User Manual

Hybrid 10KW PV Inverter

Version: 1.2

Table Of Contents

1. Introduction

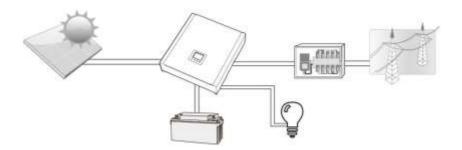


Figure 1 Basic hybrid PV System Overview

2. Important Safety Warning

Before using the inverter, please read all instructions and cautionary markings on the unit and this manual. Store the manual where it can be accessed easily.

General Precaution-

Conventions used: WARNING!

CAUTION!

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WARNING!





CAUTION!



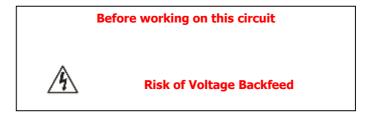




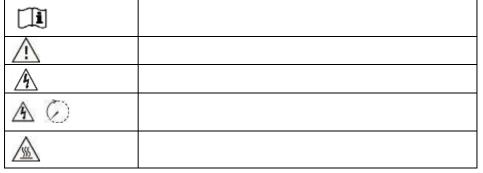








Symbols used in Equipment Markings

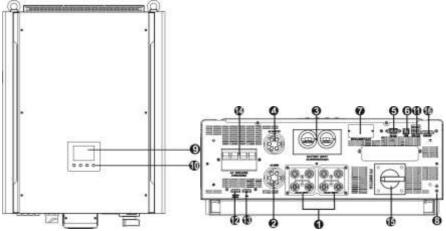


3. Unpacking & Overview

3-1. Packing List



3-2. Product Overview



4. Installation

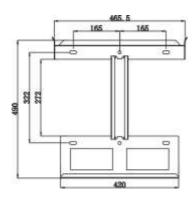
4-1. Selecting Mounting Location

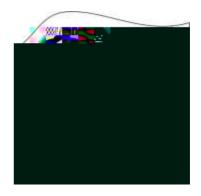
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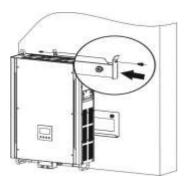
4-2. Mounting Unit

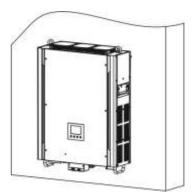
WARNING!!

WARNING!!









5. Grid (Utility) Connection

5-1. Preparation NOTE:

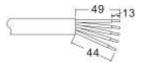
NOTE2:

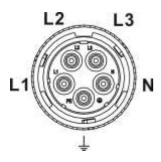
WARNING!

5-2. Connecting to the AC Utility

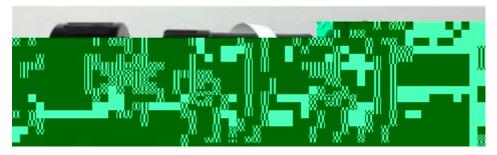


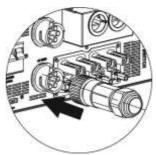
Component	Description





L1→ LINE 1 (Black) L2→ LINE 2 (Grey) L→ LINE 3 (Brown) \bigcirc → Ground (Yellow-Green) N→ Neutral (Blue)





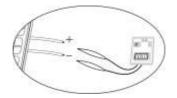
CAUTION:

6. PV Module (DC) Connection CAUTION:

separately

NOTE1: NOTE2:

WARNING:	
CAUTION:	



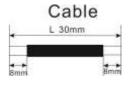
CAUTION:

Components for PV connectors and Tools:

-



Cable preparation and connector assembly process:













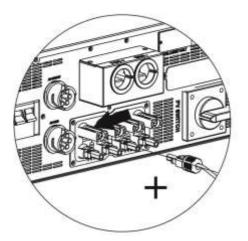














WARNING!

CAUTION: Never

CAUTION:

Recommended Panel Configuration

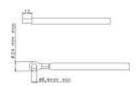
Solar Panel Spec. (reference)	SOLAR INPUT 1 (Min in seria Max. in seria	Q'ty of panels	Total Input Power	

7. Battery Connection CAUTION:

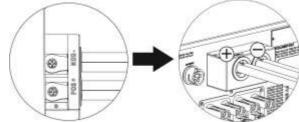
separately

NOTE1:

NOTE2: NOTE3:



RED cable to the positive terminal (+); BLACK cable to the negative terminal (-).



WARNING!

