



# TWMPF-60HD585-605W

P-type Half-cell Bifacial Module (60)

## PRODUCT FEATURES



High Power Output  
Low LCOE



Maximum Power  
605W+



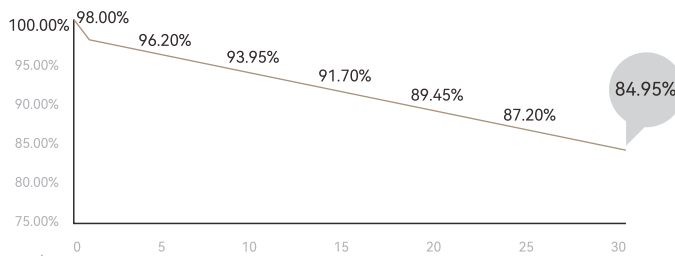
High  
Reliability



Low  
LID

## POWER WARRANTY

1st year <2%, 0.45% power degradation per year from 2 to 30 years



12-year Warranty for Materials



30-year Warranty for Linear Power Output

## MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION

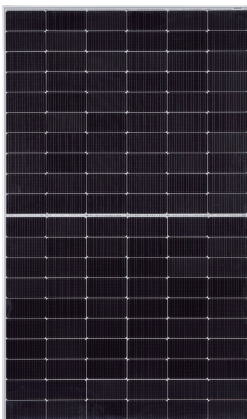
ISO9001: 2015/Quality Management System

ISO14001: 2015/Environment Management System

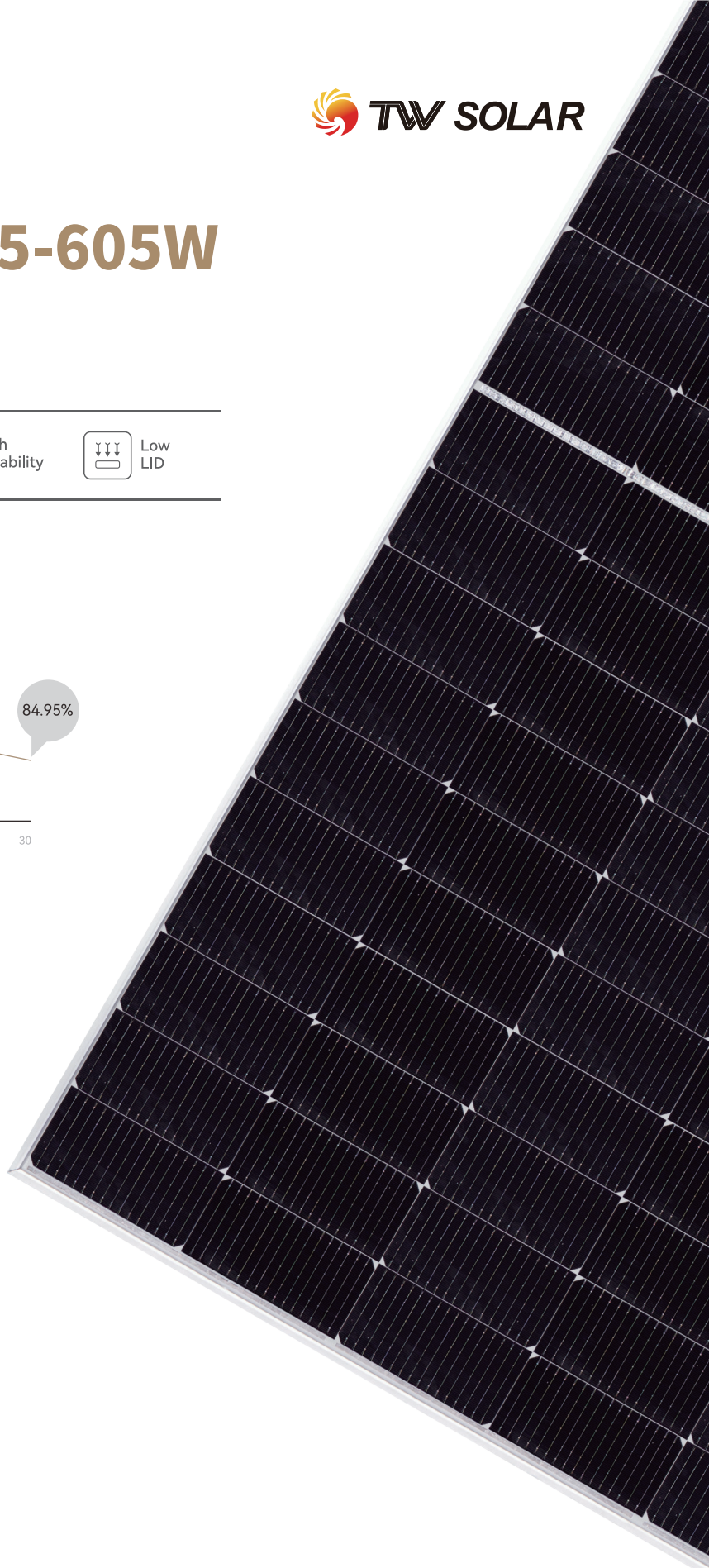
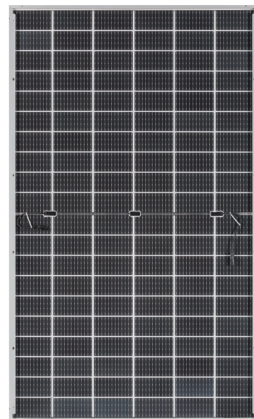
ISO45001: 2018/Occupational Health and Safety Management System



