



Accessories

for X-CUBE compact units



TROX[®] TECHNIK

The art of handling air

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1 Overview

1.1 Compact units and standard components

Image	Code	Description
	X-CUBE-C-R(L)-P/xxxx	X-CUBE compact with counter flow plate heat exchanger
	X-CUBE-C-R(L)-R/xxxx	X-CUBE compact with rotary heat exchanger
	XCC-ST	Touch panel
		Modbus connecting cable (RJ12)

1.2 Accessories

Image	Code	Description
	XCC-HM	Heating coil module including XCC-CB1 module
	XCC-HCM	Heating/cooling coil module (hot water/chilled water system) including XCC-CB2 module
	XCC-CB 1	Controls module with connections for: Heating coil module XCC-HM, heat exchanger, evaporator
	XCC-CB 2	Controls module with connections for: Heating/cooling coil module XCC-HCM, heater/steam humidifier module
	XCC-HD	Heating coil (hot water system) for rectangular ducts, with integral capillary tube thermostat for frost protection
	XCC-EHD	Electric duct air heater for rectangular ducts
	XCC-CD-RA	Control panel, analogue

Image	Code	Description
	XCC-CD-RD	Control panel, digital
	XCC-S-...	Sensors <ul style="list-style-type: none"> ■ XCC-S-TD: Temperature sensor for ventilation ducts ■ XCC-S-CO2VOC: Combined CO₂ / VOC sensor for ventilation ducts ■ XCC-S-TCO2HR: Room temperature, CO₂ (shown)
	XCC-CPC	Parts kit for pressure-based control (constant pressure)
	XCC-P	Circulator pump
	XCC-V	Valve assembly for the hydraulic connection of heating and cooling coils

2 Setting the bus address for accessories



Fig. 1: Extension Module

① Rotary button for setting the address

The Extension Module is an integral part of the controls module XCC-CB; the number of modules varies depending on the type of controls module:

XCC-CB1 - 1 Extension Module

XCC-CB2 - 2 Extension Modules

Address settings

Accessories	Controls module / type	Address	Supply voltage to be provided by others
Heating coil	XCC-CB-1	3	×
Cooling coil	XCC-CB-1	4	×
Heating coil / cooling coil	XCC-CB-2	Heating coil: 3 (Extension Module on the right)	×
		Cooling coil: 4 (Extension Module on the left)	
Electric duct air heater	XCC-EHD	5	×
Evaporator	-	7	×
Preheater (electric or hot water)	XCC-CB-1/XCC-EHD	8	×
Constant pressure control	XCC-CPC	0 (supply air), 1 (extract air)	–
Digital control panel	XCC-CD-RD	Is automatically recognised	–

3 Establishing the bus communication

Cable entry points on the X-CUBE compact



Fig. 2: Cable entry points below the mains isolator

- ① Mains isolator
- ② Bus connection, input/output
- ③ Bus connection, input/output
- ④ Service interface of touch panel
- ⑤ Service interface of TCP/IP network
- ⑥ Fault messages etc.
- ⑦ Main connection of unit (voltage supply)
- ⑧ Signal line, e.g. for faults

! NOTICE!

Risk of damage to property from incorrect use

The service interfaces of the touch panel (Fig. 2 /4) and TCP/IP network (Fig. 2 /5) are intended for temporary use (e.g. service).

When not in use, protect the service interfaces from the weather by fitting caps.

If the device is used for a long period of time, it may be damaged by moisture, especially if it is installed outdoors.

The permanent and professional installation of the bus connecting cables is carried out at the inputs and outputs of the control master using the existing cable penetrations as cable glands.

Connecting the compact unit and accessories to the bus cable

Personnel:

- Skilled qualified electrician

! DANGER!

For wiring the components, comply with the requirements and safety notes in the 'X-CUBE compact transport and installation manual'.

For more information on wiring refer to the electric circuit diagram for the compact unit.

Prerequisite: The compact unit and accessories have been installed and connected to the power supply network.

Switching off the power supply

! DANGER!

Danger of electric shock! Do not touch any live components! Electrical equipment carries a dangerous electrical voltage.

- Only skilled qualified electricians are allowed to work on the electrical system.
- Switch off the power supply before working on any electrical equipment.

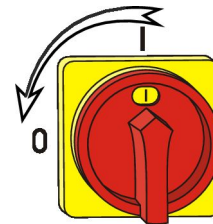


Fig. 3: Switching off the mains isolator

1. ▶ Turn the mains isolator on the compact unit to 0/OFF.
2. ▶ Switch off the power supply on the accessory you want to connect and secure it against being switched on accidentally.

Connecting the communication cable

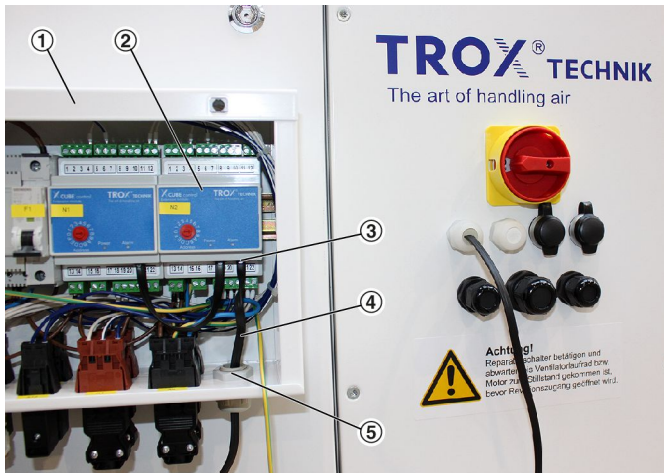


Fig. 4: Controls module

3. ▶ Open the cover of the controls module (Fig. 4 /1) and set the address of the accessory on the Extension Module (Fig. 4 /2) ↪ on page 7 .

Take the supplied bus connecting cable (RJ12, Fig. 4 /4) and feed it through the cable entry point in the casing of the controls module (Fig. 4 /5) into the controls module.

Plug the bus connecting cable into the RJ12 socket (Fig. 4 /3) on the Extension Module.

For two Extension Modules (XCC-CB-2) it is sufficient to connect the bus cable only once with the control master as all extension modules are interconnected, and the signals are transmitted from one module to the next.

4. ▶ Close the cover of the controls module.



Fig. 5: Removing the electrical connections panel

5. ▶ Loosen the screws (Fig. 5 /2) on the electrical connections panel (Fig. 5 /1) and remove the panel.

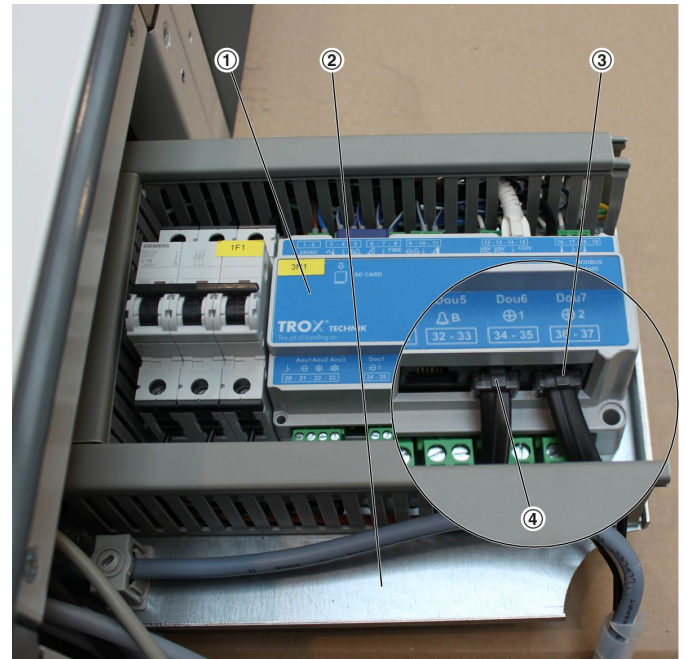


Fig. 6: X-CUBE control master

6. ▶ To connect the bus cable to the control master (Fig. 6 /1), pull out the tray with the electrical components (Fig. 6 /2).

