

Auto-transformer quick installation guide

1. Introduction

This quick installation guide is prepared for the auto-transformer used with Solis-RHI-1P(5-10)K-HVES-5G hybrid inverter in a split phase system. The backup port of the hybrid inverter has a rated output AC voltage of 240VAC L1-L2. If a 120V L1(L2)-N backup load is connected in the system, the auto-transformer can be installed to the backup port to create the L1-N-L2 connection thus supporting 120V loads with L1-N or L2-N. The topology of the auto-transformer is shown below:

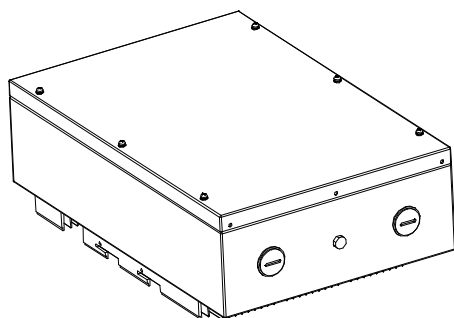


Figure 1. Auto-transformer

Black and White are connected to the backup port of the hybrid inverter L1 and L2. Blue, Yellow and Red are the secondary connection L1, N and L2.

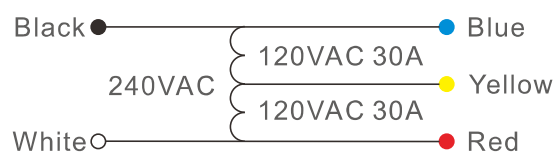


Figure 2. Topology of the auto-transformer

2. Install the auto-transformer

Unit: inch

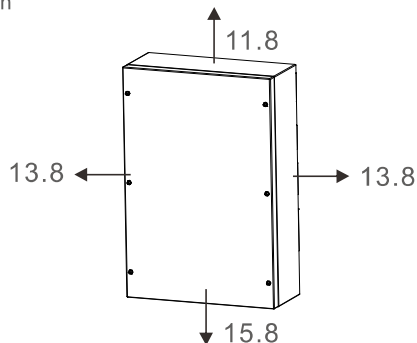


Figure 3. Installation Space Requirement

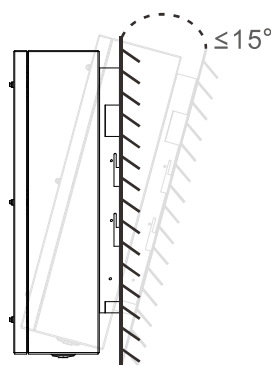


Figure 4. Mounting Angle

Unit: inch

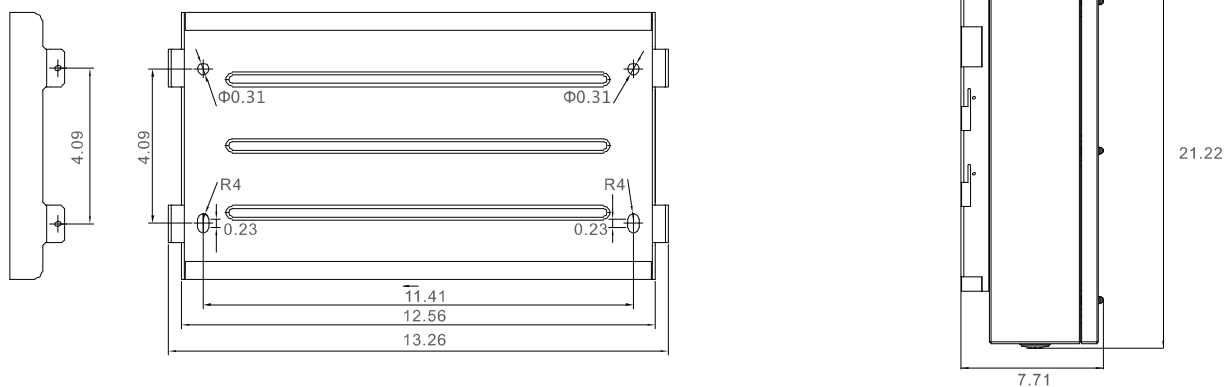


Figure 5. Mounting bracket dimensions

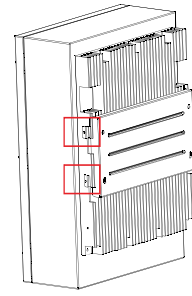
Installation Steps:

Step 1: Find a location which complies with the above installation requirement.

