

EVBox **Troniq 100**

Installation and user manual

EVBox

Troniq 100

Installation and user manual

Contents

1. Revision	3
2. Introduction	4
2.1. Important information	4
2.2. Scope of the document	4
2.3. Product classification	4
2.4. Certification and compliance	5
3. Safety precautions	7
3.1. Save these instructions	7
3.2. Warning: Risk of electric shock	7
3.3. Warning: Accumulation of gasses	7
3.4. Caution	7
4. Transport and storage	9
4.1. Transport and storage	9
4.2. Long term power off	9
4.3. Handling	9
4.4. Verify the packaging	9
5. Product features	11
5.1. Product parts presentation	11
6. Technical specifications	12
7. Prepare for installation	15
7.1. Safety precautions	15
7.2. Plan installation	15
7.3. Choose location	15
7.4. Cooling	16
7.5. Clearance	16
7.6. Clamping kit	17
7.7. Installation without clamping kit	18
7.8. Foundations	19
7.9. Route power supply cables	19
7.10. Electrical requirements	19
7.10.1. Upstream requirements	19
7.10.2. Phase rotation	20
7.10.3. Grounding instructions	20

8. Install the clamping kit	21
8.1. Handle the clamping kit	21
8.2. Place the clamping kit	22
8.2.1. With sidewalk	22
8.2.2. Without sidewalk	23
9. Install the Troniq 100	25
9.1. Remove the aluminum covers	25
9.1.1. Remove the aluminum covers on front side	25
9.1.2. Remove the aluminum covers on rear side	27
9.2. Handling	29
9.3. Placing	30
9.4. Electrical connections	32
10. Commissioning	34
10.1. Danger: Risk of electric shock	34
10.2. Start procedure	34
11. Use the EVBox Troniq 100	35
11.1. Start charging with EVBox Troniq 100	35
11.2. Stop charging EVBox Troniq 100	39
11.3. State of the EVBox Troniq 100	41
11.4. Cable management system	43
12. Decommissioning	44
13. Appendix	45
13.1. Installation report	45
13.2. Troniq100 - Dimensions	49
13.3. Clamping kit	50
13.4. Electrical diagrams	52

1. Revision

Beta version: This version is a release candidate reviewed and validated. It will be made final with the feedback and return of experience from the first installations on pilot sites.

Validation

Created by	Verified by	Validated by
Name: Grosset-Grange N. Date: 2020/12/03	Name: Richer J. Date: 2020/12/03	Name: Ourry E. Date: 2020/12/03

Change history

Revision	Date	Description
D001654AA0.1.0B1	2020/09/30	Creation.
D001654AA0.1.0B2	2020/10/15	Troniq 100 - dimension appendix update.
D001654AA0.1.0B3	2020/10/28	Electrical diagram update.
D001654AA0.1.0B4	2020/11/06	UL remarks update. Add: necessity of a laptop to configure charger.
D001654AA0.1.0B5	2020/12/03	Corrections

2. Introduction

Thank you for choosing EVBoxTroniq 100. Built to be connected and intelligent, EVBoxTroniq 100 makes going electric at public places easier than ever.

This Installation and user manual tells you how to install and use the EVBoxTroniq 100. Carefully read the safety information before you start.

These instructions are valid for several models of the charging station. It is possible that some features and options described may not apply to your charging station.

2.1. Important information

The present document is drawn up by way of information only and does not constitute an offer binding upon EVBox. EVBox has compiled the contents of this document to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications and performance data contain average values within existing specification tolerances and are subject to change without prior notice. Prior to ordering, always contact EVBox for the latest information and specification. EVBox explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this document. © EVBox Bordeaux. All rights reserved.

2.2. Scope of the document

Keep this manual for the entire life cycle of the EVBoxTroniq 100.

This manual is intended exclusively for qualified personnel who can assess the work and identify potential danger.

Maintenance and repair instructions are provided in the separate . All EVBox manuals can be downloaded from www.evbox.com/manuals.

© 2020 EVBox Manufacturing B.V. - all rights reserved. No part of this document may be modified, reproduced, processed, or distributed in any form or by any means, without the prior written permission of EVBox.

www.evbox.com/support

2.3. Product classification

This product has the following classification:

Table 1. Classification

Power output supply	EV supply equipment permanently connected to AC supply network.
Power supply output	DC EV supply equipment.
Normal environmental conditions	Outdoor and indoor use.
Access	Equipment for locations with unrestricted access.

Mounting method	Stationary equipment, surface-mounted on ground.
Protection against electric shock	Class 1 equipment.
Charging modes	Level 3

2.4. Certification and compliance

FCC Communication Regulations

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

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

Note: 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, the user is 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 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.

Warning: This equipment should be installed and operated with a minimum distance of 7.87 in. (20 cm) between the radiator and any part of the human body.

US contact information:

Evbox, 1910 Innovation Way, Libertyville, IL 60048, USA


Contact: Dave Scheuerman +1 847-946-8910

www.evbox.com

Americans with Disabilities Act (ADA) Compliance

While single-family residential installations do not have complex parking requirements, commercial, public and multi-unit residential installation have additional parking considerations that include Americans with Disabilities Act (ADA) accessible EVCS spaces and meeting the minimum requirements for spaces in parking lots and facilities. EVCS site hosts often experience challenges in providing ADA accessible EVCS spaces in addition to standard EVCS spaces while maintaining the minimum requirements for parking. Consideration of the available parking is important for residents as well as

employers and employees. Installing charging stations in unassigned spaces or common areas for availability to all residents at MUDs requires compliance with ADA accessibility regulations. Please check with your State and Local government agencies to understand and implement the necessary accommodations for people with disabilities.

	The charging station has been UL-certified by the manufacturer and bears the UL logo for USA and Canada. The relevant declaration of conformity may be obtained from the manufacturer.
---	--

3. Safety precautions

Read and obey the following safety precautions before you install, service or use your EVBoxTroniq 100 charging station. The installer must ensure that the charging station is installed in accordance with the relevant country-specific standards and local regulations.

3.1. Save these instructions

This manual contains important instructions for Troniq 100 that shall be followed during installation, operation and maintenance of the unit.

3.2. Warning: Risk of electric shock

- Switch off input power to your charging station before you install or service the charging station. Keep the power off until the charging station is fully installed with its covers installed and secured.
- In the event of danger and/or an accident, a certified electrician must immediately disconnect the electrical supply from the charging station.
- Do not operate the charging station if it is physically damaged or if the charging cable has cracks, excessive wear, or other visible damage. Contact EVBox or your distributor if you suspect that the charging station is damaged.
- Do not direct powerful jets of water toward or onto the charging station. Never operate it with wet hands. Do not put the EV charging plug into any liquid.
- Do not put fingers or other objects inside the charging port or plug port.
- Read the user instructions delivered with your EVBox charging station and the User Manual for your electric vehicle before charging your vehicle.

3.3. Warning: Accumulation of gasses

- Some electric vehicles require an external ventilation system to prevent the accumulation of hazardous or explosive gasses when charging indoors. Refer to your vehicle User Manual to check if your vehicle releases hazardous or explosive gasses when charging.

3.4. Caution

- Use this charging station to charge Level 3 compatible electric vehicles only. Refer to your vehicle user manual to check if your vehicle is compatible.
- This charging station may affect implanted electronic medical devices. Before you charge your vehicle, consult the supplier of the electronic medical device to determine if it can be influenced by charging effects.
- This charging station may only be installed, serviced, relocated and repaired by qualified persons. Incorrect installation, repairs or modification can result in danger to the user and may void the warranty and liability.
- This charging station contains no user-serviceable parts. The user must not attempt to service, repair or relocate the charging station. Contact EVBox or your dealer for more information.
- Make sure that the charging cable cannot become damaged (kinked, jammed or driven over) and that the plug(s) do not come into contact with heat sources, dirt or water.

- Only use the charging station under the specified operating conditions.
- Do not use explosives or flammable substances near the charging station.
- If you are unsure about how to use a charging station, ask for help.
- Do not allow children to operate a charging station. Adult supervision is required when children are near a charging station that is in use.
- Make sure that the charging cable is positioned so that it will not be stepped on, tripped over, driven over or otherwise subjected to excessive force or damage.
- While charging, the cable must be completely unwound and connected to the vehicle without overlapping loops (this is to avoid the risk of the charging cable overheating).
- Only pull on the charging plug hand grip and never on the charging cable itself.
- Adapters, conversion adapters or cord extensions must never be used on this charging station.

4. Transport and storage

4.1. Transport and storage

- Only transport and store the charging station in its original packaging. No liability can be accepted for damage incurred when the product is transported in non-standard packaging.
- Store the charging station **away from exposure** to the sun and in a dry environment in the temperature range given in the specifications.
- Disconnect input power before removing the charging station for storage or relocation.

4.2. Long term power off

- Charging station should not be left/placed in power off status for more than one week.
- For installed charger, in case of long term power off, a preventive maintenance must be done prior to switch on the charging station. Refer to your local contact support.

4.3. Handling

- Use a forklift to handle the package.





Note:
Do not stack packages.

4.4. Verify the packaging

Shock indicator

Packaging are equipped with Tiltwatch® indicator which will indicate, by visual indicator, if the package has been subjected to a shock (even if the package looks not damaged).

Grey indicator	Red indicator
	
Package can be accepted if no damage visible.	Package should not be accepted even if no damage is visible.

Visual inspection

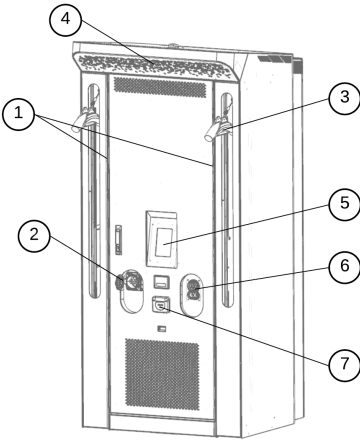
Check if:

- The exterior packaging has been damaged.

- Exterior panels of the charger are not damaged (shock, scratch, ...).
- The doors are working properly.
- The interior of the charger is clean and not damaged.

5. Product features

5.1. Product parts presentation

	1. Charger status LED.
	2. CHAdeMO connector (depending on the configuration).
	3. Auto retractable cable.
	4. LED lighting.
	5. Touchscreen.
	6. CCS connector.
	7. Type 2 socket (depending on the configuration).

6. Technical specifications

Electrical data

Table 2. Input

Technical data	Characteristic
Supply voltage	3 phases + PE, 480 Vac
Input voltage range	480 Vac +/- 10% (60 Hz)
Maximum rated input power	Installation side is 125% of nominal input power
Nominal input power	111 kVA
Nominal input current	133 A
Power factor	> 0.98
Efficiency	0.95 at nominal power

Table 3. DC output (Combo 1)

Technical data	Characteristic
Maximum output power	100 kW
Output voltage range	200 to 500 Vdc
Maximum output current	200 A
Residual current	< 6 mA peak max.

Table 4. DC output (CHAdeMO)

Technical data	Characteristic
Maximum output power	100 kW
Output voltage range	50 to 500 Vdc
Maximum output current	125 A (200 A optional)
Residual current	< 6 mA peak max.

Table 5. General

Technical data	Characteristic
DC connection standard	CHAdeMO 1.0 / COMBO DIN70121 ISO1518
DC cable length	9.84 ft (3.80 m)
DC plug type (Combo 1)	CCS - Type 1
DC plug type (CHAdeMO)	JEVS G105 - CHAdeMO
Network connection	GPRS or Ethernet / OCPP 1.6

Mechanical data

Technical data	Characteristic
Dimensions (H x W x D)	86.6" x 39.4" x 39.4" (2200 mm x 1000 mm x 1000 mm)
Weight	2535 lbs (1150 kg)
Dimensions including packaging (H x W x D)	93" x 43" x 46" (2364 mm x 1090 mm x 1165 mm)
Weight including packaging	2690 lbs (1220 kg)
Mechanical impact protection	IK10
Housing	Aluminum, galvanized and stainless steel

Environmental data

Technical data	Characteristic
Ingression protection	IP54, NEMA 3R
Temperature range - Operation	-22 °F to 122 °F (-30 °C to +50 °C)
Temperature range - Storage	-40 °F to 158 °F (-40 °C to +70 °C)
Humidity	5% to 95% without condensing
Operation noise level	60 dB

Technical data	Characteristic
Altitude	< 3280 ft (1000 m)
Ventilation	Force air cooled

7. Prepare for installation

The following recommendations are a guide to help you prepare for the installation of the EVBoxTroniq 100 charging station.

7.1. Safety precautions

You must read and obey the [safety precautions on page 7](#) at the beginning of this manual before you install, service or use the Troniq 100 charging station. The installer must ensure that the charging station is installed in accordance with the relevant country-specific standards and local regulations.

Installation shall not be made in a commercial garage (repair facility) or closer than 20 feet of an outdoor motor fuel dispensing device.

7.2. Plan installation

- Calculate the existing electrical load to find the maximum operating current for the charging station installation.
- Calculate the distance from the local power supply panel to the charging station installation to find the voltage drop. Local regulations may be applicable and can vary depending upon the region or country.
- Obtain all necessary permits from the local authority that has jurisdiction.
- Use only copper conductors.
- Incoming AC cables sizing must be in accordance with the NFPA 70 (+75°C / 3/0 AWG).
- PE grounding connector must be not spliced.
- Refer to local wiring regulations to select the conductor sizes.
- Use the correct tools and provide sufficient material resources and protection measures.
- Make sure that there is good cellular reception where the charging station will be installed.
- Prepare the installation areas with the correct power wiring and data cabling.
- A laptop with a RJ45 port is necessary to configure the charger through the web interface.

DC Smart Charging

If the DC Smart Charging feature is used in the installation, an Ethernet network should be installed.

Observe the following rules:

Ethernet cables must be separated from high voltage cable by:

- A distance barrier of 2 in. (5.08 cm),
- Or, isolation barrier,
- Or, using voltage rated Ethernet cable.

7.3. Choose location

Position the charging station, where possible, in surroundings where it is not exposed to extreme sunlight and vulnerable to external damage.

**Note:**

On locations with harsh weather conditions (high temperatures, snow,...), it is recommended to provide additional protection such as canopy, roof protection.