Feed the bus connection cable through the cable entry point (Fig. 2 /2) in the panel and plug it into port C (RJ12 socket, Fig. 6 /3) of the control master.

If port C is already used, plug the connection cable into port B (RJ12 socket, Fig. 6 /4).

Lay the bus connection cable in such a way that it will not be damaged when you mount the panel again.

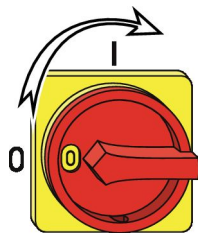
Push the tray with the electronic components back into the unit.

7. ▶ Mount the electrical connections panel (Fig. 5 /1).

Activating accessories



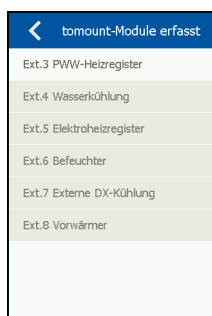
8. ▶ Use the supplied bus cable to connect the touch panel to the corresponding cable entry point (Fig. 2 /4).
9. ▶ Switch on the power supply for the accessory.



- 10.▶ Turn the mains isolator of the compact unit to I/ON



- 11.▶ Use the touch panel to activate accessories. For details on using the touch panel refer to the X-CUBE compact operating manual.



- 12.▶ The unit recognises connected accessories automatically. After approx. 5-30 s a message is displayed on the touch panel (example shown).



- 13.▶ Enter your password and confirm it with ✓.

Default password: 0022



- 14.▶ To activate the accessory, press ✓.

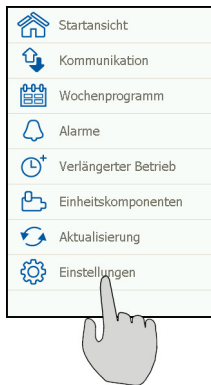
⇒ Once an accessory has been activated, you can configure it. For details refer to the X-CUBE compact operating manual.

4 Deactivating accessories

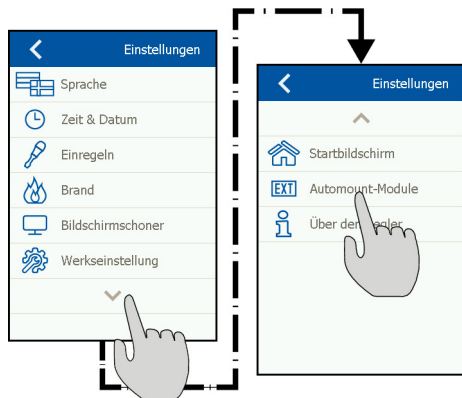
Use the touch panel to deactivate accessories. For details on using the touch panel refer to the X-CUBE compact operating manual.



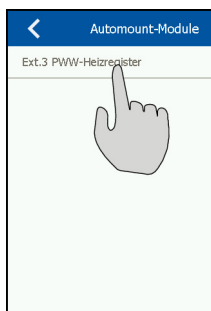
1. ▶ Select the 'Menu'.



2. ▶ Select 'Settings'.



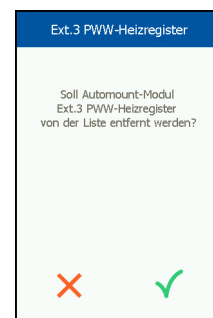
3. ▶ Select the arrow to display more settings, then select 'Automount modules'.



4. ▶ Select the accessory you want to deactivate.



