

TOPCon- Half-cell Bifacial Module(66)

Product Feature



High Power Output
Low LCOE



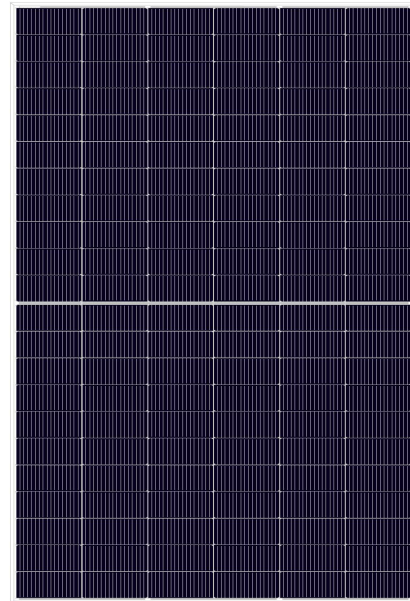
Maximum Power
up to 620W+



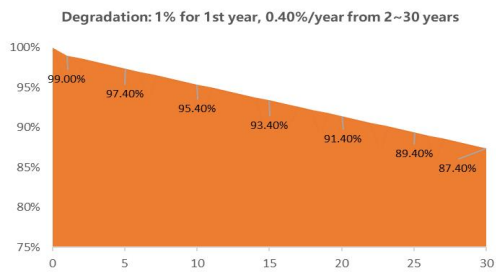
High Reliability



Low Degradation



Linear Warranty



Warranty for Material and Processing



Warranty for Linear Power output

Management System certification

- ISO9001: 2015/Quality Management System
- ISO14001: 2015/Environmental Management System
- ISO45001: 2018/Occupational Health and Safety Management System
- IEC62941: 2019/Quality system for PV module manufacturing

Product certification



Tongwei Solar (Hefei) Co., Ltd
Made in China

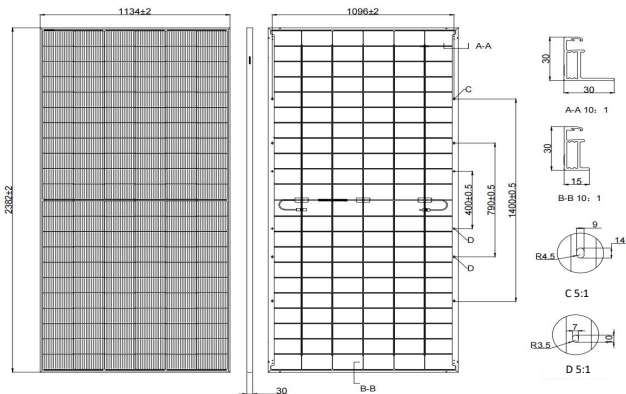
Electrical Characteristics (STC)					
Moduel type: TWMNH-66HD***					
Maximum Power: Pmax [W]	600	605	610	615	620
Open Circuit Voltage: Voc [V]	47.50	47.70	47.90	48.10	48.30
Short Circuit Current: Isc [A]	15.75	15.80	15.85	15.90	15.95
Voltage at Maximum Power: Vmp [V]	40.75	40.95	41.15	41.35	41.55
Current at Maximum Power: Imp [A]	14.73	14.78	14.83	14.88	14.93
Module Efficiency: η [%]	22.2	22.4	22.6	22.8	23.0
STC: Irradiance 1000W/m ² , Cell Temperature 25°C, AM=1.5, Test Uncertainty: ±3%					

Electrical Characteristics (NMOT)					
Maximum Power: Pmax [W]	451	455	459	462	466
Open Circuit Voltage: Voc [V]	45.13	45.32	45.51	45.70	45.89
Short Circuit Current: Isc [A]	12.72	12.76	12.80	12.84	12.88
Voltage at Maximum Power: Vmp [V]	37.94	38.14	38.35	38.47	38.68
Current at Maximum Power: Imp [A]	11.89	11.93	11.97	12.01	12.05
NMOT: Irradiance 800W/m ² , Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s					

Electrical characteristics with different rear side power gain						
5%	Maximum Power: Pmax[W]	630	635	640	645	651
	Module Efficiency: η [%]	23.3	23.5	23.7	23.9	24.1
15%	Maximum Power: Pmax[W]	690	695	701	707	713
	Module Efficiency: η [%]	25.5	25.7	26.0	26.2	26.4
25%	Maximum Power: Pmax[W]	750	756	762	768	775
	Module Efficiency: η [%]	27.8	28.0	28.2	28.4	28.7

