Open Energy for All

vietnamsolar.vn



Three-phase Hybrid Inverter

Quick Installation Guide

HIT-5L-G3
HIT-6L-G3
HIT-8L-G3
HIT-10L-G3
HIT-12L-G3
HIT-15L-G3
HIT-17L-G3
HIT-20L-G3

1 General Declaration

- The information in this quick installation guide is subject to change due to product updates or other reasons.
- This guide cannot replace the product labels or the safety precautions in the user manual unless otherwise specified. All descriptions here are for guidance only.
- Before installations, read through the quick installation guide and the user manual to learn about the product and the precautions.
- All installations should be performed by trained and knowledgeable technicians who are familiar with local standards and safety regulations.
- Check the deliverables for correct model, complete contents, and intact appearance. Contact the manufacturer if any damage is found or any component is missing.
- Use insulating tools and wear personal protective equipment when operating the equipment to ensure personal safety. Wear anti-static gloves, clothes, and wrist strip when touching electron devices to protect the inverter from damage. The manufacturer shall not be liable for any damage caused by static electricity.
- Strictly follow the installation, operation, and configuration instructions in this guide and user manual. The manufacturer shall not be liable for equipment damage or personal injury if you do not follow the instructions.
- All cables in this article are copper cables.
- EU Declaration of Conformity

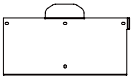
  Hoymiles Power Electronics Inc. hereby declares that Hoymiles Energy Storage Inverter (model: HIT-5/6/8/10/12/15/17/20L-G3) is in compliance with the essential requirements and other relevant provisions of directives 2014/30/EU, 2014/35/EU, 2011/65/EU, (EU) 2015/863, and 2012/19/EU.

  The original EU Declaration of Conformity may be found at *https://www.hoymiles.com*.

	Caution Failure to observe any warnings may result in injury.		CE mark.
	Danger to life due to high voltage.		Do not dispose of the inverter as household waste.
	Hot surface Burn danger due to hot surface that may exceed 60 °C.	RoHS	RoHS mark.
	After the inverter is turned off, wait for at least 5 minutes before opening the inverter or touching live parts.		Observe the documentation.

2 Packing List


Inverter*1


Bracket*1


Expansion Screw*4

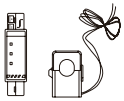

Ground Terminal*1


Screw M5*2


Magnetic Ring*1
(for Battery)


Magnetic Ring*3
(for PV, EPS, and Grid)


Communication Cable (5 m)*1


Smart Meter*1
CT*3

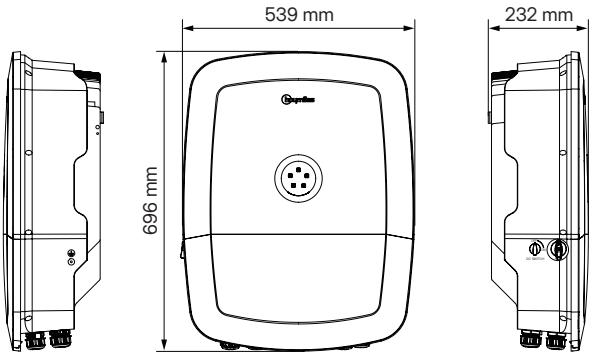

DTS*1
Optional (Wi-Fi, WL, 4G)

