

Betriebsanleitung

Translation of the original instruction manual



DE Luftentfeuchter DT 860

EN Dehumidifier DT 860

www.heylo.de

Version 11/2020

Art.-Nr./item no. 1110584

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12 About this operating manual

These operating instructions (hereinafter referred to as the manual) enable the operator to use the dehumidifier (hereinafter called the device) safely. It describes the device manufactured by HEYLO GmbH (hereinafter referred to as HEYLO).

- Please read the manual carefully.
- Follow all safety instructions.

12.1 The purpose of this manual.

The manual serves the company operating the device and all the staff who use it as a guide and reference book on the operation and technical aspects of the device.

The technical data on settings, maintenance and the electrical features have been prepared for specialists who are specially authorized for these areas of responsibility. Unauthorized persons may not carry out the work specified here.

12.2 Keep the manual safe and at hand at all times

The manual must always be kept where the machine is located. The company operating the device must make the instructions available to the technical staff and all the operators of the device throughout the service life of the device.

12.3 Symbols and definitions used

This section explains the symbols used in this manual.

Instructions

The safety instructions in this manual contain the following elements:

DANGER

Warning indicating an immediate danger for people

This safety instruction warns of a **directly** hazardous situation that can lead to serious injury or death.

WARNING

Warning indicating a potential danger for people.

This safety instruction warns of a **possibly** hazardous situation that can lead to serious injury or death.

CAUTION

Warning indicating a potential danger for people.

This safety instruction warns of a **possibly** hazardous situation that may lead to minor to moderate injuries.

Attention

Warning of possible damage to property.

This safety instruction warns of damage to machinery.

A safety instruction consists of (in addition to the symbol and the signal word):

- Signal word
- Type and source of the hazard
- Effects
- Escape (= measures to escape from the danger)

Example

DANGER

Electric shock arising from high voltage (type and source of hazard)

Death from electric shock! (effects)

- a) Wait four minutes before starting work on the motor connections! (measures)

Important or helpful instructions, information and tips have the following structure:

NOTICE

Information

User tips and useful information that help you to make optimal use of the device's functions are listed below this symbol.

Mandatory symbols

The manual uses the following mandatory symbols.

Symbol	Meaning
	General prohibition This symbol indicates instructions and may signal prohibitions.

Tab. 5: Mandatory symbols

Markings in the text

- Listings are indicated by an indent mark (–).
- Text that is highlighted in this way, highlights references and hyperlinks that refer to related topics, internet addresses, and other related information.
- Text that is **in bold** refers to emphases or subheadings.
- Menu items, tabs, buttons, and softkey buttons are set inside angle brackets <...> such as <stop>.

- Sequences are set in angle brackets <...> such as <login/semi-automatic/start>.
- Keys or indicator lights on a keyboard or control panel are enclosed in square brackets, for example [start].
- Text marked this way SPS indicates a cross-reference to the glossary together with a definition.

Action instructions

As a rule, action instructions have the following structure:

- ✓ Conditions that are necessary in order for the action to be carried out may also be referred to here.
- a) These are followed by operating steps
- b) Another operating step
 - ⇒ Partial result after one operating step
- c) Another operating step
 - ⇒ Overall result of an action instructions

12.4 Warranty

In general, the “General Terms and Conditions of Sale and Delivery” of HEYLO GmbH shall apply. Intended use is the prerequisite for the claim for statutory liability for material defects within the first two years of the date of purchase.

12.5 Contact to HEYLO GmbH

If you have any questions about the device, please get in touch with your sales partner.

We will also gladly provide information ourselves. Please get in touch with one of our contacts listed below or visit us on the Internet, providing the following information:

- Your name and address,
- Contact person at your company,
- The data on the rating plate: Type, serial no. and year of construction.

Address: HEYLO GmbH

Im Finigen 9
28832 Achim

Phone: +49 (0) 4202 97 55 0

Fax: +49 (0) 4202 97 55 97

E-mail: info@heylo.de

Internet: <http://www.heylo.de>

Tab. 6: Registered office

Address: HEYLO (Switzerland) AG

Südstrasse 16
CH-3250 Lyss

Phone: +41 (0) 32 387 16 80

Fax: +41 (0) 32 387 16 85

E-mail: info@heylo.ch

Internet: <http://www.heylo.ch>

Tab. 7: Registered office in Switzerland

13 Safety

The device is built using state-of-the-art technology and in accordance with the recognised safety rules. Nonetheless, danger to the life and limb of the operator or third parties may arise if it is not used properly. Similarly, the device or other property and material may become damaged.

The device must only be used:

- for the purpose for which it was intended
- and when it is in perfect technical condition.

The device must not be restarted until any fault that may impair safety has been rectified.

Any persons installing, operating, maintaining or cleaning the device must be aware of the hazards that may arise from electrically operated equipment in environments with a high humidity, and they must have read and understood this operating manual.

Avoiding dangerous situations

The following instructions apply to anyone working on or with the device:

- The operating manual must be kept at hand, in complete and legible form, at the place where the device is used.
- The device may only be used for its intended purpose.
- The device must be fully functional and in faultless condition. The condition of the device must be checked regularly before use.
- Accident prevention regulations and any local rules must always be adhered to.

Information on electrical equipment

For all work on the electrical equipment, observe the following general rules:

- The device is operated electrically. There is a risk of fatal injury from faulty installation of the electrical system or from a breakdown of the insulation during operation.
- Only electricians are allowed to access and work on electrical equipment. Always keep switch-boxes closed.
- The supply from the electrical mains is disconnected when the main switch is switched off.
- On completion of any work, ensure that all safety devices are working properly.
- No unauthorised modifications may be made to the device.

Information on transport and installation

During transport and installation observe the following general rules:

- The device must never be transported to the place of use in an unsecured condition.
- Always move the device by the handle and on its castors.

Instructions for operation

During operation observe the following general rules:

- All work on the device must be performed by an **instructed person**.
- Do not modify, dismantle or disable safety devices. The safety devices must be inspected at regular intervals.
- All the covering panels, covers and hoods must be installed as intended.
- Structural modifications to the device are not allowed.

Maintenance and troubleshooting instructions

For maintenance and troubleshooting observe the following general rules:

- Only suitably qualified staff may perform this work on the device.
- The device must be switched off and the power plug must be disconnected from the mains socket.

13.1 Operating conditions

The device is intended for mobile or stationary use indoors, on construction sites, in garages and storage spaces / rooms. The device operates efficiently:

- Within a temperature range from 5 ° C to +35 ° C and at 40 % to 100 % relative humidity
- In closed rooms where there is as little air exchange as possible
- If it is placed as centrally as possible in the room and
- the dry air is discharged towards the wet part of the room

NOTICE

Optimal moisture extraction and room temperature

In smaller rooms, the room temperature may be significantly increased by the operation of the condensation dryer. Room temperatures between 20° C and 27 ° C offer ideal conditions for operating the device.

