USER
MANUAL

MEGAREVO

LNA SERIES HYBRID INVERTER

WITH BREAKER | · R12KLNA-P6 · R16KLNA-P6

CONTENT

1 Notes on this manual

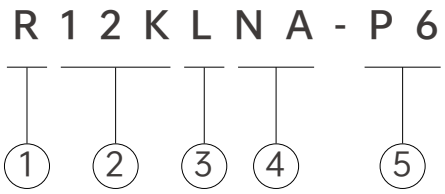
1.1 Scope of validity

This manual is an integral component of the hybrid system, detailing pre-installation precautions, machine architecture, packing list, fault classifications, and machine specifications. For detailed installation procedures, please scan the QR code in chapter 7 to access the electronic version of the user manual.

The R12-16KLNA series consist of the following inverter models:

(1) Inverter terminals with circuit breakers.

- **R12KLNA-P6**
- **R16KLNA-P6**



Naming rules, For example: R12KLNA-P6.

- ① "R": means "Company product internal identification symbol".
- ② "12K": "Output power 12kW ".
- ③ "L": "Low battery voltage".
- ④ "NA": "North America".
- ⑤ "P6": "Equipped with circuit breaker".

Store this manual where it will be always accessible.

1.2 Target group

This manual is for qualified electricians. The tasks described in this manual only can be performed by qualified electricians.

1.3 Symbols used

The following types of safety instructions and general information appear in this document as described below:

- "Danger" indicates a hazardous situation which, if not avoided, will result in death or serious injury.

- "Warning" indicates a hazardous situation which, if not avoided, could result in death or serious injury.

- "Caution" indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

- "Note" provides tips that are valuable for the optimal operation of ours.

2 Safety

2.1 Important safety instructions


DANGER

- Danger to life due to high voltages in the inverter!
- All work must be carried out by qualified electrician.
- The appliance is not to be used by children or persons with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children should be supervised to ensure that they do not play with the appliance.


CAUTION

- Danger of burn injuries due to hot enclosure parts!
- During operation, the upper lid of the enclosure and the enclosure body may become hot.
- Only touch the lower enclosure lid during operation.


CAUTION

- Possible damage to health as a result of the effects of radiation!
- Do not stay closer than 20cm to inverter for any length of time.

- Grounding the PV generator.
- Comply with the local requirements for grounding the PV modules and the PV generator. It is recommends connecting the generator frame and other electrically conductive surfaces in a manner which ensures continuous conduction and ground these in order to have optimal protection of system and persons.


WARNING

- Ensure input DC voltage ≤ Max. DC voltage. Over voltage may cause damage.
- Permanent damage to inverter or other losses, which will not be included in warranty!


WARNING

- Authorized service personnel must disconnect both AC and DC power from inverter before attempting any maintenance, cleaning or working on any circuits connected to inverter.
- Do not operate the inverter when the device is running.
- Risk of electric shock!

- Please keep the user manual properly. When operating equipment, in addition to following the general precautions in this document, follow the specific safety instructions. We will not be liable for any consequence caused by the violation of the safety operation regulations and design, production, and usage standards.
- Only accessories shipped with the inverter are recommended for use, Otherwise, it may result in a risk of fire, electric shock, or injury to person.

- Make sure the existing wiring is in good condition and the wire is not undersized. Do not disassemble any parts of the inverter which are not mentioned in the installation guide. It contains no user-serviceable parts. See warranty for instructions on obtaining service. Attempting to service the inverter yourself may result in a risk of electric shock or fire and will void your warranty.
- Keep away from flammable, explosive materials to avoid fire disaster.
- The installation place should be away from humid or corrosive substance.
- Authorized service personnel must use insulated tools when installing or working with this equipment.
- Never touch either the positive or negative pole of the PV connecting device. It's strictly prohibited touching both at the same time.
- The unit contains capacitors that remain charged to a potentially lethal voltage after the MAINS, battery and PV supply has been disconnected.
- Hazardous voltage will present for up to 5 minutes after disconnection from power supply.
- CAUTION-RISK of electric shock from energy stored in capacitor, never operate on the inverter couplers, the MAINS cables, Battery cables, PV cables or the PV generator when power is applied. After switching off the PV, battery, and mains, always wait for 5 minutes to let the intermediate circuit capacitors discharge before unplugging DC, battery in plug and MAINS couplers.
- When accessing the internal circuit of inverter, it is very important to wait 5 minutes before operating the power circuit or demounting the electrolyte capacitors inside the device. Do not open the device beforehand since the capacitors require time to suffciently discharge!
- Surge protection devices (SPDs) for PV installation.


WARNING

- Over-voltage protection with surge arresters should be provided when the PV power system is installed.
- The grid connected inverter is not fitted with SPDs in both PV input side and MAINS side.

- Lightning will cause a damage either from a direct strike or from surges due to a nearby strike.
- Induced surges are the most likely cause of lightning damage in majority or installations, especially in rural areas where electricity is usually provided by long overhead lines. Surge may be included on both the PV array conduction and the AC cables leading to the building.
- Specialists in lightning protection should be consulted during the end use application. Using appropriate external lightning protection, the effect of a direct lightning strike into a building can be mitigated in a controlled way, and the lightning current can be discharged into the ground.
- Installation of SPDs to protect the inverter against mechanical damage and excessive stress include a surge arrester in case of a building with external lightning protection system (LPS) when separation distance is kept.