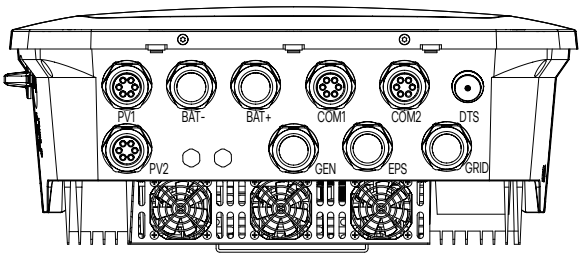

Battery Temperature Sensor*1



Document*1

3 Product Appearance

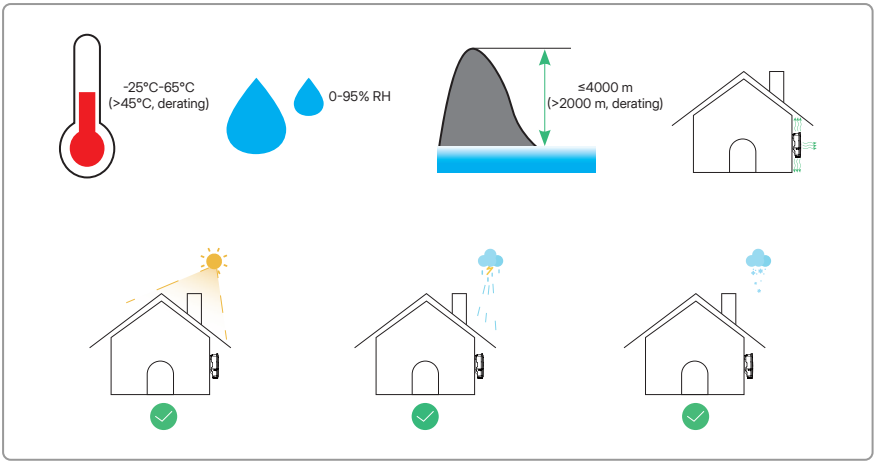




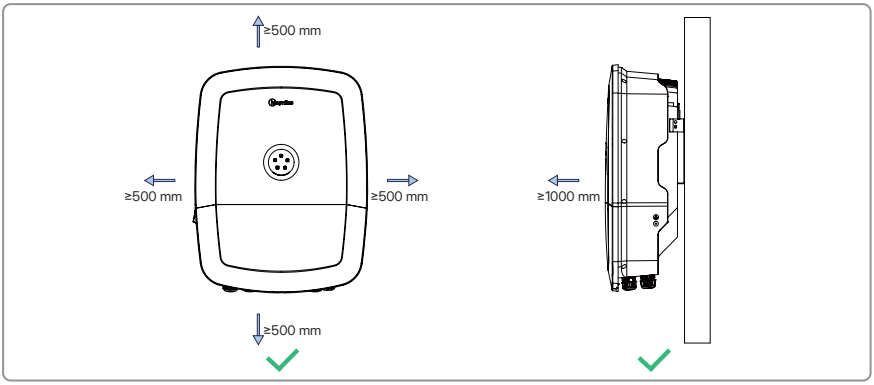
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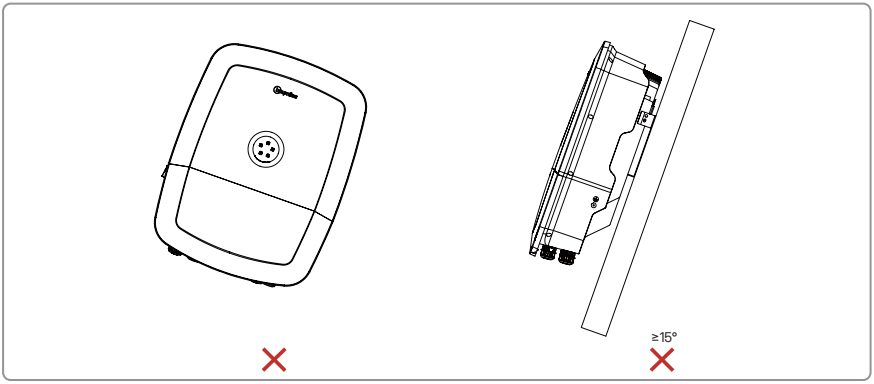
4 Installation Instruction

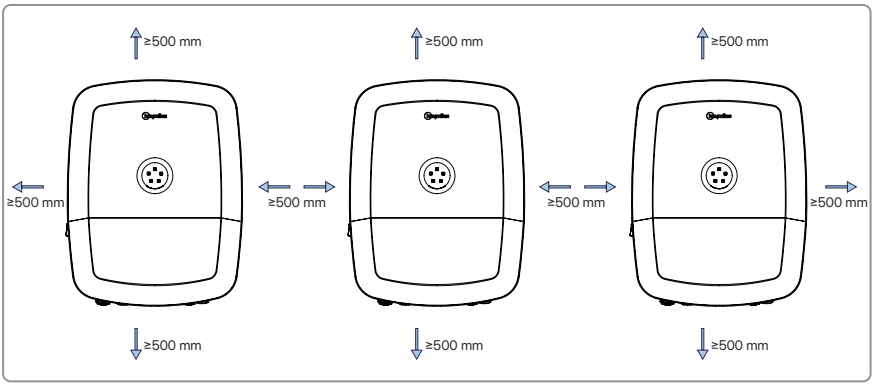
Environmental Requirements



Space Requirements





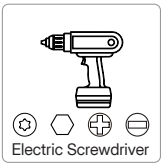


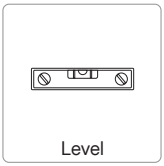
Installation Tools

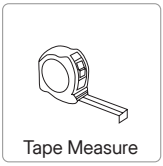

Hammer Drill

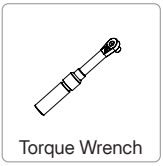

Marker


Hammer


Electric Screwdriver


Level

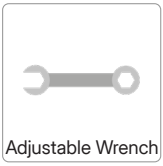

Tape Measure


Torque Wrench


Wire Stripper


Network Cable Crimper


OT Terminal Crimping Tool


Adjustable Wrench


Protective Goggles

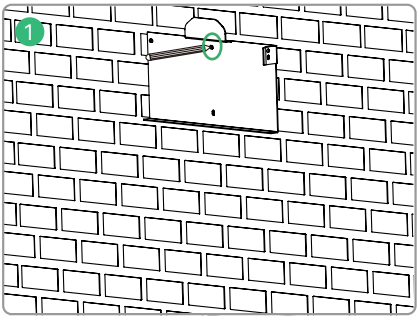

Dust Mask

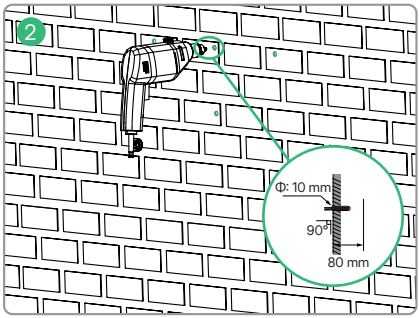

Safety Gloves

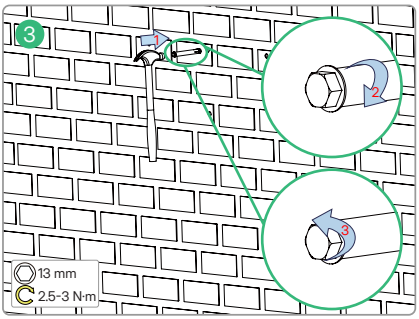

Safety Shoes

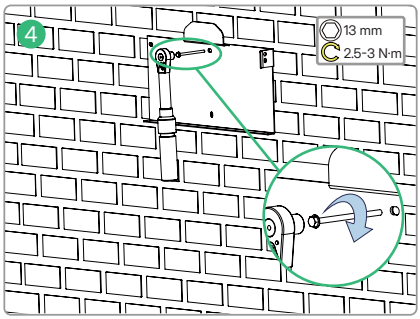
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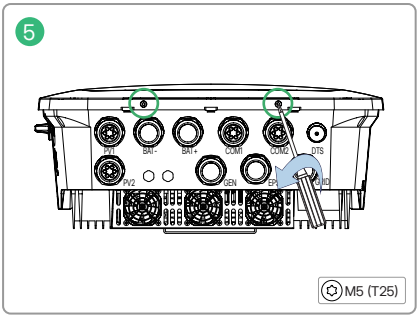
Installation Steps