Front



Rear



### Electrical Characteristics (STC)

Module Type: TWMPF-60HDXXX					
Maximum Power: Pmax [W]	585	590	595	600	605
Open Circuit Voltage: Voc [V]	41.04	41.24	41.44	41.64	41.84
Short Circuit Current: Isc [A]	18.30	18.36	18.41	18.46	18.52
Voltage at Maximum Power: Vmp [V]	33.95	34.15	34.35	34.55	34.75
Current at Maximum Power: Imp [A]	17.23	17.28	17.32	17.37	17.41
Module Efficiency: $\eta$ [%]	20.7	20.8	21.0	21.2	21.4
STC: Irradiance 1000W/m <sup>2</sup> , Cell Temperature 25°C, Air Mass1.5, Measuring Tolerance: $\pm$ 3%					

### Electrical Characteristics (NMOT)

Maximum Power: Pmax [W]	442.6	446.4	450.2	454.0	457.7
Open Circuit Voltage: Voc [V]	38.66	38.84	39.03	39.22	39.41
Short Circuit Current: Isc [A]	14.76	14.80	14.84	14.88	14.93
Voltage at Maximum Power: Vmp [V]	31.67	31.86	32.05	32.23	32.42
Current at Maximum Power: Imp [A]	13.97	14.01	14.05	14.09	14.12
NMOT: Irradiance 800W/m <sup>2</sup> , Ambient Temperature 20°C, Air Mass1.5, Wind Speed 1m/s					

### Electrical characteristics with different rear side power gain

5%	Maximum Power: Pmax[W]	614.3	619.5	624.8	630	635.3
	Module Efficiency: $\eta$ [%]	21.7	21.9	22.1	22.3	22.4
15%	Maximum Power: Pmax[W]	672.8	678.5	684.3	690.0	695.8
	Module Efficiency: $\eta$ [%]	23.8	24.0	24.2	24.4	24.6
25%	Maximum Power: Pmax[W]	731.3	737.5	743.8	750.0	756.3
	Module Efficiency: $\eta$ [%]	25.8	26.1	26.3	26.5	26.7

### Temperature Ratings

Temperature Coefficient (Pmax)	-0.34%/°C
Temperature Coefficient (Voc)	-0.28%/°C
Temperature Coefficient (Isc)	0.05%/°C
NMOT	45 $\pm$ 2°C

### Mechanical Parameters

Cells	TPC
Cell Orientation	120[6X20]
Dimension	2172 $\pm$ 2 X1303 $\pm$ 2X35mm
Weight	34.8kg
Front Glass	2.0mm high transmittance, AR coated tempered glass
Rear Glass	2.0mm high transmittance, coated tempered glass
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Output Cable	4.0mm <sup>2</sup>
Cable Length	+400mm, -200mm, length can be customized
Wind/Snow Load	2400Pa/5400Pa
Packaging	31pcs per pallet, 558pcs per 40'HC

### Operating Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	35A
Power Output Tolerance	0~+5W
Maximum Bifaciality	70 $\pm$ 5%

### Drawings (Unit: mm)