- To protect the DC system, surge suppression device (SPD type2) should be fitted at the inverter end of the DC cabling and at the array located between the inverter and the PV generator, if the voltage protection level (VP) of the surge arresters is greater than 1100V, an additional SPD type3 required for surge protection for electrical devices.
- To protect the AC system, surge suppression devices (SPD type2) should be fitted at the main incoming point of AC supply (at the consumers cutout), located between the inverter and the meter/distribution system.
- All DC cables should be installed to provide as short a run as possible, and positive and negative cables of the string or main DC supply should be bundled together. Avoiding the creation of loops in the system.
- Spark gap devices are not suitable to be used in DC circuits once conducting, they won't stop conducting until the voltage across their terminals is typically more than 30 volts.

Anti-islanding effect

- Islanding effect is a special phenomenon that grid-connected PV system still supply power to the nearby grid when the voltage loss has happened in the power system. It is dangerous for maintenance personnel and the public.
- Hybrid series inverter provide active frequency drift (AFD) to prevent islanding effect.

PE connection and leakage current

- The end-use application shall monitor the protective conductor by residual current operated protective device (RCD) with rated fault current Ifn ≤ 240mA which automatically disconnects the device in case of a fault.
- The device is intended to connect to a PV generator with a capacitance limit of approx. 700nf.
- Incorrect grounding can cause physical injury, death or equipment malfunction and increase electromagnetic.


WARNING

- High leakage current!
- Earth connection essential before connecting supply.

Battery safety instructions

- The hybrid series inverter should be used with low-voltage batteries. For specific parameters such as battery type, rated voltage, and rated capacity, please refer to the electronic version of the user manual (scan the QR code in chapter 7 of this manual).
- As accumulator batteries may contain potential electric shock and short-circuit current danger, to avoid accidents that might be thus resulted, the following warnings should be observed during battery replacement:
  1. Do not wear watches, rings or similar metallic items.
  2. Use insulated tools.
  3. Put on rubber shoes and gloves.

4. Do not place metallic tools and similar metallic parts on the batteries.
5. Switch offload connected to the batteries before dismantling battery connection terminals.
6. Only personal with proper expertise can carry out the maintenance of accumulator batteries.

2.2 Explanation of symbol

This section gives an explanation of all the symbols shown on the inverter and on the type label.

Table 2-1 Symbols on the type label

Symbols	Symbols on the type label
	UL certified.
	This symbol indicates that you should wait at least 5mins after disconnecting the inverter from the utility grid and from the PV panel before touching any inner live parts.
	Keep dry! The package/product must be protected from excessive humidity and must be stored under cover.
	Refer to the operating instructions.
	Fragile - The package/product should be handled carefully and never be tipped over or slung.
	Products should not be disposed as household waste.
	No more than six (6) identical packages being stacked on each other.
	Components of the product can be recycled.
	Danger of hot surface!
	Danger of high voltage and electric shock!
	Caution! Failure to observe a warning indicated in this manual may result in injury.

3 Introduction

3.1 Basic features

Hybrid series is a high-quality inverter which can convert solar energy to AC energy and store energy into battery.

The inverter can be used to optimize self-consumption, store in the battery for future use or feed into public grid. Work mode depends on PV energy and user's preference. It can provide power for emergency use during the grid lost by using the energy from battery and inverter (generated from PV).