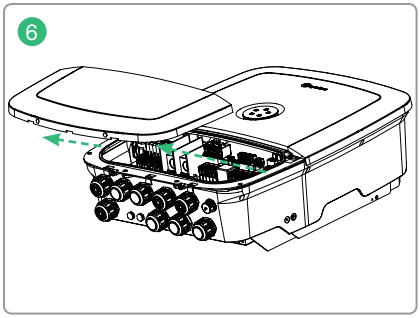


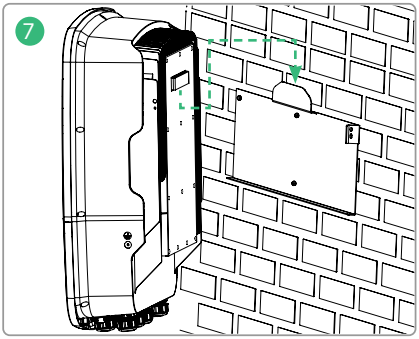


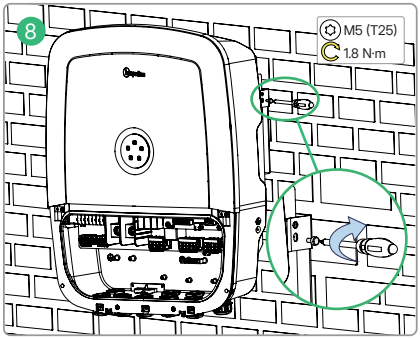




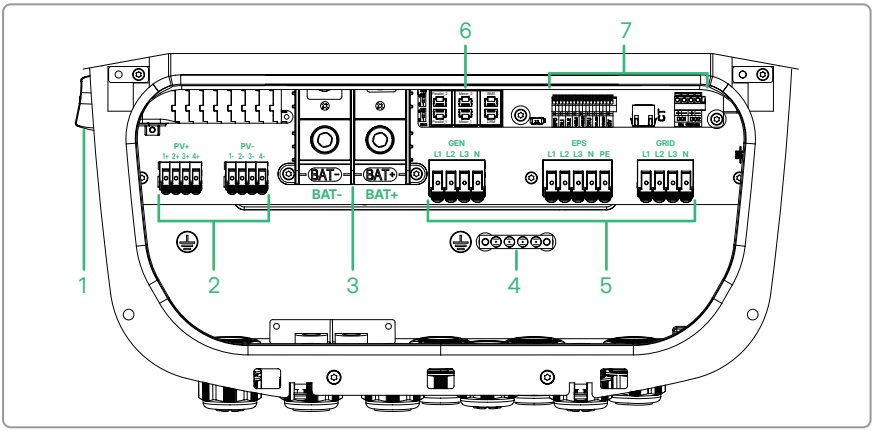








5 Electrical Connection



NO.	Description
1	DC Switch
2	PV Terminals
3	Battery Terminals
4	Grounding Bar
5	AC Terminals
6	Communication Terminals (COM1)
7	Communication Terminals (COM2)

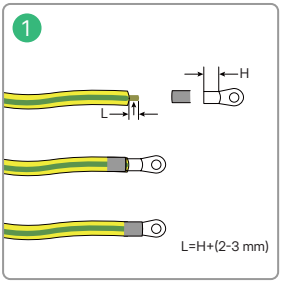
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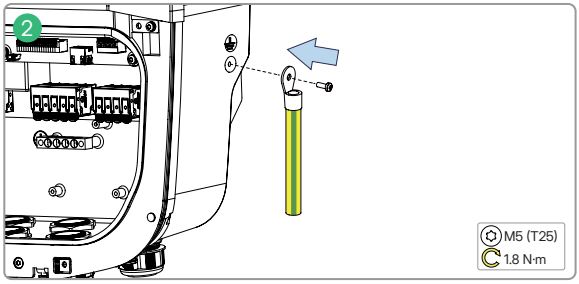
Step 1 Ground Cable Connection

Cable (90°C, Copper)	Recommended Specification (mm²)				Stripping Length (mm)
	HIT-5L-G3	HIT-6L-G3	HIT-8L-G3	HIT-10L-G3	HIT-5/6/8/10L-G3
Ground	2.5-4	2.5-4	2.5-4	2.5-4	10

Cable (90°C, Copper)	Recommended Specification (mm²)				Stripping Length (mm)
	HIT-12L-G3	HIT-15L-G3	HIT-17L-G3	HIT-20L-G3	HIT-12/15/17/20L-G3
Ground	2.5-4	2.5-4	4-6	4-6	10

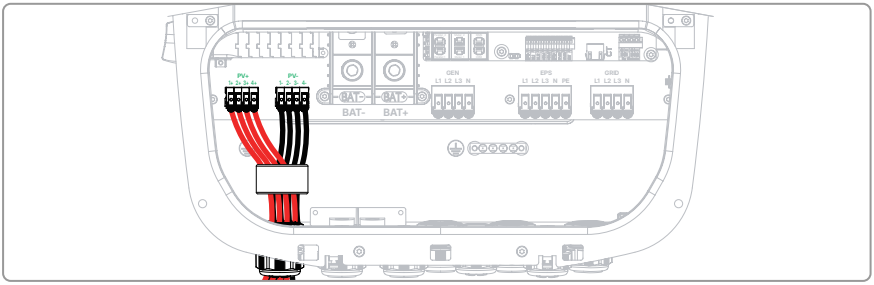
Cable (Bypass) (90°C, Copper)	Recommended Specification (mm²)	Stripping Length (mm)
	HIT-5/6/8/10/12/15/17/20L-G3	HIT-5/6/8/10/12/15/17/20L-G3
Ground	10	10

