



## Residential BESS

US5000



### Safety

Multi-protection from self developed BMS



### Optimal Electricity Cost

Long cycle life and superior performance



### Compact Size & East Installation

Module design help for quick installation



### Easy to Scale Up

Be workable to be parallel based on 48V



### Compatibility

Compatible with Tier 1 inverter brands

PYLON

# SPECIFICATION



## Module

## US5000

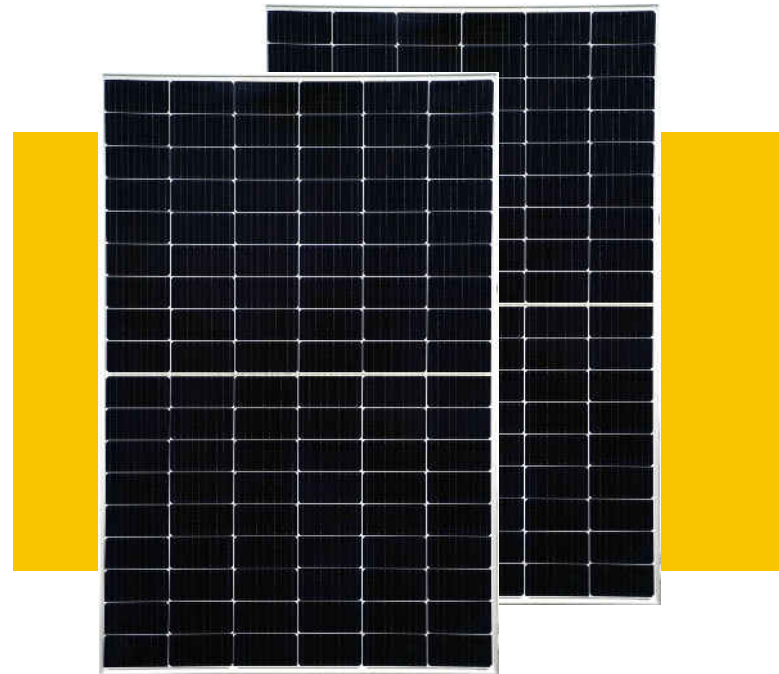
## US5000-B

### Basic Parameters

Nominal Voltage (Vdc)		48	48
Nominal Capacity(Wh)		4800	4800
Depth of discharge (%)		95	95
Usable Capacity(Wh)		4560	4560
Dimension(mm)		442*420*161	442*420*161
Weight (Kg)		38	39
Discharge Voltage (V)		44.5 ~ 53.5	44.5 ~ 53.5
Charge Voltage (V)		52.5 ~ 53.5	52.5 ~ 53.5
Charge/Discharge Current (A)	Recommend	75	75
Charge/Discharge Current(A)	Max.	120@15min	120@15min
Charge/Discharge Current (A) 2	Peak 2	200@15sec	200@15sec
Communication		RS485, CAN	RS485, CAN
Configuration (max. in 1 battery group)		16pcs	16pcs
Working Temperature	Charge	0°C ~55°C	0°C ~55°C
Working Temperature	Discharge	-10°C ~55°C	-10°C ~55°C
Shelf Temperature		-20°C ~60°C	-20°C ~60°C
Short current/duration time		<4000A/2ms	<4000A/2ms
Cooling type		Natural	Natural
Breaker		No	Yes
IP rating of enclosure		IP20	IP20
Humidity		5% ~ 95%(RH) No Condensation	5% ~ 95%(RH) No Condensation
Altitude(M)		<4000	<4000
Certification		IEC / CE / UN38.3/UL	IEC / CE / UN38.3/UL
Design life		15+ Years (25°C/77°F)	15+ Years (25°C/77°F)
Cycle Life		>6,000 25°C	>6,000 25°C
Reference to standards)		IEC62619, IEC63056,CE, UN38.3,UL1973, UKCA	IEC62619, IEC63056,CE, UN38.3,UL1973, UKCA,CEC

**MSMDxxxM10-54**  
**182 M10 cells half cut**

**390W-410W**



## KEY FEATURES



Class A fire resistant (possible on request)



Outstanding performance in low-light conditions



Low temperature coefficient (Pmax):-0.36%/°C

**+5W**

0~+5W positive tolerance- to assure high output



Lower internal current, lower hot spot temperature



Cell crack risk limited in small region, enhance the module reliability

**PID FREE**

Excellent anti-PID module design, TÜV SÜD certified



Certified to withstand high wind loads (3600pa) and snow loads (8000pa) possible on request



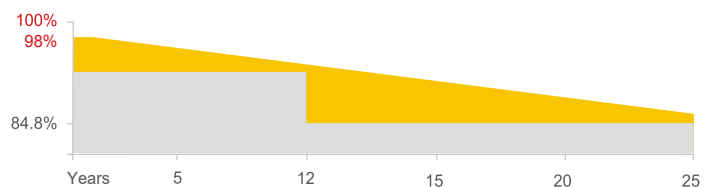
Salt mist and ammonia corrosion resistant

## PRODUCT CERTIFICATES



## WARRANTY

- Our linear power guarantee
- Standard linear power guarantee



**12**  
years

Enhanced product guarantee on product and workmanship

**25**  
years

Linear power output warranty

# MSMDxxxM10-54

## ELECTRICAL CHARACTERISTICS

STC	410	405	400	395	390
Maximum Power at STC (Pmax)	410W	405W	400W	395W	390W
Optimum Operating Voltage (Vmp)	31.59V	31.38V	31.18V	30.98V	30.76V
Optimum Operating Current (Imp)	12.98A	12.91A	12.83A	12.76A	12.69A
Open Circuit Voltage (Voc)	37.45V	37.24V	37.04V	36.84V	36.62V
Short Circuit Current (Isc)	13.88A	13.81A	13.73A	13.66A	13.59A
Module Efficiency	21.0%	20.7%	20.5%	20.2%	19.9%
Operating Module Temperature	-40°C to +85°C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	25A				
Power Tolerance	0/+5W				

