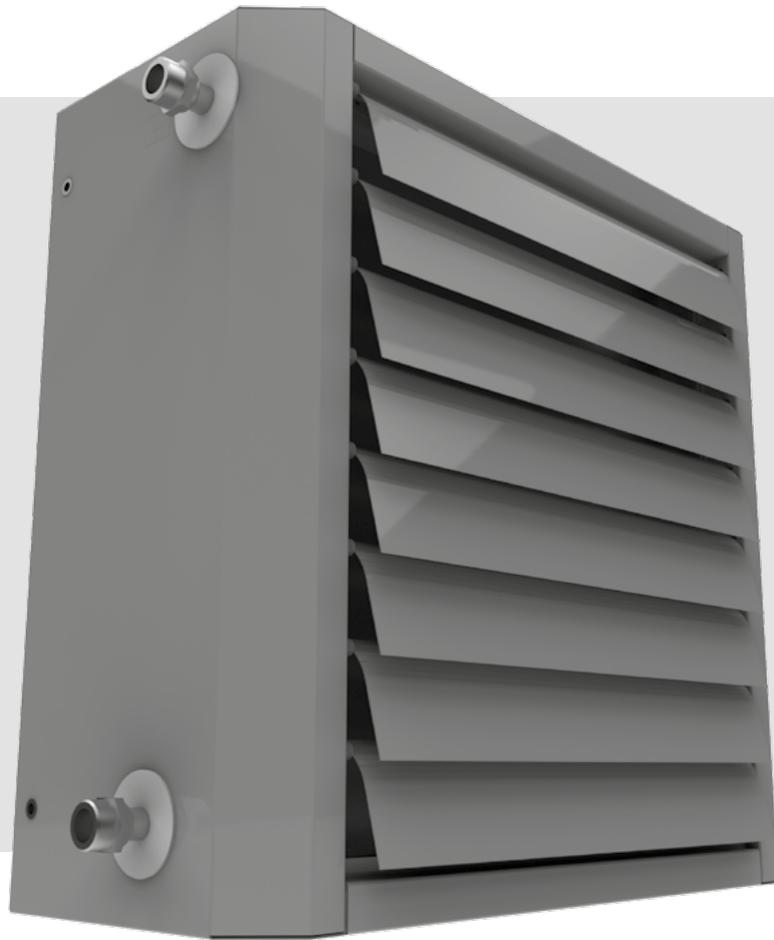


USER'S MANUAL

AOW



AIR HEATING (COOLING) UNIT

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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 AOW 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.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means in any information search system or translated into any language in any form without the prior written permission of the Company.

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.

UNIT INSTALLATION AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- Unpack the unit with care.



- The unit must be grounded!



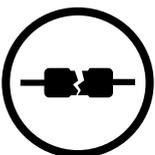
- While installing the unit, follow the safety regulations specific to the use of electric tools.



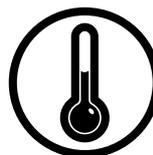
- Do not change the power cable length at your own discretion.
- Do not bend the power cable.
- Avoid damaging the power cable.
- Do not put any foreign objects on the power cable.



- Do not lay the power cable of the unit in close proximity to heating equipment.



- Do not use damaged equipment or cables when connecting the unit to power mains.



- Do not operate the unit outside the temperature range stated in the user's manual.
- Do not operate the unit in aggressive or explosive environments.



- Do not touch the unit controls with wet hands.
- Do not carry out the installation and maintenance operations with wet hands.



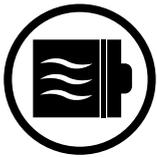
- Do not allow children to operate the unit.



- Do not store any explosive or highly flammable substances in close proximity to the unit.



- Do not open the unit during operation.



- Do not block the air duct when the unit is switched on.



- Do not sit on the unit and avoid placing foreign objects on it.



- Do not wash the unit with water.
- Protect the electric parts of the unit against ingress of water.



- Disconnect the unit from power mains prior to any technical maintenance.



- When the unit generates unusual sounds, odour, or emits smoke, disconnect it from power supply and contact the Seller.



- Do not direct the air flow produced by the unit towards open flame or ignition sources.



- In case of continuous operation of the unit, periodically check the security of mounting.



- Use the unit only for its intended purpose.



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

PURPOSE

The air heating (cooling) units with a water-to-air heat exchanger are designed for indoor air heating (cooling) and uniform air distribution with a fan and louvre shutters.

An integrated high-efficient electric heater and a powerful fan enable quick air heating (cooling) in large premises or local heating (cooling) of a working space in hangars or industrial facilities.