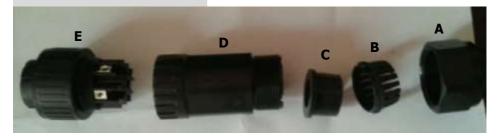
WARNING!

8. Load (AC Output) Connection

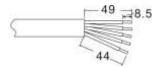
8-1. Preparation CAUTION:

WARNING!

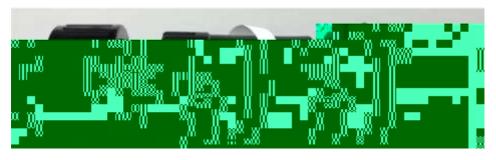
8-2. Connecting to the AC output

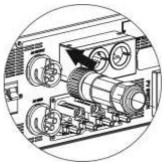


Component	Description



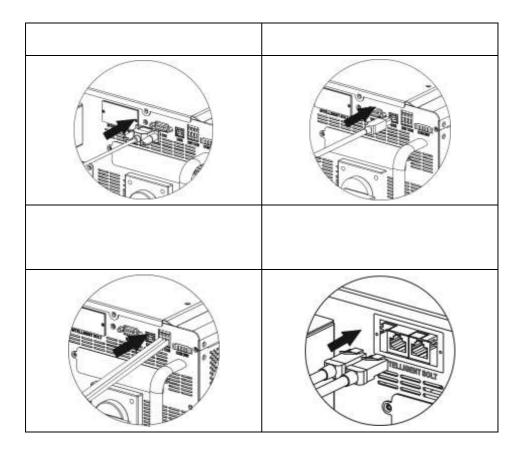






CAUTION:

9. Communication



10. Dry Contact Signal

10-1. Electric Parameter

10-2. Function Description

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11. Relay Control Port

Grid-tie with backup II

11-1. Interface Configuration



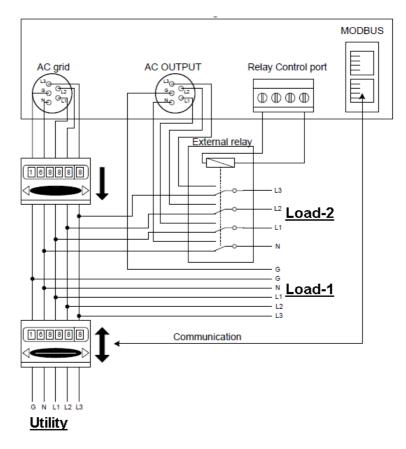


11-2. Function Description

11 Z. Tun	
	Condition 1:
	Condition 2: $P_{1} = P_{1} $

Power on	Condition 3: P1 P2 P2 Condition 3: P2 Condition 3: P2 Condition 3: P2 Condition 3: Condition 3: Condi	230V
	When the unit is not working at inverter mode or grid is available.	0V

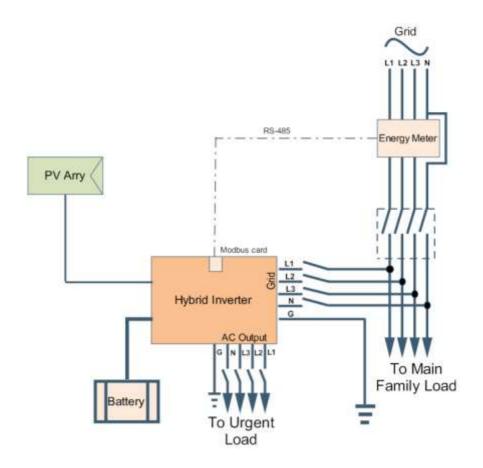
11-3. Application



12. Application with Energy Meter



Grid-Tie with Backup II



13. Commissioning

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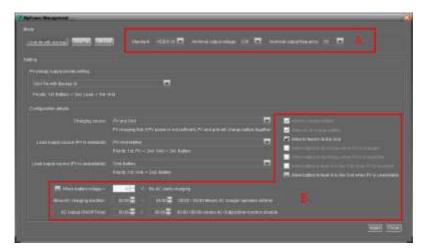
14. Initial Setup

Step 1:

Step 2:

Step 3:





Mode

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SECTION A:

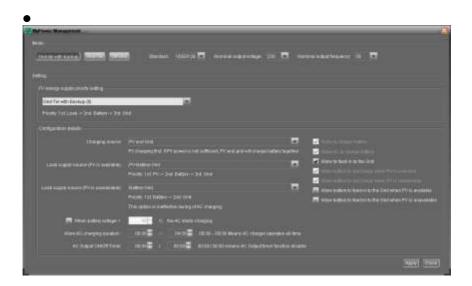
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SECTION B:

Grid-tie with backup

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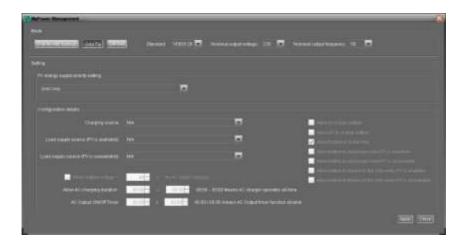
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Working logic under peak time:

Working logic under off-peak time:

Grid-Tie



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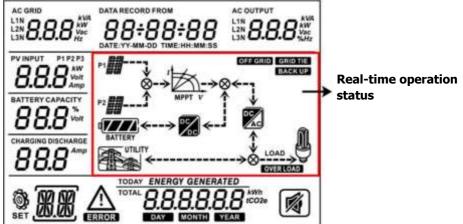
15. Operation

15-1. Interface

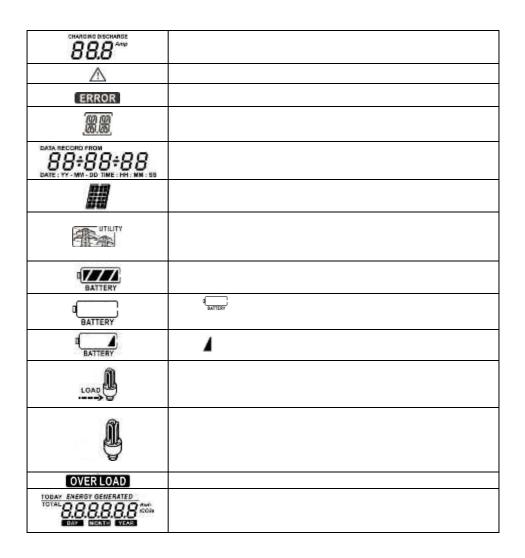


NOTICE:

15-2. LCD Information Define



Display	Function
AC GRID LIN LIN LIN LIN LIN AC GRID LIN LIN LIN AC GRID	
B.B.B	



15-3. Button Definition

NOTE:

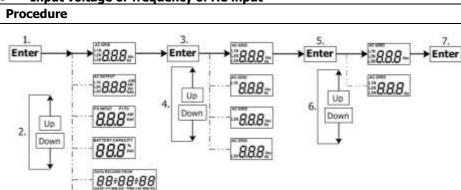
15-4. Query Menu Operation

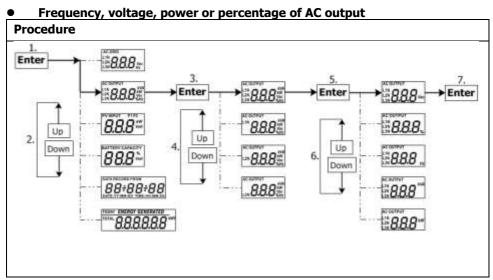
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Setting Display Procedure

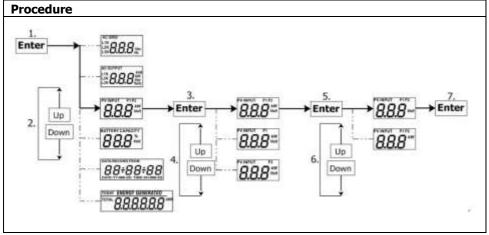
• Input voltage or frequency of AC input

*888888





Input voltage or power of PV input.



• Battery voltage or percentage.

