

Automation upgrade

LTR-2 eco EDA -> eWind

NOTE!

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

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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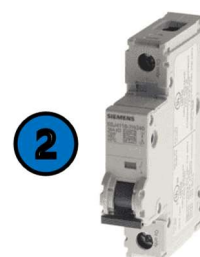
Parts list eWind W21

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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).

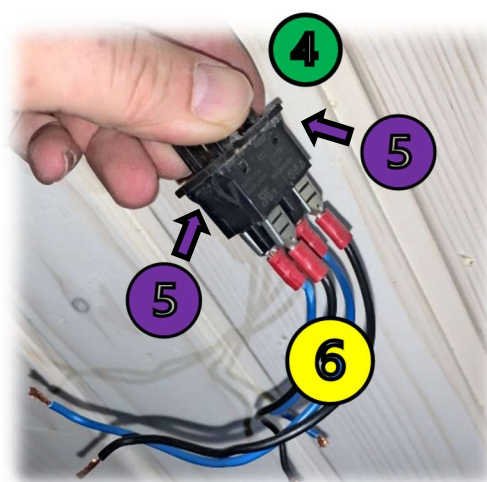


Remove **the cover to the electrical box (3)**.

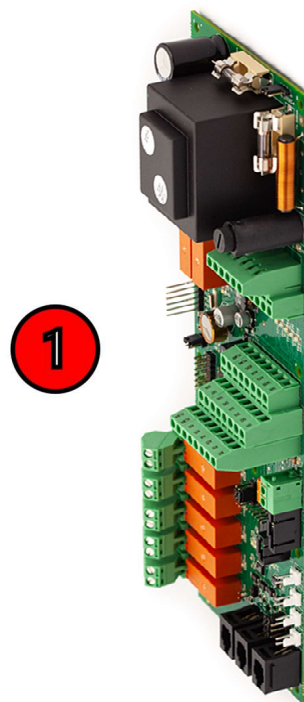
NOTE! Ensure that no voltage is occurring in the electrical box before proceeding!



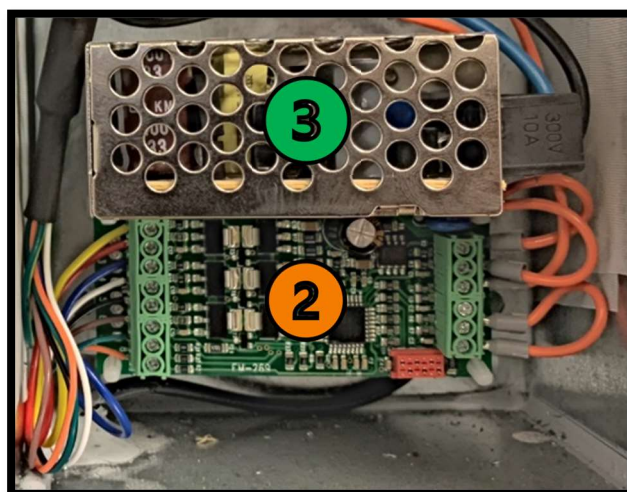
Remove **the main switch (4)** by pressing **the clips (5)**.
Disconnect and remove **the wires (6)** from the main switch.



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

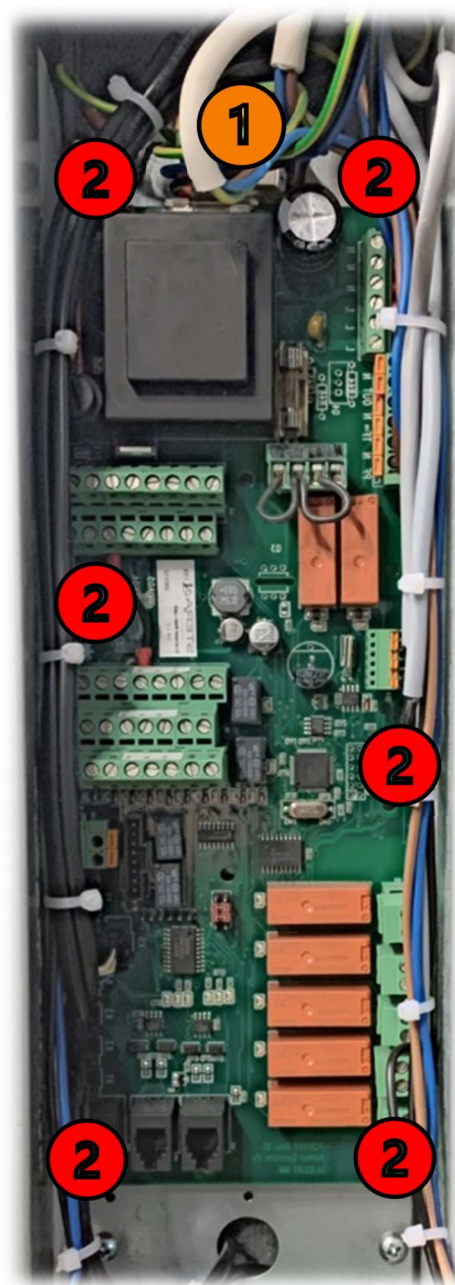
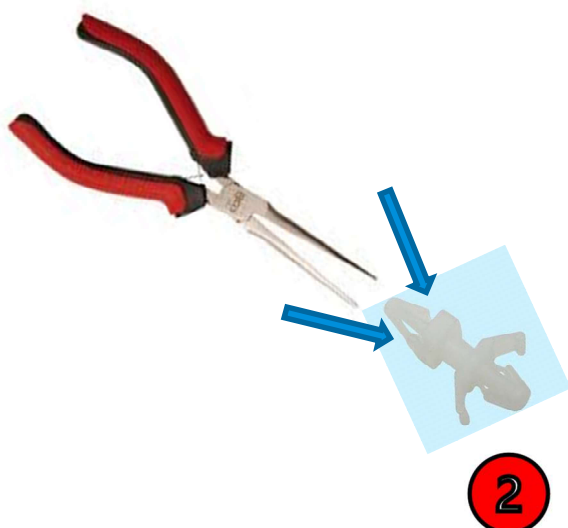


Disconnect the wires (that were connected to the EDA main board) from **the HRW circuit board (2)** and **the transformer (3)**.



