



# 2022

SOLAR  
AIR-CONDITIONING  
CATALOGUE



# High Frequency Off Grid Solar Inverter

## PV1300 Series (1-1.5KVA)



### Features

- Simulated sine wave inverter
- Built-in 50A PWM Solar Charge Controller
- MFD (multi-function display)
- 20A standard charging current from utility
- AC/solar priority for output via MFD
- 3 steps charging algorithm
- Overload & short-circuit protection
- Battery reverse polarity protection
- Deep discharge protection
- Auto restart while AC/solar is recovering

### Introduction

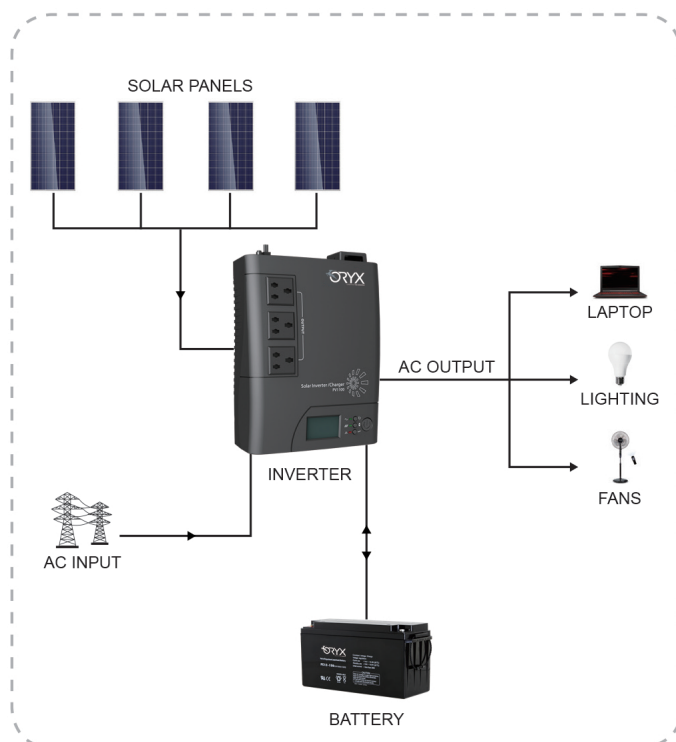
PV1300 is a cost effective , intelligent hybrid off grid solar inverter with power range 1000VA 1500VA. The LCD display offers friendly user-configurable button adjustment such as input voltage setting, AC/solar charger priority , mute setting. When battery voltage is low, it's will automatically switch to AC grid to supply continuous power to the loads. It suitable for personal home use.

### Back panel printing description



1. Output Receptacle (s)
2. LCD display
3. Status indicators
4. Setting button
5. Power switch
6. External battery connectors
7. FAN
8. Solar panel terminal
9. Input circuit breaker (plastic case)
- 10.AC input

### Solar system connection



## Specification

MODEL		PV13-1012	PV13-1512	PV13-1024	PV13-1524
Nominal Battery System Voltage		12VDC	12VDC	24VDC	24VDC
INVERTER OUTPUT	Rated Power	1000VA\600W	1500VA\1000W	1000VA\600W	1500VA\1000W
	Waveform	Simulated Sine-wave			
	Nominal Output Voltage RMS	230V			
	Output Voltage Regulation	+10\ -18%			
	Output Frequency	50Hz\60Hz ±1 Hz			
	Inverter Efficiency(Peak)	>80%			
	Line Mode Efficiency	>98%			
	Typical Transfer Time	Typical 6~8ms 10ms max			
AC INPUT	Voltage	230VAC			
	Selectable Voltage Range	Narrow	175~260VAC		
		Wide	140~270VAC		
	Frequency Range	40Hz-70Hz (Auto sensing)			
BATTERY	Nominal Input Voltage	12VDC		24VDC	
	Minimum Start Voltage	10.5VDC		21.0VDC	
	Low Battery Alarm	10.5VDC		21VDC	
	Low Battery Cutoff	10.0VDC		20.0VDC	
	High Voltage Cutoff	15.5VDC (max)		31.0VDC (max)	
SOLAR CHARGER & AC CHARGER	Maximum PV Charge Current	50A (max)			
	Maximum PV Array Power	450W/750W		900W/1500W	
	PWM Range @ Operating Voltage	16~55VDC			
	Maximum PV Array Open Circuit Voltage	55VDC			
	Maximum Efficiency	>95%			
	Standby Power Consumption	<2W			
	AC Charger Voltage	14.4V(max)		28.8V(max)	
	AC Charging Current	10A \ 20A			
BYPASS & PROTECTION	Nominal Input Frequency	40Hz – 70Hz			
	Overload Protection (SMPS Load)	FUSE			
	Output Short Circuit Protection	FUSE			
	Bypass Fuse Rating	10A			
	Max Bypass Current	10Amp			
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)	231*290*92mm			
	Package Dimensions (W*H*D)	595*375*315mm			
	Net Weight (kg)	2.8		4	
	Gross Weight (kg)	3.5		4.7	
OTHER	Operation Temperature Range	0°C~50°C			
	Audible Noise	50dB MAX			
	Display	LED+LCD			
	Loading(20GP/40GP/40HQ)	1700pcs \ 4100pcs			

