



SolarEdge TerraMax™ Inverter

Quick Installation Guide

PN: SE330K-xxxxxxxxx

For North America
Version 1.2

Scan for full Installation Guide



Legend



NOTE

This symbol denotes information intended to assist the user in making optimum use of the product.



CAUTION!

Denotes a hazard. It calls attention to a procedure that, if not correctly performed or adhered to, could result in damage or destruction of the product. Do not proceed beyond a caution sign until the indicated conditions are fully understood and met.



WARNING!

Denotes a hazard. It calls attention to a procedure that, if not correctly performed or adhered to, could result in injury or loss of life. Do not proceed beyond a warning note until the indicated conditions are fully understood and met.



Do not cut the cable connectors

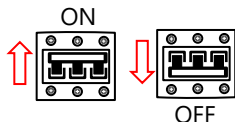


Do not bend the cable. Bending radius: 4 x wire diameter.

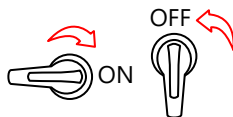


This symbol appears at grounding points on the SolarEdge manuals and equipment.

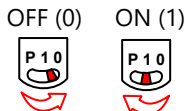
SAVE THESE INSTRUCTIONS – This guide contains important instructions for SolarEdge TerraMax Inverter that should be followed during installation and maintenance. Using this equipment in a manner not specified in this guide by SolarEdge may impair the protection provided by this equipment.



Turn ON/OFF the main circuit board AC switch. When turning it off, wait 5 minutes for DC Voltage to drop to a safe level before removing the front panel.



Turn the DC Disconnect Switch on/off. (Switch is available for some models) When turning it off, wait 5 minutes for DC Voltage to drop to a safe level before removing the front panel.



Turn the ON/OFF/P Switch on/off. When turning it off, wait 5 minutes for DC Voltage to drop to a safe level before removing the front panel.



Before connecting aluminum wires to terminals:

1. Remove oxide from the exposed wires with emery paper or a steel wire brush
2. Clean dust with a cloth and Isopropyl alcohol (IPA)
3. Coat wires with a designated antioxidant aluminum wire grease immediately after cleaning



CAUTION! Connection of oxidized aluminum wires may result in resistance and high temperatures at contact points. Improper execution of the following procedure may cause damage to the unit.



Before installation, read the **HANDLING AND SAFETY INSTRUCTIONS**



FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment.

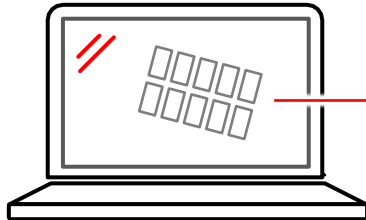
Installing the Power Optimizers

1

① → ② → ③ → ④ → ⑤ → ⑥

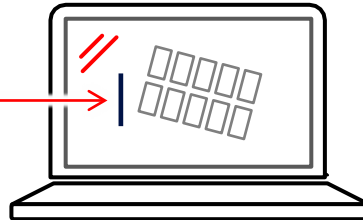
①

Use SolarEdge Designer to create and design SE system
<https://designer.solaredge.com>



②

Create a new site in Monitoring Platform and import PV layout from SolarEdge Designer
<https://monitoring.solaredge.com/solaredge-web/p/login>