5. ▶ Enter your password and confirm it with ✓.
Default password: 0022

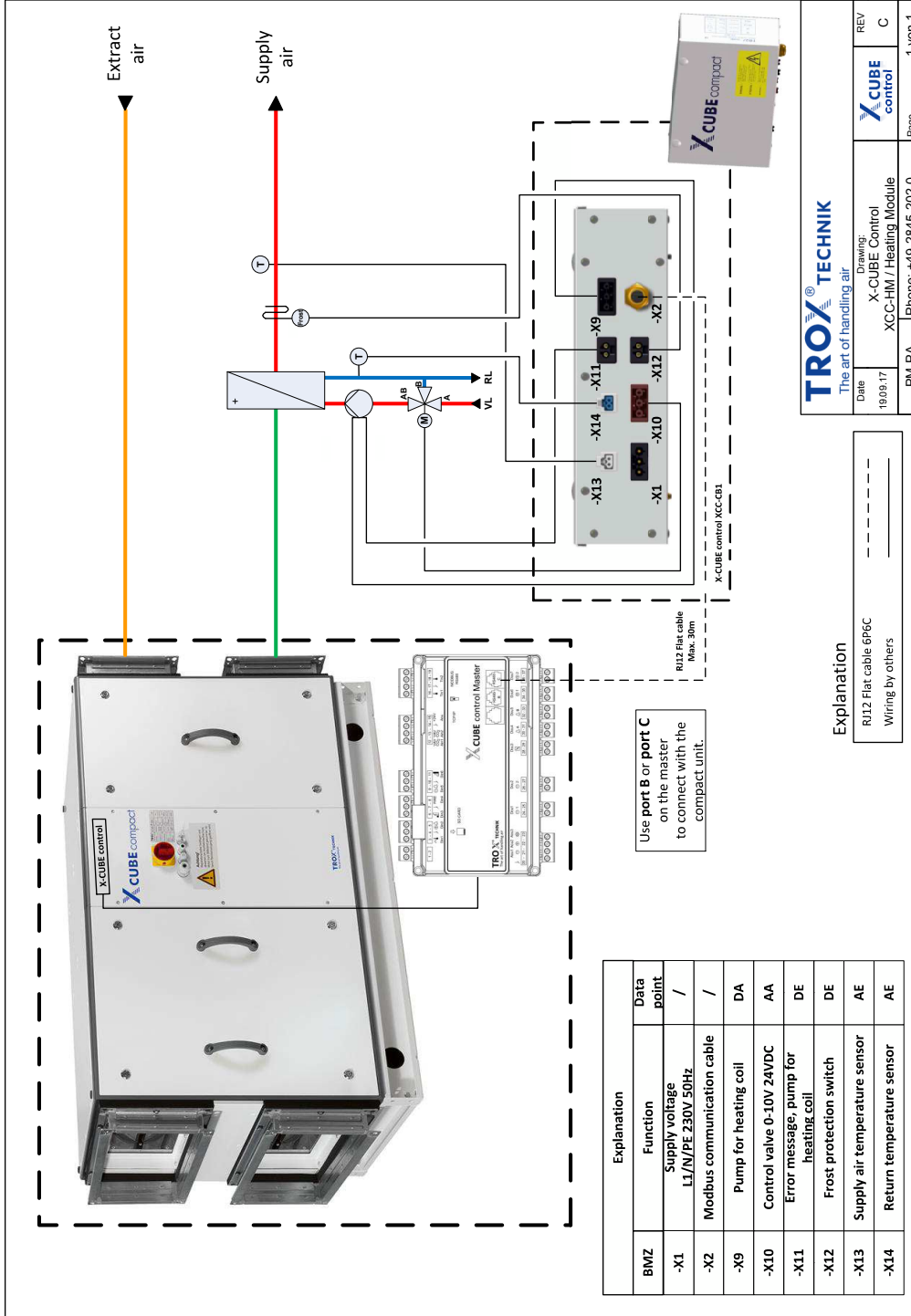


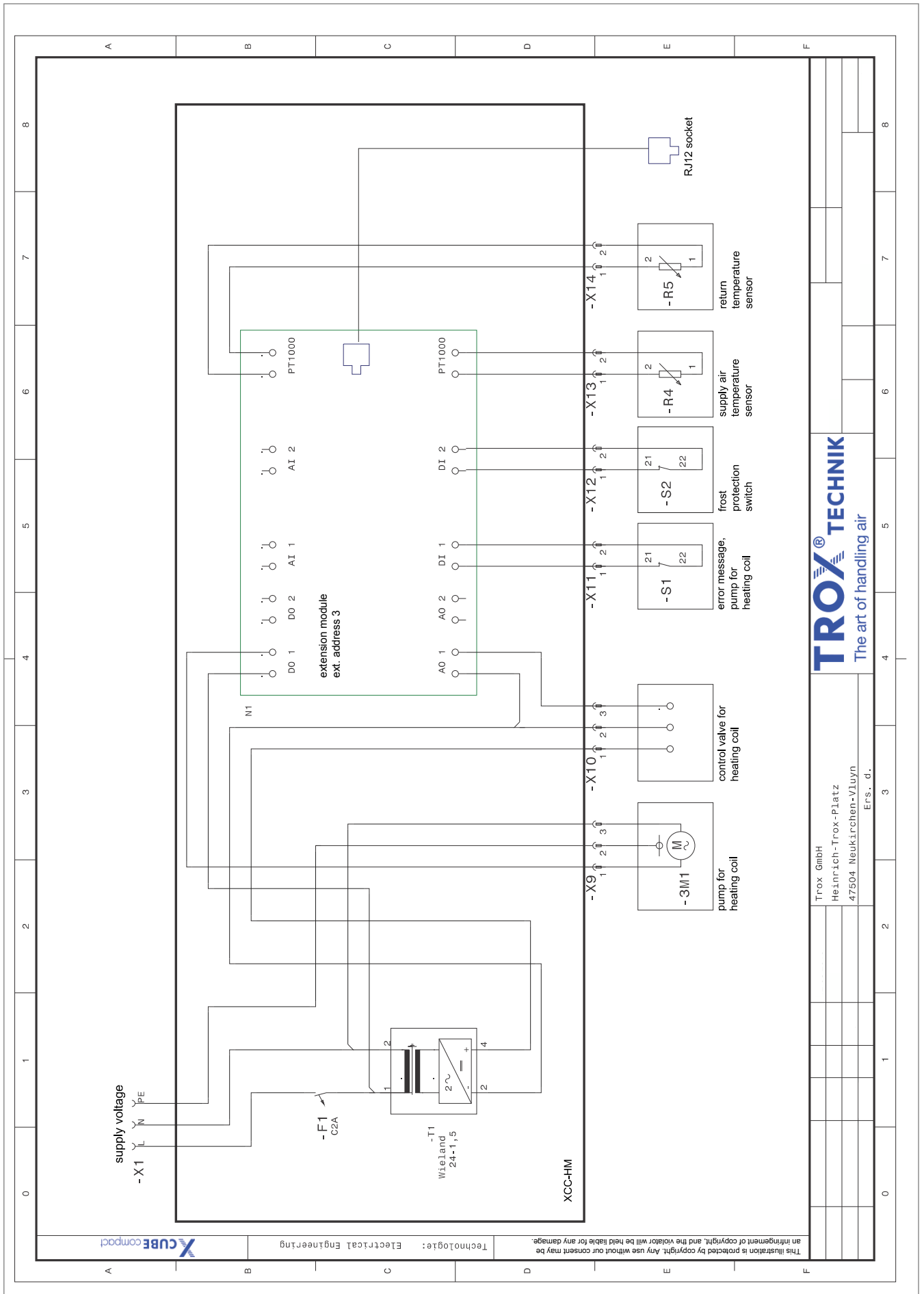
6. ▶ Press ✓ to deactivate the accessory.
⇒ The accessory is now no longer active.

