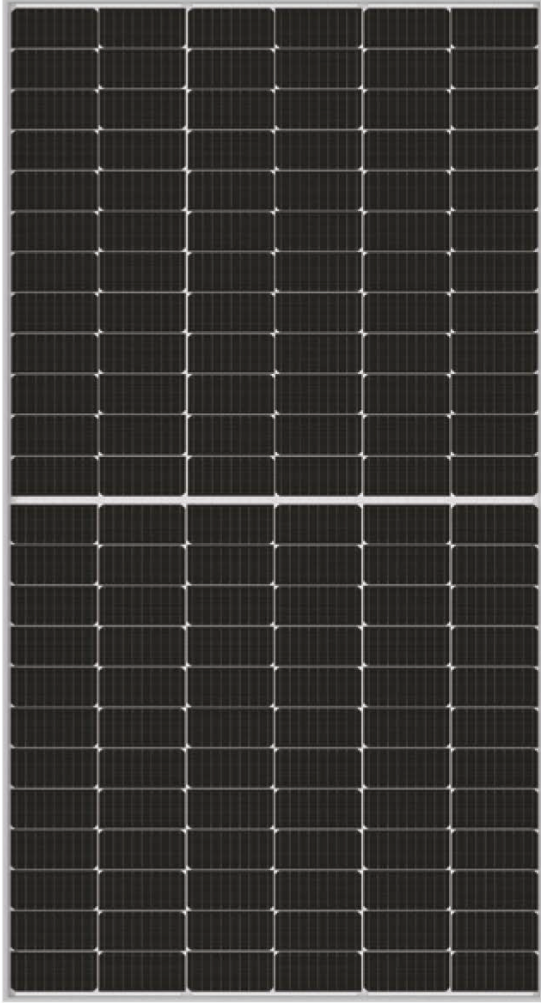


# SETsolar®

# VOLTA+ SERIES 445W - 460W



### 9 BUSBAR SOLAR CELL

Higher module efficiency with 9 Busbar solar cell technology



### HIGHER OUTPUT POWER

Higher conversion efficiency, more power production per unit area



### LOWER TEMPERATURE COEFFICIENT

Less affected by the loss of efficiency caused by high temperature



### MAXIMUM SYSTEM VOLTAGE

Contributes to your budget by lowering your installation costs



### BETTER LOW LIGHT PERFORMANCE

Produces even when the light is low



### POWER TOLERANCE

Positive Power Tolerance  $0\pm 5W$



### SALT CORROSION RESISTANT

Salt resistance according to IEC 61701:2020 standards



### AMMONIA CORROSION RESISTANT

Corrosion resistance according to IEC 62716:2013 standards

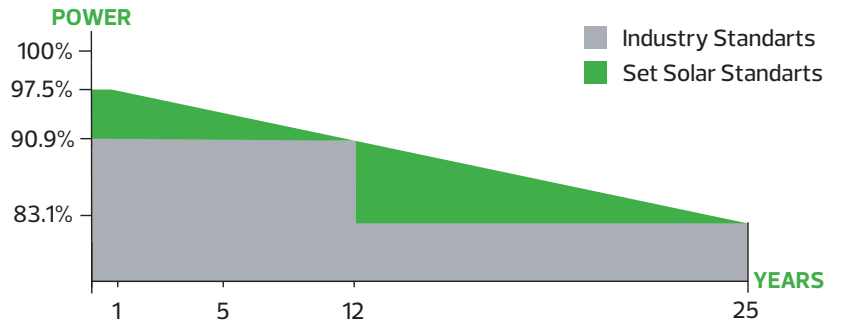
## CERTIFICATES



## LINEAR PERFORMANCE WARRANTY

\*12 Years Product Warranty

\*25 Years Linear Power Warranty



📍 Büyükosb Mah. Nevzat Ayaz Bulvarı No:2  
Korgun OSB. Korgun Çankırı/TÜRKİYE

☎ +90 376 343 17 17 (Pbx)  
☎ +90 376 343 17 18

✉ info@setsolar.com.tr  
🌐 www.setsolar.com.tr



## MECHANICAL CHARACTERISTICS

<b>Cell Type</b>	Mono Crystalline PERC 166x166 mm
<b>No. of Cells</b>	166x83 mm (144 pcs)
<b>Dimensions<sup>(1)</sup></b>	2094x1038x40mm (82.44x40.87x1.57 inch)
<b>Dimensions<sup>(2)</sup></b>	2094x1038x35mm (82.44x40.87x1.37 inch)
<b>Weight</b>	24.5kg (54 lbs) <sup>(1)</sup> / 23.5kg (51.81 lbs) <sup>(2)</sup>
<b>Front Glass</b>	3.2mm, (0.13 inch) Anti Reflective Coating
<b>Frame</b>	Silver Anodized Aluminum Alloy
<b>Junction Box</b>	IP 68 Rated / Original MC4 EVO-2
<b>Output Cables</b>	4mm <sup>2</sup> (IEC) / 12 AWG, 1200mm