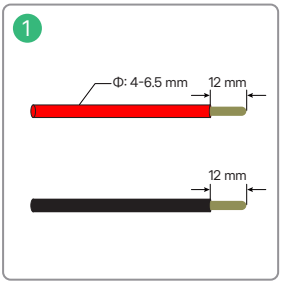


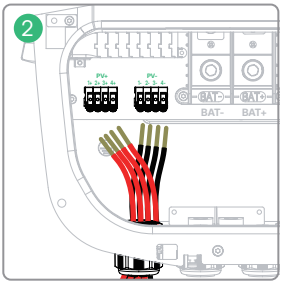


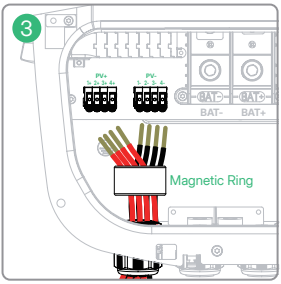
Step 2 PV Cable Connection

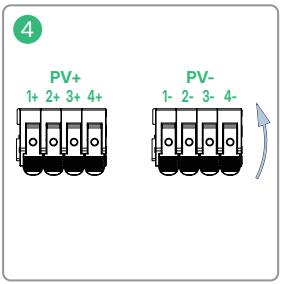
Cable (90°C, Copper)	Recommended Specification (mm²)	Stripping Length (mm)
	HIT-5/6/8/10/12/15/17/20L-G3	HIT-5/6/8/10/12/15/17/20L-G3
PV	2.5-4	12

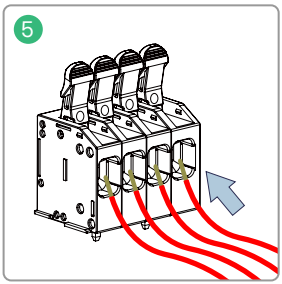


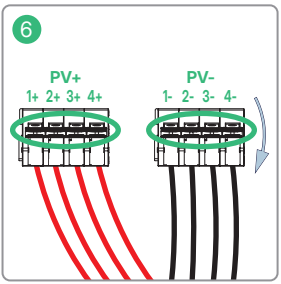












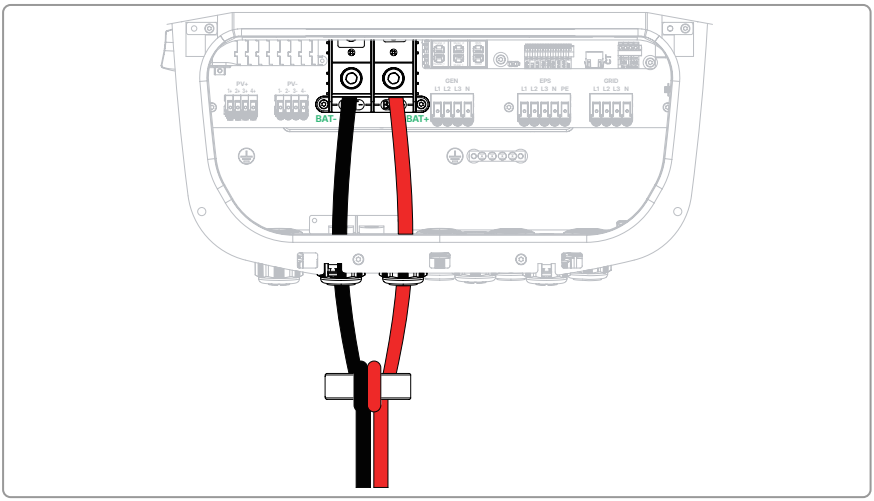
Note: There are rubber plugs at the bottom of the cable glands. To ensure sealing performance, remove the rubber plugs based on the actual number of cables.

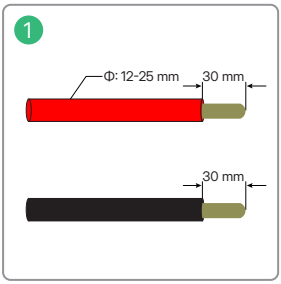
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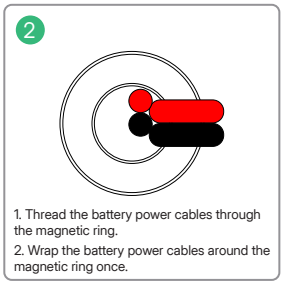
Step 3 Battery Cable Connection

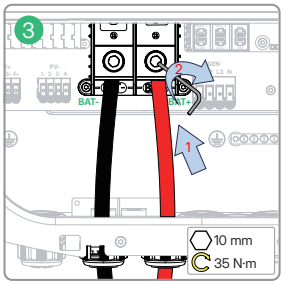
Cable (90°C, Copper)	Recommended Specification (mm²)				Stripping Length (mm)
	HIT-5L-G3	HIT-6L-G3	HIT-8L-G3	HIT-10L-G3	HIT-5/6/8/10L-G3
Battery	25-50	50-70	70-95	70-95	30

Cable (90°C, Copper)	Recommended Specification (mm²)				Stripping Length (mm)
	HIT-12L-G3	HIT-15L-G3	HIT-17L-G3	HIT-20L-G3	HIT-12/15/17/20L-G3
Battery	95-120	120-150	150	150	30









