

USER MANUAL

AC BOX-
Single Phase-6kW

AC Box-S6

CONTENTS

1. Terminals Introduction	01
1.1 Read This First	01
1.2 Safety	01
1.3 User	01
1.4 Support and Contact Information	01
2. Inside of AC Box	02
3. Installation	03
3.1 Prepare for Installation	03
3.2 Mount the AC Box	04
3.3 Wire to the AC Box	05
4. Technical Specifications	09
Appendix: Wire Diagram	10




1. Terminals Introduction

1.1 Read This First

This manual includes important instructions for installing and maintaining the Solenso AC Box.

1.2 Safety

Instructions

Symbol	Usage
 DANGER	Indicates hazardous situations that can result in deadly electric shock hazards, other serious physical injuries, or fire hazards.
 WARNING	Indicates directions that must be fully understood and followed in their entirety to avoid potential safety hazards including equipment damage or personal injury.
 CAUTION	Indicates that the described operation must not be carried out. The reader should stop, use caution, and fully understand the operations explained before proceeding.

- Note that only professionals may install or replace AC Box.
- Do not try to repair the AC Box without approval from Solenso. If the AC Box is damaged, send the AC Box back to your installer for repairing/replacement. Disassembling the AC Box without approval from Solenso will invalidate the remaining warranty period.
- Read all instructions and warnings on the technical specifications carefully.
- Do not use Solenso products in a way that is not suggested by the manufacturer. Doing so may cause death or injury to persons or damage to the equipment.

1.3 User

This manual is intended for use by professional installation and maintenance personnel only.