Appendix

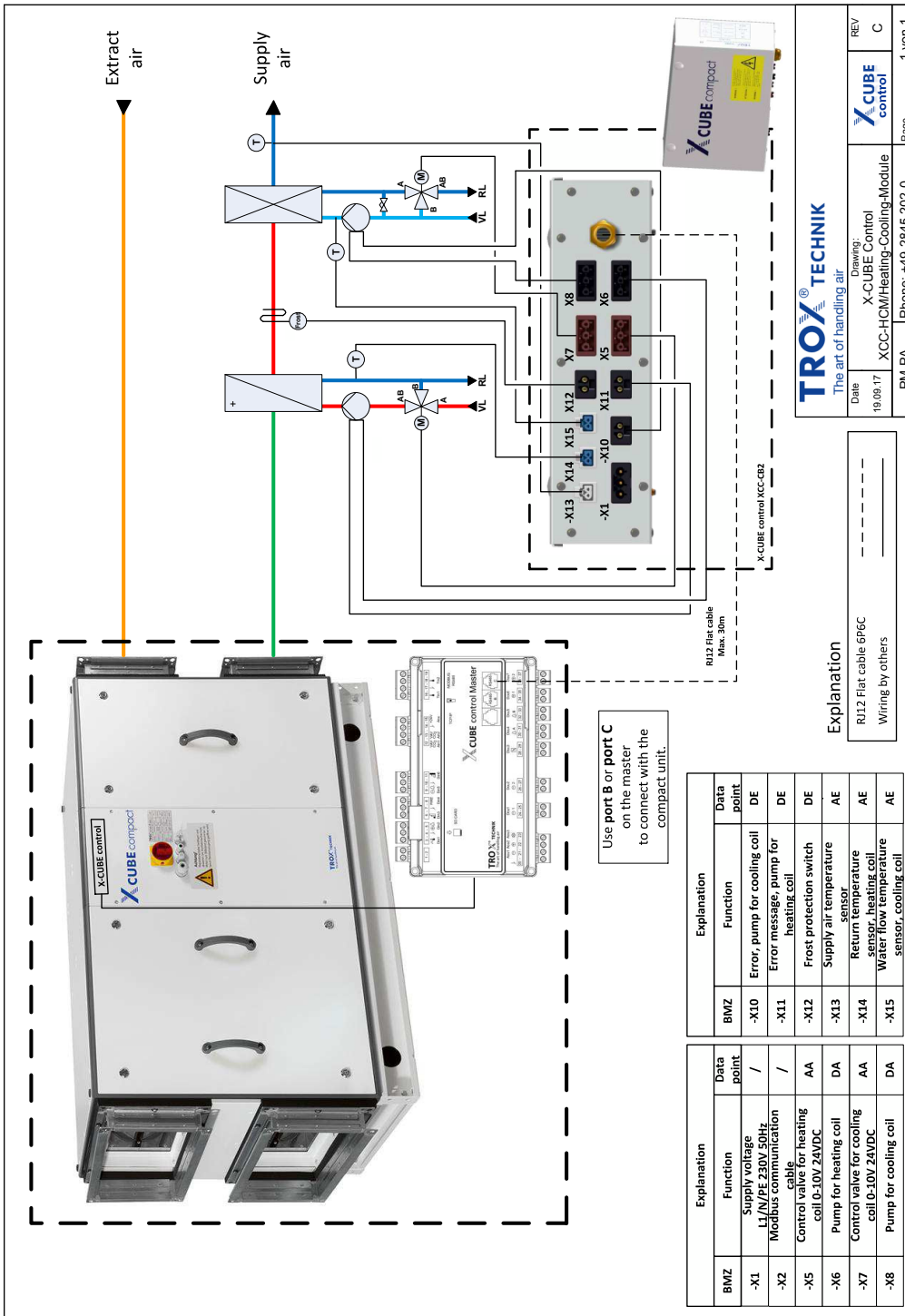
A Connection diagrams

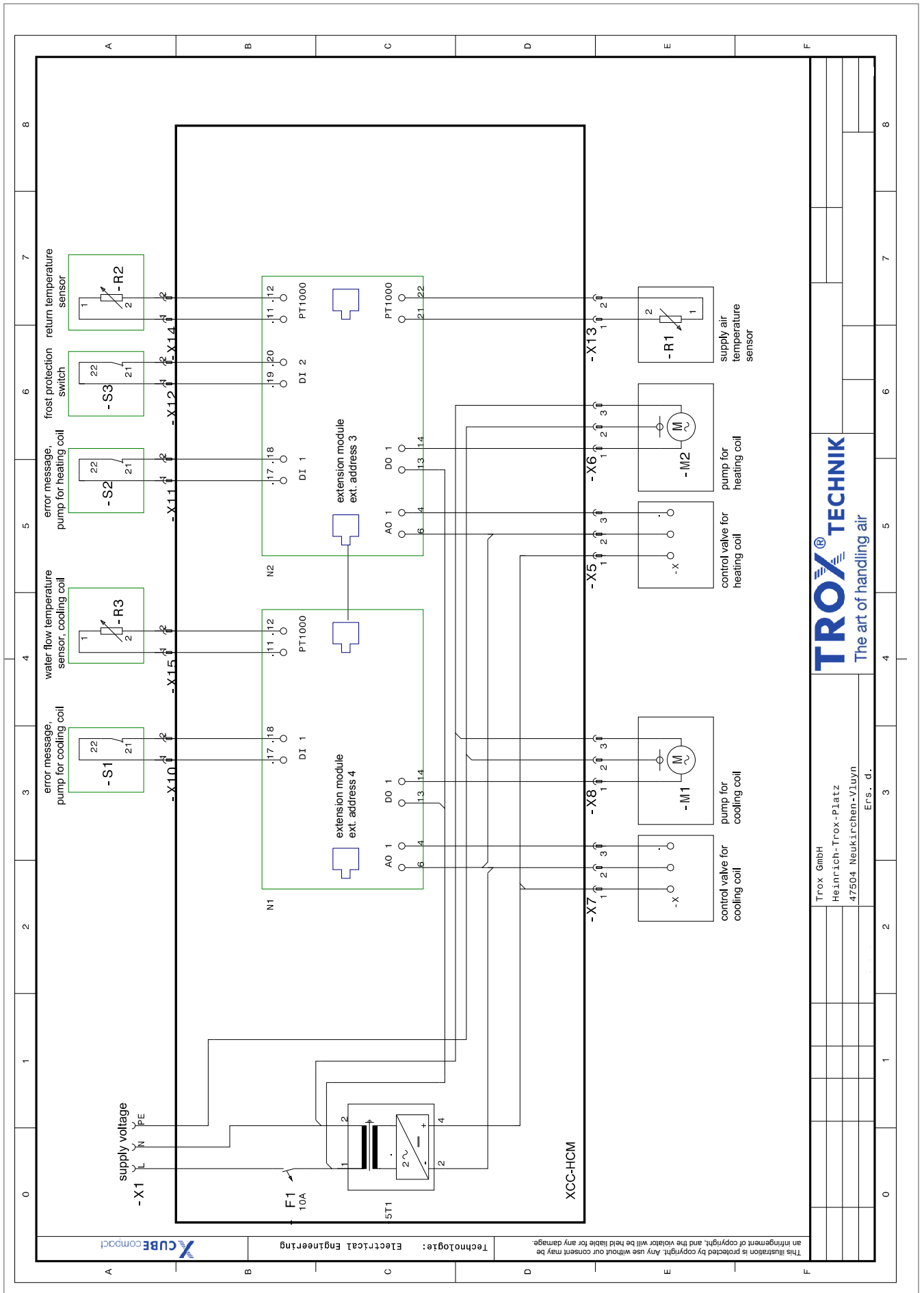
A.1 XCC-HM





A.2 XCC-HCM





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