3.2 System diagram

Figure 3-1 Basic system architecture

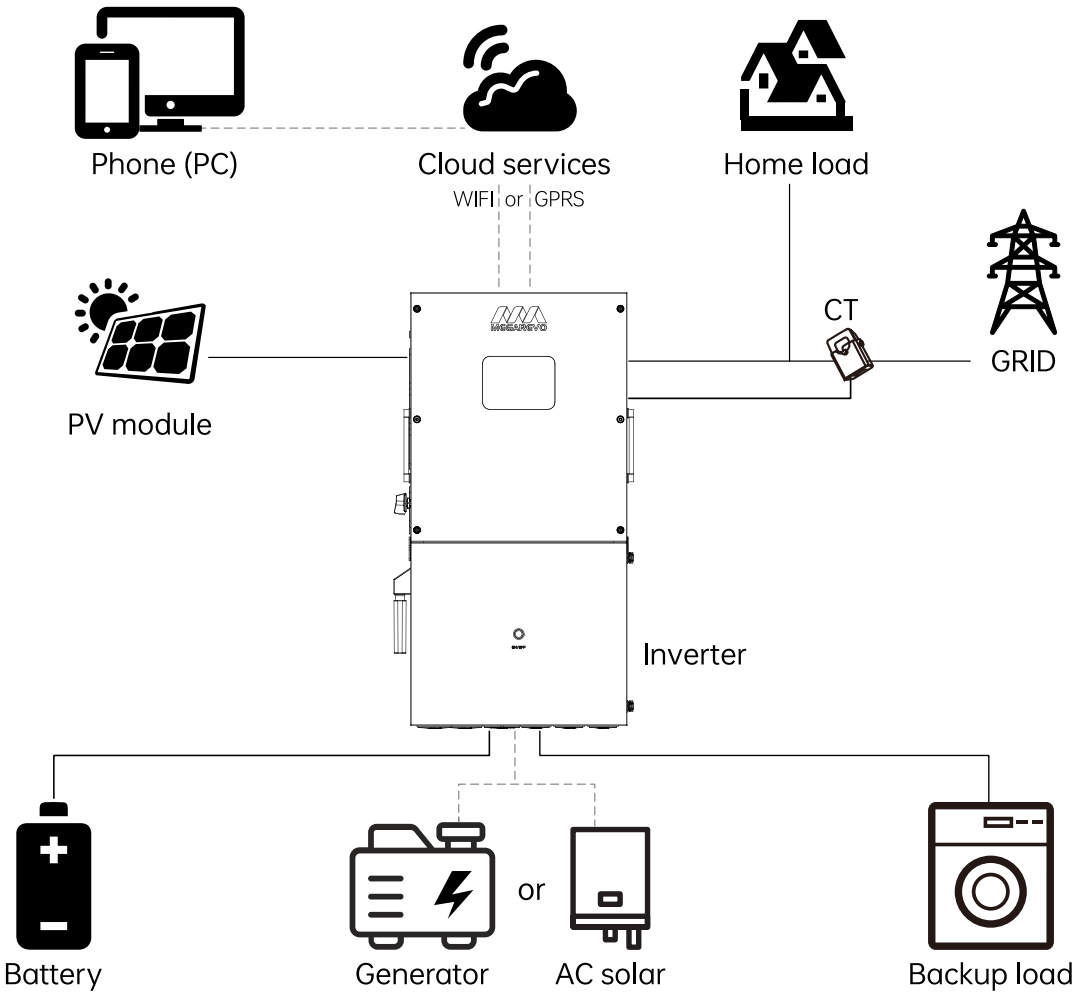
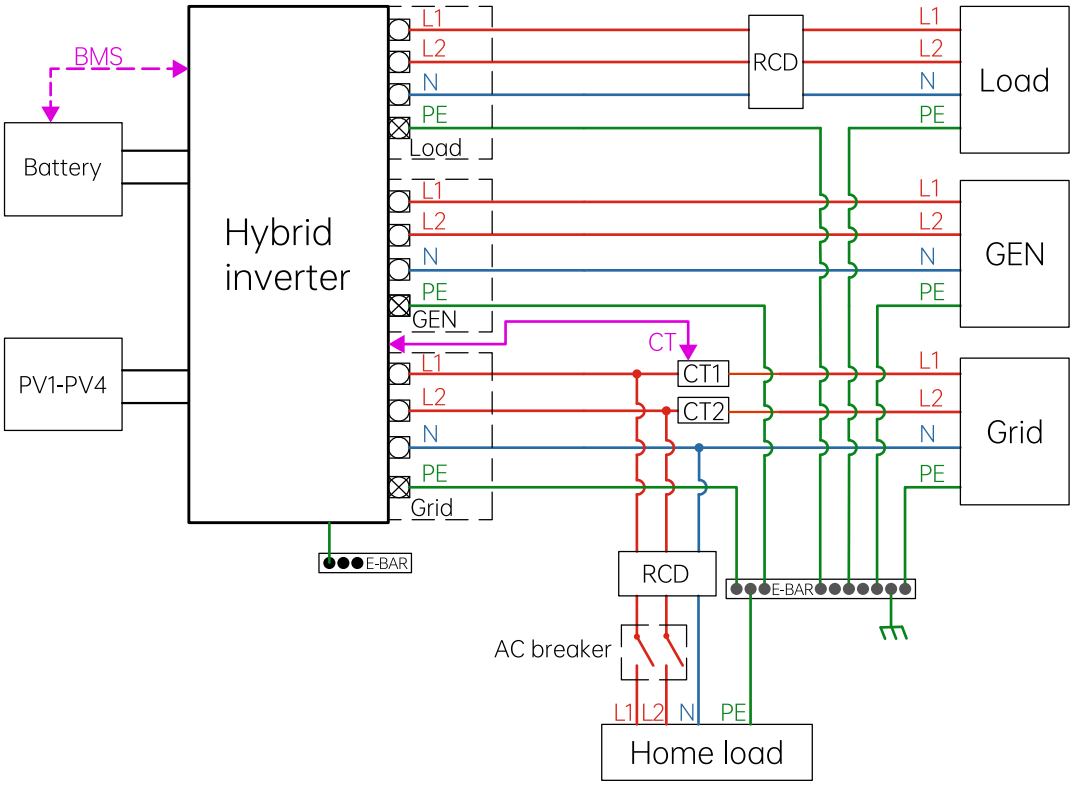


Figure 3-2 System basic wiring diagram



All switches and RCD devices in the figure are for reference only, and the specific installation shall be subject to local regulations.

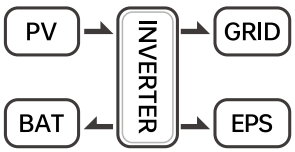
- Please control the home loads, and make sure it's within the "BACK-UP output rating" under BACK-UP mode, otherwise the inverter will shut down with an "overload fault" warning.
- Please confirm with the mains grid operator whether there are any special regulations for grid connection.

3.3 Work modes

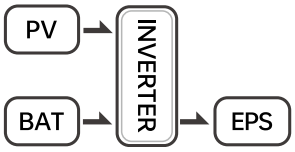
Inverter provides multiple work modes based on different requirements.

Work mode: self-use

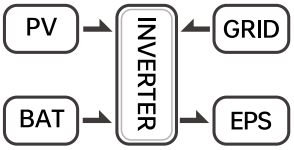
1. When PV, Grid, Battery is available:



A. Solar energy provides power to the loads as first priority, if solar energy is sufficient to power all connected loads, solar energy excess power will provides to charge battery, and then reduntant power will feed to grid.

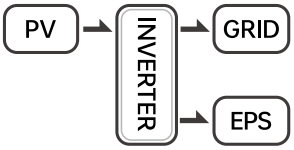


B. Solar energy provides power to the loads as first priority, if solar energy is not sufficient to power all connected loads, battery energy will supply power to the loads at the same time.