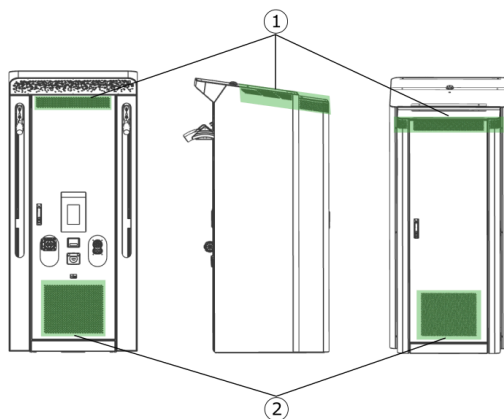
7.4. Cooling

EVBoxTroniq 100 has forced air cooling. Airflow is from the bottom to the top of the charging station.

**Note:**

In case of installation in a closed building, the room must have a system of permanent renewal of the air with a minimum air flow of 5,283 gal/min (1,200 m³/h). The ventilation areas must not be blocked.

Troniq 100 Airflow



①:

Air outlet.

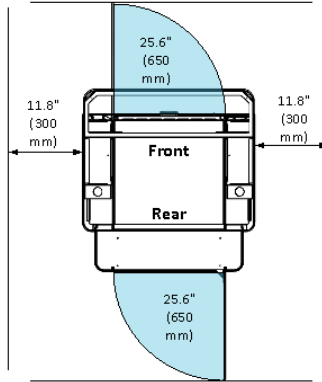
②:

Air inlet

7.5. Clearance

EVBoxTroniq 100 needs the following free space for ventilation and maintenance.

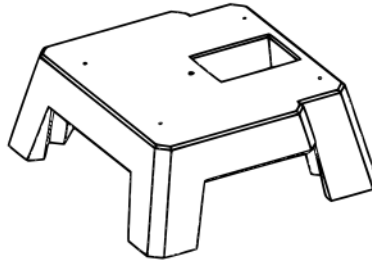
Troniq 100 clearance



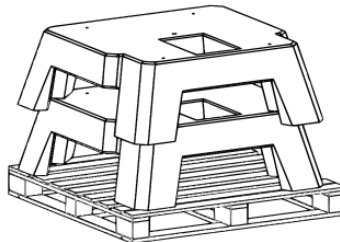
7.6. Clamping kit

In order to ensure proper installation, and therefore durability of our products, the use of the clamping kit is recommended. It is sold separately by EVBox.

Clamping kit supports the charger and contains holes to seal screw anchor in order to fix the charger.

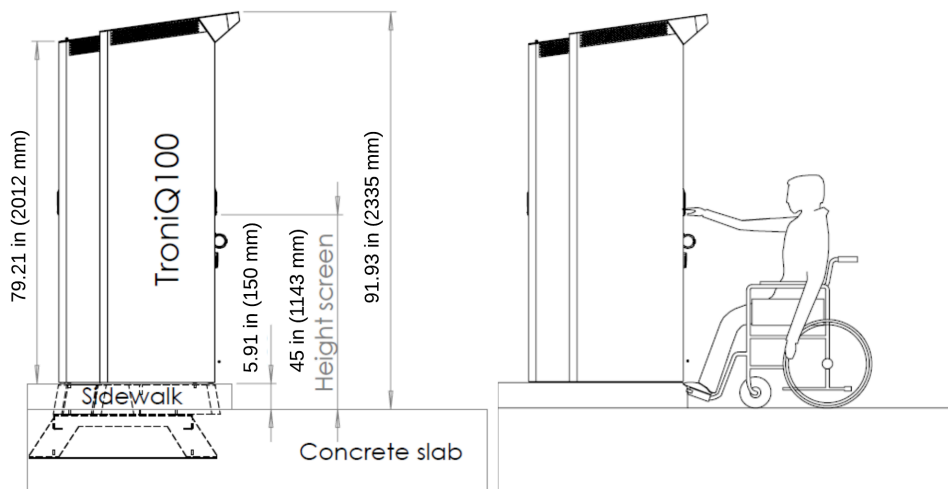


Clamping kit is stackable and can be manipulated with a forklift.

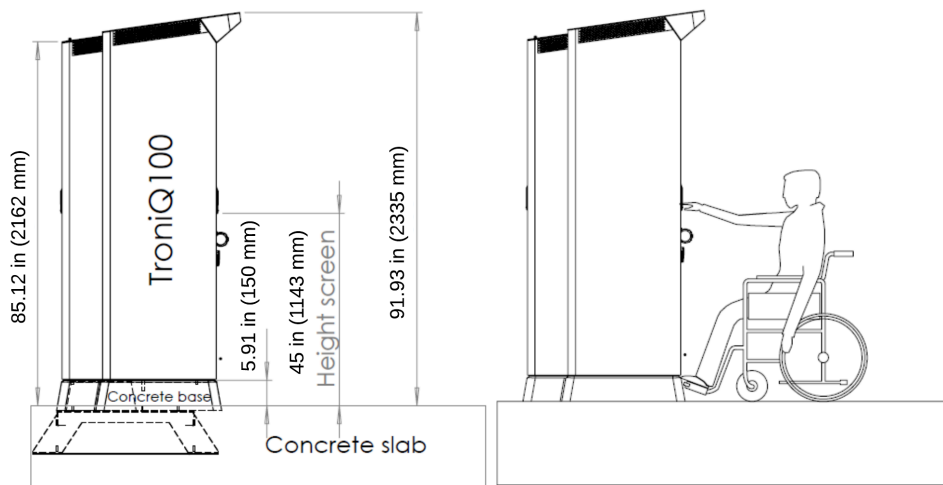


Clamping kit has to be sealed depending of the site configuration:

- **Presence of sidewalk:** Clamping kit has to be integrated in the foundations.

Presence of sidewalk

- **No sidewalk:** clamping kit has to be raised compared to the foundations in order to comply with American with Disabilities Act (ADA) regulation.

No sidewalk**7.7. Installation without clamping kit**

For installation using not clamping kit, prepare the foundations according the to clamping kit diagram see [Clamping kit on page 50](#)

7.8. Foundations

Observe the following rules regarding the foundations:

- Foundations must be carried out in accordance with local regulations.
- Concrete characteristics must be calculated regarding the technical data of the charging station.
- The concrete should be frost proof.
- Thickness of the foundations must be calculated in accordance with the weight of the system and the installation site.
- A slope deviation left/right or front/back may cause infiltration of water and damage the charging station.

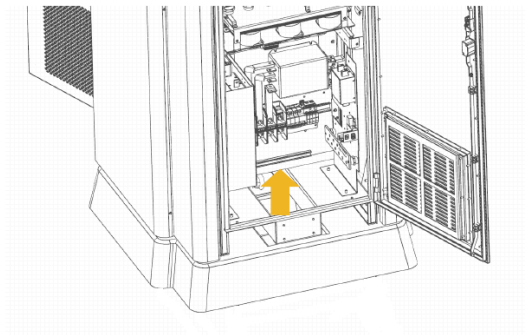
7.9. Route power supply cables

The appropriate wire gauge of the supply cable depends on the power rating and distance between the power supply cabinet and the charging station. The voltage drop must not exceed 5% (it is advisable to have a maximum allowable voltage drop of 3%). The maximum wire gauge that can be fitted is AWG 500 kcmil (240 mm²)

Route the power supply cables to the position where the charging station will be installed. Make sure of the following:

- There must be enough cable for it to extend at least 20in. (50cm) above the cable connection point of the charging station.
- The bend radius must not be exceeded.

The cable comes from the bottom at the rear side of the charging station.



7.10. Electrical requirements

7.10.1. Upstream requirements

Electrical connection must be carried out by a professional electrician according to the local regulation.

Charging station must be connected to an electrical network with the following characteristics:

- 3 Phases (3P + PE)
- 480 Vac +/- 10%

- 60 Hz

This connection must be protected upstream by:

- A main switch or a disconnecting circuit breaker capable of at least 175 A to electrically isolate the charger in case of maintenance.
- A transient voltage surge suppression in accordance with the local regulations.



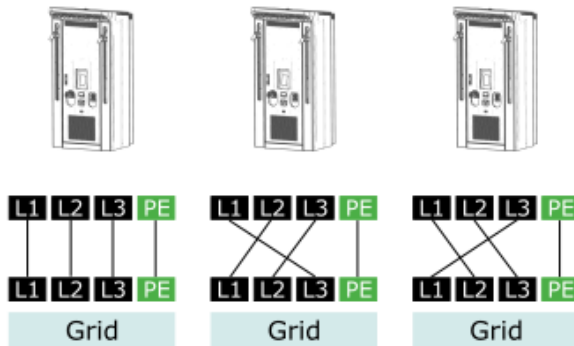
CAUTION:

- To reduce the risk of fire, connect only to a circuit provided with 175 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70.

Ground impedance must be lower than 20 ohms in dry conditions.

7.10.2. Phase rotation

In case of several Troniq 100 in the site location, to avoid overloading the first phase, it is recommended to rotate the phase as below.



7.10.3. Grounding instructions

This unit is to be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor is to be run with circuit conductors and connected to equipment-grounding terminal or lead on battery charger. Connections to battery shall comply with all local codes and ordinances.

To achieve EMC compliance, the chassis must be bonded to earth locally to the charger.

8. Install the clamping kit

8.1. Handle the clamping kit

Clamping kit can be handled with:

- Lifting ring,
- Forklift.

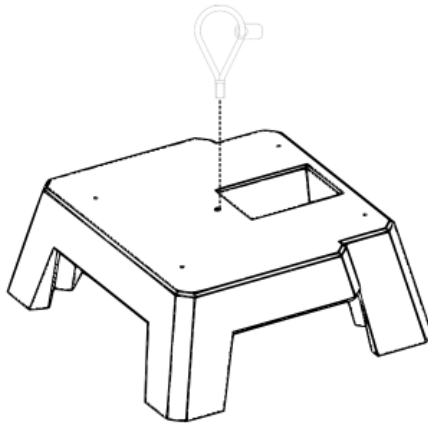


Note:

- Clamping kit weight is 660 lbs (400kg).
- Use lifting device to support the weight of the clamping kit.

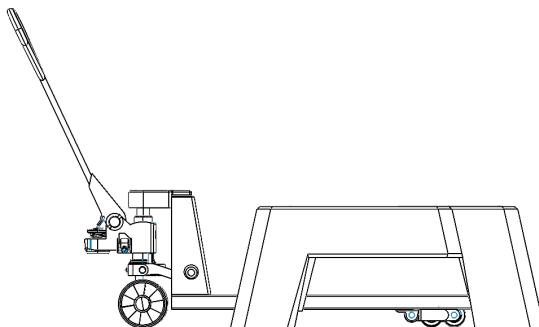
Handling with lifting ring

Use the integrated lifting ring to handle and place the clamping kit:



Handling with forklift

Use a forklift to handle and place the clamping kit:

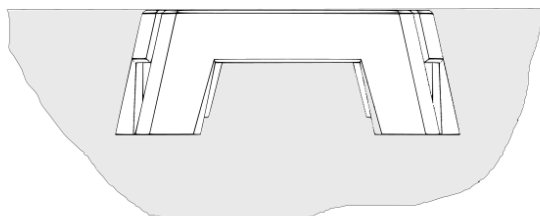


8.2. Place the clamping kit

8.2.1. With sidewalk

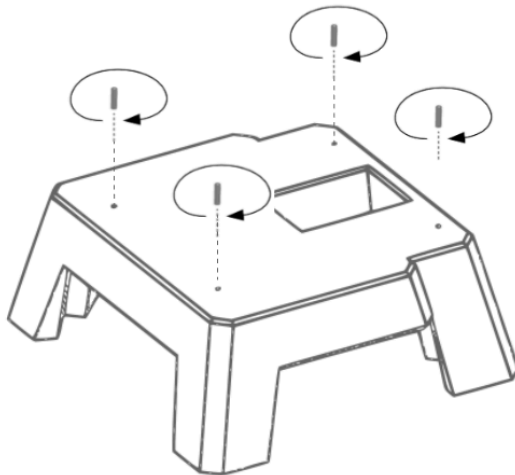
Place the clamping kit in sidewalk configuration

1. Dig a hole according to the clamping kit structure and the calculations for foundations.
2. Install the cable ducts.
3. Start pouring concrete in the hole.
4. Place the clamping kit and pour concrete .



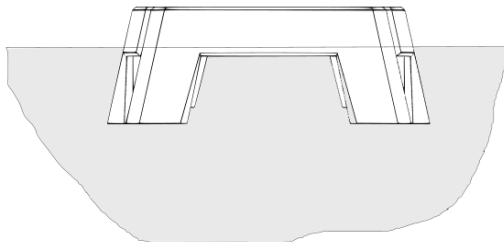
5. Level the clamping kit.
6. Let the concrete dry according to its characteristics.

7. Insert the four M12 threaded rods in the clamping kit.



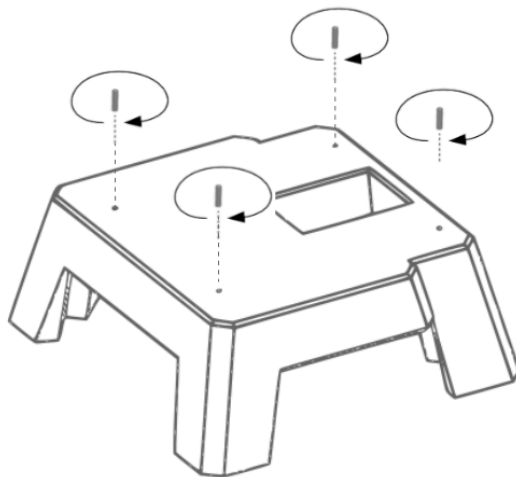
8.2.2. Without sidewalk

1. Dig a hole according to the clamping kit structure and the calculations for foundations.
2. Install the cable ducts.
3. Start pouring concrete in the hole.
4. Place the clamping kit and pour concrete until the mark on the clamping kit.



