KNACK ENERGY PVT. LTD.

Empowering the future...

KNACK-NG2G-16B-144

570-600 Wp

N-type TOPCon Dual Glass Technology

High Efficiency

Excellent module conversion efficiency of up to 23.24%

Better Weak Light Performance

High power output even under low-light environments like on cloudy or foggy days

10-25% Additional Power Generation

More than 10-25% additional power gain comparing with the regular modules

High Saving

Lower LCOE, reduced BOS cost, shorter payback time

ZERO LID (Light Induced Degradation)

No-LeTID
No-LID

Excellent anti-LeTID. Low power degradation high energy yield

PID Resistance

Excellent Anti-PID Perfomance guarantee

MADE IN INDIA

12 YEARS — 12 Years Warranty For Materials And Processing

30 YEARS — 30 Years Warranty For Linear Power Output

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ELECTRICAL DATA | STC*

Peak Power Pmax (Wp)	570	575	580	585	590	595	600
Maximum Voltage Vmp (V)	42.7	42.9	43.1	43.3	43.5	43.7	43.9
Maximum Current Imp (A)	13.35	13.41	13.46	13.52	13.57	13.62	13.68
Open Circuit Voltage Voc (V)	51.8	52	52.2	52.4	52.6	52.8	53
Short Circuit Current Isc (A)	14.28	14.34	14.40	14.46	14.51	14.57	14.63
Module Efficiency (%)	22.10%	22.30%	22.50%	22.60%	22.80%	23%	23.20%

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

ELECTRICAL DATA | NOCT*

Peak Power Pmax (Wp)	431	435	438	442	445	449	454
Maximum Voltage Vmp (V)	40.4	40.6	40.7	40.9	41.1	41.3	41.5
Maximum Current Imp (A)	10.68	10.72	10.77	10.81	10.85	10.89	10.94
Open Circuit Voltage Voc (V)	49	49.2	49.4	49.6	49.8	50	50.2
Short Circuit Current Isc (A)	11.14	11.19	11.23	11.29	11.34	11.39	11.43

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

BI-FACIAL OUTPUT - BACKSIDE POWER GAIN**

Peak Power Pmax (Wp)		570	575	580	585	590	595	600
5% Gain	Pmax (Wp)	599	604	609	614	620	625	630
	Efficiency (%)	23.19	23.38	23.57	23.77	24.00	24.20	24.39
15% Gain	Pmax (Wp)	656	661	667	673	679	684	690
	Efficiency (%)	25.40	25.59	25.82	26.05	26.28	26.48	26.71
25% Gain	Pmax (Wp)	713	719	725	731	738	744	750
	Efficiency (%)	27.60	27.83	28.06	28.30	28.57	28.80	29.03

** 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 SPECIFICATION

Dimensions (L x W x T in mm)	2278 x 1134 x 35
Solar Cell	N-type TOPCon Bifacial cell technology,
Solar Cells per Module	144 Half-cut
Frame	Anodized aluminium alloy
Front Glass	2 mm AR Coated semi tempered glass
Encapsulant	PID free & UV Resistant
Back Glass	2 mm Semi tempered glass
Weight	32.5 Kgs
J-box	IP 68, 3 Diodes Split junction box
Cable	4 mm² & 400mm length or Customised
Connectors	MC4 Type
Application Class	Class A
Electrical Safety	Class II
Surface Load	Snow-5400 Pa / Wind-2400 Pa

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.048 % / °C
NOCT	41 ± 3°C
Bifaciality Factor	80 ± 5 %

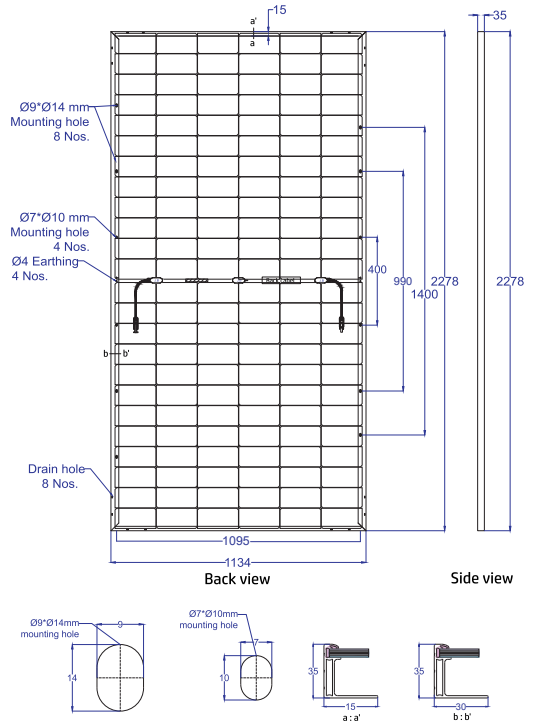
OPERATING CONDITIONS

Temperature range	-40°C to + 85°C
Maximum system voltage	1500 VDC
Series Fuse Rating	30 A
Hail resistance	23 m/s velocity, Max. diameter of 25mm

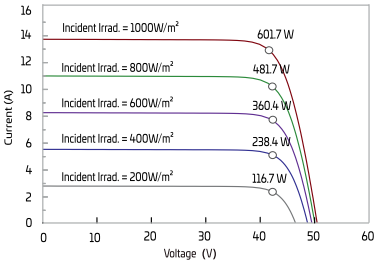
PACKAGING CONFIGURATION

No. of Modules per Pallet	31
No. of pallet	20
No. of module in 40ft HC container	620

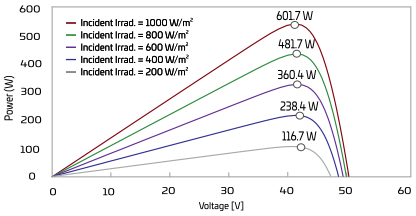
DRAWING (MEASUREMENTS ARE IN MM)



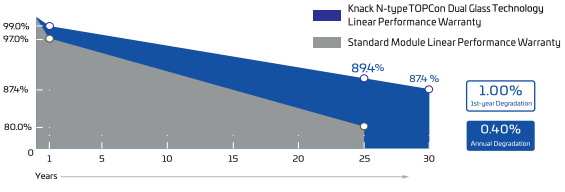
I-V CURVE



P-V CURVE



LINEAR GRAPH



PRODUCT 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

- All electrical data provided here is for reference purposes only.
- Due to constant product updation, Knack reserves the right to amend the above specifications without prior notice.
- Product specifications, quantity of modules / container may get changed without prior notice.
- Before placing any order, confirm your requirements with our sales representative.
- For handling & installation instructions, refer to Knack's installation manual available on the company website.
- Refer to Knack's warranty document for terms and conditions.
- Recycle / dispose of a product as e-waste after the end of its working life.
- Images in the datasheet are for representation purpose only.

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