Designed for heating (cooling) of large premises: manufacturing sites, car repair shops, car washes, garages, car showrooms, warehouses, shopping centers, super- and hypermarkets, shops, sport halls, conference halls, poultry and cattle farms, greenhouses and other similar premises. The unit design enables quick and easy mounting and reduces total investment costs for heating (cooling) systems.



THE UNIT SHOULD NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL, OR SENSORY CAPACITIES, OR THOSE WITHOUT THE APPROPRIATE TRAINING.

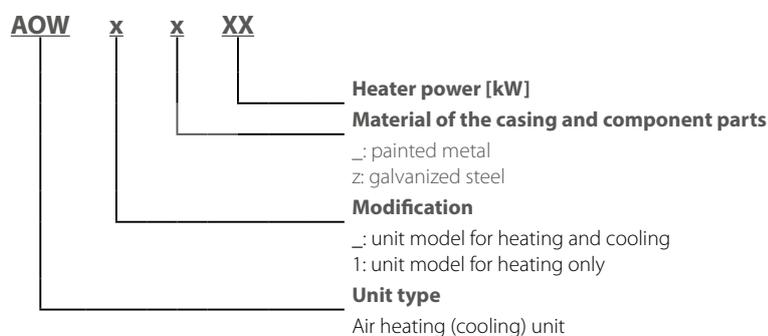
THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.

THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.

DELIVERY SET

| Name | Number |
|---------------|--------------------------------|
| AOW unit | 1 pc. |
| User's manual | 1 pc. |
| Packing box | 1 pc. |
| Drain pipe | 1 pc. (AOW 25, AOW 30, AOW 45) |

DESIGNATION KEY



TECHNICAL DATA

The unit is designed for application with the ambient temperature ranging from +1 °C up to +50 °C.

The maximum allowable water temperature is 100 °C, the maximum pressure at 100 °C is 1.6 MPa (16 bar).

The unit is designed for operation in cold and moderate climate zones.

A double-pipe system is used to supply water to the heat exchanger.

In summer season cold water is supplied to the heat exchanger, and during the heating period - hot water.

The unit design is regularly improved, so some models may slightly differ from those ones described herein.

| Parameters | AOW 25, AOW1 25, AOW1z 25 | AOW 30, AOW1 30, AOW1z 30 | AOW 45, AOW1 45, AOW1z 45 |
|--|------------------------------|------------------------------|------------------------------|
| Unit supply voltage, 50 Hz [V] | 230 | 230 | 230 |
| Fan power [W] | 136 | 191 | 255 |
| Fan current [A] | 0.6 | 0.85 | 1.12 |
| RPM [min ⁻¹] | 1350 | 1440 | 1360 |
| Sound pressure level at 3 m distance [dBA] | 53 | 55 | 58 |
| Maximum heat medium temperature | 100 | 100 | 100 |
| Ingress protection rating | IP44 | IP44 | IP44 |
| Insulation class | F | B | F |
| Air blowing range [m] | 9 | 12 | 16 |

Technical data for heating mode:

| Model | Air flow [m ³ /h] | Inlet air temperature [°C] | Temperature difference 90/70 °C | | | | Temperature difference 80/60 °C | | | | Temperature difference 70/50 °C | | | | Temperature difference 60/40 °C | | | |
|---------------------------------|------------------------------|----------------------------|---------------------------------|-------------------------|--------------------------------|---------------------------|---------------------------------|-------------------------|--------------------------------|---------------------------|---------------------------------|-------------------------|--------------------------------|---------------------------|---------------------------------|-------------------------|--------------------------------|---------------------------|
| | | | Power [kW] | Output temperature [°C] | Water flow [m ³ /h] | Water pressure loss [kPa] | Power [kW] | Output temperature [°C] | Water flow [m ³ /h] | Water pressure loss [kPa] | Power [kW] | Output temperature [°C] | Water flow [m ³ /h] | Water pressure loss [kPa] | Power [kW] | Output temperature [°C] | Water flow [m ³ /h] | Water pressure loss [kPa] |
| AOW 25, AOW1 25, AOW1z 25 | 2200 | -15 | 34.5 | 26.0 | 1.51 | 7.5 | 30.4 | 21.2 | 1.30 | 6.0 | 26.0 | 16.0 | 1.19 | 4.6 | 22.0 | 11.0 | 1.01 | 3.4 |
| | | -10 | 32.0 | 29.0 | 1.40 | 6.6 | 28.3 | 24.3 | 1.22 | 5.3 | 24.0 | 19.2 | 1.12 | 4.0 | 20.0 | 14.0 | 0.90 | 2.8 |
| | | -5 | 30.0 | 32.0 | 1.30 | 5.8 | 26.2 | 27.4 | 1.19 | 4.6 | 22.0 | 22.0 | 1.01 | 3.4 | 18.0 | 17.0 | 0.79 | 2.3 |
| | | 0 | 28.0 | 35.0 | 1.19 | 5.2 | 24.1 | 30.4 | 1.12 | 4.0 | 20.0 | 25.0 | 0.90 | 2.8 | 16.0 | 20.0 | 0.68 | 1.8 |
| | | 5 | 26.2 | 38.0 | 1.19 | 4.5 | 22.1 | 33.3 | 1.01 | 3.3 | 18.0 | 28.0 | 0.79 | 2.3 | 14.0 | 22.0 | 0.61 | 1.4 |
| | | 10 | 24.2 | 41.4 | 1.12 | 3.9 | 20.1 | 36.1 | 0.94 | 2.8 | 15.9 | 30.6 | 0.68 | 1.9 | 12.0 | 25.0 | 0.50 | 1.0 |
| | | 15 | 22.1 | 44.2 | 1.01 | 3.3 | 18.1 | 38.8 | 0.90 | 2.3 | 13.8 | 33.0 | 0.61 | 1.4 | 9.0 | 27.0 | 0.40 | 0.7 |
| AOW 30, AOW1 30, AOW1z 30 | 3000 | -15 | 48.4 | 27.2 | 2.09 | 7.4 | 42.0 | 22.0 | 1.91 | 6.0 | 36.6 | 17.0 | 1.58 | 4.7 | 31.0 | 11.7 | 1.30 | 3.5 |
| | | -10 | 45.4 | 30.3 | 2.02 | 6.6 | 39.0 | 25.2 | 1.69 | 5.3 | 33.7 | 20.0 | 1.51 | 4.0 | 27.6 | 14.6 | 1.19 | 2.9 |
| | | -5 | 42.4 | 33.4 | 1.91 | 5.9 | 36.7 | 28.2 | 1.58 | 4.6 | 30.0 | 22.9 | 1.40 | 3.4 | 24.0 | 17.4 | 1.12 | 2.4 |
| | | 0 | 39.5 | 36.4 | 1.69 | 5.2 | 33.8 | 31.1 | 1.51 | 3.9 | 28.0 | 25.7 | 1.19 | 2.9 | 21.0 | 20.0 | 1.01 | 1.9 |
| | | 5 | 36.7 | 39.4 | 1.58 | 4.5 | 30.9 | 34.0 | 1.40 | 3.4 | 25.0 | 28.5 | 1.12 | 2.4 | 19.0 | 22.7 | 0.79 | 1.5 |
| | | 10 | 33.8 | 42.1 | 1.51 | 3.9 | 28.1 | 36.7 | 1.19 | 2.8 | 22.0 | 31.1 | 1.01 | 1.9 | 16.0 | 25.2 | 0.68 | 1.1 |
| | | 15 | 31.0 | 44.9 | 1.40 | 3.3 | 25.3 | 40.0 | 1.12 | 2.3 | 19.4 | 33.7 | 0.90 | 1.5 | 13.0 | 27.5 | 0.61 | 0.7 |
| AOW 45, AOW1 45, AOW1z 45 | 3850 | -15 | 63.0 | 28.4 | 2.81 | 11.9 | 55.6 | 23.3 | 2.41 | 9.7 | 48.1 | 18.1 | 2.09 | 7.6 | 40.4 | 12.8 | 1.80 | 5.7 |
| | | -10 | 59.2 | 31.5 | 2.59 | 10.6 | 51.8 | 26.4 | 2.30 | 8.5 | 44.3 | 21.1 | 1.91 | 6.6 | 36.7 | 15.7 | 1.58 | 4.8 |
| | | -5 | 55.4 | 34.6 | 2.41 | 9.4 | 48.0 | 29.3 | 2.09 | 7.4 | 40.6 | 23.9 | 1.80 | 5.6 | 32.9 | 18.5 | 1.40 | 3.9 |
| | | 0 | 51.6 | 37.5 | 2.30 | 8.3 | 44.3 | 32.2 | 2.02 | 6.4 | 36.9 | 26.8 | 1.58 | 4.7 | 29.2 | 21.3 | 1.30 | 3.2 |
| | | 5 | 47.9 | 40.4 | 2.09 | 7.3 | 40.6 | 35.0 | 1.80 | 5.5 | 33.2 | 29.5 | 1.51 | 3.9 | 25.6 | 23.9 | 1.12 | 2.5 |
| | | 10 | 44.3 | 43.2 | 2.02 | 6.3 | 37.0 | 37.8 | 1.58 | 4.6 | 29.6 | 32.2 | 1.30 | 3.2 | 21.9 | 26.4 | 1.01 | 1.9 |
| | | 15 | 40.6 | 45.9 | 1.80 | 5.4 | 33.4 | 40.4 | 1.51 | 3.8 | 26.0 | 34.8 | 1.12 | 2.5 | 18.1 | 28.8 | 0.79 | 1.3 |

