



Drain pump

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This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the DN-2 unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

The information in this user's manual is correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

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SAFETY REQUIREMENTS

- Please read the user's manual carefully prior to installing and operating the unit.
- All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.
- The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information.
- Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.
- After a careful reading of the manual, keep it for the entire service life of the unit.
- While transferring the unit control, the user's manual must be turned over to the receiving operator.



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.
DO NOT DISPOSE THE UNIT AS UNSORTED MUNICIPAL WASTE.**

PURPOSE

The drain pump provides condensate evacuation (draining) and its delivery to an elevation overcoming gravity. The device is suitable for horizontal installation in cable ducts, inside air handling units with heat recovery, and outside ventilation units as a condensate drainage system component.



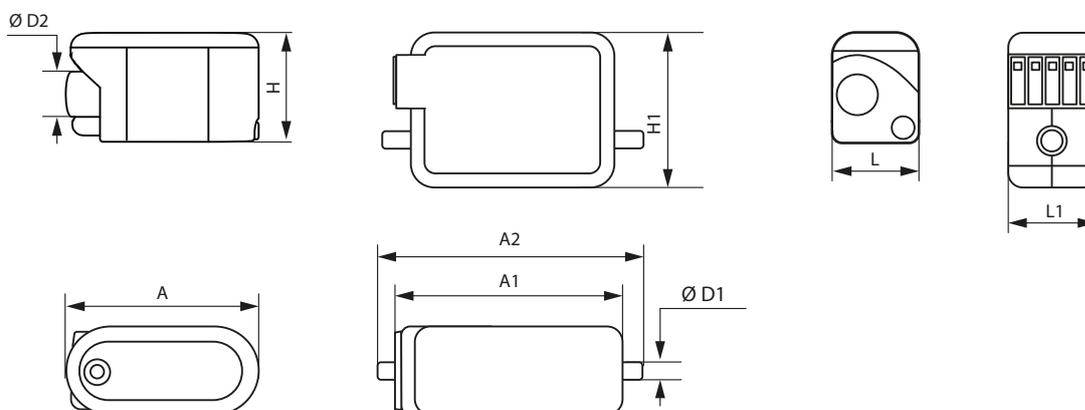
THE UNIT SHOULD NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL, OR SENSORY CAPACITIES, OR THOSE WITHOUT THE APPROPRIATE TRAINING. THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING. THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.

DELIVERY SET

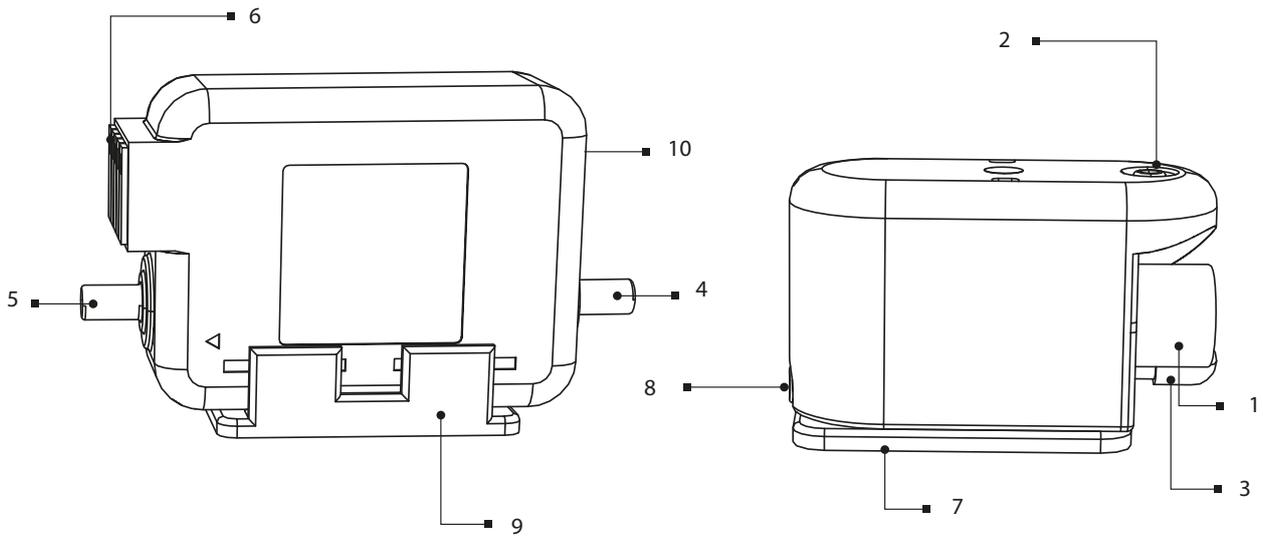
Name	Number
DN-2 drain pump with a float	1 pc.
Connecting hose $\varnothing 4 \times 6$ 1 M	1 pc.
Reducing piece for the hose	1 pc.
Mounting plates	2 pcs.
Double-sided adhesive tape	1 pc.
Suction tube	1 pc..
Removable electric cable	1 pc.
Multilanguage user's manual	1 pc.