Step 4 AC Cable Connection

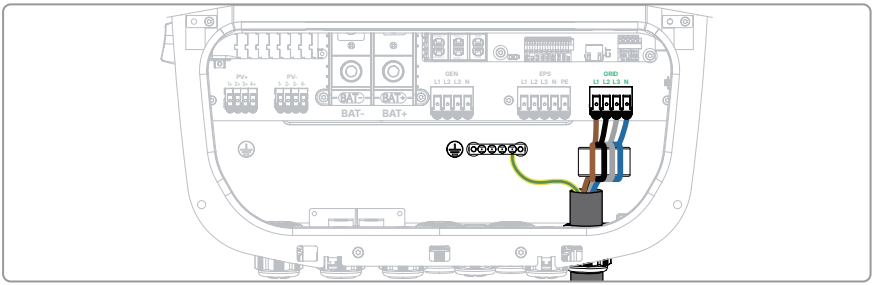
Cable (90°C, Copper)	Recommended Specification (mm²)				Stripping Length (mm)
	HIT-5L-G3	HIT-6L-G3	HIT-8L-G3	HIT-10L-G3	HIT-5/6/8/10L-G3
GRID/EPS/GEN	2.5-4	2.5-4	2.5-4	2.5-4	18

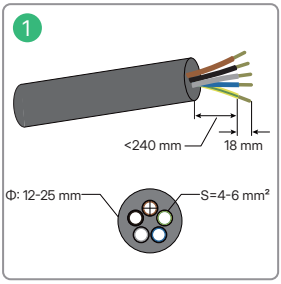
Cable (90°C, Copper)	Recommended Specification (mm²)				Stripping Length (mm)
	HIT-12L-G3	HIT-15L-G3	HIT-17L-G3	HIT-20L-G3	HIT-12/15/17/20L-G3
GRID/EPS/GEN	2.5-4	2.5-4	4-6	4-6	18

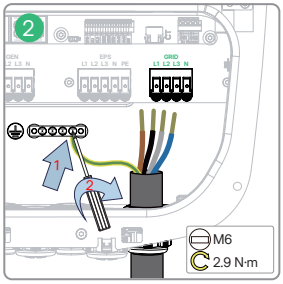
Cable (Bypass) (90°C, Copper)	Recommended Specification (mm²)	Stripping Length (mm)
	HIT-5/6/8/10/12/15/17/20L-G3	HIT-5/6/8/10/12/15/17/20L-G3
GRID/EPS	10	18

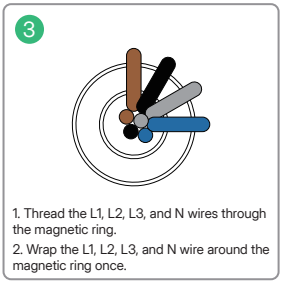
Taking ***HIT-20L-G3*** as an example:

Grid Connection

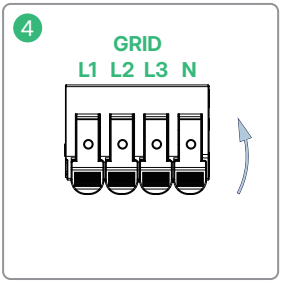


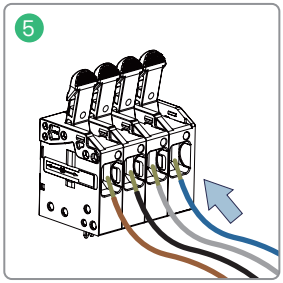


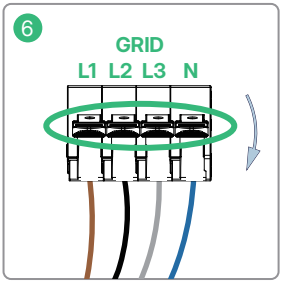




1. Thread the L1, L2, L3, and N wires through the magnetic ring.
2. Wrap the L1, L2, L3, and N wire around the magnetic ring once.

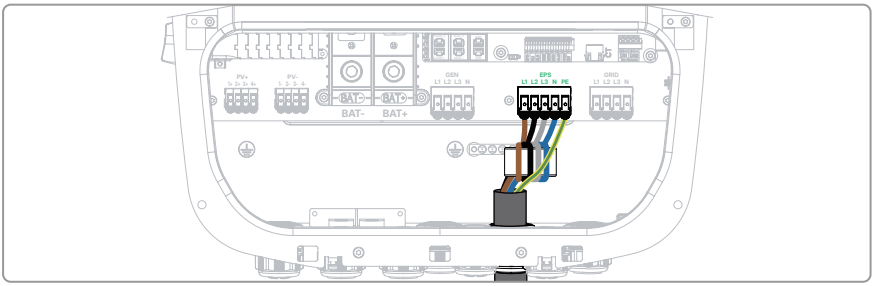




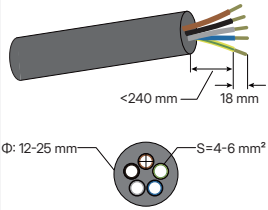


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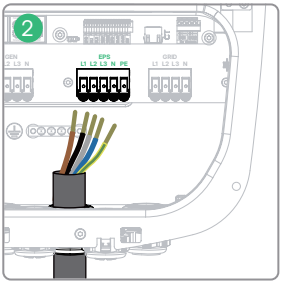
EPS Connection



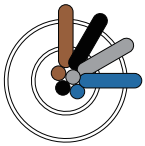
1



2

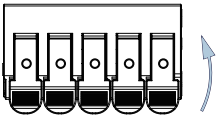


3

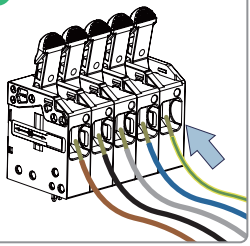


1. Thread the L1, L2, L3, and N wires through the magnetic ring.
2. Wrap the L1, L2, L3, and N wire around the magnetic ring once.