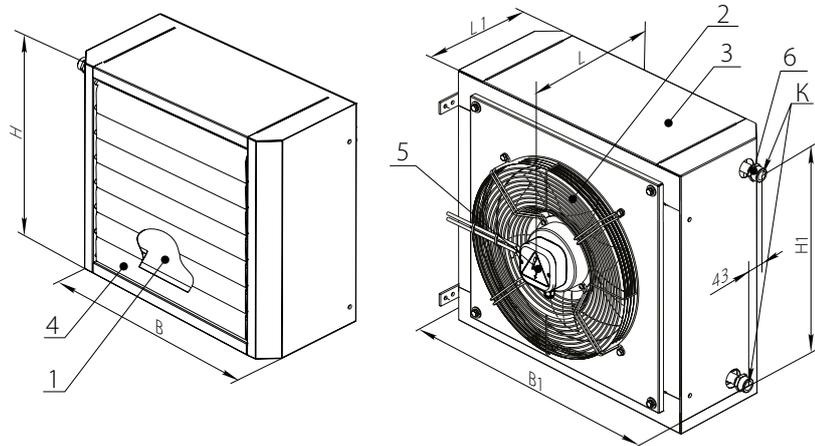
Technical data for cooling mode:

| Model | Air flow [m ³ /h] | Intake air temperature [°C] | Temperature difference 90/70 °C | | | |
|--------|------------------------------|-----------------------------|---------------------------------|-------------------------|--------------------------------|---------------------------|
| | | | Power [kW] | Output temperature [°C] | Water flow [m ³ /h] | Water pressure loss [kPa] |
| AOW 25 | 2200 | 35 | 9.1 | 26.0 | 1.6 | 7.5 |
| | | 30 | 5.8 | 22.5 | 1.0 | 6.1 |
| | | 25 | 3.2 | 21.0 | 0.6 | 2.1 |
| | | 20 | 2.0 | 18.0 | 0.3 | 0.9 |
| AOW 30 | 3000 | 35 | 11.4 | 27.0 | 2.0 | 11.2 |
| | | 30 | 7.3 | 22.9 | 1.3 | 5.0 |
| | | 25 | 3.9 | 21.1 | 0.7 | 1.6 |
| | | 20 | 2.4 | 17.7 | 0.4 | 0.7 |
| AOW 45 | 3850 | 35 | 18.0 | 24.9 | 3.1 | 31.8 |
| | | 30 | 10.8 | 21.7 | 1.9 | 12.9 |
| | | 25 | 7.3 | 19.0 | 1.3 | 6.3 |
| | | 20 | 3.2 | 17.4 | 0.5 | 1.4 |

Note: The AOW1 and AOW1z unit models are not designed for cooling as they are not equipped with elements necessary for condensate removal.

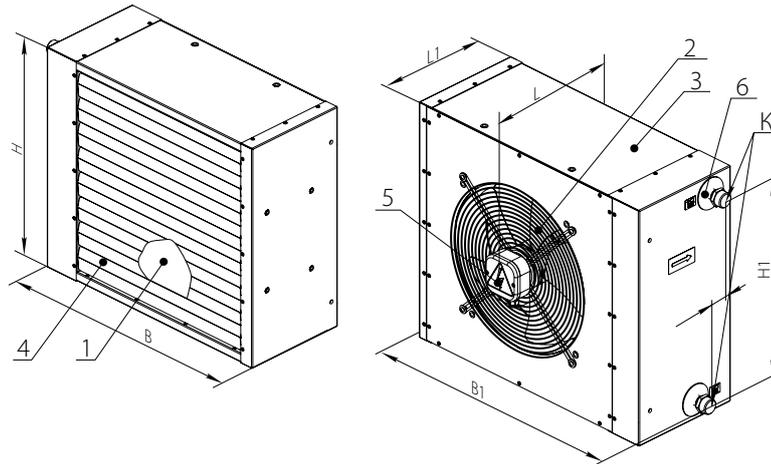
- 1 – heat exchanger
- 2 – axial fan with a protecting grille
- 3 – casing
- 4 - louvre shutters
- 5 – terminal box
- 6 – heat exchanger spigots