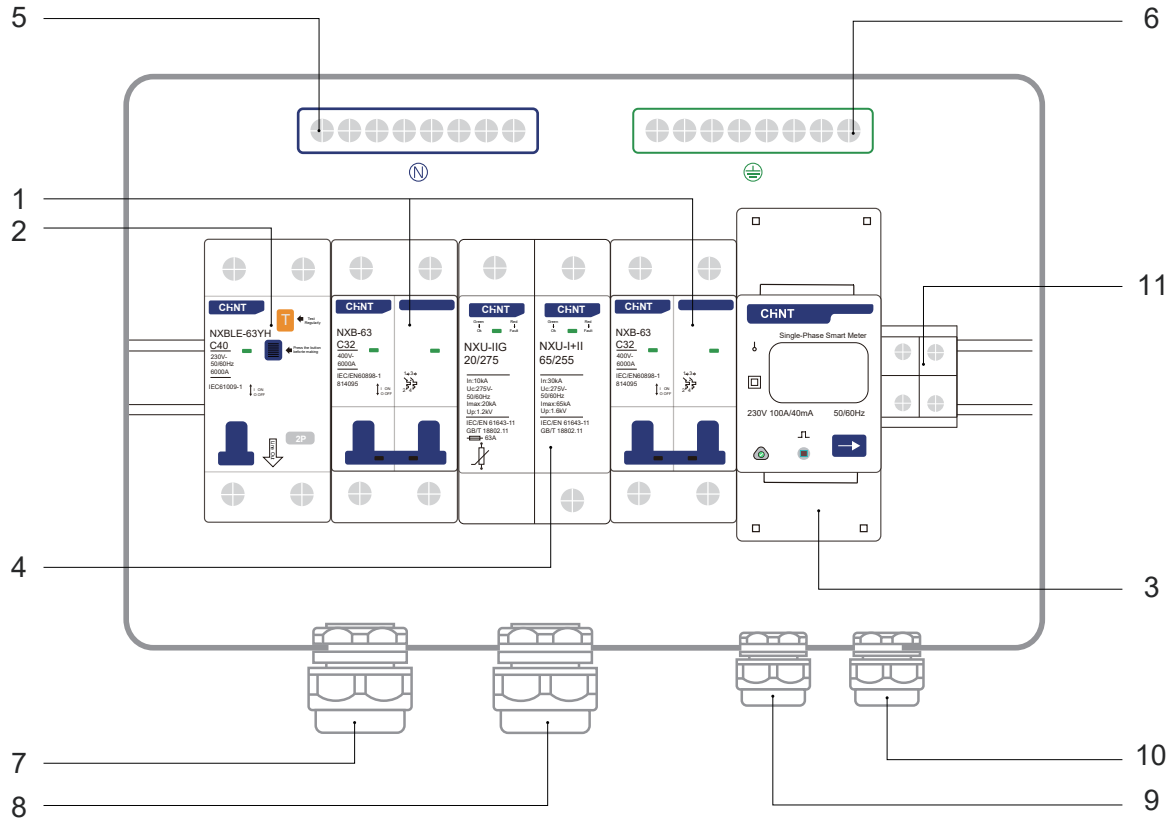
1.4 Support and Contact Information

If you have technical queries concerning our products, contact your system installer or distributor. If further support is required, contact Solenso' support at this link.

- <https://www.solenso-power.com> / www.solenso-global.com
- Solenso Technical Service Center: contact@solenso.pro / afterservice@solenso-global.com

2. Inside of AC Box

Open the door of the AC Box and refer to the following figure and table for pre-installed components in the AC Box.



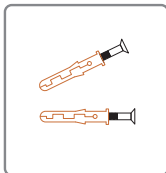

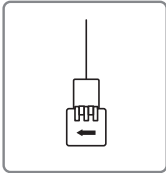

	Item	Model	Description
1	Breaker	NXB-63 2P C32A	Protecting line security
2	RCD	NXBLE-63YH 2P C40A 30mA	Protection of leakage safety
3	Meter	DDSU666	Collection of electrical data
4	SPD	NXU- II G 20kA/275V 1P+N	Lightning surge protection
5	Neutral Wire Terminal Block	/	Used to connect to the Neutral Wire
6	Grounding terminal block	/	Used to connect to the ground
7	PV port	/	Used to connect to the Microinverters
8	Grid port	/	Used to connect to the Grid
9	CT interface	/	Used to connect to the CT
10	RS485 interface	/	Used to connect to the DTU
11	Feed through terminal blocks	/	Used to connect the grid side cable

3. Installation

3.1 Prepare for Installation

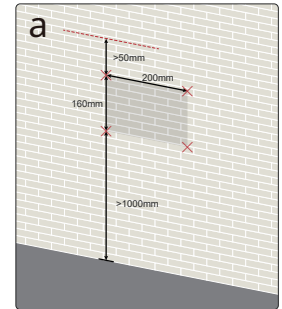
Check the Items in the Package.

Please make sure that the following items are included in the package before installation.

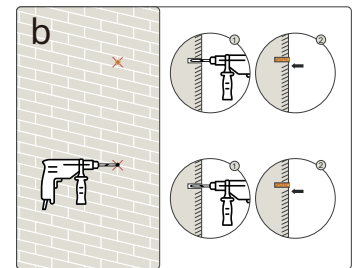
	Item	Model	Description
	Wall anchors and screws	M4	Mount the combiner on the wall
	Waterproof glands	/	For waterproofing of case holes
	CT	/	Measure electricity in the home
	Quick Installation Guide	/	Quick instructions for installation

3.2 Mount the AC Box

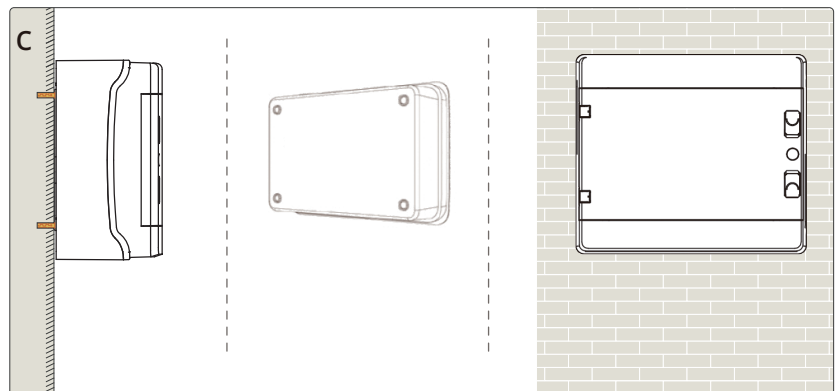
- a. Use a tape measure and make a mark on the wall at least 1,000mm vertically from the ground. Measure approximately 160mm above the mark and make another mark. Make two more marks 200mm to the right of these two marks.



