User Manual

Hybrid 10KW PV Inverter

Version: 1.2

Table Of Contents

1. Introduction

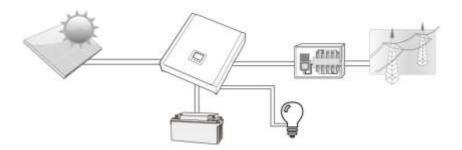


Figure 1 Basic hybrid PV System Overview

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!







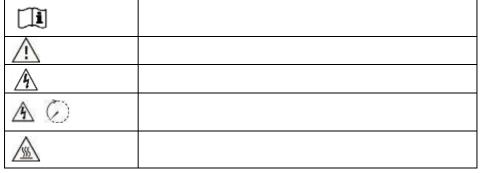








Symbols used in Equipment Markings

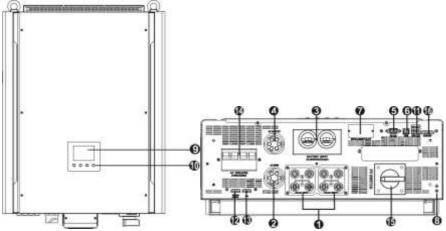


3. Unpacking & Overview

3-1. Packing List



3-2. Product Overview



4. Installation

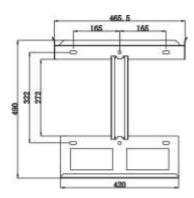
4-1. Selecting Mounting Location

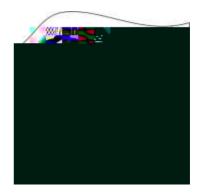
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4-2. Mounting Unit

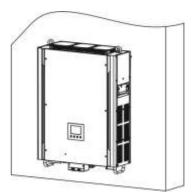
WARNING!!

WARNING!!









5. Grid (Utility) Connection

5-1. Preparation NOTE:

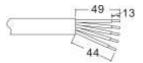
NOTE2:

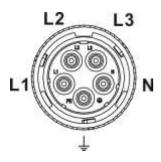
WARNING!

5-2. Connecting to the AC Utility



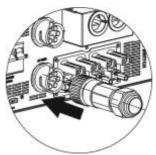
| Component | Description |
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L1→ LINE 1 (Black) L2→ LINE 2 (Grey) L→ LINE 3 (Brown) \bigcirc → Ground (Yellow-Green) N→ Neutral (Blue)





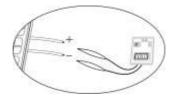
CAUTION:

6. PV Module (DC) Connection CAUTION:

separately

NOTE1: NOTE2:

| WARNING: | |
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| CAUTION: | |
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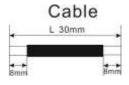
CAUTION:

Components for PV connectors and Tools:

| - |
|---|
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Cable preparation and connector assembly process:













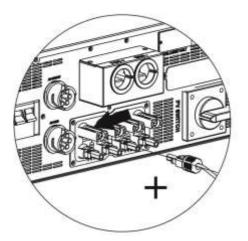














WARNING!

CAUTION: Never

CAUTION:

Recommended Panel Configuration

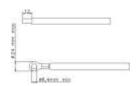
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7. Battery Connection CAUTION:

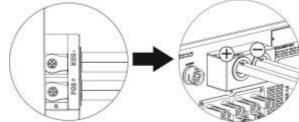
separately

NOTE1:

NOTE2: NOTE3:



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



WARNING!

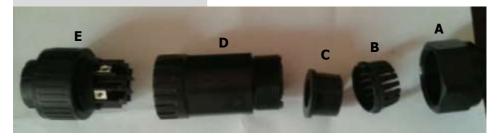
WARNING!

8. Load (AC Output) Connection

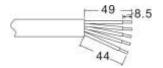
8-1. Preparation CAUTION:

WARNING!

