



Single-phase Hybrid Inverter

# **Quick Installation Guide**

HYS-7.6LV-USG1 HYS-9.6LV-USG1 HYS-11.5LV-USG1

Region: North America REV1.5

hoymiles.com

#### 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 strips 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.

#### 2 Packing List



#### Accessories Packing List (Optional)



## 3 Dimensions



# 4 Wall Mounting Steps





≥15° X















## 5 Wiring Diagram



Wiring diagram for North America. Please follow local wiring regulations.

# 6 Recommended Cable List

This data is the cable specification recommended by Hoymiles. For proper cable specifications, please refer to local laws and regulations and actual installation.

Cable		Specification		Stripping Length
(90°C/194°F, Copper)	HYS-7.6LV-USG1	HYS-9.6LV-USG1	HYS-11.5LV-USG1	HYS-7.6/9.6/11.5LV-USG1
PV Cable	12 AWG	12 AWG	12 AWG	14 mm/0.55 in
Battery Cable	3/0 AWG	4/0 AWG	4/0 AWG	23 mm/0.91 in
Battery Ground Cable	6 AWG	6 AWG	6 AWG	12 mm/0.47 in
GRID L1/L2 Cable	4 AWG	3 AWG	3 AWG	24 mm/0.94 in
Grid N Cable	10 AWG	8 AWG	8 AWG	18 mm/0.71 in
GRID Ground Cable	8 AWG	8 AWG	8 AWG	12 mm/0.47 in
EPS/GEN L1/L2/N Cable	10 AWG	8 AWG	8 AWG	18 mm/0.71 in
EPS/GEN Ground Cable	8 AWG	8 AWG	8 AWG	12 mm/0.47 in
Communication Cable	24 AWG	24 AWG	24 AWG	8 mm/0.31 in

# 7 Electrical Connection

Step 1 Opening the Wiring Box Cover



#### Product Overview



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#### Step 4 AC Cable Connection

The following diagrams are examples of connecting grid cables, and the GEN and EPS connection methods are the same as grid connection. For recommended cable specifications of EPS and GEN, please refer to the recommended cable list mentioned above.



Step 5 Communication Cable Connection



Label	Description
Parallel (CANH, CANL, 485B_1, 485A_1, 485B_2, 485A_2)	For parallel operation.
BMS (NTC+, NTC-, CANH, CANL, 485A, 485B)	For Li-ion batteries, communication is via CAN. For lead-acid batteries, the temperature is monitored via a sensor through NTC+ and NTC
SW_485 (ON, OFF)	120 Ohm termination resistor for parallel operation.
SW_CAN (ON, OFF)	120 Ohm termination resistor for parallel operation.
Meter (485A1, 485B1, 485A2, 485B2)	For the smart meter. One is connected to the grid side, and the other is connected to the third-party inverter.
DI (DI_A, DI_B)	Dry contact input of external bypass contactor.
+12V/GND	Reserved.
EPO_P/EPO_N	For external Emergency Power Off switch.
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.

## 4G and Wi-Fi Connection



## Ethernet Connection





# Step 6 Installing the Wiring Box Cover

After the cables are firmly and correctly connected, install the wiring box cover.



### 8 DTS Online Setting



1. Search "Hoymiles" in the App Store (iOS) or the Play Store (Android), or scan the QR code to download the Hoymiles Installer App.

2. Open the App and log in with your installer account and password. For new Hoymiles installers, please apply for an installer account from your distributor in advance.

3. Use the App to connect to the DTS.

(a) Open the Installer App on smartphone/tablet and log in. Tap on "O&M" at the bottom of the page, and then tap "Network Config".



(b) Select the DTS's wireless network and tap on "Connect". (The network name of the DTS consists of DTS and product serial number, and the default password is **ESS12345**.)

c	D&M	$\leftarrow$ wlan	0	$\leftarrow$ wlan	0	$\leftarrow$ wlan	(?)
Capacity	255 kW	WLAN	2 💿	10,41	۲	WLAN	•
	Normal: 9	More settings	>	Hore settings		Hore settings	
28 Total	Offline: 17 Alarm: 0 Unfinished: 2	To improve location accuracy, can detect WLAN networks e	apps and services ven when WLAN	AVAILABLE		MAN, 481.2	
	Untinished: 2	is disabled. You can change th settings.		HM, RDC, SG Text-respe		HMUNDCUNG Connected	
Energy This Month	(A) Lifetime Energy			HM, RDC, 2.45 Toront, energy and for all and		charang Terret, encrypter (seathered	- 1
Phone not conn	Note elected to DTU Wi-Fi.			3	- 11	churreng 55 Terret, errer president	
Tools Cancel	Confirm			DTS-00000005 Saved (no Internet access)	<b></b>	HMURDC_2.46 Terret_invergenceTerretation	- 1
	1 ×			Darkeight	- 14	DTS-REPORTS	- 71
Alarm	Toolkit			Lamona, ABA7 Energymet	- 14	DTS-0000005	
<b>a</b>				DIRECT-47-HP H227 Laundet Incrystal		Signal strength	Excellent
Network Config				Chinadian artist		Encryption type	4 None
	8			HP-Print-Di-Calor Laueciet Pro Transpiral		CANCEL FORGET	CONNECT
				Tends 10		Language and of	

4. Network configuration.

(a) Upon successful connection, tap on "Network Config" again and access the Network Configuration page.