## PACKAGING CONFIGURATION

Module Size (mm)	P.C.-Truck	P.C.-40HQ	Box-Truck	Box-40HQ
2094x1038x40 <sup>(1)</sup>	528	400	648	540
2094x1038x35 <sup>(2)</sup>	600	440	744	620

\*Set Solar Volta+ Series M144 modules are produced from 35mm and 40mm aluminum frames.  
\*Set Solar Volta+ Series M144 modules can be packed with plastic corner and box. \*P.C.=Plastic Corner

## ABSOLUTE MAXIMUM RATING

<b>Mechanic Load</b>	5400 Pa (Snow) / 2400 Pa (Wind)
<b>Maximum Series Fuse Rating</b>	20A
<b>Application Safety Class</b>	II
<b>Fire Rating (IEC61730)</b>	C
<b>Module Fire Performance (UL1703)</b>	Type 1
<b>Hail Diameter @ 80km/h</b>	Up to 25mm

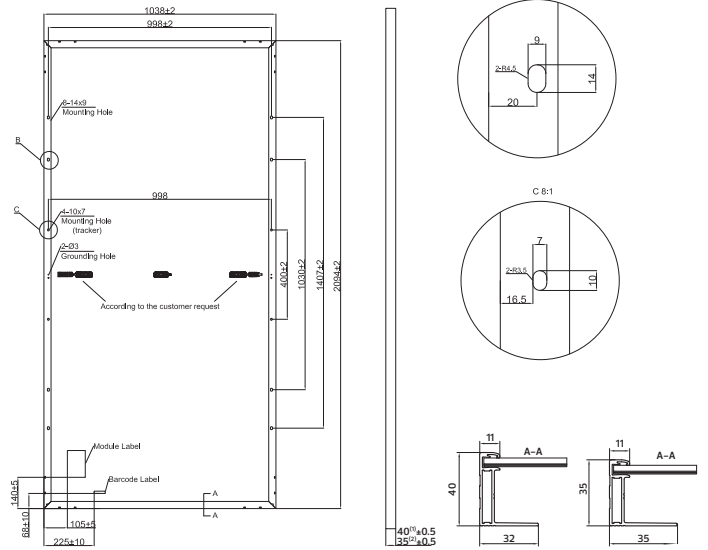
## SPECIFICATIONS

MODEL	SETM144-445		SETM144-450		SETM144-455		SETM144-460	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (P <sub>mp</sub> )	445 Wp	331 Wp	450 Wp	335 Wp	455 Wp	339 Wp	460 Wp	343 Wp
Rated Voltage (V <sub>mp</sub> )	41.17 V	38.10 V	41.37 V	38.31 V	41.57 V	38.52 V	41.77 V	38.71 V
Rated Current (I <sub>mp</sub> )	10.81 A	8.69 A	10.88 A	8.74 A	10.95 A	8.79 A	11.02 A	8.84 A
Open Circuit Voltage (V <sub>oc</sub> )	49.07 V	46.22 V	49.27 V	46.41 V	49.47 V	46.60 V	49.67 V	46.69 V
Short Circuit Current (I <sub>sc</sub> )	11.46 A	9.26 A	11.53 A	9.31 A	11.60 A	9.37 A	11.67 A	9.43 A
Module Efficiency (%)	20.43		20.66		20.89		21.12	
Power Tolerance	0~+5W							
Maximum System Voltage	1500V DC (IEC)							
Maximum Series Fuse Rating	20A							
Operating Temperature	-40°C to +85°C							
NOCT (Nominal Operating Cell Temperature)	45°C ± 2°C							
Voltage Temperature Coefficient (β)	-0.254%/°C							
Current Temperature Coefficient (α)	+0.054%/°C							
Power Temperature Coefficient (γ)	-0.318%/°C							

\*STC 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

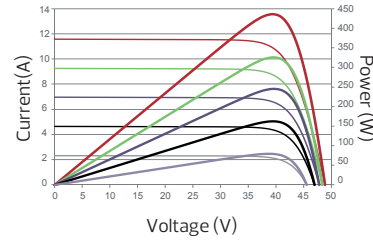
\*NOCT 800 W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5 Wind Speed=1m/s

## TECHNICAL DRAWING

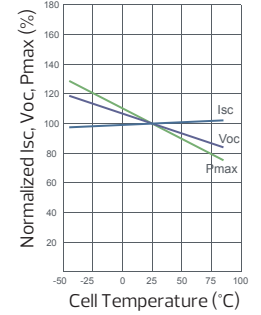


## ELECTRICAL CHARACTERISTICS

Current-Voltage & Power-Voltage Curves (445W)



Temperature Dependence of I<sub>sc</sub>, V<sub>oc</sub>, P<sub>max</sub>



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