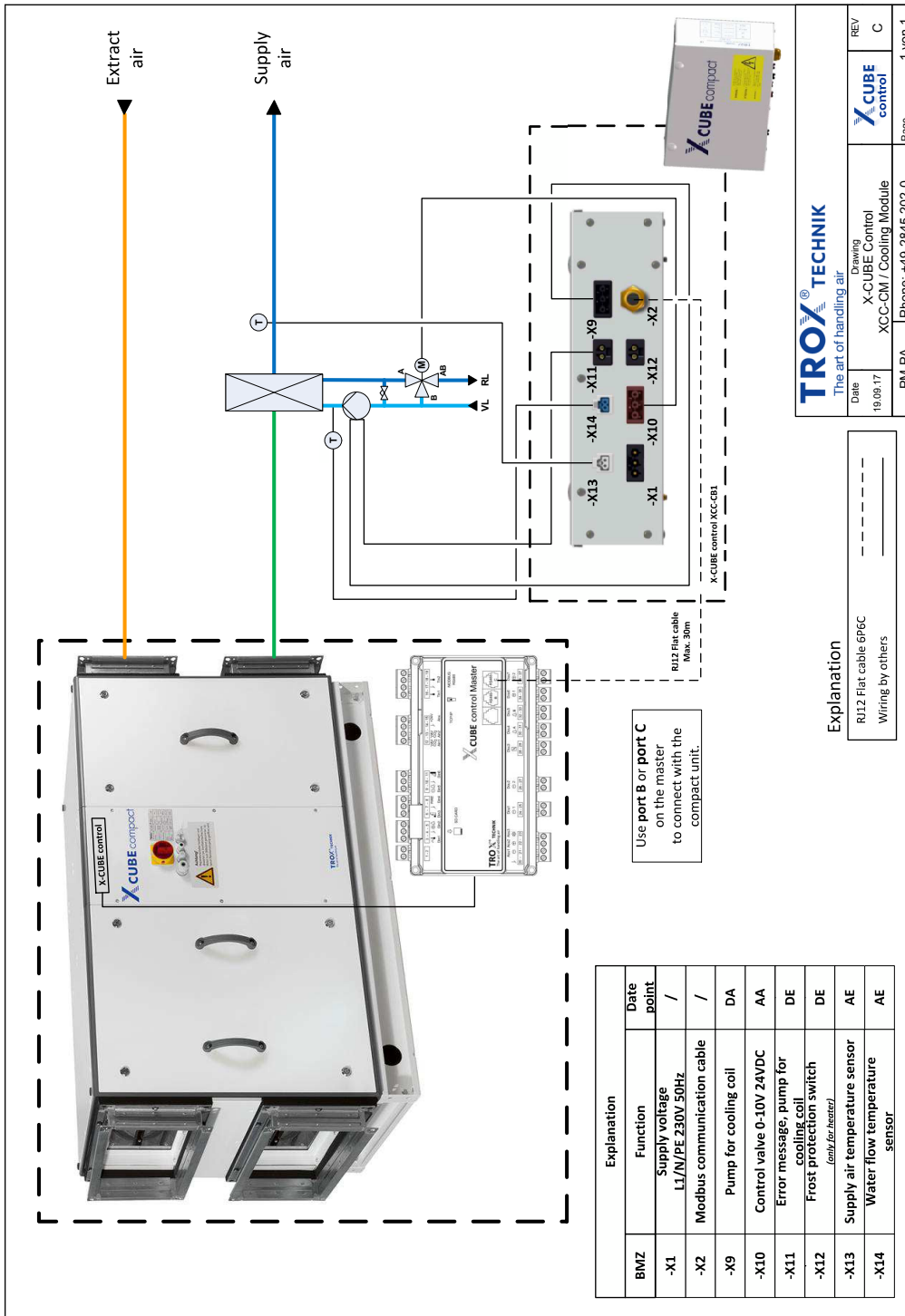
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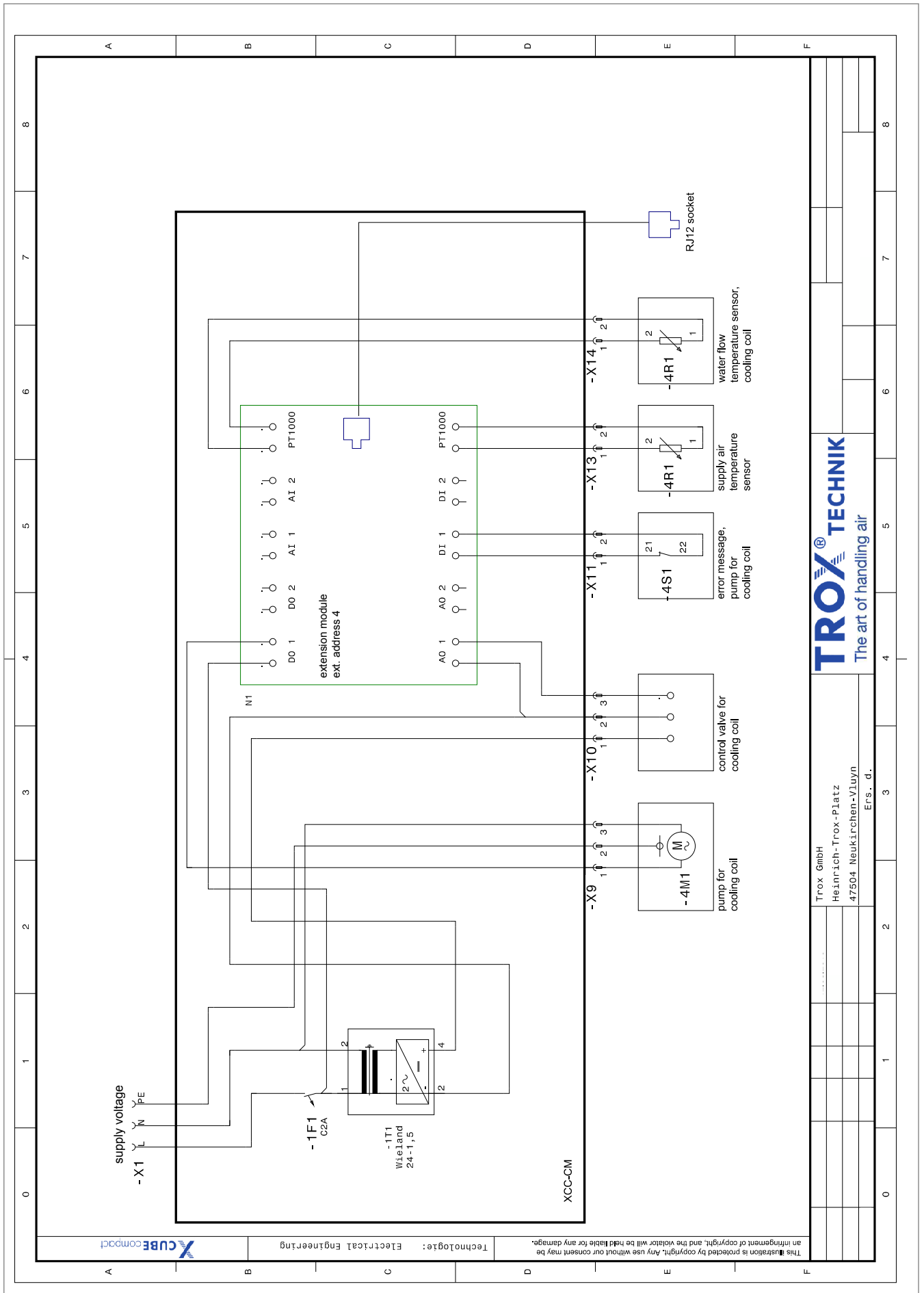
X-CUBE compact

