

Automation upgrade

LTR-3 eco EDX-E -> MDX-E

NOTE!

This instruction covers upgrade from a Mitsubishi to a Mitsubishi heat pump.

If a heat pump by another manufacturer is installed,
contact technical support for further assistance.

Fan rotation guards must be disabled in the new eAir settings.

Continuously check and compare the electrical diagrams at the end
of this instruction as the upgrade progresses!

Additional wires may be needed to complete the upgrade.

Warning!

According to regulations, an ordinary electricity consumer is only allowed to perform some minor service tasks.

**According to Finnish regulations,
a list of the allowed tasks can be found at the Tukes home page (www.tukes.fi).**

Always make sure that the power supply is turned off before opening the service door.

Wait two minutes before beginning the maintenance work. The fans rotate for some time by themselves, and the heating element may be hot even if the power supply of the ventilation unit is switched off. Electrical housing may be opened only by a trained electrician.

Electrical installations must comply with local regulations.

**Continuously check and compare the electrical diagrams at the end
of this instruction as the upgrade progresses!**

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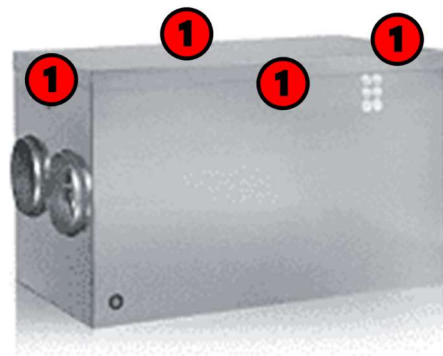
Electrical diagrams eco EDX-E > v.5.xx20

Electrical diagrams MDX-E22

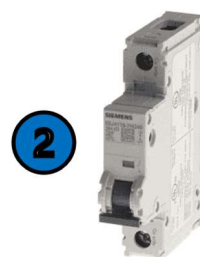
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Remove **the service door (1)** by releasing the locks.



Cut **the power to the unit (2)** (and other power supplies if available).



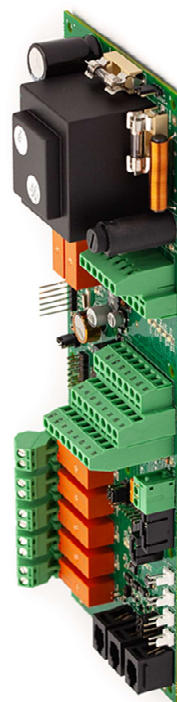
Remove **the cover to the electrical box (3)**.

NOTE! Ensure that no voltage is occurring in the electrical box before proceeding!

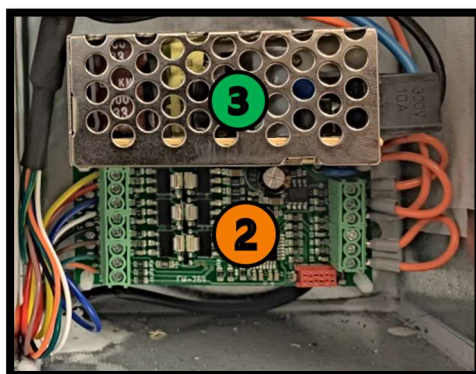


Mark all wires/sensors according to the marking on the main board and disconnect them from the **EDA main board (1)**.

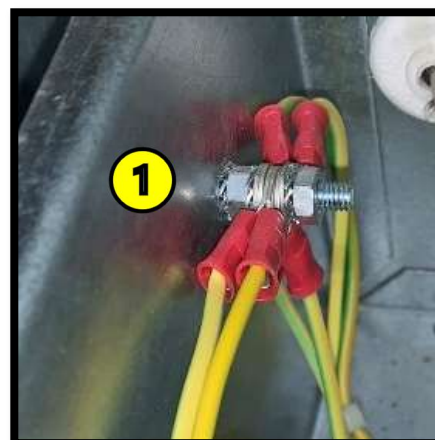
1



Disconnect the wires (that were connected to the EDA main board) from **the HRW circuit board (2)** and **the transformer (3)**.



Disconnect **all ground wires (1)** from the ground point.

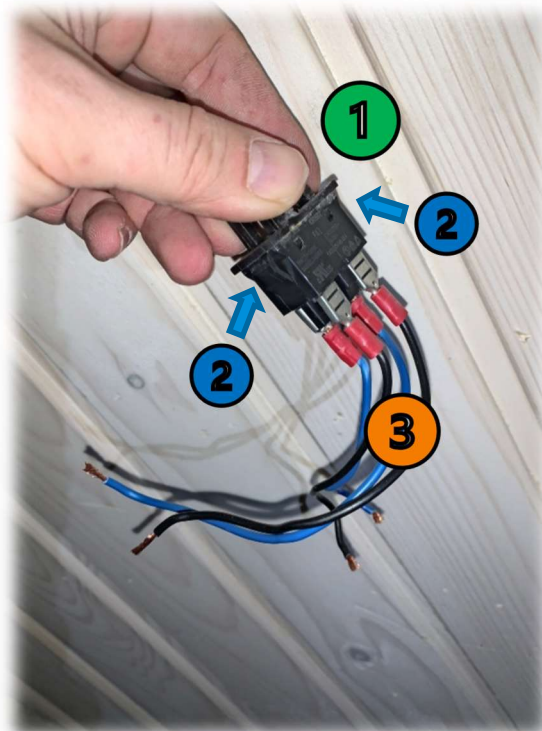


Disconnect the main power wires from **the terminals (2)**.

Remove **the screws (3)** and remove the automation base incl. **the terminals (2)** and **the EDA main board (4)**.



Remove **the main switch (1)** by pressing **the clips (2)**.
Disconnect and remove **the wires (3)** from the main switch.



Remove **the old extract air sensor (4)**
and the cable (two screws).



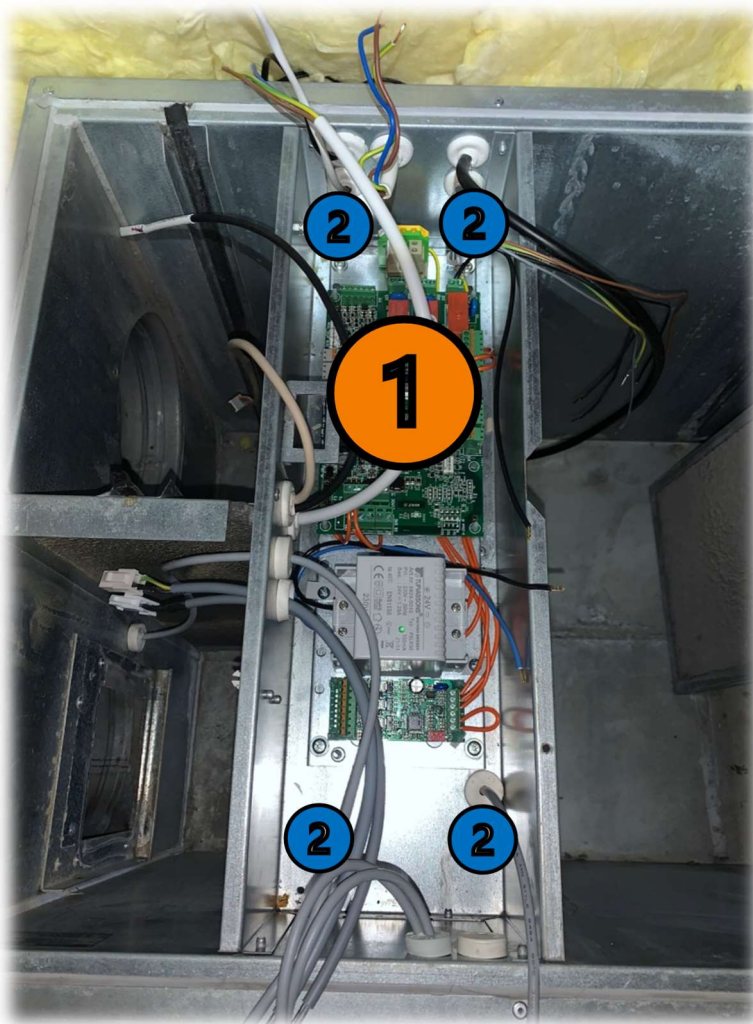
Install **the new extract air sensor (5)**
(40029223).



