

Low Voltage Battery

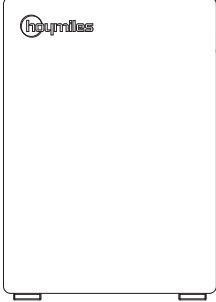
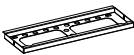
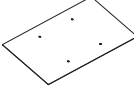






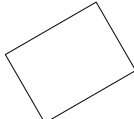
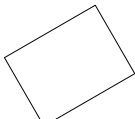
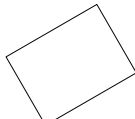
Quick Installation Guide

HBX-5LV-G1
HBX-10LV-G1

1 General Declaration

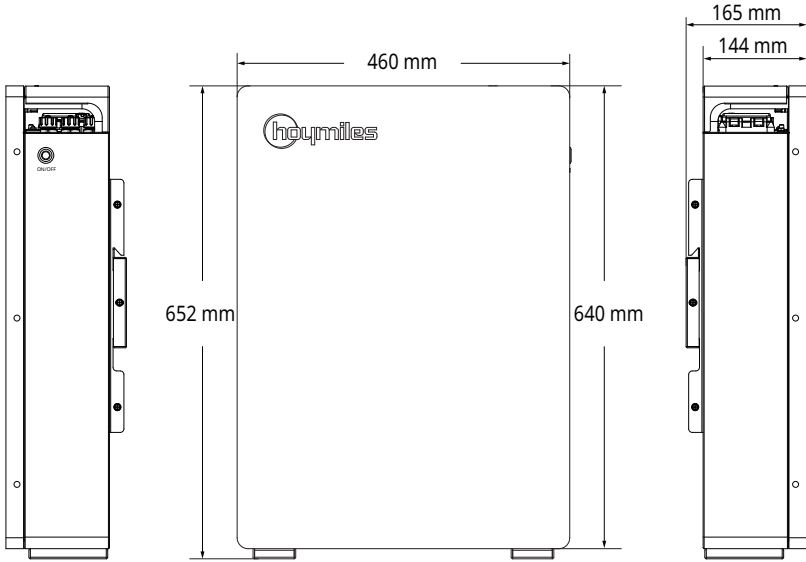
- Read this quick installation guide carefully before installation to learn about product features and safety precautions.
- Only qualified personnel are allowed to install, operate, and maintain the equipment.
- Installers should be well-trained to fully understand grid-connected photovoltaic power systems and national/regional standards.
- Check the deliverables for correct model, complete contents, and intact appearance. Contact the manufacturer if any damage is found or any component is missing.
- Installers must use insulated tools and wear personal protective equipment.
- As required by local regulations, an overcurrent protection and isolation device should be installed between the inverter and the battery, and also among parallel batteries. The cable needs to be prepared by the installer.
- Before installation, ensure that the battery pack is turned off, and any associated circuit breakers and disconnect switches are turned off.
- The information in this quick installation guide is subject to change due to product updates or other reasons.

2 Packing List

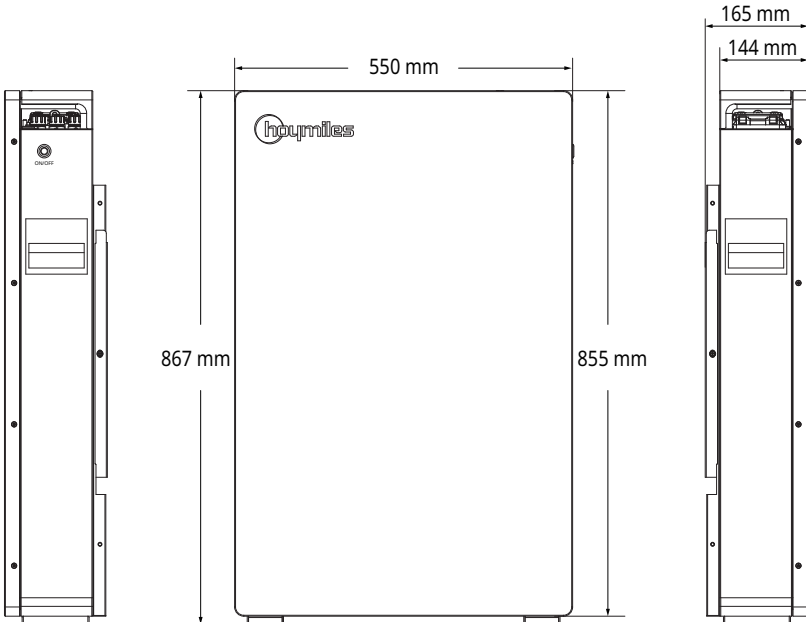
 <p>Battery*1</p>	 <p>Mounting Bracket*1</p>	 <p>Positioning Plate*1</p>	 <p>Power Cable*2</p>
	 <p>Communication Cable*1</p>	 <p>Ground Cable*1</p>	 <p>Expansion Screw M8*80*4</p>
 <p>Screw M5*16*2</p>	 <p>RJ45 Waterproof Terminal*3</p>	 <p>Packing List*1</p>	 <p>Outgoing Inspection Report*1</p>
		 <p>Quick Installation Guide*1</p>	

