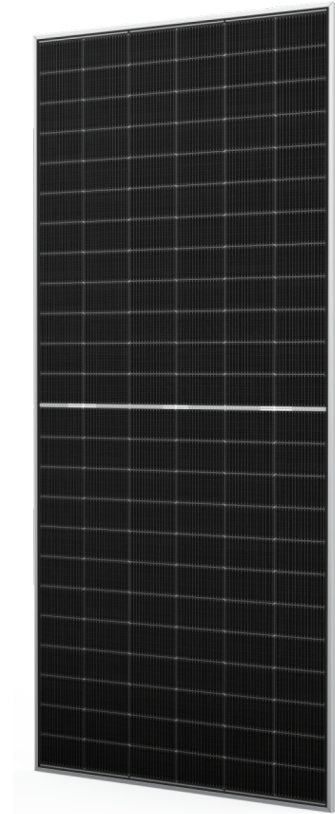


IM ENERGY TOPCon Bifacial Solar Module

IMT580 – 605

580 – 605 Watt

N Type Monocrystalline
High Performance



N – Type Technology

Lower distortion and higher low light performance with TOPCon cell structure

SMBB Technology

Better light capture and current performance

High Bifaciality Performance

High bifacial performance due to TOPCon Cell structure

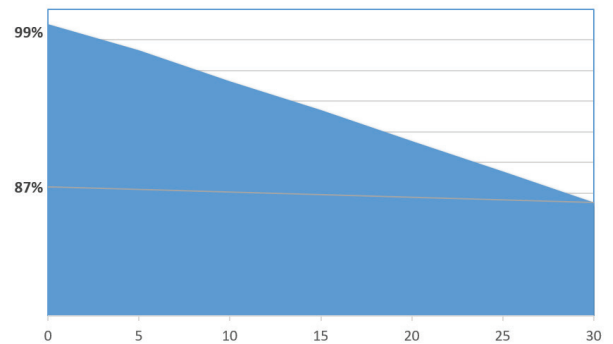
Better Low Light Performance

Higher low light performance than other module designs

Better Temperature Coefficient

Lower efficiency losses depending on temperature

Linear Performance Warranty



12 Year
Product
Warranty

30 Year
Linear Power
Warranty

1%
First-year
Degradation

0.4%
Annual
Degradation
Over 30 years



IEC/ EN 61215:2021 & IEC/ EN 61730:2023,
IEC/ EN 61701, IEC/ EN 62804-1, IEC/ EN 60068-2-1994
IEC/ EN 62716, IEC/ EN 63202-1 :2019



UL 61215:2021,
UL 61730-1:2022



ISO 9001/ ISO 14001/ ISO 45001
ISO 27001/ ISO 50001

IMT580 – 605 Watt

Mechanical Parameters (STC)

Module size	2278*1133*30mm
Number of solar cells	144 cells
Weight	31Kg ±5%
Junction box	IP68, 3 diodes
Cables	12 AWG (UL) / 4mm ² (IEC) , 300mm (Customizable)
Front plate	2mm AR coated Semi- Tempered Glass
Back plate	2mm Mesh Desing Semi-Tempered Glass
Static load on the front	5400Pa
Static load on the back	2400Pa

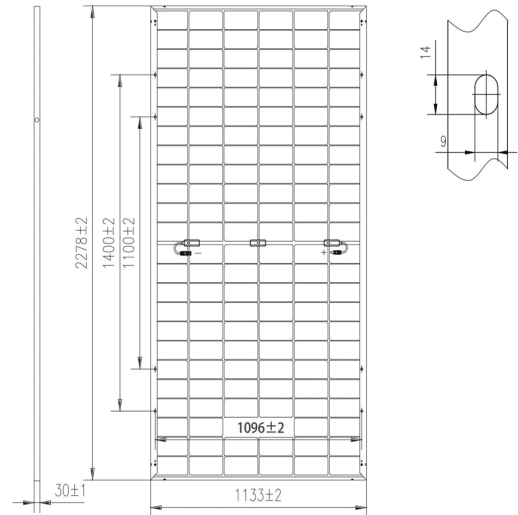
Packing and Transport

40'HQ container transport	36Pcs/box x 20 box = 720 Pcs
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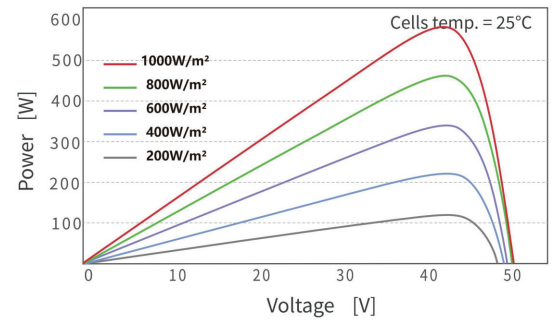
Electrical Parameters (STC)

Model	IMT580	IMT585	IMT590	IMT595	IMT600	IMT605
Maximum Power Pmax (Wp)	580	585	590	595	600	605
Maximum Power Voltage Vmap (V)	44,02	44,22	44,43	44,46	45,02	45,39
Maximum Power Current Imp (A)	13,17	13,23	13,28	13,33	13,44	13,55
Open Circuit Voltage Voc (V)	51,95	52,16	52,37	52,58	53,02	53,47
Short Circuit Current Isc (A)	13,84	13,89	13,94	13,99	14,11	14,23
PV Module Efficiency	22,48%	22,67%	22,87%	23,06	23,26%	23,45%
Standard Test Conditions	AMI.5, Irradiance 1000w/m ² , Cell Temperature 25°C					

Engineering Drawings



P-V Curves of PV Module (IMT580-605)



Back Side Power Gain

		IMT580	IMT585	IMT590	IMT595	IMT600	IMT605
5%	Maximum Power (Wp)	603,2	608,4	613,6	618,8	624	629,2
	Efficiency (STC)	23,38%	23,58%	23,78%	23,98%	24,19%	24,39%
15%	Maximum Power (Wp)	667	672,75	678,5	684,25	690	695,75
	Efficiency (STC)	25,85%	26,08%	26,30%	26,52%	26,74%	26,97%
25%	Maximum Power (Wp)	725	731,25	737,5	743,75	750	756,25
	Efficiency (STC)	28,10%	28,34%	28,59%	28,83%	29,07%	29,31%

Maximum Ratings

Working Temperature	-40~+85°C
Maximum System Voltage	1500VDC
Maximum Fuse Rated Current	30A

Temperature Parameter

Nmot	45±2°C
Temperature Coefficient of maximum power (Pmax)	-0.30%/°C
Temperature Coefficient of open circuit voltage (Voc)	-0.26%/°C
Temperature Coefficient of short circuit current (Isc)	+0.046%/°C

I-V Curves of PV Module (IMT580-605)