- b. Drill holes in the markers and insert the wall anchors supplied in the package into the holes.



- c. Align the four screw holes of the AC Box with the holes you just punched and screw them in.



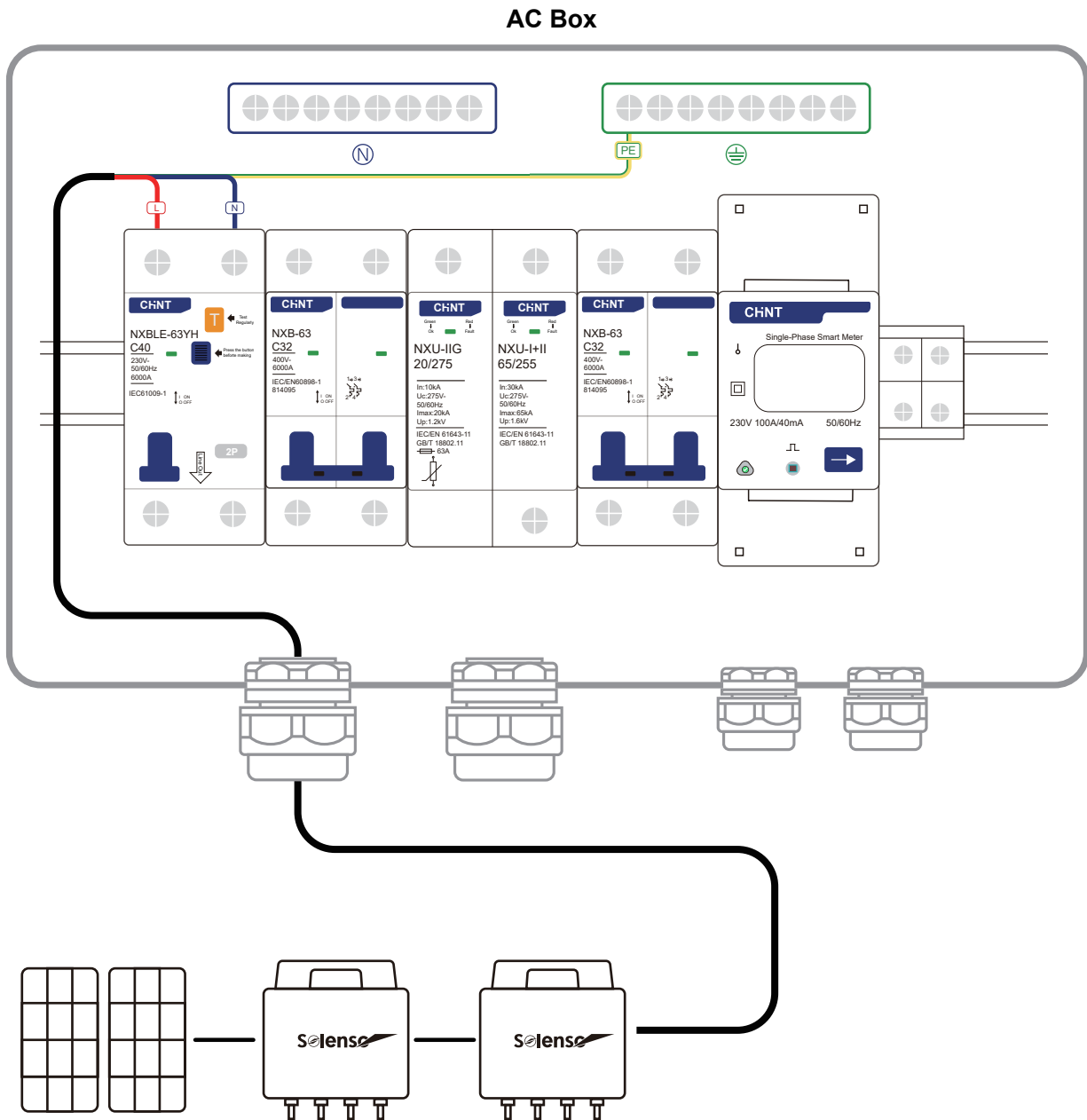
Note:

Do not install the AC Box in an environment with direct sunlight exposure, unless with a sunshade installed.

3.3 Wire to the AC Box

3.3.1 Wire from the PV Branch (Microinverter)

- a. Bring in the cables from the micro inverter system circuit through the PV port of the AC Box.
- b. Connect the cables (N and L) to the RCD.
- c. Tighten the screws with a screwdriver.



3.3.2 Wire from the Distribution Panel (Grid)

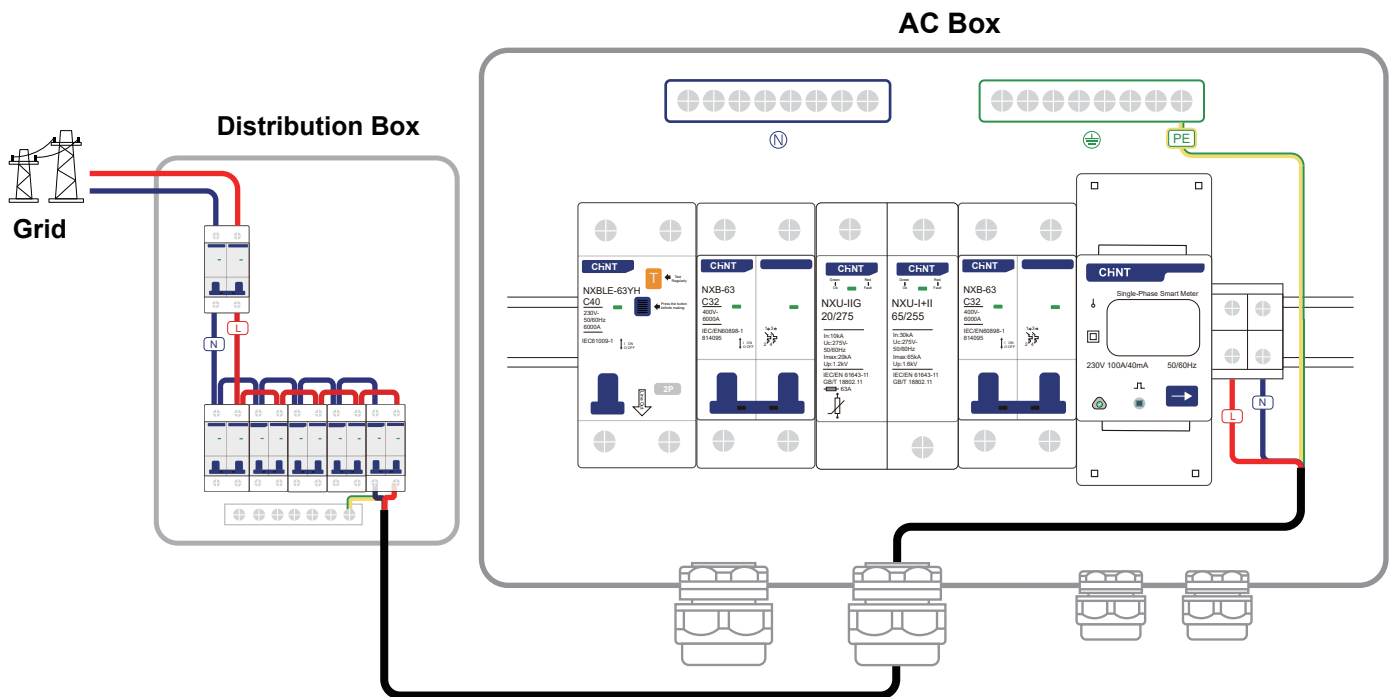
Section A. Wire the power cables

a. Bring in the cables from the distribution panel through the Grid port of the AC Box.

