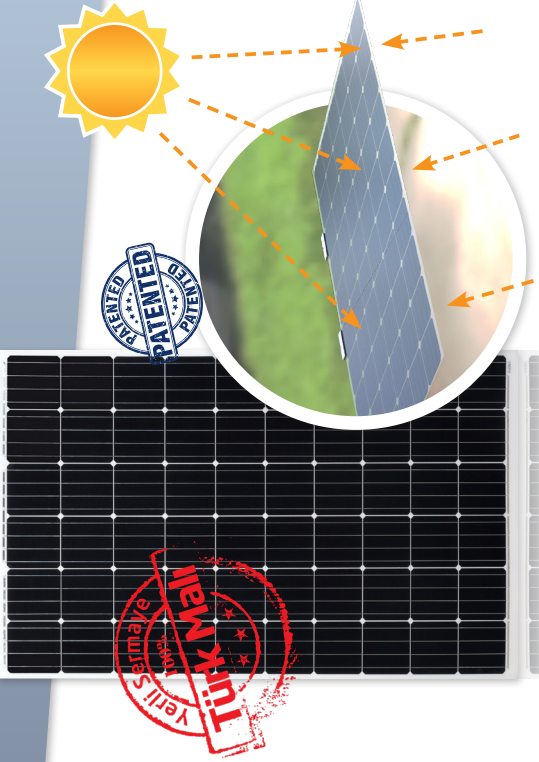




BIFACIAL DUAL GLASS MODULE ULTRA POWER 335W MONO PERC+ BIFI GG1H 60



GTC GÜNEŞ SANAYİ VE TİCARET A.Ş.

GTC is a photovoltaic module producer based in Adıyaman, 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.

PRODUCT PRODUCED ACCORDING TO

IEC 61215, IEC 61730-1, IEC 61730-2, IEC Extended Tests DH6000, HF60, TC1200
TSE EN 61701 Salt Mist Corrosion Test
ISO 9001:2015
ISO 14001:2015
OHSAS 18001:2007



OPTIMIZED YIELD

315 – 335W Front Side (STC)
20.34% 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
12 years product warranty



INSTALLATION OPTIMIZATION

1500 V – Longer String
Grounding free
Reduce space, reduce BOS



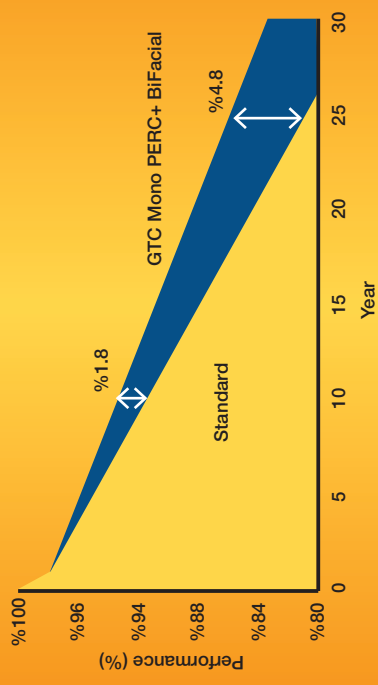
O&M COST REDUCTION

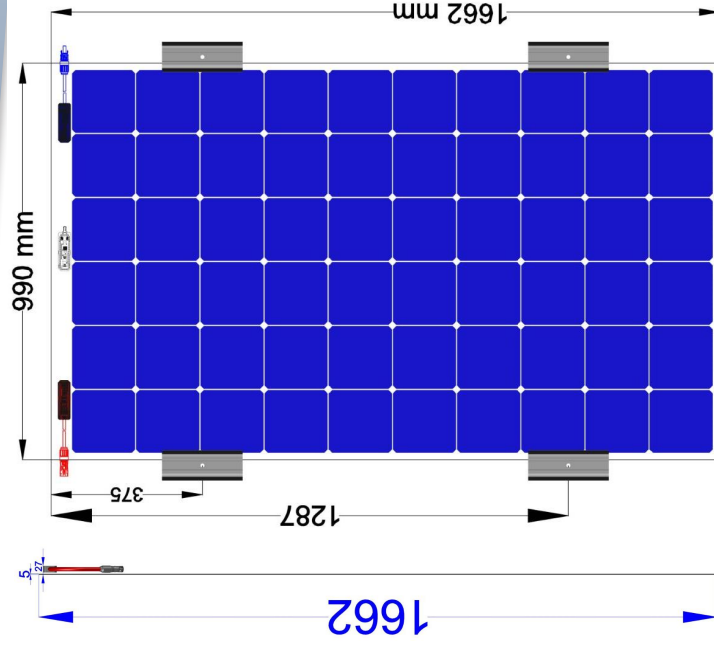
Frameless design, no dust/snow collection
Better self cleaning



