

Axpert Ultra Off-Grid Inverter



2x2
IN OUT



- Dual outputs for smart load management
- Two independent AC power sources connected and switched automatically
- Built-in current transformer sensor to meet self-consumption application
- Support external BTS (Battery Temperature Sensor) detection
- Built-in power status lighting indicators
- Built-in 2.8" colored LCD with slide operation
- Built-in Wi-Fi for mobile monitoring and OTA firmware upgrade
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Support optional GFCI, Rapid shutdown, AFCI detections
- Parallel operation with 6 units

Axpert Ultra Off-Grid Inverter Selection Guide

MODEL	Axpert Ultra 8K	Axpert Ultra 11K
RATED POWER	8000VA/8000W	11000VA/11000W
PARALLEL CAPABILITY	YES, 6 units	
INPUT		
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)	
OUTPUT		
AC Voltage Regulation (Batt. Mode)	230VAC \pm 5%	
Surge Power	16000VA	22000VA
Efficiency (Peak)	93%	
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)	
Waveform	Pure sine wave	
BATTERY		
Battery Voltage	48 VDC	
Floating Charge Voltage	54 VDC	
Overcharge Protection	63 VDC	
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	
Maximum PV Array Power	10000W (5000W x 2)	12000W (6000W x 2)
MPPT Range @ Operating Voltage	90 ~ 450 VDC	
Maximum PV Array Open Circuit Voltage	500 VDC	
Maximum PV Input Current	27A x 2 (MAX 40A)	
Maximum Solar Charge Current	150A	150A
Maximum AC Charge Current	120A	150A
Maximum Charge Current	150A	150A
PHYSICAL		
Dimension, D x W x H (mm)	145 x 438 x 553.6	
Net Weight (kgs)	18.4	
Communication Interface	USB/RS232/RS485/WiFi/Dry-contact/BTS Support optional GFCI, Rapid shutdown, AFCI detection	
External Current Sensor Port	Yes, built-in current transformer sensor	
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	
STANDARD		
Compliance Safety	CE	

Product specifications are subject to change without further notice.

A48100

This 4.8kWh LFP module supports both floor-standing and wall-mounted installations. It is equipped with OTA function for remote upgrade and monitoring.

Up to 30 modules in parallel, it can meet various needs of users and enable flexible expansion.



APP Monitoring (optional)
Real-time monitoring
& Remote upgrade available



Module Design
Flexible expansion



Various Mounting Methods
Wall-mounted,
floor-standing and stacked



High Safety LFP
Cell level monitoring and balancing



Wide Compatibility
Matching with leading inverters

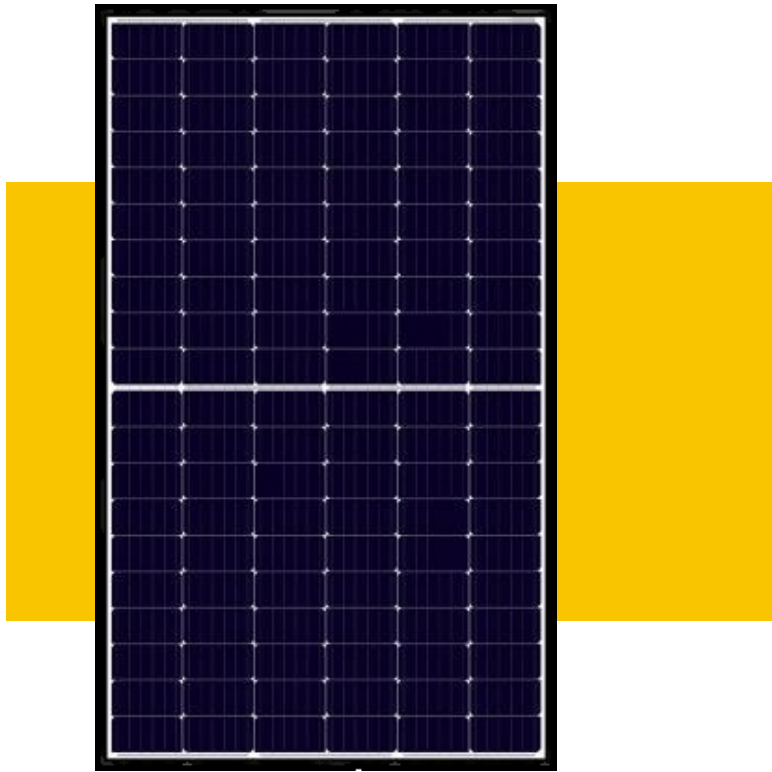
Technical Specifications

Model	A48100
Battery Type	LiFePO4
Nominal Battery Energy	4.8kWh
Nominal Capacity	100Ah
Nominal Voltage	48V
Operating Voltage	42 ~ 54V
Recommended Charge & Discharge C Rate	0.5C
Recommended Charge/Discharge Current	50A
Max Continuous Charge/Discharge Current	75A
Peak Power Charge/Discharge Current	100A (15s)
Depth of Discharge (DOD)	90%
Net Weight	45kg
Dimension[W*D*H]	504*597*155 mm
Charging Temp. Range	0~55°C
Discharging Temp. Range	-20~55°C
Communication	CAN/RS485/RS232
Cycle Life ^[1]	≥6000 Cycles
Protection Level	IP20
Expansion	Up to 30 units in parallel
Pros	Can be used in both off-grid and hybrid setups, compact design
Certification & Safety Standard	UN38.3/CE-EMC/IEC62619/IEC60730/CEI-021/GOST-R/UKCA
Compatible Inverters	SMA/Victron/Ingeteam/Delios/Goodwe/Solis /Deye/SAJ/Voltronic/Sungrow etc.








