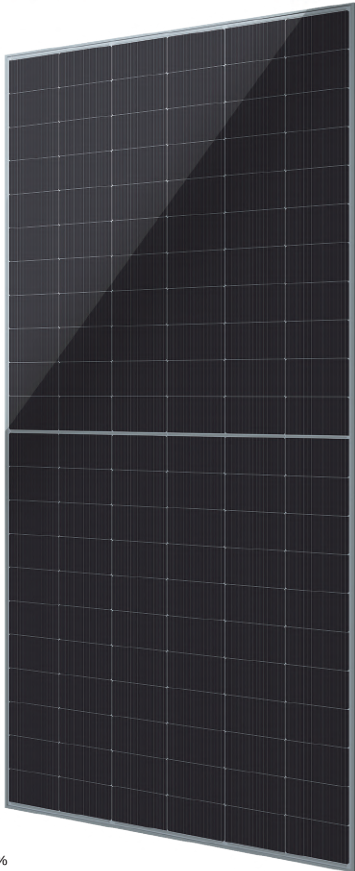


# SOLAR MODULE 595 - 620 W



**G12R - TOPCON  
HALF CUT PV MODULE  
HIGH EFFICIENCY  
DUAL GLASS**



## N-TYPE TOPCON CELL TECHNOLOGY

Based on G12R-182 x 210 mm wafer with multi-busbar  
N-Type wafer and TOPCon technology



## MODULE TECHNOLOGY

Double-sided power generation  
Low breakage rate; Annual power degradation 0.4%  
Less power loss by minimizing the shading impact



## HOT SPOT LOSS

Optimized electrical design and lower operating current  
Reduced hot spot loss and better temperature coefficient



## FAST & SAFE

Easy installation and handling  
Environmentally friendly



## MODULE DURABILITY

Mechanical load test Front side 5400Pa/Rear side 2400Pa  
Ideal for PV rooftops, ground mount, floating



## THE #1 DOMESTIC PV MANUFACTURER IN VIETNAM

100% Automatic production line  
International quality PV technology



**0 ~ +5W**

Power  
Tolerance



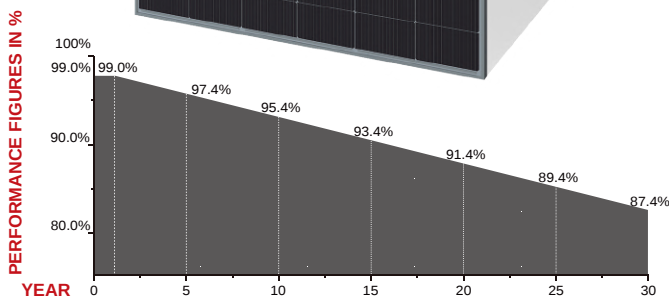
**15 - years**

Material &  
workmanship



**30 - years**

Linear power  
Output



**GUARANTEED MODULE PERFORMANCE FROM IREX ENERGY JSC**

## CERTIFICATES



ISO 9001:2015: Quality Management System  
ISO 14001:2015: Environmental Management System  
IEC 61215: Terrestrial Photovoltaic (PV) Modules – Design  
Qualification and Type Approval (\*)  
IEC 61730: Photovoltaic (PV) Module Safety Qualification (\*)

(\*) In progress

## HIGH QUALITY FOR PROSPERITY

IREX Energy Joint Stock Company produces the #1 Vietnamese-Made Photovoltaic (PV) modules, internationally certified with excellent performance and flexible in customization per demand.

Going solar requires a long-term commitment. You can sit back, relax and enjoy the sunshine; as our company will **always be with you in 30 years!**

With the **finest price and customer service** can only be found at IREX Joint Stock Company, we look forward to working with you soon!

