

MI_2428: Installation energy optimisation board

iVario 2-XS, iVario Pro
2-S

45 min.



Standard



13/05/2024

Topic

The information describes the installation of the energy optimisation board.

Affected product/accessories

iVario

- 2-XS

iVario Pro

- 2-S

General information**NOTICE**

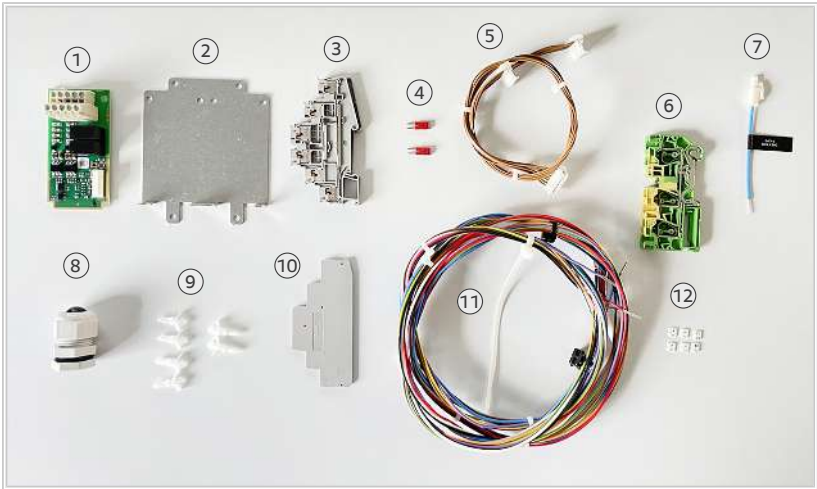
Enter the installation of the component on the service level ("Component replacement" tab). This is an integral part of the maintenance history.

Target group

- This document is intended for skilled technicians, who have been certified by the manufacturer after attending training and safety instructions.
- Installation, inspection, maintenance, and repair work must only be carried out by trained technicians.
- It is recommended that only technicians authorised by the manufacturer perform inspection, maintenance and repair work.
- The unit may not be used, cleaned, or maintained by children. The unit may not be used for play. This is prohibited even under supervision.
- The unit may not be used, cleaned, or maintained by people with limited physical, sensory, or mental capacity or those without the necessary experience or knowledge, unless such people are supervised by a person who is responsible for their safety and who has been informed of the hazards of the unit.
- In order to prevent accidents or damage, the manufacturer recommends that technicians attend training and safety instructions.

Required components

Parts contained in the energy optimisation conversion kit for the units iVario 2-XS and iVario Pro 2-S with a production date from 06.2023.



Energy optimisation conversion kit, article number: 87.02.0315

1	Energy optimisation board
2	Mount energy optimisation board
3	2 x triple feed-through terminal block 4 mm ² grey
4	2 x 2-pole jumpers
5	Cable trunk W59
6	Terminal block 6 mm ² yellow-green
7	Neutral wire extension cable (article no. 40.08.216)
8	Cable gland M20x1.5
9	6 x board retaining clips
10	End plate
11	Cable trunk W32
12	6 x identification clips

Safety instructions



High voltages when connecting to the mains power

Danger to life due to high voltage.

- Disconnect from the power supply.
- Make sure the unit is disconnected from the power.

** DANGER****Electric shock from incorrect connection**

There is a danger to life if the wires are incorrectly connected.
Connect the wires correctly according to their colour coding.

** CAUTION****Sharp edges on the housing**

Risk of cuts on the housing when working in the electrical compartment.
Wear protective gloves.

NOTICE**Damage to the cable trunk and the control panel when removing the control panel**

The control panel is connected to the installation compartment by a cable trunk.

Remove the control panel carefully in order not to damage the cable trunk.
Put down the control panel carefully and protect it against scratching.

NOTICE**Incorrect objects for opening the control panel**

Do not use any sharp or pointy objects to press the control panel upwards.
This could damage the housing and gasket.