[1]Test conditions: 0.2C Charging/Discharging, @25°C, 90% DOD

MSMDxxxM6-60 166 M6 cells half cut

360W–380W



KEY FEATURES

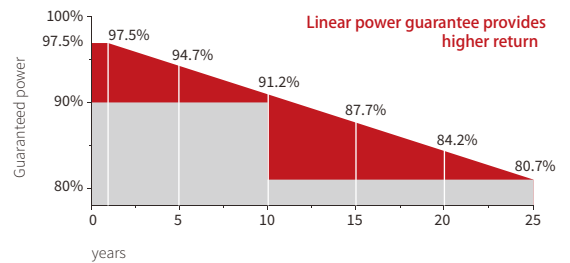
-  **Class A fire resistant** (industry standard class C)
-  Outstanding performance in low-light conditions
-  Low temperature coefficient (Pmax): $-0.35\% / ^\circ\text{C}$
- +5W** 0~+5W positive tolerance - to assure high output
-  Lower internal current, lower hot spot temperature
-  Cell crack risk 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)
-  Salt mist and ammonia corrosion resistant

PRODUCT CERTIFICATES



WARRANTY

- Our linear power guarantee
- Standard linear power guarantee



15 years Enhanced product guarantee on product and workmanship

25 years Linear power output warranty

MSMDxxxM6-60

ELECTRICAL CHARACTERISTICS

STC	360	365	370	375	380
Maximum Power at STC (Pmax)	360 W	365 W	370 W	375 W	380 W
Optimum Operating Voltage (Vmp)	33.9 V	34.1 V	34.3 V	34.5 V	34.7 V
Optimum Operating Current (Imp)	10.62 A	10.71 A	10.79 A	10.86 A	10.95 A
Open Circuit Voltage (Voc)	40.5 V	40.7 V	40.9 V	41.2 V	41.4 V
Short Circuit Current (Isc)	11.35 A	11.42 A	11.49 A	11.56 A	11.63 A
Module Efficiency	19.4%	19.7%	20.2%	20.5%	20.7%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5W				

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

NMOT	360	365	370	375	380
Maximum Power at NMOT (Pmax)	270.7 W	274.3 W	278.2 W	282.1 W	286.5 W
Optimum Operating Voltage (Vmp)	31.6 V	31.8 V	32.0 V	32.2 V	32.4 V
Optimum Operating Current (Imp)	8.56 A	8.48 A	8.69 A	8.76 A	8.84 A
Open Circuit Voltage (Voc)	38.4 V	38.5 V	38.7 V	38.9 V	39.1 V
Short Circuit Current (Isc)	9.04 A	9.10 A	9.17 A	9.24 A	9.31 A

NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.

TEMPERATURE CHARACTERISTICS

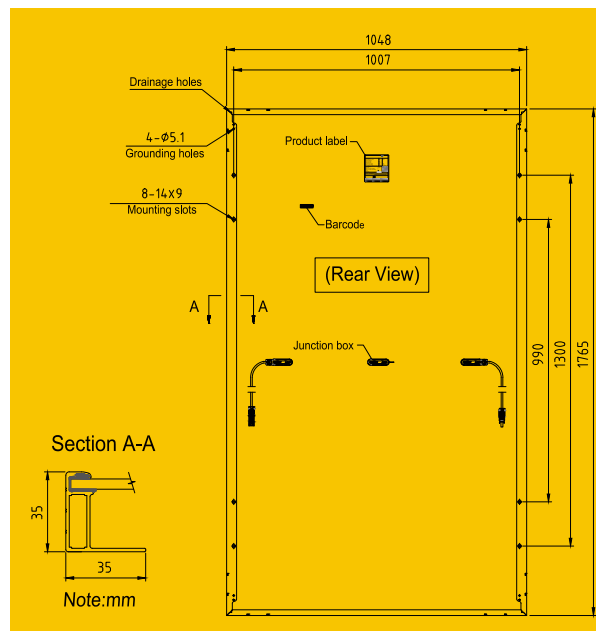
Nominal Module Operating Temperature (NMOT)	42±2°C
Temperature Coefficient of Pmax	-0.35 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.050 %/°C

MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline silicon 166 mm (9BB)
No. of Cells	120 (6 × 20)
Dimensions	1765 x 1048 x 35 mm
Weight	20.0 kgs
Front Glass	3.2 mm
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm ² , symmetrical lengths (-) 1200 mm and (+) 1200 mm

PACKING CONFIGURATION

Container	20' GP	40' HC
Pieces per pallet	30	30+1
Pallets per container	6	26
Pieces per container	180	806



Current-Voltage & Power-Voltage Curve (370S)