Technologie: Electrical Engineering

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A.3 XCC-CM



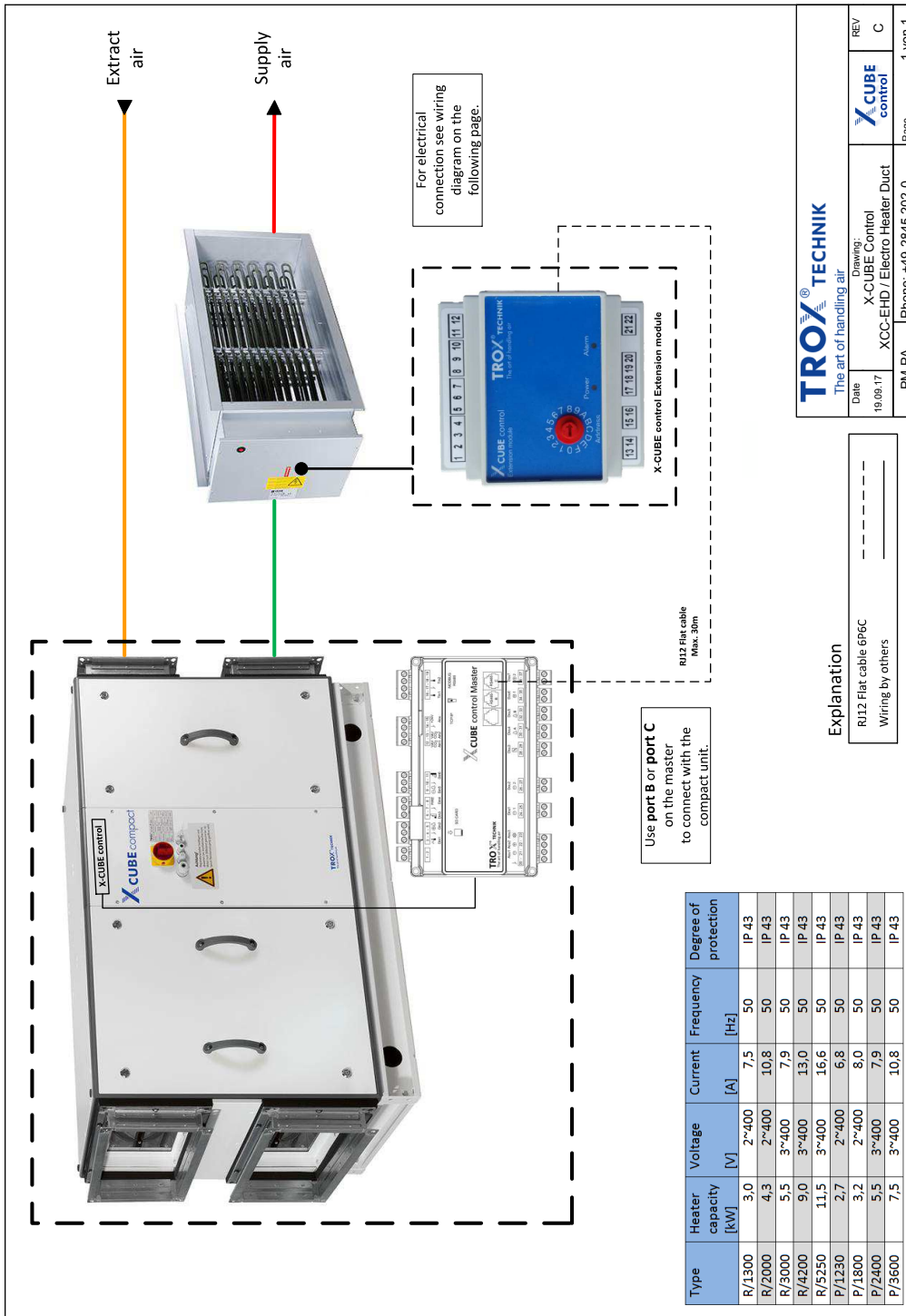


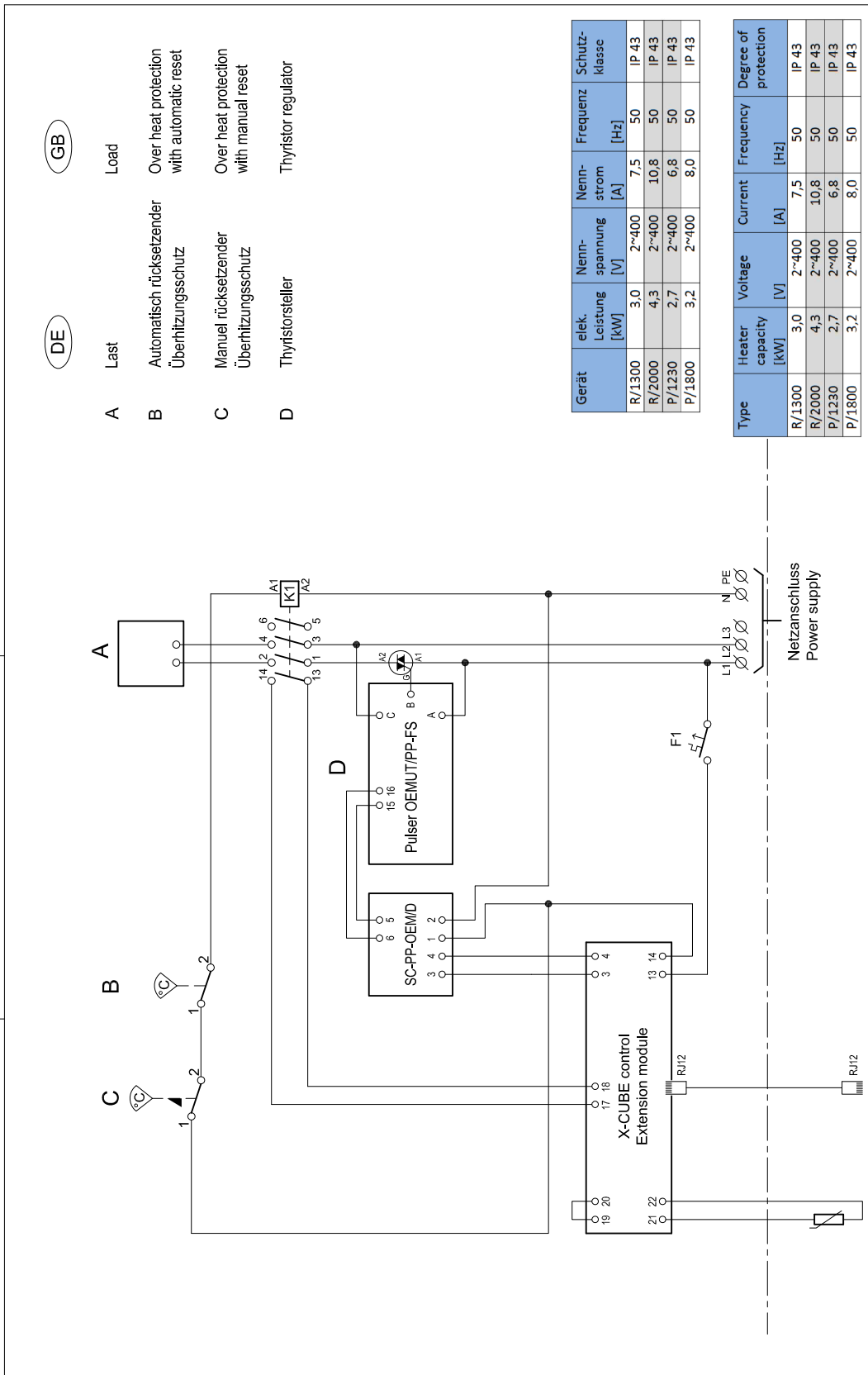
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A.4 XCC-EHD

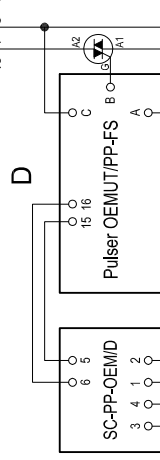
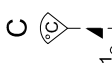
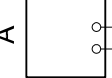




(GB)

(DE)

- A Last
- B Automatisch rücksetzender Überhitzungsschutz
- C Manuel rücksetzender Überhitzungsschutz
- D Thyristorsteller



Gerät	elek. Leistung [kW]	Nennspannung [V]	Nennstrom [A]	Frequenz [Hz]	Schutzklasse
R/1300	3,0	2~400	7,5	50	IP 43
R/2000	4,3	2~400	10,8	50	IP 43
P/1230	2,7	2~400	6,8	50	IP 43
P/1800	3,2	2~400	8,0	50	IP 43

Type	Heater capacity [kW]	Voltage [V]	Current [A]	Frequency [Hz]	Degree of protection
R/1300	3,0	2~400	7,5	50	IP 43
R/2000	4,3	2~400	10,8	50	IP 43
P/1230	2,7	2~400	6,8	50	IP 43
P/1800	3,2	2~400	8,0	50	IP 43

Det.No.	Qty.	Designation	Material/ Dimension	Remark
HG	HG	Approved by	Standard	Replaces
TROX [®] TECHNIK		Drawn by	Scale	Replaced by
		HG		
		Approved by		
		TROX		
		X-cube		
		400V 2N~		
				Date
				2013-02-07
				Edition
				1

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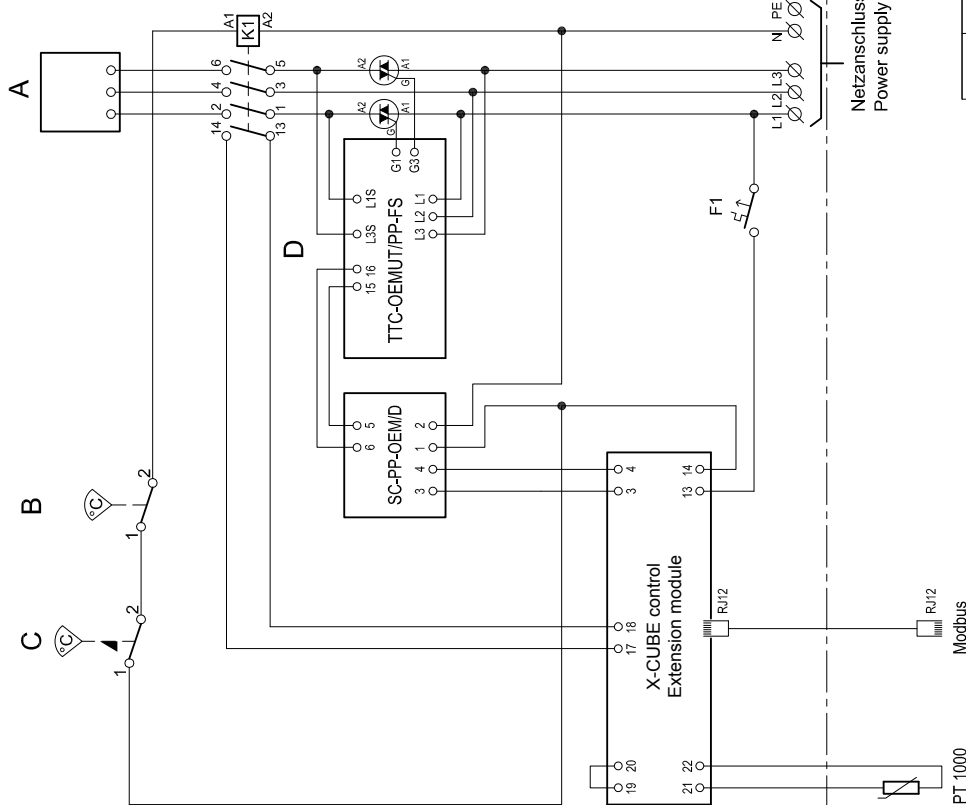
(GB)

(DE)

- A Last ≤40A
Load ≤40A
- B Automatisch rücksetzender Überhitzungsschutz
Over heat protection with automatic reset
- C Manuel rücksetzender Überhitzungsschutz
Over heat protection with manual reset
- D Thyristorsteller
Thyristor regulator

Gerät	elek. Leistung [kW]	Nennspannung [V]	Nennstrom [A]	Frequenz [Hz]	Schutzklasse
R/3000	5,5	3~400	7,9	50	IP 43
R/4200	9,0	3~400	13,0	50	IP 43
R/5250	11,5	3~400	16,6	50	IP 43
P/2400	5,5	3~400	7,9	50	IP 43
P/3600	7,5	3~400	10,8	50	IP 43

Type	Heater capacity [kW]	Voltage [V]	Current [A]	Frequency [Hz]	Degree of protection
R/3000	5.5	3~400	7.9	50	IP 43
R/4200	9.0	3~400	13.0	50	IP 43
R/5250	11.5	3~400	16.6	50	IP 43
P/2400	5.5	3~400	7.9	50	IP 43
P/3600	7.5	3~400	10.8	50	IP 43



Det.No.	Qty.	Designation	Material / Dimension	Remark
Designed by HG	Drawn by HG	Approved by HG	Standard	Replaces
Scale		Replaced by		
Date		Date		
Revision		Revision		
Drawing No.		Drawing No.		
56596		56596		
Edition		Edition		
1		1		

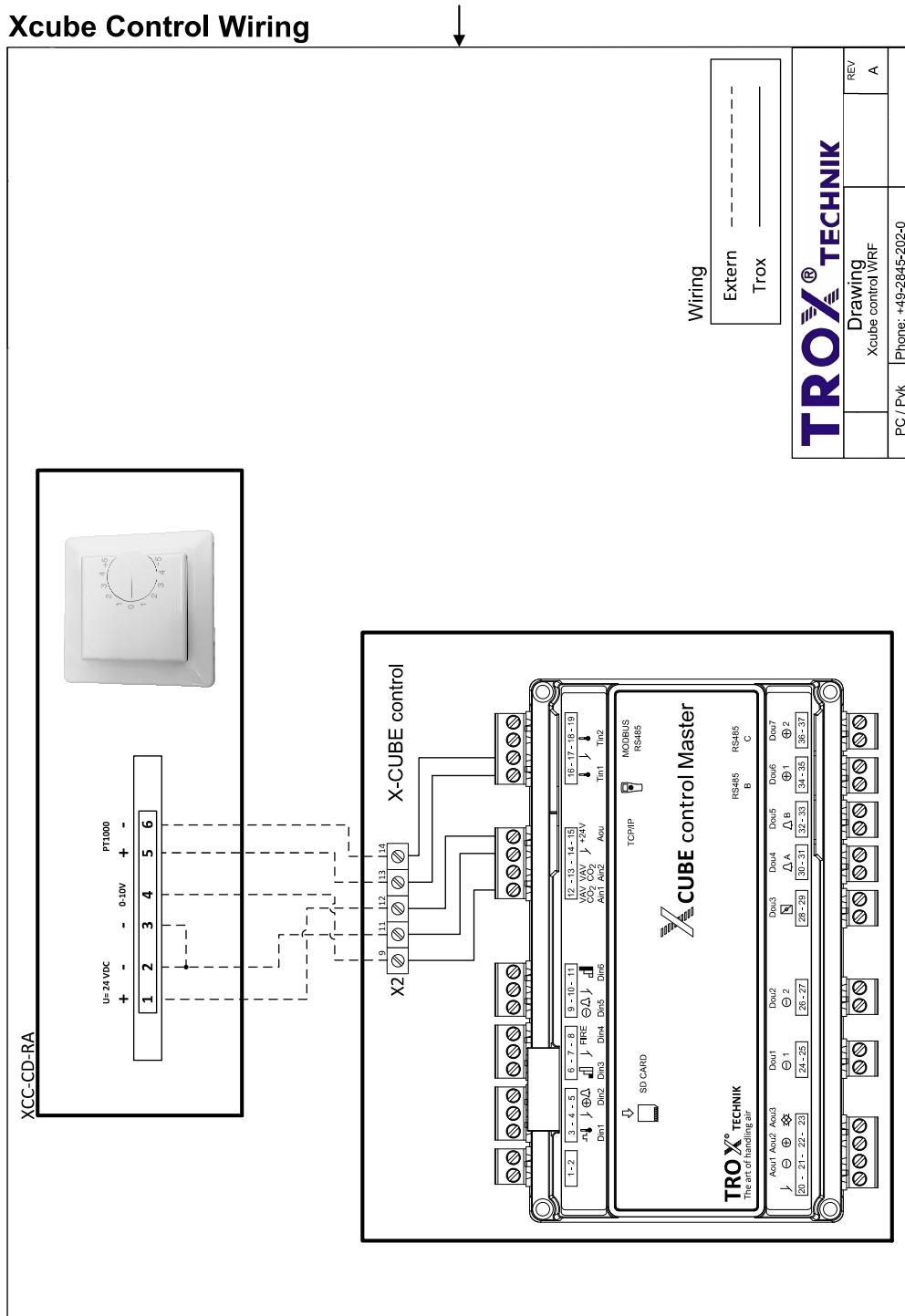
TROX
TECHNIK
X-cube
400V 3N~ ...40A

No.	Qty.	Modification / Revision / Message	Date	Resp.

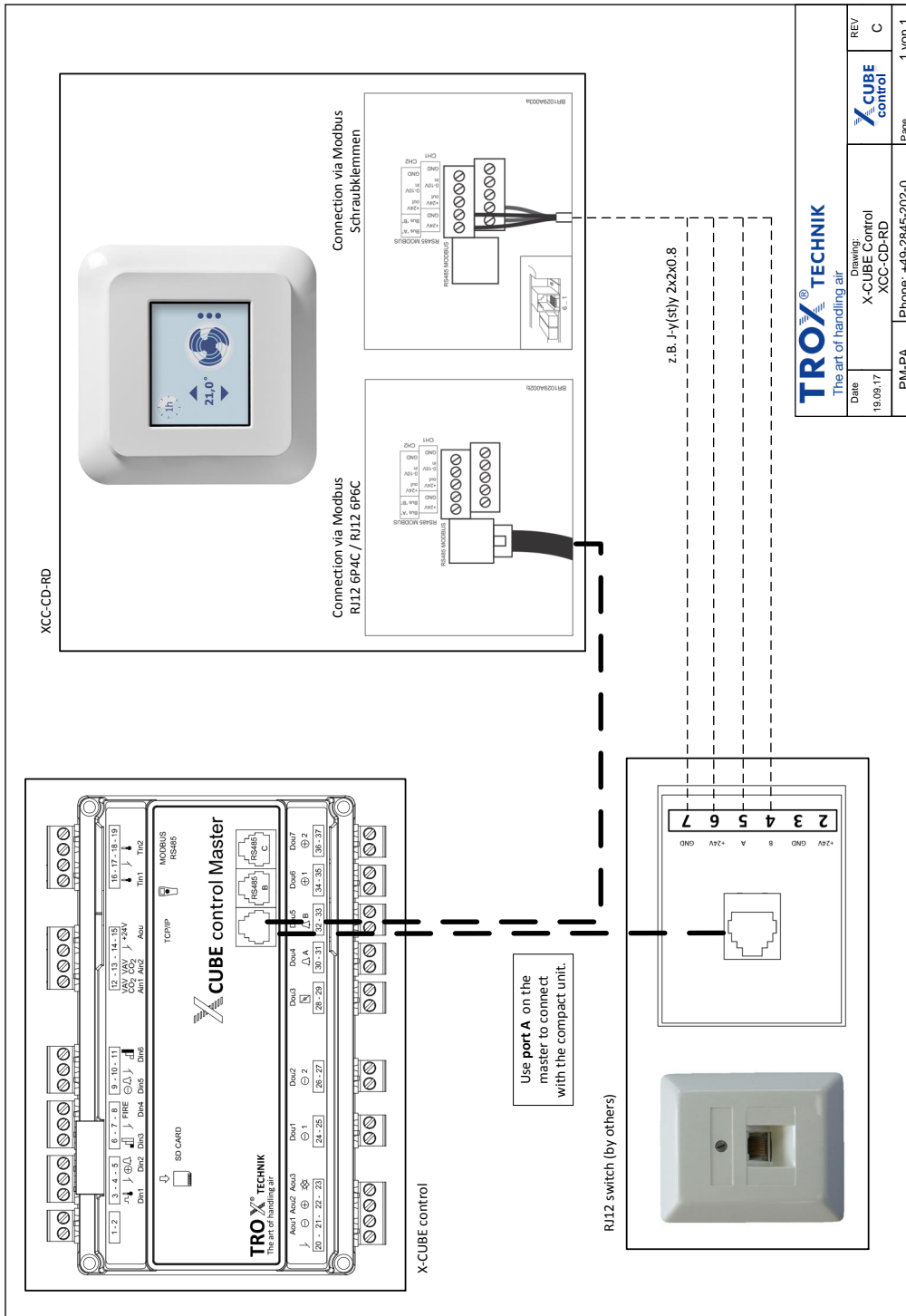
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A.5 XCC-CD-RA