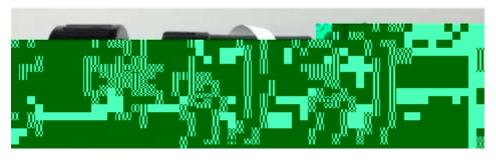
8-2. Connecting to the AC output

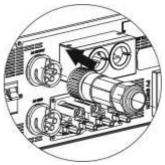


| Component | Description |
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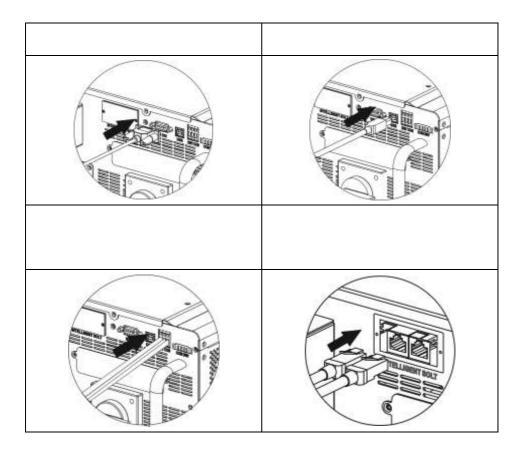






CAUTION:

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



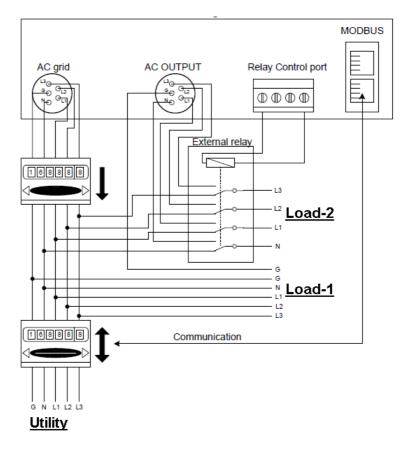


11-2. Function Description

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| | Condition 1: |
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| | Condition 2: $P_{1} = P_{1} $ |
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| Power on | Condition 3: P1 P2 P2 Condition 3: P2 Condition 3: P2 Condition 3: P2 Condition 3: Condition 3: Condi | 230V |
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| | When the unit is not working at inverter mode or grid is available. | 0V |

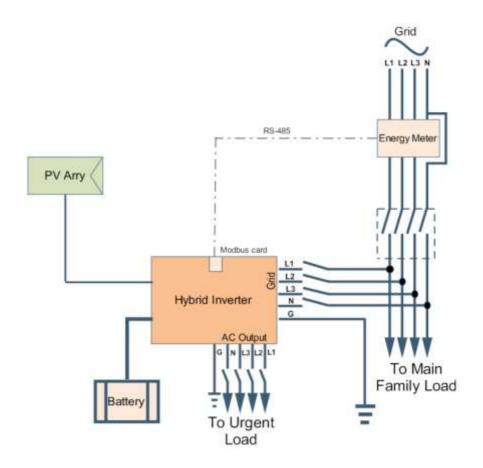
11-3. Application



12. Application with Energy Meter



Grid-Tie with Backup II



13. Commissioning

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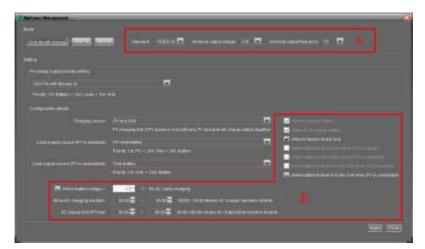
14. Initial Setup

Step 1:

Step 2:

Step 3:





Mode

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SECTION A:

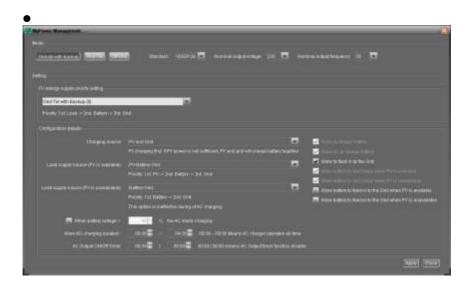
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SECTION B:

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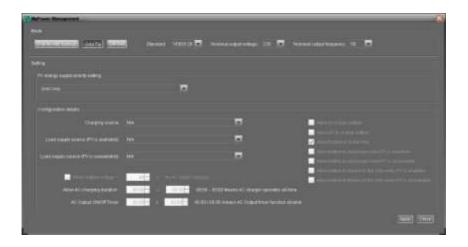
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Working logic under off-peak time:

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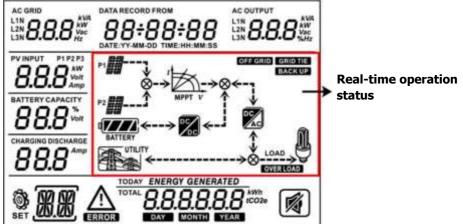
15. Operation

15-1. Interface

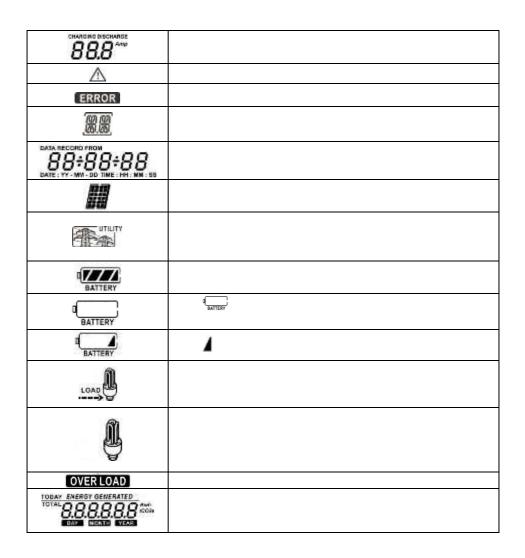


NOTICE:

15-2. LCD Information Define



| Display | Function |
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| B.B.B | |
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15-3. Button Definition

NOTE:

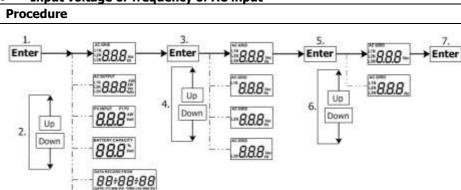
15-4. Query Menu Operation

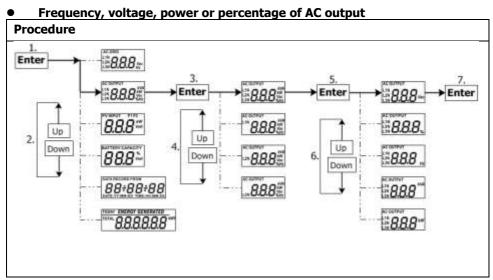
- •

Setting Display Procedure

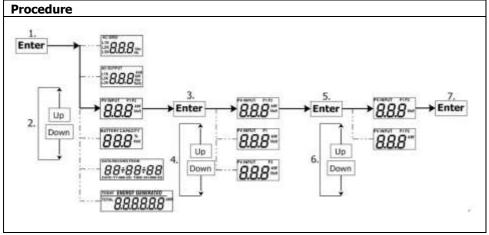
• Input voltage or frequency of AC input

*888888





Input voltage or power of PV input.



• Battery voltage or percentage.

