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Energía

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> Kits de energía

5kWp Trifásico

MONO SOLAR MODULE TW345MW-72

Advantages

High power

High power output, increasing power generation.

Excellent Low-light Performance

In Low-radiation environment such as morning, evening or rainy day, its generating capacity is higher than normal module

Perfect self-cleaning Performance

Reducing the power loss due to dust cover (dirt effect)

Strict quality control

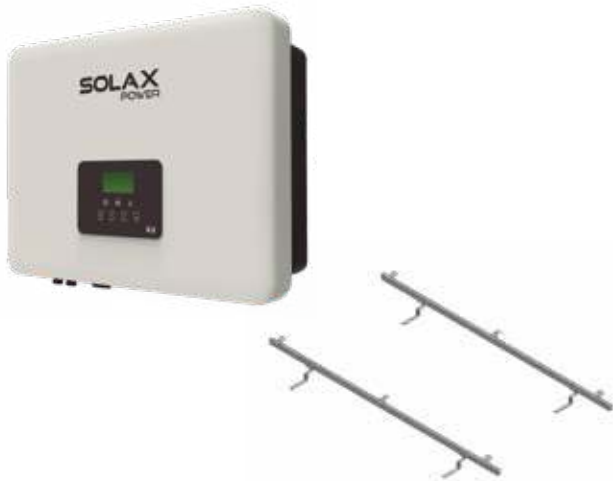
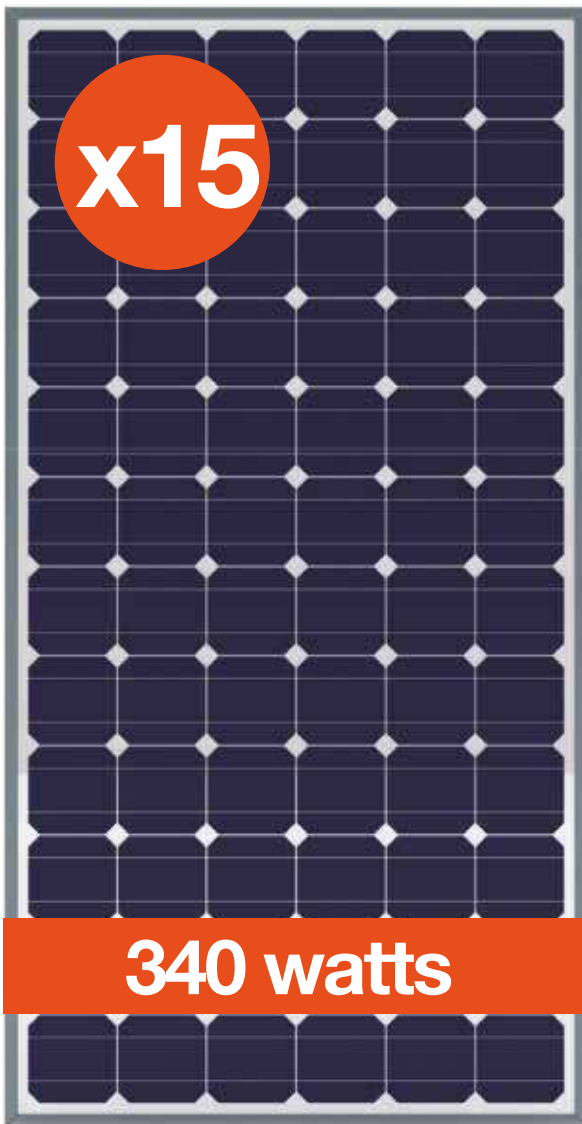
Advanced fully automatic production line with advanced quality inspection control 100% EL inspection during produce and before delivery 0~+5% positive power output, optimizing the current classified, make sure the modules matching system performance and get more power output.

Excellent Reliability and Weather Resistance

All modules passed TÜV Rheinland certification and the rigorous TÜV Rheinland diversity test.

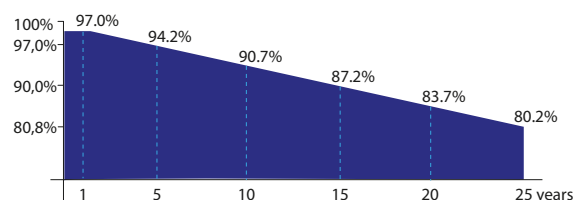
Certified to pass the highest (Level Six) salt mist corrosion, ammonia, 1000h PID, sand and dust abrasion testing.

Certified to pass mechanical load resistance testing for special conditions, such as snow loads (5400Pa), wind loads (2400Pa) and allowable hail load testing (Diameter 45mm hailstones at 30.7m/s).



Linear Power Warranty of TW Monocrystalline Solar Module
10 years Product Workmanship Warranty 25 years Linear
Power Warranty

Guaranteed
Power Performance



MONO SOLAR MODULE TW345MW-72

MECHANICAL CHARACTERISTICS

Dimensions	1956x990x40mm (LxWxH)
Weight	27.5kg
Front Glass	White toughened safety glass, 4.0mm
Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Cells	72pcs 156.75x156.75mm Monocrystalline solar 5BB cells
Backsheet	Composite film
Frame	Anodized aluminium profile
Junction Box	Rated current 13A, IP67, TUV&UL
Cable	Length 900mm, 1x4mm ²
Connector	Compatible with MC4

TEMPERATURE CHARACTERISTICS

NOCT	45°C (±2°C)
Temperature Coefficient of Voc	-0.32%/°C
Temperature Coefficient of Isc	0.045%/°C
Temperature Coefficient of Pm	-0.41%/°C