Disconnect the main power wires from **the terminals (1)**.

Remove the EDA main board, by pressing **the PCB supports (2)** with pliers and by pulling.



Release **the after heater (1)**, by releasing the screws, and remove the cover.

Ignore if the unit has a water coil after heater installed.



Remove the old triac control cable and install **the new triac control cable (2)** (40030313).

Ignore if the unit has a water coil after heater installed.



Re-install **the after heater (1)**.

Ignore if the unit has a water coil after heater installed.

Remove **the old extract air sensor (3)** and the cable (two screws).

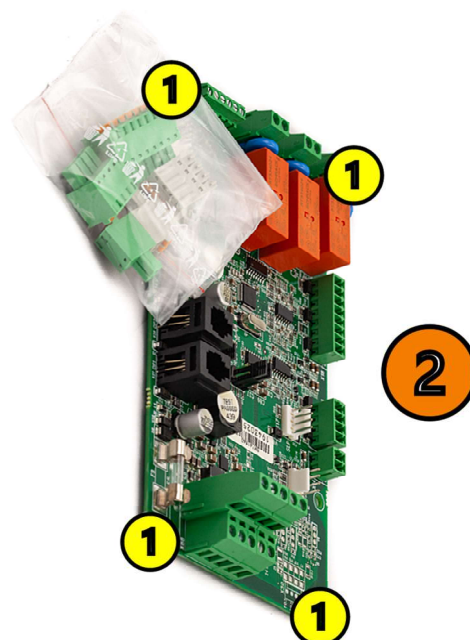
3



Install **the new extract air sensor (4)** (40029224).

4





Drill new 4,5mm holes in the electrical box for **the PCB supports (1)** (40030936) for **the eWind main board (2)** (40031094).

Install **the eWind main board (2)** (40031094) in the electrical box.

Install **the terminal package (3)** (40029344) in the electrical box.

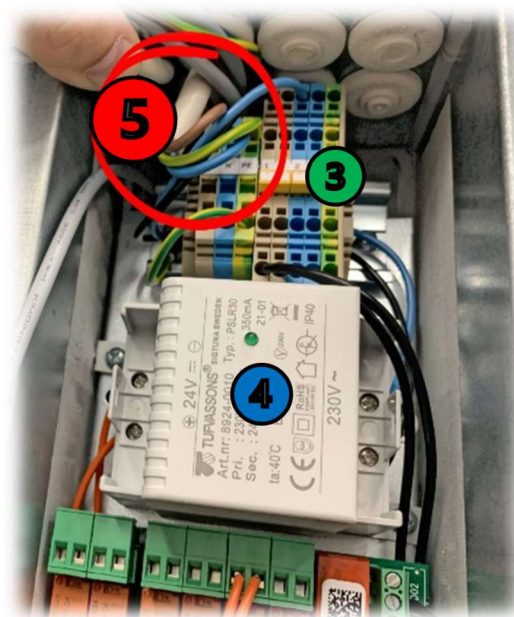
Install **the power supply (4)** (40029195) in the electrical box.

Connect **the main power cable to the terminals (5)**.

L: Brown

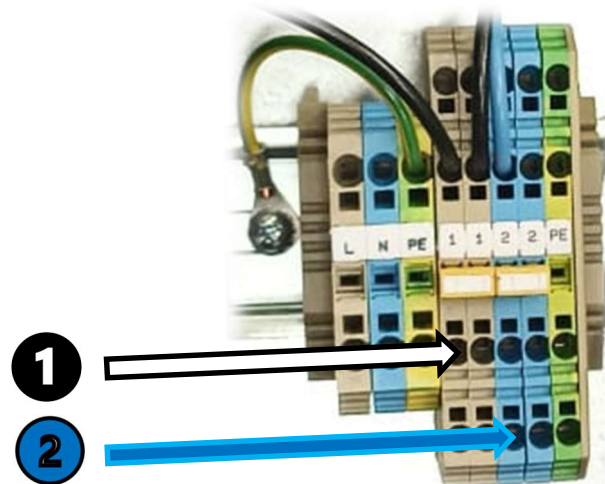
PE: Green/yellow

N: Blue



Connect **the blue wire** from the electrical after heater to **the blue "2" connection terminal (2)**.

Ignore if the unit has a water coil after heater installed.

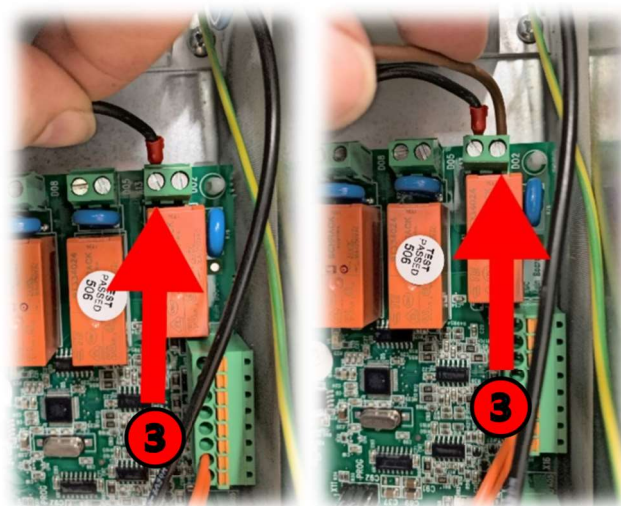


Connect **the black wire** (40028774) to **the black "1" connection terminal (1)** and to **"DO2" on the main board (3)**.