③

Download SolarEdge Mapper to map string Power Optimizers



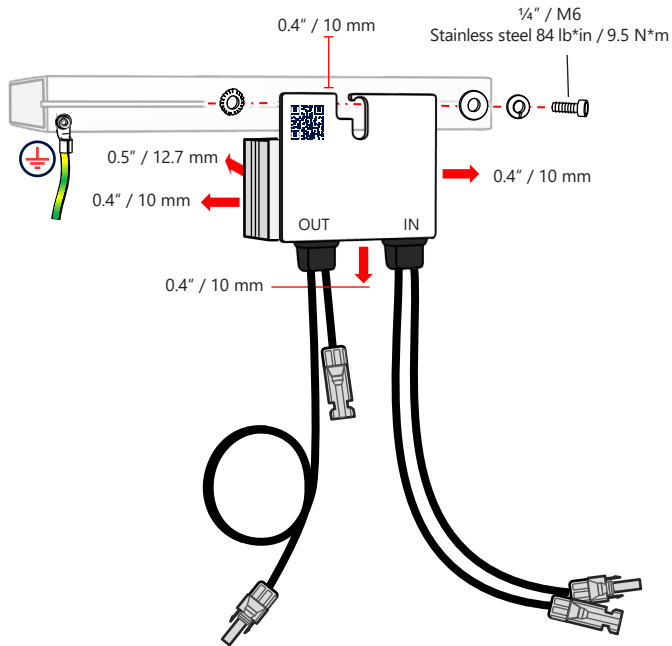
1

Installing the Power Optimizers

① → ② → ③ → ④ → ⑤ → ⑥

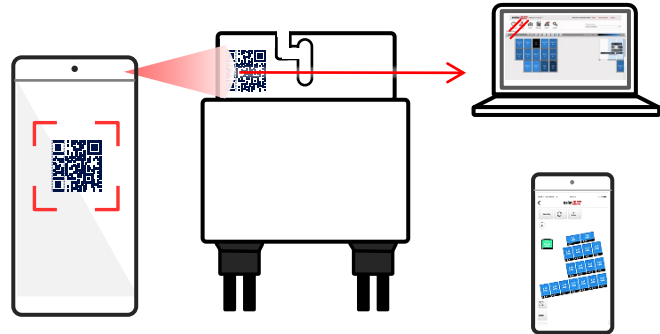
④

Install the H1300 Power Optimizer



⑤

Scan QR code using Mapper



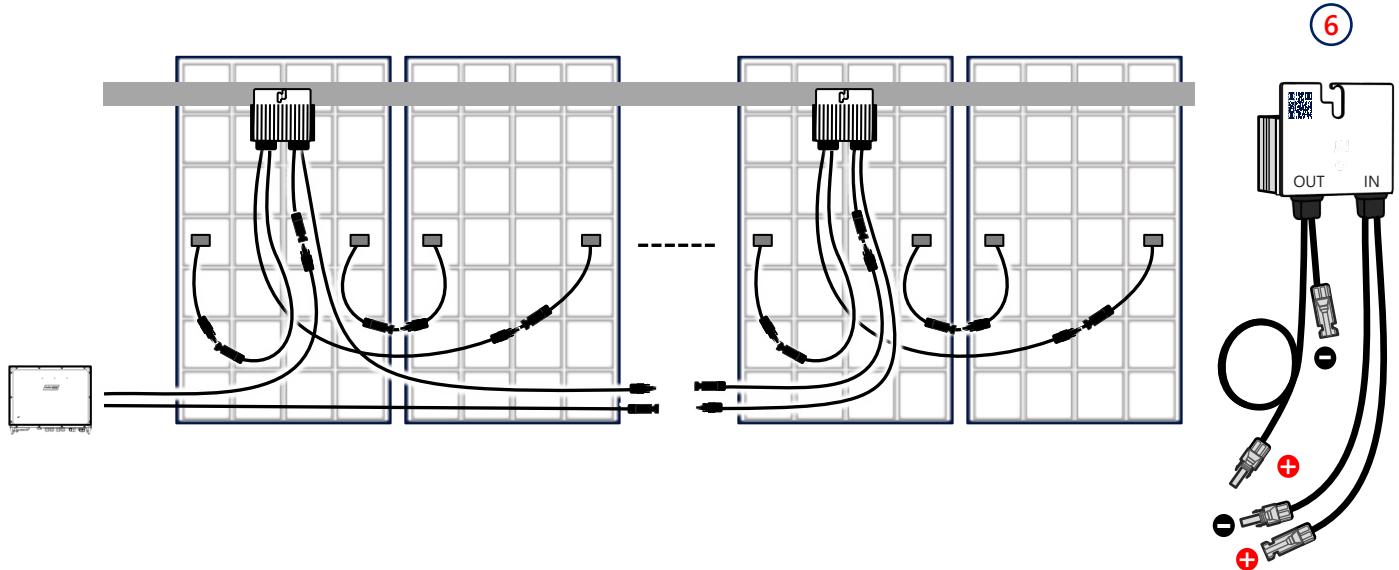