5. Level the clamping kit.
6. Let the concrete dry according to its characteristics.

7. Insert the four M12 threaded rods in the clamping kit.

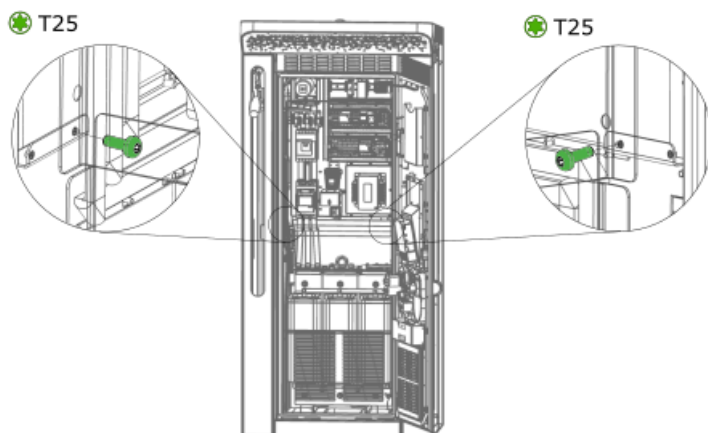


9. Install the Troniq 100

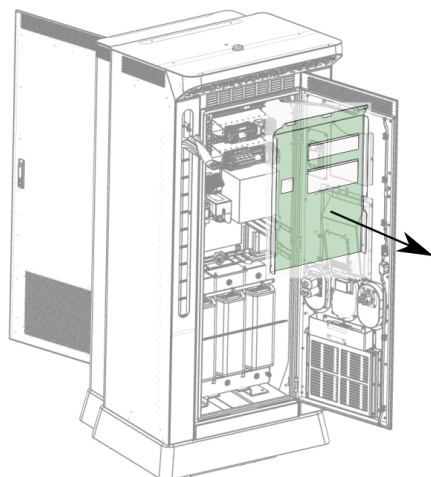
9.1. Remove the aluminum covers

9.1.1. Remove the aluminum covers on front side

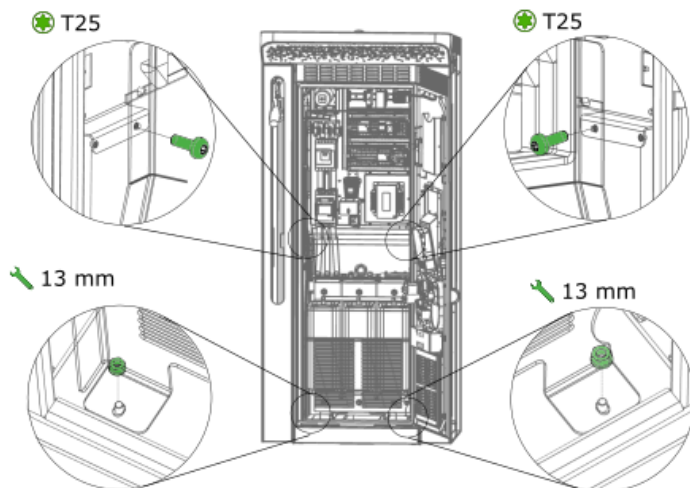
1. Open the front door of the charging station.
2. Remove the two screws that maintain the upper aluminum cover.



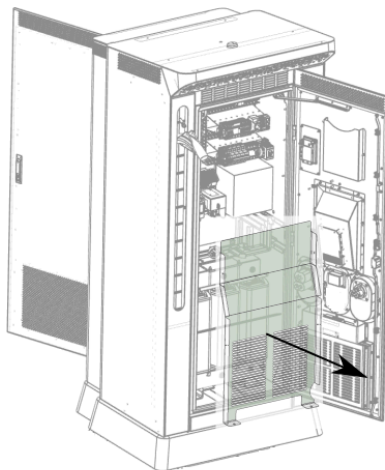
3. Remove the upper aluminum cover.



4. Remove the two screws and two nuts of the lower aluminum cover.



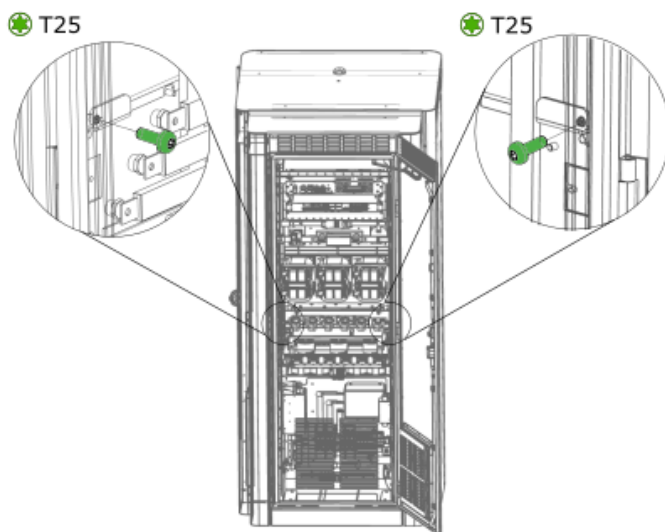
5. Remove the lower aluminum cover.



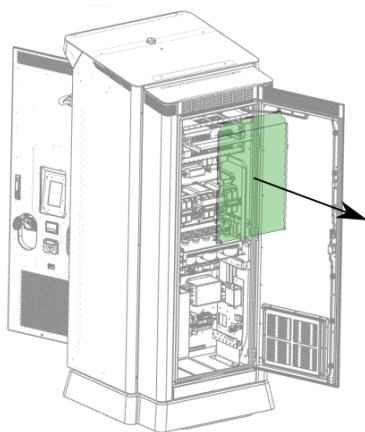
9.1.2. Remove the aluminum covers on rear side

1. Open the rear door of the charging station.

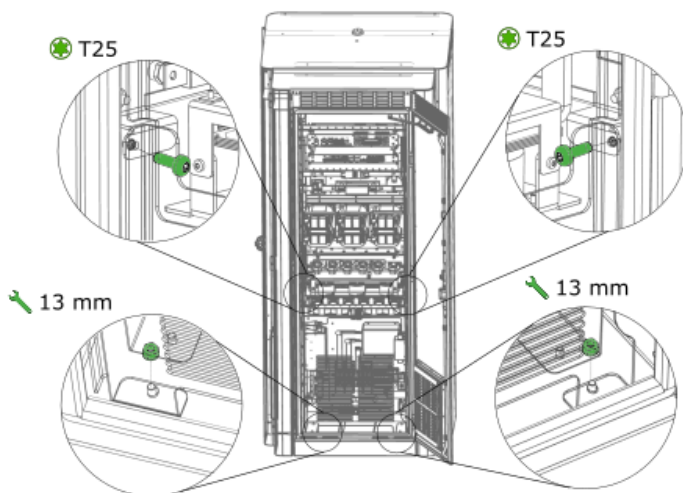
2. Remove the two screws that maintain the upper aluminum cover.



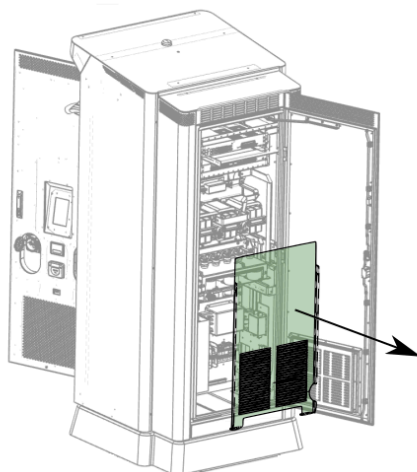
3. Remove the upper aluminum cover.



4. Remove the two screws and two nuts of the lower aluminum cover.



5. Remove the lower aluminum cover



9.2. Handling



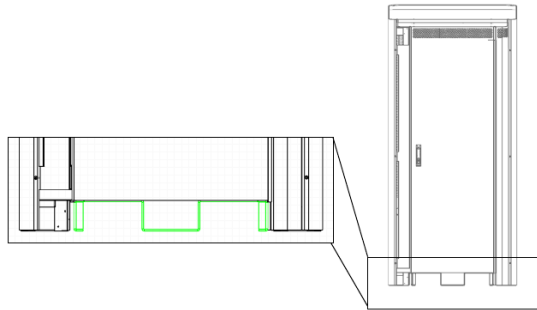
WARNING:

- Always transport charger in upright position.

- Do not manipulate the charger when it is electrically connected.
- Do not use a crane type hoist that does not support the weight of the charger.
- The center of gravity of the charger is high, be careful when handling.
- Do not handle the charger by the top.

With a base shaped like a pallet, Troniq 100 can be handled by a forklift.

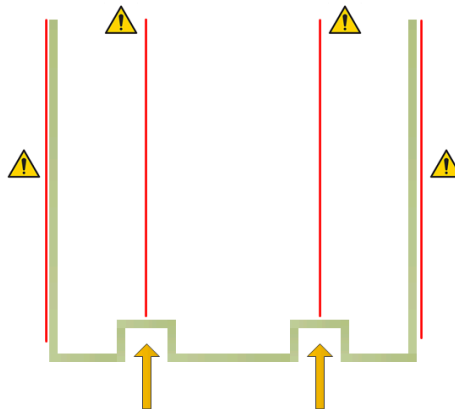
Troniq 100 base



Lifting slings can be used to place the charging station:

- The loading points are only those indicated by the orange arrows below.
- Charging station must be protected from friction of the slings.

Slings placement



9.3. Placing

When the installation area is prepared you can install and connect the charging station.

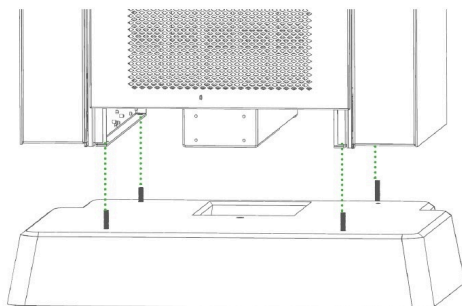
**WARNING:**

Put up caution tape and warning signs to mark working areas. Make sure that connection of the electrical current cannot occur during installation. Make sure no unauthorized persons enter the working areas.

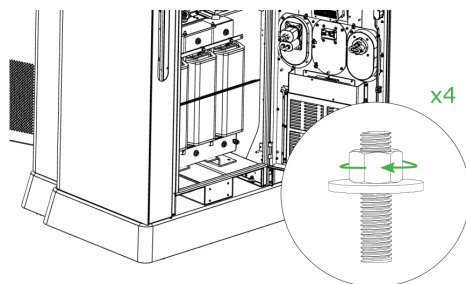
1. Handle the EVBoxTroniq 100 to its location.
2. Place the charging station on the four threaded rods of the positioning support.

**Note:**

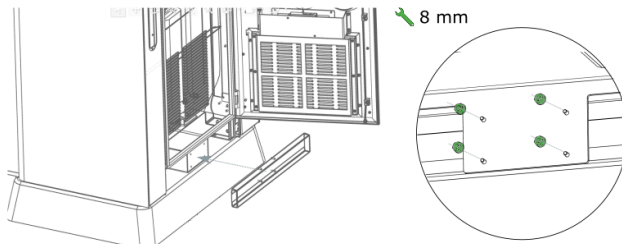
Check that the charging station is level.



3. Tighten the four nuts in the charging station.



4. Install the two plinths at the front side and rear side.



The EVBoxTroniq 100 is ready to be connected.

9.4. Electrical connections

Power connection



Note:

Kit of terminals is optional for connection of conductors (according to National Electrical Code).

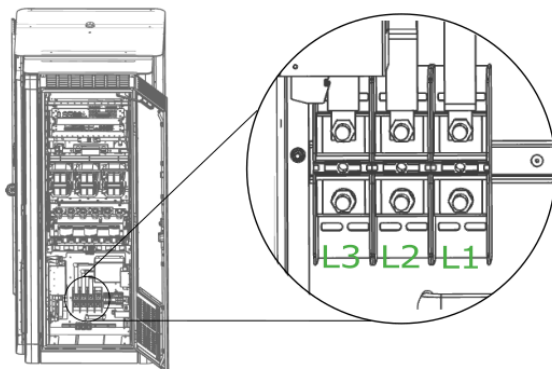
Terminal	Conductor	Size	Terminal diameter	Terminal maximum width	Torque	Hex
L1, L2, L3	AWG stranded cable	minimum AWG 3/0) with copper for 75°C or 90°C (according with the NFPA 70)	0.51 in (13 mm)	1.5 in (38 mm)	266 in-lbs (30Nm)	12 mm



Note:

EVBox can provide in option M12 quick connector for AWG3/0 in option (see spare part list DCA006277).


Connect the AC cables to the terminal.



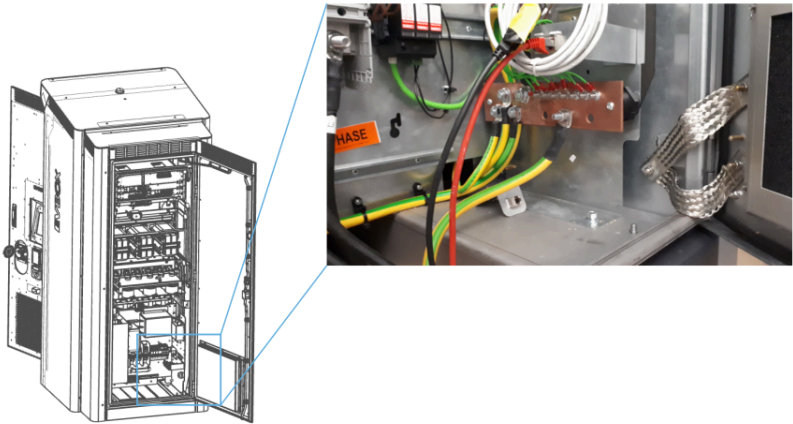
Note:

To prevent from rodent intrusion and water ingress, it is possible to use retardant flame expensive foam. It shall be compliant with local installation codes and UL2594. And the shall not be installed on or over combustibile surfaces.

Protective earth connection

Terminal	Conductor	Size	Terminal diameter	Torque	
PE	AWG stranded cable	Minimum AWG6. Protective earth cable shall be at minimum the cross section of the main AC cables. (according with the NFPA 70)	0.51 in (13 mm)		12 mm

Connect the protective earth cable



10. Commissioning



10.1. **Danger: Risk of electric shock**

- Even if D1 and/or D3 is OFF, power supply is still present on the charger before servicing, switch off power at main breaker.

10.2. Start procedure

1. Switch circuit breaker D3 to ON.
2. Switch circuit breaker D4 to ON.
3. Switch circuit breaker D8 to ON.
4. Switch circuit breaker D9 to ON.
5. Switch circuit breaker D1 to ON.
6. Close the door.
7. Once the door is closed, check that the side LEDs are green.