Note: For safety and proper operation, it is recommended to install a 32A, 2P circuit breaker on the distribution box, in conjunction with the AC box.

b. Connect the cables (N and L) to the breaker and connect the ground cable to the PE terminal block as shown.

c. Tighten the screws with a screwdriver.

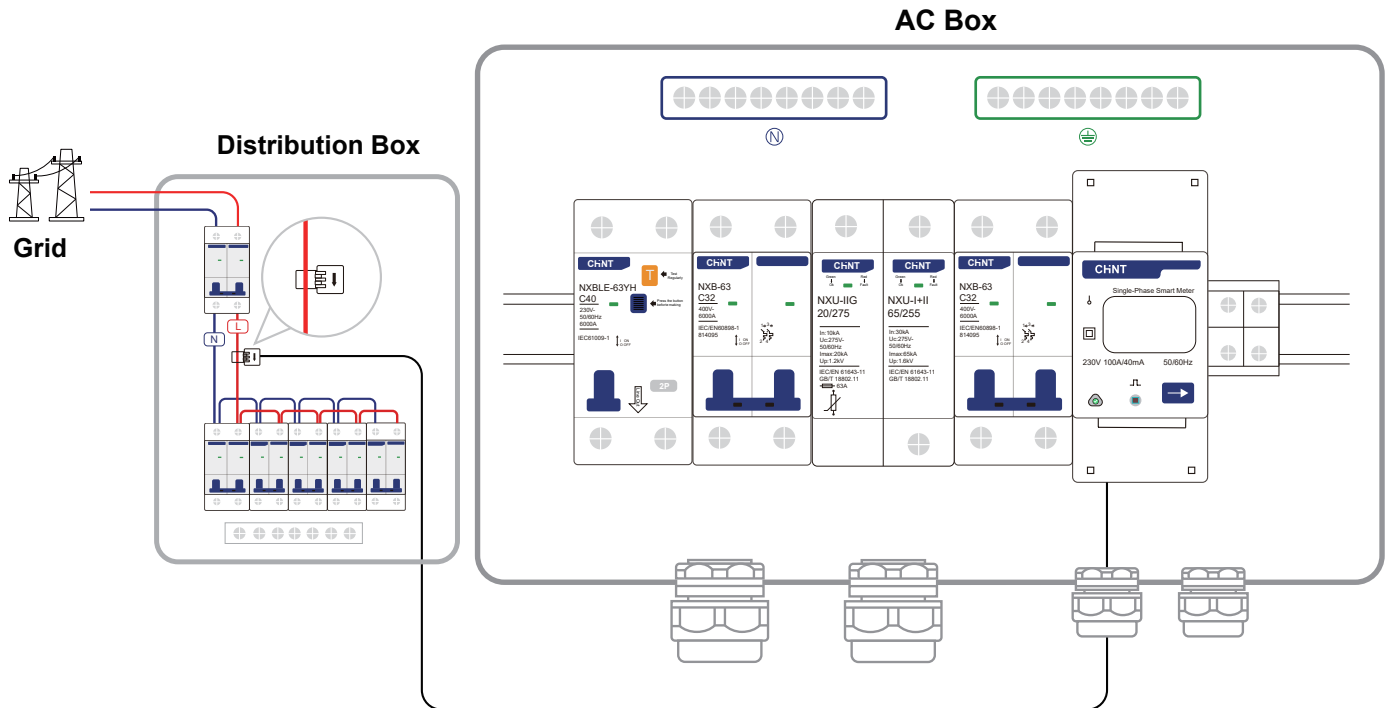


Note:

- Ensure that the cables (N and L) are correctly connected.
- Ensure that the N cable of the terminal block is connected to the grid neutral line to avoid damaging the devices and voiding the warranty.