Connecting the Power Optimizers

1

① → ② → ③ → ④ → ⑤ → ⑥

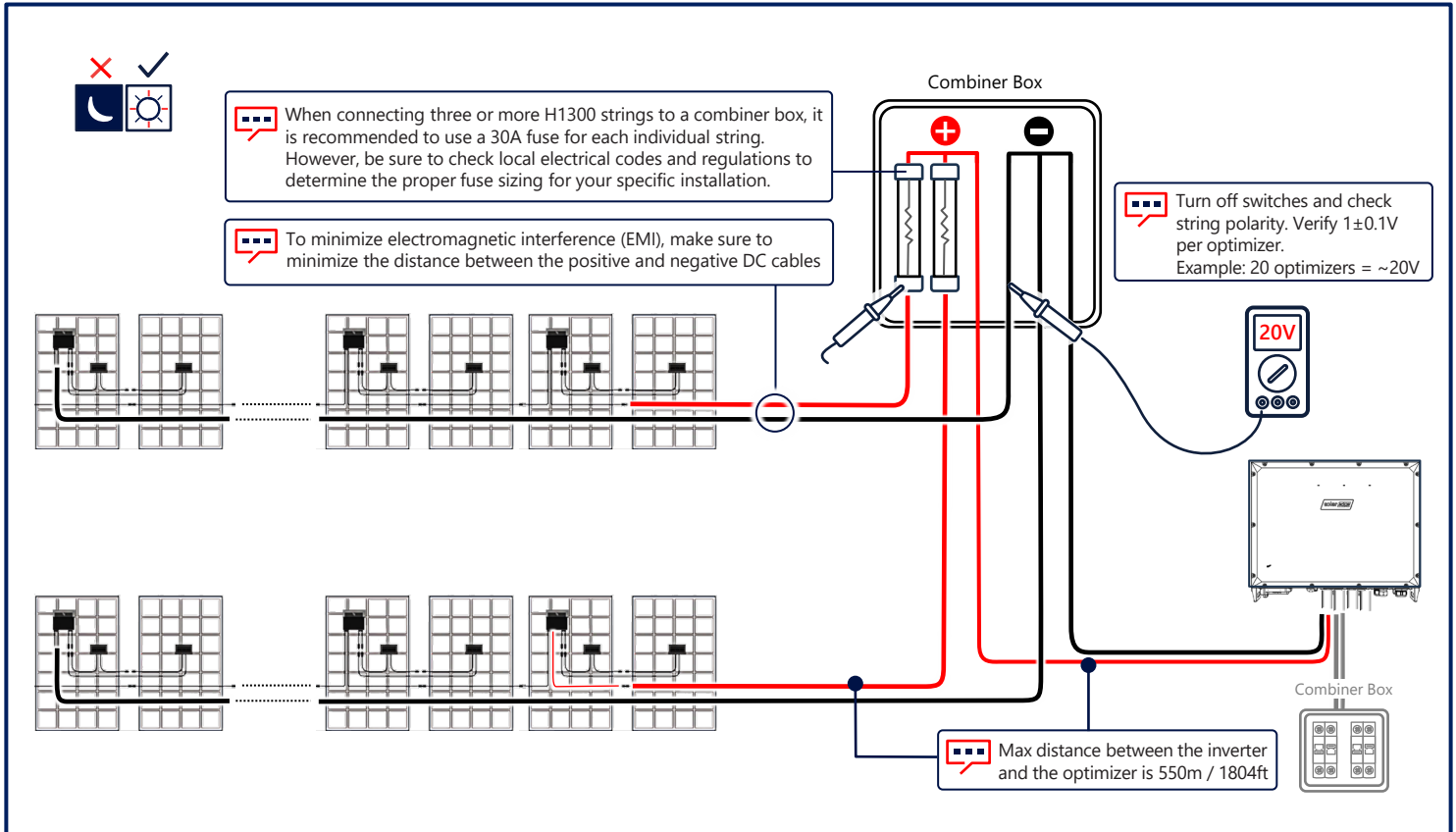


CAUTION! Do not sharply bend the DC cables. Keep proper bending radius to avoid cable break. Do not use stretched cabling. Using only MC4 connectors compatible with the Power optimizer.



