

# NAPTUNE SERIES

POLYCRYSTALLINE SOLAR PV MODULES | 72 CELLS  
KE 300, KE 305, KE 310, KE 315, KE 320



**HIGH CONVERSION EFFICIENCY**  
based on leading innovative  
Photo Voltaic European Technology



Up to + 3 Wp **POSITIVE POWER  
OUTPUT TOLERANCE GUARANTEED**  
ensuring Return on Investment



Extremely **RELIABLE PRODUCT**  
withstands high wind pressure and snow  
load and temprature variations



**RIGOROUS QUALITY CONTROL** meeting  
The Highest International Standards

## ABOUT KOSOL

Kalthia Group began its journey in 1960 from infrastructure development business in the State of Gujarat, India. Kalthia Group diversified its wing towards the manufacturing, R&D, and development of innovative products with the excellence under the brands names "KOSOL" and "SunRay". KOSOL covers Solar PV Modules, Solar Rooftop, EPC Solar Power plant, Solar Water Pumps etc and SunRay includes Domestic and Industrial Solar Water Heating applications and Solar Lights. Already exporting to USA and European countries because of established proven product reliability and sustainable performance. Having plant capacity 150 MW.

## QUALITY AND SAFETY

- ▲ 25 years of linear power output warranty\*\*
- ▲ Rigorous quality control meeting the highest international standards
- ▲ Certified for PID resistance\*
- ▲ Certified for salt mist corrosion resistance - severity VI\*

## CERTIFICATIONS



## TECHNICAL DATA

TYPE	KE 300	KE 305	KE 310	KE 315	KE 320
Pmp/W	300	305	310	315	320
Imp/A	8.17	8.22	8.34	8.37	8.46
Vmp/V	37.07	37.28	37.56	37.92	37.85
Isc/A	8.64	8.68	8.78	8.80	8.88
Voc/V	44.42	44.64	44.85	45.27	45.13

\* STC : 1000 w/m2, 25°C, AM 1.5

## ELECTRICAL PARAMETERS AT NOCT

Pmp/W	222.41	225.05	230.07	233.07	235.14
Imp/A	6.54	6.58	6.67	6.70	6.77
Vmp/V	34.70	34.89	35.16	35.49	35.42
Isc/A	6.99	7.03	7.11	7.12	7.19
Voc/V	41.58	41.78	41.98	42.38	42.24

## TEMPERATURE COEFFICIENTS

Isc of Open Circuit Voltage	( $\beta$ ) -0.310%/°C
Tc of Short Circuit Current	( $\alpha$ ) 0.052%/°C
Tc of Power	( $\gamma$ ) -0.41%/°C
Maximum System Voltage	600V - 1000 V
NOCT	45°C ± 2°C

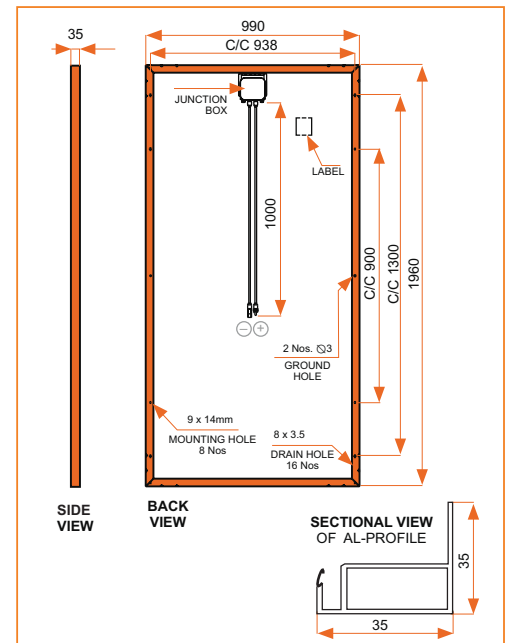
## MECHANICAL DATA

Length x Width x Height	1960 mm × 990 mm × 35 mm
Weight	20.5 kg
Junction Box	IP65 & IP67
Cable & Connectors	1000 mm length cables with MC4 type connectors
Superstrate	High transmission low iron tempered glass
Cells	72 polycrystalline solar cells, 4 Bus Bars
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Sheet	Composite film
Frame	Anodized Aluminium frame
Mechanical Load Test	5400 Pa
Maximum Series Fuse Rating	15 A

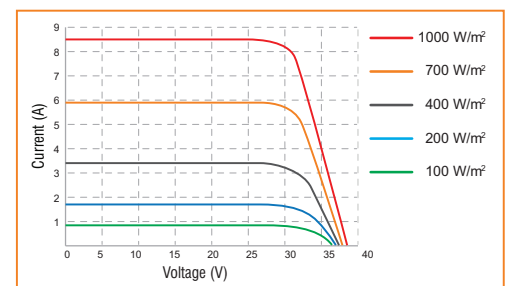
## WARRANTY AND CERTIFICATIONS

Product Warranty**	5 years warranty for manufacturing defects
Performance Warranty**	Linear power warranty for 25 years with 2.5% for first year degradation and 0.82% from year 2 to 25
Approvals and Certificates	IEC 61215 Ed2, IEC 61730 - I & II, IEC 61701, IEC 62804, UL1703, CE, CEC, ISO 9001: 2008, ISO 14001: 2004, OHSAS 18001

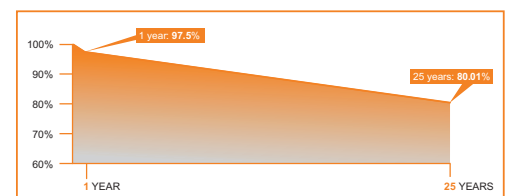
## DIMENSIONS in mm



## IV CURVES



## PERFORMANCE WARRANTY



\* All (\*) certifications under continuous upgradation in progress.  
\*\* Refer to Kosol Energie warranty document for terms and conditions.



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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. All electrical data without guarantee. Please confirm your exact requirement with the company representative while placing the order.

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