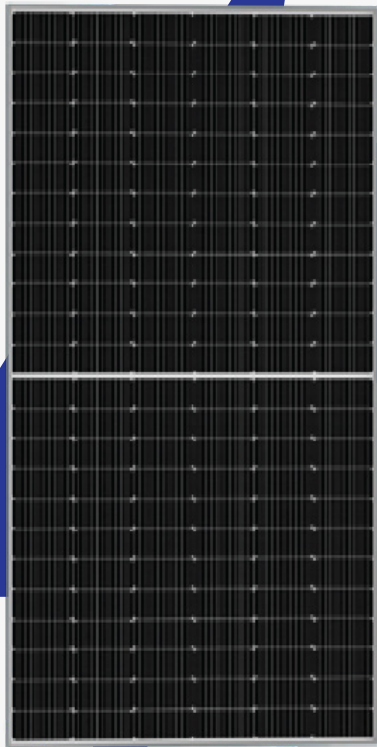


ZAP-M10TG-144

# TOPCon Technology Dual Glass Bifacial Module



Excellent PID resistance



Excellent LeTID resistance



Power tolerance of 0 to +4.99W



Sustain heavy snows and wind loads (5400Pa & 2400Pa)

## SUITABLE FOR



Residential



Utility



Commercial



Off-grid

## CERTIFICATES\*

Product Plant

- BIS IS 14286:Part1:Sec1(2023), IS/IEC 61730:PART1(2023), IS/IEC 61730:PART2(2023) (570-590)
- EN ISO 9001: 2015 Quality Management System
- EN ISO 14001: 2015 Environmental Management System
- EN ISO 45001: 2018 Occupational health and safety management systems



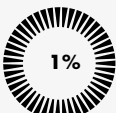
12 YEARS  
PRODUCT WARRANTY



30 YEARS POWER  
OUTPUT WARRANTY



ANNUAL POWER  
DEGRADATION FROM 2ND YEAR



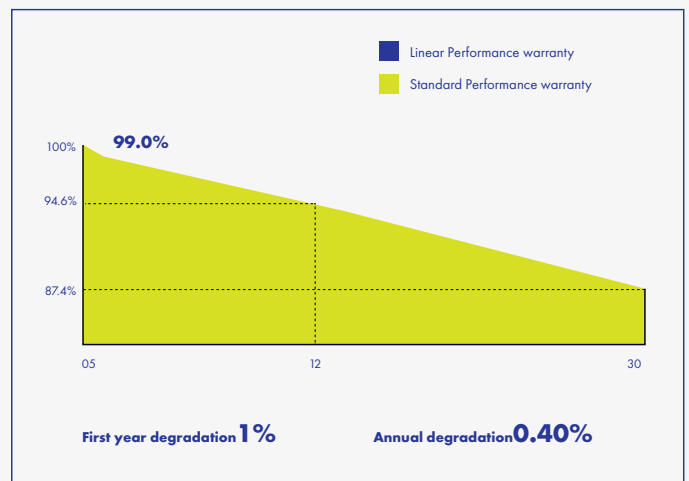
LID LOSS IN THE  
FIRST YEAR

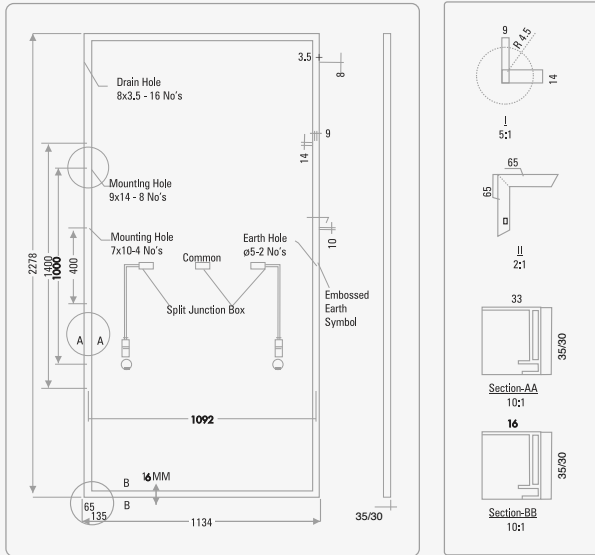


590W  
MAXIMUM  
POWER OUTPUT



Scan to Visit  
Zap91.com





## PACKING CONFIGURATION

Container	40' HQ
Pieces per Pallet	31
Pallet per Container	20
Pieces per Container	620

