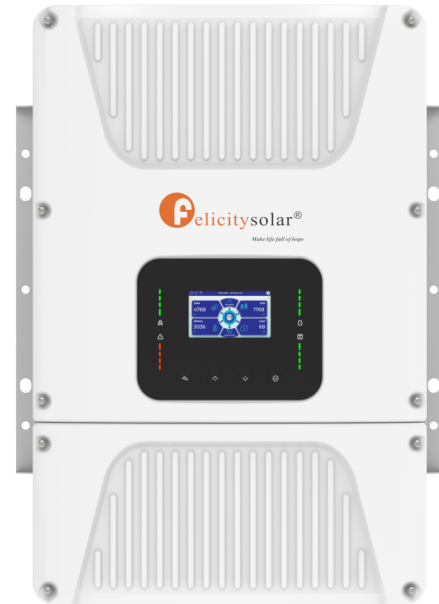


# Quick Installation Guide

## Off-Grid Solar Inverter



358-030055-00

### Disclaimer


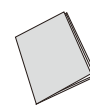
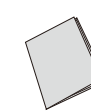

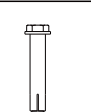
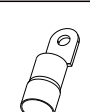

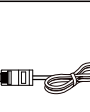
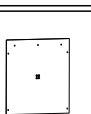
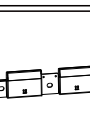

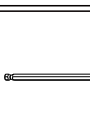
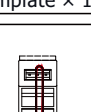


- Please read the user's manual carefully before performing all operations; this installation guide does not supersede the use of the product's user's manual;
- Product information is subject to change without notice. This manual is frequently updated, please contact your salesperson for the latest version.
- After unpacking, please check the product for damages and missing parts.
- Do not open the battery to repair or disassemble. Only Felicitysolar is allowed to carry out any such repairs. Only qualified personnel can install this device with battery.
- In case of fire, use only dry powder fire extinguisher. Liquid extinguishers should not be used.
- Before using the inverter, please read the instructions and warning signs of the battery and corresponding sections in the instruction manual. Improper reassembly may result in electric shock or fire.
- To reduce risk of electric shock, disconnect all wires before attempting any maintenance or cleaning. Turning off the unit will not reduce this risk.
- Never charge a frozen battery.
- Never cause AC output and DC input short circuited. Do not connect to the mains when DC input short circuits.

### Installation Video

You can watch the installation video by scanning the QR code to the right













### Packing List











 Inverter × 1	 User Manual × 1	 Quick Installation Guide × 1	 Warranty Card × 1
 Expansion Screw × 7	 OT Terminals × 10	 OT Terminals × 4	 Parallel Communication Cable × 1
 Mounting Hole Template × 1	 Wall Mount Bracket × 1	 SC-shaped Terminal × 2	 Hex Wrench × 1
 PARA Connector × 1	 NTC × 1	 BMS Communication Cable × 1	

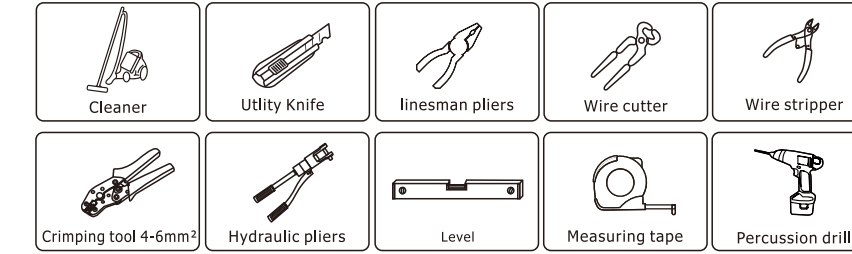
NO.	Name	Description	Quantity
1	Inverter	Inverter	1
2	User Manual	User manual	1
3	Quick Installation Guide	Quick Installation Guide	1
4	Warranty Card	Warranty card	1
5	Expansion Screw	Used for securing the product's wall mount	7
6	OT Terminals	Used for external grounding, AC input, AC output, and generator connection	10
7	OT Terminals	Used for PV connection	4
8	Parallel Communication Cable	Used for multiple parallel machine communication	1
9	Mounting Hole Template	Use to assist the position of wall hangers	1
10	Wall Mount Bracket	Used to fix the inverter to the wall	1
11	SC-shaped terminal	For battery connection	2
12	Hex Wrench	For assisting in front cover removal	1
13	PARA Connector	Used for multiple parallel machine communication	1
14	NTC	Battery temperature sensor	1
15	BMS Communication Cable	For BMS communication with the battery pack	1

