

N

183.75R
N-type

144-HALF CUT CELL

N-TYPE BIFACIAL

KE 585N - KE 620N

SUN PLUS SERIES

KE 585N - KE 620N

24.1%

Maximum Efficiency

Super strong

- Container Space Utilization Saves Shipping Costs
- Low-Voltage Design Optimizes BOS Cost
- >35mm Hail Ball Size withstand

High energy yield

- More transparent 'ARC 2' Glass
- Enhanced thermal resistance and bifacial power generation

Long -term reliability

- Resistant to harsh environmental conditions
- Long Life >POE-POE Encapsulant

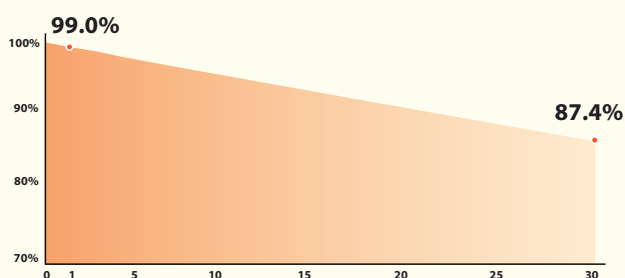
INSURANCE WARRANTY*

12

Year product warranty

30

Linear Performance Warranty



*Complete Warranty information will be provided by the kosol team

TIER 1

A GRADE

3xIEC

TESTED

AVL

MODEL

FEOC

COMPLIANCE

Comprehensive Products and System Certificaties



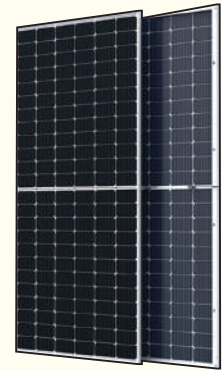
SUN PLUS SERIES

N-Type Bi-Facial Glass to Glass Panels: 144 Half-Cut Cells

- IDEAL FOR LARGE SCALE UTILITY PROJECTS

KOSOL ENERGIE

THE ENERGIE ENGINEERS



Electrical Data (STC)

Maximum Power (Pmax) (+0 ~ 4.99 Wp)	585	590	595	600	605	610	615	620
Maximum Power Voltage, (Vmp)	44.42	44.56	44.70	44.83	45.10	45.19	45.44	45.61
Maximum Power Current (Imp)	13.19	13.27	13.35	13.42	13.45	13.48	13.56	13.62
Open-Circuit Voltage (Voc) ± 5%	51.08	51.14	51.27	51.32	51.50	54.51	52.04	52.18
Short-Circuit Current (Isc) ± 5%	13.66	13.74	13.82	13.91	13.93	13.93	13.96	14.00
Module Efficiency STC (%)	22.65	22.84	23.03	23.23	23.42	23.61	23.81	24.00
Fill Factor (%)	83.96	84.14	84.21	84.32	84.59	84.64	84.84	85.04

*Values without tolerance are typical numbers. Standard Test Condition (STC): Cell Temperature 25°C, Irradiance: 1000 W/m², AM: 1.5

Electrical Characteristics with different rear side power gain (REF. - 600Wp front @ STC)**

Bifaciality Gain	3%	5%	10%	15%	20%
Maximum Power (Pmax)	614	624	648	672	696
Maximum, Power Voltage, Vmpp (V)	44.93	44.94	44.95	44.96	44.97
Maximum Current, Imp(A)	13.82	14.09	14.76	15.43	16.10
Open Circuit Voltage, Voc(V)	51.42	51.43	51.44	51.45	51.46
Short Circuit Current, Isc(A)	14.33	14.61	15.30	16.00	16.69

**Bifaciality Factor: 80 ± 20%, Back-side power gain varies depending upon the specific albedo

Mechanical Data

Panel Type	N-Type Bi-Facial Glass to Glass Panels
Dimensions (mm) (± 2mm)	2278 mm (L) x 1134 mm (W) x 30/35 ± 2 mm (T)
Dimensions (inch) (± 0.079)	89.68 in (L) x 44.65 in (W) x 1.18/1.38" ± 0.12" in (T)
Weight (kg)	32.5 kg ~
Weight (lbs)	71.65 lbs ~
Solar Cell	144 (12 x 12) nos. Half cut M10R cells
Frame	Anodized Aluminium Black/Silver
Front Glass	2.0 mm thickness, AR Coating - Tempered Glass
Back Glass	2.0 mm thickness, Semi-tempered/Grid Glass
Junction Box	Split JB with 03 diodes & IP68 UL Approved
Cable	300mm or customised length, 4 mm², 6.3mm dia. (UL approved)
Connector	MC4 Connector / Stabuli Connector (optional) (UL approved)