In addition, comply with the following conditions and safety instructions:

- Always handle the device with care. Never drop the device, do not throw it or transport it unsecured.
- The device must be installed upright and stable.
- The air must be able to circulate freely (keep a free space of at least one metre around the device).
We recommend operating the device in conjunction with fans to ensure maximum air circulation.
- Do not cover the device during operation.
- Ensure that the condensate can always run off safely into a drain or a suitable vessel. Vessels used for collecting the condensate must be emptied regularly.
- Never drink any condensate that may accumulate, there is a danger of infection.
- The device must not be operated in puddles or in stagnant water. If the device or the connection cable gets wet then it must be dried thoroughly before the device may be operated.
- Make sure that the device does not suck in any oil, grease or other contaminant.
- Only use the device with a clean air filter.
- The mains voltage must correspond to the details on the rating plate.

- Extension cables must be selected according to the performance data on the rating plate, in order to prevent overload.
- The socket used must be earthed or protected with a current operated earth leakage circuit breaker when installed indoors.
- People under the influence of alcohol, drugs or medication must not operate or maintain the device.
- Only original spare parts or parts approved by the manufacturer may be used.

Under inadmissible operating conditions, the operational safety and the performance of the device may not be sufficiently ensured. Inadmissible operating conditions must therefore be avoided at all times.

The device must not be used in rooms with explosive atmospheres. Operation of the device in rooms with an oily, sulphurous or saline atmosphere, or in rooms with high levels of solvents or extreme concentrations of dust is prohibited.

13.2 Personal protective equipment

Personal protective equipment serves to protect staff against any hazards that could affect their safety or health at work.

The following personal protective equipment must be worn during transport and installation:

- Protective gloves to prevent the hands becoming crushed or trapped
- Safety shoes to protect against impacts or falling over

During cleaning and maintenance, the following must be worn:

- Respiratory protection to prevent the inhalation of aerial droplets (contaminated condensate or cleaning fluid)

14 Product description

14.1 Identification

The device is clearly identified by the details printed on the rating plate attached to its rear.

The rating plate bears the following device information.

Rating plate

Entfeuchter Dehumidifier			
DT 860			
Art.Nr.	1110584		
Seriennummer:			
Entfeuchtungsleistung max. in l/24h		44	
Elektr. Anschluss (V/Hz)		230 / 50Hz	
Stromaufnahme (A)		3,7	
Leistungsaufnahme (W)		690 W	
Kältemittel		R290	
Kältemittelmenge in g		148	
Kompressor		Rollkolben	
max. zulässiger Betriebsdruck (Mpa)		2,5	
Luftleistung m³/h		500	
Schutzart (IP)		44	
		 	
HEYLO GmbH Im Finigen 9 28832 Achim GERMANY		www.HEYLO.de info@heylo.de	
		Telefon: +49 (0) 4202-9755-0	

The rating plate bears the following device information.

- Model
- Type number
- Serial number
- Electrical connection
- Performance data
- Refrigerant
- Filling level
- Dehumidifying capacity

14.2 General description

The device is a portable condensation dryer designed to dehumidify and dry the air in a room.

The device has been specifically designed for use on construction sites.

The device must only be operated:

- for the purpose for which it was intended,
- in compliance with the instructions in chapter *Safety* [► 32].

Assembly, scope of delivery and accessories

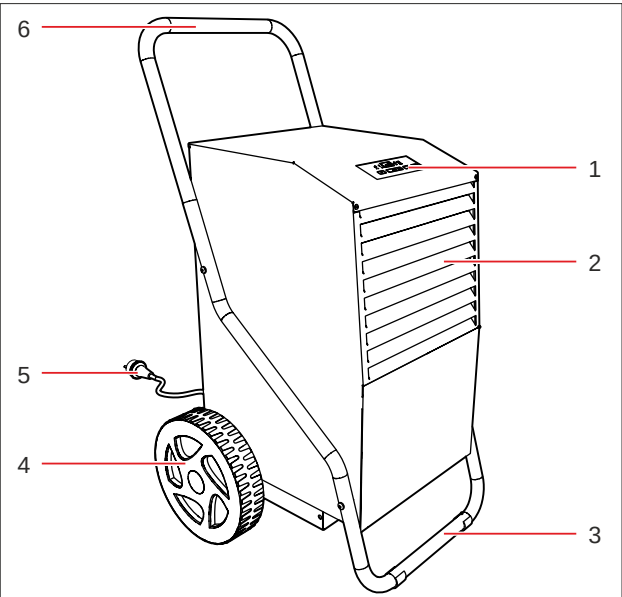


Fig. 13: Device, front

1	Operating panel	2	Housing with outlet grille
3	Base bracket	4	Castors
5	Power cable	6	Handle

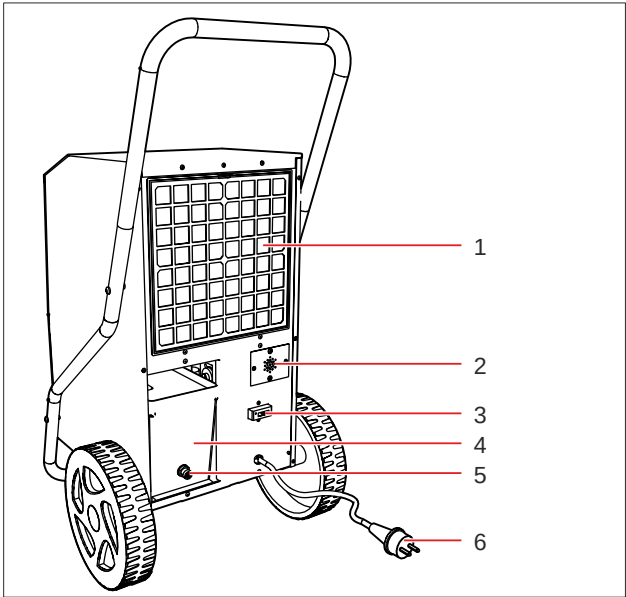


Fig. 14: Device, rear

1	Inlet air grille with filter holder	2	Ambient sensor
3	Power meter	4	Condensate tank with float switch
5	Connection for discharge hose	6	Power cable

The scope of delivery includes:

- Air dehumidifier
- Filter pad
- Operating manual

The following device accessories are available:

- Condensate pump

Mode of operation

The fan draws in humid room air through the inlet opening. The air flows along the evaporator, where it cools down. At the evaporator, moisture extracted from the air accumulates in the form of condensate. After the room air has been fed along the evaporator, it is heated in the condenser and transferred as dry and warm air through the air outlet to the room. The dried, warm air then absorbs more moisture from the room.

