc}	-0.29%/K
Temp. coefficient I _{sc}	0.04%/K
Nominal Operating Temperature (NOCT)	46°C

MATERIAL SPECIFICATION

Front Cover	2mm ARC ARC Low Iron Tempered Solar Glass
Cell Type	4BB M2 p-type Bifacial Mono PERC
Cell Matrix	60 (6 strings x 10 cells)
Lamination material	EVA
Back Glass	3 mm transparent glass
Junction Box	IP67 rated, 1500V Compatible, 3 Diodes
Cables and connectors	DC Cable 4 mm ² MC4 compatible, 1500 V Cable length 120 cm
Frame	Frameless
Module Dimensions	1662 mm x 990 mm x 6 mm (without J-box)
Module Weight	25 kg
Module Per Box	30
Box per Container	20 (600 Modules)
Box per Truck	23 (690 Modules)