NOTICE**Observe regional and country-specific safety and testing regulations**

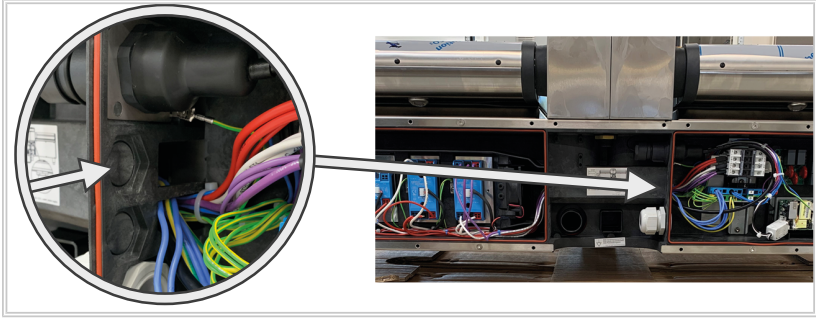
The relevant regional, country-specific safety and testing regulations apply to all work on RATIONAL units. These regulations may vary by region and are country-specific and are therefore not listed separately in this document.
The technician is responsible for complying with these regulations.

Mounting the cable gland

The cable gland is required for the subsequent cable of the energy optimisation control.

- ✓ The unit is disconnected from the power.
- ✓ The cable gland (8) is ready for use.
- ✓ Open the electrical compartment, as described in the original installation manual for the units iVario 2-XS / iVario Pro 2-S in section *Opening the electrical compartment*.
The electrical compartment is located behind the right cover on the rear viewed from the rear of the unit.

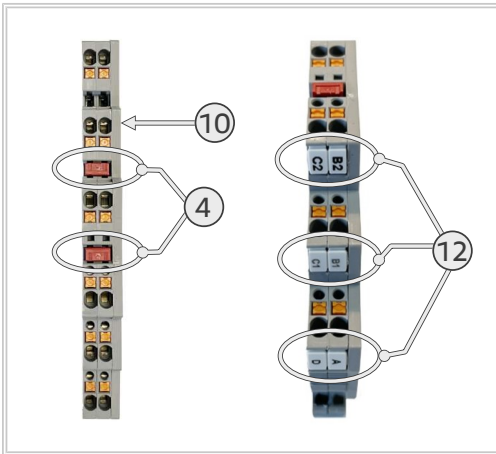
1. Pierce the marked perforation with a suitable tool. If this is already in use, choose another perforation.



2. Attach the cable gland with seal and plug to the broken out position.
>> The cable gland is mounted.

Installing clamps

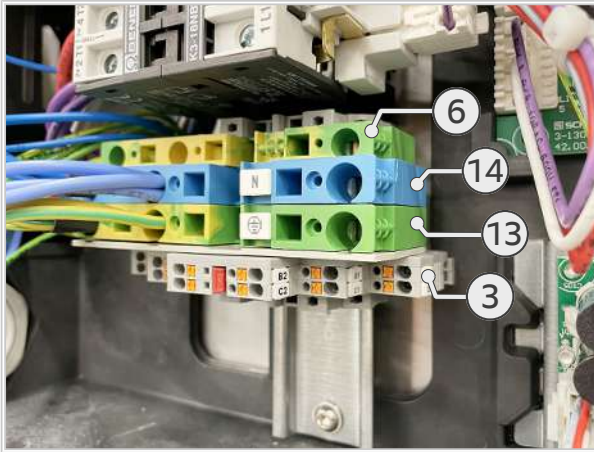
1. Fit the end plate (10) to the triple feed-through terminal block as shown.
2. Insert the 2 jumpers (4).
3. Fit the 6 labelling clips (12) as shown.



4. Mount the triple feed-through terminal block (3) bundled under the yellow-green terminal block (13).
5. Place the yellow-green terminal block (6) on the blue N-terminal (14) in the unit.

NOTICE

Note that the end plate (10) serves to separate the triple feed-through terminal block (3) and the terminal block (13).

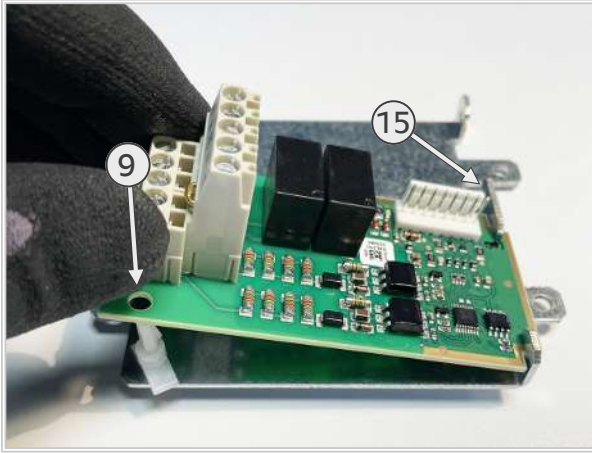


Installing the energy optimisation board

- ✓ The energy optimisation board (1), the bracket (2) and the 6 board retaining clips (9) are ready.
- 1. Attach 2 board retaining clips to the mount. The nibs on the mount must point upwards.