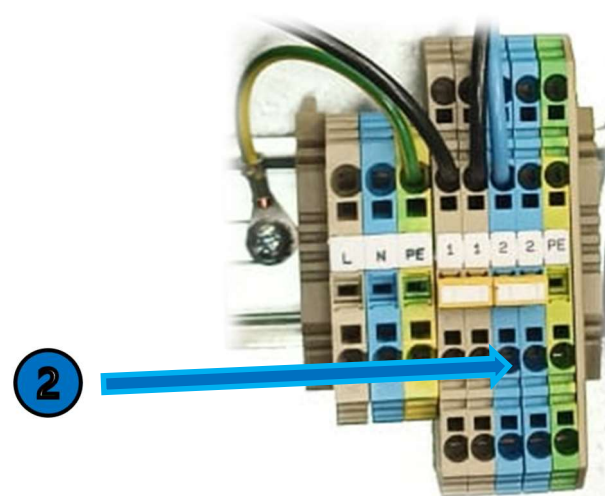
Connect **the brown wire** from the electrical after heater to **"DO2" (3)**.

If there is a water coil after heater installed, the circulation pump power wire (L) would be connected here.

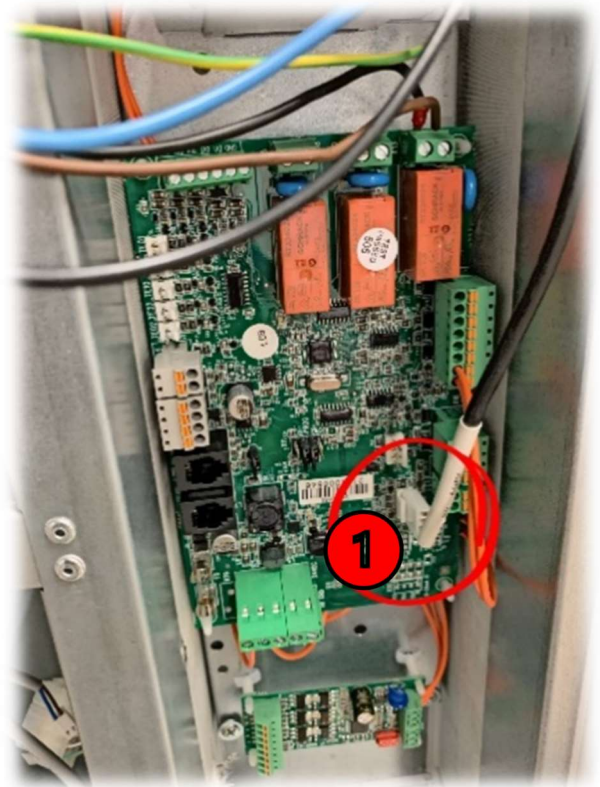
Connect **the wires marked "1"** in the fan power cables to **the black "1" connection terminal (1)**.



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



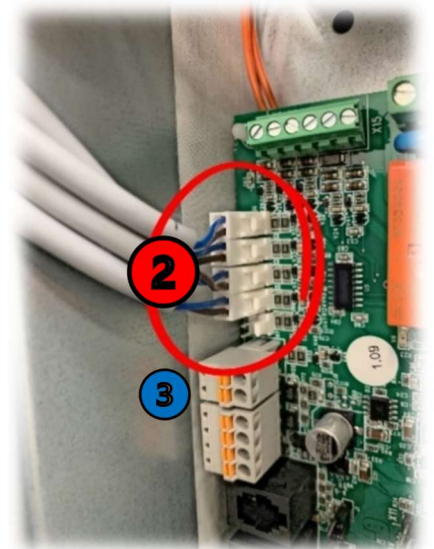
Connect **the extract air sensor (1)** (40029224) to the main board (X29).



Connect **the sensors (2)** to the main board according to the markings.

TE01: Outside air
TE05: HRW supply air
TE10: Supply air
TE32: Waste air

X7, TE45: Return water sensor (3),
if the unit has a water coil after heater installed.



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

AO1: 1 (brown)

GND: 2 (black)

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

AO2: 1 (brown)

GND: 2 (black)

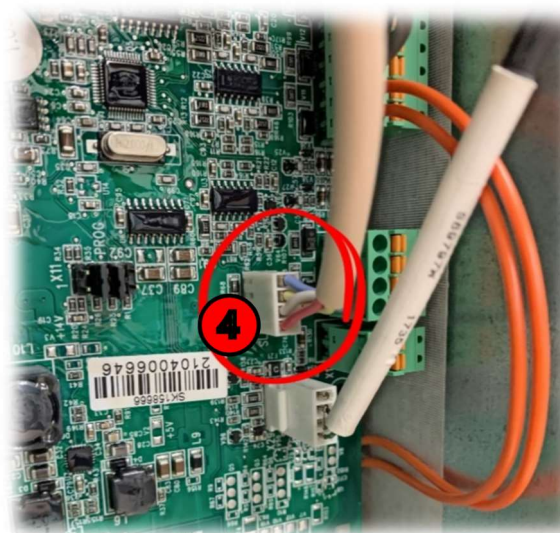
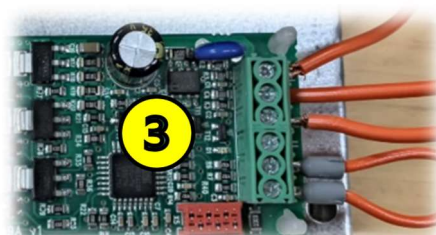
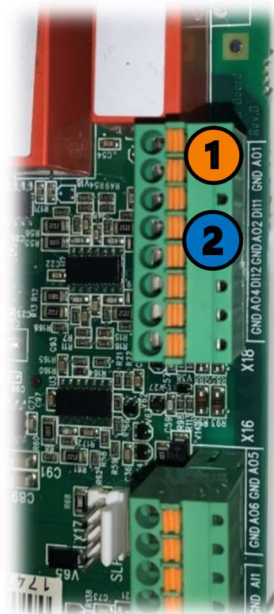
Connect **the HRW circuit board (3)** to the main board according to the electrical diagram (page 17).

The old transformer won't be used anymore!