## IREX ENERGY JOINT STOCK COMPANY

**Head Office:** No. 47, Le Van Thinh Street, Quarter 5, Binh Trung Ward, HCMC, Vietnam.

**Factory Address:** Road No. 1A, Phu My 1 Industrial Zone, Tan Phuoc Ward, HCMC, Vietnam.

**Tel:** +84 (0)28 7300 1559 | **Email:** info@irex.vn | **Website:** www.irex.vn

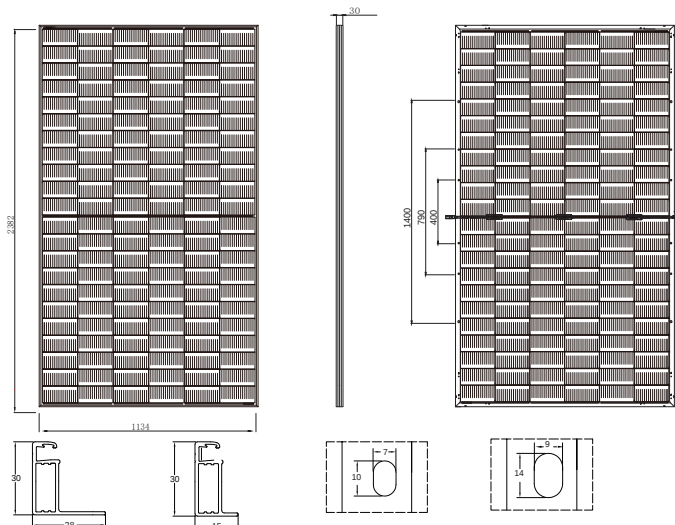


# SOLAR MODULE

## 595 - 620 W

### Mechanical Specifications

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| External Dimensions | 2382 x 1134 x 30 mm                                                                 |
| Weight              | 32.4 kg                                                                             |
| Solar Cells         | N-type TOPCon Mono 105 x 182 mm (132 pcs)                                           |
| Glass               | Front: 2.0 mm, AR coating, semi-tempered                                            |
|                     | Rear: 2.0 mm, semi-tempered                                                         |
| Frame               | Anodized aluminium alloy                                                            |
| Junction Box        | IP68, 3 diodes                                                                      |
| Output Cables       | 4.0 mm², 300 mm(+)/ 200 mm(-)<br>or Customized Length                               |
| Mechanical Load     | Front Side Maximum Static Loading 5400Pa<br>Rear Side Maximum Static Loading 2400Pa |



\*Tolerance: Length: ±2mm Width: ±2mm Height: ±1mm Row Pitch: ±2mm

### Electrical Characteristics

| Module Type                  | IRM66HTBD5-595 |       | IRM66HTBD5-600 |       | IRM66HTBD5-605 |       | IRM66HTBD5-610 |       | IRM66HTBD5-615 |       | IRM66HTBD5-620 |       |
|------------------------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
|                              | STC            | NMOT  | STC            | NMOT  | STC            | NMOT  | STC            | NMOT  | STC            | NMOT  | STC            | NMOT  |
| Maximum Power (Pmax)         | 595            | 450   | 600            | 454   | 605            | 458   | 610            | 462   | 615            | 466   | 620            | 469   |
| Open Circuit Voltage (Voc)   | 47.49          | 44.96 | 47.66          | 45.16 | 47.83          | 45.28 | 48.00          | 45.49 | 48.17          | 45.65 | 48.34          | 45.81 |
| Short Circuit Current (Isc)  | 15.86          | 12.80 | 15.93          | 12.86 | 16.00          | 12.92 | 16.07          | 12.96 | 16.14          | 13.02 | 16.21          | 13.06 |
| Maximum Power Voltage (Vmp)  | 39.81          | 37.65 | 49.95          | 37.78 | 40.09          | 37.91 | 40.22          | 38.06 | 40.35          | 38.16 | 40.48          | 38.31 |
| Maximum Power Current (Imp)  | 14.96          | 11.97 | 15.03          | 12.03 | 15.10          | 12.08 | 15.18          | 12.16 | 15.25          | 12.20 | 15.33          | 12.27 |
| Module Efficiency at STC(ηm) | 22.0           |       | 22.2           |       | 22.4           |       | 22.6           |       | 22.8           |       | 23.0           |       |
| Power Tolerance              | (0 ~ +5 W)     |       |                |       |                |       |                |       |                |       |                |       |
| Maximum System Voltage       | 1500 VDC       |       |                |       |                |       |                |       |                |       |                |       |
| Maximum Series Fuse Rating   | 35 A           |       |                |       |                |       |                |       |                |       |                |       |

STC: Irradiance 1000 W/m², Cell Temperature 25°C, AM=1.5

NMOT: Irradiance 800 W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

### Different Rearside Power Gain

|                               | (Reference to 605 W) |       |       |
|-------------------------------|----------------------|-------|-------|
| Rearside Power Gain           | 5%                   | 10%   | 20%   |
| Maximum Power at STC (Pmax)   | 635.3                | 665.5 | 726.0 |
| Open-circuit Voltage (Voc/V)  | 47.8                 | 47.8  | 47.8  |
| Short-circuit Current (Isc/A) | 16.8                 | 17.6  | 19.2  |
| Maximum Power Voltage (Vmp/V) | 40.1                 | 40.1  | 40.1  |
| Maximum Power Current (Imp/A) | 15.9                 | 16.6  | 18.1  |
| Module Efficiency (%)         | 23.5                 | 24.6  | 26.9  |

\*The above data is for reference only. When signing a contract, the latest version of the product specification shall prevail.

### Temperature Characteristics

|                                             |             |
|---------------------------------------------|-------------|
| Pmax Temperature Coefficient                | -0.290 %/°C |
| Voc Temperature Coefficient                 | -0.250 %/°C |
| Isc Temperature Coefficient                 | +0.045 %/°C |
| Operating Temperature                       | -40~+85 °C  |
| Nominal Module Operating Temperature (NMOT) | 45 ± 2 °C   |

### Packing Configuration

|                       | 2382 x 1134 x 30 mm |       |
|-----------------------|---------------------|-------|
| Container             | 20'GP               | 40'HQ |
| Pieces per Pallet     | 37                  | 37    |
| Pallets per Container | 4                   | 20    |
| Pieces per Container  | 148                 | 740   |