2. Place the board in the mounting slots (15) and place the board on the 2 board retaining clips (9).

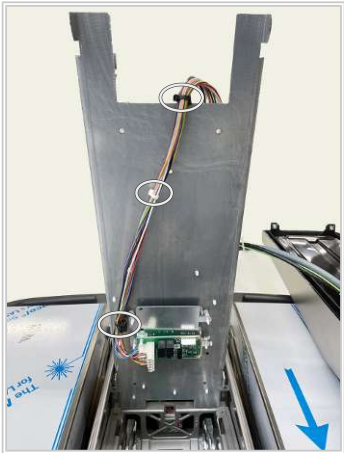


3. Mount the 4 board retaining clips on the underside of the carrier of the I/O board.



4. Mount the energy optimisation board with bracket on the underside of the carrier of the I/O board.
5. Guide the cable trunk W32 (11) upwards over the board carrier, then downwards, along the bottom of the unit base frame to the rear of the left electrical compartment (viewed from the operator side).

6. Fasten the cable trunk with the sheet metal edge clamps and on to the main cable trunk. Make sure that it cannot be damaged by the movements of the pan or lid.



7. Connect the cables of the cable trunk W32 (11) in the rear electrical compartment as follows:

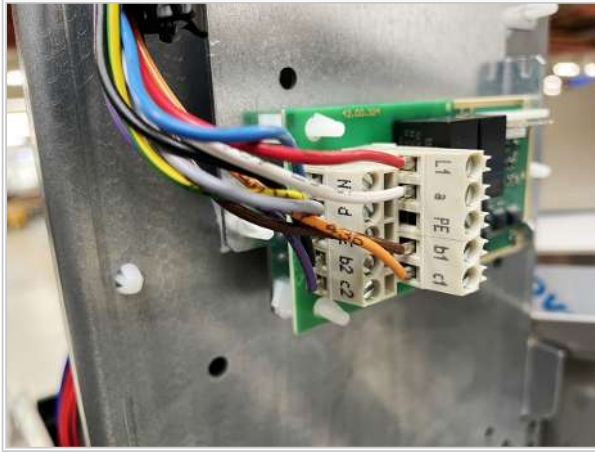
Wire colour	Connector terminal
Red	14 on the contactor
White	A
Black	B2
Purple	C2
Grey	T
Brown	B1
Orange	C1
Yellow	Yellow-green terminal block

8. Insert the blue cable with plug into the mating connector of the neutral wire.
- NOTICE! Neutral wire extension cable:** If the unit does not have a mating connector, connect the supplied neutral wire extension cable (7) to the neutral wire terminal and then connect it to the mating connector.

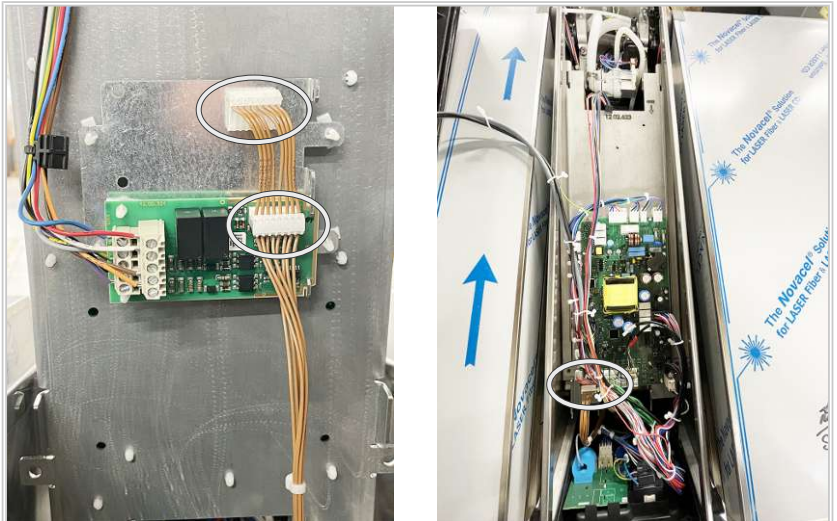


9. Connect the cables of the cable trunk W32 (11) to the board as follows and screw them together.

Wire colour	Connector terminal
Red	L1
White	and
Black	b2
Purple	c2
Grey	d
Brown	b1
Orange	c1
Blue	N
Yellow - green	PE



10. Connect the cable trunk W59 (5) to connection X429 on the energy optimisation board and to connection X29 on the I/O board.
11. Connect all newly installed cables to the main cable trunk.



