



Off-Grid Inverter
OMEGA X

Inverter Setup SOP - Battery

1. OMEGA X

(1) Inverter Spec.:

INVERTER MODEL		5KW
Line Mode Specification		
Input Voltage Waveform		Sinusoidal (utility or generator)
Nominal Input Voltage		230Vac
Max AC Input Voltage		300Vac
Inverter Mode Specification		
Output Voltage Waveform		Pure Sine Wave
Output Voltage Regulation		230Vac \pm 5%
Peak Efficiency		93%
Overload Protection		5s@ \geq 130% load; 10s@105%~130% load
Surge Capacity		2* rated power for 5 seconds
Nominal DC Input Voltage		48Vdc
Cold Start Voltage		46.0Vdc
Low DC Warning Voltage		
@ load < 50%		46.0Vdc
@ load \geq 50%		44.0Vdc
Low DC Warning Return Voltage		
@ load < 50%		47.0Vdc
@ load \geq 50%		46.0Vdc
Low DC Cut-off Voltage		
@ load < 50%		43.0Vdc
@ load \geq 50%		42.0Vdc
High DC Recovery Voltage		62Vdc
High DC Cut-off Voltage		63Vdc
Charge Mode Specification		
INVERTER MODEL		
Charging Algorithm		3-Step
AC Charging Current (Max)		60Amp (@VI/P=230Vac)
Bulk Charging Voltage	Flooded Battery	58.4
	AGM / Gel Battery	56.4
Floating Charging Voltage		54Vdc
MPPT Solar Charging Mode		
Max. PV Array Power		4000W
Nominal PV Voltage		240Vdc
Start-up Voltage		150Vdc +/- 10Vdc
PV Array MPPT Voltage Range		120~450Vdc
Max. PV Array Open Circuit Voltage		145Vdc
Max Charging Current (AC charger plus solar charger)		80Amp
General		
Operating Temperature Range		-10°C to 50°C
Storage temperature		-15°C~ 60°C
Humidity		5% to 95% Relative Humidity (Non-condensing)
Dimension (D*W*H), mm		115 x 300 x 440
Net Weight, kg		10
Communication Interface		RS232+RS485+USB+BLE+CAN



(2) General Compatible Condition:

Battery Type	UE-48VLI2400WH - UE-48VLI3600WH
Inverter Type	Omega X
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	Refer to each country's warranty terms, please contact your distributor

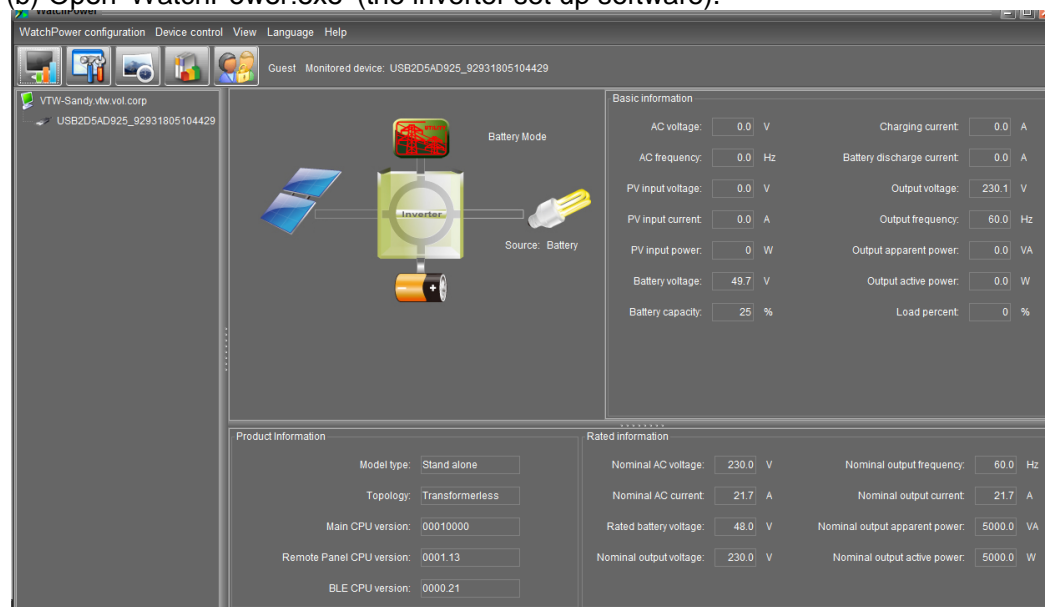
(3) Inverter set up:

Method1: Through WatchPower

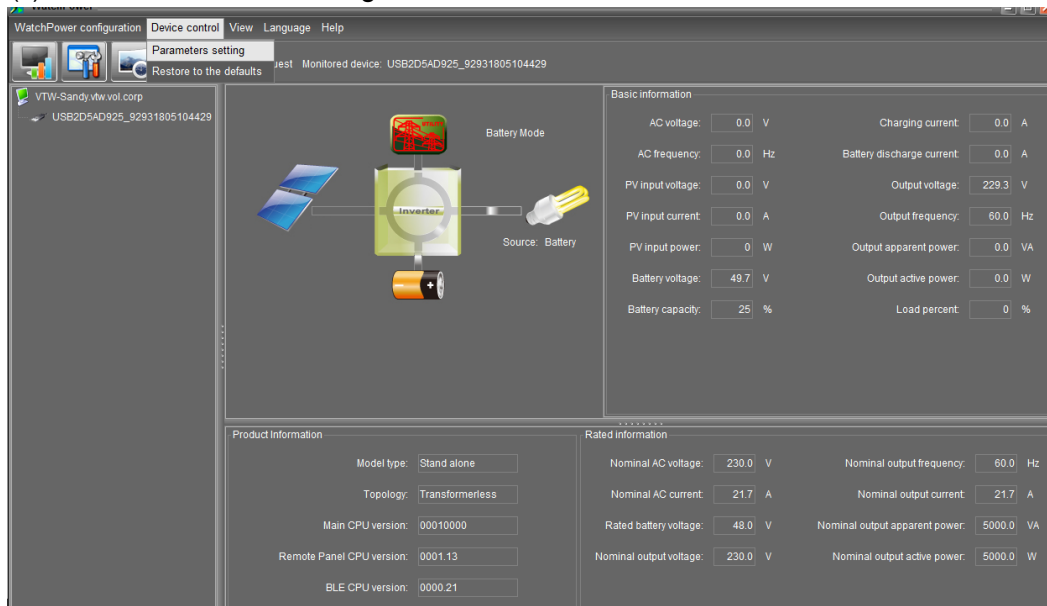
(a) Connect PV or Grid power to wake up inverter; connect the communication cable (RS232/micro-USB cable to USB) from Inverter to computer.



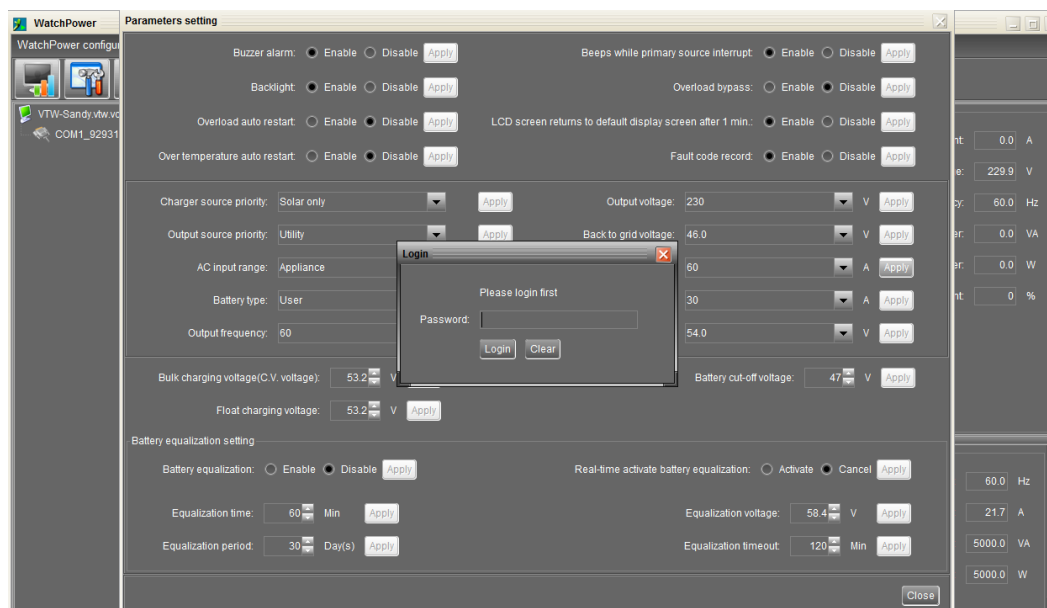
(b) Open 'WatchPower.exe' (the inverter set up software).



(c) Press 'Parameters Setting'.



(d) Set the parameter according to below recommendation, the max. charge current refer to the specific battery amount of real application. Then click 'Apply', enter password to login. According to the inverter limitation, for 5kW max is 80A.



Method2: Through remote panel

(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:



Recommended value:

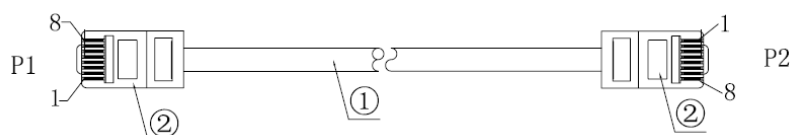
Item No.	Setting Value
Program 02	Set to $N \times 25A$, N =battery amount, If $N = 1, 3, \dots$, minus single digit
Program 05	Set to USE
Program 12	Set to 48V
Program 13	Set to 51V
Program 26	Set to 53.2V
Program 27	Set to 53.2V
Program 29	Set to 47.5V

(4) Battery & Inverter set up:

Connect Battery and Inverter via RJ45 cable. Please refer to picture as below.



Communication cable:



Here is internal connection between P1 and P2.

BMS RS485		Remote Panel RS485	
Pin No	Pin Name	Pin No	Pin Name
PIN 1	RS485-N1	PIN 1	RS485-N2
PIN 2	RS485-P1	PIN 2	RS485-P2
PIN 3	RS485-N2	PIN 3	RS485-N1
PIN 4		PIN 4	
PIN 5	RS485-P2	PIN 5	RS485-P1
PIN 6		PIN 6	
PIN 7		PIN 7	
PIN 8		PIN 8	