The condensate produced in the process is fed to the condensate tank and eventually discharged or

removed by means of an optional condensate pump.

The condensate pump is controlled by a float switch. When the condensate in the condensate tank reaches the float switch level, the pump starts and conveys the condensate through the discharge hose to a drain or into a collecting vessel. The pump stops as soon as the float switch is no longer triggered.

Automatic defrosting

During prolonged operation (continuous operation at a room temperature of below approx. 20 ° C), ice builds up at the evaporator. A temperature sensor monitors the frost temperature, and the device control initiates a defrosting cycle when the need arises. During the defrosting process, the evaporator is heated. **During automatic defrosting, large amounts of condensate are produced.** As soon as the evaporator is free of ice, the device starts returns to dehumidifying operation.

NOTICE

Condensate

The amounts of condensate and ice produced by the device depend on the actual operating conditions (air temperature and air humidity).

The performance of the device should be primarily determined by the rate at which it reduces the air humidity and not by the amount of water extracted from the air. To measure the humidity in the air, use a thermo hygrometer.

See also

 Intended use [► 36]

14.2.1 Intended use

The device is intended exclusively for dehumidifying air in enclosed rooms at atmospheric pressure.

Proper use of the device is only possible, if all persons who operate it have read, understood and adhere to the operating instructions. Proper use also includes strict adherence to the operating conditions (see *Operating conditions* [► 33]). The device must be tested and serviced at regular intervals.

The device is solely intended for industrial and commercial use.

Any other use is deemed improper. Improper use shall void all warranty.

See also

 Technical details [► 49]

14.2.2 Foreseeable misuse

The following types of misuse are foreseeable:

- Drying air in rooms that are not enclosed, or in outdoor areas,
- drying air without adhering to the specified minimum spacing and operating conditions.

14.3 Safety devices

If the safety devices are not properly installed and configured, there is a risk of serious injury to persons. Do not modify, dismantle or disable safety devices. All the safety devices must be freely accessible at all times.

Familiarise yourself with all safety devices; this way personal injury and/or damage to property can be prevented or minimised.

The following illustration shows the safety devices of the dehumidifier.

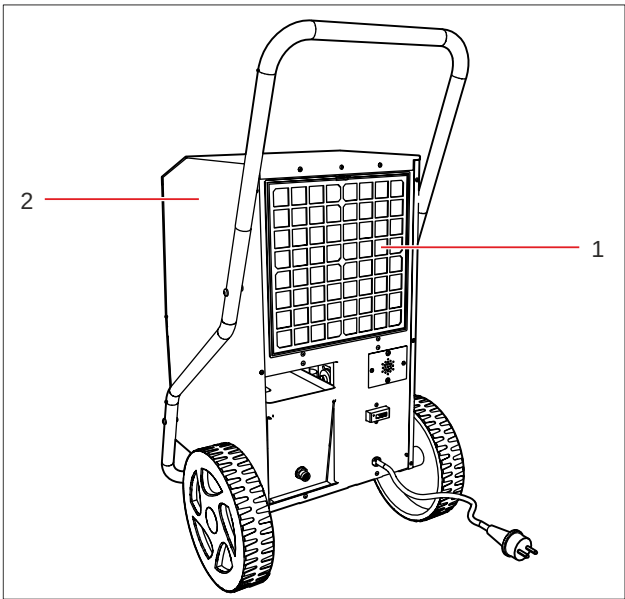


Fig. 15: Safety devices

1	Grille covering air inlet opening	2	Housing
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The device features the following safety devices:

Signalling devices

The indicators on the control panel indicate the operating status of the device (for details, see *Control and display elements* [► 37]).

Safety devices

Safety devices protect hazardous areas on the device. They have no influence on the device's movements.

Safety guards

Safety guards prevent or access to the rotating or moving parts of the device. They may only be removed for set-up, maintenance or repair work and must be mounted again before restarting.

The device features the following safety devices:

- Housing
- Protective grille in front of the air outlet.

Other safety devices

- The power cable of the device is equipped with an earthing-pin ("Schuko") plug.

14.4 Control and display elements

The device is operated through the control devices on the operating panel at the front.

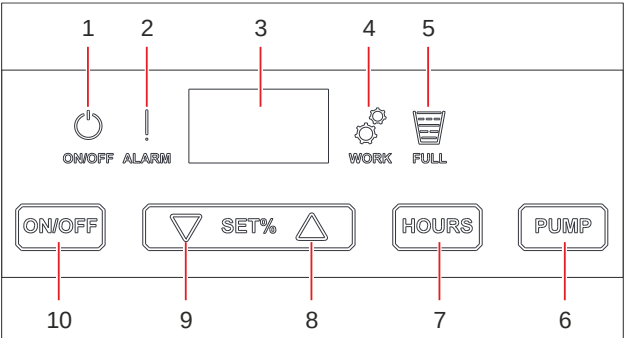


Fig. 16: Operating panel

1	ON/OFF indicator	2	ALARM indicator
3	Display	4	WORK indicator
5	FULL indicator	6	PUMP button
7	HOURS button	8	SET+ button
9	SET- button	10	ON/OFF button

- **ON/OFF button – start button:** Press the ON/OFF button to switch the device on and off. When the device is switched on, the ON/OFF indicator is lit in green and the device is automatically set to continuous mode.
- **SET +/-SET – buttons – adjusting target air humidity:** Press the SET + button to increase the target air humidity. Press the SET – button to reduce the target air humidity. When one of these buttons are pressed, the display changes from read-only to setup mode. Press one of the buttons again to call up the currently set target humidity.
NOTICE! The integrated hygrostat is only used to determine the general operating parameters. It does not make accurate measurements of the air humidity in the room. For accurate measurements, use an external, properly calibrated measuring device. HEYLO shall not be liable for damage caused by excessive drying of materials.
- **HOURS button – operating hours counter:** Press and hold the HOURS button for a few seconds to view the operating hours of the

compressor on the display.

To reset the operating hours counter: Press and hold the HOURS button for 4 seconds.