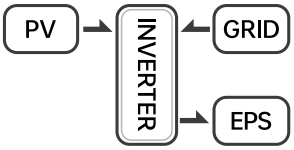


C. Solar energy provides power to the loads as first priority, if solar energy and battery are not sufficient to power all connected loads, utility energy (Main grid) will supply power to the loads with solar energy at the same time.

2. When PV, Grid is available (without battery):

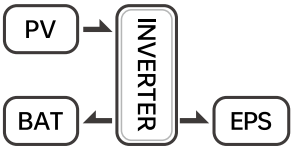


A. Solar energy provides power to the loads as first priority, if solar energy is sufficient, the excess power will be fed to grid.

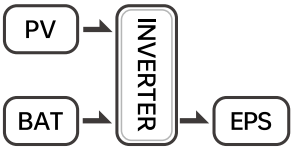


B. Solar energy provides power to the loads as first priority, if solar energy is not sufficient to power all connected loads, Grid energy will supply power to the loads at the same time.

3. When PV, Battery is available (Grid is disconnected):



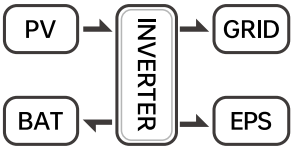
A. Solar energy provides power to the loads as first priority, if solar energy is sufficient to power all connected loads, solar energy will provides to charge battery.



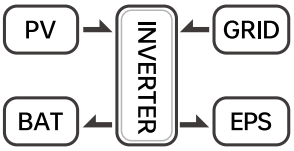
B. Solar energy provides power to the loads as first priority, if solar energy is not sufficient to power all connected loads, battery energy and solar energy will supply power to the loads at the same time.

Work mode: peak shift

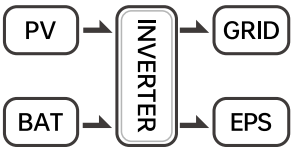
1. When PV, Grid, Battery is available:



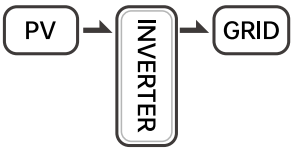
A. On charge time, solar energy will charge battery as first priority. The excess energy will supply power to the loads. If solar energy is sufficient to supply loads and charge battery, and If there's still some extra energy, then the excess power will feed the power to grid.



B. On charge time, solar energy will charge battery as first priority, then the excess solar energy will supply power to loads. If solar energy is not sufficient to charge battery and supply loads, grid will supply all the connected loads with solar energy together.

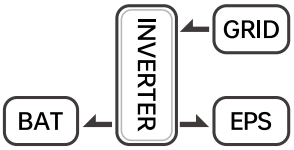


C. On discharge time, solar energy provides power to the loads as first priority, if solar energy is sufficient to supply loads, and if there's still some extra energy from solar energy, then the excess power and battery will deliver the power to the grid at the same time.

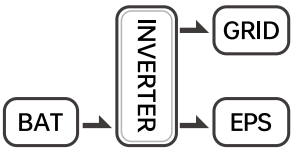


D. In the period of no charge or discharge, the solar power supply loads at first priority, excess energy to the grid.

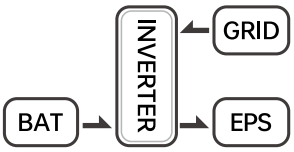
2. When Grid, Battery is available (PV is disconnected):



A. On charge time, grid will charge battery and supply power to the connected loads at the same time.



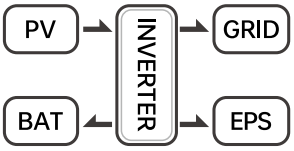
B. On discharge time, if load power is less than battery power, battery will supply power to loads as first priority, the excess power will be feed to grid.



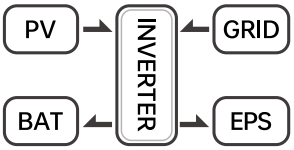
C. On discharge time, if load power is more than battery power, battery and grid will supply power to the loads at the same time.

Work modes: Bat priority

1. When PV, Grid, Battery is available:

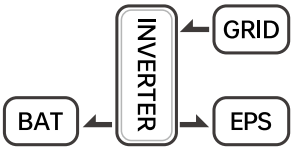


A. Solar energy will charge battery as first priority, if solar energy is excess, the excess power will supply load. If there's still some extra energy, then the excess power will be feed the power to grid.



B. Solar energy will charge battery as first priority, if solar energy is excess, the excess power will supply load. If solar energy is not sufficient to charge battery and supply loads, grid will supply power to loads.

