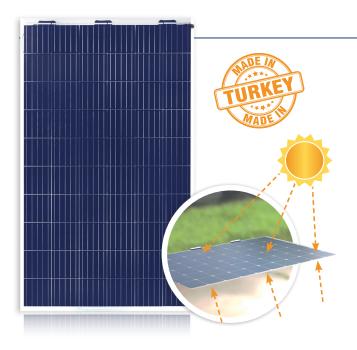


# BIFACIAL **DUAL GLASS MODULE**

**ULTRA POWER 330W MONO** PERC+ BIFI GG1H-60



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.

# MADE ACCORDING TO

IEC 61215, IEC 61730-1, IEC 61730-2, IEC Extended Tests DH6000, HF60, TC1200 TSE EN 61701 Salt Mist Corrosion Test - Severity 6 ISO 9001:2015 ISO 14001:2015 OHSAS 18001:2007











#### **OPTIMIZED YIELD**

315 - 330W Front Side (STC) 19.76% efficiency Bifacial boost up to 30%, depending on Albedo 6X Durability Technology Excellent low light performance Better performance in hot climate



#### **EXTREME ROBUST DESIGN**

Double-Glass Portable Frame 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



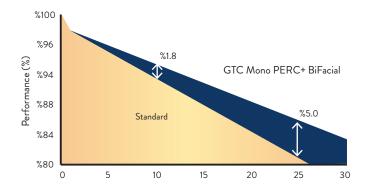
# **O&M COST REDUCTION**

Portable frame design, no dust/snow collection Better self cleaning



#### **SUPERIOR AESTHETICS**

Glass/Glass portable frame Transparent on request

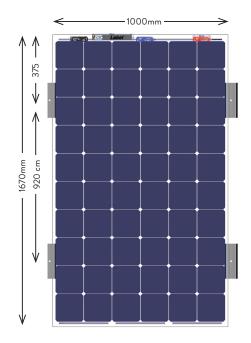


# **ENGINEERED AND MADE IN TURKEY**

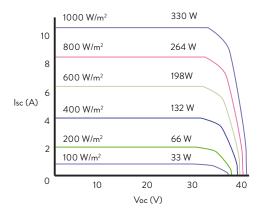


# BIFACIAL DUAL GLASS MODULE

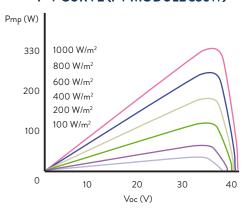
ULTRA POWER 330W MONO PERC+ BIFI GG1H-60



#### I-V CURVE (PV MODULE 330W)



#### P-V CURVE (PV MODULE 330W)



## **ELECTRICAL PERFORMANCE**

Max. Power P <sub>max</sub> (W)	315	320	325	330
Max. Power Voltage VMPP (V)	33.34	33.65	33.97	34.20
Max. Power Current IMPP (A)	9.45	9.51	9.57	9.66
Open-Circuit Voltage Voc (V)	39.62	39.91	40.15	40.52
Short-Circuit Current Isc (A)	10.32	10.41	10.50	10.59
Performance n <sub>m</sub> (%)	18.86	19.16	19.46	19.76

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

#### **BOOST FROM THE BACKSIDE**

+7%	Power (W)	337	342	348	353
	+//0	Performance (%)	20.18	20.50	20.82
+15%	Power (W)	362	368	374	380
	15%	Performance (%)	21.69	22.04	22.38

Bifacialty depends on Albedo

# ELECTRICAL PARAMETERS AT NOMINAL OPERATING CELL TEMPERATURE (NOCT)

Power Output PMAX (W)	282	286	290	294
Max. Power Voltage VMMP (V)	30.91	31.21	31.48	31.72
Max. Power Current IMMP (A)	7.60	7.64	7.69	7.76
Open-Circuit Voltage Voc (V)	36.75	37.02	37.24	37.58
Short-Circuit Current Isc (A)	8.29	8.36	8.44	8.51

NOCT: open-circuit module operation temperature at 800W/m2 irradiance,  $20^{\circ}C$  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	5400 Pa

# **TEMP. CHARACTERISTICS**

Temp. coefficient PMAX	-0.38%/K
Temp. coefficient Voc	-0.29%/K
Temp. coefficient Isc	0.04%/K
Nominal Operating Temperature (NOCT)	46°C

#### MATERIAL SPECIFICATION

Front Cover	2mm ARC Low Iron Tempered Solar Glass
Cell Type	Bifacial Mono PERC
Cell Matrix	60 Cells (6 x 10)
Lamination material	EVA
Back Glass	2 mm ARC Low Iron Tempered Solar Glass
Junction Box	IP67 rated, 1500V Compatible, 3 Diodes
Cables and connectors	DC Cable 4 mm <sup>2</sup> MC4 compatible, 1500 V Cable length 15cm male - 40cm female
Frame	Portable Frame
Module Dimensions	1670 mm x 1000 mm x 5 mm (without J-box)
Module Weight	20.1 kg
Module Per Box	30
Box per Truck	30

## ENGINEERED AND MADE IN TURKEY