- **HOURS button – total operating hours counter:** Simultaneously press and hold the HOURS and the SET+ buttons for few seconds to view the total operating hours of the device on the display.
- **PUMP button – start optional condensate pump:** To start the pump function, simultaneously press and hold the PUMP and SET + buttons until the FULL indicator lights up briefly. Subsequently, message "PUNP" is displayed. The pump is now ready for operation, and the FULL indicator on the display flashes at intervals of 10 seconds.
Press the PUMP button again to start the condensate pump. The pump should always be started to test the device prior to running it, and before moving the device to a different room.
- **ON/OFF indicator – operating status indicator (ON or OFF):** The ON/OFF indicator is lit in green when the device is switched on.
- **ALARM indicator:** If there is a fault or an alarm signal, the ALARM indicator is lit in red (see also *Malfunctions during operation* [► 42]).
- **Display – display of set parameters and operating status:** After connecting the power plug to a mains socket, the version number of the device software is displayed for approx. 4 seconds.

Other display messages:

Action	Message / description
none	rH xx: Display of relative air humidity
	Full: Condensate tank is full
	Defr.:

Action	Message / description
	Automatic defrosting in progress
Press SET + or SET – button	Target value for humidity control Cont: Continuous dehumidifying rH xx: Hygrostat-controlled operation
Press HOURS button	Xxxx: Display of operating hours

- **WORK indicator – operating and break times** (only in operation when device is running): If the indicator is off, the device is in break mode (e.g. target air humidity has been reached). If the indicator flashes, the device has been switched on and waits for the compressor to be ready (duration up to 210 seconds) or is in defrost mode.
- **FULL indicator – condensate tank level indicator:** When the condensate tank is full, the FULL indicator is lit in red.
- **Resetting alarm:** Switch off the device by pressing the ON/OFF button and then press and hold the HOURS and SET + buttons for 10 seconds. All alarm signals are reset.

15 Transport and installation

The device has been assembled, set up and tested at the factory. In order to rule out any life-threatening injuries and damage to materials during transport and installation, please observe the following:

- Transport and installation work may only be carried out by qualified and authorised persons.
- Make sure that the transport routes are large enough for the device.

DANGER

Danger to life from electric shock

Touching electrically powered parts can be fatal.

- a) Before moving the device, switch it off and disconnect the power plug from the mains.
- b) Never pull the device by the power cable; always hold it by the handle provided.

CAUTION

Risk of injury from tipping device

There is a risk of injury, if the device tips over or falls during transport.

- a) Wear safety footwear and protective gloves.
- b) Always move the device by its handle and on its castors.
- a) Check the delivery for completeness.
Report any transport damage or incomplete delivery to your dealer.
- b) Dispose of the packaging in accordance with the applicable statutory regulations.
- c) Mount the handle and the castors, using the supplied installation kit.
Tighten all screws firmly.
- d) If necessary, lift the device by its handle and then place it on the ground.
- e) Observe the permissible *Operating conditions* [► 33].
- f) Make sure that the condensate tank is properly positioned in the device.
- g) If the condensate is to drain off into a floor drain, connect the condensate discharge hose to the adapter provided at the rear of the device.
- h) Make sure that a clean and intact filter is installed in the filter holder in front of the air inlet slits.

- i) Make sure that the power cable is free of defects.
- j) Connect the power plug to an earthed mains socket with appropriate fuse (see *Technical details* [► 49]).
- k) If necessary, check and record the operating hours shown on the display.
- l) If necessary, check and record the power meter reading (at the rear of the device).
- ⇒ The device is now correctly assembled and ready for operation.

Positioning device in the room

- To correctly position the device in the room, observe the following:
- For best performance, the device should be operated in enclosed rooms.
- Close all windows, doors, etc. to prevent humid and dry air from mixing.
Open doors only, if this is absolutely necessary. By keeping doors and windows closed, you create an enclosed drying chamber.
- With this chamber, the air should be able to circulate freely. Doors inside the drying chamber should be kept open. To ensure proper air circulation throughout the drying chamber, use an air blower or fan.
- Run as many devices as are necessary for a threefold air change.
- Position the device so that its air inlet and outlet are not blocked.
- Avoid positions close to loose material, curtains, etc.
- Place the device in the centre of the room.
- To dry a particular area: Position the device so that the air outlet faces the wet area. The dry, warm air then helps eliminating moisture. The air inlet should be at a distance of minimum 1 metre from a wall.

- During dehumidifying, the air in the room is heated. In small rooms, this can substantially increase the room temperature.
As a rule, room temperature between 20 ° C and 27 ° C provide the best conditions for efficient drying. The room temperature must not exceed 38 ° C or drop below 1 ° C, as the device is otherwise unable to work properly (see also *Technical details* [► 49]).

16 Running and operating the device

CAUTION

Risk of infection

The condensate may be contaminated with pathogens.

- a) Never drink the condensate.
- b) Avoid leaving condensate in the collecting vessel or in the condensate discharge hose for a longer period of time. Regularly pump off the condensate.

Attention

Damage to device from improper de-icing

During operation, the evaporator may become iced up.

- a) In this case, run the automatic defrosting function.
- b) Never attempt to remove the ice with a sharp-edged implement.

Before switching on the device

- a) Make sure that the device is not standing on a wet surface, and that it is in a safe upright position.
- b) Check the power cable for defects.

- c) Ensure that the device is connected to a fused socket of the correct voltage (see *Technical details* [► 49]).
- d) Make sure that the condensate can drain off safely. Check whether the condensate tank is inserted properly.
Place the free end of the condensate discharge hose in a drain or in an **empty** collecting container of suitable capacity.
- e) If necessary, call up the operating hours counter and document the current counter reading (to reset the counter, see *Control and display elements* [► 37]).
- f) If necessary, read the kW/h value on the power meter and document it.

Switching device on

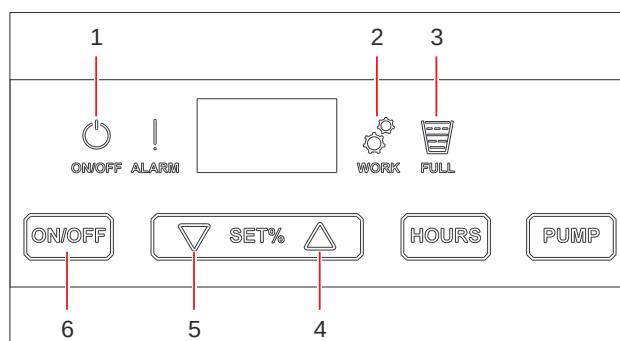


Fig. 17: Switching device on

1	ON/OFF indicator	2	WORK indicator
3	FULL indicator	4	SET+ button
5	SET- button	6	ON/OFF button

- a) Press the ON/OFF button.
 - ⇒ The ON/OFF indicator is lit in green.
 - ⇒ **NOTICE! If the compressor is not yet ready for operation, the WORK indicator flashes.**
 - ⇒ When the compressor is ready and the WORK indicator no longer flashes, the device is automatically started.
 - ⇒ Press the SET + or SET – button to set the required humidity level.