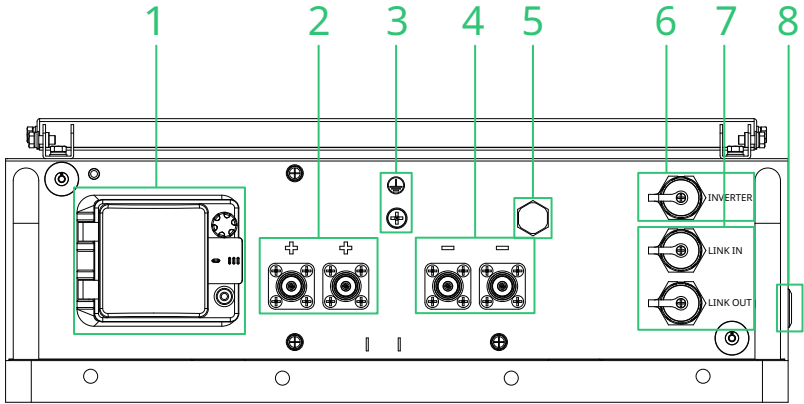
3 Product Overview

HBX-5LV-G1






HBX-10LV-G1





- 1. 125 A DC Breaker
- 2. Positive Terminal
- 3. GND
- 4. Negative Terminal
- 5. Breather Valve
- 6. Inverter Communication Terminal
- 7. Parallel Communication Terminal
- 8. Power Switch

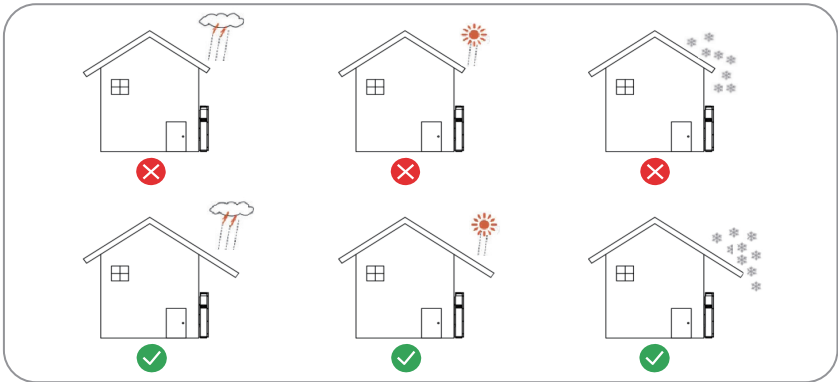
Pin Definition	Description	1	2	3	4	5	6	7	8
	Inverter	NC	RS485-A	RS485-B	CAN-H	CAN-L	GND	NC	NC
	Link In	NC	BMS-RS485-A	BMS-RS485-B	DI+	DI-	NC	BMS-CAN-H	BMS-CAN-L
	Link Out	NC	BMS-RS485-A	BMS-RS485-B	DO+	DO-	NC	BMS-CAN-H	BMS-CAN-L

Cable	Specification	
	HBX-5LV-G1	HBX-10LV-G1
Ground Cable	6 mm ² /10 AWG	6 mm ² /10 AWG
Positive Cable	25 mm ² /4 AWG	35 mm ² /2 AWG
Negative Cable	25 mm ² /4 AWG	35 mm ² /2 AWG
Communication Cable	Standard communication cable	