AOW



Overall dimensions:

| Model | Dimensions [mm] | | | | | | | Number of pipe rows | Weight [kg] |
|--------|-----------------|-----|-----|-----|-----|-----|--------|---------------------|-------------|
| | B | B1 | H | H1 | L | L1 | K | | |
| AOW 25 | 680 | 785 | 605 | 468 | 360 | 286 | G 3/4" | 2 | 37.0 |
| AOW 30 | 680 | 785 | 655 | 518 | 360 | 286 | G 3/4" | 2 | 40.0 |
| AOW 45 | 780 | 885 | 710 | 570 | 380 | 300 | G 3/4" | 2 | 50.0 |

AOW 1

Overall dimensions:

| Model | Dimensions [mm] | | | | | | | Number of pipe rows | Weight [kg] |
|--------------------------|-----------------|-----|-----|-----|-----|-----|--------|---------------------|-------------|
| | B | B1 | H | H1 | L | L1 | K | | |
| AOW1 25, AOW1z 25 | 630 | 690 | 555 | 468 | 320 | 262 | G 3/4" | 2 | 28.0 |
| AOW1 30, AOW1z 30 | 630 | 690 | 605 | 518 | 355 | 262 | G 3/4" | 2 | 31.0 |
| AOW1 45, AOW1z 45 | 730 | 790 | 655 | 570 | 380 | 285 | G 3/4" | 2 | 41.0 |

DESIGN AND OPERATING PRINCIPLE

The AOW unit consists of four basic components: a water-to-air heat exchanger (1), an axial fan with a protecting grille (2), a polymer coated steel casing (3), louvre shutters (4).

The water-to-air heat exchanger is made of copper tubing ribbed with aluminium.

The water-to-air heat exchanger is equipped with internally threaded (3/4) copper tubes.

The axial fan located at the unit inlet generates air flow in the water-to-air heat exchanger.

The protecting grille of the fan prevents ingress of foreign objects inside the unit.

The adjustable louvre shutters are located at the unit outlet. Each louvre vane is manually adjustable which makes it easy to create a required air stream direction. The curved profile of the louvre vanes prevents air flow turbulence and its rising toward upper part of the room thus keeping warm air within the heated area. The unit operation is based on heat/cool conduction from the hot or cold water to surface of the copper tubes filled with circulating water. The copper tubes have aluminium fins for extra large heat exchange surface.

The copper tubes transfer heat energy to the aluminium fins and the fins transfer it further to the air flow generated by the fan.

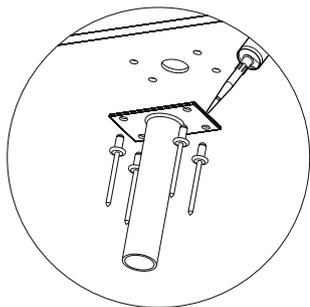
The heated (cooled) air flow is supplied to the premises and directed locally by means of the louvre shutters.

- The AOW model is a single-room air heating/cooling system and the AOW1 model is a single-room air heating system.
- The unit is suitable both for vertical and horizontal installation.
- During unit operation in the cooling mode some condensate may form on the heat exchanging surface and get accumulated in the unit drain pan.

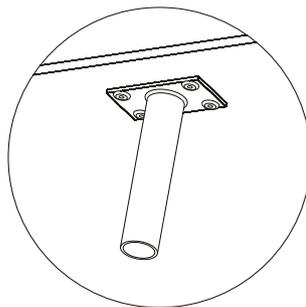
The AOW 25, AOW 30 and AOW 45 units must be equipped with a drain pipe. Fix the drain pipe to the unit bottom with rivets.

The drain pipe and the rivets are supplied with the unit.

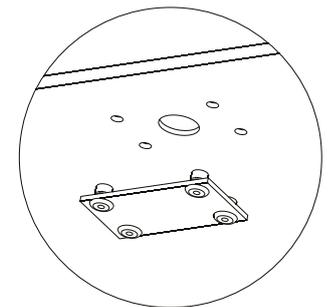
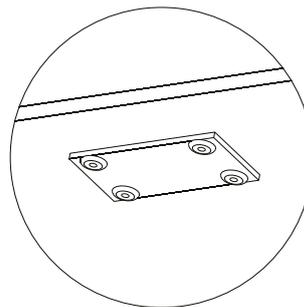
Apply some sealant on the mating surfaces of the pipe and drain pan mating surfaces. Fix the pipe with fasteners.



The drain pipe opening is plugged.



Remove the plug.



The unit is designed for indoor installation in compliance with applicable hygienic norms and standards.

MOUNTING AND SET-UP

Provide free air access to the fan intake vent while installing the unit.

The minimum distance between the wall or ceiling and the AOW unit is 300 mm.

