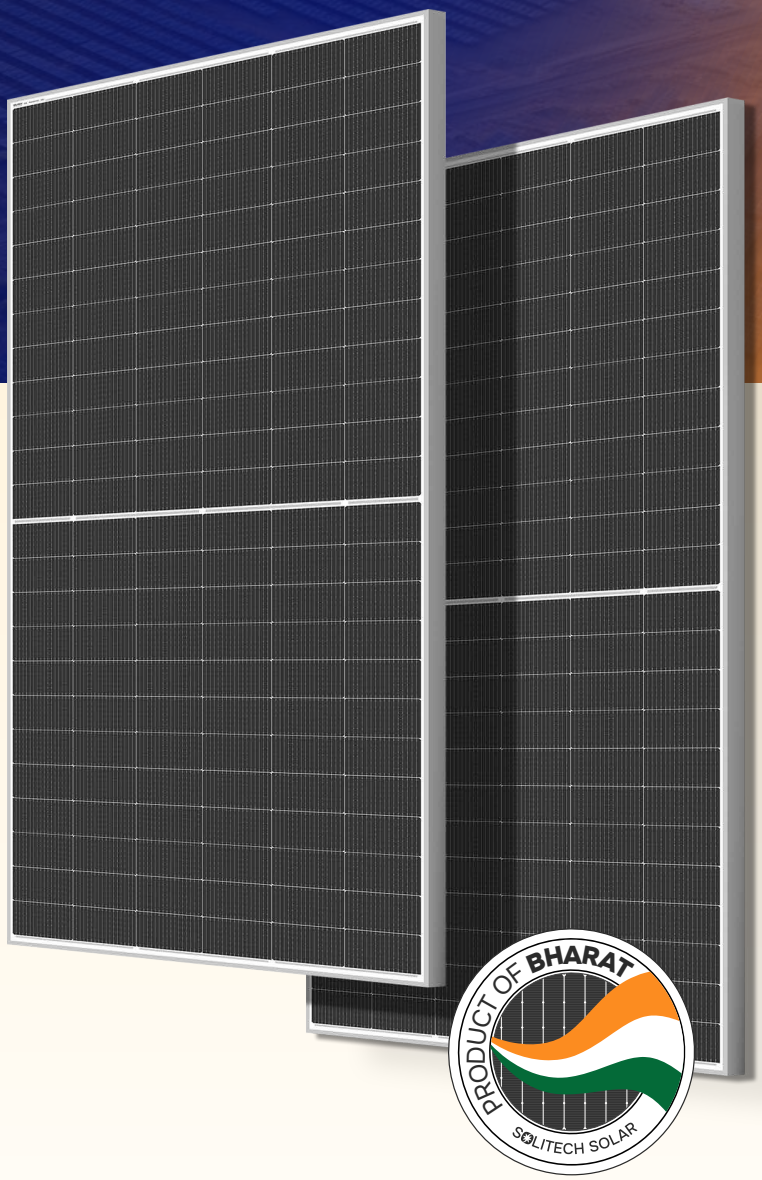
SOLITECH SOLAR

SOLI ASTRA

570 Wp - 610 Wp

Bi-Facial Module with Dual Glass

N-Type TOPCon M10R



Wattage

570Wp - 610Wp

Junction Box

Split Junction Box
(3 nos. with individual Bypass Diodes)

Cell

144 Half-cut
N-Type Solar cell

Dimensions (LxWxT in mm)

2278 × 1134 × 30 mm

Weight (kg)

31.4

Design

Silver Anodized Aluminum Alloy Frame and Semi Tempered Glass on Front and back, AR coating on Front Glass

Certifications

BIS Certified

ISO 9001:2015 14001:2015 45001:2018

IEC

IS 14286,
IS/IEC 61730-1 & 2,
IEC - 62804 - PID
IEC 62716 - Ammonia corrosion
IEC 61701 - Salt mist corrosion
IEC 61853 - Irradiance and temperature performance measurements and power rating

ALMM ENLISTED

Scan to know more

2.0 GW GIGA FACTORY WITH ADVANCED AI

12 Years of Product Warranty

30 Years of Warranty on Linear Performance

Model Type : SGE - M10144T16G - AAA*

*AAA denotes Module Wattage

Electrical Characteristics (STC)	610	605	600	595	590	585	580	575	570
Nominal Maximum Power (Pmax)	610	605	600	595	590	585	580	575	570
Optimum Operating Voltage (Vmp)	45.54	45.5	45.42	45.33	45.21	45.15	45.06	44.97	44.89
Optimum Operating Current (Imp)	13.41	13.31	13.23	13.14	13.07	12.97	12.88	12.80	12.71
Open Circuit Voltage (Voc)	54.27	54.16	54.05	53.94	53.83	53.72	53.61	53.50	53.39
Short Ciruit Current (Isc)	14.09	14.00	13.91	13.82	13.73	13.64	13.55	13.46	13.38
Module Efficiency (%)	23.61	23.42	23.23	23.03	22.84	22.65	22.45	22.26	22.07

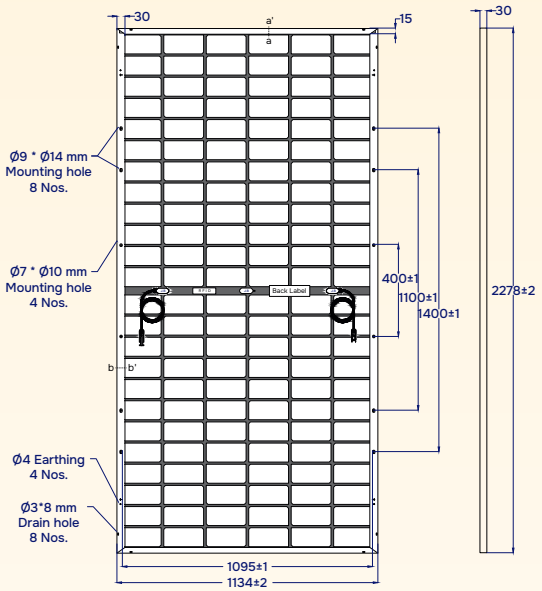
STC: Irradiance 1000W/m², Cell Temperature 25°C, AM = 1.5