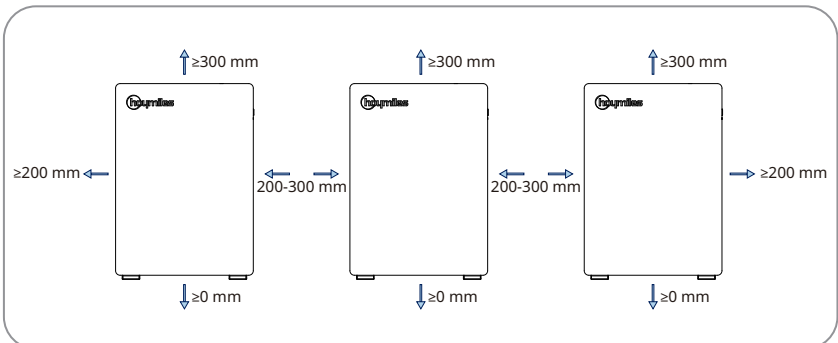
4 Installation Instruction

Environmental Requirements

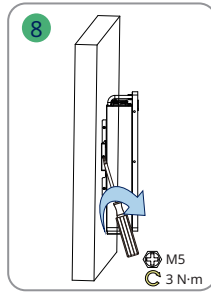
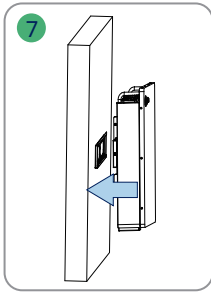
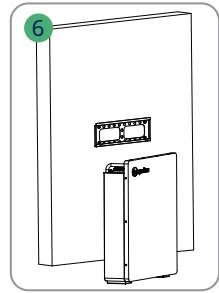
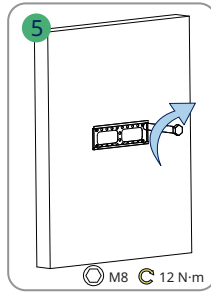
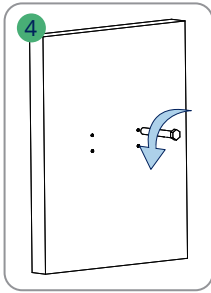
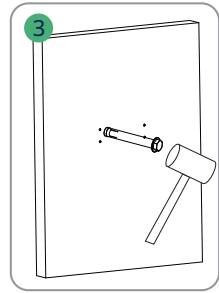
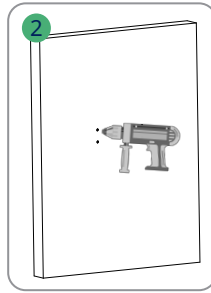
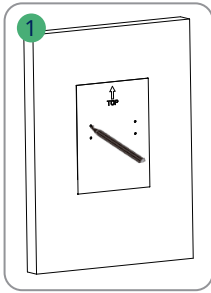
1. The operating temperature should be between -15°C and 55°C .
2. The relative humidity should be less than 95%, without condensing.
3. The altitude should be no more than 2000 m.
4. The product should be installed in an environment with good ventilation and heat dissipation conditions.
5. The product can be installed indoors and outdoors.
6. If the product is installed outdoors, it should meet the following requirements, including but not limited to:
 - a) Avoid direct sunlight.
 - b) Avoid rain, snow, and flood.
 - c) Under the shelter if possible.
7. If the product is installed indoors, it should meet the following requirements, including but not limited to:
 - a) Keep distance from doors, windows, or other batteries.
 - b) Keep away from the heating device.
 - c) Keep away from corrosive chemicals.