- ⇒ If the WORK indicator is no longer lit, the set humidity level has been reached.
- ⇒ The device is now properly switched on.

Switching device off

- a) Press the ON/OFF button.
 - ⇒ The ON/OFF indicator is off.
- b) If necessary, read the operating hours count and document it.
- c) If necessary, read the kW/h value on the power meter and document it.
- d) Disconnect the power plug from the mains socket.
 - ⇒ The device is now correctly switched off.

NOTICE

Prolonged standstill

If the device and the integrated condensate pump are not to be used for a prolonged period of time, first pump off the condensate before switching off the device.

Draining/pumping off condensate

The condensate tank must be emptied, if the FULL indicator is lit or if the device is to be moved or stored away.

Emptying condensate tank manually

- ✓ Ensure that the device is **not** in defrost mode (**no** message "Defr." on display).
- a) Remove the condensate tank from the device (at the rear).
- b) Empty the condensate tank and reinstall it in the device.
 - ⇒ The condensate tank is now empty.

Connecting discharge hose

The condensate tank can be continuously emptied by connecting it to a drain, using a discharge hose.

- a) Connect a suitable hose (⌀ 5/8 inch/16 mm) to the adapter at the condensate tank.
- b) Place the free end of the condensate discharge hose in a drain or in an **empty** collecting container of suitable capacity.
 - ⇒ The condensate tank is now continuously emptied.

Removing condensate with condensate pump

To remove the condensate continuously and automatically from the device, use an optional condensate pump. The condensate pump replaces the condensate tank inside the device. For more information, see .

See also

-  Safety [► 32]

17 Troubleshooting

For troubleshooting, observe the following general rules:

- These tasks described below may only be carried out by trained and authorised specialists.
- During the warranty period, interventions may only be carried out by the manufacturer or by persons authorised by the manufacturer.
- a) Defrost the evaporator.
- b) Wear suitable protective clothing.
- c) Before restarting the device, install all safety devices that might have been removed.
- d) Test the safety devices to ensure that they work properly.
- e) After completing the task, remove all the tools and objects from the working area around the device.

Safety instructions regarding malfunctions

DANGER

Danger to life due to electric shock

Touching electrically live parts can be fatal.

- a) Switch off the device and pull out the mains plug.

CAUTION

Danger due to missing safety covers

Missing safety covers can lead to injuries.

- a) Before switching on the device, install all the safety covers that may have been removed for troubleshooting purposes.
- b) Check all the safety devices before switching on the device.

17.1 Restarting after an unscheduled downtime

Power failure

After a power failure, restart the device at the control panel.

17.2 Malfunctions during operation

Problem / message	Possible cause / remedy
 FULL	Condensate tank full or not in place. + Insert condensate tank. Empty condensate tank. The message is automatically reset when an empty condensate tank is in place.

Problem / message	Possible cause / remedy
 "Lo t"	Ambient temperature too low. Move the device to a room where the ambient temperature is above 10 ° C. If the device is not automatically reset, switch it off and disconnect it from the power supply. The reconnect it and switch it on again.
 "Prob"	Hygostat failure/malfunction. The device is not shut down. Replace the probe; for details, please contact the HEYLO Service Department.
 "Pro3"	Ambient temperature sensor failure/malfunction. The device switches to ready mode. Replace the probe; for details, please contact the HEYLO Service Department.
 "PunP"	Fault in condensate pump connection (only in devices with condensate pump). Plug cover not correctly positioned. Adjust the position of the plug cover. The fault signally is automatically reset, if the pump is connected and the plug cover is correctly positioned.
 "dEFr"	Defrost thermostat failure/malfunction. The device switches to ready mode. Replace the thermostat; for details, please contact the HEYLO Service Department.
The device is not running	No or intermittent power supply Check the power cable and the

Problem / message	Possible cause / remedy
	mains connection.
No condensate is collected although the device is running.	Filter clogged. Check the filter; replace, if necessary.
	Evaporator failure/malfunction Contact the HEYLO Service Department.
	Pump defective (only in devices with condensate pump). Contact HEYLO Technical Department.
	Pump sump clogged (only in devices with condensate pump). See <i>Cleaning the pump sump</i> [► 46].
	Air humidity or room temperature too low. Check the room conditions, using a thermo hygrometer.
Device makes unusual noise and vibrates, condensate escapes.	Device is not level and upright. Check the operating conditions, particularly the installation site.
The device heats up, becomes noisy and dehumidifies poorly.	Air circulation obstructed. Ensure that the air can circulate freely. Clean the air slits in the protective cover. Check the air filter.

Tab. 8: Troubleshooting table

18 Cleaning and maintenance

The cleaning and maintenance, observe the following general rules:

- These tasks described below may only be carried out by trained and authorised specialists.
- a) Before starting work, switch off the device and disconnect the power plug.
- b) Wear suitable personal protective equipment.
- c) Before restarting the device, install all safety devices that might have been removed.
- d) Test the safety devices to ensure that they work properly.
- e) After completing the task, remove all the tools and objects from the working area around the device.



DANGER

Danger to life due to electric shock

Touching electrically live parts can be fatal.

- a) Switch off the device and pull out the mains plug.



CAUTION

Danger from the device being unintentionally started up

Uncontrolled starting of the pump or the fan can lead to injuries.

- a) Switch off the device at the device switch and pull out the mains plug.

** CAUTION**
Danger due to missing safety covers

Missing safety covers can lead to injuries.

- a) Before switching on the device, install all the safety covers that may have been removed for troubleshooting purposes.
 - b) Check all the safety devices before switching on the device.
-

** CAUTION**
Risk of injury from not wearing personal protective equipment

When cleaning and maintaining the device, you may injure yourself on sharp edges, or through inhaling or coming into contact with toxic substances.

- a) Wear protective gloves and respiratory protection.
-

** Attention**
Damage to equipment from insufficient maintenance

Insufficient maintenance leads to higher wear and expensive repairs.

- a) Carry out the necessary maintenance work in accordance with the manufacturer's instructions.
 - b) Observe the manufacturer's instructions for the maintenance of mechanical device components.
 - c) In the event of damage to the mechanical equipment, shut down the device and arrange for professional repair using original spare parts.
-

** NOTICE**
Routine maintenance

Proper use of the device includes the performance of routine maintenance. Without careful routine maintenance, your device might not work safely and at full capacity.

18.1 Clean the device

The cleaning intervals for the device depend on the actual operating conditions. Therefore check the device regularly and clean it as required.

** CAUTION**
Risk of injury from inhaling toxic substances

Depending on the actual operating conditions, the components of the device may become contaminated with mould or other toxic substances.