2. When Grid, Battery is available (PV is disconnected):



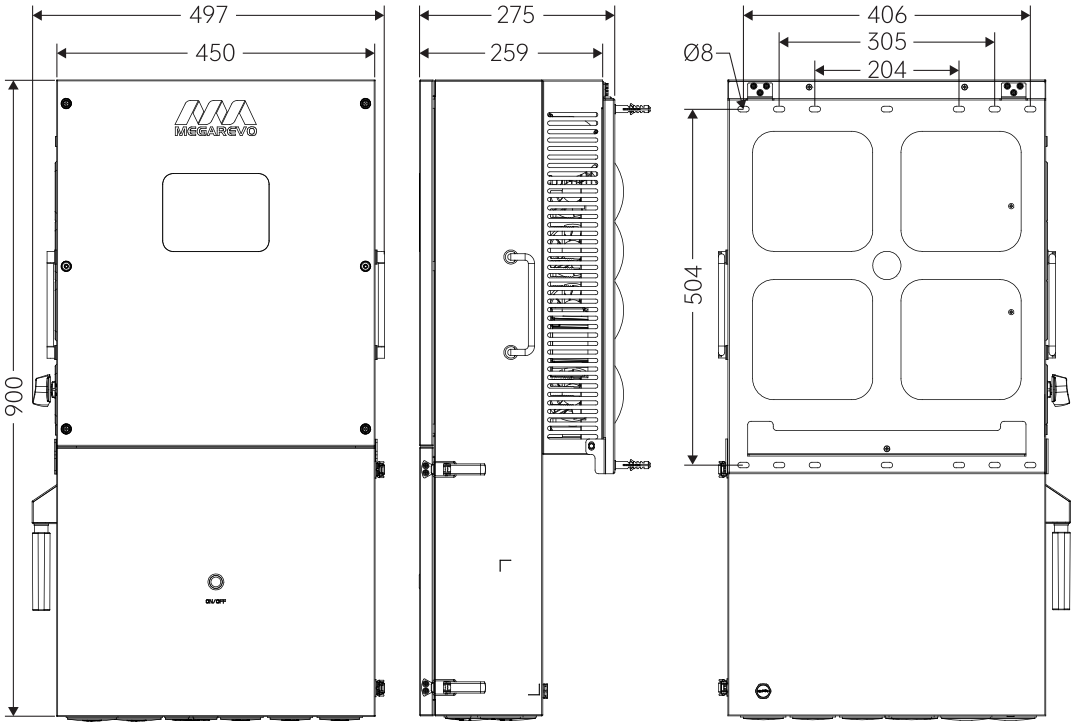
Grid will supply power to load and charge battery at the same time.

- If set anti-reverse function allowable, Once on the work mode of self-use, peak shift, battery priority, the system will not feed power to grid.

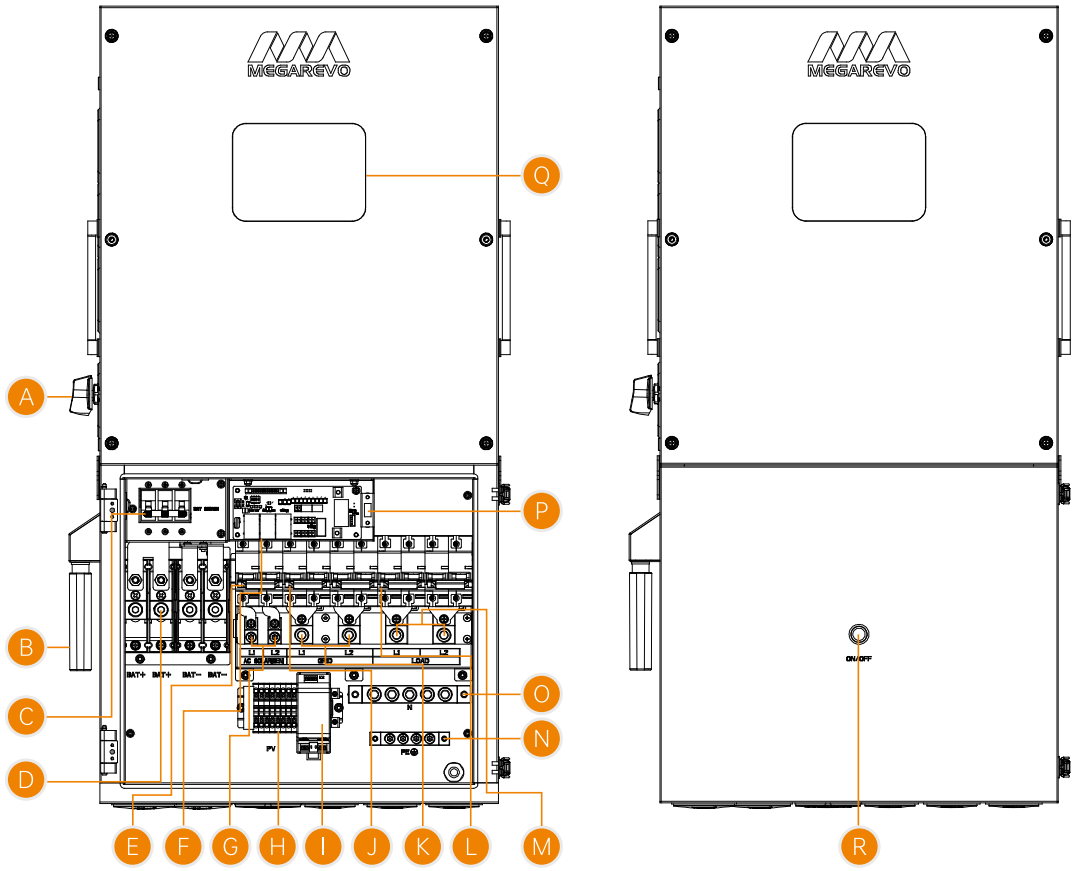
In addition to the above three basic modes, there is also an "advanced mode". Please refer to chapter 10 for details.