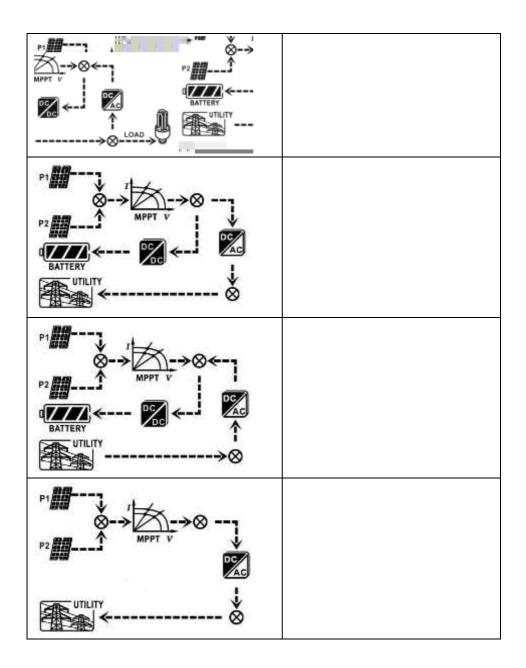
Procedure

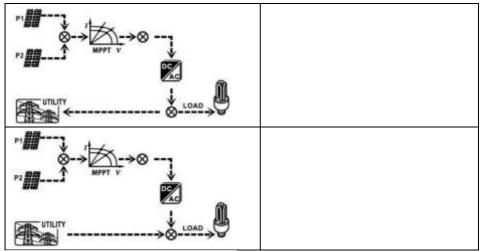
• Date and time.

Procedure

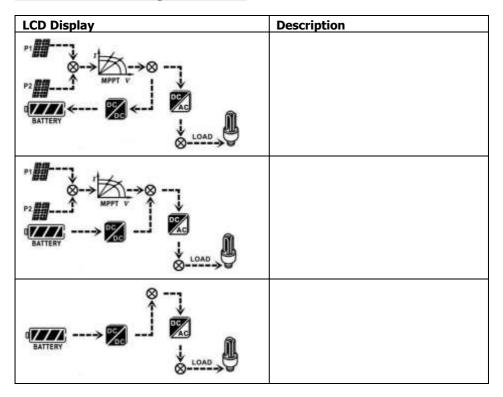
• Today or total energy generated.

Procedure

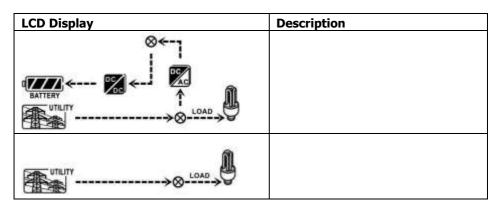




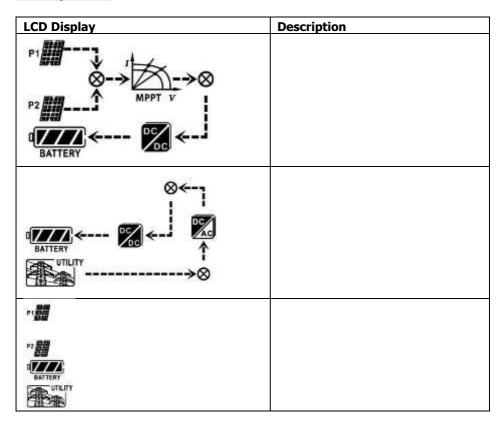
Inverter mode without grid connected



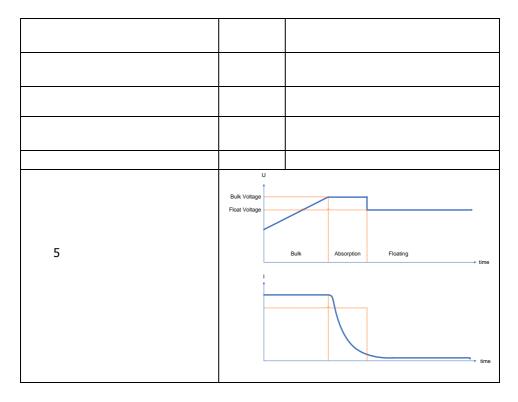
Bypass mode



Standby mode :



16. Charging Management



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Min glid-comected tequeney: 47	41 Hz	Aurie	Max. foold-in-grid power 10	uosu V	100
Max grid-connected trequence 5	15 14	Acres			
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Max. PV injust-extrega	000	Asiate	Ballery sub-off doctoarging voltage when this is available	- 10 E A	V (ani)
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17. Maintenance & Cleaning

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WARNING

Battery Maintenance

CAUTION CAUTION CAUTION

18. Trouble Shooting

NOTE:

18-1. Warning List





Code	Warning Event	Icon (flashing)	Description
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18-2. Fault Reference Codes

ERROR

Situation			
Fault Code	Fault Event	Possible cause	Solution

19. Specifications

MODEL	10KW
RATED POWER	
PV INPUT (DC)	
GRID OUTPUT (AC)	
	5
AC INPUT	-
BATTERY MODE OUTPUT (AC)	
BATTERY & CHARGER (Lead-acid/Li	l-ion)
	5

GENERAL		
PHYSICAL		
INTERACE		
ENVIRONMENT		