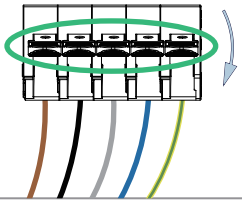
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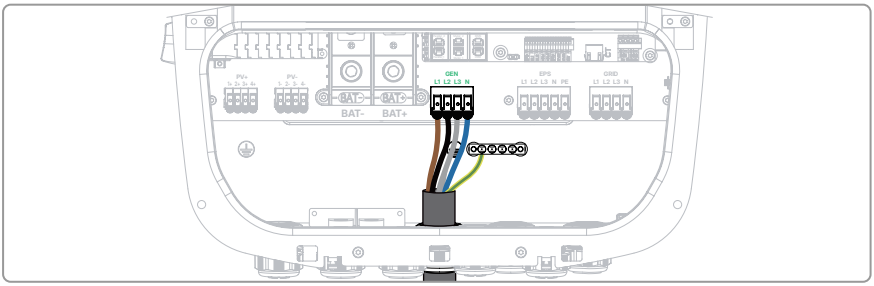
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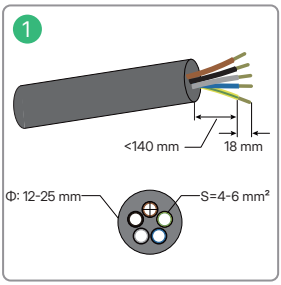


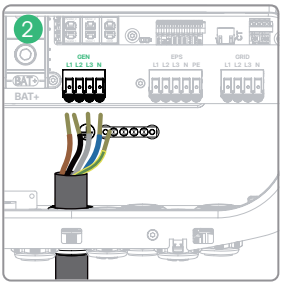
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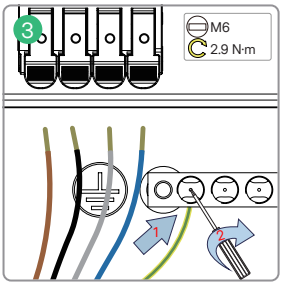


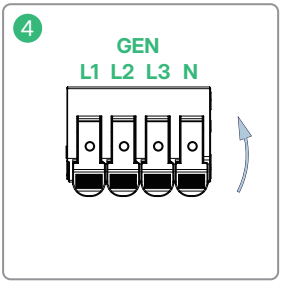
GEN Connection

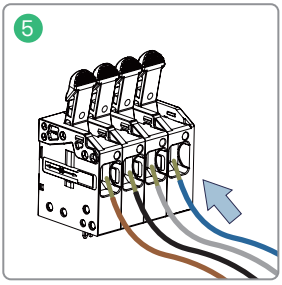


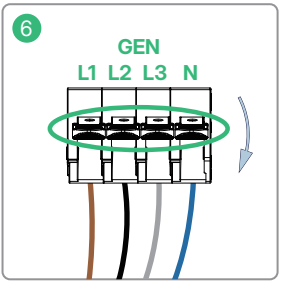








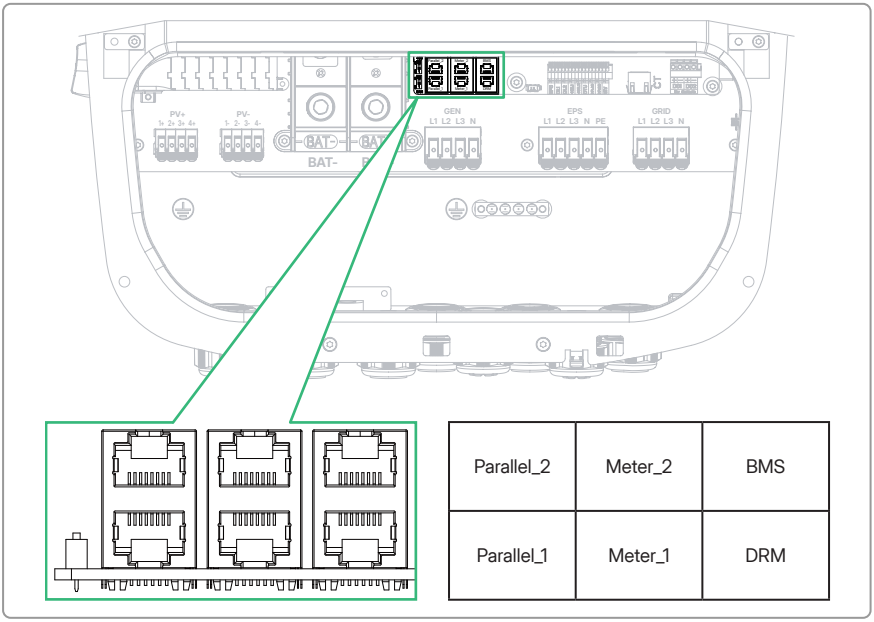




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Step 5 Communication Cable Connection

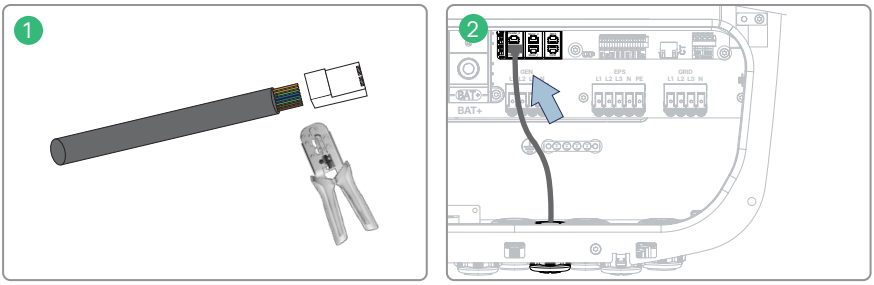
COM1 Connection



Parallel_2	Meter_2	BMS
Parallel_1	Meter_1	DRM

Terminal	PIN	Definition							
		1	2	3	4	5	6	7	8
Parallel		NC	GND	CANH	CANL	RXD	TXD	485B	485A
Meter		NC	NC	NC	485A	485B	GND	NC	NC
BMS		NTC+	GND	NTC-	CANH	CANL	GND	NC	NC
DRM		DRM1/5	DRM2/6	DRM3/7	DRM4/8	REF	COM	NC	NC