While mounting the unit provide enough access for maintenance or repair work.

The unit is designed for mounting on walls or any other vertical surface as well for ceiling mounting using the fixing brackets.

While connecting the water-to-air heat exchanger to the water mains, disable any loads that can damage the unit or tight connections.

Layout of the heat medium piping must ensure quick detachment for easy servicing and repair operations.

Install a mud filter at the heat medium inlet to the heat exchanger.



READ THE USER'S MANUAL BEFORE INSTALLING THE UNIT.



FAILURE TO PROVIDE MINIMUM DISTANCE TO WALLS OR CEILING WILL IMPAIR THE UNIT AERODYNAMIC AND THERMAL CHARACTERISTICS AS WELL AS SERVICE LIFE OF THE UNIT.

Mounting accessories:

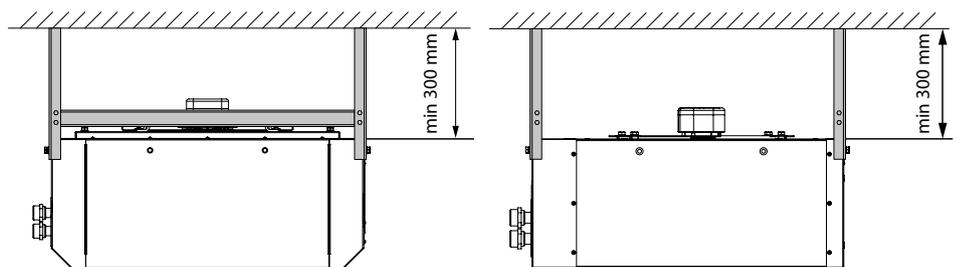
| Model | Mounting angles | Bracket | Multi-angle bracket |
|--------------------------|-----------------|------------|---------------------|
| AOW 25 | MKP-AOW | MK-AOW 25 | MKU-AOW 25 |
| AOW 30 | MKP-AOW | MK-AOW 30 | MKU-AOW 30 |
| AOW 45 | MKP-AOW | MK-AOW 45 | MKU-AOW 45 |
| AOW1 25, AOW1z 25 | MKP-AOW | MK-AOW1 25 | MKU-AOW1 25 |
| AOW1 30, AOW1z 30 | MKP-AOW | MK-AOW 25* | MKU-AOW 25 |
| AOW1 45, AOW1z 45 | MKP-AOW | MK-AOW 30* | MKU-AOW 30 |

*The cross pieces between the MK-AOW mounting brackets are not applicable in case of mounting to the AOW1 and AOW1z units.

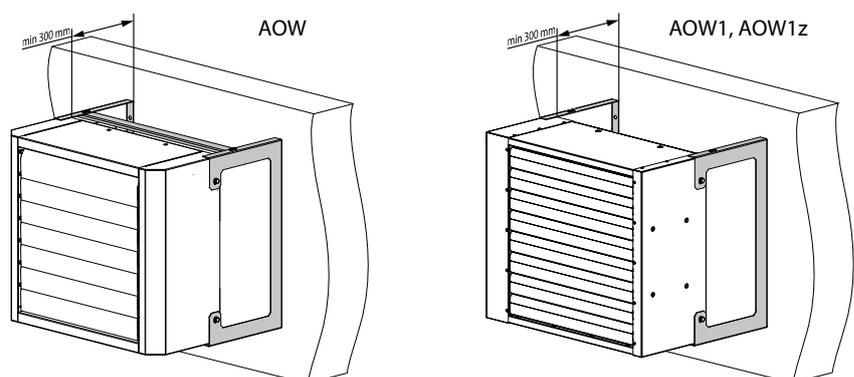
INSTALLATION OF THE UNIT WITH AN MK-AOW MOUNTING SET

The MK-AOW mounting bracket is used for ceiling or wall mounting of the unit. Not included in the delivery set, available as a special accessory.

CEILING MOUNTING WITH MK-AOW

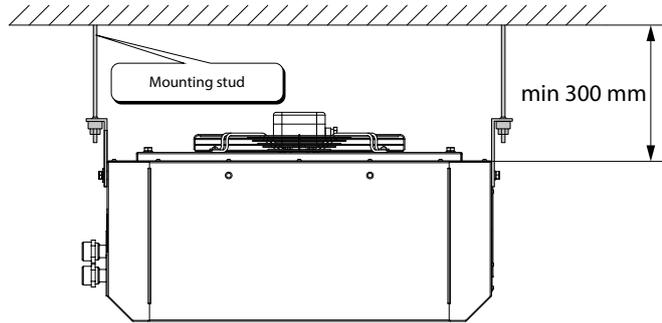


WALL MOUNTING WITH MK-AOW



INSTALLATION OF THE UNIT WITH AN MKP-AOW MOUNTING SET

The MKP-AOW mounting set (not included in the delivery set) is used for ceiling mounting of the unit by means of the mounting studs or chains.