# Tiger Pro 72HC

## 530-550 Watt

### MONO-FACIAL MODULE

#### P-Type

Positive power tolerance of 0~+3%

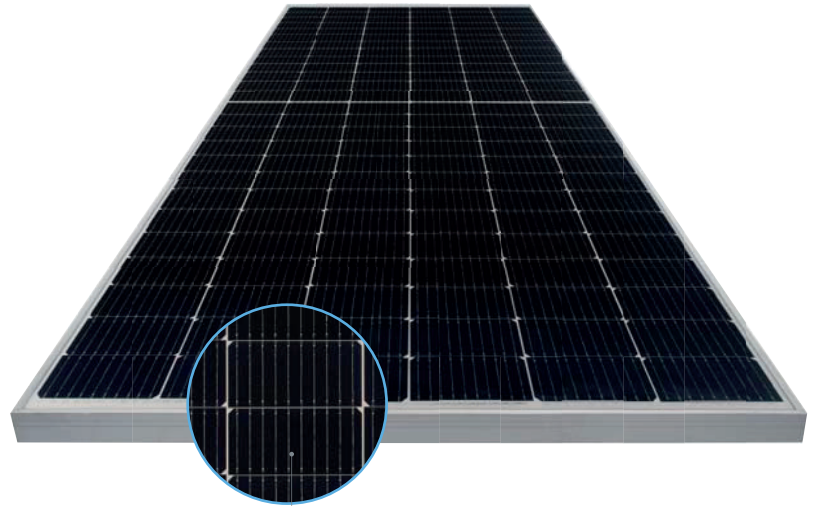
IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



MBB HC Technology

## Key Features



#### Multi Busbar Technology

Better light trapping and current collection to improve module power output and reliability.



#### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



#### Reduced Hot Spot Loss

Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



#### Enhanced Mechanical Load

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

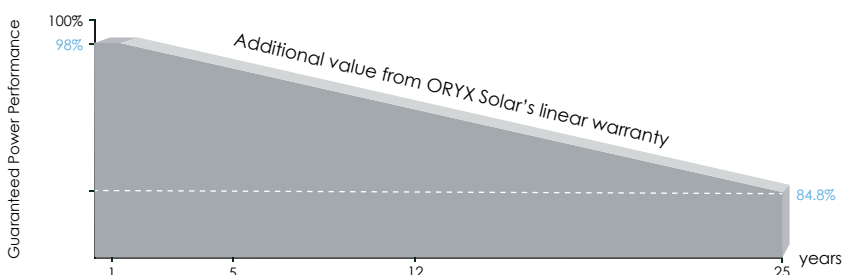


#### Longer Life-time Power Yield

0.55% annual power degradation and 25 year linear power warranty.



