



**WARRANTY FOR
MATERIALS AND PROCESSING**



**WARRANTY FOR
LINEAR POWER OUTPUT**

1st YEAR POWER DEGRADATION < 1 %
SUBSEQUENT ANNUAL POWER DEGRADATION < 0.4%

KEY SILENT FEATURE



SMBB TECHNOLOGY
IMPROVE EFFICIENCY
BETTER LIGHT TRAPPING



EXTRA POWER GENERATION
IN CASE SHADOW, CLOUDY & FOGGY DAYS
MORE GENERATION



BETTER TEMP. CO-EFFICIENT
Lower LCOE, reduced BOS cost,



ENHANCE MECHANICAL LOAD
WIND LOAD UP TO 2400 PASCAL
SNOW LOAD UP TO 5400 PASCAL



HIGH SAVING
LOWER LCOE & SYSTEM COST



**BETTER ANTI. IeTID & ANTIPID
PERFORMANCE**
LOW POWER DEGRADATION
MORE POWER

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Facility

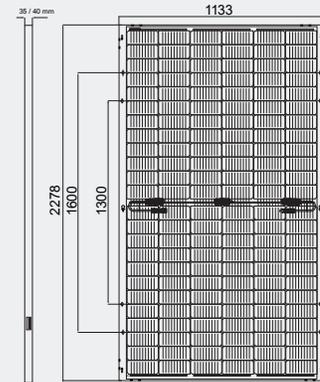
MECHANICAL SPECIFICATION

OPERATING PARAMETERS

DESIGN (MM)

Solar cells	144 N-type TOPCon cell, SMBB
Encapsulation	Ultra - clear PID free EVA (Ethylene-Vinyl-Acetate)
Backside	Transferant backsheet
Frame	Silver Anodized Aluminium Alloy
Front Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Dimensions	(L) 2278 mm x (W) 1133 mm x (H) 35mm
Weight	~28 Kg
J-box	IP 68 certified, 3 diodes, Split junction box
Series Fuse Rating	30 A
Cable	Solar cable 400 mm length
Connectors	MC4 compatible connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
	Snow load 5400 Pa, Wind load 2400 pa

Operational Temperature: -40°C ~ +85°C
Power Output Tolerance: 0 ~ +5 W
Voc and Isc Tolerance: ±3%
Maximum System Voltage: DC1500V (IEC/UL)
Maximum Series Fuse Rating: 30A
Nominal Operating Cell Temperature: 45±2°C
Safety Protection Class: Class II
Fire Rating: UL type 3



Units: mm(inch)
Tolerance:
Length: ±2mm
Width: ±2mm
Height: ±1mm
Pitch-row: ±1mm

ELECTRICAL CHARACTERISTICS

TEST UNCERTANTY FOR P_{MAX}: + 3%

Model Number	N-type TOPCon - US16B-144(560Wp - 580Wp)						
Maximum Power (P _{max} /W)	560	565	570	575	580	585	590
Voltage at Maximum Power (V _{mp} /V)	41.95	42.14	42.33	42.52	42.71	42.90	43.09
Current at Maximum Power (I _{mp} /A)	13.35	13.41	13.47	13.53	13.59	13.64	13.73
Open Circuit Voltage (V _{oc} /V)	49.50	49.69	49.88	50.07	50.26	50.45	50.62
Short Circuit Current (I _{sc} /A)	14.01	14.07	14.13	14.09	14.15	14.22	14.29
Module Efficiency (%)	21.7	21.89	22.09	22.28	22.48	22.67	22.86

ELECTRICAL CHARACTERISTICS WITH DIFFRENT POWER GAIN

5% Power Gain	Total power - P _{max} (Wp)	588	593.25	598	603	609	614	619
	Module efficiency (%)	22.79	22.98	23.17	23.36	23.55	23.74	23.43
15% Power Gain	Total power - P _{max} (Wp)	644	650	656	662	668	674	680
	Module efficiency (%)	24.96	25.19	25.42	25.65	25.88	26.11	26.34
30% Power Gain	Total power - P _{max} (Wp)	728	734	740	746	752	758	764
	Module efficiency (%)	28.21	28.44	28.67	28.9	29.13	29.36	29.59

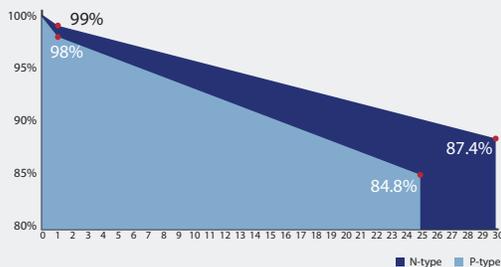
STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 C, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20 C, Spectra at AM1.5, Wind at 1m/s

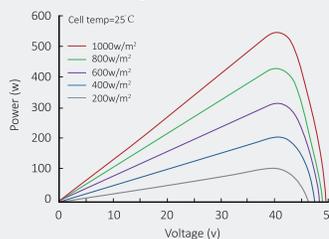
TEMPERATURE RATINGS (STC)

MECHANICAL LOADING

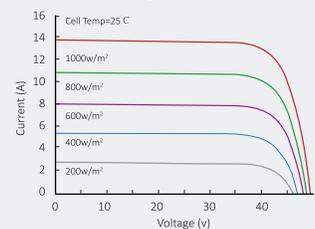
Temperature Coefficient of Isc	+0.050%/ C	Front Side Static Loading	5400Pa
Temperature Coefficient of Voc	-0.284%/ C	Rear Side Maximum Static Loading	2400Pa
Temperature Coefficient of P _{max}	-0.350%/ C	Hailstone Test	25mm Hailstone at the speed of 23m/s



Power-Voltage Curve



Current-Voltage Curve



PRODUCT CERTIFICATIONS

IES 61215: 2016,
IS 14286:2010/IES 61215:2005,
IS/IEC 61730-1 & 2: 2004
UL 61730-1&2, IEC 61701,

*All certificate are under process.

PRODUCT BY



**UNIQUE
SUN
POWER**
Reclaim Your Energy



MAKE IN INDIA



www.sunorasolar.com