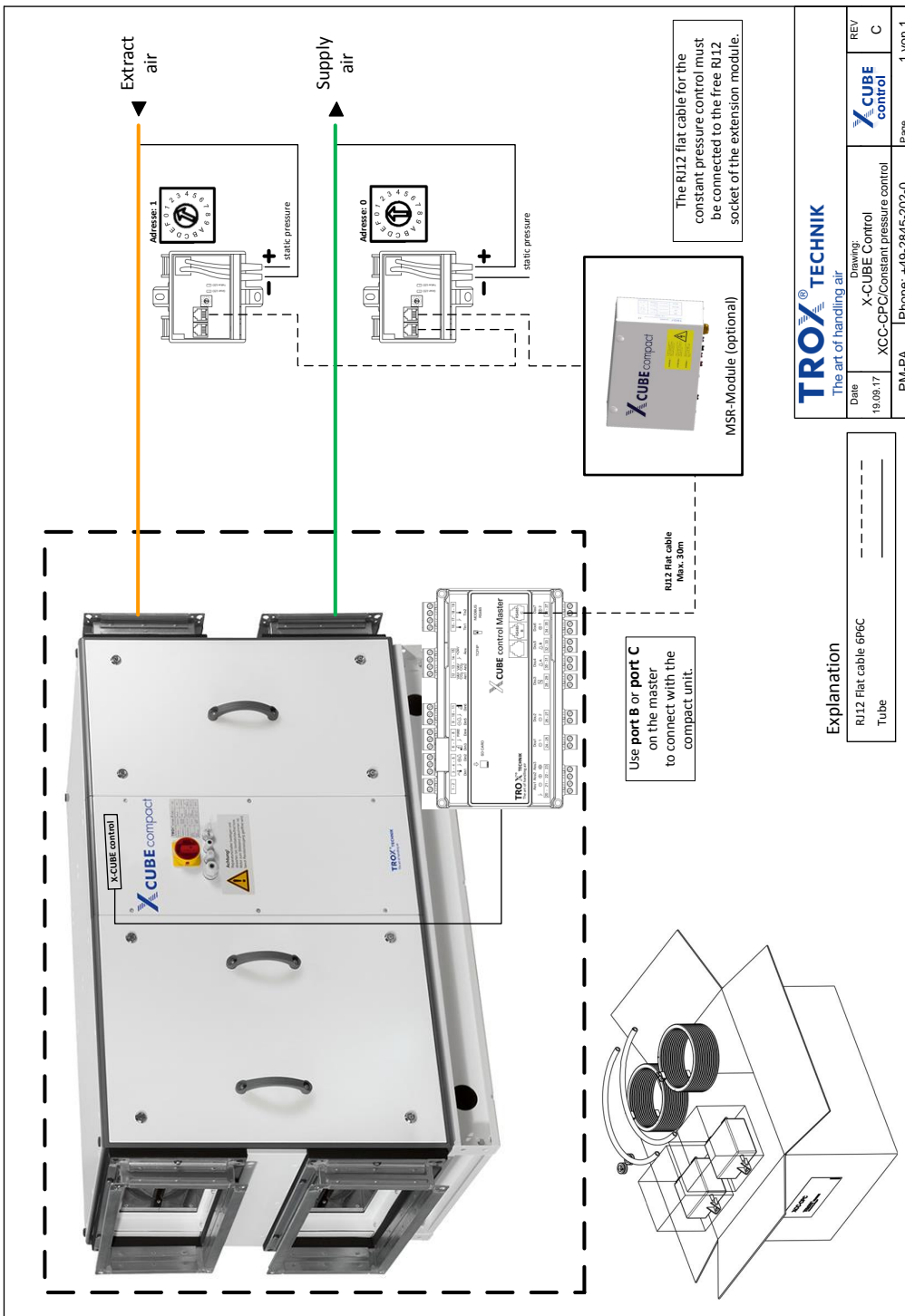
Xcube Control Wiring



A.6 XCC-CD-RD



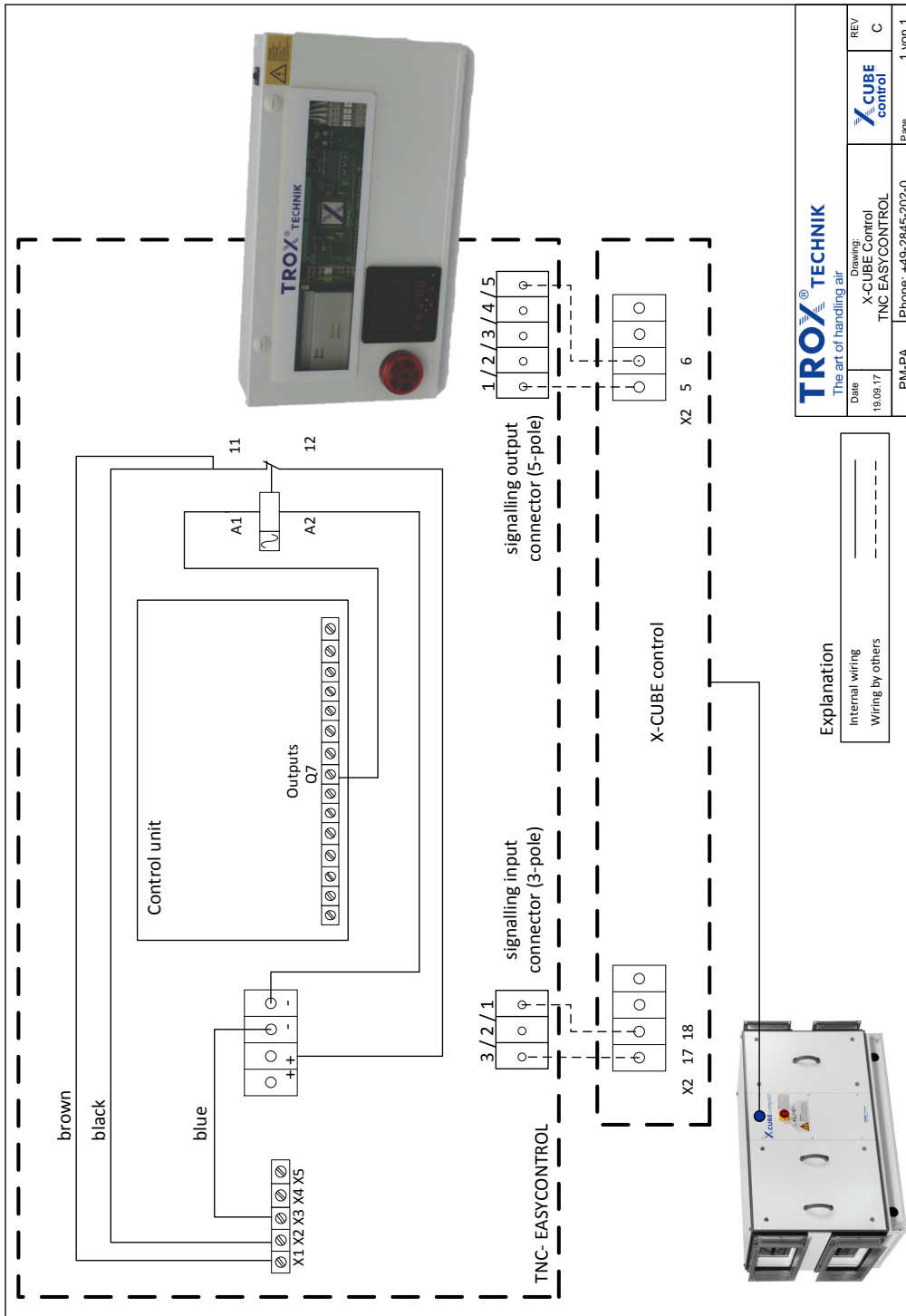
A.7 XCC-CPC



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Date	REV
19.08.17	X-CUBE control
PM-PA	XCC-CPC/Constant pressure control
Phone: +49-2845-202-0	Page
	1 von 1

Explanation	
R12 Flat cable 6P6C Tube	-----

A.8 XCC to TNC EASYCONTROL



TROX® TECHNIK The art of handling air		REV	1 von 1
Date	19.09.17	X-CUBE control	C
Drawing:	X-CUBE Control		
	TNC EASYCONTROL		
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