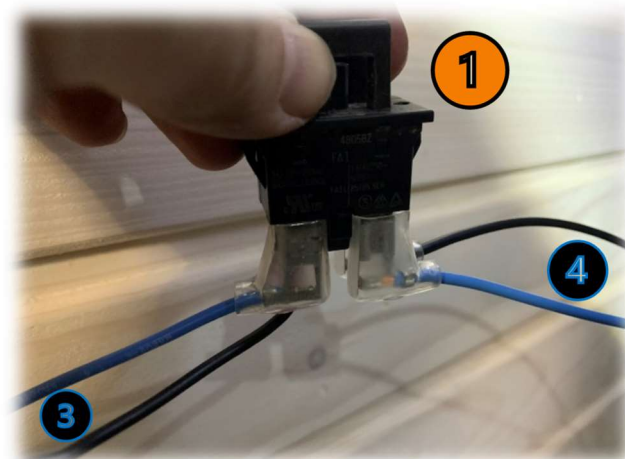
Connect **the after heater control cable (4)** to the main board (X17).

Ignore if the unit has a water coil after heater installed.

Connect internal and other components (for example actuator for water heating coil or cooling coil) according to the electrical diagrams (pages 17-20).

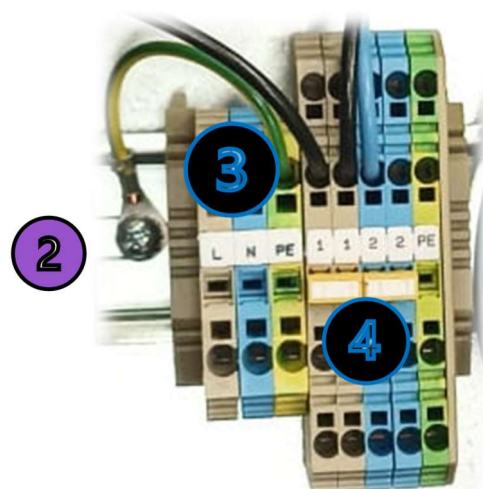


Connect the pairs of wires with flat connectors, (40028776, 40028777) to the **main switch (1)**, install the main switch and connect the wires to **the connection terminals (2)**.

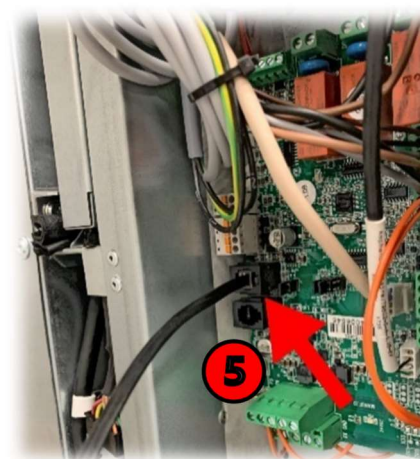


L: Black (3)
N: Blue (3)

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



Connect **the display cable (5)** to the main board. Close the cover to the electrical box.



Replace the old display with **the new display (1)** (40031115).

1



Install the **WiFi module (2)** (10025202).



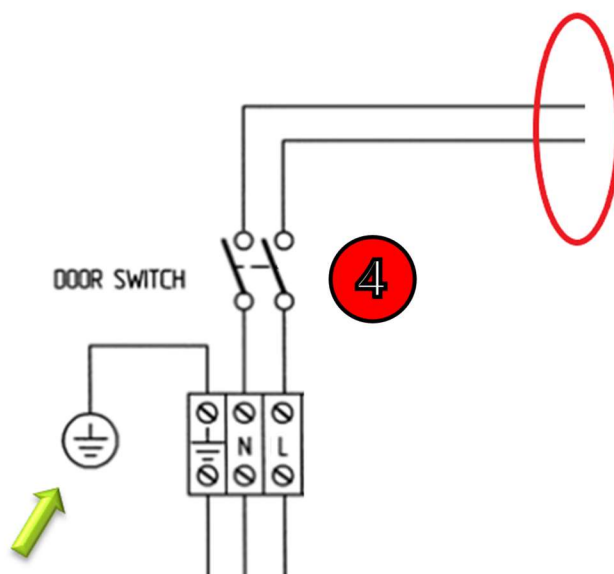
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Install **the new type plate sticker (3)**.