- a) When cleaning the device, wear respiratory protection.
-

** NOTICE**
Suitable cleaning agents

You can obtain suitable cleaning agents from your dealer or directly from HEYLO.

- If the condensate is contaminated, the evaporator's cooling coils can no longer dissipate the heat. The cooling coils become badly soiled when used in dusty environments.
- Regularly check the electrical devices for defects or damage.
- In order to work correctly and reliably, the device's air filter must be regularly checked and cleaned.
- If the device is operated on construction sites, it must be checked and cleaned after each use; replace the air filter at least once a week.

Switching device off

To clean and inspect the device, shut it down as follows:

- Press the ON/OFF button.
⇒ The ON/OFF indicator is off.
- Disconnect the power plug from the mains socket.

Cleaning housing

- Open the safety cover.
- Clean the safety cover and the housing with a damp, lint-free cloth and a mild detergent.
The original gloss can be restored with polish.

CAUTION! During cleaning work, always wear respiratory protection.

- Close the safety cover.
⇒ The housing is now cleaned.

Cleaning air filter

The air filter must be checked regularly as its load is determined by the actual operating conditions. The filter can be fitted with foam or paper air filters. Foam filters can be cleaned and re-used. Folded paper filters must be safely disposed of.

- ✓ The device is switched off and the power plug is disconnected.
- ✓ The device is defrosted.

- Remove the filter holder from the rear of the device.

CAUTION! Wear protective gloves and respiratory protection.

- Remove the contaminated filter and dispose of it.

Foam filter: Clean the filter thoroughly with a mild detergent and water. Let the filter dry.

- Insert the new or cleaned filter in the filter holder.

- Mount the filter holder together with the filter.
⇒ The filter has been cleaned/replaced.

Cleaning evaporator

CAUTION

Risk of injury from sharp edges and ice

The evaporator might be iced up. Under the protective cover, there are sharp edges, which become exposed when the cover is removed.

- Before starting the dehumidifier, allow the evaporator to defrost and dry.
- Wear protective gloves.

Attention

Risk of damage from improper cleaning

Improper cleaning may damage the electric module of the device.

- Ensure that the electric module is always kept dry.

- ✓ The device is switched off and the power plug is disconnected.
- ✓ The evaporator is de-iced and dry.

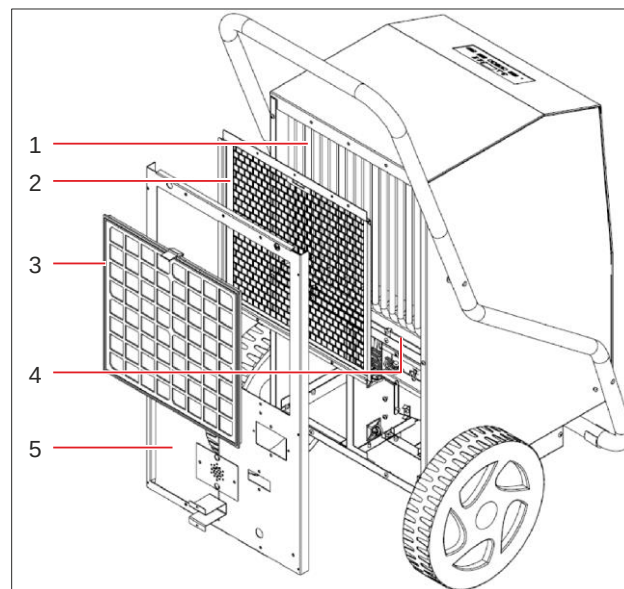


Fig. 18: Cleaning evaporator

1	Evaporator	2	Protective grille of evaporator
3	Air filter	4	Condensate tray

5	Rear panel		
---	------------	--	--

- a) Remove the air filter, the rear panel and the protective grille of the evaporator.
- b) Clean the cooling coils from both sides, using a vacuum cleaner, compressed air or HEYLO disinfectant cleaner (prod. no.: 1800105).

In the event of greasy contaminants, clean the coils with a damp cloth. Procedure:

- a) Spray the cooling coils with a mild detergent and water, using a spray bottle
- b) Clean the condensate tray under the cooling coils and the condensate discharge hose.

NOTICE

Remove persistent deposits with a special cleaner

For hard or caked deposits, use the cooling coil cleaner from HEYLO. Strictly follow the cleaning instructions for the product.

- c) Let the cleaned components dry.
 - d) Mount all components and the safety covers.
- ⇒ The evaporator is cleaned.

18.2 Cleaning the pump sump

Depending on the way the device is used, deposits may form in the pump. To clean the pump sump, proceed as follows:

- a) Press the ON/OFF button to switch off the device.
⇒ The ON/OFF indicator is off.
- b) Disconnect the power plug from the mains socket.
- c) Loosen fixture of the condensate pump and pull the pump from the device.
Remove the condensate hose. The connection cable remain attached to the device, it is long enough.

- d) Clean the pump with a damp cloth and a mild detergent.
- e) Slide the pump back into place and secure it.
⇒ The pump sump is cleaned.

NOTICE

Optional condensate pump

The device can be equipped with an optional condensate pump. The pump automatically remove the condensate from the tank and thus helps minimise deposits.

18.3 Inspecting electrical system

DANGER

Touching electrically live parts can be fatal.

Improper or inadequate inspection and maintenance can lead to device components becoming live during device operation.

- a) The electrical system must be inspected and serviced by a qualified electrician.
- b) Once the work has been completed, all safety devices must be reinstalled as specified and checked.

- a) Inspect all electrical components of the device for visible signs of damage, loose contacts and dirt. Remove the safety cover and inspect the internal wiring. Remove all external dirt with a lint-free cloth and replace any defective or damaged components.
- b) For commercial operation in Germany: Perform an annual DGUVV3 examination in accordance with the Berufsgenossenschaft (trade association) requirements and keep a record of it.
For advice, contact the HEYLO Service Department.

- ⇒ The inspection of the electrical components of the device is complete.

18.4 Installing condensate pump

The optional condensate pump replaces the condensate tank inside the device.

Procedure

- ✓ The device is switched off and the power plug is disconnected.

- a) Remove the condensate tank.

