

## 2. Axpert - Off-grid Solution

### (1) Inverter Spec.:

MODEL	Axpert MKS 1K-24	Axpert MKS 1K-48	Axpert MKS 2K-24	Axpert MKS 3K-24	Axpert MKS 3K-48	Axpert MKS 4K	Axpert MKS 5K
Rated Power	1000VA/800W	1000VA/1000W	2000VA/1600W	3000VA/2400W	3000VA/2400W	4000VA/3200W	5000VA/4000W
<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 ± 5%						
Surge Power	2000VA	4000VA	6000VA	8000VA	10000VA		
Efficiency (Peak)	90% - 93%		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	24 VDC	24 VDC	48 VDC	48 VDC	
Floating Charge Voltage	27 VDC	54 VDC	27 VDC	27 VDC	54 VDC	54 VDC	
Overcharge Protection	31 VDC	62 VDC	31 VDC	31 VDC	62 VDC	60 VDC	
<b>SOLAR CHARGER &amp; AC CHARGER</b>							
Maximum PV Array Power	600W	900W	600W	600W	900W	4000W	
MPPT Range @ Operating Voltage	30VDC ~ 66VDC	60VDC ~ 88VDC	30VDC ~ 66VDC	30VDC ~ 66VDC	60VDC ~ 88VDC	60VDC ~ 115VDC	
Maximum PV Array Open Circuit Voltage	75VDC	102VDC	75VDC	75VDC	102VDC	145 VDC	
Maximum Solar Charge Current	25A	18A	25A	25A	18A	80 A	
Maximum AC Charge Current	20A	15A	30A	30A	15A	60 A	
Maximum Charge Current	45A	33A	55A	55A	33A	140 A	
Maximum Efficiency	98%						
Standby Power Consumption	2 W						
<b>PHYSICAL</b>							
Dimension, D x W x H (mm)	100 x 272 x 355					120 x 295 x 468	
Net Weight (kgs)	6.8	7.0	7.4				11
<b>OPERATING ENVIRONMENT</b>							
Humidity	5% to 95% Relative Humidity (Non-condensing)						
Operating Temperature	0°C - 55°C						
Storage Temperature	-15°C - 60°C						

### (2) General Compatible Condition:

Battery Type	US2000B/Phantom-S			
Inverter Type	Axpert MKS 1K-48	Axpert MKS 3K-48	Axpert MKS 4K	Axpert MKS 5K
Max. charge current	33A	33A	140A	140A
Recommend battery Amount	According to load requirement and inverter rated power. Battery Amount N = Load power/1200W			
Communication	Not required, but need finish the setting on Inverter.			
DOD	80%			
Working Temp.	0 - 50°C (Indoor operation)			
Charge/Discharge Current	N*25, N = Battery amount			
Warranty	5yrs			

(3) Inverter set up:

(a) Connect Inverter with battery, wake up inverter.



(b) Press 'Enter' for 5s, to enter into the setting.



(c) Press 'Up' and 'Down' to choose the setting item No., press 'Enter' to enter into the detailed setting parameter, when finish press 'Enter' again. The following setting items need to be set follow the recommended value:

Item No.	Setting Value
Program 02	Set to N*25A, N=battery amount
Program 05	Set to USE
Program 12	Set to 48V
Program 13	Set to 51V
Program 26	Set to 53.2V
Program 29	Set to 47.5V



**Note:** Axpert Inverter can only be waked up via battery, if the battery is turned off due to over-discharge, over temp. or other reasons, in order to wake up the inverter you need turn on the battery manually.

**Any further questions to this SOP please contact us via [service@pylontech.com.cn](mailto:service@pylontech.com.cn)**