### Explanation of the Symbols

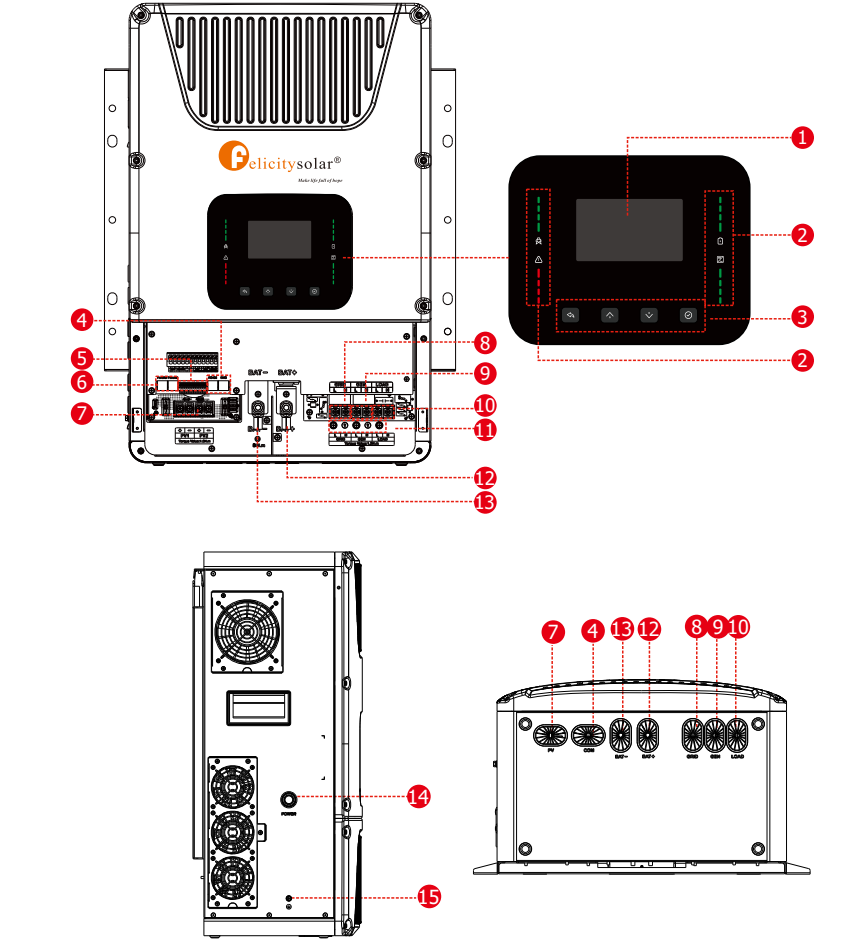
	Danger: Serious physical injury or even death may occur if not follow the relative requirements		Instruction manual: Read the instruction manual before starting installation and operation.
	Warning: Physical injury or damage to the devices may occur if not follow the relative requirements		EU WEEE mark: Product should not be disposed as household waste.
	Hot surface: Sides of the device may become hot. Do not touch!	<b>NOTE</b>	Note: The procedures taken for ensuring proper operation.
	Electrostatic sensitive: Damage may occur if not follow the relative requirements		CE mark: The inverter complies with the CE directive.
	Directive on the restriction of the use of certain hazardous components in electrical and electronic equipment		Earth terminal: The inverter must be reliably grounded.
	Caution: Ensure that DC and AC side circuit breakers have been disconnected and wait at least 5 minutes before wiring and checking.		