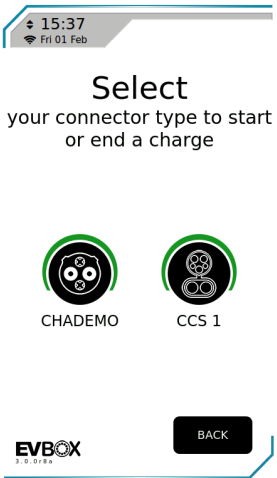
11. Use the EVBox Troniq 100

11.1. Start charging with EVBoxTroniq 100

1. **Welcome screen:** The welcome screen offers the choice to select the language or to start a charging sessions.

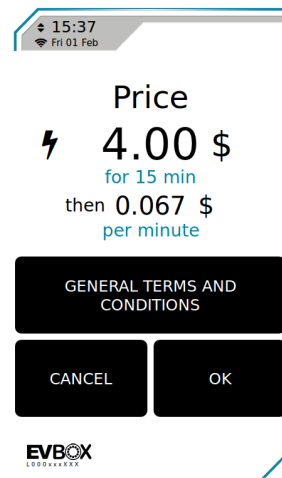
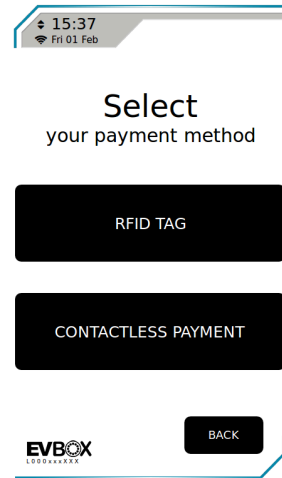


2. **Selection of connector type:** If the EVBox Troniq 100 is set up with two different connector types, select the appropriate connector.



3. **Method of payment:** If the EVBox Troniq 100 has a contact-less payment terminal, select your payment method. Otherwise, the RFID Tag method will be set as default. Depending on the product configuration, one of the two options can be set by default.

4. **Contactless payment process:** If you chose the contact less payment method, you will be informed about the charging station's price policy. Click on "GENERAL TERMS AND CONDITIONS" for more information about the price policy. If you agree click "OK".

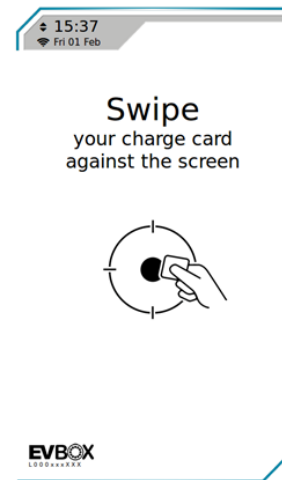


5. **Contactless payment process:** Follow the payment terminal instructions



Please follow the instructions on the payment terminal

6. **RFID Tag process:** If you chose RFID Tag as the payment authentication method, or if it is the default setting, swipe your card against the screen as shown on the HMI screen, then wait for validation.



7. **Acceptance:** The payment has been accepted.



Deposit
accepted



EVBOX
L000XXXXXX



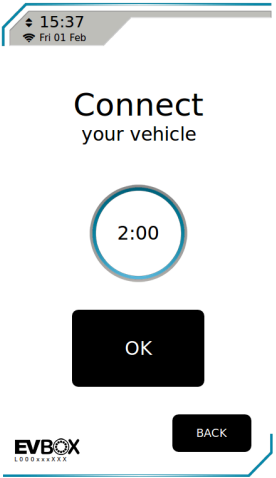
Charge card
accepted



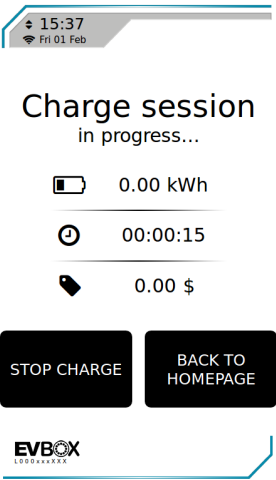
Please wait

EVBOX
L000XXXXXX

8. Once connected, the charger will synchronize with your vehicle.

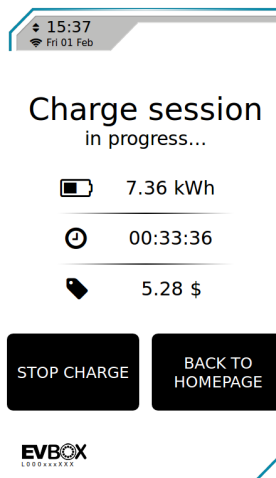


9. Charging session will carry on until you stop charging, or charge is completed.



11.2. Stop charging EVBoxTroniq 100

1. **Stop the charge:** Click on "STOP CHARGE" to stop the charging session.



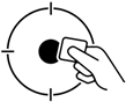
2. **Authentication:** If you have been authenticated for the first time using a NFC (Near Field Communication) bank card, re-enter your payment method on terminal in order to be authorized to stop the charge.



3. **Authentication:** If you have been authenticated by RFID Tag, you will be invited to swipe your card on the screen.



Swipe
your charge card
against the screen



EVBOX
L000xxxxxx

4. **Vehicle unplugged:** Once the vehicle has been unplugged, the total session amount will be displayed. You can leave the charging station and the screen will return to the welcome page within 20 seconds.



Payment
finished



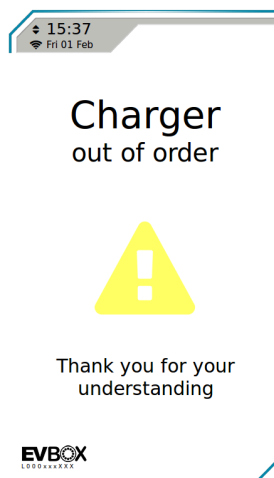
Actual amount:
5.28 \$ incl tax

Thank you for using this device
Goodbye

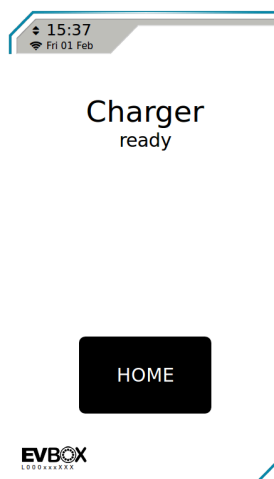
EVBOX
L000xxxxxx

11.3. State of the EVBoxTroniq 100


1. If the event the EVBox Troniq 100 is out of order, the following screen will be displayed, and the charger LED will turn yellow. You may call the maintenance service.



2. **Charger ready:** Once the emergency stop button is back to its position, please validate the system restart by pressing "HOME".



11.4. Cable management system

 <p>A rectangular warning sign with a black border. At the top, an orange banner contains a black triangle with an exclamation mark and the word "WARNING" in bold black capital letters. Below this is a yellow triangular hazard symbol with a black border, depicting a hand being caught between two rollers. At the bottom, a white rectangular box contains the text "Pinch point. Keep hands clear of rollers." in bold black font.</p>	<p>PINCH POINT</p> <p>When using cable management system, keep hands clear of rollers.</p> <p>Failure to these instruction can result in injury.</p>
---	--

12. Decommissioning

Remove and dispose of the charging station in accordance with applicable local disposal regulations.





DANGER:

Risk of electric shock

- Even if D1 and/or D8 is OFF, power supply is still present on the charger before servicing, switch off power at main breaker.
- Before the charging station is removed, switch off all power at the power supply cabinet. Secure the power supply cabinet and put up warning signs to prevent accidental supply of power.
- If an operator uncovers the aluminum cover, operator needs to de-energize before (D1 & D8).

Removal is the reverse of the installation procedure (see [Install the Troniq 100 on page 25](#)).

Dispose of the charging station in a responsible manner.

	<p>Do not dispose this charging station in household waste. Instead, dispose this charging station at a local collection point for electric/ electronic devices in order to enable recycling and thus avoiding negative and hazardous impacts on the environment. Ask your city or local authorities for respective addresses.</p>
	<p>Recycling of materials saves raw materials and energy and makes a major contribution to conserving the environment.</p>

13. Appendix

13.1. Installation report

To ensure we will be able to go through the commissioning process, we ask for a report of the installation of the equipment, stating that it is finished and the result is the one expected at the end of the installation process, as described in the installation manual.

Without this document completed, no commissioning will be performed. Additional service costs may also be applied if the document does not match with reality.

Company	
Charger name	
Serial number	
SIM card number	
Order number	

How to fill this document

Checklist to be completed

Verifications	Result	Comments
Casing in good condition, no damage. General condition and cleanliness of the structure is acceptable.		
Validation that the charger is level and flat to the ground as defined in the installation procedure.		
Validate that the different charging connectors: Type 2, CCS, CHADEMO and E/F plug are in good condition. (depending on the configuration)		
Confirm no evidence of condensation on the display screen.		

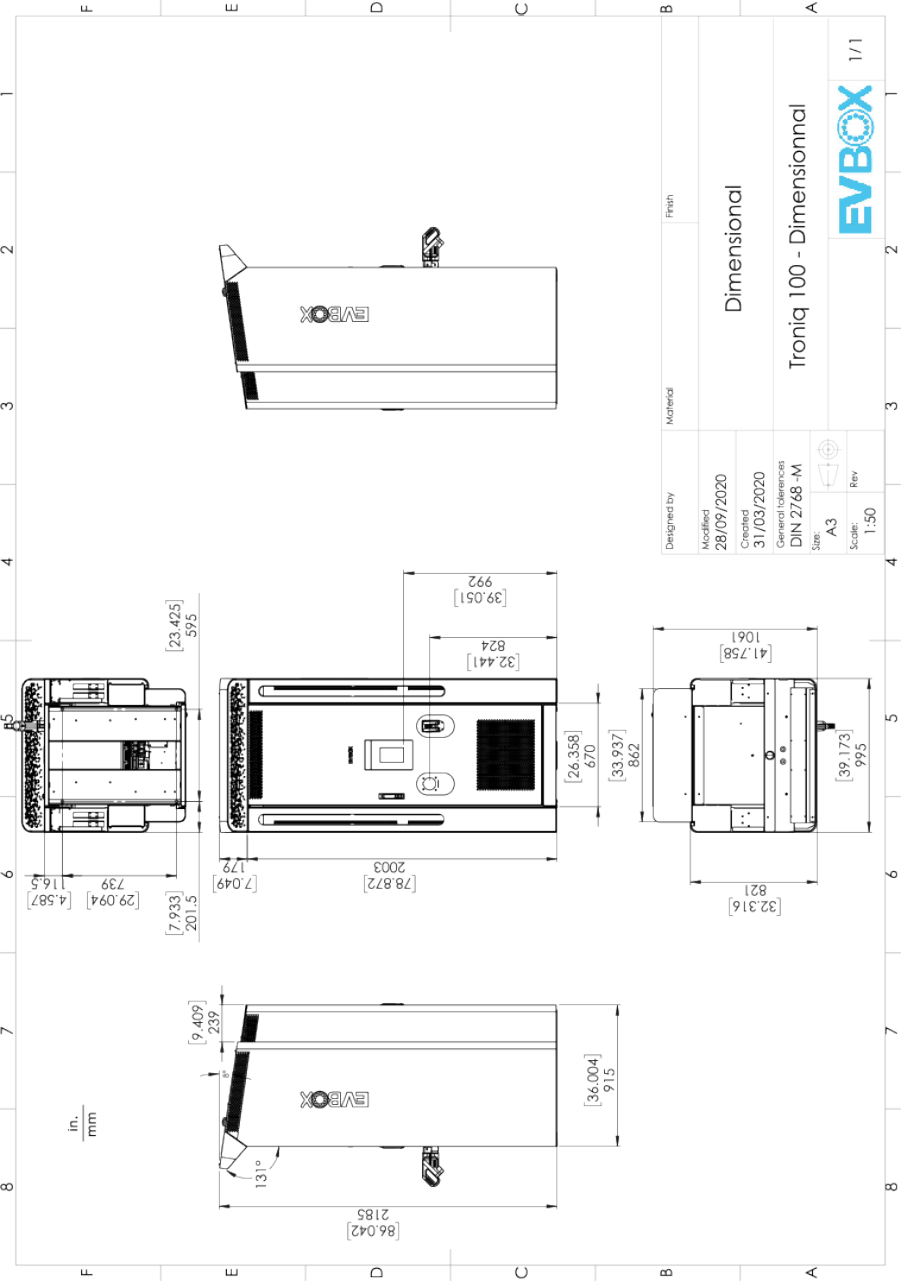
Verifications	Result	Comments
Validate that the door locks are correctly closed to guarantee sealing against water ingress.		
Confirm no evidence of humidity or water ingress inside the charger.		
Confirm the door hinges are correctly adjusted.		
Verify visually the cables and cabling inside the charging unit are acceptable. No bare or loose wires evident.		
Confirm the presence of and tightness of the GPU fixing screws and the correct fixing / tightening of the circuit breakers.		
Make sure the ventilation air flow is correct and there is not any obstruction at the ventilation inputs and output grill.		
With all circuit breakers down, check presence of voltage at the main terminal block: <ul style="list-style-type: none"> • Phase – Phase ~ 480 Vac • Phase – Earth ~ 240 V • Earth – Neutral 0 V 		
Validate the earth loop value (< 20 ohms condition dry)		Earth value: Ohm
Check the equipotential connection between the metal parts of the charger, including door, with the main earthing terminal block		

Verifications	Result	Comments
With all circuit breakers down, <u>Switch ON circuit breaker D3</u> , with the door OPEN, verify that the LEDs are lit RED that the display screen is ON.		
Update software if needed.		
Close the door and verify that the LEDs are lit RED and that the screen displays "CHARGER UNAVAILABLE"		
Open the door again and <u>Switch ON circuit breaker D1</u> and close the door. Verify that the LED on the DC side is GREEN. Verify that the LED on the AC side is RED.		
Close the door. Verify that the LED is GREEN.		
Open the door again, <u>Switch OFF circuit breaker D1 and D3</u> , insert the SIM card in the screen, <u>Switch ON circuit breaker D3</u> and configure the connection to the network controller if it is necessary.		
Verify that the time displayed at the screen is correct and that the indicator lights for Signal connection and server connection are functioning correctly. If the indicators are not present (lit), verify the presence of the SIM card. Validate (if present) that the SIM card is correctly inserted. Also validate the presence and connection of the aerial unit.		