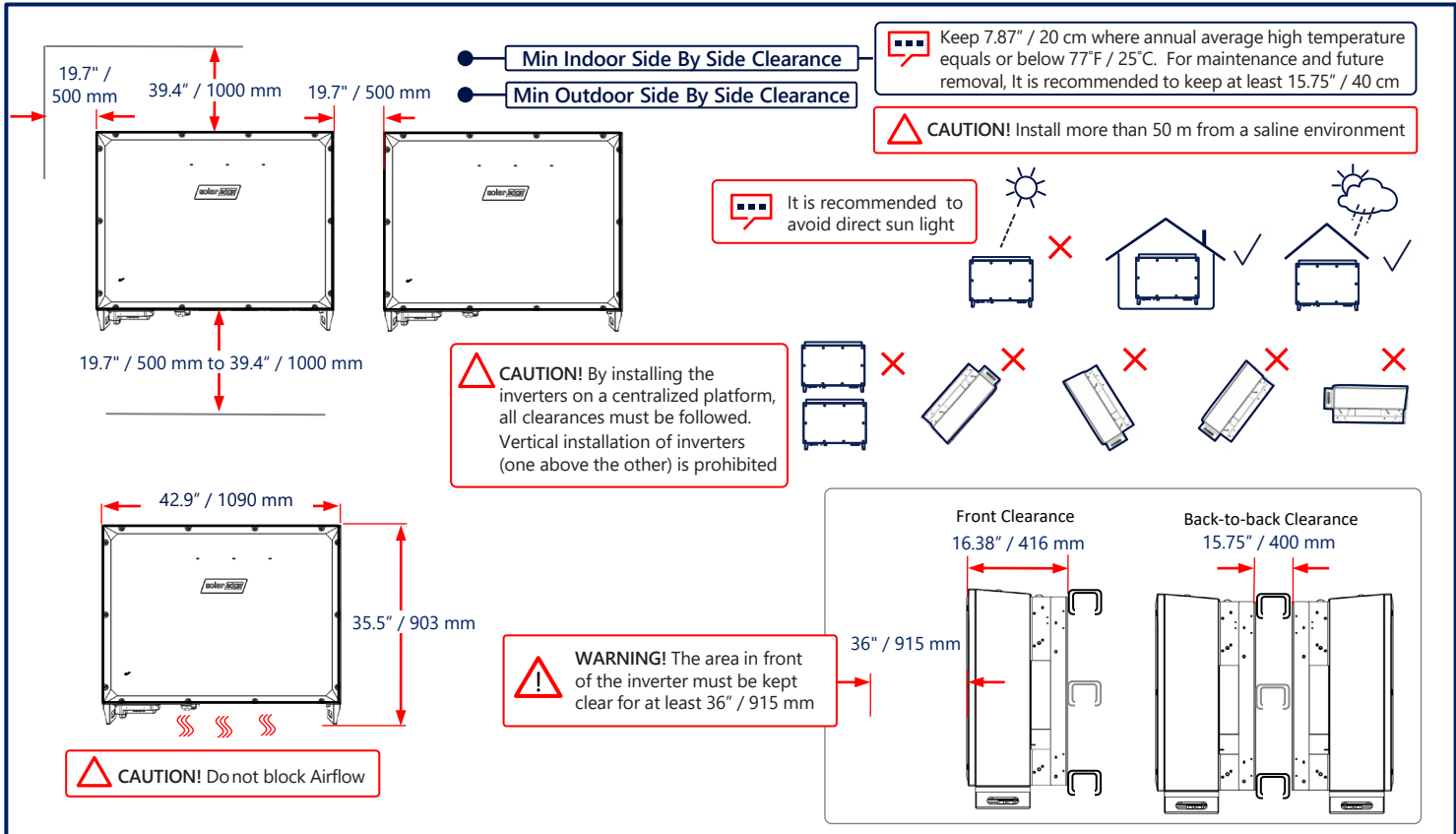
2

Connecting PV Strings

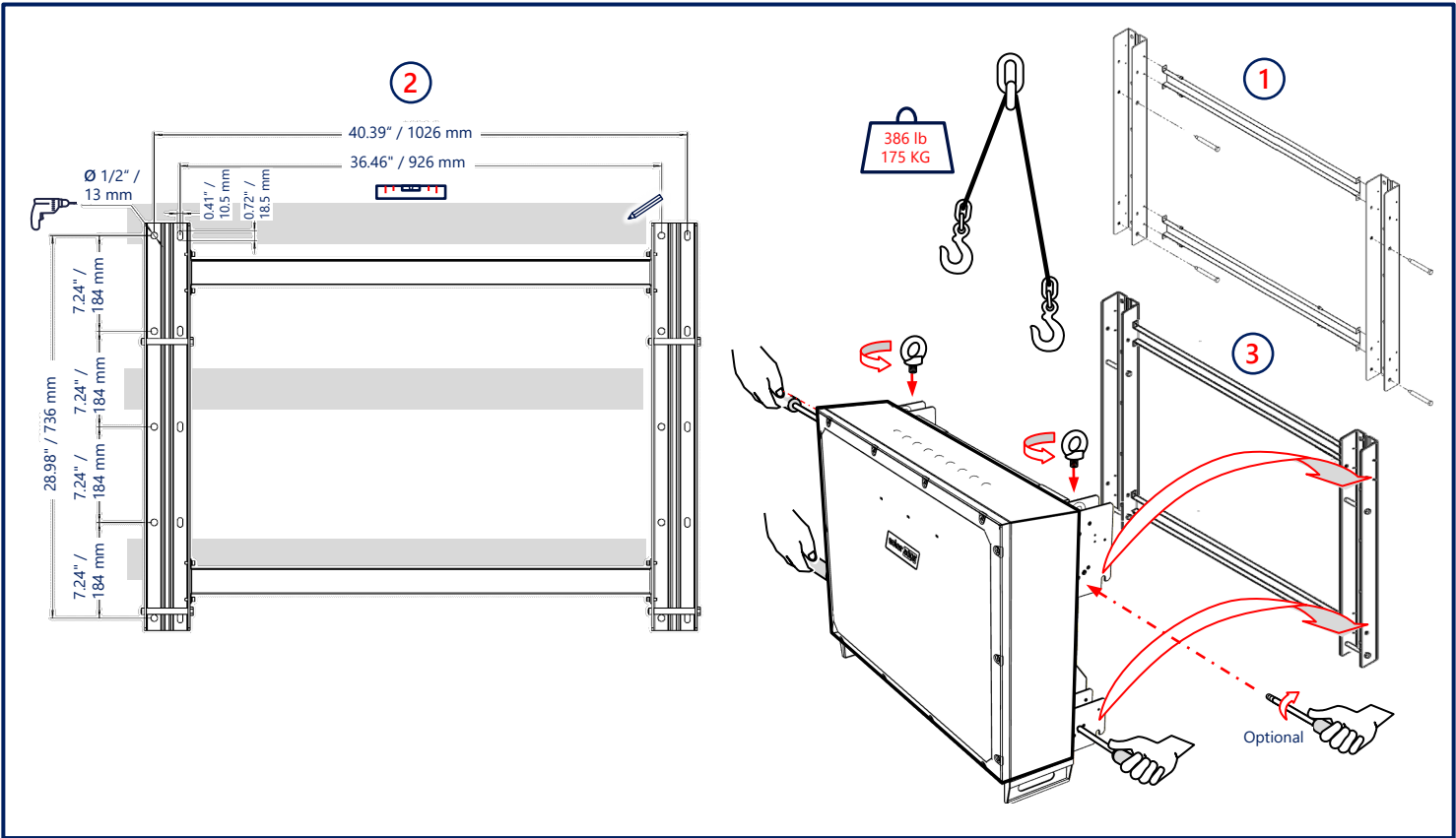


Maintaining Clearance

3

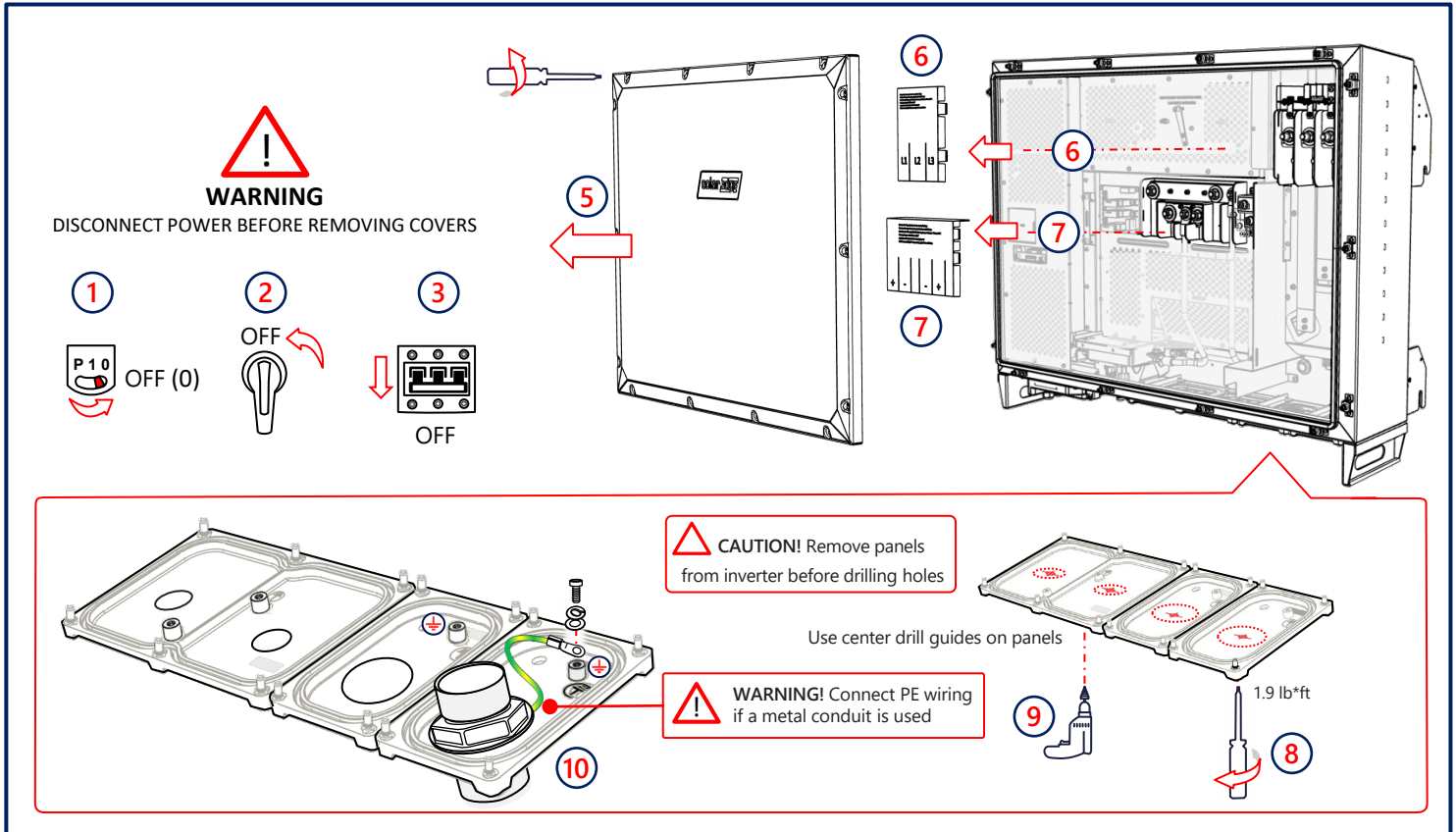


4 Mounting