### Installations Tools

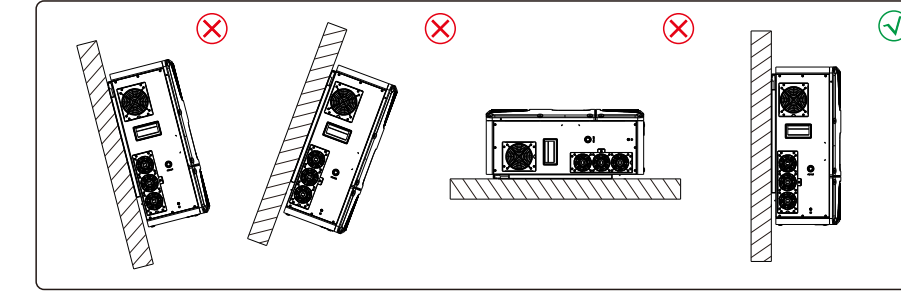


### Product Overview







- |                        |                             |                                  |
|------------------------|-----------------------------|----------------------------------|
| 1. LCD display         | 6. Parallel port            | 11. Ground of LOAD, GRID and GEN |
| 2. Inverter indicators | 7. PV input connection port | 12. BAT+                         |
| 3. Function buttons    | 8. Grid port                | 13. BAT-                         |
| 4. Communication port  | 9. Gen port                 | 14. Power ON/OFF button          |
| 5. Function port       | 10. Load port               | 15. PE                           |





### Installation Environment



Space	Minimum clearance
Lateral	500mm
Top	500mm
Bottom	500mm
Front	1000mm

### LCD Display Icons

Function Key	Icon	Description
ESC		To exit setting mode
Up		To go to previous selection
Down		To go to next selection
Enter		To confirm the selection

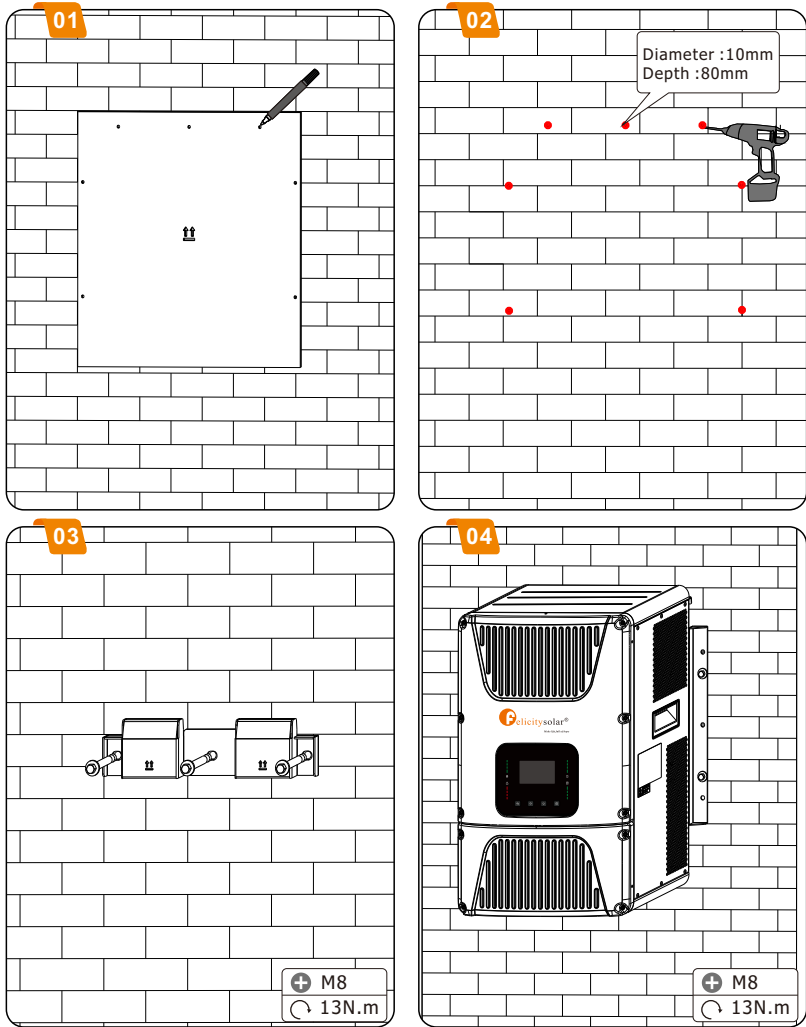
LED Indicator	Icon	Color	State	Description
Battery		Green	solid	The battery is full.
			flashing	The battery is charging.
			dim	The battery is not charged.
Utility		Green	solid	Inverter is running in utility mode.
			dim	Inverter is not running in utility mode.
Inverter		Green	solid	Inverter is running in off-grid mode.
			dim	Inverter is not running in off-grid mode.
Fault		Red	solid	Inverter works in fault event.
			dim	Inverter works normally.