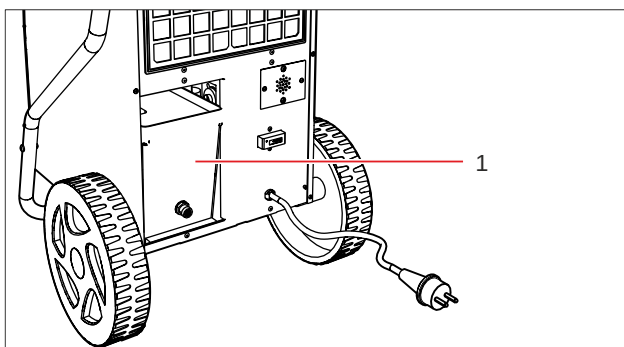


Fig. 19: Removing condensate tank

1	Condensate tank		
---	-----------------	--	--

- b) Remove all screws of the socket cover.
c) Slide the socket cover back.
d) Remove the socket flap.
e) Place the plug of the condensate pump in the socket.
f) Slide the socket cover as close as possible against the plug.

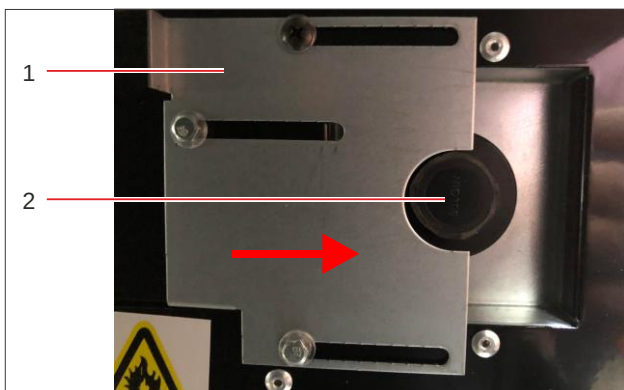


Fig. 20: Connecting condensate pump

1	Socket cover	2	Connection for con-
---	--------------	---	---------------------

			densate pump plug
--	--	--	-------------------

- g) Tighten all screws.
h) Position the tank together with the mounted condensate pump in the device.
i) Place the free end of the condensate discharge hose in a drain.
⇒ The condensate pump is installed.

Activating condensate pump

- ✓ The condensate pump is installed and ready for operation.
 - ✓ The discharge hose is connected to the condensate pump and the free hose end is placed in a drain.
- a) Simultaneously press and hold the SET + and PUMP buttons until the FULL indicator lights up briefly.
⇒ The pump starts, and message "PUMP" is displayed, while the FULL indicator flashes every 10 seconds.
⇒ The condensate pump automatically remove the condensate from the device.

18.5 Wear and spare parts

Spare parts must meet the technical requirements specified by HEYLO. HEYLO original spare parts must meet stringent requirements.

HEYLO assumes no warranty for any damage caused by the use of spare parts from other manufacturers.

Enquiries and orders For wear and spare parts, please contact your dealer or HEYLO. Always quote the following details:

- Device type,
- Serial number,
- Year of construction,
- Designation of the component,
- Quantity,
- Form of shipping.

See also

- 📄 Contact to HEYLO GmbH [► 31]
- 📄 List of wear and spare parts [► 50]

18.6 Customer service by the manufacturer

HEYLO recommends signing a maintenance contract with the HEYLO Service Department.

19 Repairs

The following section describes who may repair the device and how it can be repaired.

NOTICE

Repairs may only be carried out by staff authorised by the manufacturer during the warranty period of the device.

Repairs performed by the company operating the device

After the statutory warranty has expired, repairs may be carried out by the company operating the device, provided appropriate expertise is shown. HEYLO will not assume any liability for these repairs.

If you have any queries regarding repairs, please contact the HEYLO Service Department or your dealer.

See also

- 📄 Contact to HEYLO GmbH [► 31]

20 Decommissioning, storage and disposal

For the decommissioning, storage and disposal of the device, observe the following general rules:

These tasks described below may only be carried out by trained and authorised specialists.

DANGER

Danger to life due to electric shock

Touching electrically live parts can be fatal.

- a) Switch off the device and pull out the mains plug.

20.1 Decommissioning

Temporary decommissioning

- a) Empty the condensate tank or pump off all condensate.
- b) Press the ON/OFF button to switch off the device.
 - ⇒ The ON/OFF indicator is off.
- c) Disconnect the power plug from the mains socket.
- d) Clean the device (see *Cleaning and maintenance* [► 43]).
- e) Store the device in a frost-free and dry environment.
 - ⇒ The device has been temporarily decommissioned.

Final decommissioning

- ✓ Carry out all the steps needed for temporary decommissioning.
- a) Disconnect all incoming and outgoing lines (discharge hose, power supply cable).
 - ⇒ The device has been fully decommissioned.

See also

- 📄 Contact to HEYLO GmbH [► 31]

20.2 Storing the device



Attention

Improper storage may cause damage to property and materials

Frost damage may occur to the condensate pump and the condensate lines at temperatures below 0 ° C.

- a) Store the device dry and free of frost.

See also

- 📄 Technical details [► 49]
- 📄 Operating conditions [► 33]

20.3 Disposal

The device is primarily made of recyclable materials. It does not represent any danger to the operator and the environment when handled properly.. However, operation of the device may lead to the generation of waste and waste water containing harmful and/or environmentally hazardous substances (air filters and condensate). These materials must be disposed of safely in accordance with the regulations.

The individual components of the device (e.g. pumps, metal components, etc.) must be taken to a qualified disposal and recycling company. Commission a qualified, specialist company to dispose of and recycle the device.

See also

- 📄 Contact to HEYLO GmbH [► 31]

21 Technical details

Model	DT 860
Dimensions (L x W x H) [mm]	372x340x735
Weight [kg]	38
Max. dehumidifying capacity	44
Max. air flow rate [cm/h]	500
Max. surface capacity [m²]	100
Power connection	230 V / 50 Hz
Power consumption [kW]	0.69
Current consumption [A]	3.7
Fuse rating [A]	16
Protection class [IP]	44

Model	DT 860
Tank capacity [l]	9
Hose fitting at tank [inch]	3/4
Condensate pump	optional
Ambient temperature range [° C]	+0.5 to +35
Compressor	Rotary compressor
Refrigerant	R290
Refrigerant [g]	148
Evaporator type	Tube evaporator
Defrosting method	Hot gas
Sound pressure level at a distance of 3 m [dB(A)]	45

No.	HEYLO Art. No.	Description
6	DT860003	Display
7	DT860004	Display support
8	DT860005	Commands label
10	DT860006	Handle pipe RAL9005
14	DT860007	Handle thickness