MAXIMUM RATINGS

Maximum System Voltage [V]	DC 1000 (IEC) DC 1000 (UL)
Series Fuse Rating [A]	20
Maximum Surface Load Capacity [Pa]	5,400
Temperature Range [°C]	-40 to +85
Withstanding Hall	Maximum diameter of 45 mm with impact speed of 30.7 m·s ⁻¹

ELECTRICAL CHARACTERISTICS AT STANDARD TEST CONDITIONS (STC)

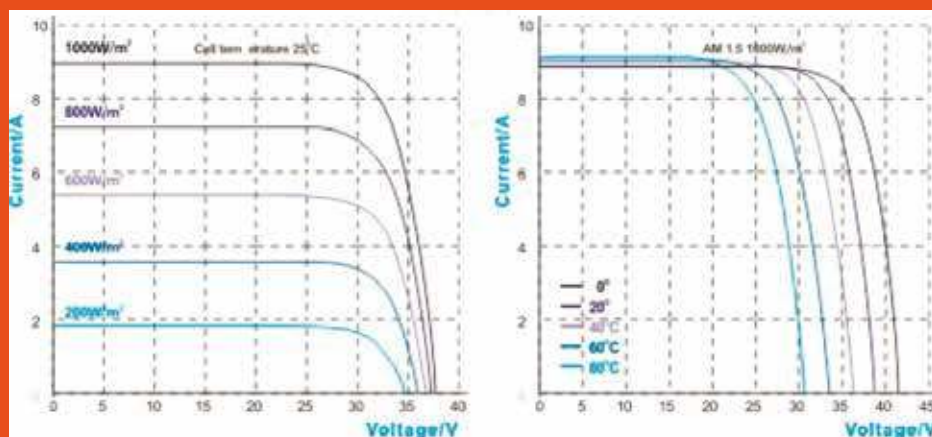
Module Type: TW 285 MW-60	345	340	335	330
Maximum Power -Pm (W)	345	340	335	330
Open Circuit Voltage-Voc (V)	46.7	46.5	46.3	46.1
Short Circuit Current-Isc (A)	9.52	9.44	9.36	9.28
Maximum Power Voltage -Vm (V)	38.4	38.2	38.0	37.7
Maximum Power Current-Im (A)	9.02	8.91	8.83	3.75
Module Efficiency-η (%)	17.82	17.56	17.30	17.04

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power -Pm (W)	258	255	252	249
Open Circuit Voltage-Voc (V)	43.4	43.2	43.0	42.7
Short Circuit Current-Isc (A)	7.72	7.66	7.60	7.54
Maximum Power Voltage -Vm (V)	35.4	35.2	35.0	34.8
Maximum Power Current-Im (A)	7.29	7.24	7.20	7.16

- Note:** 1. Standar Test Conditions (STC): irradiance 1000 W/m² AM 1.5; ambient temperature 25°C According to EN 60904-3;
2. Normal Operating Cell Temperature (NOCT): Irradiance 800W/ m²; wind speed 1m/s, cell temperature 45°; ambient temperature 20°C
3. Tolerance of Pm: 0~+5W, Test Uncertainty of power: ±3%, Test Tolerance of Voc (V), Isc (a), Vm (V) and Im (A): ±5%.

IV CURVE



IV CURVE

Packaging	26 pcs/pallet 22 pallet/40'HQ 572 pcs/40'HQ 5 pallet/20'GP 130 pcs/20'GP
Warranty	10 year Product Workmanship Warranty 25 year Linear Power Warranty

*Declaration: With the technical progress and product updates, there exists a deviation between the technical parameter of the TW Solar's late products and the technical parameter in this specification, The TW Solar reserves the right to adjust the technical parameter at any time without notifying the customers, TW Solar has the ultimate power of interpretation to this technical specification.

Tipo de Kit con modelo de Inversor

Kit 5kWp
Inversor:
X3-5.0 T

Input (DC)

Max.recommended DC power [W]:	6500
Max. DC voltage [V]:	800
Norminal DC operating voltage [V]:	600
Max. input current (input A/input B) [A]:	11/11
Max. short circuit current (input A/input B) [A]:	14/14
Operating voltage range [V]:	160/750
MPPT voltage range [V] (full load):	240-750
Start up DC voltage [V]:	140
Start output DC voltage [V]:	180
Shut down DC Voltage [V]:	100
No. of MPP trackers	2
Strings per MPP Tracker	1
DC Disconnection switch	Opcional

OUTPUT (AC)

Norminal AC power [W]:	5000
Max. apparent AC power [W]:	5000
Rated grid voltage (AC voltage range) [V]:	3/N/PE,230/400(310-480)
Rated grid Frequency [Hz]:	50/60;±5
Max. AC current [A]:	8,0
Displacement power factor:	0.8 leading-0.8 lagging
THDi, rated power [%]:	<2

EFFICIENCY

MPPT efficiency [%]:	99,9
Euro-efficiency [%]:	97,8
Max. efficiency [%]:	98,3

POWER CONSUMPTION

Night consumption [W]:	<3
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STANDARD

Safety:	EN62109-1-2
EMC:	EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3
Certification:	AS4777.2-2015; VDE4105

ENVIRONMENT LIMITS

Protection class:	IP65
Operating temperature [°C]:	-25~+60 (detaring at 45)
Humidity[%]:	0~100, condensing
Altitude[m]:	4000 (derating at 3000)
O Storage voltage category:	-25~+60
Noise emission (typical) [dB]:	<35
Over voltage category	III (electric supply side), II(PV side)

GENERAL

Dimensions(W*H*D) [mm]:	460*400*180
Weight [Kg]:	23
DC input type	MC4
Cooling concept	Natural
Topology	Transformerless
Earth fault alarm	Yes (80dB)
Communication	Rs485 / DRM / WIFI (optional) / LAN (optional) / USB / RF
LED	3
LCD display	Backlight 20*4 character
Warranty [year]:	5