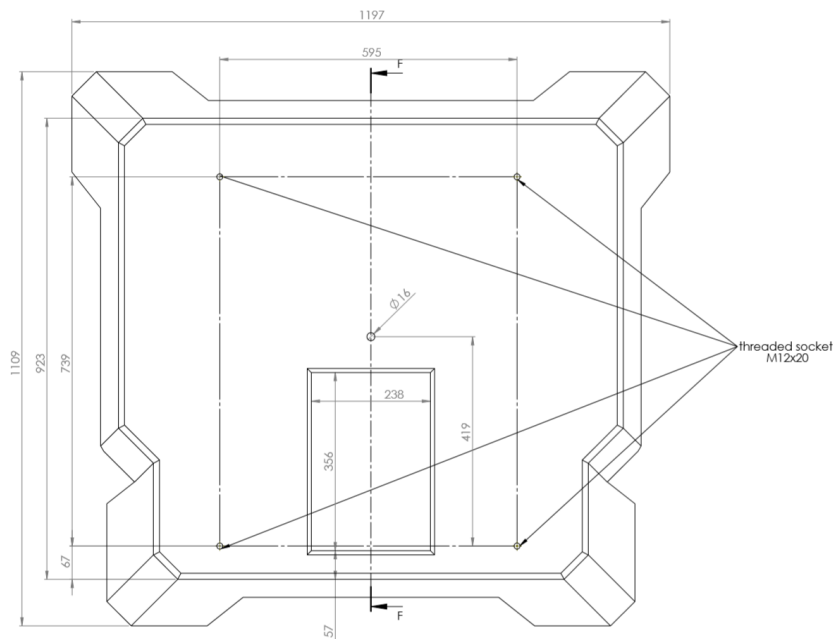
Verifications	Result	Comments
Verify that all the LED indicators are light in green and there is not any abnormal noise.		
Test a normal client operation of the unit using a badge.		
Note any modifications undertaken during the commissioning (disconnecting earth cable, replacement of the SO-DIMM...):		

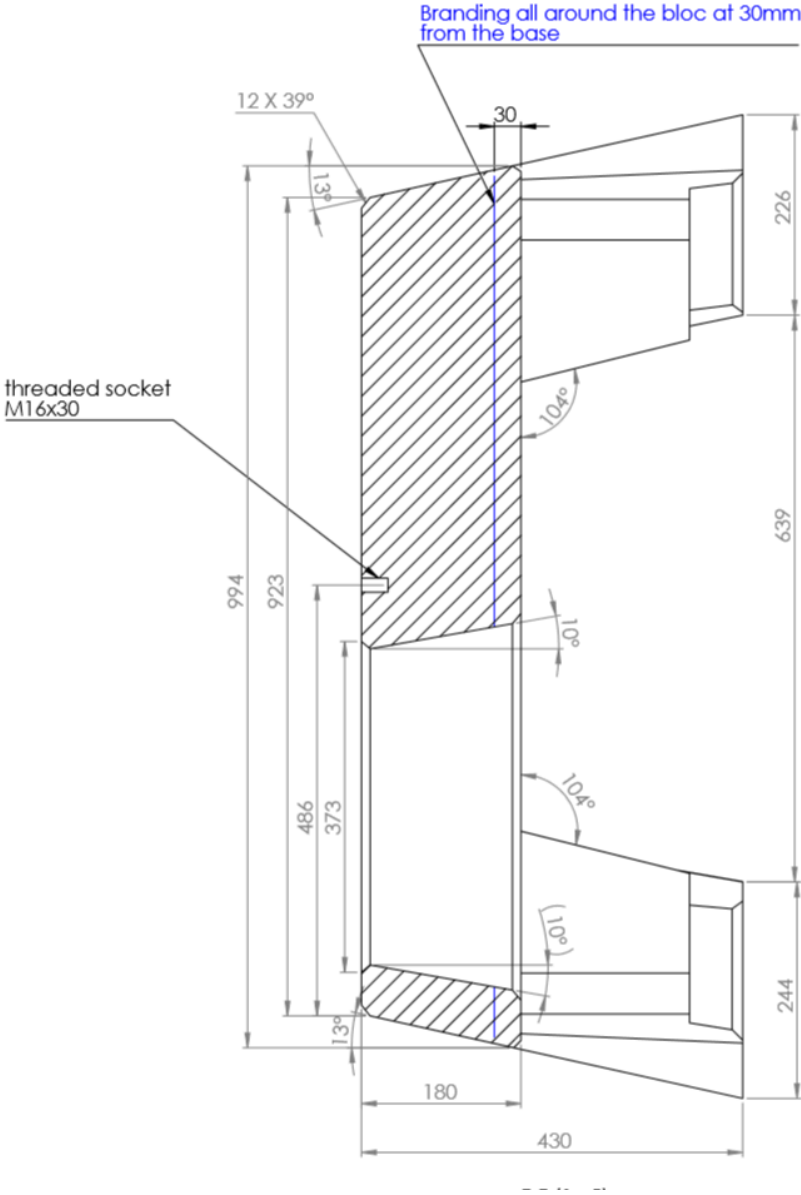
Validation location	
Date	
Certified Partner	
Signature and stamp	