Space Requirements

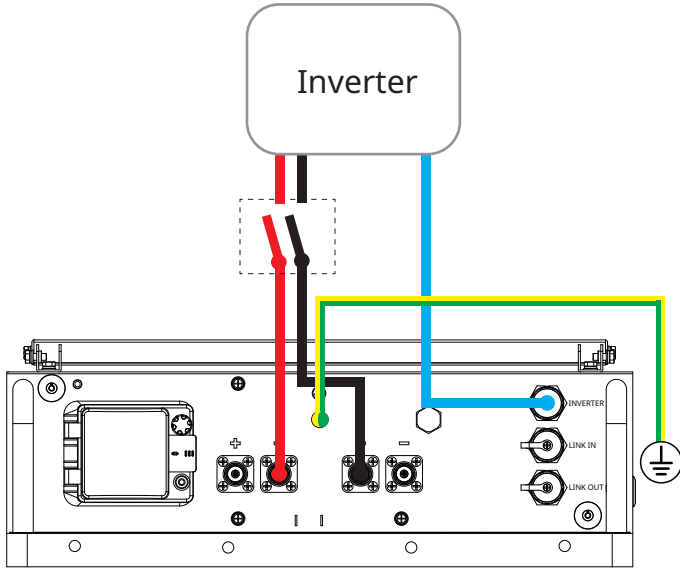


Wall Mounting Steps

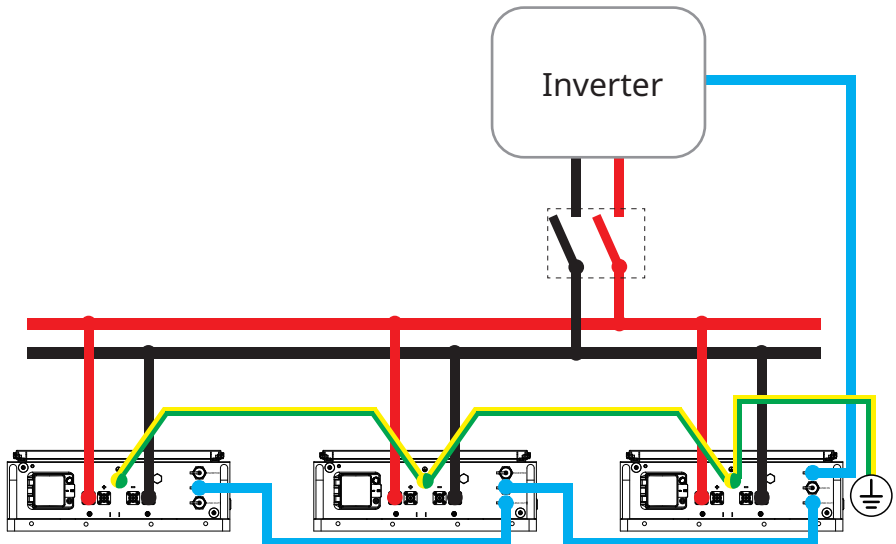


5 System Diagram

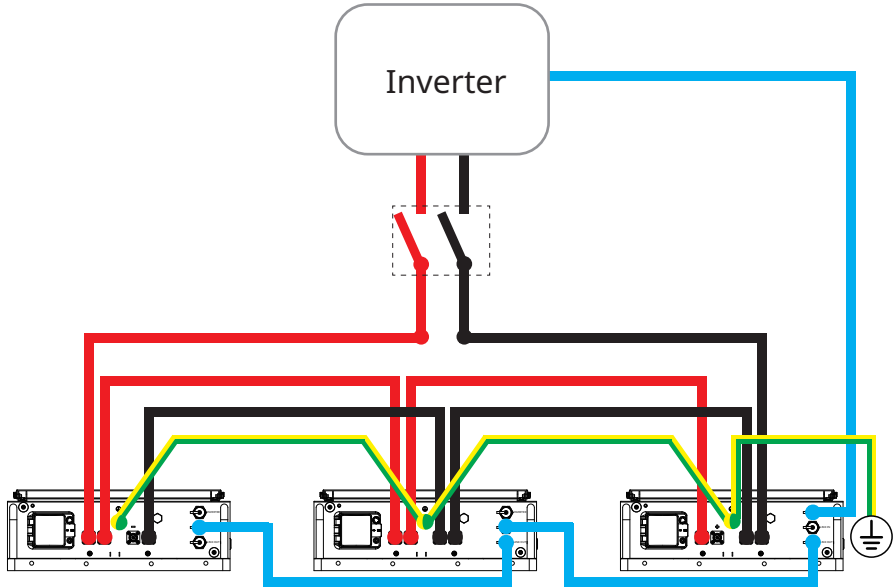
Single Unit



Parallel Connection with Busbar



Parallel Connection without Busbar



- * For parallel connection without busbar, the charge and discharge power of HBX-5LV-G1 must not be more than 3.07 kW; the charge and discharge power of HBX-10LV-G1 must not be more than 6.14 kW.

