

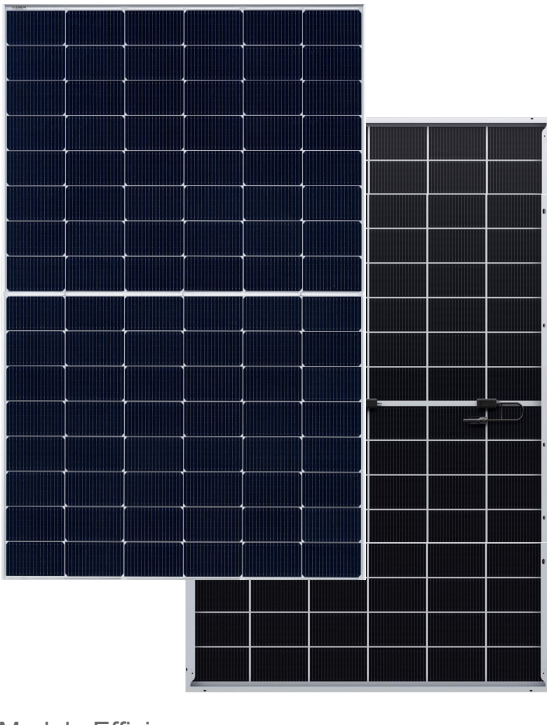
# Jupiter Pro

## HT48-18X+(ND)-F Double Glass

High Efficiency Lower LID and TOPCon cell with Half-cut Technology  
Big Size : Cell 182mm × 105mm Monocrystalline

**440W / 445W**

**450W / 455W / 460W**



- Module Efficiency  
**23.0%**
- No. of Cells  
**96(6 × 16)**
- Weight  
**23.0±0.5kg**
- Dimensions  
**1762mm×1134mm×30mm**



### 10-30% Additional Power Generation

10-30% additional power generation comparing with conventional P-type module



### Lower LID (Light Induced Degradation)

N-type modules with Tunnel Oxide Passivating Contacts (TOPCon) technology offer lower LID/LeTID degradation and better low light performance



### Lower LCOE

Higher power output and lower BOS cost



### Better Weak Illumination Response

Higher power output even under low-light environment



### Better Temperature Coefficient

Higher power generation under normal working conditions



### Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal)

## Comprehensive and First-rate Certification System

IEC61215: 2021 . IEC61730: 2023 . UL61730: 2017 . IEC62804: 2015  
ISO9001 . ISO14001 . and . ISO45001



# Jupiter Pro

Better Choice For Higher Efficiency



## Electrical Characteristics

Module	HT48-18X+(ND)-F				
Maximum Power at STC (Pmax)	440W	445W	450W	455W	460W
Open - Circuit Voltage (Voc)	35.30V	35.50V	35.70V	35.90V	36.10V
Short - Circuit Current (Isc)	15.89A	15.97A	16.05A	16.13A	16.20A
Optimum Operating Voltage (Vmp)	29.45V	29.60V	29.75V	29.90V	30.05V
Optimum Operating Current (Imp)	14.95A	15.04A	15.13A	15.22A	15.31A
Module efficiency	22.0%	22.3%	22.5%	22.8%	23.0%
Power Tolerance	0 ~ + 3%				
Maximum System Voltage	1500V DC (UL / IEC)				
Maximum Series Fuse Rating	35A				
Operating Temperature	-40 °C to +85 °C				

\* STC: Irradiance 1000W/m<sup>2</sup>, module temperature 25, AM=1.5  
Optional black frame or white frame module according to customer requirements

## NMOT

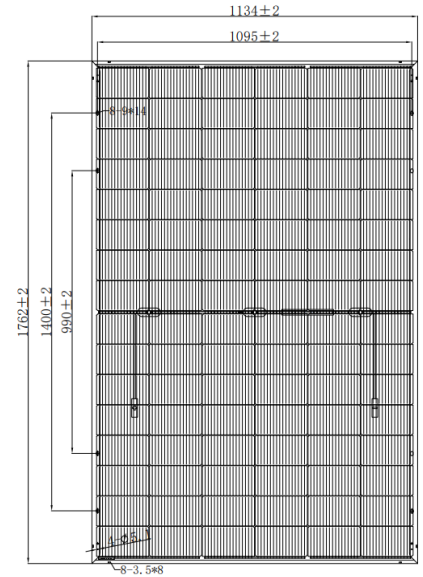
Module	HT48-18X+(ND)-F (Bifaciality 85±5%)				
Maximum Power	332W	336W	340W	344W	347W
Open - Circuit Voltage (Voc)	33.3V	33.50V	33.60V	33.80V	34.00V
Short - Circuit Current (Isc)	12.83A	12.89A	12.96A	13.02A	13.08A
Optimum Operating Voltage (Vmp)	27.5V	27.6V	27.8V	28.0V	28.1V
Optimum Operating Current (Imp)	12.07A	12.6A	12.22A	12.28A	12.34A
NMOT	45±2 °C				

\* NMOT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1m/s

## Mechanical Characteristics

Solar Cells	Monocrystalline 182 × 105mm
No. of Cells	96 (6 × 16)
Dimensions	1762mm × 1134mm × 30mm
Weight	23.0±0.5kg
Front Glass	High transmission coated tempered glass; thickness; 2.0mm
Frame	Anodized aluminium alloy
Junction Box	IP68
Cable	4mm <sup>2</sup> (UL / IEC) length : (+) 400mm (-) 200mm/ length can be customized
Connectors	MC4/MC4 Compatible
Packaging Configuration	36pcs / box, 936pcs / 40'HQ container

## Engineering Drawing



## Temperature Characteristics

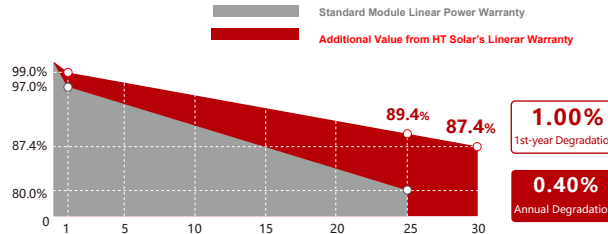
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C

## Warranty

**15 - years**  
product warranty

**30 - years**  
warranty on power output

Specific information is referred to  
the product quality guarantee



The module recycling should be carried out by the professional institutions at the end of module life cycle

## IV Curves

