

TOPCON

SOLAR PANEL

585W-590W

FEATURES



GRADE A CELLS



AUTO E.I INSPECTED USING
ADVANCED AI TECH



ANTI-REFLECTION
COATING



BIFACIALITY FACTOR
80 ±5%



POTENTIAL INDUCED
DEGRADATION FREE



EXCELLENT PERFORMANCE
IN LOW LIGHT

ELECTRICAL DATA STC*	KNACK-NG2G-16A-144-585 (BIFACIAL- GLASS TO GLASS)	KNACK-NG2G-16A-144-590 (BIFACIAL- GLASS TO GLASS)
Peak power, Pmax(Wp)	585	590
Maximum Power Voltage Vmp (V)	43.3	43.5
Maximum Power Current Imp (A)	13.52	13.57
Open Circuit Voltage Voc (V)	52.4	52.60
Short circuit current, Isc (A)	14.46	14.51
Module efficiency (%)	22.60%	22.80%
Maximum System Voltage (V)	1500V	1500V

*Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN**			
Peak Power Pmax (Wp)		585	590
5% Gain	Pmax (Wp)	614	620
	Efficiency (%)	23.77	24
15% Gain	Pmax (Wp)	673	679
	Efficiency (%)	26.05	26.28
25% Gain	Pmax (Wp)	731	738
	Efficiency (%)	28.3	28.57

** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the STC. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

MECHANICAL DATA	KNACK-NG2G-16A-144-585 (BIFACIAL- GLASS TO GLASS)	KNACK-NG2G-16A-144-590 (BIFACIAL- GLASS TO GLASS)
Cell Type	TOPCON	
No. of Cells	144	
Rated Module Voltage (V)	24	
Maximum Series Fuse Rating	30A	
Module Dimensions (mm)	2278 x 1134 x 35	
Module Weight (KG)	32.5	
Cable	400mm length	
Frame	Silver Anodized aluminium alloy	
Glass	Front 2.0mm thick ARC; Back 2.0mm Non ARC	
Cell Encapsulant	High quality Encapsulant	
Connectors	MC4 Type	
J-box	IP 68, 3 Diodes split junction box	
Backsheet	Glass	
Application Class	Class A (Safety Class II)	
Surface Load	Snow- 5400Pa, Wind-2400 Pa	

ELECTRICAL DATA NOCT***	KNACK-NG2G-16A-144-585 (BIFACIAL- GLASS TO GLASS)	KNACK-NG2G-16A-144-590 (BIFACIAL- GLASS TO GLASS)
Peak Power Pmax (Wp)	442	445
Maximum Voltage Vmp (V)	40.9	41.1
Maximum Current Imp (A)	10.81	10.85
Open Circuit Voltage Voc (V)	49.6	49.8
Short Circuit Current Isc (A)	11.29	11.34

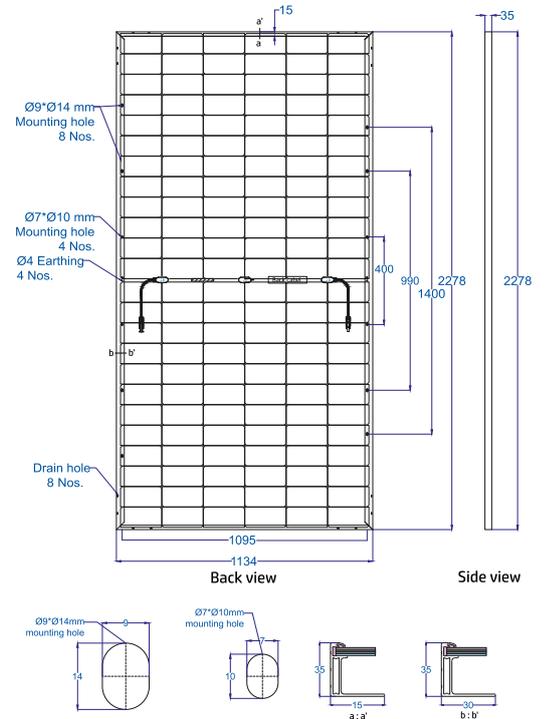
***Nominal Operating Cell Temperature (NOCT) of irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

TEMPERATURE CO-EFFICIENTS (TC) AND PERMISSIBLE OPERATING CONDITIONS	KNACK-NG2G-16A-144-585 (BIFACIAL- GLASS TO GLASS)	KNACK-NG2G-16A-144-590 (BIFACIAL- GLASS TO GLASS)
Operating Temperature	-40°C to +85°C	
Temp coefficient of Open Circuit Voltage (VOC)	-0.25% /°C	
Temp coefficient of Short Circuit Current (ISC)	0.048% /°C	
Temperature coefficient of Power (Pmax)	-0.29% /°C	

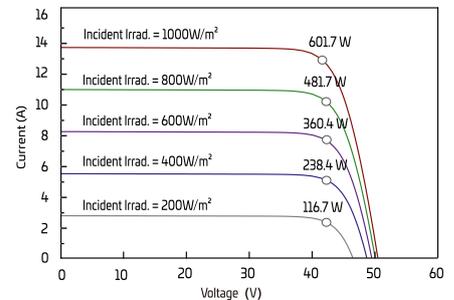
WARRANTY AND CERTIFICATIONS	KNACK-NG2G-16A-144-585 (BIFACIAL- GLASS TO GLASS)	KNACK-NG2G-16A-144-590 (BIFACIAL- GLASS TO GLASS)
Product Warranty	12Years	
Performance Warranty	30 Years warranty for Linear Power Output	

PACKAGING CONFIGURATION	KNACK-NG2G-16A-144-585 (BIFACIAL- GLASS TO GLASS)	KNACK-NG2G-16A-144-590 (BIFACIAL- GLASS TO GLASS)
No. of modules per pallet	31	
No. of pallet	20	
No. of module in 40ft HC container	620	

SOLAR MODULE DIMENSION (MEASUREMENTS ARE IN MM)



I-V CURVE



PRODUCT CERTIFICATIONS

We have applied for below certifications :

- IEC 61215: 2021 | IEC 61730-1&2: 2023 |
- IS 14286:2010 | IS/IEC 61730-1 & 2: 2004 |
- IEC 61701 | IEC 62716 | IEC 60068-2-62 |
- UL 61730-1&2 | IEC 62804 | CEC