Section B. Wire the CT

- a. Install the CT for electricity metering. You can find the CT in the AC Box.
- b. Find the L line of the main breaker in the distribution panel.
- c. Clamp the CT on the L line. The CT's direction → must point away from the grid.

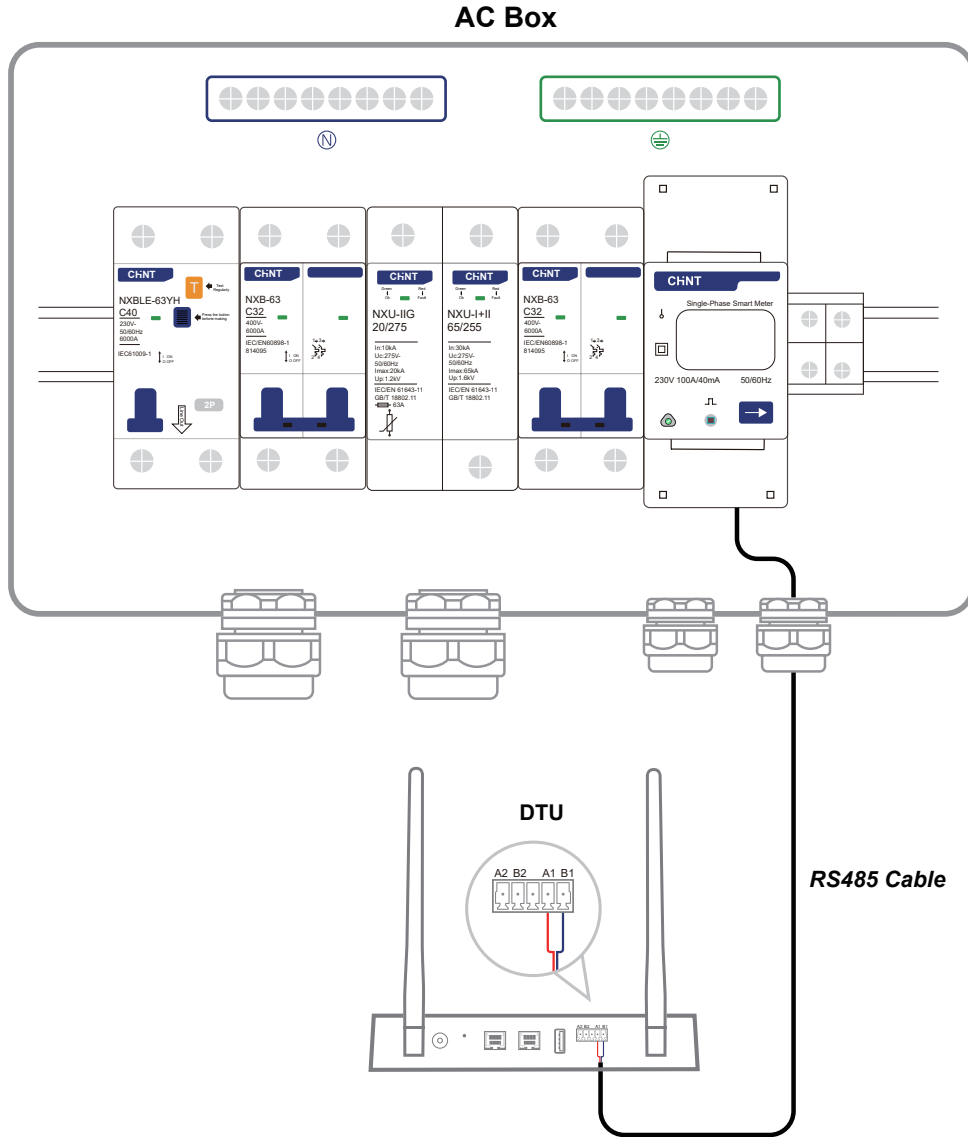


Note:

- The CT's direction → must point away from the grid.
- Ensure that the CT is clamped to the L line of the main breaker in the distribution panel.

3.3.3 Wire to the DTU (RS485)

- a. Install the meter RS485 cable to the DTU. You can find the cable in the AC Box.
- b. Connect the RS485 red cable to the A1 port.
- c. Connect the RS485 blue cable to the B1 port.



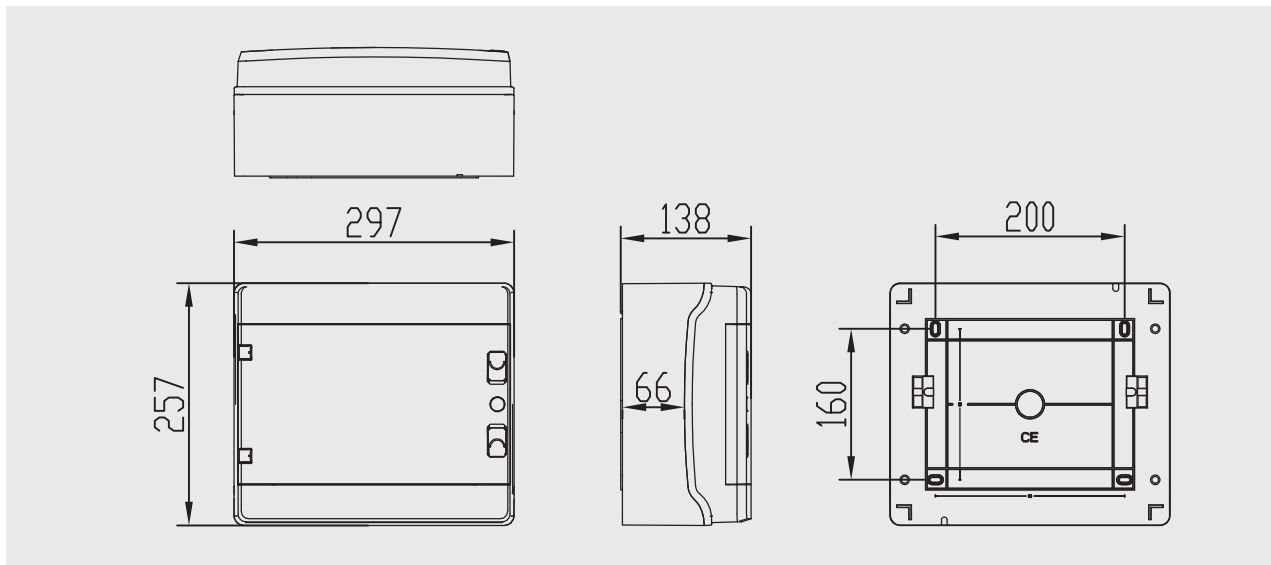
Note:

- Ensure that the RS485 cable is connected correctly. Otherwise the meter will go offline.