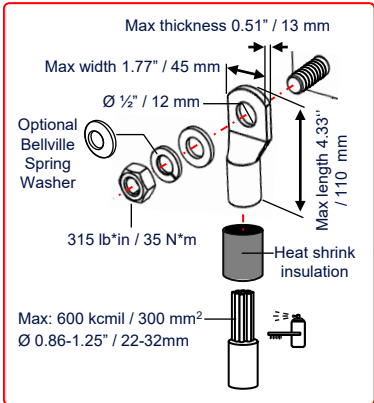


Removing Covers, Drilling Holes, and Grounding Conduits

5



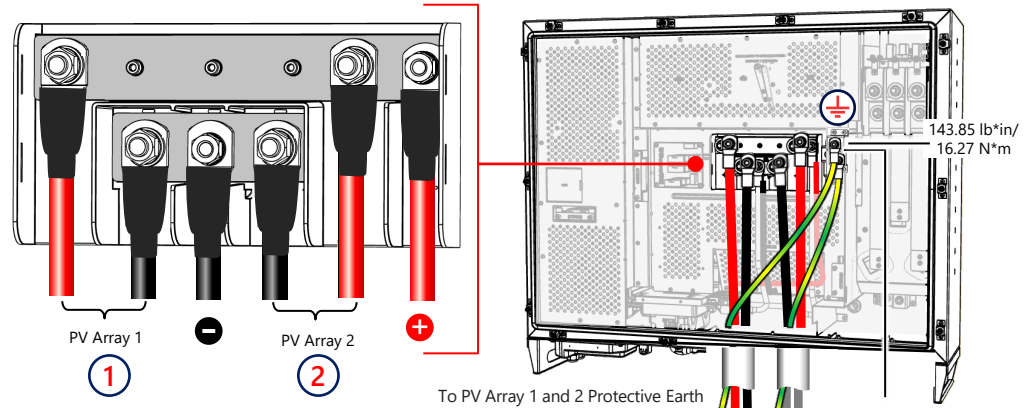
6 Connecting the PV Arrays and Protective Earth (PE)