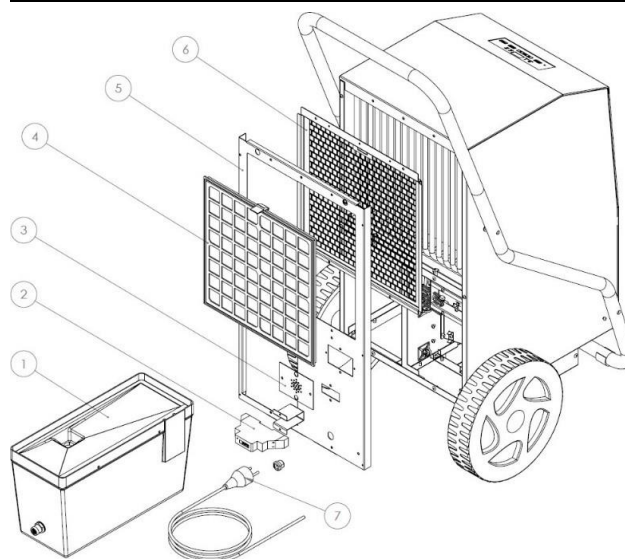


Fig. 22: Spare part designation DT860, part 2

22 Supplementary documents

22.1 List of wear and spare parts

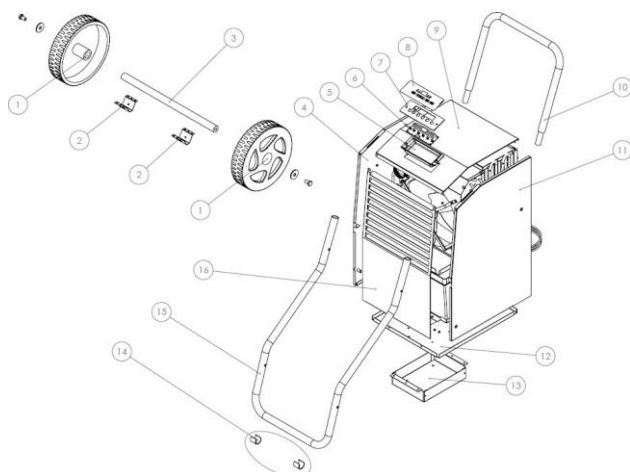


Fig. 21: Spare part designation DT860, part 1

No.	HEYLO Art. No.	Description
1	DT860008	Complete tank
2	DT860009	Energy meter
4	DT860010	Filter
7	DT860011	Power cord 4 mt.

No.	HEYLO Art. No.	Description
1	DT860001	Wheel Ø250mm
3	DT860002	Wheels pipe RAL9005

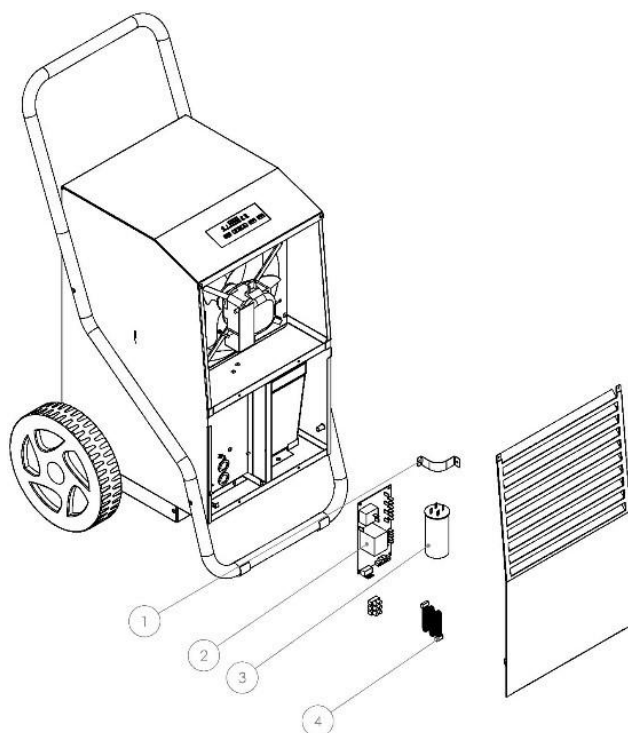


Fig. 23: Spare part designation DT860, part 3

No.	HEYLO Art. No.	Description
2	DT860012	Electronic board
3	DT860013	Run capacitor 25 uF

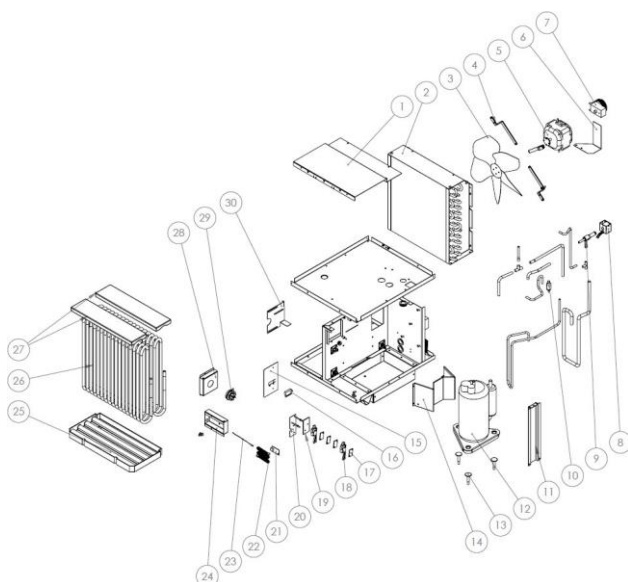


Fig. 24: Spare part designation DT860, part 4

No.	HEYLO Art. No.	Description
2	DT860014	Condenser
3	DT860015	Plastic blade Ø254mm
5	DT860016	Fan motor
7	DT860017	Termostato K50
8	DT860018	Solenoid coil
9	DT860019	Solenoid valve
12	DT860020	Compressor kit
16	DT860021	Floating sensor
18	DT860022	Micron ATEX
21	DT860023	Humidity probe
23	DT860024	Temperature probe
25	DT860025	Tray
26	DT860026	Evaporator
29	DT860028	Pump connector

22.2 Accessories

HEYLO Prod. No.	Description
1110555	Condensate pump

22.3 Declaration of conformity

EC Declaration of Conformity IIA
In accordance with EC Machinery
Directive 2006/42/EC

For device series: Condensation dryer

Type: DT 860

HEYLO GmbH, Im Finigen 9, 28832 Achim, Germany, hereby declares that the design and construction of the product described in this document in the version provided by us comply with the health and safety requirements as laid down in EC Directive 2006/42/EC.

Applicable EC Directives:

Machinery Directive 2006/42/EC

Low-Voltage Directive 2014/35/EU

EMC Directive 2014/30/EU

Changes to the product made without our consent will render this declaration void.

Applied standards:

DIN VDE 0700, Parts 1 & 30

DIN EN 55014-1:2018-08

EN 60335-1

EN 60335-2-40

Achim, Germany,
10/06/2020

Dr. Thomas Wittleder
- Chief Executive -

22.4 Circuit diagram