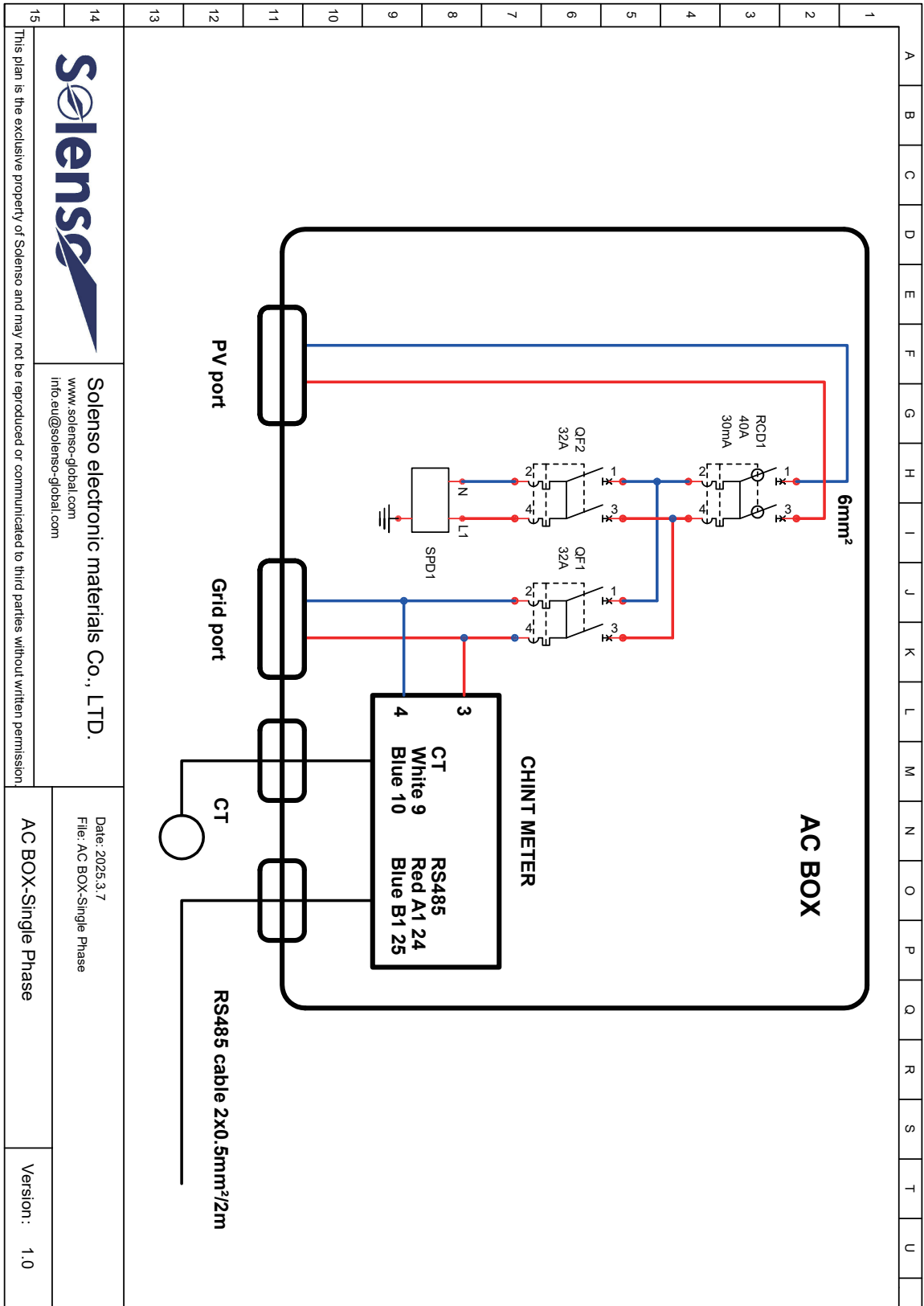
4. Technical Specifications

AC Box for applications with nominal voltage 230VAC system, in compliance with NF C 15-100.

Model	AC Box-S6
Accessories	
Meter	DDSU666
Breaker	NXB-63 2P C32A
SPD	NXU- II G 20kA/275V 1P+N
RCD	NXBLE-63YH 2P C40A 30mA
CT	Accurate up to 1.0%
Electrical Specifications	
Maximum input power	6000W
Maximum continuous current rating (input)	28A
Maximum branch circuit breaker rating (input)	32A
System voltage	220/230/240 VAC, 50Hz
Mechanical Data	
Dimensions (L × W × H)	297*257*138mm
Weight	2.5kg
Ambient temperature range	-35~70°C
Protective rating (IP)	IP65
Cooling	Natural convection



Appendix: Wire Diagram



Solense electronic materials Co., LTD.
 www.solense-global.com
 info.eu@solense-global.com

This plan is the exclusive property of Solense and may not be reproduced or communicated to third parties without written permission

Date: 2025.3.7
 File: AC BOX-Single Phase

AC BOX-Single Phase

Version: 1.0