13.2. Troniq100 - Dimensions

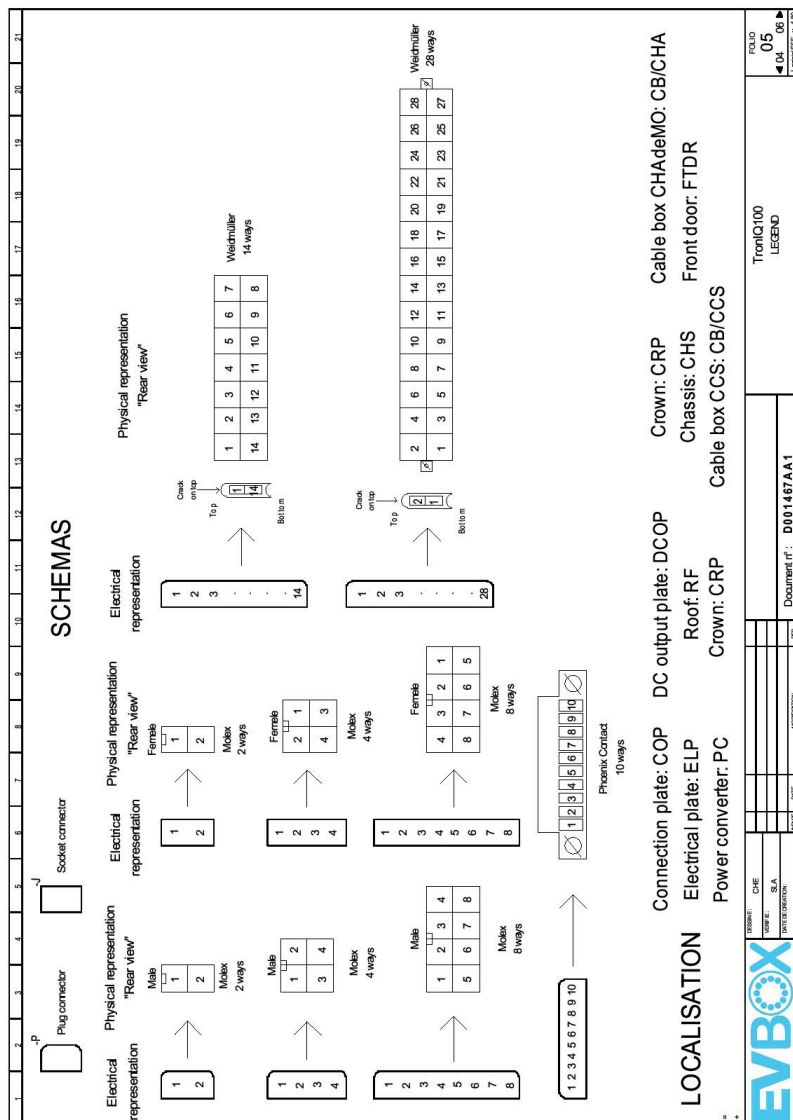


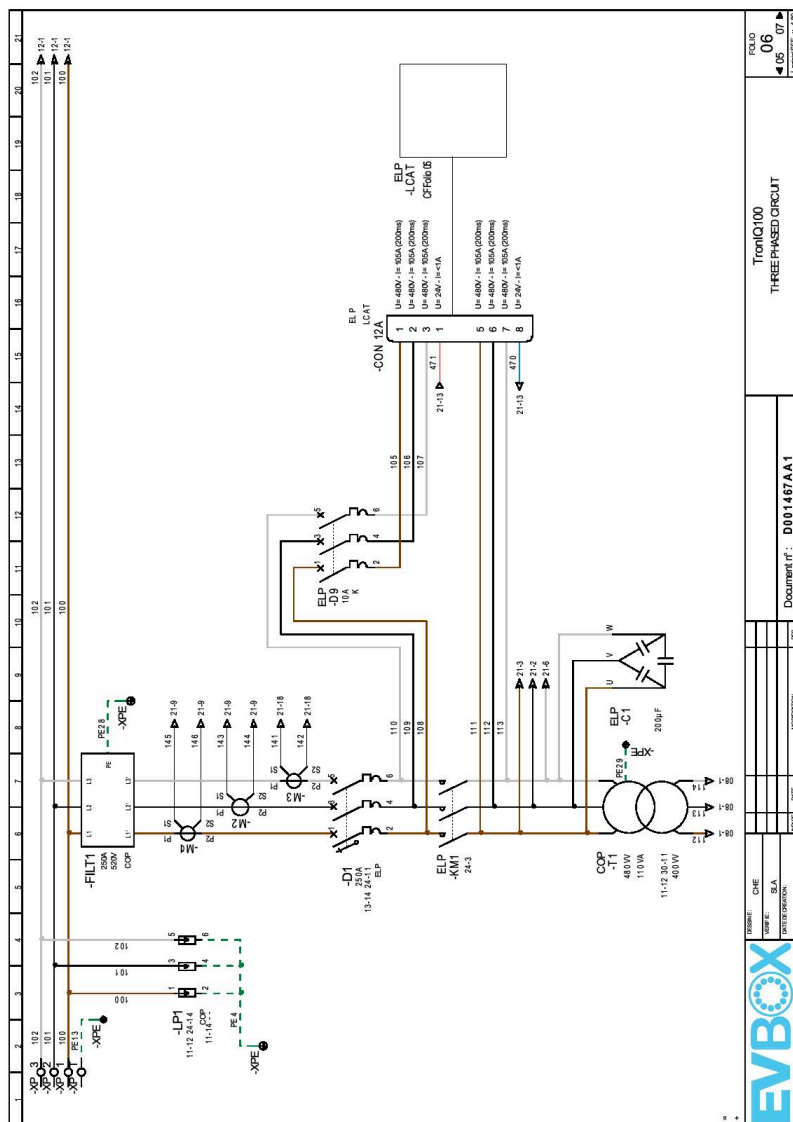
13.3. Clamping kit

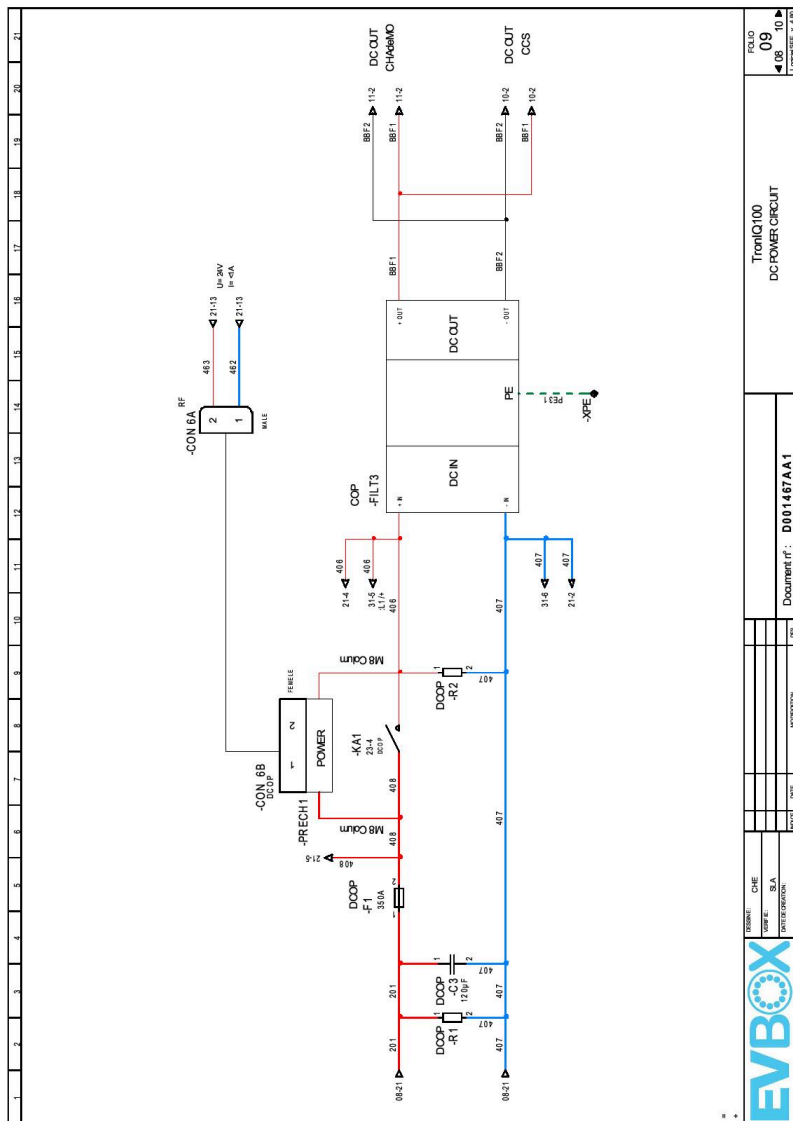


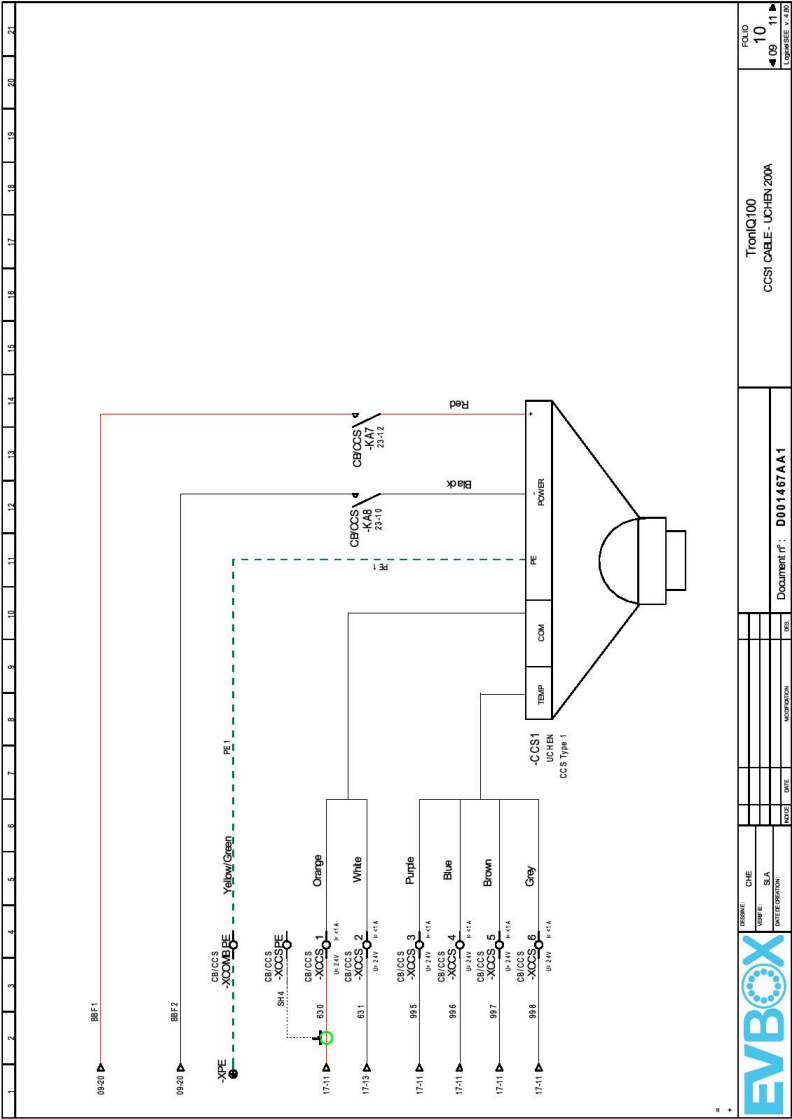


13.4. Electrical diagrams









EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

EVBOX

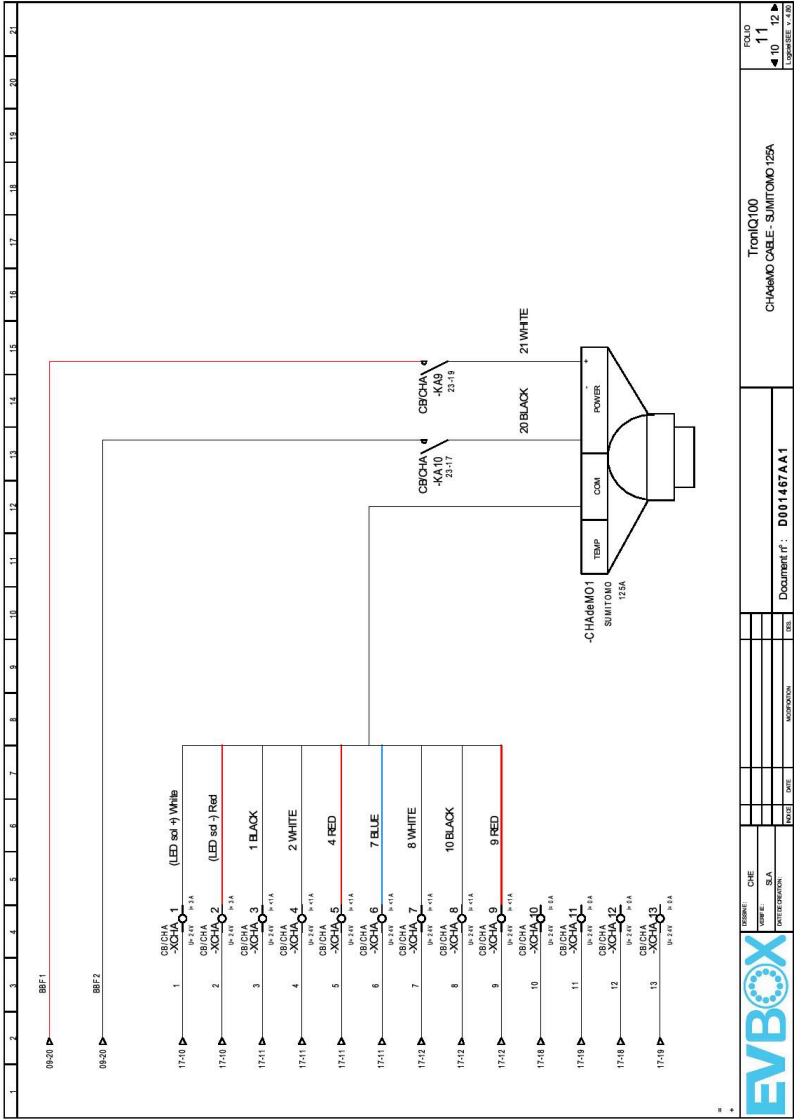
EVBOX

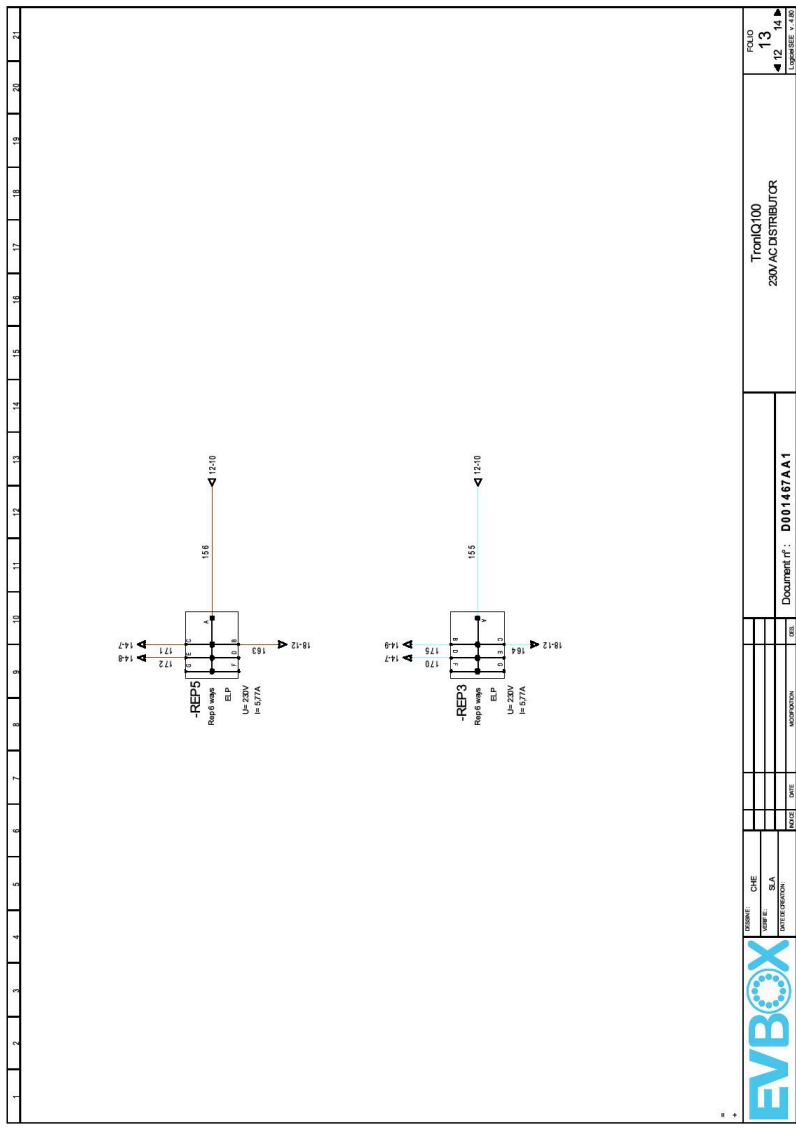