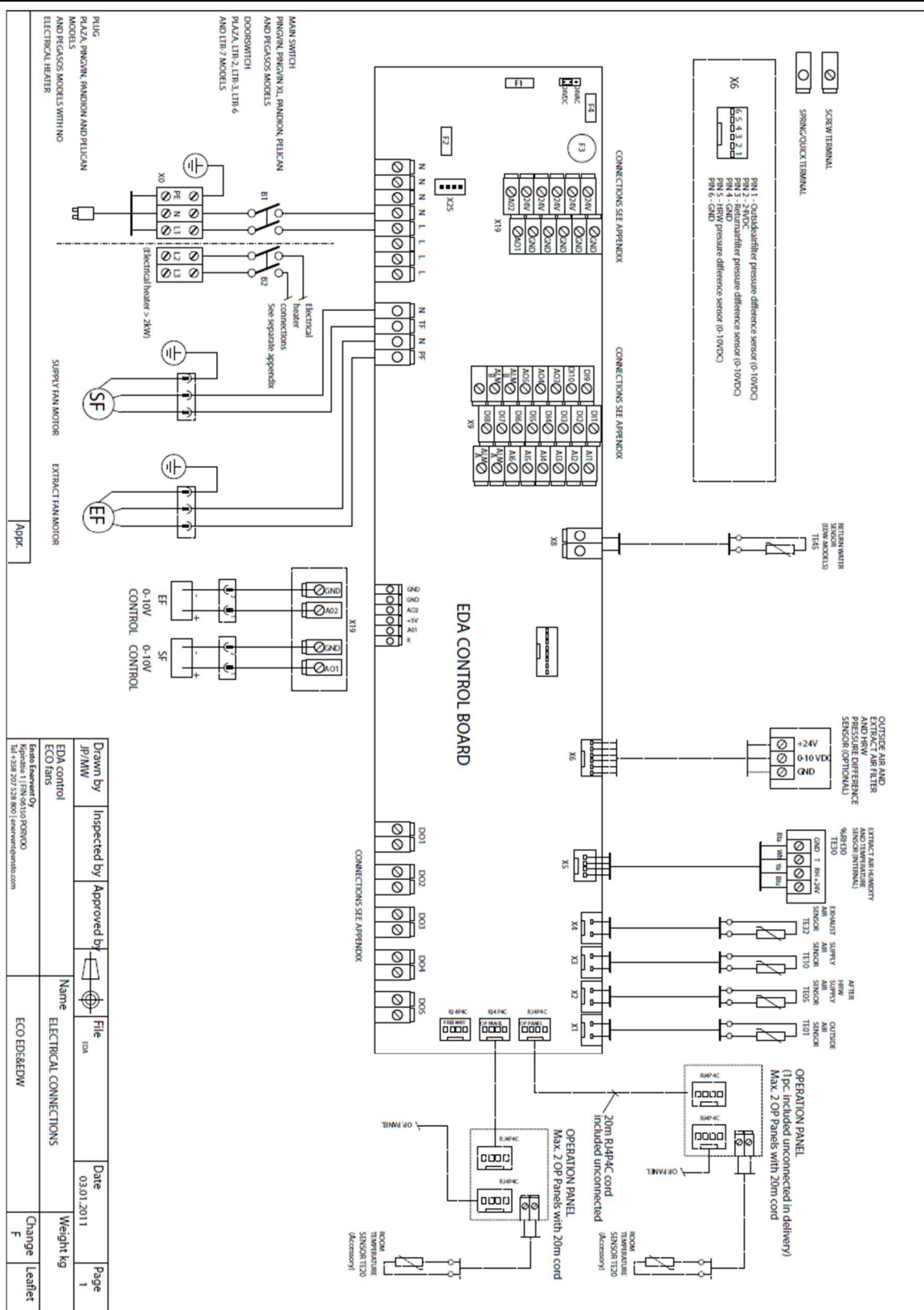


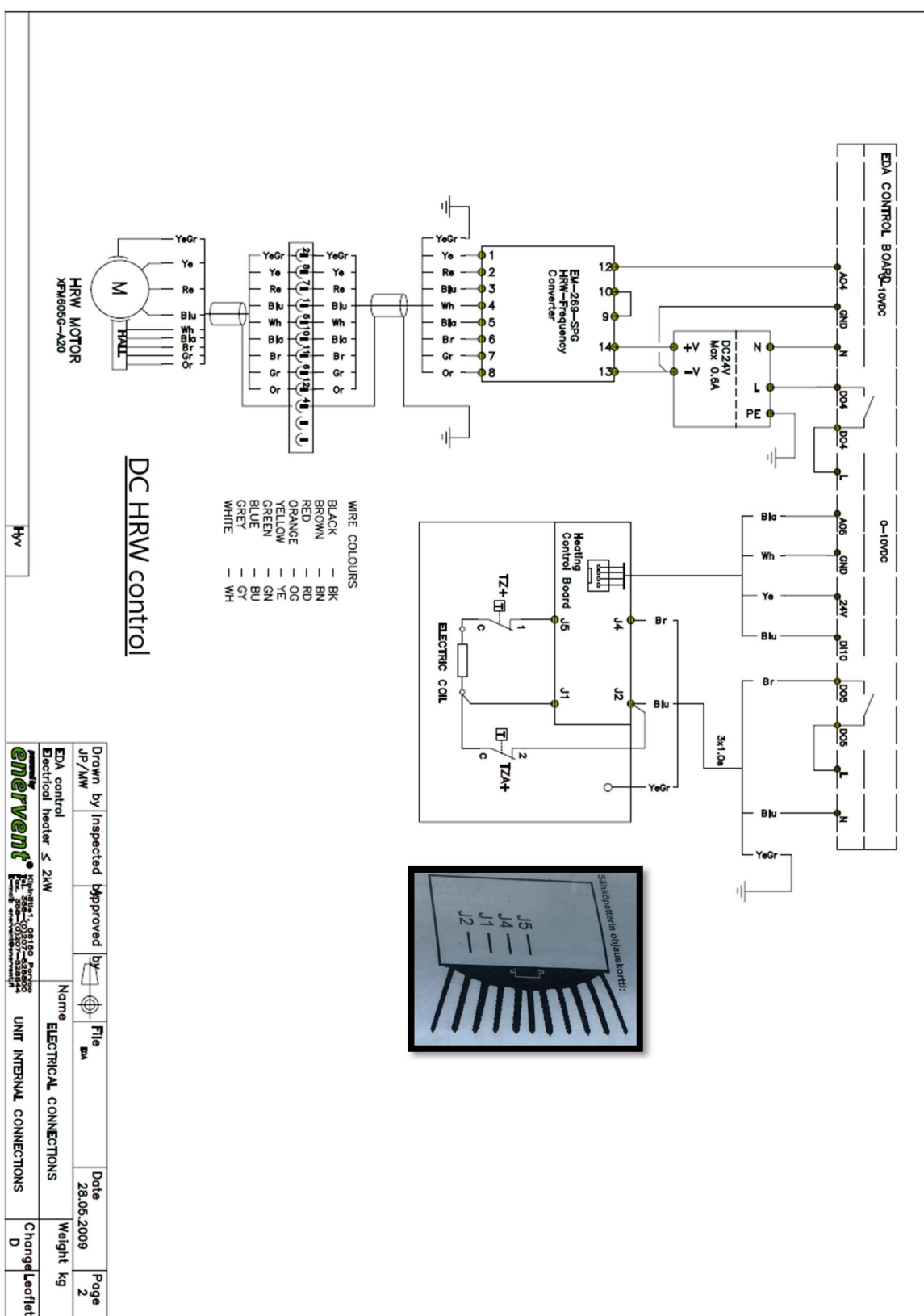
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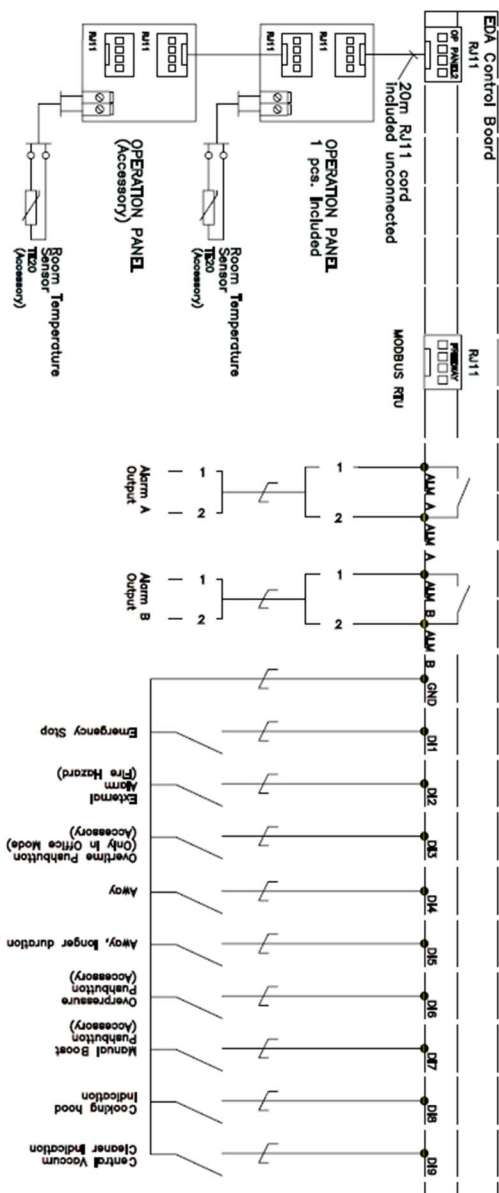