Operating Conditions

Mechanical Load (Wind/Snow)	2400 Pa Rear / 5400 Pa Front
Hail Impact Resistance	35 mm dia. with 1 Inch at 51.6 mph
Maximum System Voltage	1500 V
Series Fuse Rating	30 A
Operating Temperature	-40 °C to +85 °C

Warranty

Product Warranty	12 years
Performance Warranty	30 years
Linear Power Performance Warranty	≥ 99.00% end 1 st Year ≥ 94.63% end 12 th Year ≥ 87.40% end 30 th Year

Temperature Characteristics

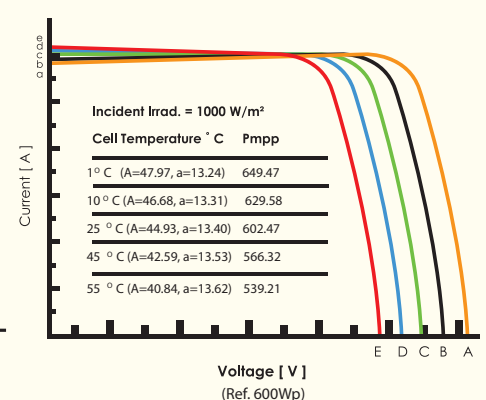
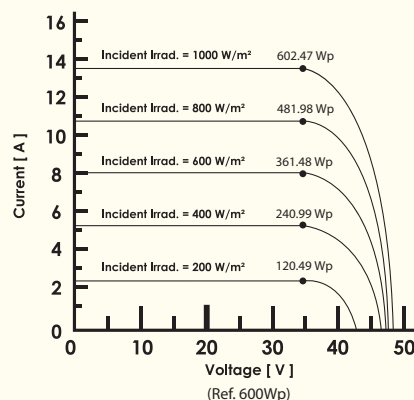
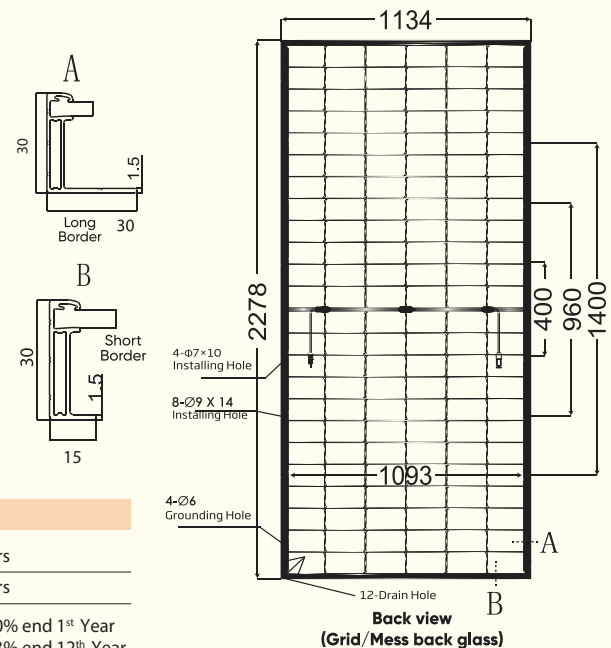
Nominal Module Operating Temperature	45 °C ± 2 °C
Temperature Co-efficient of Isc	0.046 % / °C
Temperature Co-efficient of Voc	-0.259 % / °C
Temperature Co-efficient of Pmax	-0.30 % / °C

Shipping Specs

Modules / Pallet	31
Pallets / 40 ft HQ container	20

Certifications

UL - 61730 - 1 & 2 (CAN/CSA), | CEC
UL Fire Class - 1 | Application Class - A
Electrical safety Class - II
IEC 61215 : 2021 | IEC 61730-1 & 2 : 2023
IEC 62716 : 2013 | IEC 61701 : 2020
IEC TS 62804 - 1 - 1 : 2020
IEC TS 63342 : 2022
IEC 61853 -1
(PAN File "Download")



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CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT. Specifications included in this datasheet are subject to change without notice. Please confirm your exact requirements with the company representative before placing the order and finalizing the confirmation.