EVBOX

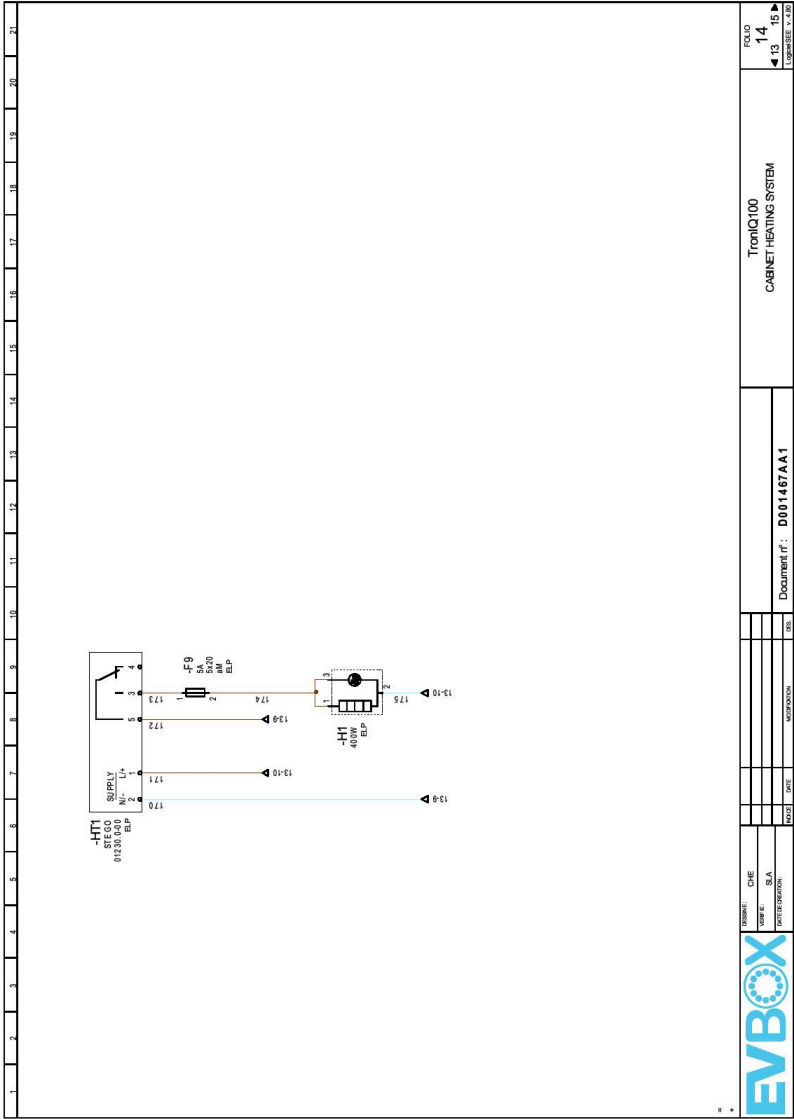
EVBOX

EVBOX

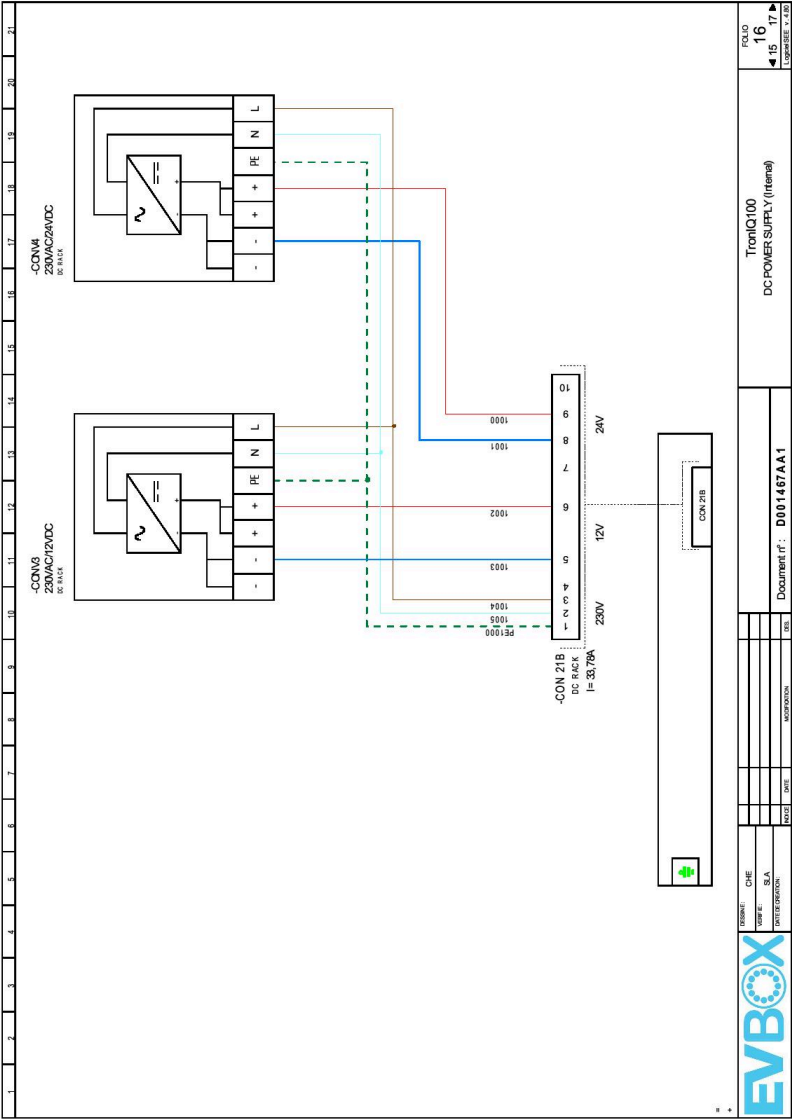
EVBOX



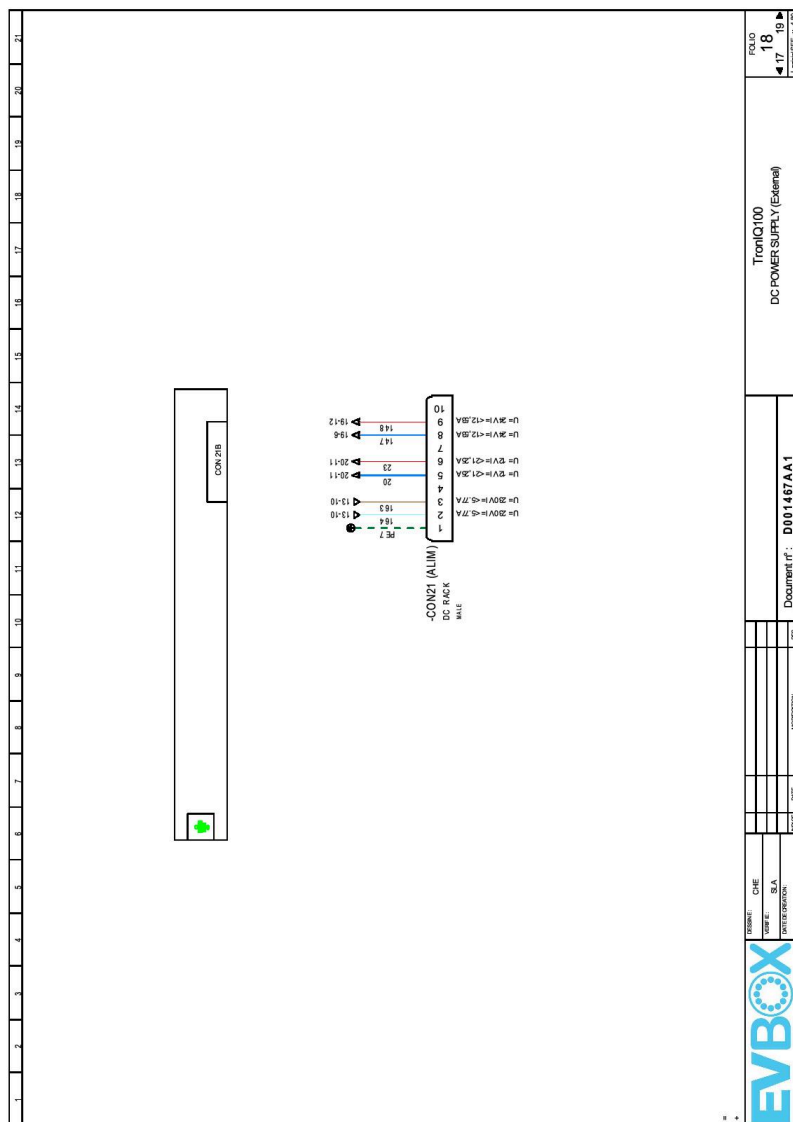


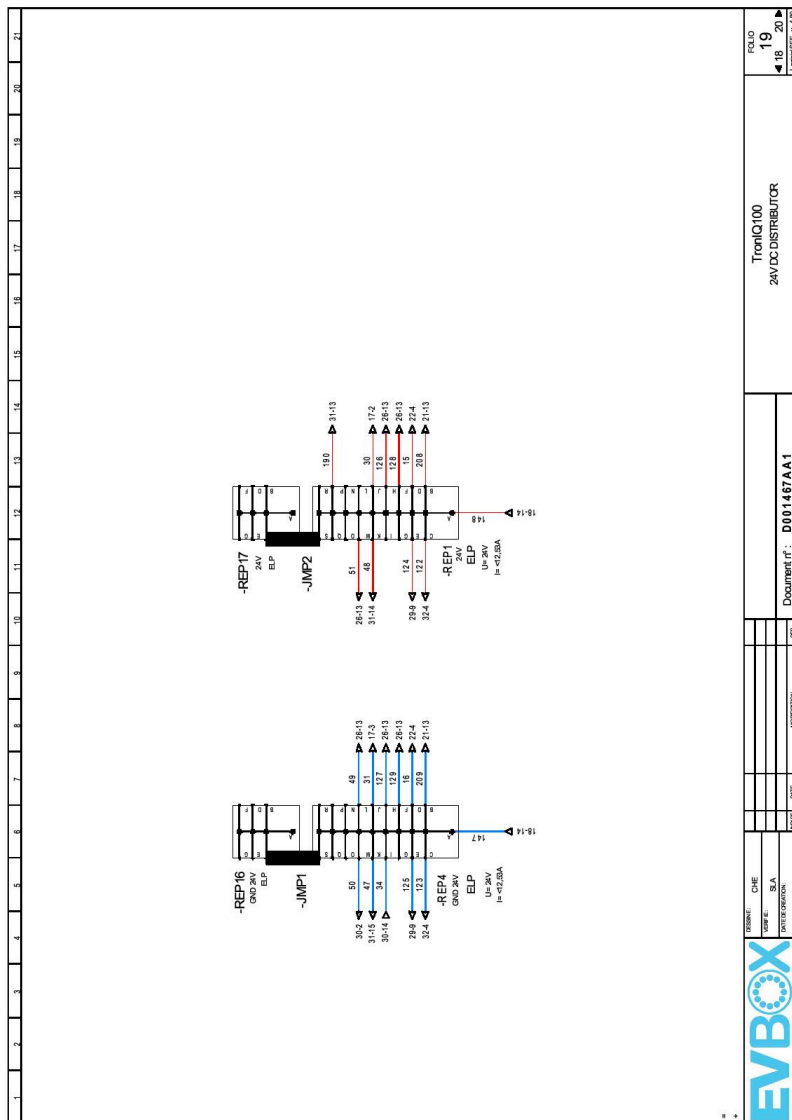


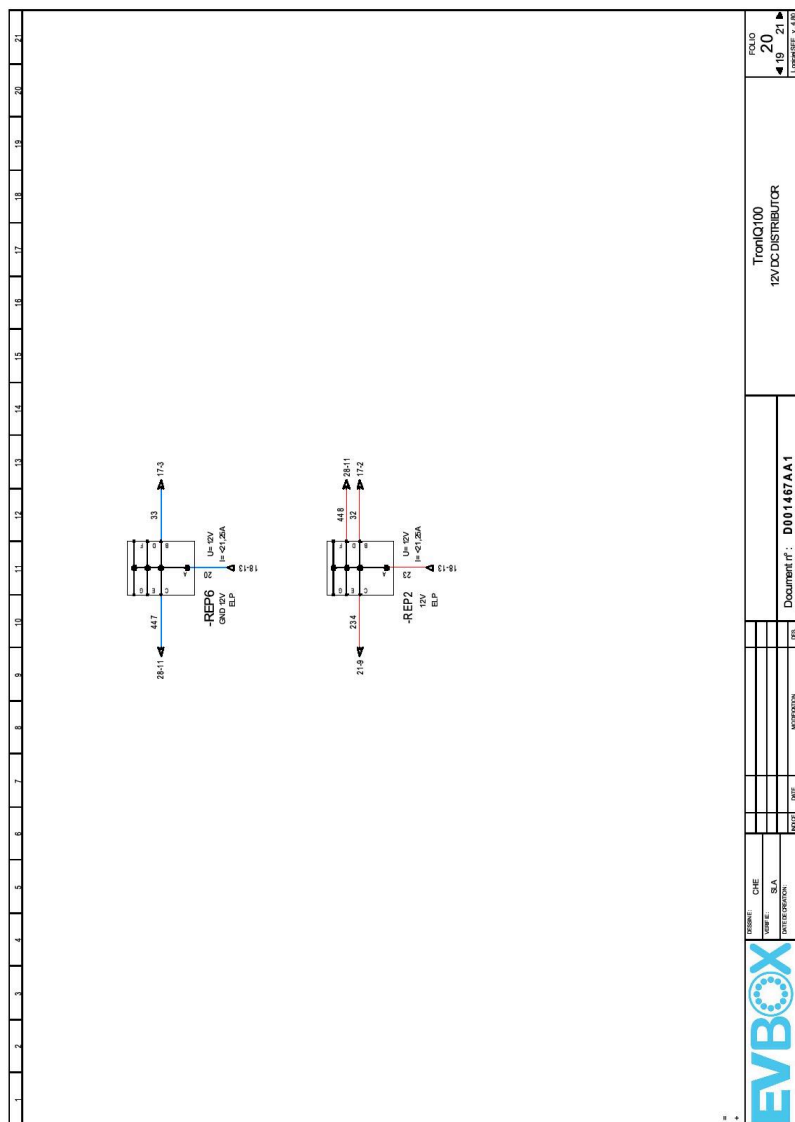


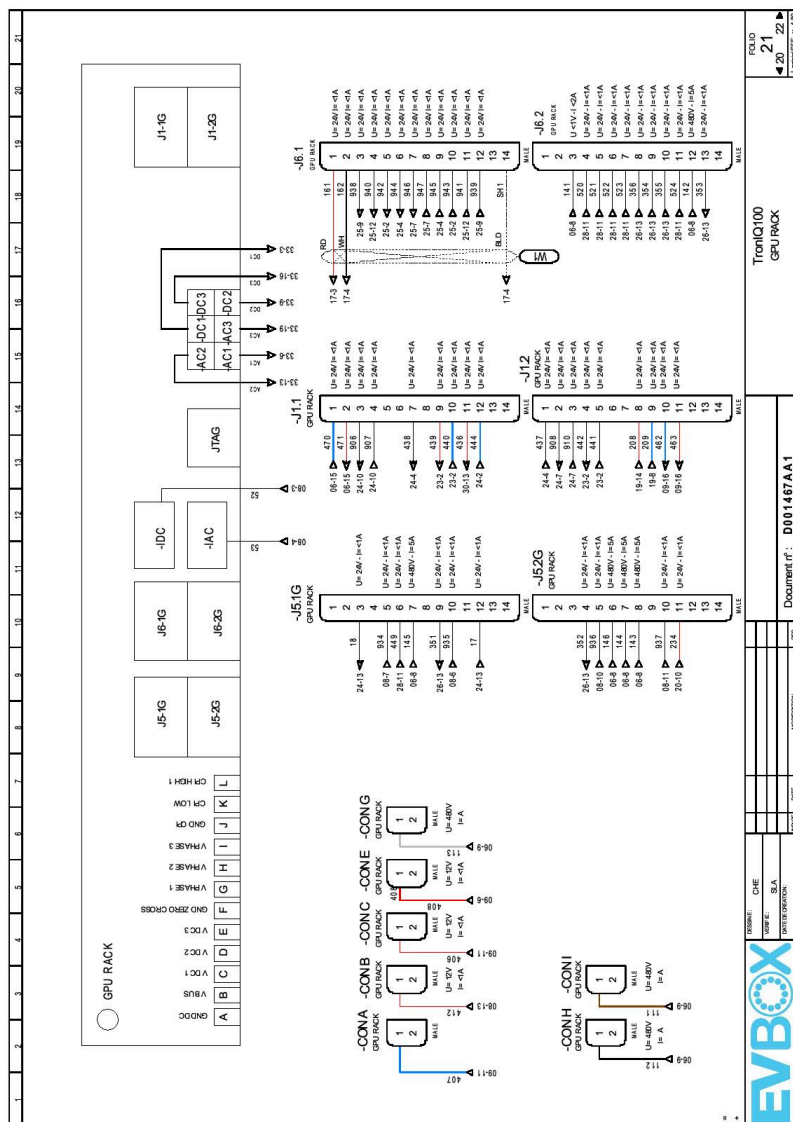


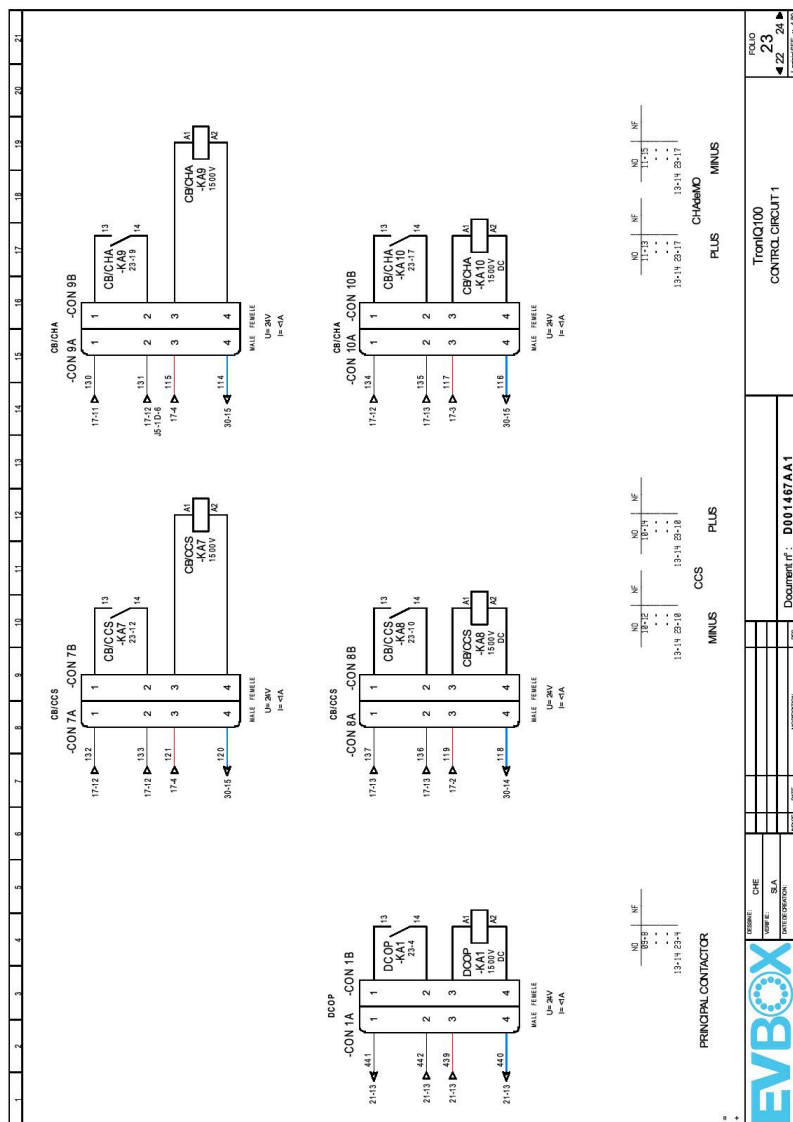


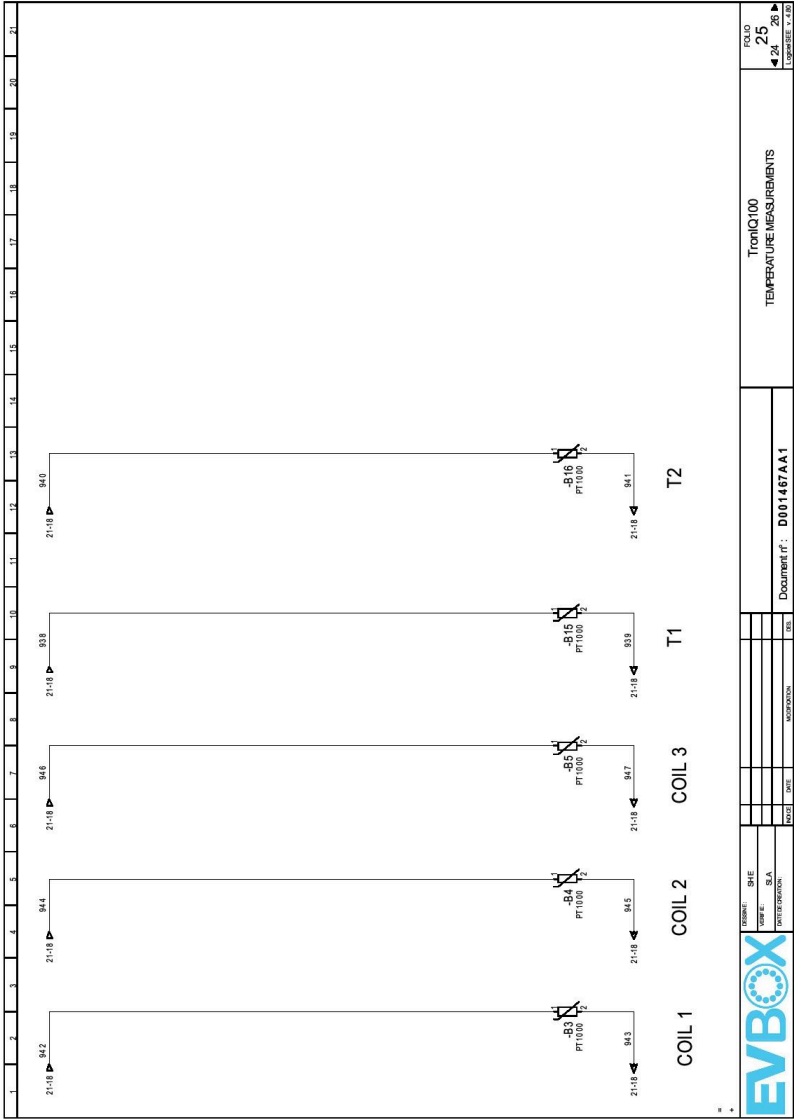