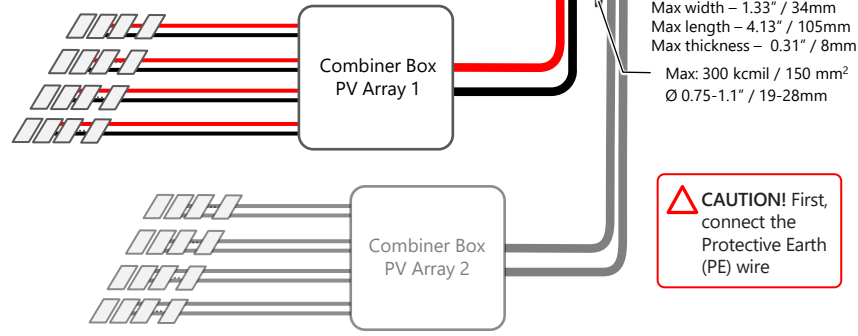
CAUTION! Use only tin-plated lugs

One-hole, standard barrel, compression lugs only

Use AC cables with 90°C Cu / Al wires
 Use outdoor copper core PE wires

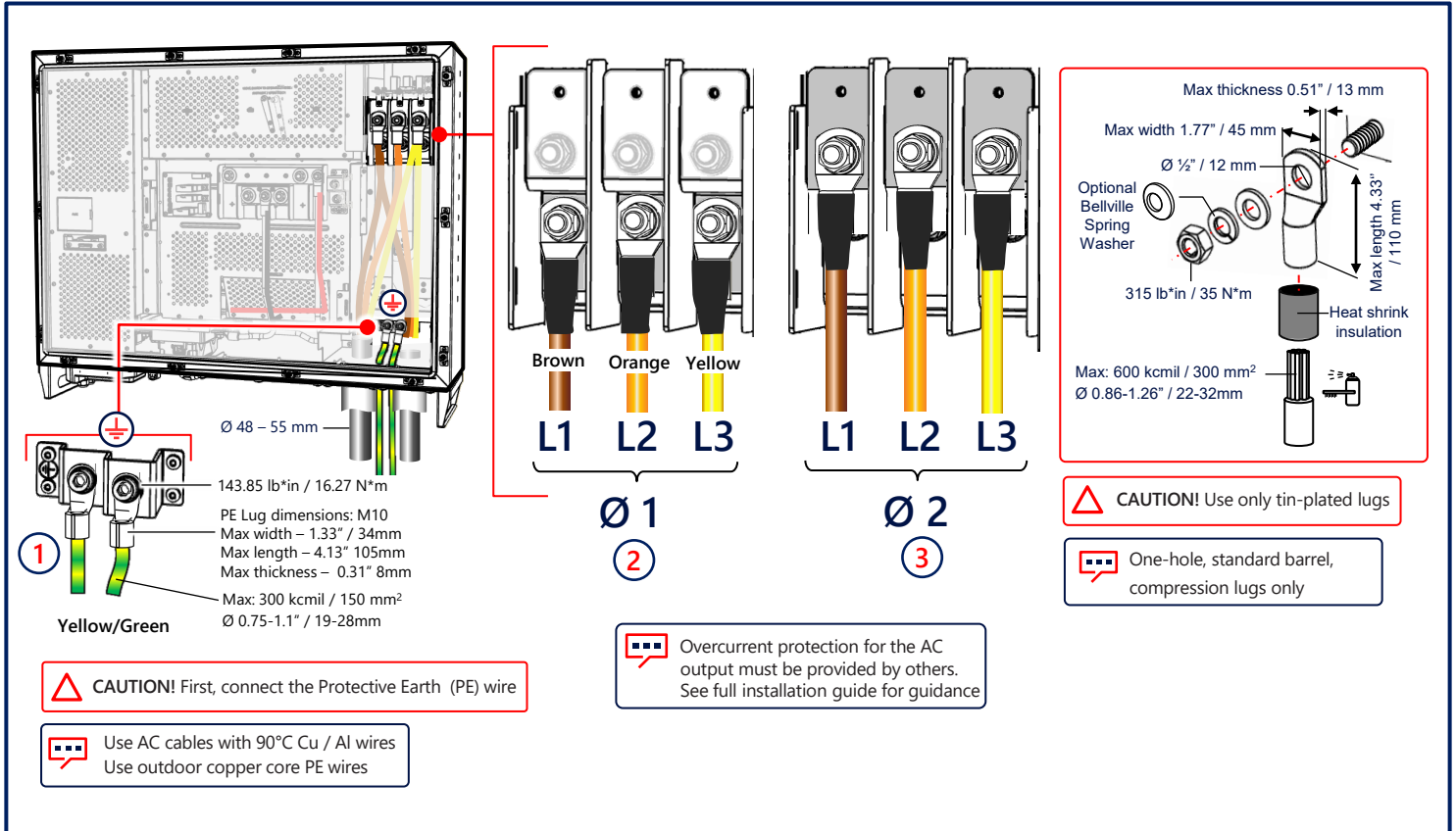


To PV Array 1 and 2 Protective Earth



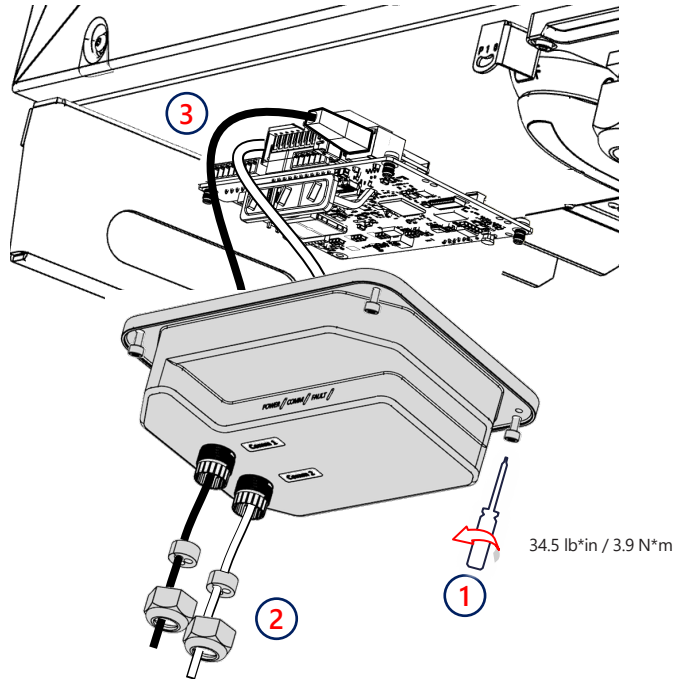
CAUTION! First, connect the Protective Earth (PE) wire