Overcurrent Protection Requirement

Install an isolation device (i.e., a circuit breaker) between the inverter and the battery system to run both positive and negative conductor overcurrent protection. The steps for installing isolation devices (i.e., circuit breakers) are as follows:

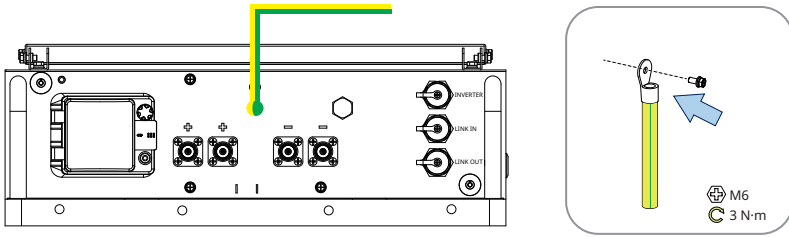
1. For HBX-5LV-G1, use E25-16 terminals to connect the wiring harness to the isolation device; for HBX-10LV-G1, use E35-16 terminals to connect the wiring harness to the isolation device.
2. Insert the wiring harness terminal into the connection port of the isolation device, and distinguish the positive and negative terminals of the isolation device (see the isolation device specifications for details);
3. Tighten the wiring harness terminal with screws to secure it.

Note:

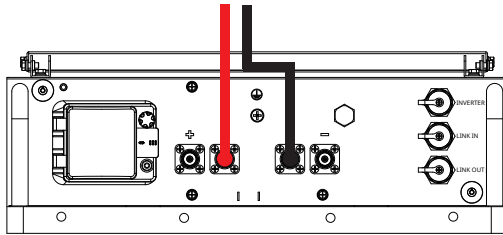
- During installation, please turn off the battery power switch and check whether the power is off. The cable from the circuit breaker to the inverter is provided by the installation personnel. (Please refer to the Product Packaging List for cable specifications).
- For HBX-5LV-G1, circuit breaker selection: DC 60 V, x A ($X = 105 * n * 1.2$) (n is the number of batteries, and x is the calculated value.)
- For HBX-10LV-G1, circuit breaker selection: DC 60 V, x A ($X = 160 * n * 1.2$) (n is the number of batteries, and x is the calculated value.)

6 Electrical Connection

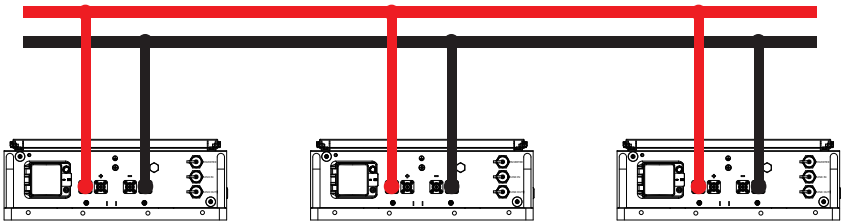
Step 1 Ground Cable Connection



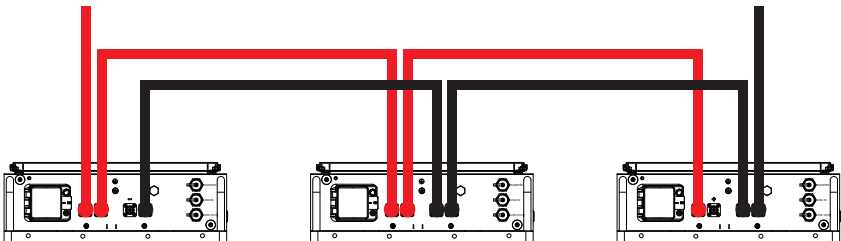
Step 2 Power Cable Connection (Single Unit)



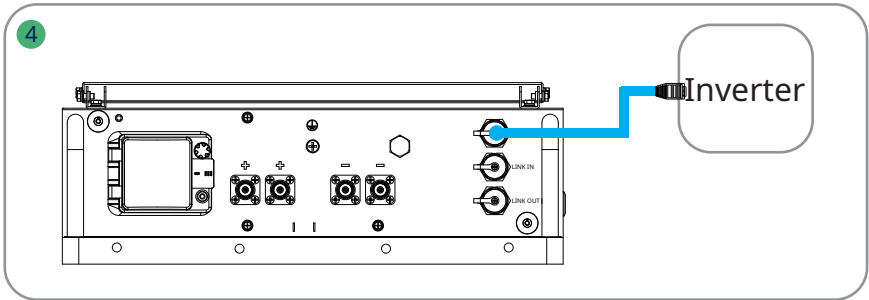
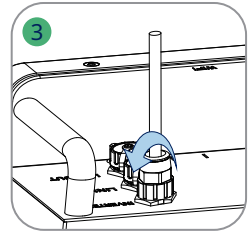
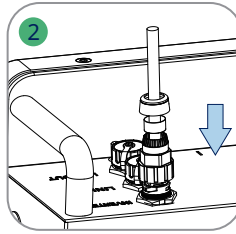
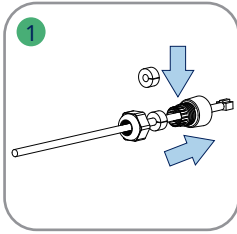
Step 2 Power Cable Connection (Parallel Connection with Busbar)