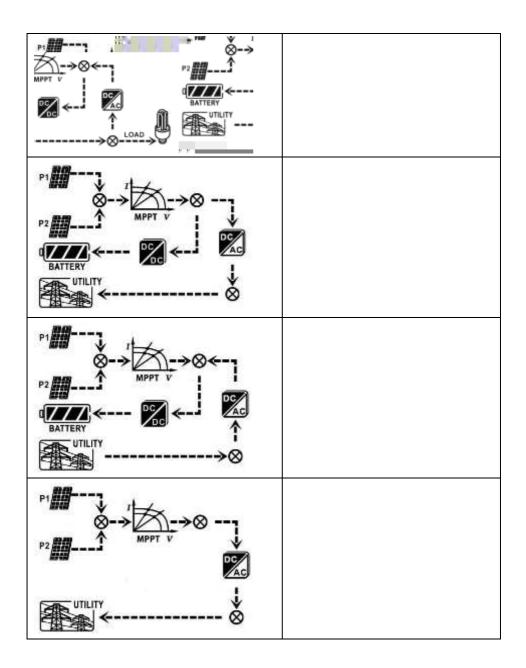
Procedure

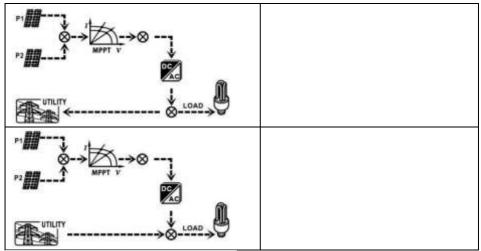
• Date and time.

Procedure

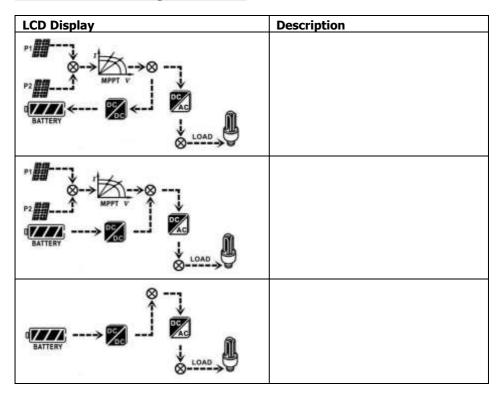
• Today or total energy generated.

Procedure

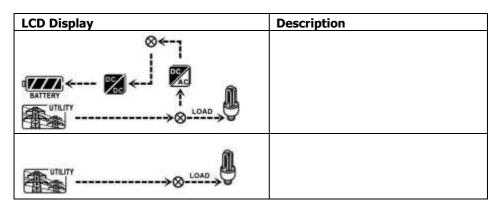




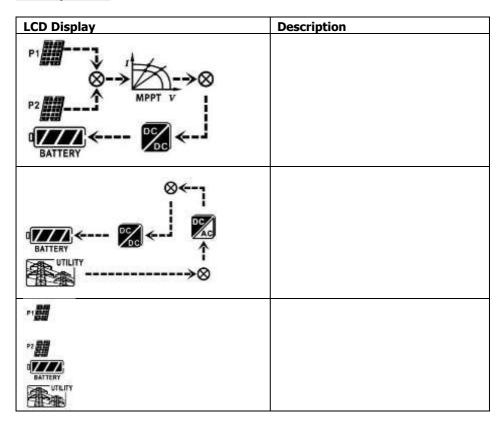
Inverter mode without grid connected



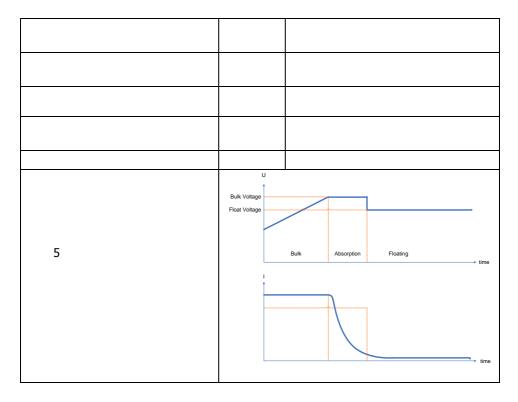
Bypass mode



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 | | | |
| Mer. Fi/input voltage: | 300 | Auto | Floating charging voltage | 34-0 | e - |
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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 | | | |
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| Fault Code | Fault Event | Possible cause | Solution |
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19. Specifications

| MODEL | 10KW |
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| RATED POWER | |
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| BATTERY MODE OUTPUT (AC) | |
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