Connecting AC and Protective Earth (PE)



8

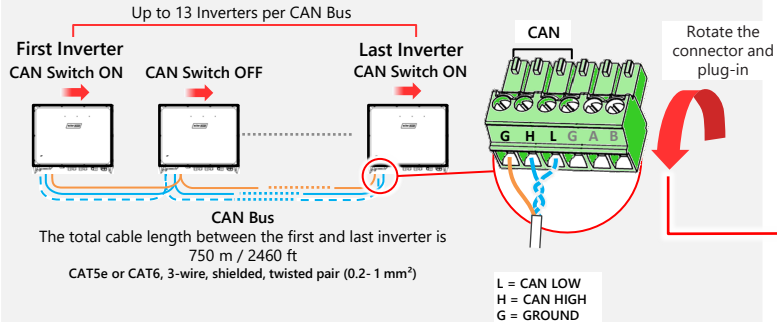
Accessing the Communication Compartment



Connecting Communication

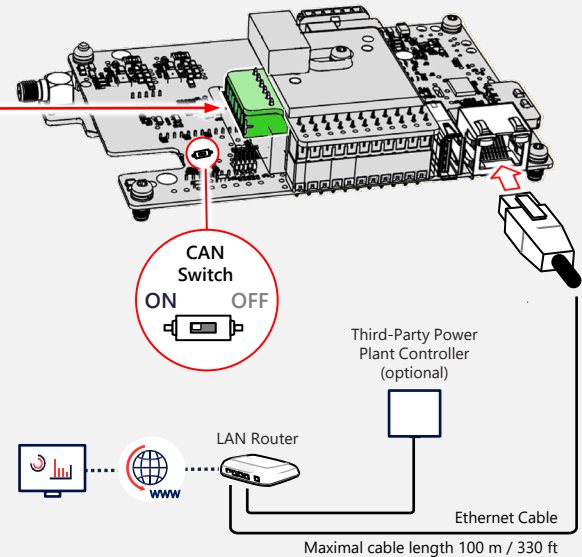
9

CAN Bus (for connection between inverters)

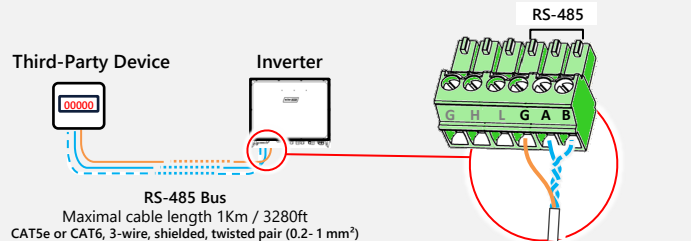


IMPORTANT! DO NOT connect inverters other than the SE330K.