### Buzzer Information

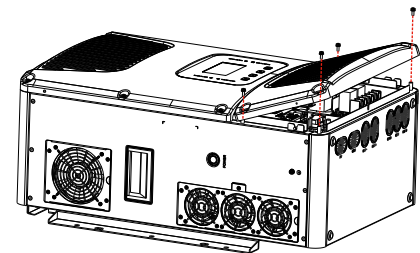
Buzzer beep	When the buzzer is enabled, it will keep beeping if the inverter experiences a fault.
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## Installation Procedure

The inverter is suitable for mounting on concrete or other non-combustible surface only.

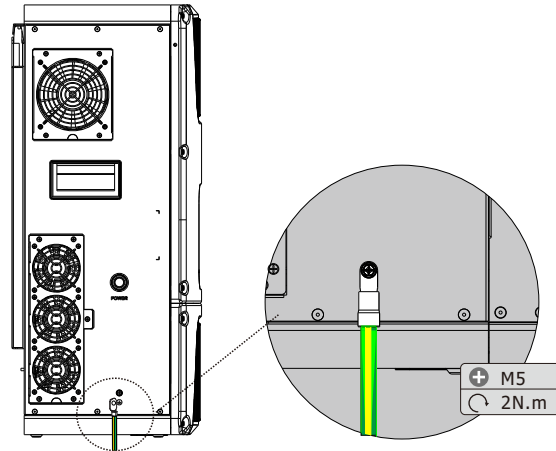


Before connecting the wires, remove the wiring cover by unscrewing the screws as shown below.



## External Grounding Connection

Ground cable shall be connected to ground plate on grid side, this prevents electric shock if the original protective conductor fails.

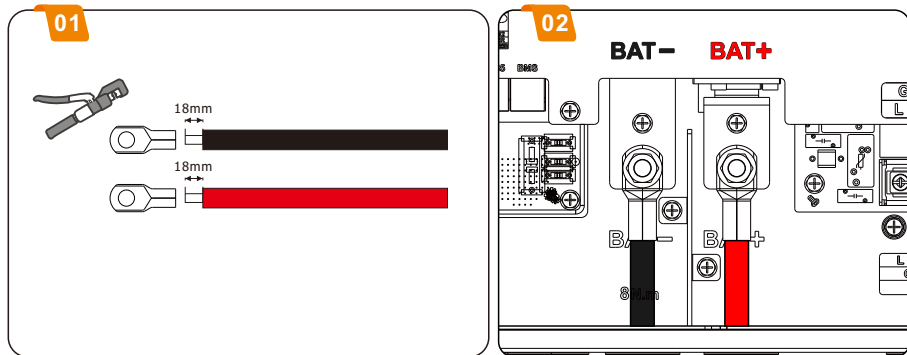


Earth connection (Copper wires)

Wire Size	Cable(mm <sup>2</sup> )	Torque value(max)
5AWG	16.0	2N.m

## Battery Connection

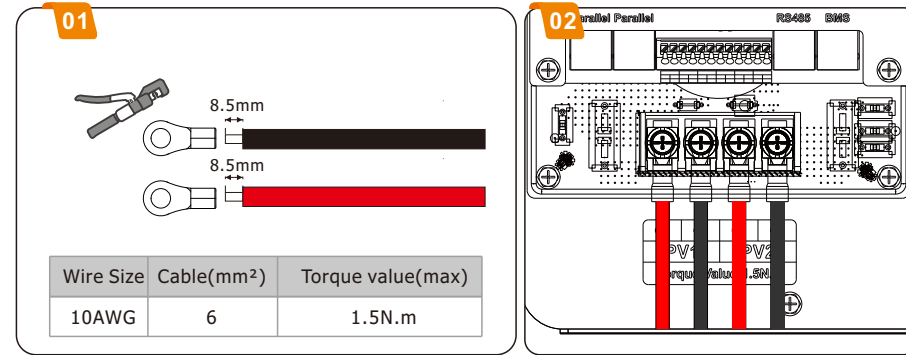
Please be careful about any electric shock or chemical hazard. Make sure there is an external DC breaker connected to the battery without build-in DC breaker. **The recommended wire diameter is single wire diameter.**



Model	Wire Size	Cable(mm <sup>2</sup> )	Torque value(max)
IVPM8048P1G2-PRO	1AWG	40	8N.m
IVPM10048P1G2-PRO	2/0AWG	70	8N.m
IVPM12048P1G2-PRO			

**! The polarity of battery cannot be connected reversely, otherwise the inverter could be damaged.**

## PV Connection

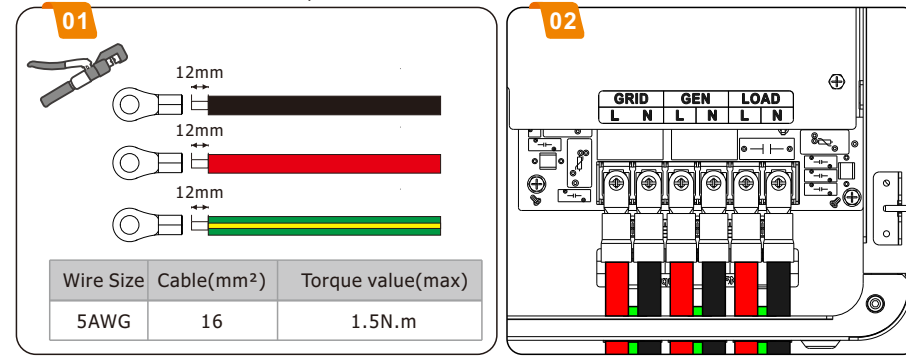


**! The polarity of PV cannot be connected reversely, otherwise the inverter could be damaged.**

## Grid, Load and Gen Port Connection

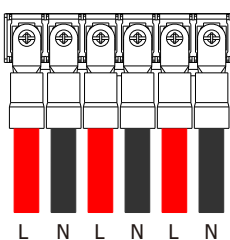
**! Make sure the inverter is totally isolated from any DC or AC power before connecting AC cable.**

An external AC breaker is needed for on-grid connection to isolate from grid when necessary. Recommended AC circuit breaker parameters are 100A/400V.



GRID GEN LOAD  
L N L N L N

Ground of LOAD, GRID and GEN



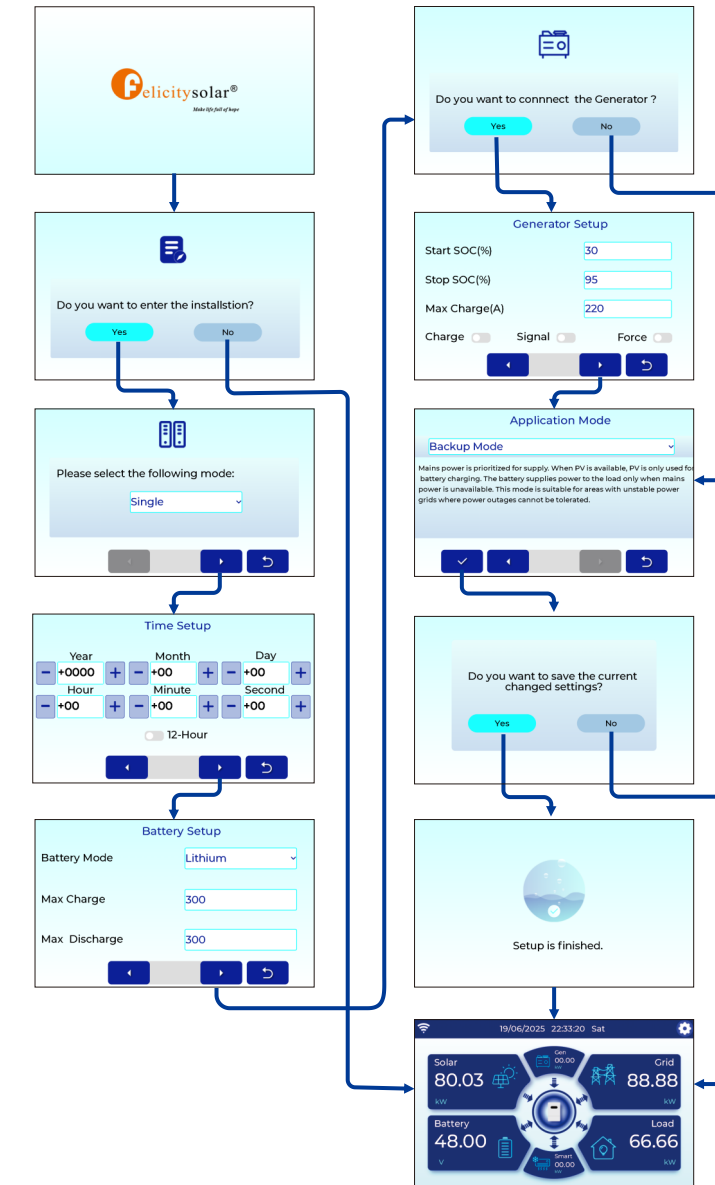
**! Make sure that the corresponding L line, N line and PE line are connected to the corresponding terminals, otherwise, it will cause damage to the inverter.**

## Power-on Instructions

Profile Wizard

The Profile Wizard is useful for rapid setup of multiple parameters including Output Mode, Time Setup, Battery Setup, Generator Setup, and Application Mode.

### Power on the inverter



## Environmental Specifications

Specification	Value
Rated Temperature Range (meets component specifications; however, please note that the inverter output wattage is derated above 25 °C)	-10°C to +55°C
Operational Temperature Range (functions, but not rated for operation; does not necessarily meet all component specifications)	-10°C to +55°C
Storage Temperature Range	-15°C to +60°C
IP (ingress Protection) Rating of Enclosure	IP21
Environmental Category	indoor, Unconditioned
Wet Locations Classification	Wet locations: No
Relative Humidity Rating	10% to 90% Relativ Humidity
Pollution Degree Classification	PD 2
Maximum Altitude Rating	2000 m
Oversvoltage Category (AC input)	2
Oversvoltage Category (DC input)	2

All inverters can deliver their full rated wattage at temperatures up to 25°C. The IVPM8048P1G2-PRO / IVPM10048P1G2-PRO / IVPM12048P1G2-PRO maximum wattage is rated less in higher temperatures. Above 25°C, the IVPM8048P1G2-PRO / IVPM10048P1G2-PRO/IVPM12048P1G2-PRO is derated by a factor of 150 VA for every increase of 1°C. The IVPM8048P1G2-PRO / IVPM10048P1G2-PRO/IVPM12048P1G2-PRO is derated by 100 VA per 1°C. This derating applies to all power conversion functions (inverting, charging, etc.)

**! IMPORTANT:**  
This inverter is intended for indoor use only. Failure to adequately protect the inverter will void the warranty

## Installation of Wifi module

For detailed instructions on how to install WIFI Module, you can scan the QR code to the right to view the WIFI Module installation instructions.



## User Manual

User Manual in the QR code or at <https://www.felicitysolar.com/>