## ZAP-M10TG-144

ELECTRICAL CHARACTERISTICS (STC)	M2, Module Temperature 25 Deg C and AM-1.5 Irradiance 1000 W/m2					
	575	580	585	590	595	600
Peak power, P Max (Wp)	575	580	585	590	595	600
Maximum voltage, Vmp (V)	43.47	43.68	43.9	44.15	44.47	44.61
Maximum Current, Imp (A)	13.23	13.28	13.33	13.37	13.38	13.45
Open Circuit Voltage, Voc (V)	51.16	51.21	51.32	51.42	53.35	53.45
Short Circuit current, Isc (A)	13.78	13.83	13.958	14.04	14.04	14.10
Module Efficiency (%)	22.26%	22.45%	22.65%	22.84%	23.03%	23.23%
Power Tolerance	0 to +4.99 W					
Maximum System Voltage	1500 V					
Maximum Series Fuse Rating	30 A					

Measurement Tolerance +/-3%

Bifacial gain	575	580	585	590	595	600
5% Maximum Power (P max)	603.75	609.00	614.25	619.50	624.75	630.00
10% Maximum Power (P max)	632.50	638.00	643.50	649.00	654.50	660.00
20% Maximum Power (P max)	690.00	696.00	702.00	708.00	714.00	720.00
30% Maximum Power (P max)	747.50	754.00	760.50	767.00	773.50	780.00

NOCT	575	580	585	590	595	600
Maximum Power (P max)	427.93	431.65	435.38	430.10	442.82	446.54
Maximum Power Voltage (Vmp)	39.76	39.95	40.15	40.38	40.67	40.80
Maximum Power Current (Imp)	10.77	10.81	10.85	10.88	10.89	10.95
Open Circuit Voltage (Voc)	47.57	47.62	47.72	47.81	49.61	49.70
Short Circuit Current (Isc)	11.26	11.30	11.40	11.47	11.47	11.52

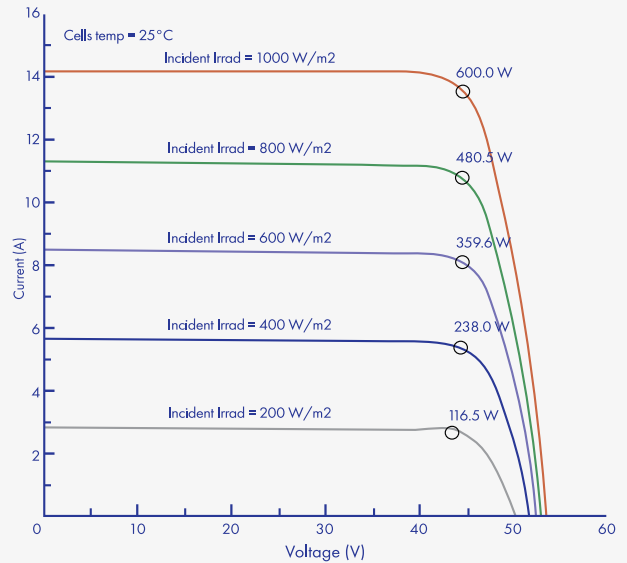
## MECHANICAL SPECIFICATIONS

External Dimensions	2278 (±2mm) X 1134 (±2mm) X (35/30) +/- 1 mm
Weight	31.5 Kg
No of Cells	144-16 BB, 91.8 x 182.2 mm
Front Glass	2.0 mm ARC Heat Strengthened
Rear Cover	2.0 mm Heat Strengthened
Frame	Anodized Aluminium Alloy (Silver)
Junction Box	3 Split, IP 68 Rated
Connector	MC4 Compatible Connector
Output Cable	4.0 mm <sup>2</sup> / 400 mm Cable Length

## TEMPERATURE CHARACTERISTICS

Pmax Temp. Coefficient (%/°C)	-0.29
Voc Temp. Coefficient (%/°C)	-0.24
Isc Temp. Coefficient (%/°C)	0.042
Operating Temp. (°C)	-40°C to + 85°C
Nominal Operating Cell Temp. (°C)	45±2°C
Bifaciality Factor	80 ± 10%

## I-V VARIATION WITH IRRADIANCE



## I-V VARIATION WITH TEMPERATURE