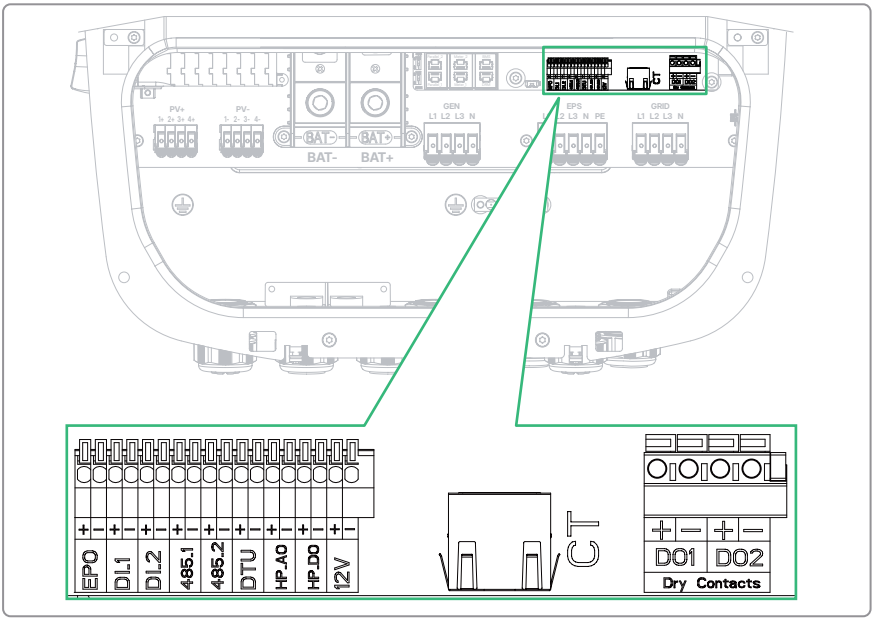
Taking parallel connection as an example:



Note: There are rubber plugs at the bottom of the cable gland. To ensure sealing performance, remove the rubber plugs based on the actual number of cables.

COM2 Connection

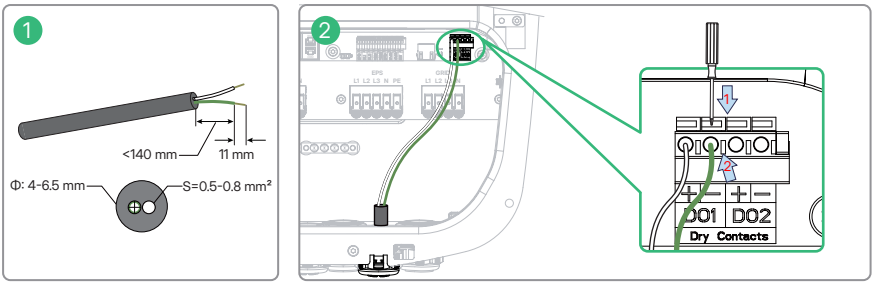
Cable (90°C, Copper)	Recommended Specification (mm²)	Stripping Length (mm)
	HIT-5/6/8/10/12/15/17/20L-G3	HIT-5/6/8/10/12/15/17/20L-G3
COM2	0.5-0.8	11



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Label	Definition
EPO	For external Emergency Power Off switch.
DI_1 (IN+, IN-)	Reserved dry contact input.
DI_2 (IN+, IN-)	Dry contact input of external bypass contactor.
485_1	For the EV charger control.
485_2	For the third-party control and VPP operation.
DTU	For DTU communication.
HP_AO	For analog output heat pump control.
HP_DO	For SG Ready heat pump control.
12V	(Optional) For SG Ready heat pump control.
DO1 (NO1, COM1)	Dry contact output. The DO1 can be set to one of the functions as follows: Earth Fault Alarm, Load Control, and Generator Control.
DO2 (NO2, COM2)	Dry contact output. The DO2 will control the bypass contactor under certain logic.

Taking DO1 connection as an example:



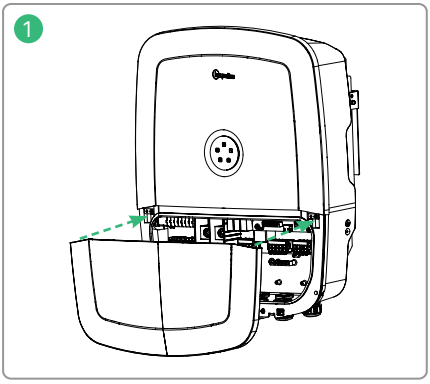
Note: There are rubber plugs at the bottom of the cable gland. To ensure sealing performance, remove the rubber plugs based on the actual number of cables.