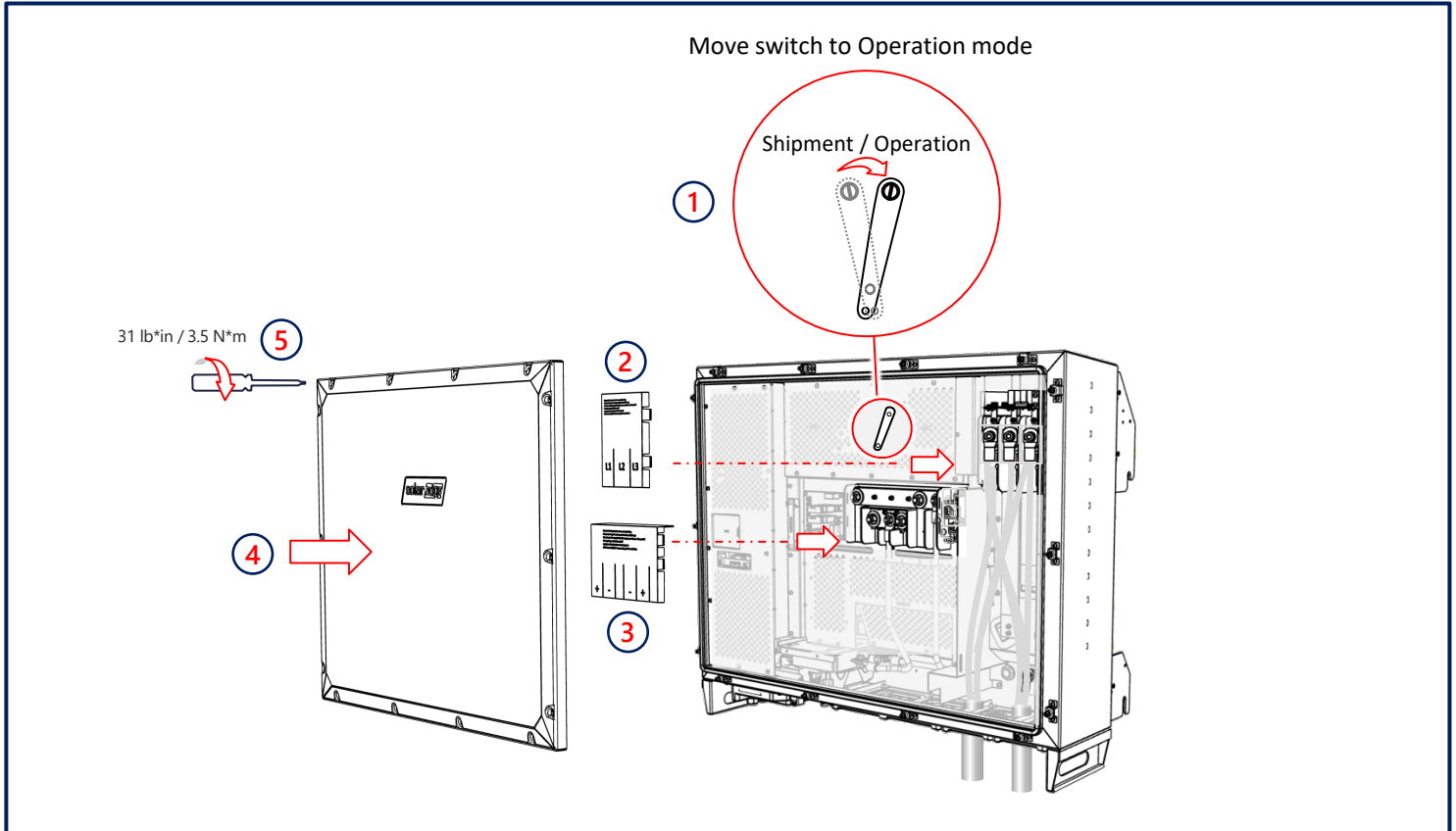
IMPORTANT! Move the CAN Switch of the first and last inverters on the bus to ON position.



RS-485 Bus (for connecting third-party devices such as meter or PPC)



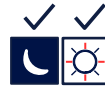
10 Unlocking Relays and Installing the Covers



Commissioning (Part 1)

11

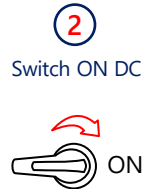
1
Download
SolarEdge SetApp



Commissioning when connected to AC from Grid



Commissioning when connected only to DC from PV Array



The image shows the SolarEdge mobile app interface for commissioning. On the left is the 'Commissioning' menu with five numbered steps: 1. Country & Grid, 2. Pairing, 3. Site Communication, 4. Status, and 5. Central Commissioning. Red arrows point from 'Site Communication' to the text 'CAN → Protocol → SolarEdge → SolarEdge Leader' and 'CAN → Protocol → SolarEdge → Follower Detect'. An arrow points from 'Central Commissioning' to the text 'Tap to simultaneously commission all Follower Inverters'. An arrow points from 'Status' to a detailed inverter status screen on the right. The status screen shows 'Grid Monitoring Completed.' and various performance metrics for an inverter (SN 7D00006C-E9).

Commissioning Menu:

- 1 Country & Grid
- 2 Pairing
- 3 Site Communication
- Site Communication
- Power Control
- Grid Protection
- 5 Central Commissioning
- Maintenance
- Information
- 4 Status

Navigation Flow:

- CAN → Protocol → SolarEdge → SolarEdge Leader
- CAN → Protocol → SolarEdge → Follower Detect

Tap to simultaneously commission all Follower Inverters

Inverter Status Screen:

Grid Monitoring Completed. ✕

solar_{edge}
SN E7548404-0E

Production 51.68 kW	Limit 660 kW	Inverters 2 of 2
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Inverter
SN 7D00006C-E9

Summary

Active Power 51.68 kW	Apparent Power 51.85 kVA	Reactive Power -4.18 kVAR
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I1 41.76 Aac	I2 41.92 Aac	I3 41.91 Aac
V12 709 Vac	V23 714 Vac	V31 714 Vac

P_OK: 47 of 47
Optimizers Communicating

Server Comm.
S_OK
Ethernet

Status Production	Power Limit 330 kW	Switch is On
Cos Phi 1	Frequency 50 Hz	Country Germany 690LL
DC Power 52.47 kW	DC Voltage 1.26 kVdc	DC Current 41.73 Adc



For detailed Status and System
Performance LED Indications:
<https://www.solaredge.com/leds>

POWER COMM FAULT

Green Blue Red



System is producing Power



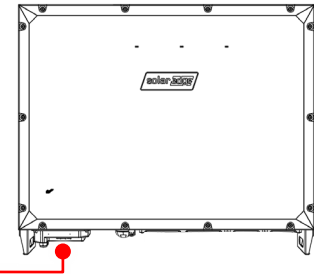
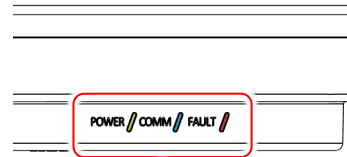
AC is connected but the system is not producing power



Inverter is communicating with the Monitoring platform



System error





Support Contact Information

If you have technical problems concerning SolarEdge products, please contact us:
<https://www.solaredge.com/service/support>

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