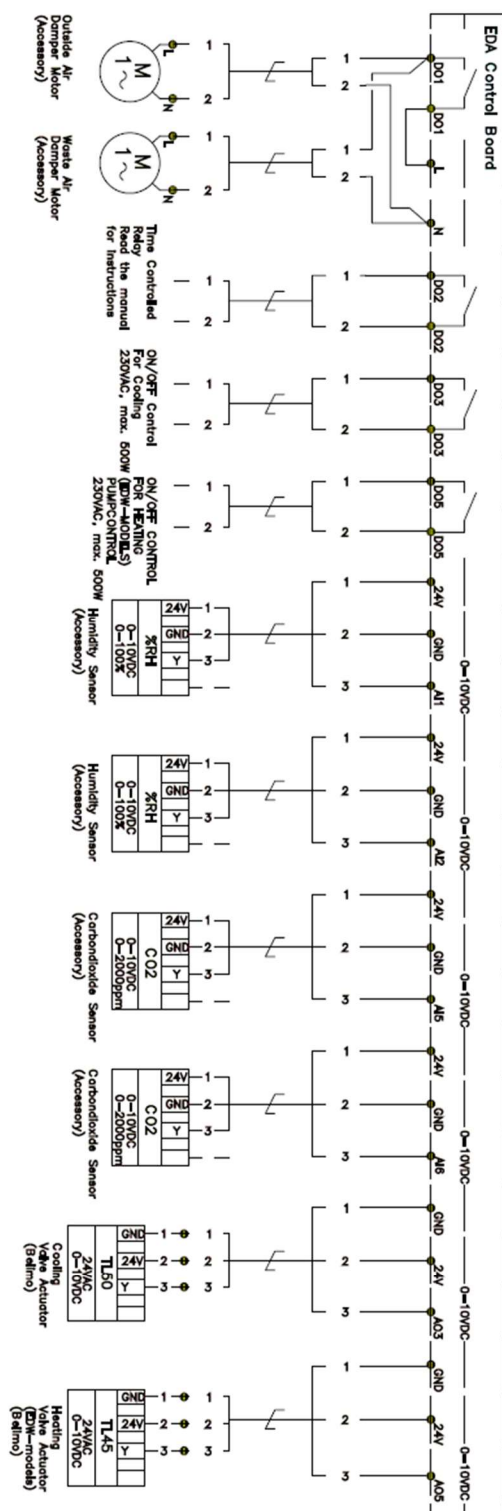
Press down **the main switch (4)** and perform insulation and ground continuity test according to regulations.