3.4 Dimension

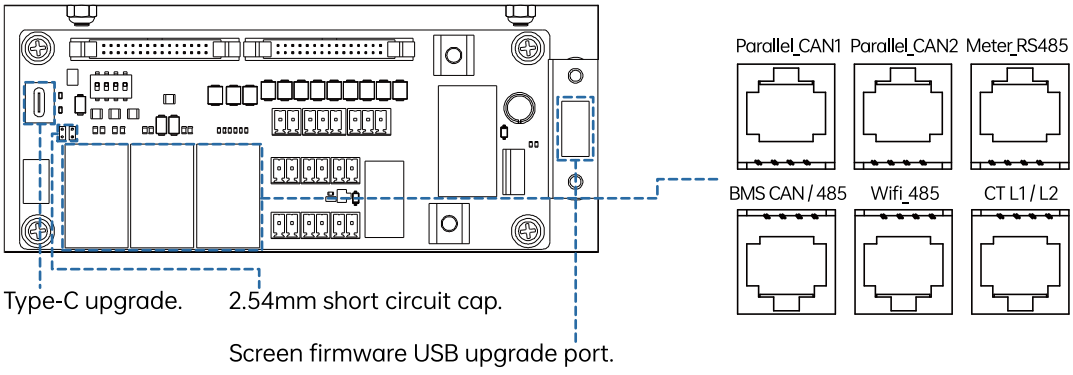
Figure 3-3 Product size



3.5 Terminals of PV inverter



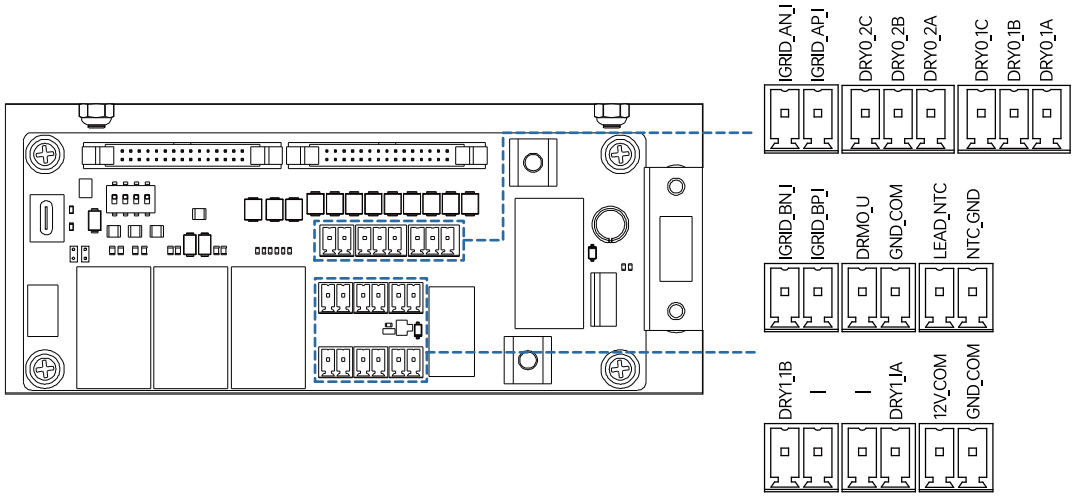
Object	Description
A	DC switch.
B	Wi-Fi.
C	Battery circuit breaker.
D	BAT input.
E	AC SOLAR (Generator) circuit breaker.
F	CAN1 / CAN2 / Meter_RS485 / BMS_CAN / 485 / CTL1L2 / Type-C upgrade.
G	AC SOLAR (Generator) input.
H	PV1~PV4 input.
I	Rapid shutdown system transmitter.
J	Grid circuit breaker.
K	Grid output.
L	EPS load circuit breaker.
M	EPS load output.
N	PE terminal.
O	N terminal.
P	Screen firmware USB upgrade port.
Q	Touch panel.
R	On / Off button.



Port function

- CAN1 / CAN2: Communication interface for connecting inverters.
- Meter_RS485: Read the inverter data and send it to the screen.
- BMS-485 / BMS-CAN: BMS communication for lithium batteries.
- Wi-Fi_485: Standby crystal port for the Wi-Fi module.
- CT L1 / L2: For external grid side CT to detect current size.

- TYPE-C UPDATE: Update inverter software locally on PC via USB-A port.
- 2.54mm short circuit cap: To use the battery software remote upgrade function, you need to insert two "2.54mm short circuit caps". If the battery does not use this function, do not insert the "2.54mm short circuit cap". Otherwise, "BMS communication exception" will occur.
- Screen firmware USB upgrade port: Upgrade the screen firmware using the USB port.



- DRY1_1B / DRY1_1: Used to start the inverter driver.
- DRY0_2A (common): Reserved dry contact port.
- DRY0_2B (normally open): Reserved dry contact port.
- DRY0_2C (normally closed): Reserved dry contact port.
- DRY0_1A (common): Together with the other two contacts, the switch function is formed.
- DRY0_1B (normally open): In the generator automatic mode, the contact is closed when starting.
- DRY0_1C (normally closed): In the generator automatic mode, the contact is disconnected when starting.
- +12V_COM / GND COM: Used to connect Rapid Solar Shutdown (RSS).
- IGRID_BN_I / IGRID_BP_I: CT standby cable port.
- IGRID_AN_I / IGRID_AP_I: CT standby cable port.
- LEAD_NTC / LEAD_GND: Lead-acid battery temperature sampling input interface.
- DRMO_U / GND_COM: Reserved dry contact port.

WARNING

- Qualified electrician will be required for the installation.