Electrical Characteristics (NOMT)									
Nominal Maximum Power (Pmax)	465	461	457	453	449.5	445.5	441.5	437.9	434.0
Optimum Operating Voltage (Vmp)	43.26	43.23	43.15	43.06	42.95	42.89	42.81	42.72	42.65
Optimum Operating Current (Imp)	10.74	10.66	10.59	10.52	10.47	10.39	10.31	10.25	10.18
Open Circuit Voltage (Voc)	51.56	51.45	51.35	51.24	51.14	51.03	50.93	50.83	50.72
Short Ciruit Current (Isc)	11.28	11.21	11.14	11.07	10.99	10.92	10.85	10.78	10.71

NOMT: Irradiance 800W/m², Ambient Temperature 20°C, AM = 1.5 Wind Speed 1m/s

Bi-Facial Output – Backside Power Gain @ STC**										
Nominal Maximum Power (Pmax)	5%	641	635	630	625	620	614	609	604	599
Module Efficiency (%)		24.79	24.59	24.39	24.18	23.98	23.78	23.57	23.37	23.17
Nominal Maximum Power (Pmax)	10%	671	666	660	655	649	644	638	633	627
Module Efficiency (%)		25.98	25.76	25.55	25.34	25.12	24.91	24.70	24.48	24.27
Nominal Maximum Power (Pmax)	15%	702	696	690	684	679	673	667	661	656
Module Efficiency (%)		27.16	26.93	26.71	26.49	26.27	26.04	25.82	25.60	25.37
Nominal Maximum Power (Pmax)	20%	732	726	720	714	708	702	696	690	684
Module Efficiency (%)		28.34	28.10	27.87	27.64	27.41	27.18	26.94	26.71	26.48

** Additional power gain from the rear side, relative to the front side's power at STC, is influenced by the mounting structure (such as height and tilt angle) and the ground's reflectivity. Bi-Faciality Factor: 70 ± 5%.

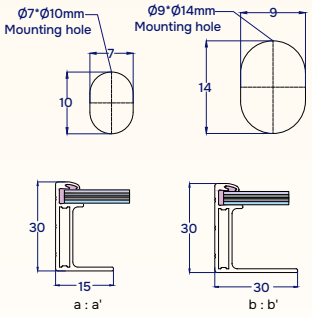


Back view

Side view

Mechanical Specifications

Cell Type	M10 Half-Cut N-type TOPCon Bifacial Solar Cells
No. of cells	144 (72×2)
Dimensions	2278 × 1134 × 30 mm
Weight	31.4 kg
Front Cover	2 mm Low Iron Semi-Tempered AR Coated Glass
Back Cover	2 mm Low Iron Semi-Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	30A Split Junction Box - IP68 Rated
Protection Class	Class II
IEC Fire Type	Class C
Connector Type	MC4 Compatible
Output Cables	4.0 mm² (+): 200 mm , (-): 400 mm or Customized Length



All dimensions are in mm.

Maximum Operating Conditions

Operating Temperature	-40°C to +85°C
Maximum System Voltage	1500V
Maximum Series Fuse Rating	30 A

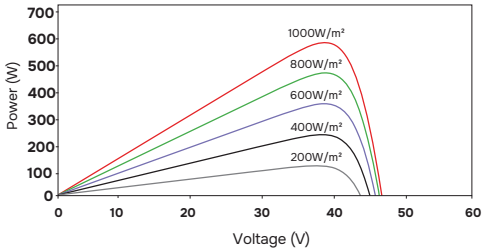
Temperature Coefficients

Current α (Isc)	0.0265 %/°C
Voltage β (Voc)	-0.2261 %/°C
Power γ (Pmax)	-0.29 %/°C

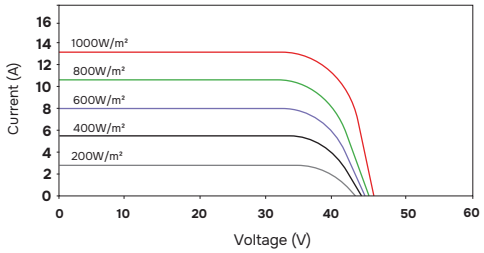
Packing Configuration#

	20 FT	40 FT
No. of Modules per Pallet	36 Nos	36 Nos
No. of Pallets per Container	10 Pallets	20 Pallets
No. of Modules per Container	360 Nos	720 Nos

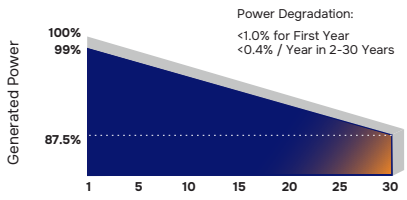
Power-Voltage Curves (SGE - M10144T16G - 590)



Current-Voltage Curves (SGE - M10144T16G - 590)



Linear Graph



#Quantity of modules/container may get changed without prior notice.

- For handling & installation instructions, refer to Solitech Solar's installation manual available on the company website
- Before placing an order, confirm your requirements with our sales representative
- The electrical data provided is for reference purposes only
- PV modules need to be disposed of as per government regulations after their life cycle
- Refer to Solitech Solar's warranty document for terms and conditions
- Due to constant product modifications, Solitech Solar reserves the right to amend the above specifications without prior notice
- Images in the datasheet are for representation purposes only