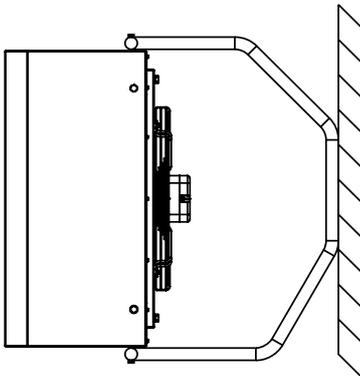


INSTALLATION OF THE UNIT WITH MKP-AOW

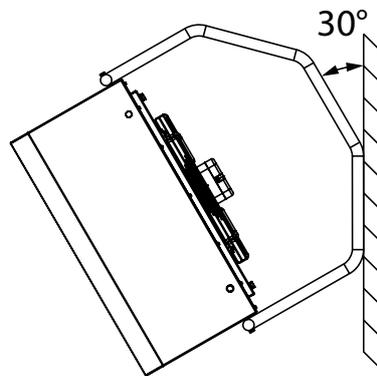
INSTALLATION OF THE UNIT WITH AN MKU-AOW MULTI-ANGLE BRACKET

The MKU-AOW mounting multi-angle bracket (not included in the delivery set) is used for ceiling or wall mounting of the unit. The MKU-AOW bracket design enables wall or ceiling installation of the unit at the angle of 30° and 45°.

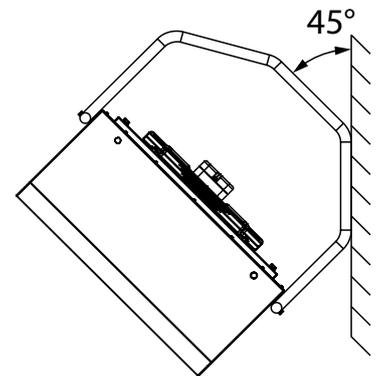
RIGHT ANGLE MOUNTING WITH MKU-AOW



30° MOUNTING WITH MKU-AOW



45° MOUNTING WITH MKU-AOW



UNIT REACH DISTANCE

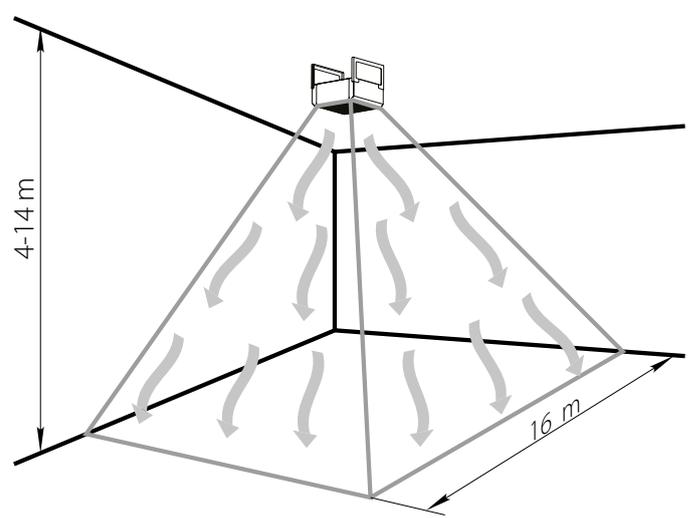
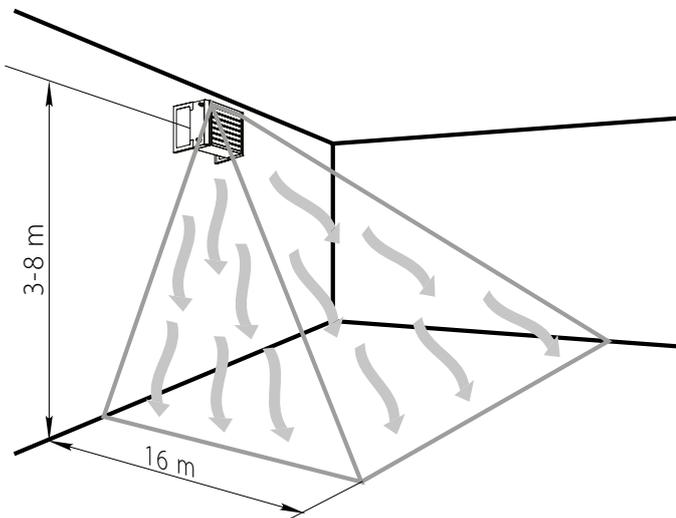
Failure to provide the minimum distance of 0.3 m to walls or ceiling will impair the unit aerodynamic and thermal characteristics as well as service life of the unit.