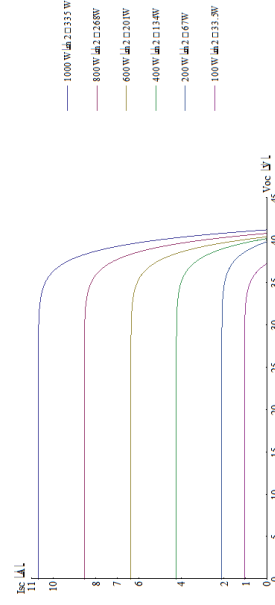
SUPERIOR AESTHETICS

Glass/Glass frameless
Transparent on request

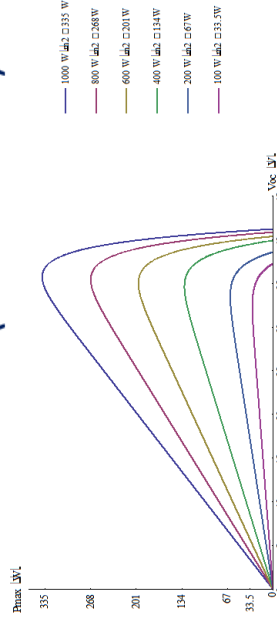




I – V Curves (PV Module 335W)



P – V Curves (PV Module 335W)



ELECTRICAL PERFORMANCE

Max. Power P _{MAX} (W)	315	320	325	330	335
Max. Power Voltage VMPP (V)	33.33	33.65	33.94	34.20	34.53
Max. Power Current IMPP (A)	9.45	9.51	9.57	9.66	9.69
Open-Circuit Voltage Voc (V)	39.62	39.91	40.15	40.52	40.65
Short-Circuit Current Isc (A)	10.32	10.41	10.50	10.59	10.69
Performance η_m (%)	19.15	19.46	19.74	20.08	20.34

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

BIFACIAL OPTIMIZED POWER OF MODULE ACCORDING TO ALBEDO

Power (W)	337	342	347	353	358
Performance (%)	20.48	20.82	21.10	21.49	21.76
Power (W)	362	368	374	380	385
Performance (%)	22.0	22.37	22.7	23.09	23.39

ELECTRICAL PARAMETERS AT NOMINAL OPERATING CELL TEMPERATURE (NOCT)

Power Output P _{MAX} (W)	282	286	290	294	298
Max. Power Voltage VMPP (V)	30.91	31.21	31.48	31.72	32.03
Max. Power Current IMPP (A)	7.60	7.64	7.69	7.76	7.78
Open-Circuit Voltage Voc (V)	36.75	37.02	37.24	37.58	37.70
Short-Circuit Current Isc (A)	8.29	8.36	8.44	8.51	8.59

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	Temp. coefficient P _{MAX}	-0.38%/K
Maximum System Voltage	1500V	Temp. coefficient Voc	-0.29%/K
Maximum Series Fuse	20A	Temp. coefficient Isc	0.04%/K
Wind Load	2400 Pa	Nominal Operating Temperature (NOCT)	46°C
Snow Load	5400 Pa		

MATERIAL SPECIFICATION

Front Cover	2.0 mm 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	2,0 mm tempered glass
Junction Box	IP67 rated, 1500V Compatible, 3 Diodes
Cables and connectors	DC Cable 4 mm ² MC4 compatible, 1500 V
	Cable length 2x 150 mm
Frame	Frameless
Module dimensions	1662 mm x 990 mm x 5 mm (without J-box)
Module weight	19,8 kg
Module per box	30
Box per Truck (TIR)	24