- (b) Select the router Wi-Fi and enter the password.
- (c) Tap on "Send to DTU".



5. Check the DTS indicator for a solid blue light, which signifies a successful connection. The network configuration takes about 1 minute, please be patient. If the network is not connected, please check the internet as instructed.





#### 9 System Commissioning of Wireless Access Point (AP) Connection

1. Connect the wireless network of DTU. Open the App, and tap "Toolkit  $\rightarrow$  Meter Location" to configure the grid side meter. The serial number (SN) can be entered manually or identified through scanning the barcode.

O&M		< Overview		<	Meter Location
Capacity	<b>255</b> kW	Last Connection Time: 2024-04-17 14:	27:24	* Grid	Enter the meter SN
	Normal: 10	Inverter Management	>	PV	Bnter the meter SN
28	Offline: 16 Alarm: 0	Inverter Status: Fault Mode		sure to configure	is configured with the battery, make the meter. Otherwise, the system wi
Total	Unfinished: 2	Battery Work Status: Standby		behave abnormal	lly.
		Update Time: 2024-04-17 14:27:49			
9.33 MWh	Lifetime Energy 118.95 MWh	Settings			
Total Reduction 118.59 Ton	Carbon Emission Offset 6,480 Trees	Auto Test	>		
ools		Grid Profile Config	>		
		Meter Location	>		
<b>ä</b>	*	Generator Setting	>		
Alarm	Toolkit	Network Config	>		
<b>a</b>	1	Networking	>		
Network Config		Battery Smart Control	>		
	0	Dry Contact Configuration	>		
•=	õ			C	

2. Tap "Grid Profile Config  $\rightarrow$  ESS Advanced Config  $\rightarrow$  Meter Model" to choose "Two-phase Meter", and tap "Save".

	Overview	
Last Conne	ection Time: 2024-04-17 14:23	7:24
Inverter M	fanagement	>
Inverter Sta	atus: Fault Mode	
	rk Status: Standby ne: 2024-04-17 14:27:49	
	10.2024-04-17 14:27:48	
Settings		
Auto Test		>
Grid Profile	-	~
Generator :		
Network Co	-	Ś
Networking		>
Battery Sm	art Control	>
Dry Contac	t Configuration	>

3. Tap "Inverter Management  $\rightarrow$  Battery Setting" to set battery type, BMS protocol, and battery capacity, and tap "Save". (The default setting is "No battery".)

< Overview		< Inver	ter
Last Connection Time: 2024-04-17 14:27:24		Inverter SN	Battery Setting
Inverter Management		214322190022	Li-ion Battery
Inverter Status: Fault Mode	-		2
Battery Work Status: Standby			
Update Time: 2024-04-17 14:27:49			
Settings			
Auto Test			
Grid Profile Config			
Meter Location >			
Generator Setting			
Network Config			
Networking >			
Battery Smart Control			
Dry Contact Configuration			

4. Tap "Generator Setting", choose the corresponding option according to whether the device connected to the GEN port is "Generator" or "Inverter", and tap "Save". (The default option is "None".)

< Overview	
Last Connection Time: 2024-04-17 14:27:24	
Inverter Management	>
Inverter Status: Fault Mode	
Battery Work Status: Standby	
Update Time: 2024-04-17 14:27:49	
Settings	
Auto Test	>
Grid Profile Config	(
Meter Location	>
Generator Setting	>
Network Config	>
Networking	>
Battery Smart Control	>
Dry Contact Configuration	>

5. Make sure that all cables including DC cables, AC cables, and communication cables are properly connected, and all DC and AC switches are turned on, and then tap "Auto Test".

< Overview	
Last Connection Time: 2024-04-17 14:27:2	24
Inverter Management	>
Inverter Status: Fault Mode	
Battery Work Status: Standby	
Update Time: 2024-04-17 14:27:49	
Settings	
Auto Test	5
Grid Profile Config	>
Meter Location	>
Generator Setting	>
Network Config	>
Networking	>
	ĺ.
Battery Smart Control	>
Dry Contact Configuration	>



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



Installation video in the QR code or at www.youtube.com/@Hoymiles/videos



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