TECHNICAL DATA

Capacity	7 l/h
Water lifting at inlet (evacuation)	2 m
Water lifting at outlet (delivery)	7 m in vertical direction
Power	230 V/50 Hz
Noise level	21 dBA
Power	19 W
C – NO signal contact parameters	8 A



Model	Dimensions [mm]								
	$\varnothing D2$	$\varnothing D1$	A	A1	A2	H	H1	L	L1
DN-2	18	5	68	68	82	55	38	32	30

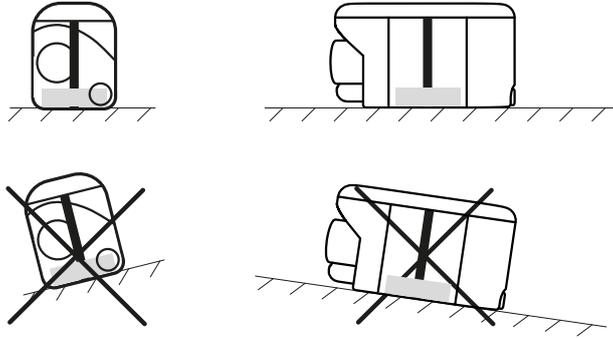
DESIGN


- 1** – condensate water inlet
- 2** – air intake fitting for $\text{Ø} 4 \times 6$ hose
- 3** – condensate outlet fitting
- 4, 8** – fitting for $\text{Ø} 4 \times 6$ connecting hose
- 5** – fitting for a drain pipe
- 6** – removable terminal block
- 7** – mounting plate
- 9** – pump lock
- 10** – removable electric cable socket

INSTALLATION AND SETUP

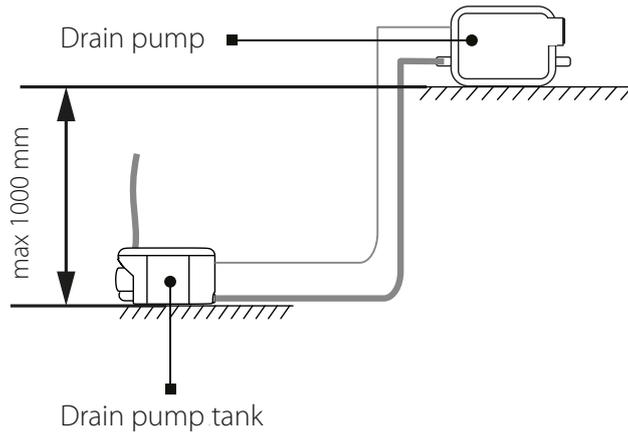
READ THE USER'S MANUAL BEFORE INSTALLING THE UNIT.