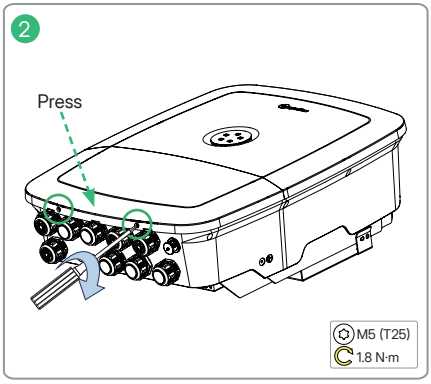
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Step 6 Installing the Wiring Box Cover

1. Put back the wiring box cover.

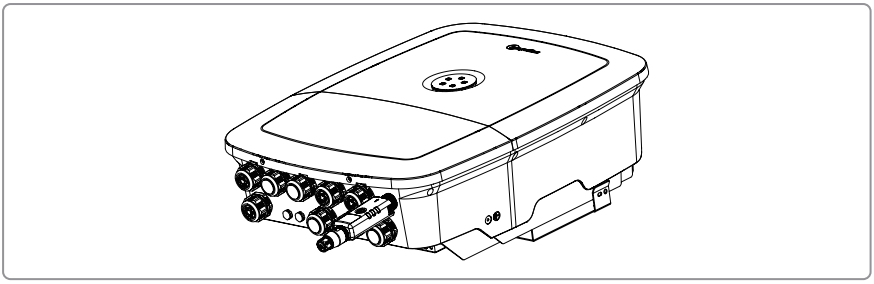
2. Press the bottom of the wiring box cover to align the screw holes, and tighten the screws.

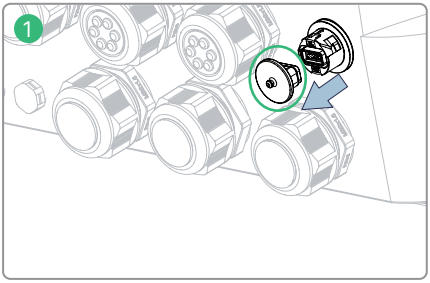


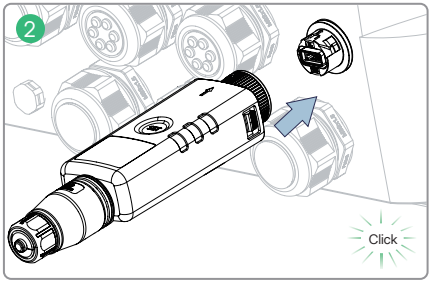


Step 7 Data Transfer Stick (DTS) Connection

Wi-Fi Mode



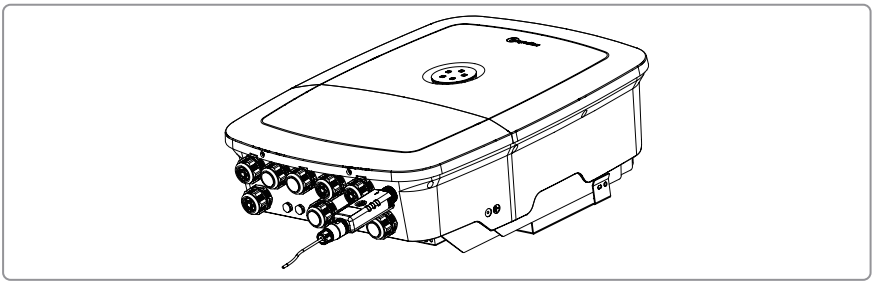


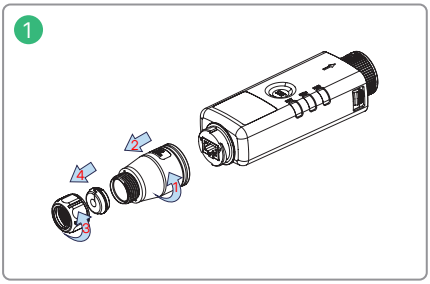


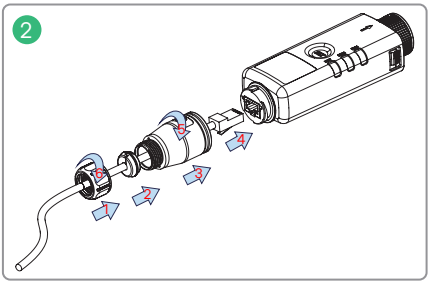
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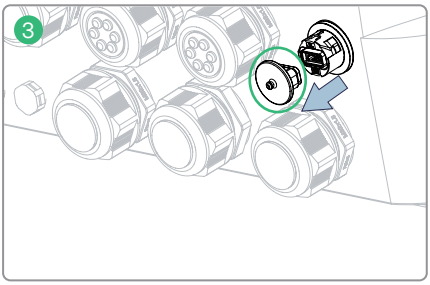
LAN Mode

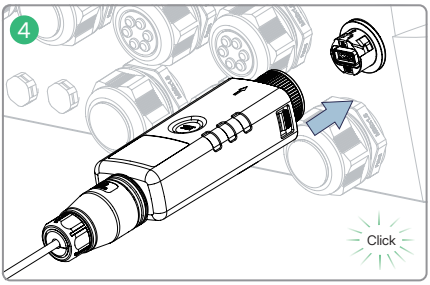
This mode is only applicable to DTS-WL-G3, and the DTS and router are connected via LAN cable.











6 System Power-on

Step 1 If the inverter is connected to the battery, turn on the battery power switch and DC breaker.

Step 2 Turn on the AC breaker between the inverter and the grid.

Step 3 Rotate the DC switch to "ON" if the inverter is connected to the PV strings.

Step 4 Check whether the inverter is operating properly through the inverter indicators status.

Indicator		Status		Explanation
	State		Solid blue	Normal System Operation
			Solid red	System Fault
			Off	Power Off
	PV		Solid blue	Normal
			Off	No PV Power
	AC		Solid blue	On-grid Mode
			Flashing blue	Off-grid Mode
			Solid red	Grid Fault
			Off	No Grid Connection
	Meter		Solid blue	Normal
			Solid red	Communication Fault
			Off	No Meter Connection
	Battery		Solid blue	Battery Discharging
			Flashing blue	Battery Charging
			Solid red	Battery Fault
			Off	No BMS Communication
	/		Solid blue	Power On

Note: When all five indicators flash blue, the inverter is being upgraded.

7 Commissioning via Hoymiles App

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