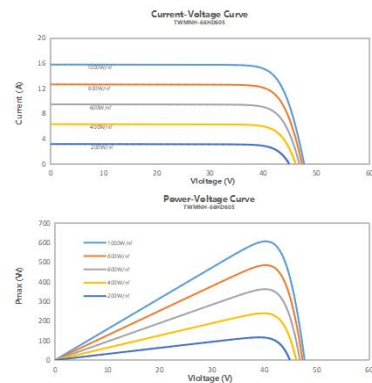
Mechanical Parameters	
Cell Type	TNC
Cell Orientation	132[6×22]
Dimensions	2382±2×1134±2×30mm
Weight	32.5 kg
Front Glass	2.0 mm AR coated heat strengthened glass
Rear Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Cable	4.0 mm ²
Cable length	+400mm,-200mm,length can be customized
Wind/Snow load	2400Pa/5400Pa
Per pallet	36 pcs
Packaging	720 pcs per 40'HC,720 pcs per 13m flatbed trailer,864 pcs per 17.5m flatbed trailer
Fire class rating	Class C

Drawing(Unit:mm)



Temperature rating	
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C
NMOT	45±2°C

Operating Parameters	
Operating Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30A
Power Output Tolerance	0~+5W
Bifaciality	80±5%



Statement: With technological process and product update, there maybe deviation between the technical parameters of Tongwei's module products and the technical parameters contained in the specification, and Tongwei has the right to adjust the technical parameters at any time without notifying the customer, the final interpretation of the technical specification is vested in Tongwei.

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Cable type

Zhejiang Renhe Photovoltaic Technology Co., Ltd.
Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.
Zhejiang Jiaming Tianheyuan Photovoltaics Technology Co., Ltd
Ningbo Kibor Wire&Cable Co., Ltd.
Wuxi Xinhongye Wire&Cable Co., Ltd.
Trina Solar Co., Ltd.
Changshu JHOSIN Communication Technology Co., Ltd.
SUZHOU YONGHAO CABLE CO LTD
QC Solar (Suzhou) Corporation
Suzhou Baohing Electric Wire & Cable Manufacturer Co., Ltd.
Jiangxi Jinko PV Material Co., Ltd.
Jiangxi Hejia Technology Co., Ltd.
YushanXinzhan Industrial Co., Ltd.
DONGGUAN XINBEISEN WIRE AND CABLE CO LTD
Jiangxi Han Guang Cable Co., Ltd.
RUIXU INDUSTRY CO., LTD.
Suzhou Xietong Photovoltaic Technology Co., Ltd.
Jiangsu Tongling Electric Co., Ltd.
Zhejiang Chuangyuan Photovoltaic Technology Co.,Ltd.
Tongwei Solar (Hefei) Co., Ltd.

Connector type

05-8, Zhejiang Renhe Photovoltaic Technology Co., Ltd.
PV-KST4-EVO2/xy_UR , PV-KBT4-EVO2/xy_UR, Stäubli Electrical Connectors AG
PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy, Stäubli Electrical Connectors AG
UTXCFabcd, UTXCMabcd,UTXCFabcde, UTXCMabcde, Amphenol Technology (Shenzhen) Co., Ltd.
RHC2xyzu, Zhejiang Renhe Photovoltaic Technology Co., Ltd.
PV-JM608, Zhejiang Jiaming Tianheyuan Photovoltaics Technology Co., Ltd.
PV-JM601A, Zhejiang Jiaming Tianheyuan Photovoltaics Technology Co., Ltd.
PV4-S1yx, Tyco Electronics (Shanghai) Co., Ltd.
HQC4, Hanwha Q CELLS (Qidong) Co., Ltd
PV-CO02-xy, SUZHOU UKT NEW ENERGY TECHNOLOGY CO., LTD
TS4-xz , Trina Solar Co., Ltd.
TS4, Trina Solar Co., Ltd.
H4Cabdef, Amphenol Technology (Shenzhen) Co., Ltd.
PV-CF-C-2, 5-4-SETxxxx, PV-CM-C-2, 5-4-SETxxxx, Phoenix Contact GmbH & Co.KG
PV-ZH202B, Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.
QC4.10-cds, QC Solar (Suzhou) Corporation
PV-MH5, Ningbo Minghe New Energy Technology Co., Ltd.
TL-CABLE01S-F, TL-CABLE01S, Jiangsu Tongling Electric Co., Ltd.
PV-KST4-EVO 2A/xy_UR; PV-KBT4-EVO 2A/xy_UR, Stäubli Electrical Connectors AG

Connector type

PV-XT101.1, Suzhou Xietong Photovoltaic Technology Co., Ltd.

PV-JK03M-2, PV-JK03M/xy, PV-JK03M1/xy, PV-JK03M2/xy, Jiangxi Jinko PV Material Co., Ltd.

UTXCFabcde, UTXCMabcde, Amphenol Technology (Shenzhen) Co., Ltd.

TW-PVCON-01, Tongwei Solar (Hefei) Co., Ltd.

PV-CY03L, Zhejiang Chuangyuan Photovoltaic Technology Co., Ltd.

PV-CY20L, Zhejiang Chuangyuan Photovoltaic Technology Co., Ltd.