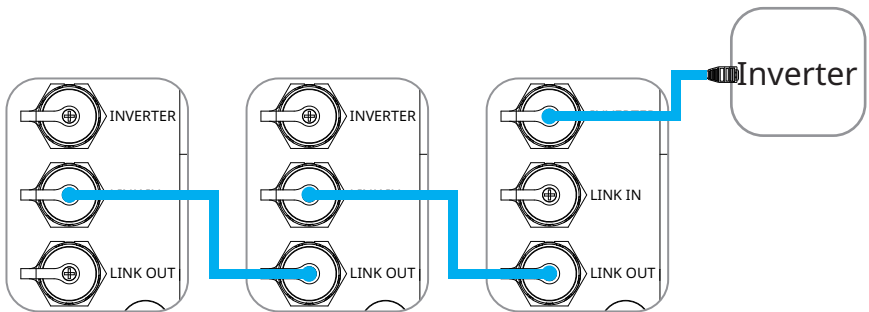
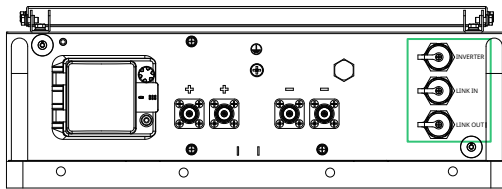
Step 2 Power Cable Connection (Parallel Connection without Busbar)



Step 3 Communication Cable Connection (Single Unit)

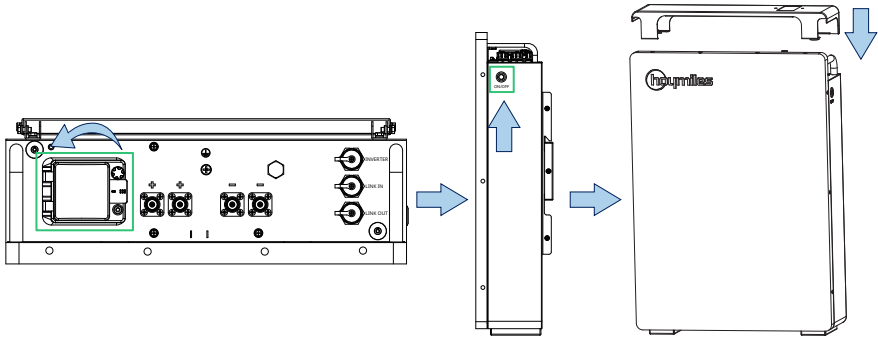


Step 3 Communication Connection (Parallel Connection)



Step 4 Battery Activation

1. Open the cover of the circuit breaker and turn on the circuit breaker.
2. Turn on the power switch. After five seconds, a blue indicator flashes, indicating that the operation is normal.
3. Put back the top cover.



Battery Status	Indicator	Indicator Status
Standby		On for 0.25s; Off for 3.75s.
Charge		On for 0.5s; Off for 1.5s.
Discharge		The indicator stays lit.
Protection Status		On for 0.5s; Off for 0.5s.
Inverter Communication Fault		On for 0.5s; Off for 0.5s.
Parallel Communication Fault		On for 0.25s; Off for 3.75s.
Alarm/Fault		The indicator stays lit.
Shutdown		The indicator is off.



User Manual in the QR code or at
www.hoymiles.com/resources/download/



Hoymiles Power Electronics Inc.

Add: Floor 6-10, Building 5, 99 Housheng Road, Gongshu District,
Hangzhou 310015, P. R. China

Tel: +86 571 2805 6101

Email: service@hoymiles.com

support@hoymiles.com

www.hoymiles.com