The pump can be installed in a horizontal or vertical position.
 The pump installation area must prevent water ingress. Do not install the pump in cold rooms.

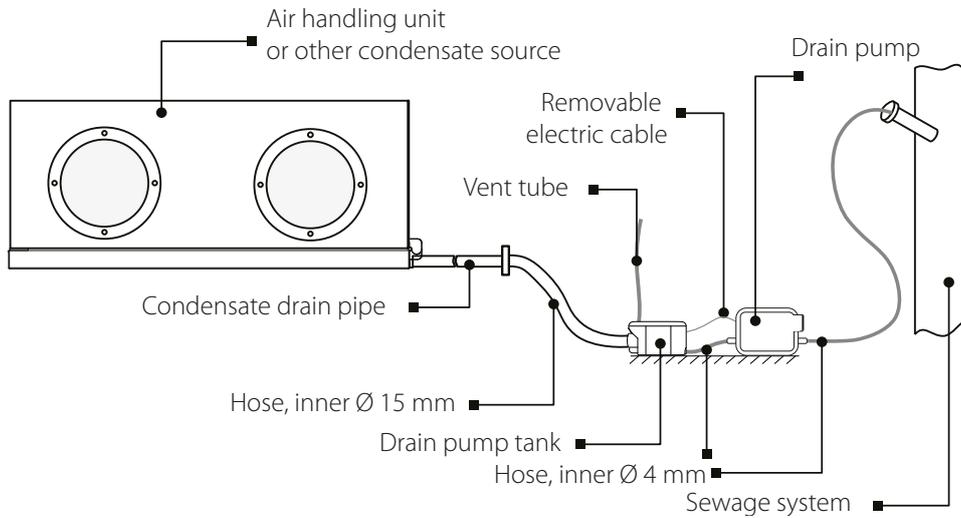


Pump horizontal mounting

Fix the mounting plate and the pump lock on the flat horizontal surface.
 The drain pump must be installed not more than 1 m above the tank.



Option 1 (vent tube outside the unit)



Use the hose to connect the pump with the drain pipe.

Make sure to install the water tank below the condensate drain pan level.

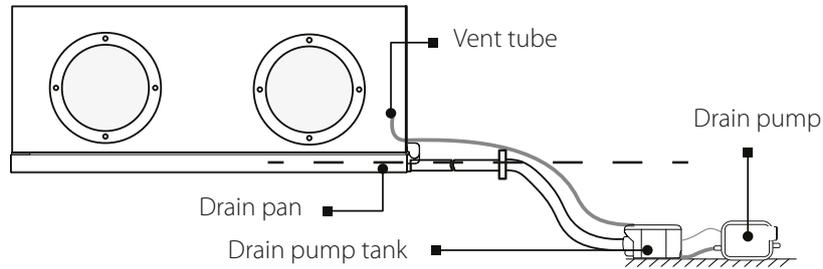
Put the vent tube on the air intake fitting.

The vent tube tip must be higher than the condensate drain pan. Attach the connecting hose to the pump and tank float fittings.

Connect the removable electric cable to the pump.

Connect the flexible hose running from the pump outlet to the sewerage.

Option 2 (vent tube inside the unit)



Use the hose to connect the pump with the drain pipe.

Make sure to install the water tank below the condensate drain pan level.

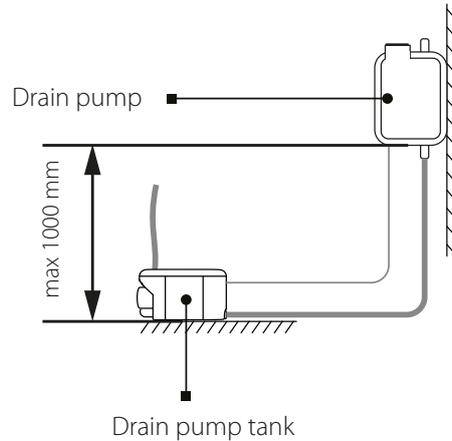
Put the vent tube on the air intake fitting. Connect the vent tube to the drain pan of the air handling unit to balance air pressure. Attach the connecting hose to the pump and tank float fittings.