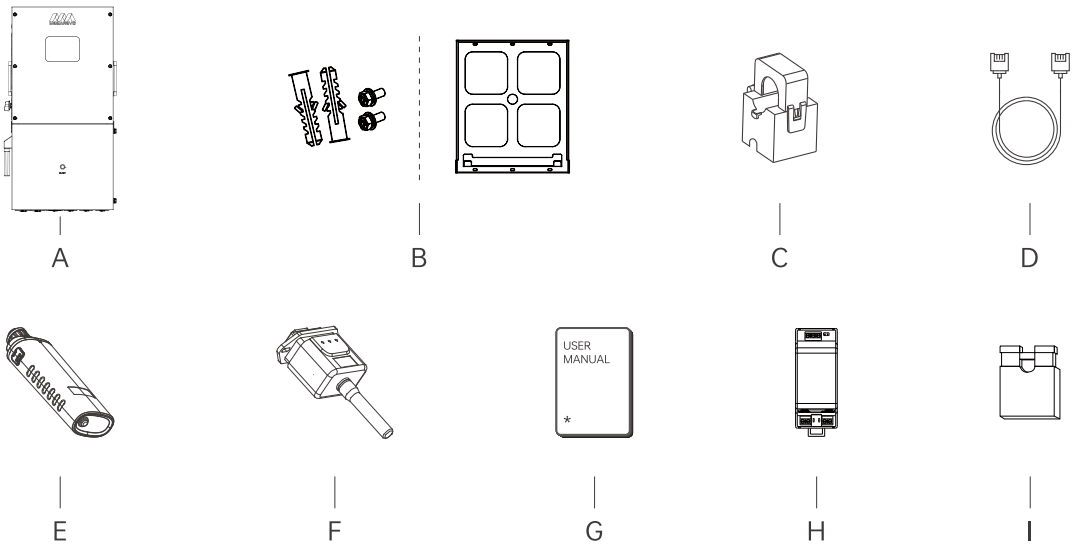
4 Installation

4.1 Check for physical damage

Make sure the inverter is intact during transportation. If there is any visible damage, such as cracks, please contact your dealer immediately.

4.2 Packing list

Open the package and take out the product, please check the accessories first.
The packing list shown as below.



Object	Description
A	Inverter.
B	Expansion screws and pan-head screws, Hanging rack.
C	CT (CTSA035-200A-100mA, inner radius 35mm).
D	2m parallel machine line.
E	Wi-Fi module.
F	GPRS module.
G	User manual.
H	Rapid shutdown system transmitter (optional).
I	2.54mm short circuit cap (optional).

5 Fault diagnosis and solutions

The inverter is easy to maintain. When you encounter the following problems, please refer to the solutions below, and contact the local distributor if the problem remains unsolved. The following table lists some of the basic problems that may occur during the actual operation as well as their corresponding basic solutions.

Fault diagnosis table

Table 5-1 Fault diagnosis table

Content	Codes	Explanation	Solutions
Dischg over cur	01	Battery discharge over current. When the battery is loaded, the load is too large.	• Nothing needed to do, wait one minute for the inverter to restart. • Check whether the load is in compliance with the specification. • Cut off all the power and shut down all the inverters; disconnect the load and plug in to restart inverters, then check.
Over load	02	The load power is greater than other power. (PV, BAT)	• Check whether the load is in compliance with the maximum power of the inverter. • Cut off all the power and shut down all the inverters; disconnect the load and plug in to restart inverters, then check whether the load is short circuited if the fault has been eliminated. • Contact customer service if error warning continues.
Bat disconnect	03	Battery disconnect. (Battery voltage not identified)	• Check whether the battery is connected. • Check if battery wiring port is open circuited. • Contact customer service if error warning continues.
Bat under volt	04	Battery voltage low that normal range.	• Checking system settings, If so, power off and restart. • Check if the grid power down. If so, wait for grid to power up, the inverter will automatically charge. • Contact customer service if error warning continues.
Bat low capacity	05	Bat low capacity.	• Battery low that setting capacity. (SOC<100%-DOD)
Bat over volt	06	The battery voltage is greater than the inverter maximum voltage.	• Checking system settings, If so, power off and restart. • Contact customer service if error warning continues.
Gird low volt	07	Grid voltage is abnormal.	• Check if the grid is abnormal. • Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
Grid over volt	08		

Content	Codes	Explanation	Solutions
Grid low freq	09	Grid frequency is abnormal.	• Check if the grid is abnormal. • Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
Grid over freq	10		
Gfci over	11	Inverter GFCI exceeds standard.	• Check PV string for direct or indirect grounding phenomenon. • Check peripherals of inverter for current leakage. • Contact the local inverter customer service if fault remains unremoved.
Bus under volt	14	BUS voltage is lower than normal.	• Check the input mode setting is correct. • Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
Bus over volt	15	BUS voltage is over maximum value.	• Check the input mode setting is correct. • Restart the inverter and wait until it functions normally.
INV over cur	16	The inverter current exceeds the normal value.	• Restart the inverter and wait until it functions normally.
Cha over cur	17	Battery charge current over than the inverter maximum voltage.	• Restart the inverter and wait until it functions normally.
Meter comm fail	18	Meter comm fail.	• Check whether the meter communication line is connected correctly.
INV under volt	19	INV voltage is abnormal.	• Check if the INV voltage is abnormal. • Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
INV over volt	20		
INV freq abnor	21	INV frequency is abnormal.	• Check if the INV frequency is abnormal. • Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
IGBT temp high	22	The inverter temperature is higher than the allowed value.	• Cut off all the power of the inverter and wait one hour, then turn on the power of the inverter.
Bat over temp	23	Battery temperature is higher than the allowed value.	• Disconnect the battery and reconnect it after an hour.
Bat under temp	25	Battery temperature is low than the allowed value.	• Check the ambient temperature near the battery to see if it meets the specifications.
Relay open circuit	26	Grid side relay open circuit detection.	• Used to detect whether the relay on the power grid side is disconnected due to a fault.