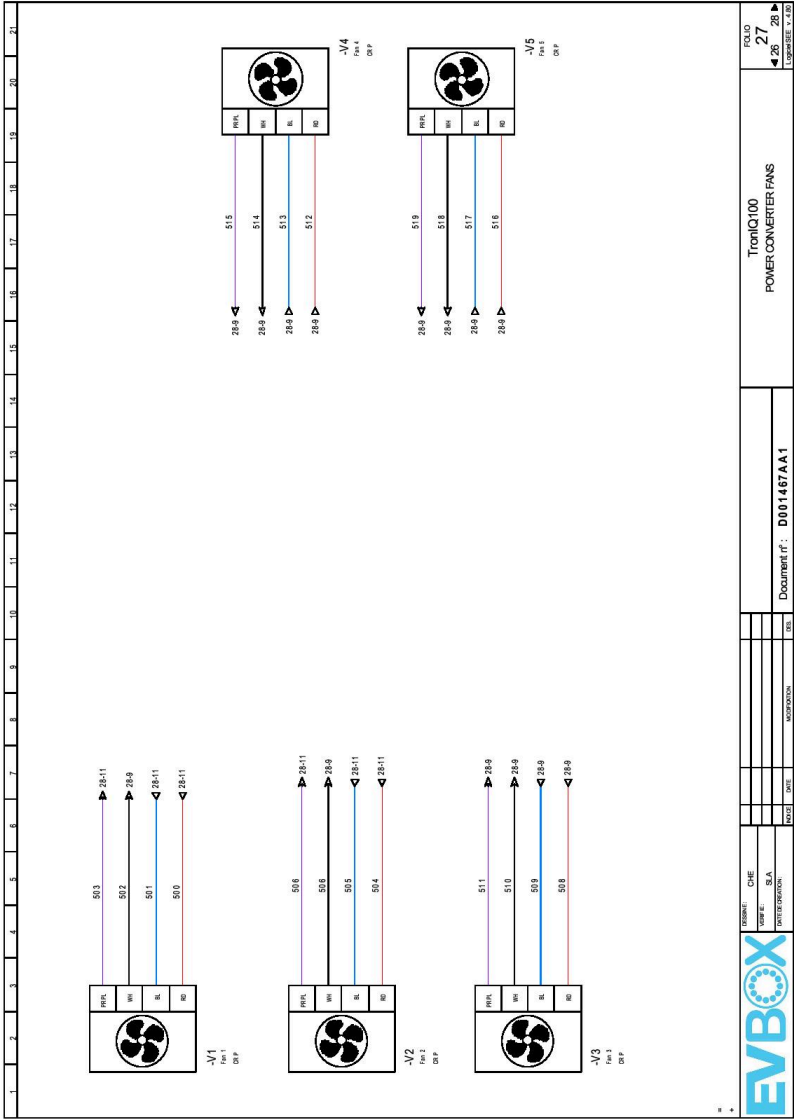
COMPANY: SHIE
COUNTRY: S.A.
DEVELOPMENT: S.A.

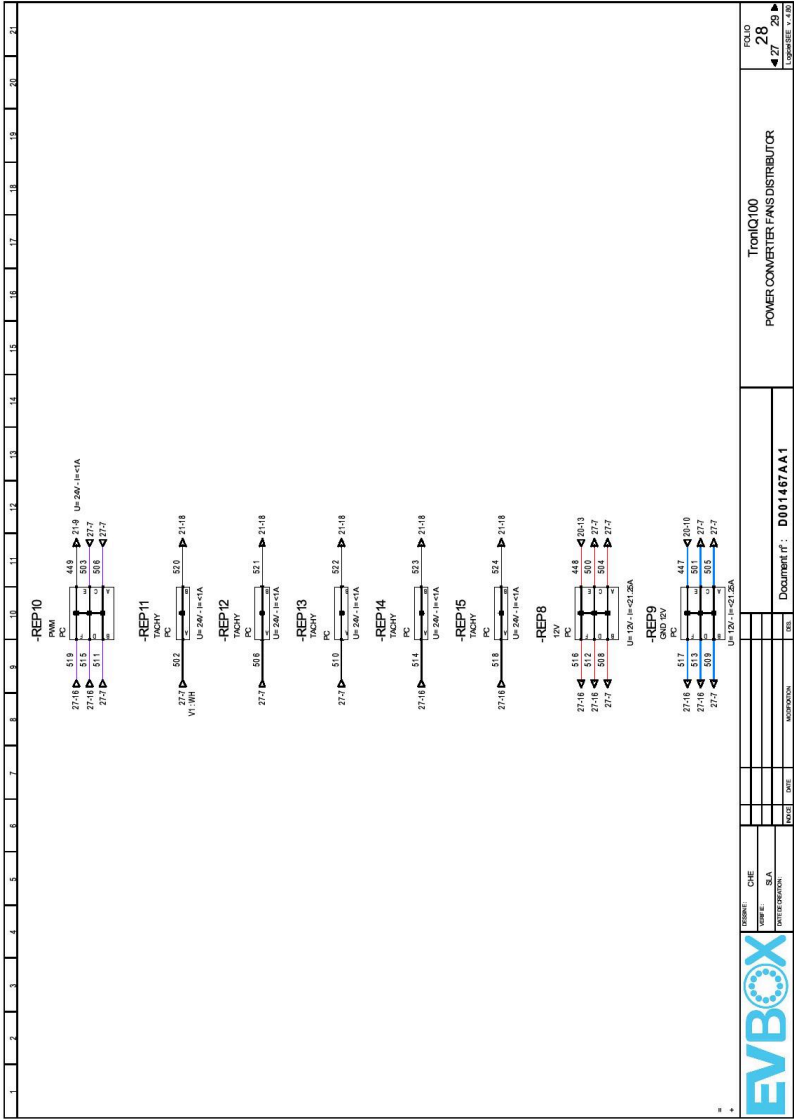
NAME: SHIE
ADDRESS: SHIE

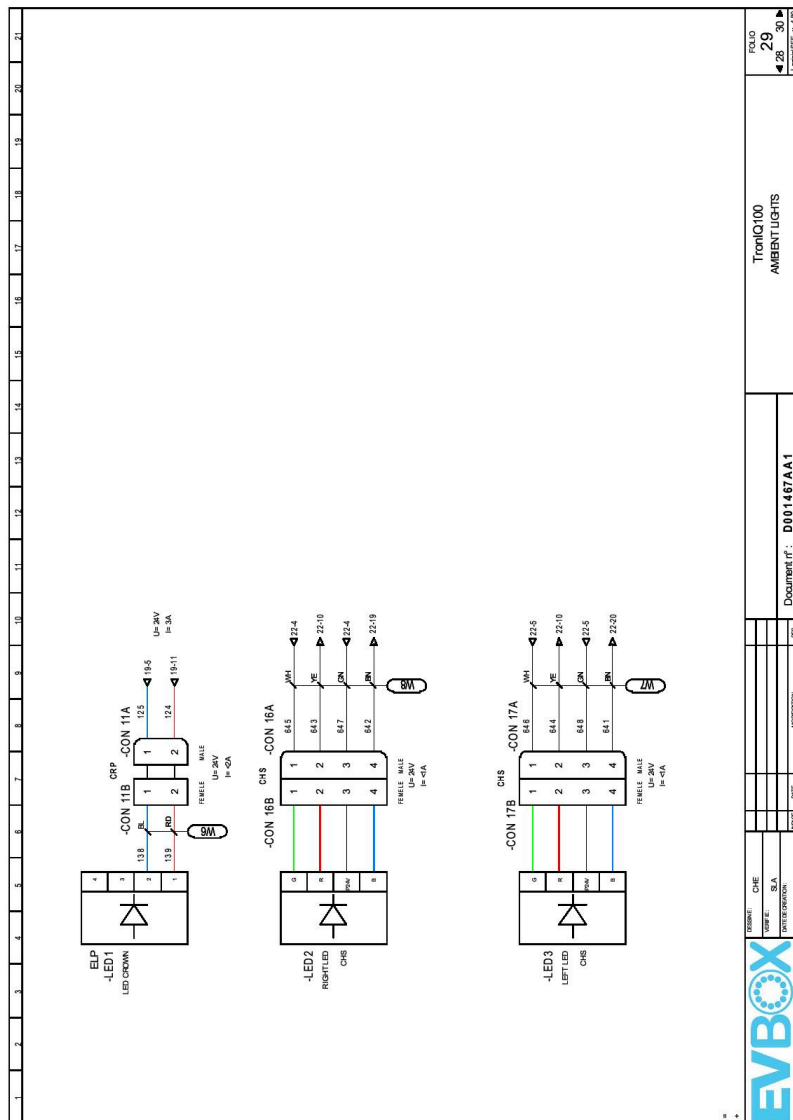
Document n°: D001467AA1

TronIQ100
TEMPERATURE MEASUREMENTS

FOLO
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

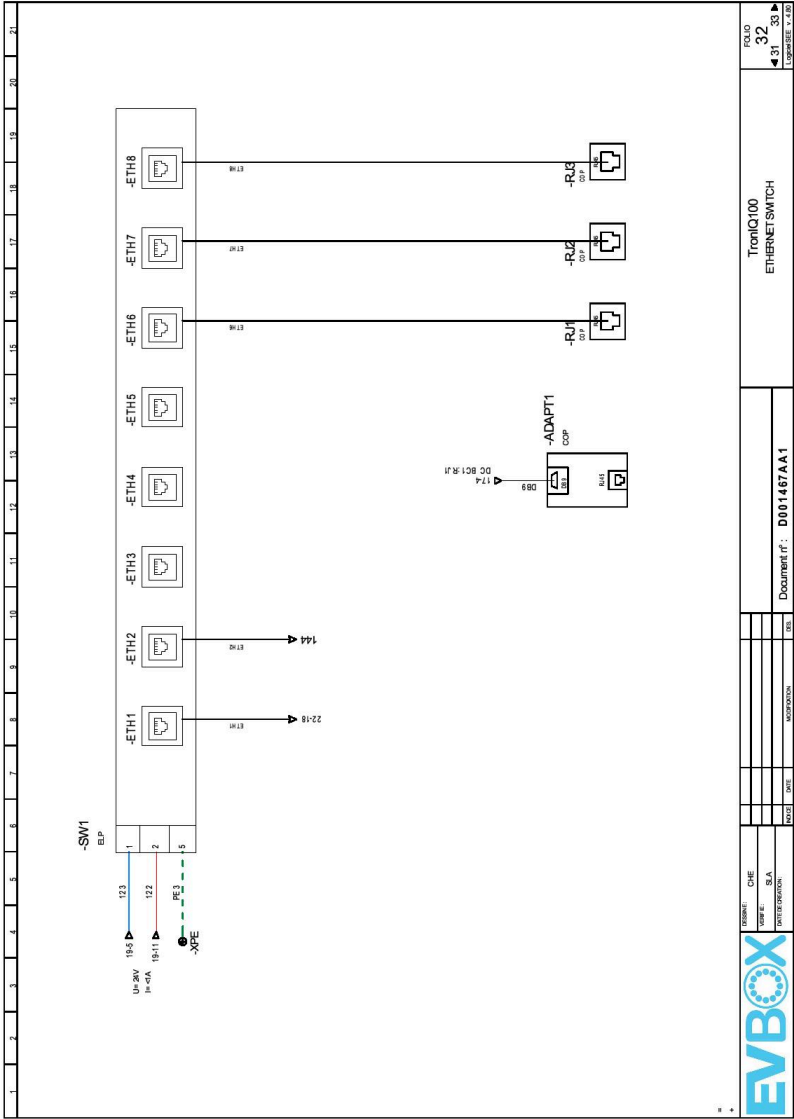












[illegible]