Connect the removable electric cable to the pump.

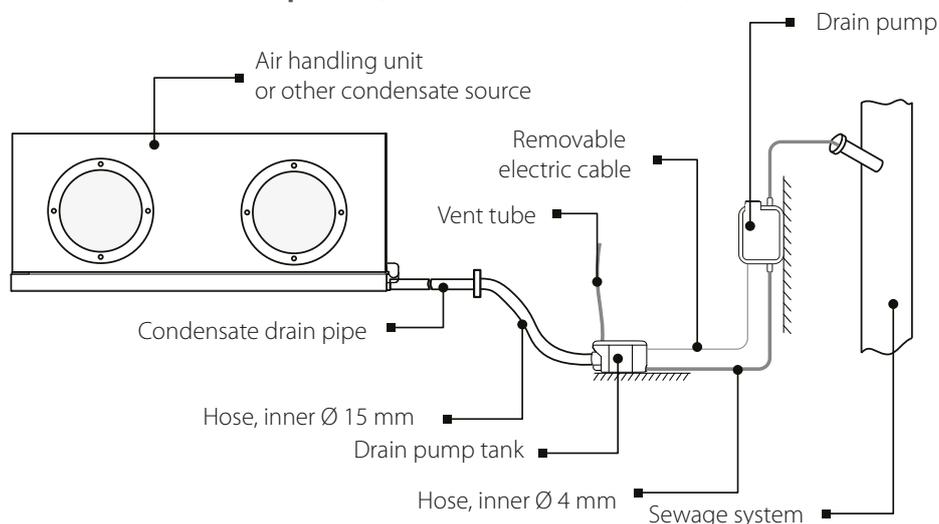
Connect the flexible hose running from the pump outlet to the sewerage.

Pump vertical mounting

Fix the mounting plate for installing the tank with a float on the flat horizontal surface. Then fix the pump lock on the vertical surface. The drain pump must be installed not more than 1 m above the tank.



Option 1 (vent tube outside the unit)



Use the hose to connect the pump with the drain pipe.

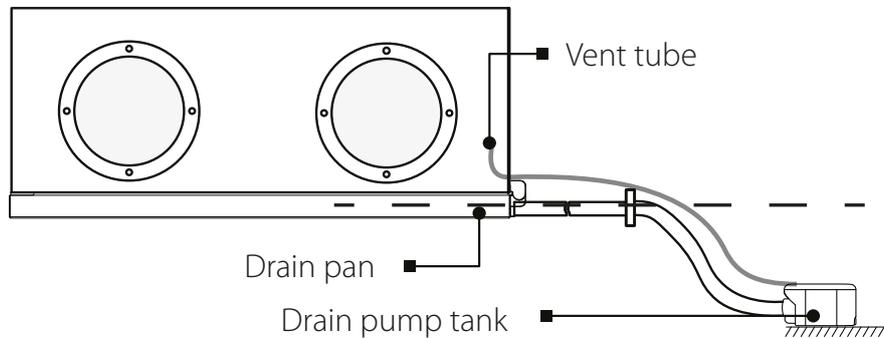
Make sure to install the water tank below the condensate drain pan level.

Put the vent tube on the air intake fitting. The vent tube tip must be higher than the condensate drain pan.

Attach the connecting hose to the pump and tank float fittings.

Connect the removable electric cable to the pump. Connect the flexible hose running from the pump outlet to the sewerage.

Option 2 (vent tube inside the unit)



Use the hose to connect the pump with the drain pipe.

Make sure to install the water tank below the condensate drain pan level.

Put the vent tube on the air intake fitting. Connect the vent tube to the drain pan of the air handling unit to balance air pressure. Attach the connecting hose to the pump and tank float fittings.