Install **the new automation (1)** in the electrical box.

Make sure no installed cable / sensor get stuck behind the automation base and that they are available in front of the main board.

Attach **the automation base** (40029647) to the electrical box with **four self tapping screws (2)** (40031530).

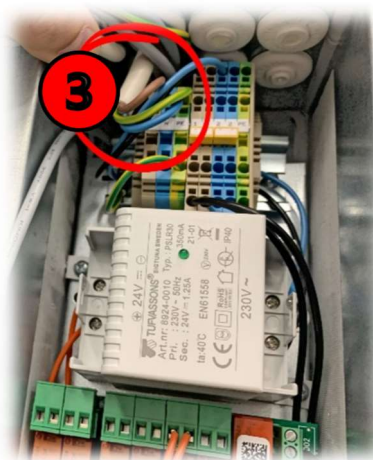


Connect **the main power cable to the terminals (3)**.

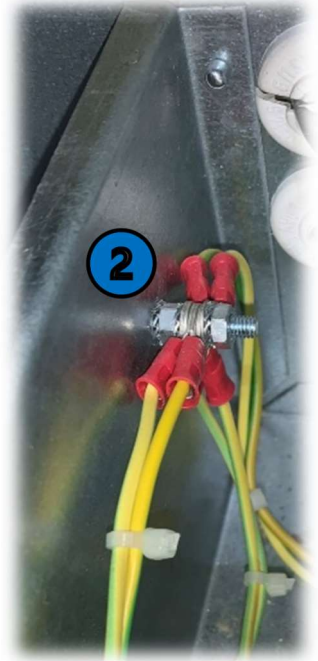
L: Brown

PE: Green/yellow

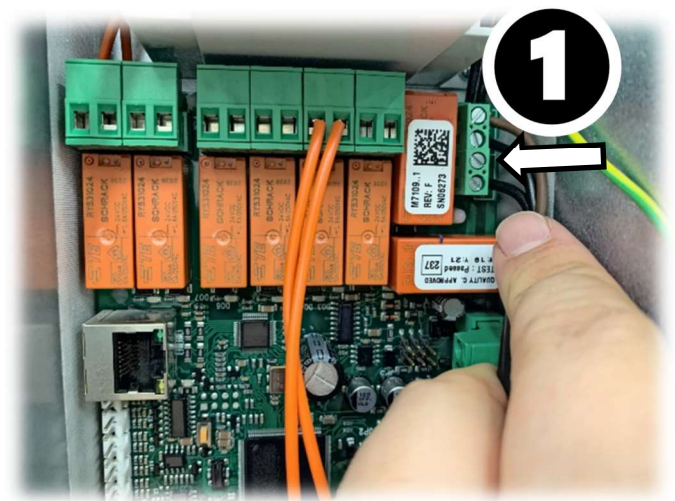
N: Blue



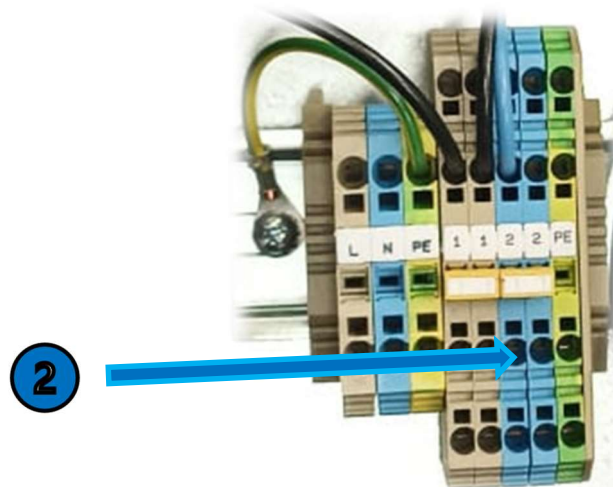
Connect **all ground wires** to **the ground point (2)**.
Supply air fan, extract air fan, (HRW), ground terminal.
 Tighten with **the nut** (40031489).



Connect **the brown wires** / **wires marked "1"**
 in the fan power cables to **"DO1" (1)**.



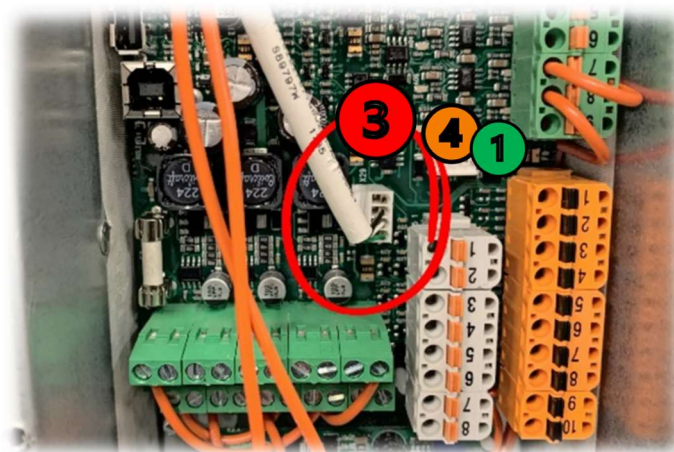
Connect **the blue wires / wires marked "2"** from the fan power cables to **the blue "2" connection terminal (2)**.



Connect **the extract air sensor (3)** (40029223) to the main board (X29).

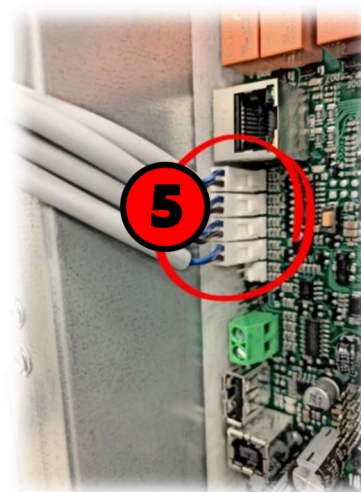
Connect **the SLP cable (4)** (40030313) to the main board (X17).

For connection of "DI10" on X17 (1), you will need to take the adapter cable (40030313) apart in the other end, free **the blue wire** and connect it to **TB141 (X2,3)** on the Mitsubishi PAC controller (**page 24**).



Connect **the sensors (5)** to the main board according to the markings.

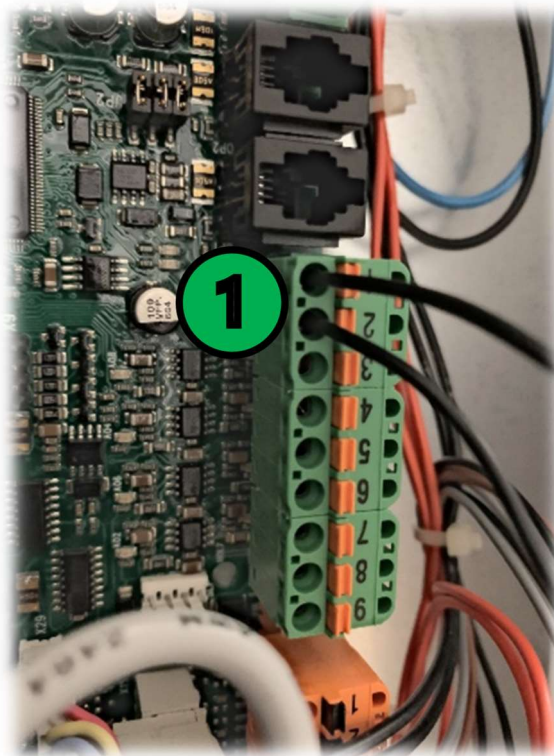
X1, TE01: Outside air
X2, TE05: HRW supply air
X3, TE10: Supply air
X4, TE32: Waste air



Connect **the wires from the supply air fan control cable (1)** to the main board.

1: 1

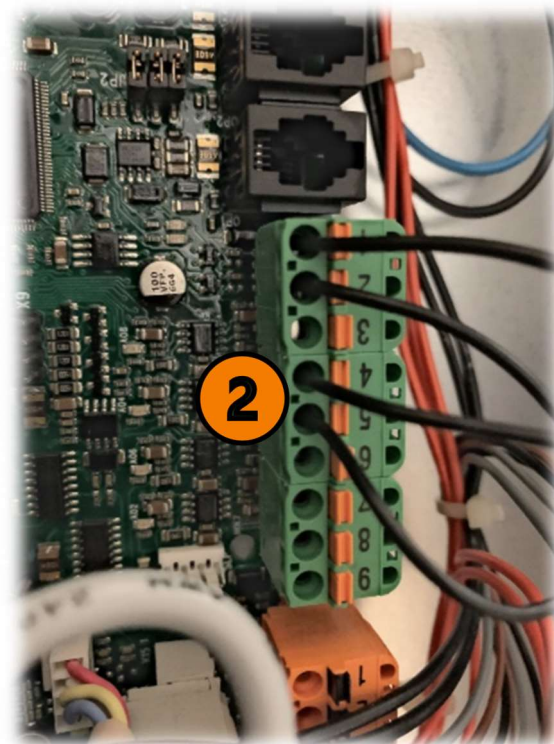
2: 2



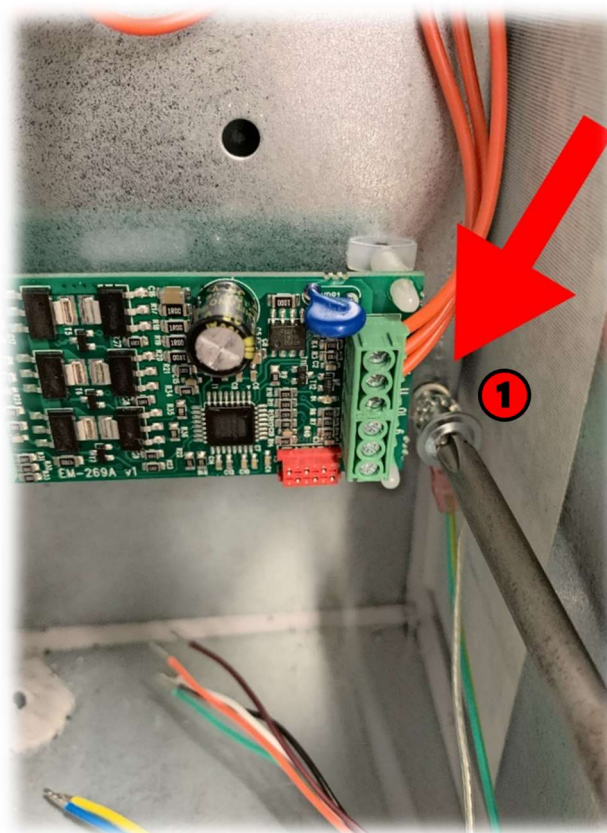
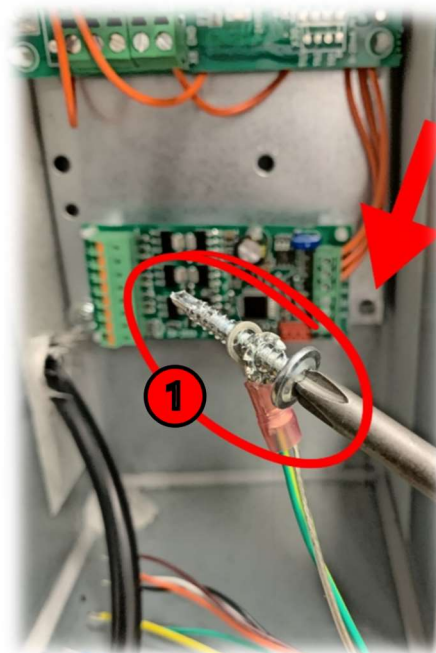
Connect **the wires from the extract air fan control cable (2)** to the main board.

4: 1

5: 2



Release **the screw (1)** from the automation base and attach **the ground wire** from the HRW cable to the screw, along with **a washer** (40031537).



Reattach **the screw (1)** to the automation base.

Connect **the wires from the HRW cable to the HRW control board (1).**

1: Yellow

2: Red

3: Blue

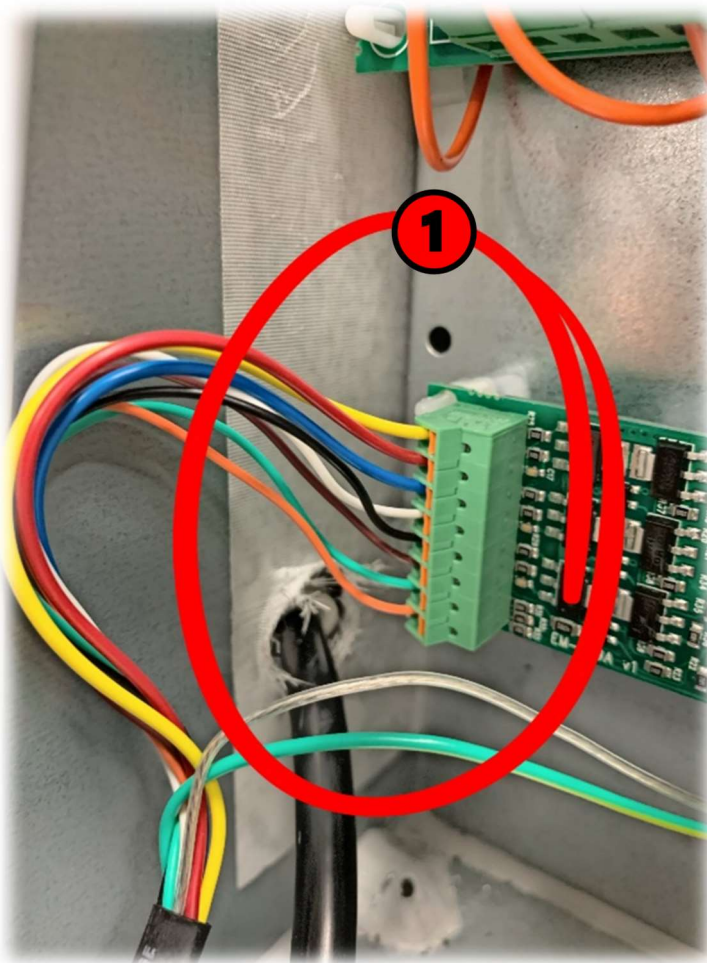
4: White

5: Black

6: Brown

7: Green

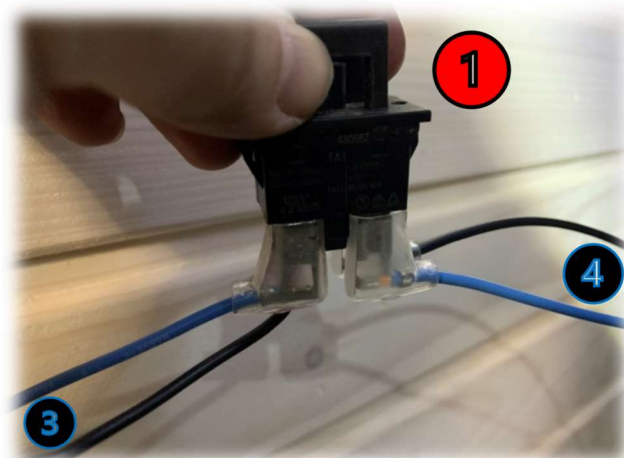
8: Orange



Connect the other components according to the electrical diagrams (pages 22-25).

The possible **blue relay (2)** and **the PYR4 or AO2 controller (3)** may be removed.

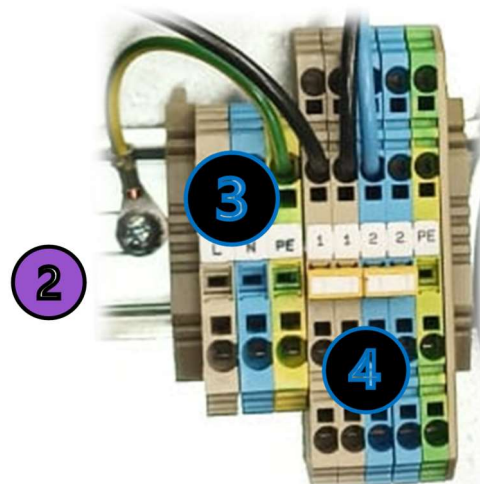




Connect the pairs of wires with flat connectors, (40028776, 40028777) to **the main switch (1)**, reinstall **the main switch (1)** and connect the wires to **the connection terminals (2)**.

L: Black (3)
N: Blue (3)

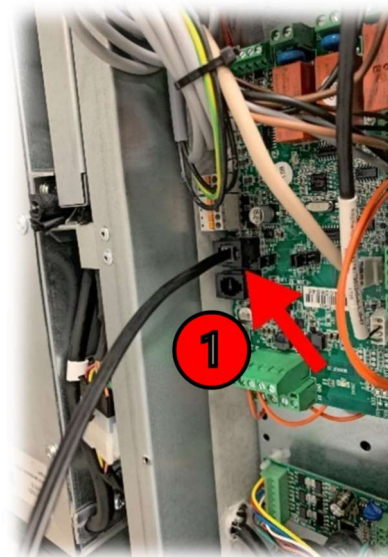
1: Black (4)
2: Blue (4)



Attach the cables together with **cable ties** (40030997).



Connect **the display cable (1)** to the main board.
Close the cover to the electrical box.



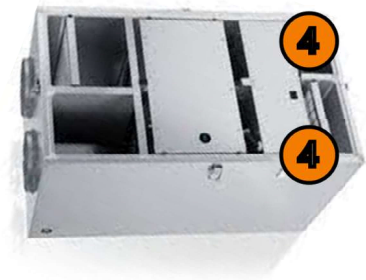
Replace the old display with the **new display (2)** (40031114).



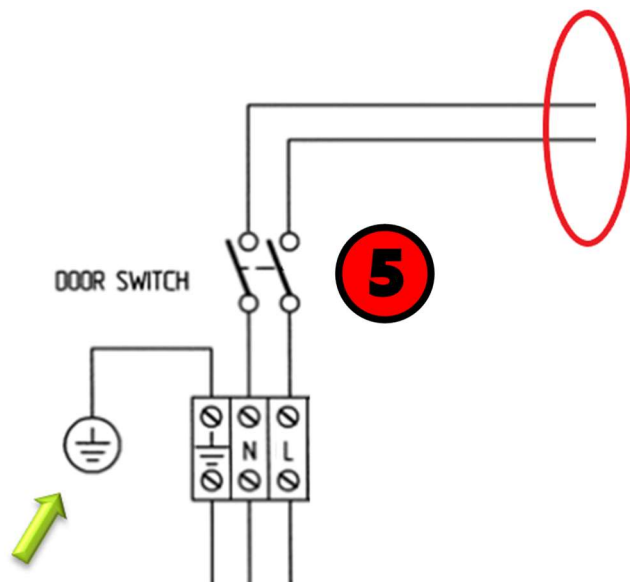
Install **the WiFi module (3)** (40034288).

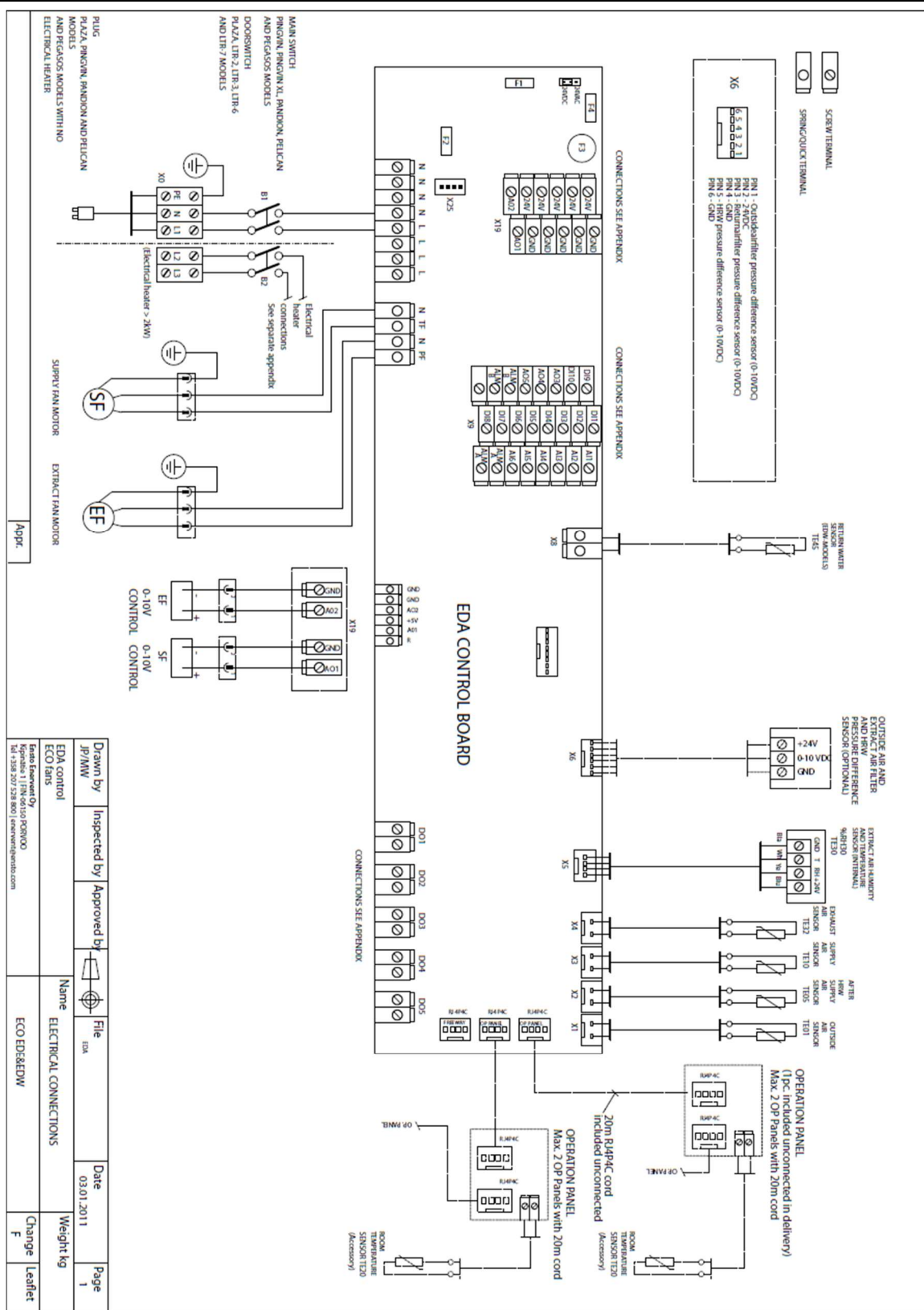


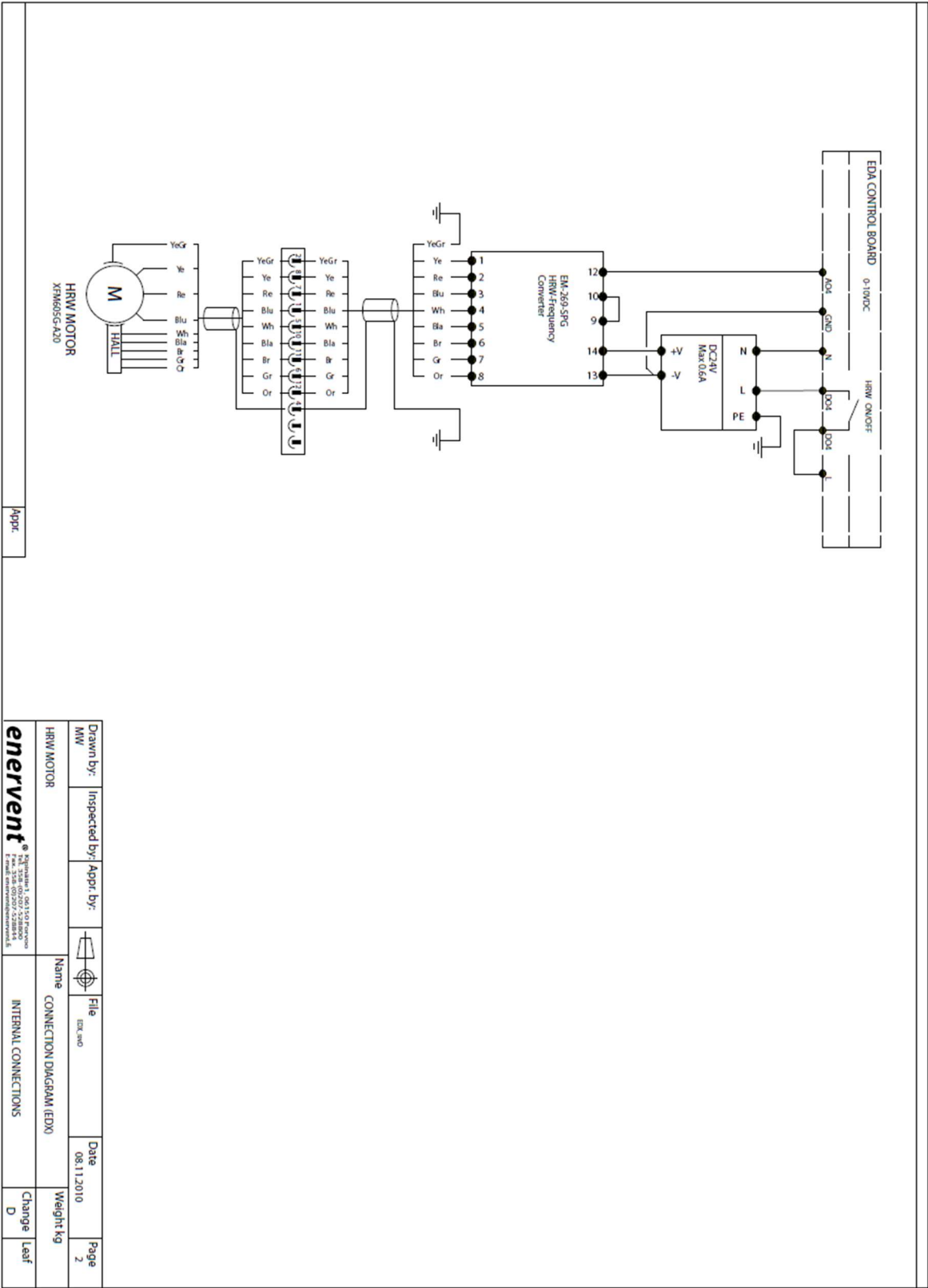
Install **the new type plate sticker (4)**.

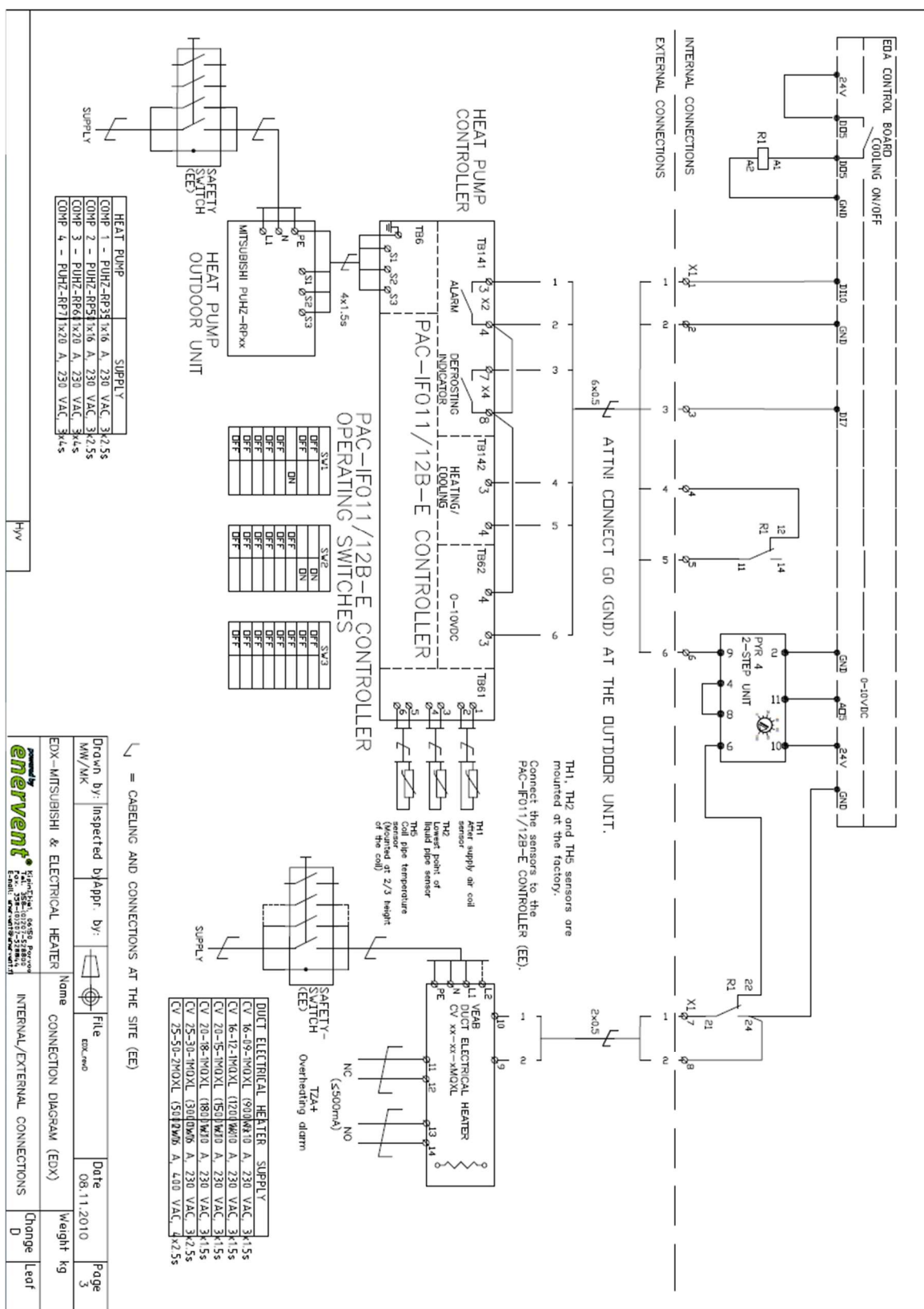


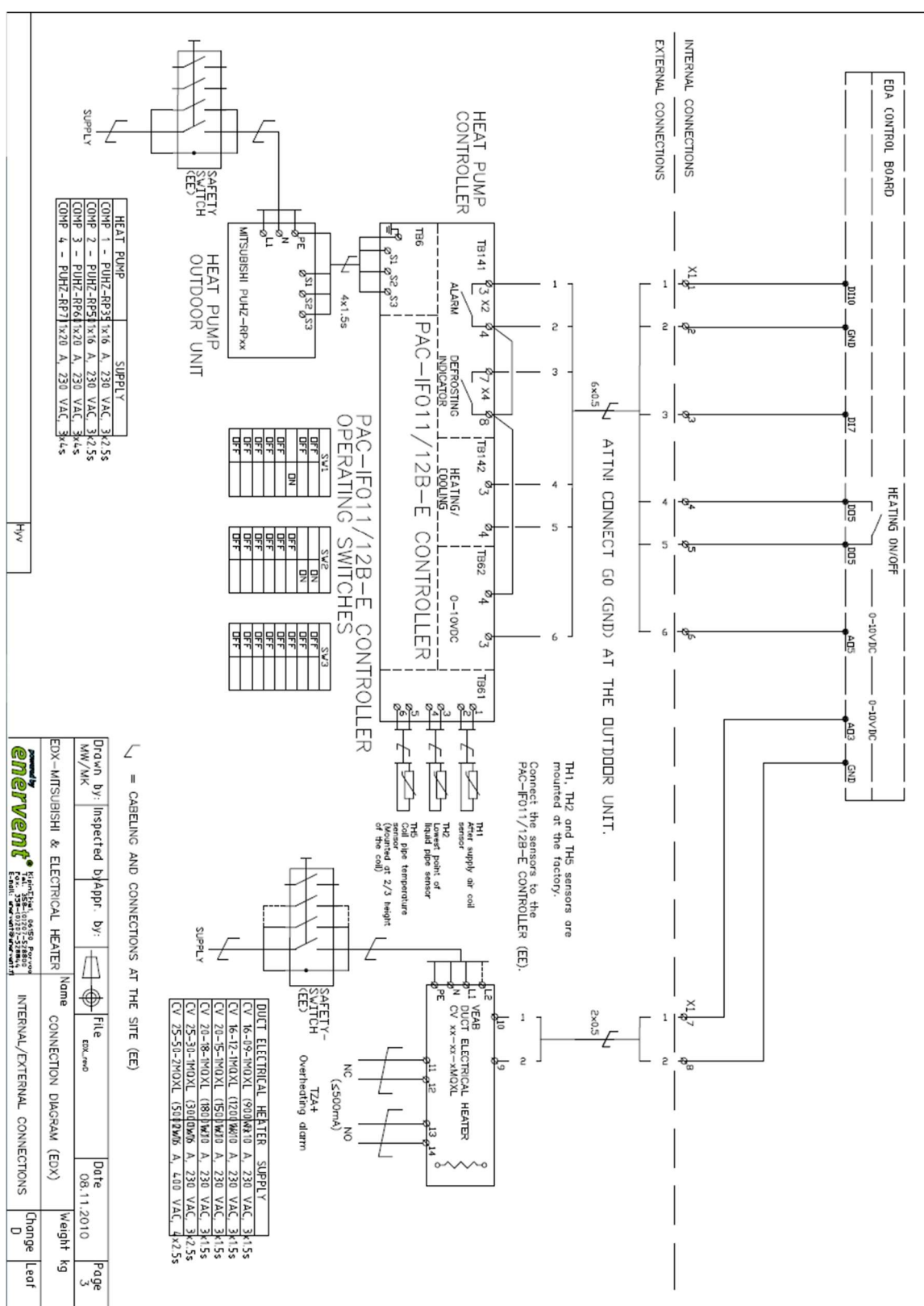
Press down the **main switch (5)** and perform insulation and ground continuity test according to regulations.