## LINEAR PERFORMANCE WARRANTY

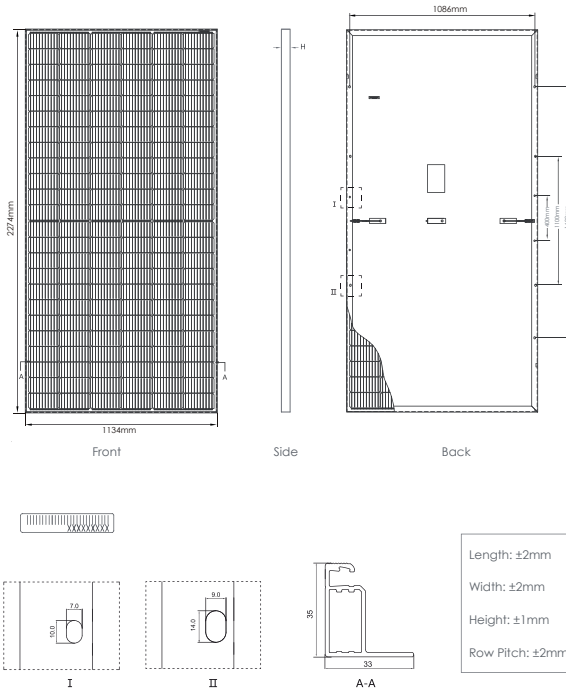


**12 Year Product Warranty**

**25 Year Linear Power Warranty**

**0.55% Annual Degradation Over 25 years**

## Engineering Drawings

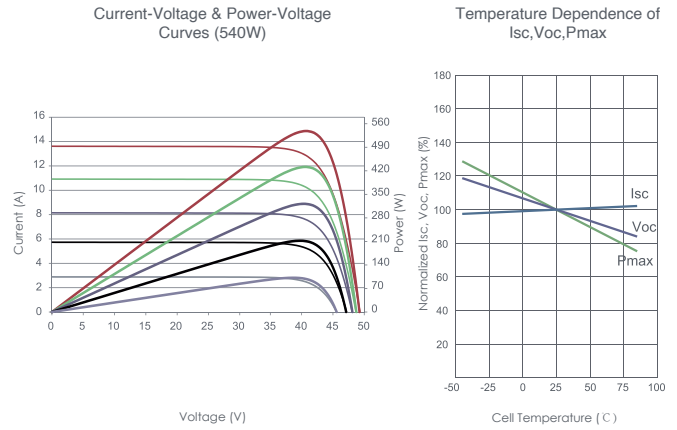


## Packaging Configuration

( Two pallets = One stack )

31 pcs/pallets, 62 pcs/stack, 620 pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence



## Mechanical Characteristics

Cell Type	P type Mono-crystalline
No. of cells	144 (6×24)
Dimensions	2274×1134×35mm (89.53×44.65×1.38 inch)
Weight	28.9 kg (63.7 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm <sup>2</sup> (+): 400mm, (-): 200mm or Customized Length

## SPECIFICATIONS

Module Type	JKM530M-72HL4		JKM535M-72HL4		JKM540M-72HL4		JKM545M-72HL4		JKM550M-72HL4	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	530Wp	394Wp	535Wp	398Wp	540Wp	402Wp	545Wp	405Wp	550Wp	409Wp
Maximum Power Voltage (Vmp)	40.56V	37.84V	40.63V	37.91V	40.70V	38.08V	40.80V	38.25V	40.90V	38.42V
Maximum Power Current (Imp)	13.07A	10.42A	13.17A	10.50A	13.27A	10.55A	13.36A	10.60A	13.45A	10.65A
Open-circuit Voltage (Voc)	49.26V	46.50V	49.34V	46.57V	49.42V	46.65V	49.52V	46.74V	49.62V	46.84V
Short-circuit Current (Isc)	13.71A	11.07A	13.79A	11.14A	13.85A	11.19A	13.94A	11.26A	14.03A	11.33A
Module Efficiency STC (%)	20.55%		20.75%		20.94%		21.13%		21.33%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1000/1500VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.35%/°C									
Temperature coefficients of Voc	-0.28%/°C									
Temperature coefficients of Isc	0.048%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

\*STC: Irradiance 1000W/m<sup>2</sup>

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m<sup>2</sup>

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s