Connect the removable electric cable to the pump. Connect the flexible hose running from the pump outlet to the sewerage.

CONNECTION TO POWER MAINS

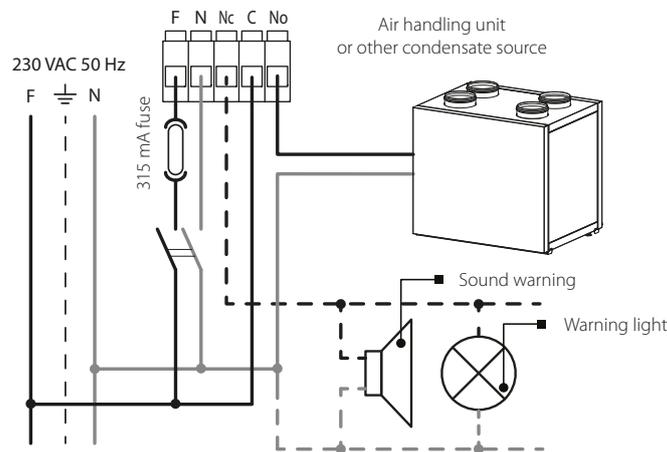


DISCONNECT THE UNIT FROM POWER MAINS PRIOR TO ANY OPERATIONS. THE UNIT MUST BE CONNECTED TO POWER MAINS BY A QUALIFIED ELECTRICIAN. THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE SHOWN ON THE RATING PLATE.



ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED AND WILL VOID THE WARRANTY.

DN-2 drain pump must be installed by duly qualified personnel in accordance with IEC 64-8 standard. Connect the pump to single-phase electric mains via F and N contact terminals using 1,5 mm² wires. Make sure to include a protective device with a cut-off switch on the phase and neutral wires in the power supply circuit. Since the circuit has double insulation the terminal board has no earthing. DN-2 drain pump is rated IP20.



The DN-2 pump is equipped with a C - NO / NC bridging contact (switched current 16 A/250 V AC). The condensate source unit should be connected in such a way so as to ensure cutting power off in the event of emergency.

Emergency power cut-off principle

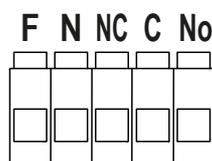
In an emergency the contact between C and NC terminals shall be maintained until the pump power shutdown. The contact between C and NO terminals is established only upon energising F and N terminals thereby disabling the condensate supply unit.

If you intend to keep such units energised, connect sound warning or a warning light leads to C and NC terminals.

Possible emergencies include:

- 1 - drain pump power failure
- 2 - internal pump failure
- 3 - actuation of the critical temperature sensor inside the pump
- 4 - reaching of emergency warning level by the pump float

Any emergency results in closing the contact between C and NC terminals.



External connections diagram and terminal block view from the set screw side.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 °C to +40 °C .
- Storage environment must not contain aggressive vapours and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit can be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures allow the unit to warm up at room temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Council Directive 2014/30/EU, Low Voltage Directive 2014/35/EU and CE-marking Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above. The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations.

Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation.

The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase.

The unit model must comply with the one stated in the user's manual.

Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.



FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.



USERS' WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

CERTIFICATE OF ACCEPTANCE

Unit Type	Drain pump
Model	DN-2
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

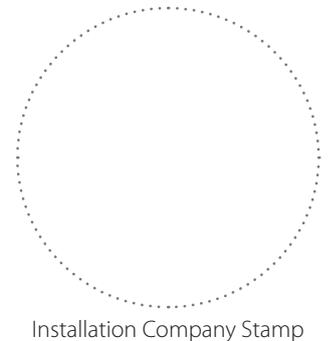
SELLER INFORMATION

Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	



INSTALLATION CERTIFICATE

The DN-2 unit has been connected to power mains pursuant to the requirements stated in the present user's manual.	
Seller	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
Signature:	



WARRANTY CARD

Unit Type	Drain pump
Model	DN-2
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	