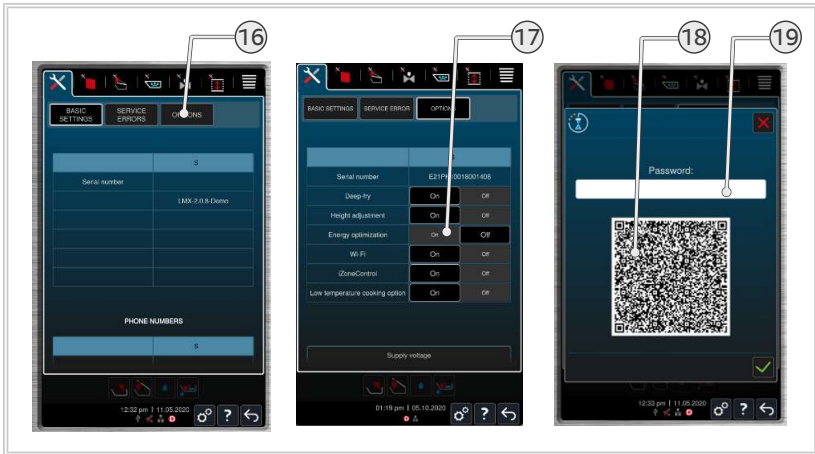
12. Close the electrical compartment, as described in the original installation manual for the units iVario 2-XS / iVario Pro 2-S in section *Closing the electrical compartment*.

>> The energy optimisation board is installed.

Activating the energy optimisation option

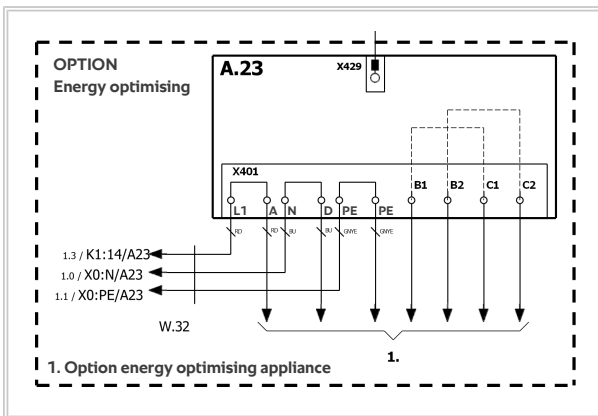
- ✓ The cable gland for the energy optimisation board is installed.
- ✓ The energy optimisation board is installed.

1. Switch the unit on.
2. Go to the service level.
3. Open the Options page under the Service settings (16).
4. To activate the energy optimisation option, press the On button (17).
5. When an option is changed, a QR code is displayed on the screen (18).
6. Scan this QR code with the TechAssistant app.
7. If the QR code has been recognised, a confirmation code will be issued in the app. Enter this confirmation code on the unit and confirm (19).
8. Restart the unit.



>> The energy optimisation option is activated.

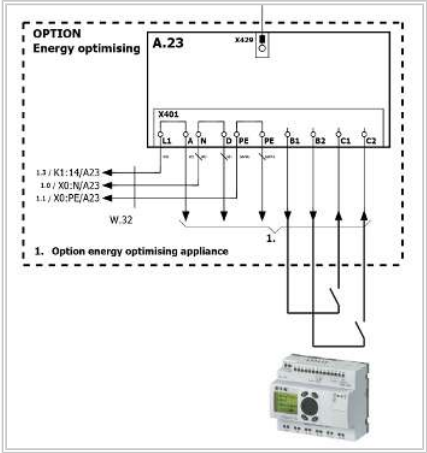
Connection to an external energy optimisation



Request for heat output of unit	Request on B1	Request on B2
0 %	0 V	0 V
50 %	230 V	0 V
100 %	230 V	230 V

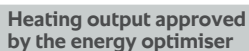
Connection possibilities

- Optimization: 0 % or 50 % or 100 %



Heating output approved by the energy optimiser	Feedback on C1	Feedback on C2
0 %	0 V	0 V
50 %	230 V	0 V
100 %	230 V	230 V

OPTION
Energy optimising



Feedback on C1

Feedback on C2

50 %230 V0 V100 %230 V230 V

OPTION
Energy optimising



Feedback on C1

Feedback on C2

0 %0 V0 V100 %230 V230 V

NOTICE

To ensure optimal cooking results, do not reduce the heating for more than 10 seconds per minute.