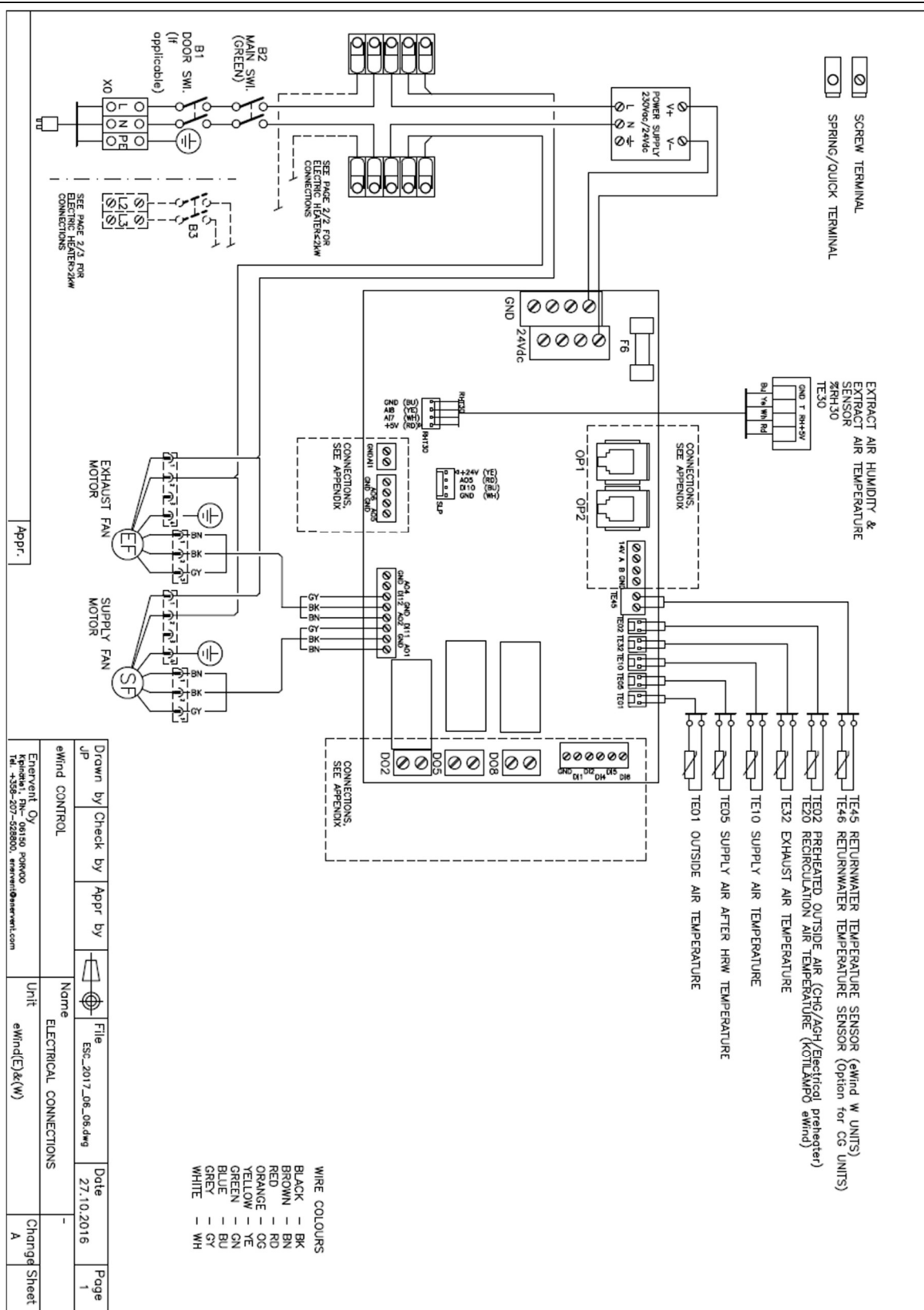
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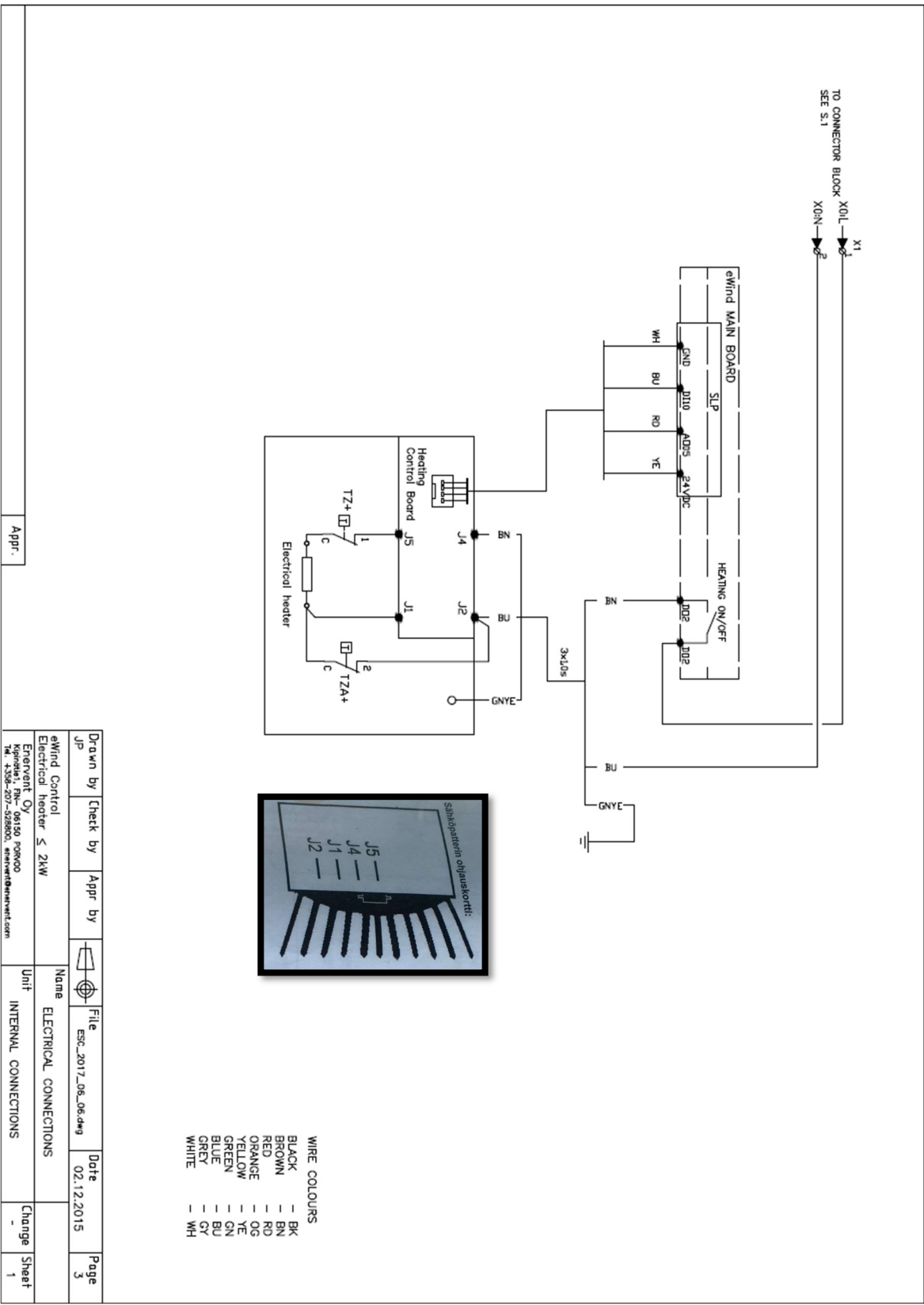