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5;

NMOT	410	405	400	395	390
Maximum Power at NMOT (Pmax)	309.6W	306.0W	302.3W	298.6W	294.9W
Optimum Operating Voltage (Vmp)	29.2V	29.0V	28.8V	28.6V	28.4V
Optimum Operating Current (Imp)	10.62A	10.56A	10.50A	10.44A	10.38A
Open Circuit Voltage (Voc)	35.2V	35.0V	34.8V	34.6V	34.4V
Short Circuit Current (Isc)	11.16A	11.10A	11.04A </td <td>10.98A</td> <td>10.93A</td>	10.98A	10.93A

NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.

## TEMPERATURE CHARACTERISTICS

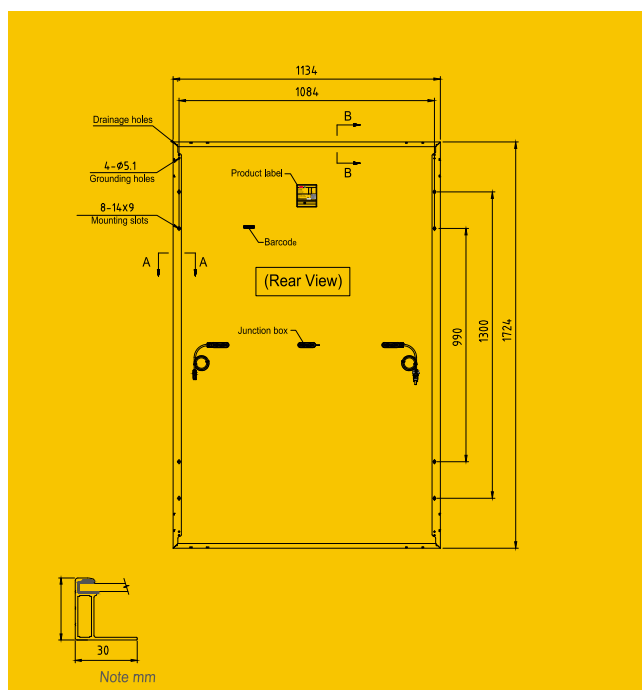
Nominal Module Operating Temperature (NMOT)	42±2°C
Temperature Coefficient of Pmax	-0.36 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.05 %/°C

## MECHANICAL CHARACTERISTICS

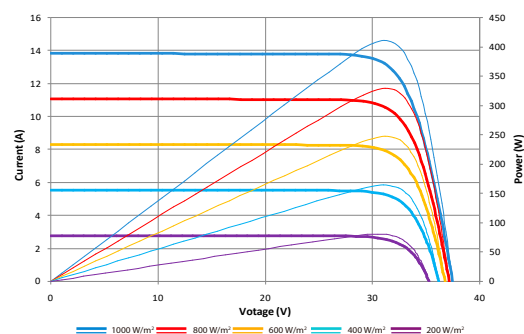
Solar Cell	Monocrystalline silicon 182 mm
No. of Cells	108 (6 × 18)
Dimensions	1724 × 1134 × 35 mm
Weight	21.2kg
Front Glass	High Transmittance AR Coated Tempered Glass/3.2mm
Frame	Anodized aluminium alloy
Junction Box	IP68
Output Cables	4.0 mm <sup>2</sup> , cable length 350mm or customized length

## PACKING CONFIGURATION

Container	20' GP	40' HC
Pieces per pallet	36+4*6	31
Pallets per container	6	26
Pieces per container	360	806



Current-Voltage & Power-Voltage Curve (410)



# Axpert VM IV Off-Grid Inverter



- Customizable status LED ring with RGB lights
- Touchable button with 4.3" colored LCD
- Built-in Wifi for mobile monitoring (App is available)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Reserved communication port (RS485, CAN-BUS or RS232) for BMS
- Battery independent design
- Battery equalization extends lifecycle
- User-friendly LCD operation
- Enhanced charging power
- Built-in anti-dust kit

### User-programmable RGB lighting for different operation mode



### Three lighting effects

- Cycling**  
Quickly scrolling with a color of your choice in a continuous circular motion
- Wheel**  
Illuminates with twinkling lights in a color of your choice
- Chasing**  
Radiates your selected color upward from the bottom of the ring

## Axpert VM IV Off-Grid Inverter Selection Guide

MODEL	Axpert VM IV 3600-24	Axpert VM IV 5600-48
Rated Power	3600VA/3600W	5600VA/5600W
<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)	230 VAC ± 5%	
Surge Power	7200VA	11200VA
Efficiency (Peak)	90% ~ 93%	
Transfer Time	15 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	MPPT
Maximum PV Array Power	4000 W	6000 W
MPPT Range @ Operating Voltage	120 ~ 450 VDC	
Maximum PV Array Open Circuit Voltage	500 VDC	
Maximum Solar Charge Current	120 A	120 A
Maximum AC Charge Current	100 A	100 A
Maximum Charge Current	120 A	120 A
<b>PHYSICAL</b>		
Dimension, D x W x H (mm)	115 x 300 x 400	
Net Weight (kgs)	9.0	10.0
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.