Content	Codes	Explanation	Solutions
BMS comm.fail	28	Communication between lithium battery and inverter is abnormal.	• Check the cable, crystal, Line sequence. • Checking the battery switch.
Fan fail	29	Fan fail.	• Check whether the inverter temperature is abnormal. • Check whether the fan runs properly. (If you can see it)
Grid over load	30	Power of EPS load too large.	• Reduce the power of the EPS load, thereby reducing the power of the grid.
Grid phase err	31	The grid fault phase.	• Check power grid wiring.
Arc fault	32	PV arc fault.	• Check photovoltaic panels, PV wire. • Contact customer service if error warning continues.
Bus soft fail	33	Hardware may be damaged and need to troubleshoot the cause.	• Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
INV soft fail	34		
Bus short	35		
INV short	36		
Fan fault	37	Fan fault.	• Check whether the inverter temperature is abnormal. • Check whether the fan runs properly. (If you can see it)
PV iso low	38	PV iso low.	• Check if the PE line is connected to the inverter and is connected to the ground. • Contact customer service if error warning continues.
Bus relay fault	39	The inverter may be damaged.	• Restart the inverter and wait until it functions normally. • Contact customer service if error warning continues.
Grid relay fault	40		
EPS rly fault	41		
Gfci fault	42		
Self test fail	45		
System fault	46		
Current DC over	47		
Voltage DC over	48		

- If an error occurs that is not listed in the table, Please contact customer service.

6 Technical parameters

6.1 Inverter specification

Table 6-1 Inverter specification

PV input data

Technical data	R12KLNA-P6	R16KLNA-P6
Max. DC input power (kW)	18	24
No. of MPPT trackers	4	
MPPT voltage range (without battery) (V)	120 - 500	
MPPT voltage range (with battery) (V)	120 - 430	
Max. DC input voltage (V)	500	
Max. input current per MPPT (A)	16/16/16/16	20/20/20/20
Max. short current per MPPT (A)	22/22/22/22	25/25/25/25

Battery input data

Technical data	R12KLNA-P6	R16KLNA-P6
Nominal voltage (V)	48	
Max. charging/discharging current (A)	250/260	260/280
Battery voltage range (V)	40-58	
Battery type	Lithium / Lead acid	
Charging controller	3-Stage with equalization	

AC output data (on-grid)

Technical data	R12KLNA-P6	R16KLNA-P6
Nominal output power output to grid (kW)	12	16
Max. apparent power output to grid (kVA)	13.2	17.6
Nominal AC voltage (L-N/L1-L2)	(110~120)/(220~240V) split phase, 240V single phase	
Nominal AC frequency (Hz)	60 (55 to 65)	
Nominal AC current (A)	50	66.7
Max. AC current (A)	55	73.3
Max. grid passthrough current (A)	200	
Output THDI	< 3%	

AC output data (back-up)

Technical data	R12KLNA-P6	R16KLNA-P6
Nominal. apparent power (kW)	12	13
Max. apparent power (No PV) (kVA)	12	13.2
Max. apparent power (With PV) (kVA)	13.2*	
Nominal output voltage (V)	120/240	
Nominal output frequency (Hz)	60	
Output power factor	0.8leading~0.8lagging	
Output THDU	< 2%	

Efficiency

Technical data	R12KLNA-P6	R16KLNA-P6
MPPT efficiency	99.9%	
Europe efficiency (PV)	96.2%	
Max. PV to grid efficiency (PV)	96.5%	
Max. battery to load efficiency	94.6%	
Max. PV to battery charing efficiency	95.8%	
Max. GRID to battery charing efficiency	94.5%	

Protection

Technical data	R12KLNA-P6	R16KLNA-P6
Grounding detection	YES	
Arc fault protection	YES	
Island protection	YES	
Insulation resistor detection	YES	
Residual current monitoring unit	YES	
Output over current protection	YES	
Back-up output short protection	YES	
Output over voltage protection	YES	
Output under voltage protection	YES	

General data

Technical data	R12KLNA-P6	R16KLNA-P6
Operating temperature range (℃)	-25 ~ +60	

Technical data	R12KLNA-P6	R16KLNA-P6
Relative humidity	0-95%	
Operating altitude	0~4000m (Derating above 2000m altitude)	
Ingress protection	IP65/NEMA 3R	
Weight (with breaker) (kg)	56	
Dimensions (width*height*depth) (mm)	495 * 900 * 260	
Cooling	FAN cooling	
Noise emission (approximately)	57dB*	
Display	Touch panel	
Communication with BMS/meter/EMS	RS485, CAN	
Supported communication interface	RS485, 4G (optional), Wi-Fi	
Self-consumption (W)	< 25	
Safety	UL1741, UL1741SA&SB all options, UL1699B, CSA -C22.2 NO.107.1-01, RSD (NEC690.5, 11, 12)	
EMC	FCC Part 15 Class B	
Grid connection standards	IEEE 1547, IEEE 2030.5, HECO Rule 14H, CA Rule 21 Phase I, II, III, CEC, CSIP, SRD2.0, SGIP, OGPe, NOM, California Prob65	

- **13.2*: During daylight hours, the R16KLNA inverter model delivers a maximum AC-side output power of 16kW, calculated as:**

  Battery: 13.2kW + PV (photovoltaic): 2.8kW =16kW.

  At night, the maximum AC-side output power is 13.2kW (attributed to the absence of PV generation at night).

- **57dB*: Test condition: Chamber back ground noise max <16dB.**

7 Other information

For screen parameter settings and other additional information (including maintenance, installation, WIFI/GPRS connection, diesel generator wiring, AC COUPLE wiring, three parallel connections and three-phase wiring, advanced operation modes), please scan the QR code shown below.

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