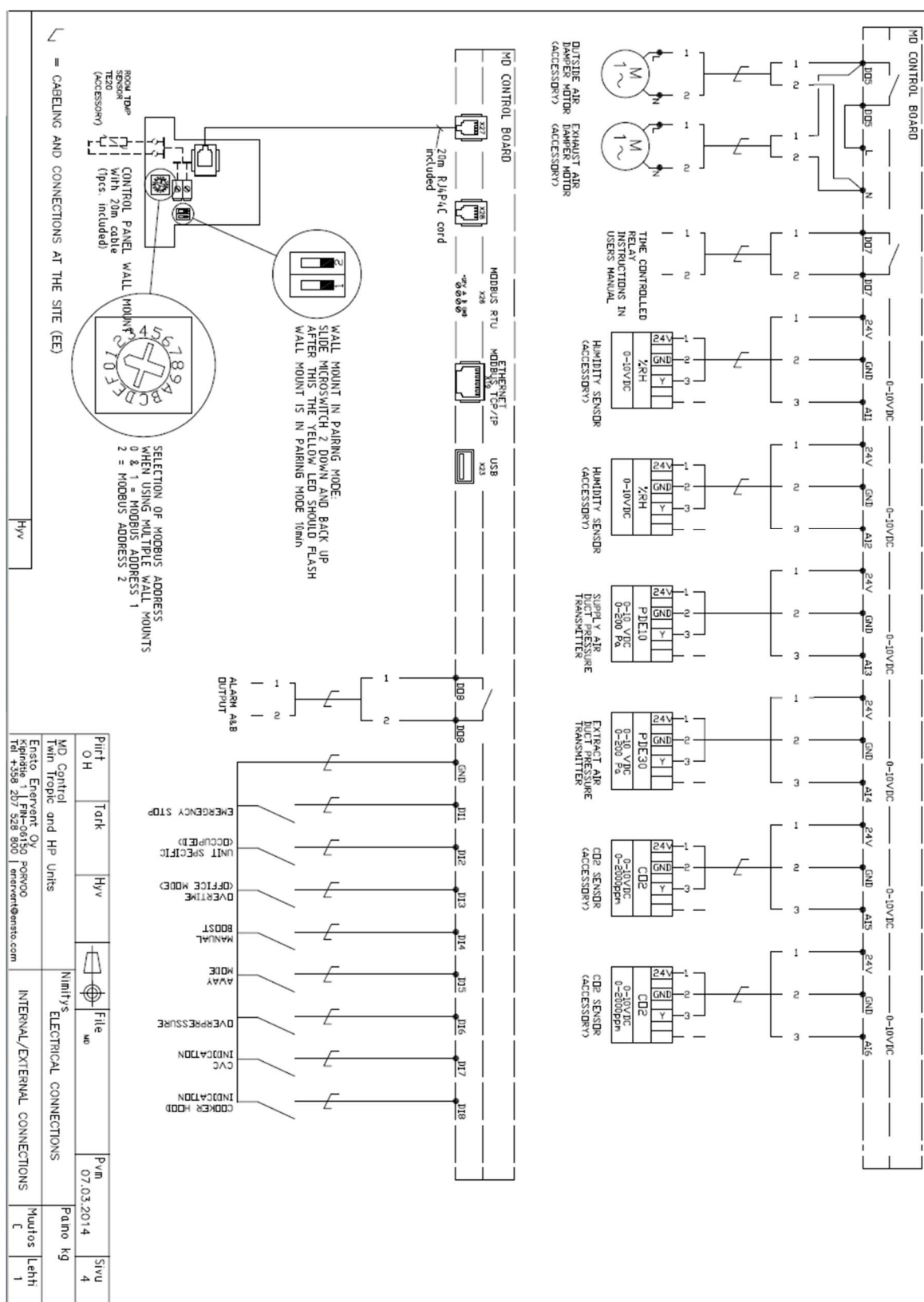


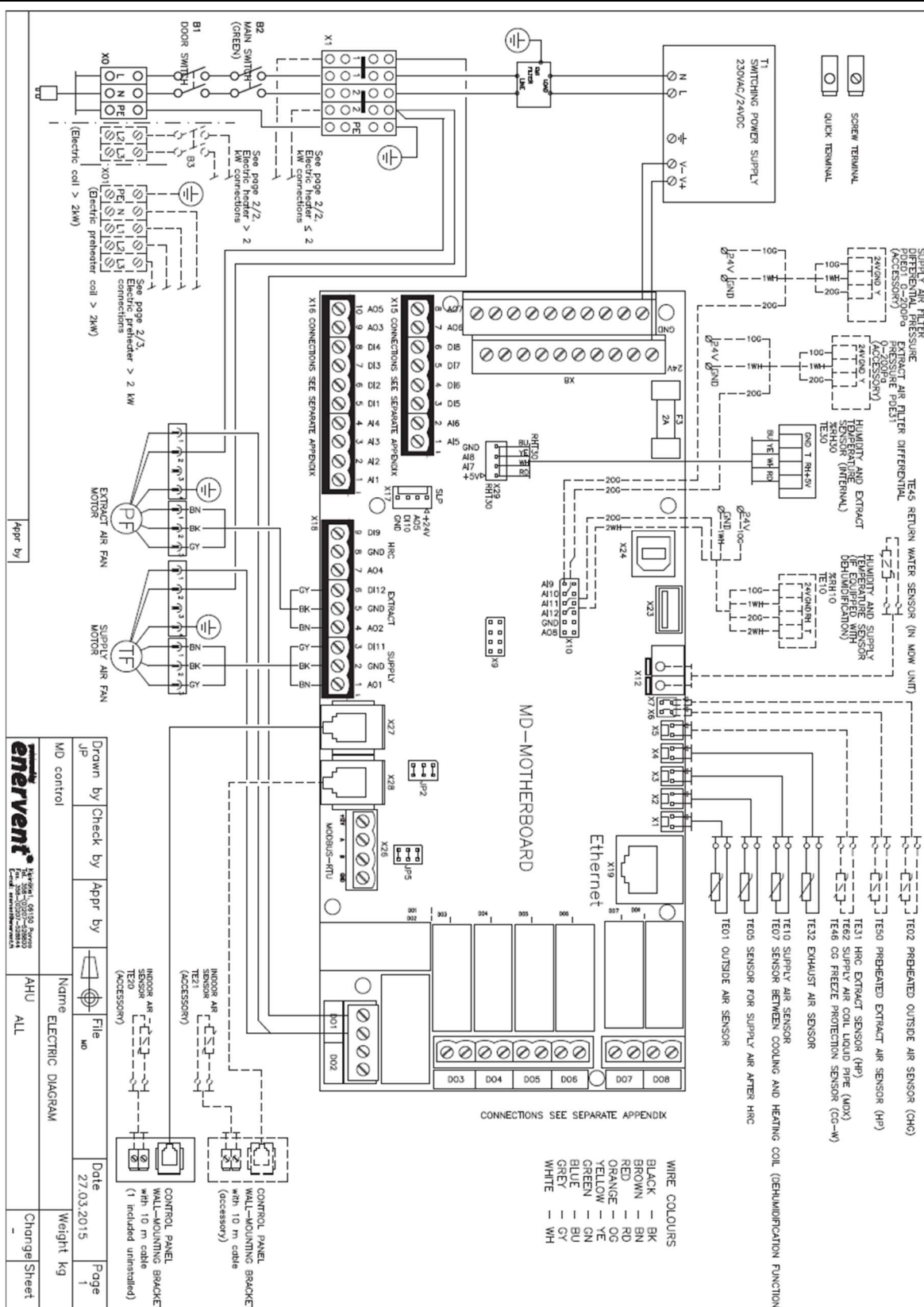


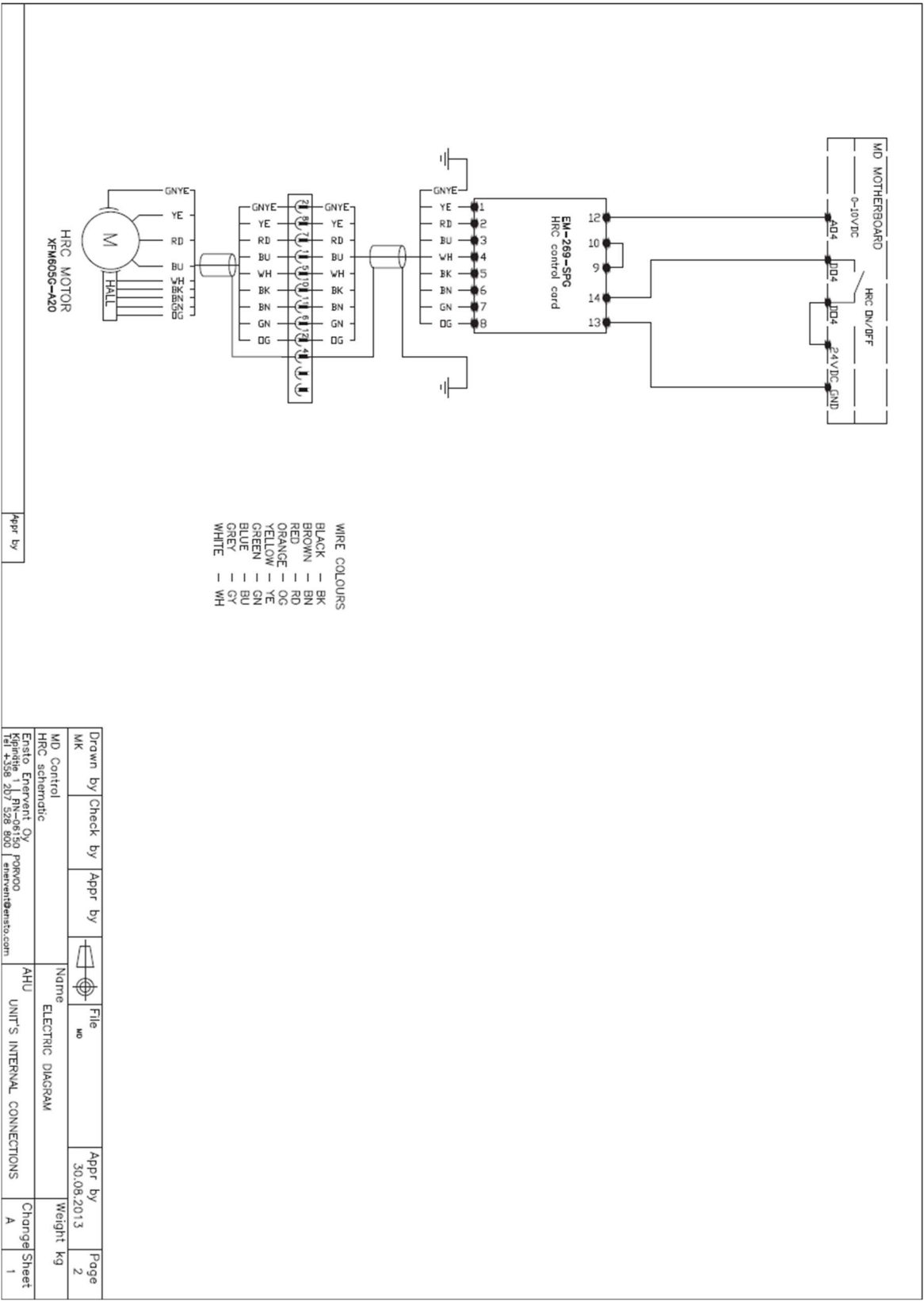


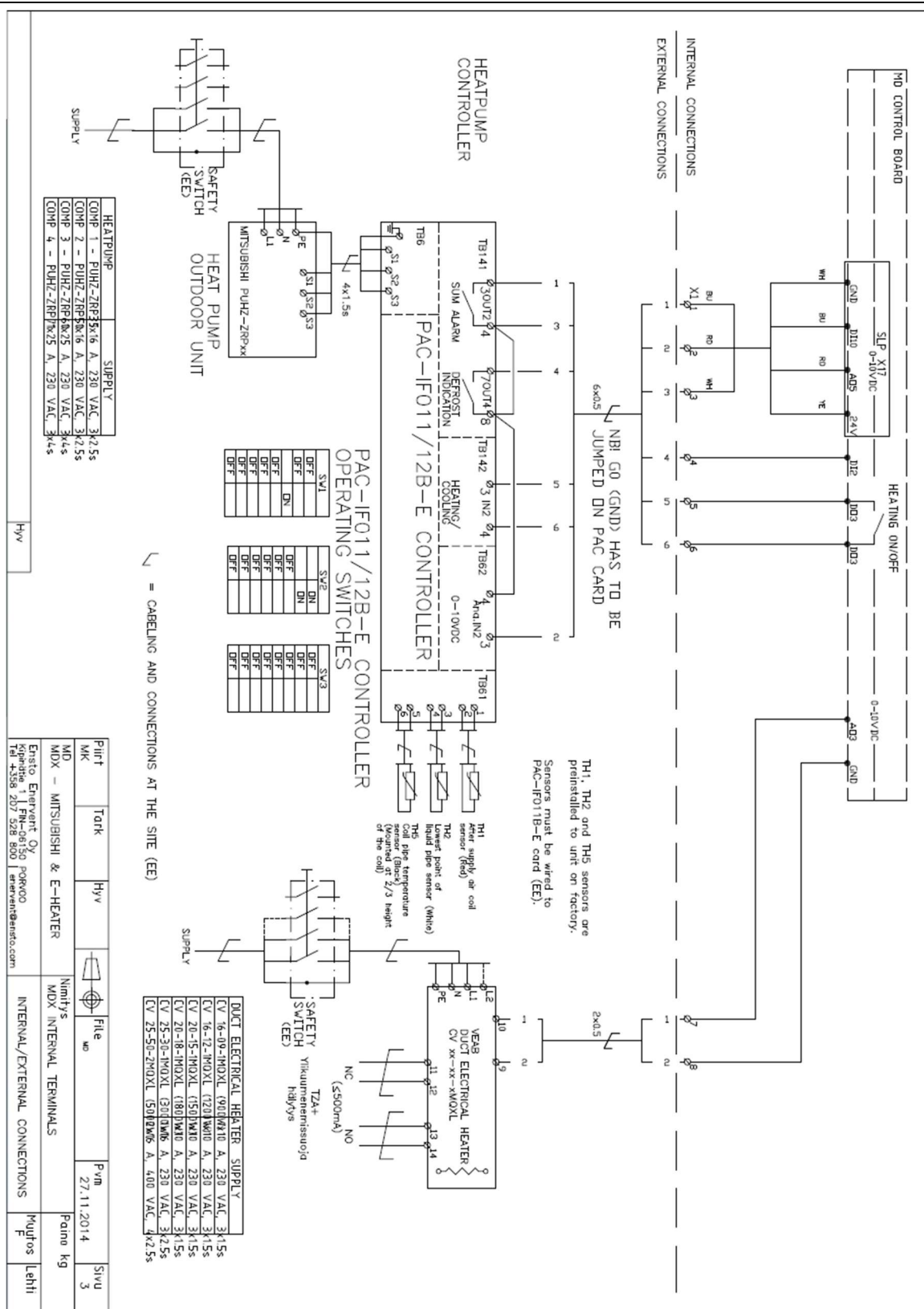


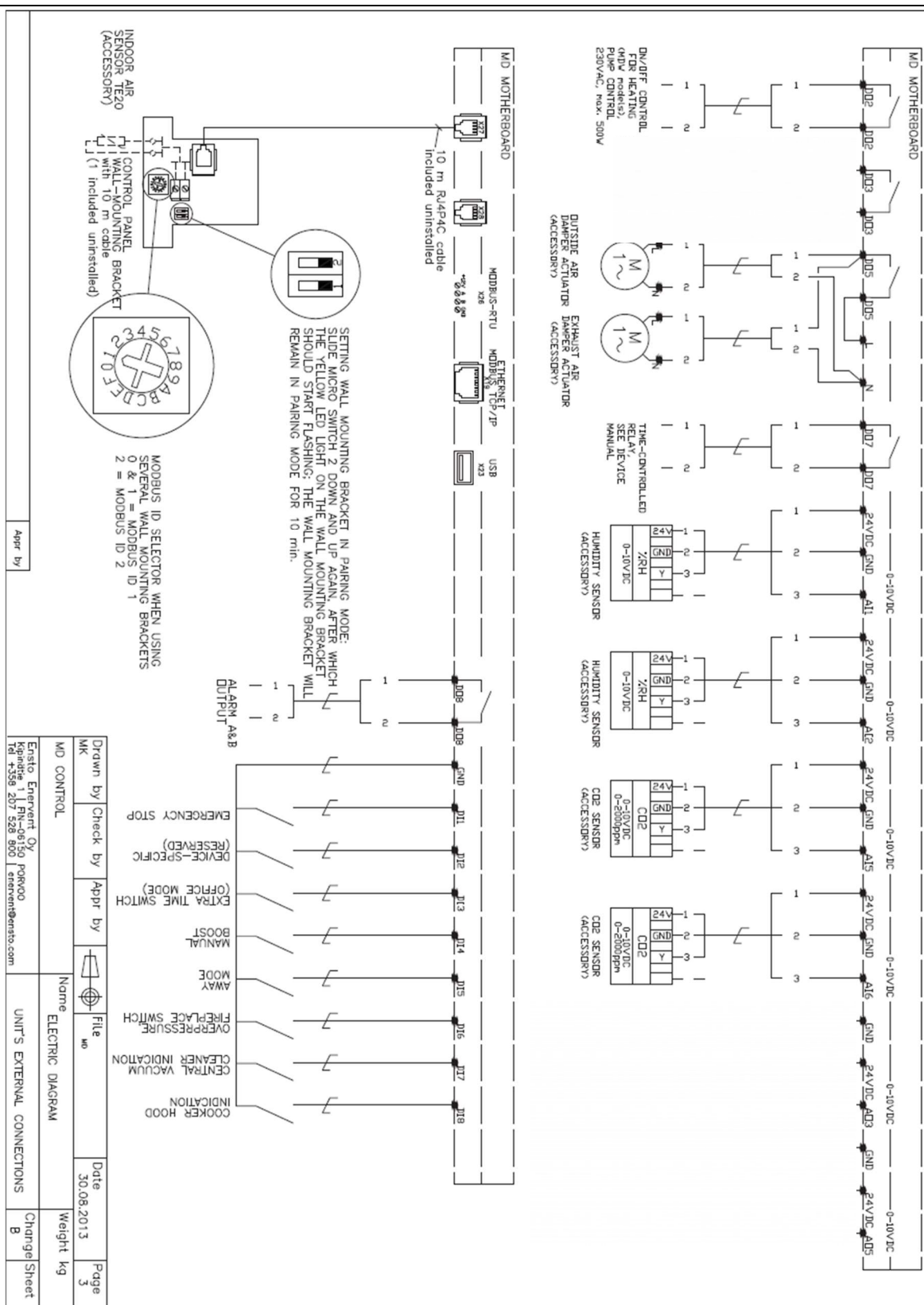












MANDATORY PARTS

10025023 **CONTROL UPDATE KIT LTR-3 eco EDX-E->MDX-E** **1**

<u>Code</u>	<u>Description</u>	<u>Pcs.</u>
10025023	CONTROL UPDATE KIT LTR-3 eco EDX-E->MDX-E	

Automation

40030936	PCB support KGLS-6S	5
40030937	PCB support LCBSM-6-01	4
40031695	Screw DIN 7981 ZN 3,9x9,5	4
40031631	Screw DIN 7985 ZN M4x20	1
40031537	Washer 6798-A ZN M4x8	3
40031489	Nut DIN 934/8 ZN M4	1
40028773	Wire 340mm orange 0,75mm ²	6
40028774	Wire 255mm 1mm ² black	3
40028779	Wire 255mm 1mm ² blue	1
40031093	eAir main board	1
40029985	eAir main board connectors	1
40029195	Power supply Tufvassons PSLR24	1
40028788	Ground wire 100mm	1
40029647	Automation base	1
40029344	Terminal package	1

Components

40029223	Humidity/temperature sensor Amphenol 350mm	1
40031530	Screw ZN 4,2x25	4
40028776	Wire 250mm black	2
40028777	Wire 250mm blue	2
40031537	Washer 6798-A ZN M4x8	1
40031489	Nut DIN 934/8 ZN M4	1
40030997	Cable tie 2,5x200mm	10
40031114	eAir panel package	1
40030313	SLP cable	1
40034288	WiFi module package	1

Manuals etc. (depends on model)

eAir installation manual	1
eAir user manual	1
eAir electrical diagrams	1

Notes: