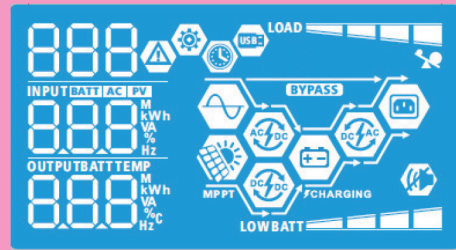


# Axpert VM III TWIN Off-Grid Inverter

AXPERT VM III TWIN OFF-GRID INVERTER

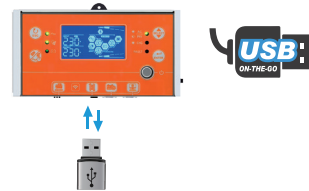


## LCD Display Panel



- Dual outputs for smart load management**  
 There are two outputs available. The second output can be scheduled on/off, setting cut-off voltage or SOC and discharging time via LCD setting. It facilitates users smart load control.
- Maximum PV input current 27A**  
 Designed with 27A PV input current, Axpert VM III TWIN is compatible to the market trend of increased Imp in solar panel.

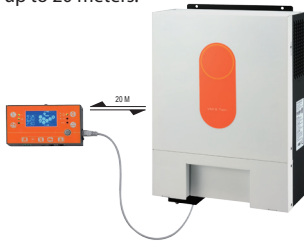
- Supports USB On-the-Go function**  
 VM III TWIN series supports USB On-the-Go function to facilitate data upload/download.



- Wide PV input voltage range 60VDC ~ 450VDC**  
 Now, Axpert VM III TWIN allows wide PV input voltage range from 60VDC to 450VDC. This features allow less solar panel required in the system and save space.

- Reserved communication port (RS-485, CAN-BUS or RS-232) for BMS**  
 This third generation inverter is reserved communication port for BMS. For the detailed information, please contact sales directly.

- Detachable LCD control module with various communications**  
 This detachable LCD control module can be turned to remote panel. Users can install the LCD panel in accessible area away from inverter up to 20 meters.

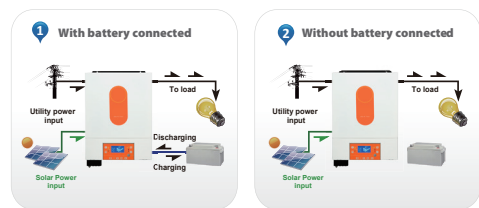


- Battery equalization extends lifecycle**  
 This inverter charger is built in battery equalization function. This function will help remove sulfation to optimize battery performance and even extend lifecycle.

- Integrated WiFi interface with Mobile App**  
 VM III TWIN series is integrated WiFi interface ready for mobile monitoring. Mobile monitoring can be carried out through mobile applications in both iOS and Android. Users can track the history of the unit information such as energy generation and change parameter settings timely.



- Battery independency**  
 Inverter can keep supplying power to the loads from PV energy or the grid without battery connected.



- User-friendly LCD operation**  
 Users can easily set up or change the charging current, output source and charger source prioritization through LCD control panel to optimize inverter performance.



- Replaceable fan design**  
 VM III TWIN series is designed with replaceable fan. It will simplify the maintenance and reduce the maintenance cost.



## Axpert VM III TWIN Off-Grid Inverter Selection Guide

MODEL	Axpert VM III TWIN 4K	Axpert VM III TWIN 6K
<b>RATED POWER</b>	4000VA/4000W	6000VA/6000W
<b>INPUT</b>		
Voltage	230 VAC	
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
<b>OUTPUT</b>		
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 10%	
Surge Power	8000VA	12000VA
Efficiency (Peak)	90% ~ 93%	
Transfer Time	10 ms (For Personal Computers) 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
<b>BATTERY</b>		
Battery Voltage	24 VDC	48 VDC
Floating Charge Voltage	27 VDC	54 VDC
Overcharge Protection	33 VDC	63 VDC
<b>SOLAR CHARGER &amp; AC CHARGER</b>		
Solar Charger type	MPPT	
Maximum PV Array Power	5000W	6000W
MPP Range @ Operating Voltage	60 ~ 450 VDC	60 ~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC	500 VDC
Maximum PV Input Current	27A	
Maximum Solar Charge Current	120A	120A
Maximum AC Charge Current	100A	100A
Maximum Charge Current	120A	120A
<b>PHYSICAL</b>		
Dimension, D x W x H (mm)	115 x 300 x 435	
Net Weight (kgs)	9	10
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact	
<b>OPERATING ENVIRONMENT</b>		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

Product specifications are subject to change without further notice.

## US5000

### Batteria al litio in bassa tensione

#### US5000 - Moduli da 4,8 kWh

La batteria al litio US5000 di Pylontech può essere utilizzata per supportare un'elevata potenza per vari tipi di apparecchiature e sistemi.

La batteria US5000 dispone di un BMS integrato che ha funzioni di protezione tra cui sottoscarica, sovraccarica, sovracorrente e controllo della temperatura delle celle.

#### Specifiche tecniche:

- Funzione **Soft-Start** in grado di ridurre la corrente di picco quando l'inverter si accende con la sola batteria;
- La **struttura molecolare** interna delle batterie LiFePO4 è **più stabile** e **più sicura**;
- **Profondità di scarica** (DOD ) del 95%, disponibile per gli inverter allineati all'ultimo protocollo Pylontech;
- **Doppia protezione attiva a livello BMS**;
- Possibilità di collegare in parallelo più moduli batteria per espandere la capacità e la potenza;
- Possibilità di operare in diverse condizioni di temperatura;
- **Garanzia 10 anni.**

#### Dimensioni:

Larghezza: 442 mm

Altezza: 161 mm

Profondità: 420 mm

Peso: 39,7 kg



## Dati tecnici

### Batteria al Litio

Modello	US5000
<b>DATI ELETTRICI</b>	
Tecnologia cella	Li-ion (LFP)
Tensione nominale [V]	48
Capacità nominale [kWh/Ah]	4,8 / 100
Profondità di scarica DoD [%]	95
Capacità utilizzabile [kWh/Ah]	4,56 / 95
Corrente nominale raccomandata [A]	80*
Configurazione [max. moduli in un gruppo batteria]	16 pz
Tensione di carica [V]	52,5 ~ 53,5
Tensione di scarica [V]	43,5 ~ 53,5
<b>BUS</b>	
Bus di comunicazione	RS485, CAN
<b>DIMENSIONI E PESI</b>	
Larghezza [mm]	442
Altezza [mm]	161
Profondità [mm]	420
Peso [kg]	39,7
<b>VARIE</b>	
Temperatura di esercizio in carica [°C]	0 ~ 50
Temperatura di esercizio in scarica [°C]	-10 ~ 50
Temperatura di stoccaggio [°C]	-20 ~ 45
Classe di protezione	IP20
Vita operativa a 25 °C	15+ anni
Cicli di funzionamento	>6000 25°C
Certificati trasporto merce pericolosa	TÜV / CE / UN38.3 / UL / UN 3480
Normativa EMC	IEC62619, IEC63056, UL1973, UL9540A, IEC61000-6-2, IEC61000-6-3, UN38.3, GR-1089, UN 3480, GB/T 2423

\*: La corrente massima di lavoro raccomandata è riferita alla temperatura della cella della batteria compresa tra 10 ~ 40°C. Se al di fuori di questa temperatura può causare una diminuzione della corrente di funzionamento.

# Tiger Neo N-type 54HL4-(V) 410-430 Watt MONO-FACIAL MODULE

## N-Type

Positive power tolerance of 0~+3%

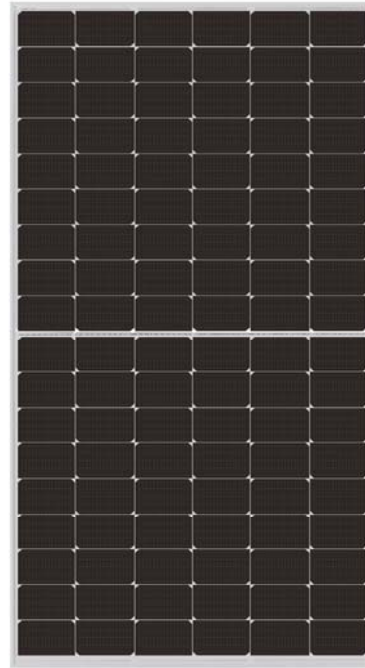
IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



## Key Features



### SMBB Technology

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



### PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



### Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

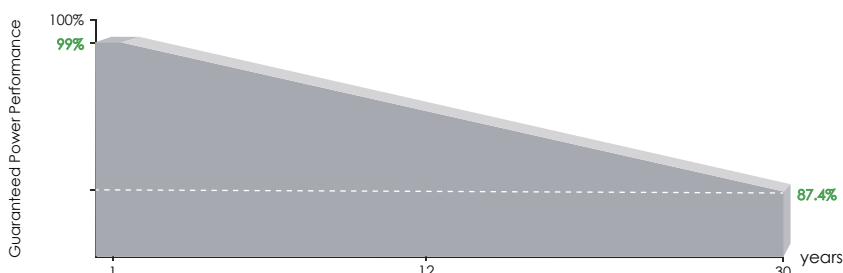


### Enhanced Mechanical Load

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



## LINEAR PERFORMANCE WARRANTY

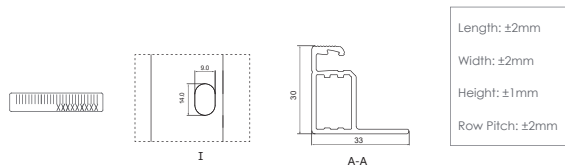
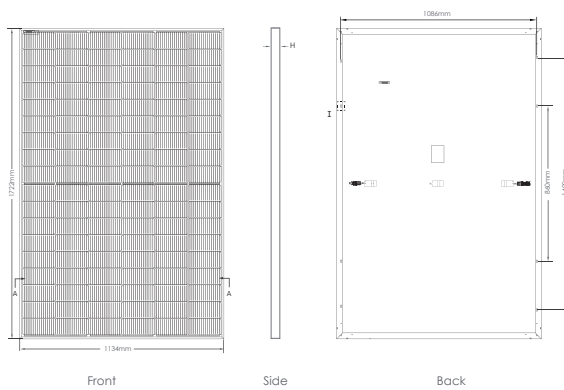


**15** Year Product Warranty

**30** Year Linear Power Warranty

**0.40%** Annual Degradation Over 30 years

## Engineering Drawings

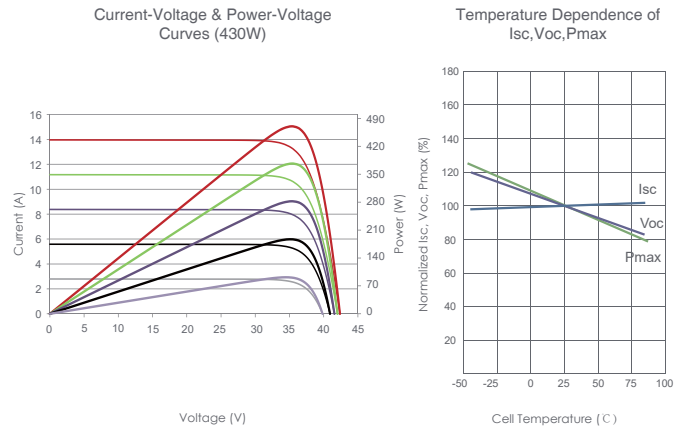


## Packaging Configuration

( Two pallets = One stack )

36pcs/pallets, 72pcs/stack, 936pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence



## Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	108 (6×18)
Dimensions	1722×1134×30mm (67.79×44.65×1.18 inch)
Weight	22 kg (48.50 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	JKM410N-54HL4		JKM415N-54HL4		JKM420N-54HL4		JKM425N-54HL4		JKM430N-54HL4	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	410Wp	308Wp	415Wp	312Wp	420Wp	316Wp	425Wp	320Wp	430Wp	323Wp
Maximum Power Voltage (Vmp)	31.13V	29.06V	31.32V	29.21V	31.51V	29.34V	31.70V	29.50V	31.88V	29.63V
Maximum Power Current (Imp)	13.17A	10.61A	13.25A	10.68A	13.33A	10.76A	13.41A	10.83A	13.49A	10.91A
Open-circuit Voltage (Voc)	37.73V	35.84V	37.92V	36.02V	38.11V	36.20V	38.30V	36.38V	38.49V	36.56V
Short-circuit Current (Isc)	13.91A	11.23A	13.99A	11.29A	14.07A	11.36A	14.15A	11.42A	14.23A	11.49A
Module Efficiency STC (%)	21.00%		21.25%		21.51%		21.76%		22.02%	
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	-0.29%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.045%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

\*STC: Irradiance 1000W/m<sup>2</sup> Cell Temperature 25°C

NOCT: Irradiance 800W/m<sup>2</sup> Ambient Temperature 20°C

AM=1.5

AM=1.5

Wind Speed 1m/s