Step 2: Drill holes for the mounting bracket. Use suitable expansion bolts to fix the bracket onto the wall.

Step 3: Hang the auto-transformer box to the mounting bracket.

Use M4 screws to fasten the installation with torque 7.3~9.0 N.m.



NOTE:

The auto-transformer box is 52.9 lb, please carefully evaluate the installation process to avoid injuries.

3. Wire Connection Steps

Step 1: Loosen the six cover screws and open the front cover of the auto-transformer.

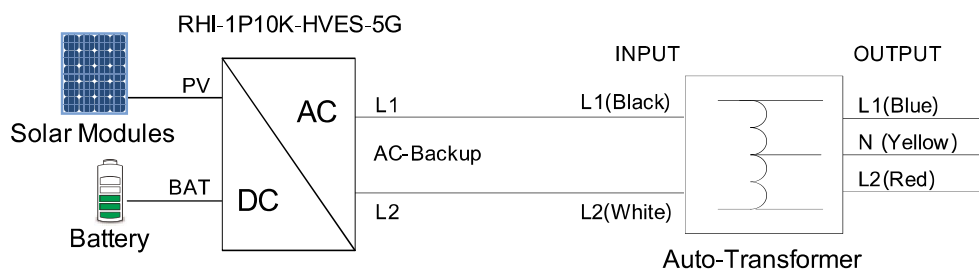
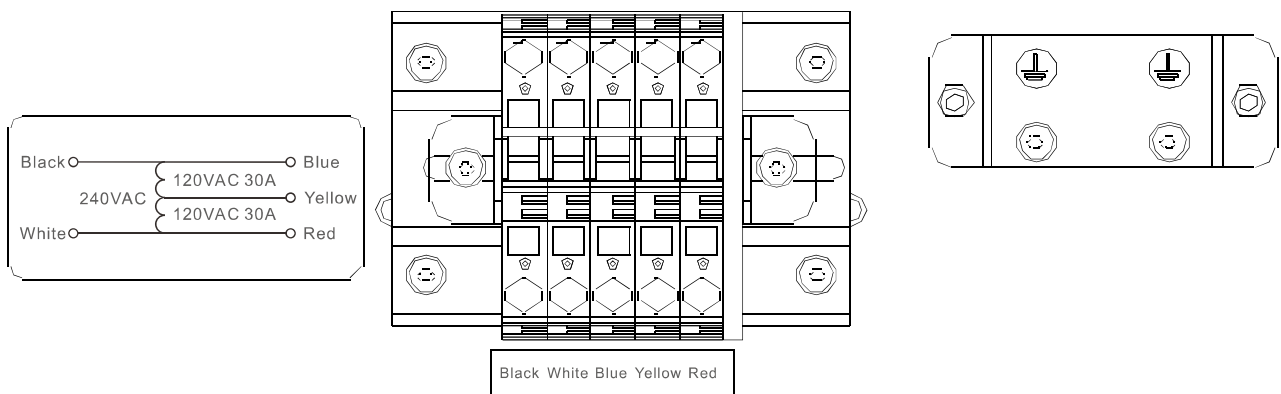
Step 2: Run the INPUT cables and OUTPUT cables through the two conduits (D: 1.35in) at the bottom separately.

Connect the INPUT cables L1 and L2 to the BLACK and WHITE terminals (6-11 AWG).

Connect the OUTPUT cables L1, L2 and N to the BLUE, RED and YELLOW terminals (6-8 AWG).

Step 3: Connect the internal grounding cable and heat sink grounding cable, M4*14 screws, torque 2-3 N.m.

Step 4: Reassemble the front cover.



WARNING:

Before conducting the wiring connection, please make sure the system is powered off. Otherwise serious injuries may happen.

4. Specifications

Model	Solis-ATR-6K	Model	Solis-ATR-6K
Output AC(Grid side)		General data	
Rated output power	6000 VA	AC Output conduit size / AWG range	6-8 AWG/8-13 mm ²
Max. apparent output power	8600 VA for 10 sec	Dimensions (W*H*D)	14.17*20.86*7.71 mm
Rated grid voltage	120/240 V Split Phase	Weight	52.9 lb
Rating grid output current	30 A	Min - Max Operatng Temperature	-25 ~ +60 °C
Split Phase Imbalance (@Rated Power)	Up to 30 A difference between phases	Ingress Protection	NEMA 3R
		Installation	Wall mounted