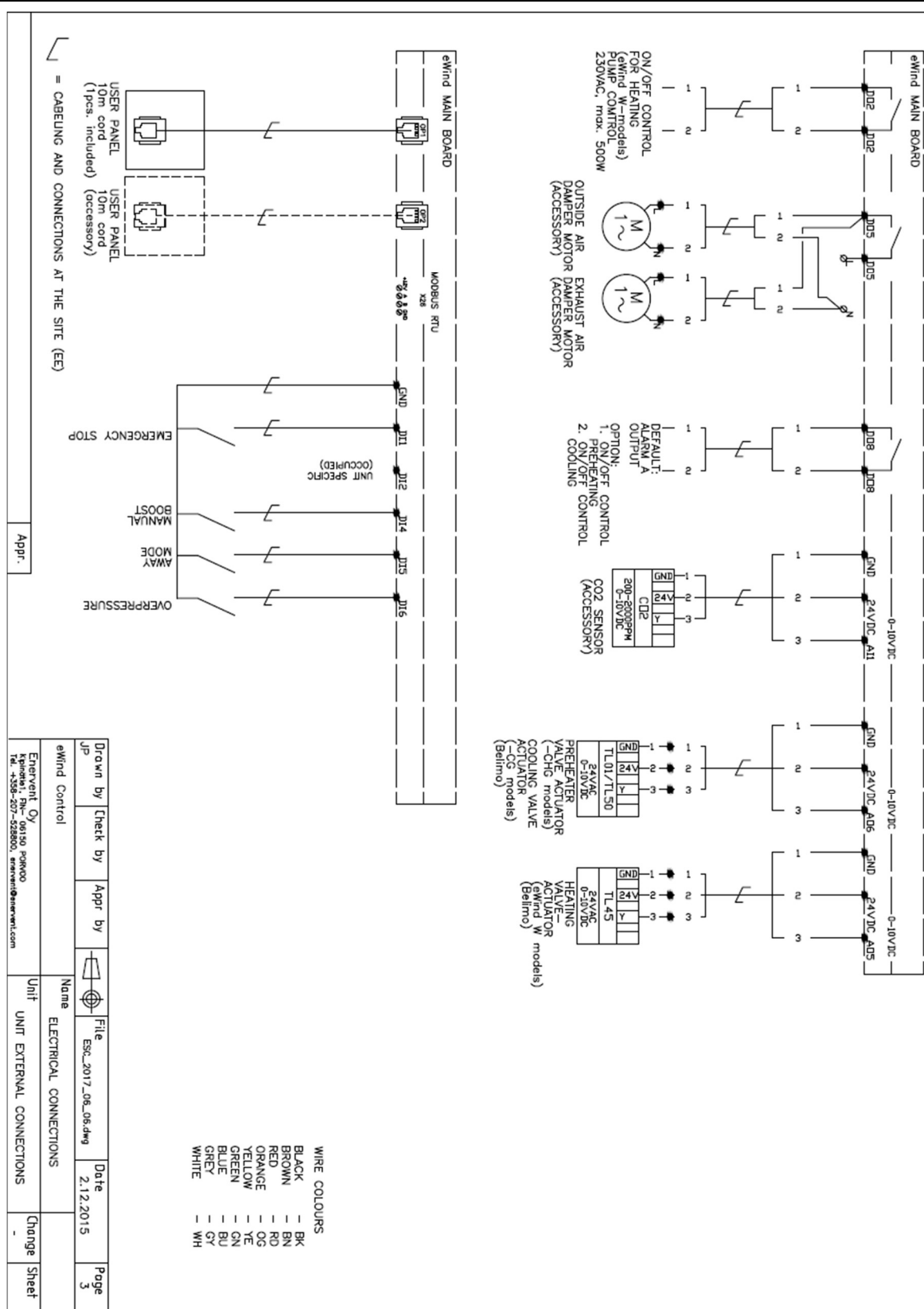




Drawn by	Inspected	Approved	by	File	Date	Page
JP / MW				Pa	28.05.2009	3
EDA Control				Name	Weight	kg
				ELECTRICAL CONNECTIONS		
				UNIT EXTERNAL CONNECTIONS	Change	leaflets
					D	







MANDATORY PARTS

10024049	CTRL UPDT KIT LTR-2 ECO EDE → EWIND E	1
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<u>Code</u>	<u>Description</u>	<u>Pcs.</u>
10024049	CTRL UPDT KIT LTR-2 ECO EDE → EWIND E	

Automation

40030936	KGLS-6S, skrewless nylon card spacer (PCB support)	4
40028773	340mm orange 0,75mm ² (wire)	5
40028774	255mm 1mm ² black (wire)	1
40028779	255mm 1mm ² blue (wire)	1
40031094	eWind main board	1
40029195	Tufvassons PSLR24 (power supply)	1
40029344	Terminal package	1
40029224	Humidity/temperature sensor Amphenol 600mm (extract air sensor)	1
40028776	250mm black (wire with flat connector)	2
40028777	250mm blue (wire with flat connector)	2
40030997	Cable tie 2,5x200mm	10
40031115	eWind panel package	1
40030313	eAir/eWind triac cable (after heater control cable)	1
40034288	WiFi module package	1

Manuals etc. (depends on model)

eWind installation manual	1
eWind user manual	1
eWind electrical diagrams	1

MANDATORY PARTS

10024047 CTRL UPDT KIT LTR-2 ECO EDW → EWIND W 1

<u>Code</u>	<u>Description</u>	<u>Pcs.</u>
10024047	CTRL UPDT KIT LTR-2 ECO EDW → EWIND W	

Automation

40030936	KGLS-6S, skrewless nylon card spacer (PCB support)	4
40028773	340mm orange 0,75mm ² (wire)	5
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Notes: