



ZONWATT

SOLAR ENERGY SOLUTIONS



POWERING A SUSTAINABLE EUROPE



ZONWATT

ZW 144 SERIES

30
years

Performance
Warranty

15
years

Product
Warranty

580W-600W

N-TYPE TOPCON TECHNOLOGY PV MODULES
HALF-CUT CELLS • MONO-FACIAL

144

HALF
CELLS

182
mm

CELL
SIZE



LID
RESISTANT



PID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT



HIGHLY STABLE
AND TOUGH

Email: info@zonwatt.eu

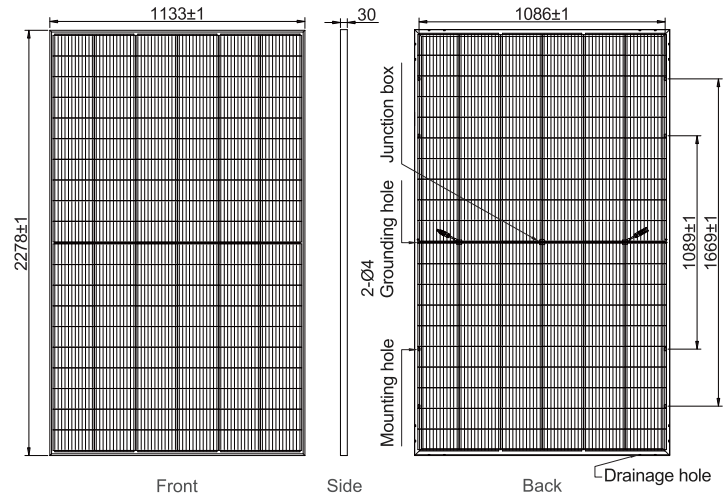
Website: www.zonwatt.eu

ZONWATT ZW - 144 Series 580W - 600W

N-TYPE TOPCON TECHNOLOGY PV MODULES HALF-CUT CELLS • MONO-FACIAL

Mechanical and design specification

Cell type	n-Type TOPCon Technology, Half-cut cells, 182 mm
No. of cells	144
Front cover	3.2 mm glass, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White Backsheet
Junction box	IP68 rated, 3 Bypass Diodes
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm lenght or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2278 mm x 1133 mm x 30 mm
Weight	32kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m ²
Snow load	5400 Pa or 550 kg/m ²

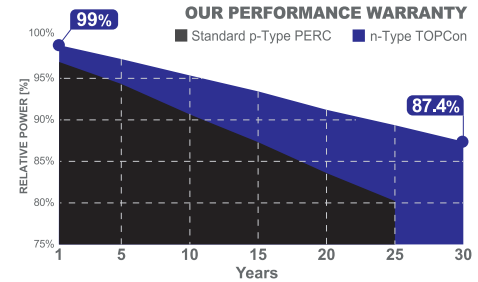
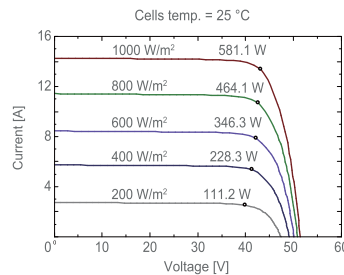
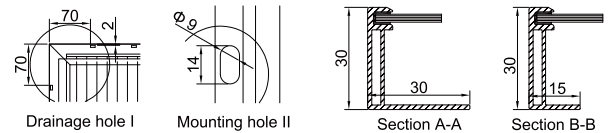


Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	720 pcs / 40 HQ
Size / Pallet	2310 mm x 1140 mm x 1245 mm
Weight	1152 kg / pallet

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P_{max}	(%/°C)	-0.30
Temp.coefficient of V_{oc}	(%/°C)	-0.25
Temp.coefficient of I_{sc}	(%/°C)	0.046
Nom. operating temp. NOCT	(°C)	42 ± 2



Electrical specifications (STC*):		ZW580CMD 144	ZW585CMD-144	ZW590CMD-144	ZW595CMD-144	ZW600CMD-144
Nominal Max. Power	P _{max} (Wp)	580	585	590	595	600
Maximum operating voltage	V _{MPP} (V)	33.60	33.80	34.00	34.20	34.40
Maximum operating current	I _{MPP} (A)	17.26	17.31	17.35	17.40	17.44
Open-circuit voltage	V _{oc} (V)	40.70	40.90	41.10	41.30	41.50
Short-circuit current	I _{sc} (A)	17.81	18.37	18.42	18.47	18.52
Module efficiency	η (%)	20.52	20.70	20.87	21.05	21.23
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	35				

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5), measurement tolerance P_{max} : ±3%

Electrical specifications (NMOT*):		ZW580CMD 144	ZW585CMD-144	ZW590CMD-144	ZW595CMD-144	ZW600CMD-144
Nominal Max. Power	P _{max} (Wp)	436	440	444	448	452
Maximum operating voltage	V _{MPP} (V)	31.60	31.80	32.00	32.20	32.40
Maximum operating current	I _{MPP} (A)	13.81	13.85	13.88	13.92	13.95
Open-circuit voltage	V _{oc} (V)	37.90	38.10	38.30	38.50	38.70
Short-circuit current	I _{sc} (A)	14.25	14.70	14.74	14.78	14.82

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices.
The specifications included in the datasheet are subject to change without prior notice.