Wall mounting

Minimum distance to the wall is 0.3 m.
Mounting height is from 3 to 8 m.
Maximum air blowing range is 16 m.

Ceiling mounting

Minimum distance to the ceiling is 0.3 m.
Mounting height is from 4 to 14 m.



CONNECTION TO POWER MAINS



**POWER OFF THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
THE UNIT MUST BE CONNECTED TO POWER SUPPLY BY A QUALIFIED ELECTRICIAN.
THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE
MANUFACTURER'S LABEL.**



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

The unit is rated for connection to single-phase AC 220-230 V/50 Hz power mains.

The unit must be connected to power mains using durable, insulated and heat-resistant conductors (cables and wires) with minimum cross section not less than 0.5 mm².

The given wire cross sections are for reference only.

The cross section selection must account for the maximum permissible wire heating which depends on the wire type, its insulation, length and installation method (i.e. overhead, in pipes or inside walls).

The unit connections shall be made on the terminal block mounted inside the terminal box in strict accordance with the wiring diagram and terminal designations.

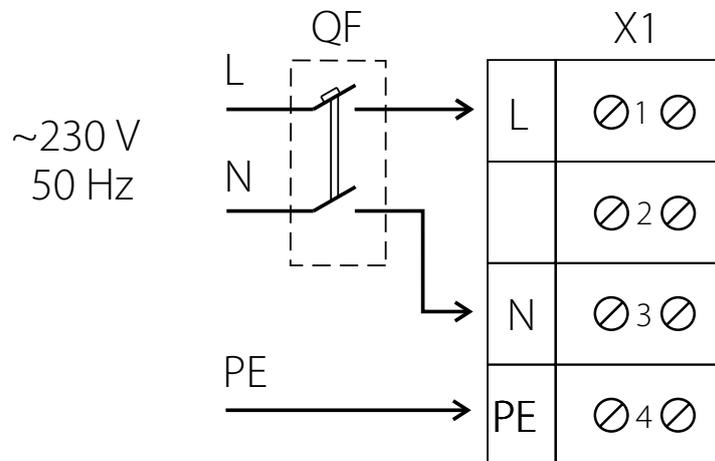
The external lead-in must be equipped with a circuit breaker with a thermal-magnetic trip built into the stationary wiring to disconnect all the mains phases.

The QF external circuit breaker location must ensure free access for quick shutdown of the unit.

The circuit breaker tripping is selected based on the electrical characteristics of the unit, listed in the "Technical data" section.

The unit is equipped with asynchronous motors with an external rotor, with integrated thermal protection with automatic restart.

WIRING DIAGRAM



CONTROL

Smooth or step fan speed control is performed by means of a thyristor or transformer speed controller.

Reducing the fan speed enables reducing air flow and heating or cooling heat exchange.

The air heating (cooling) unit is operated via the UWT-1E control unit (special accessory).

The control unit has three operation modes and three fan speed stages for the AOW unit.

The control unit is equipped with an on/off switch with a control lamp, cable glands for cable connections and a thermal fuse for short circuit protection. The control unit is designed for joint operation with the TST-1-300 digital thermostats with a sensor display (TSTD-1-300 is available with a remote control) or RTS-1-400 with an LCD display (RTSD-1-400 is available with a remote control). The thermostats are available as special accessories. The thermostat must be installed in a premise that is heated or cooled by the AOW unit. The thermostat is used for air temperature monitoring and operation mode control.

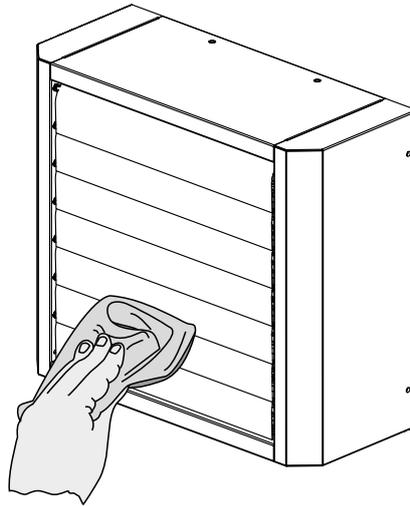
The thermostat installation place must not be subjected to temperature fluctuations induced by open windows, door and heating devices. Several air heating (cooling) units installed in the same premise may share one thermostat.

TECHNICAL MAINTENANCE



DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!

Maintenance means regular preventive measures during operations. The aluminium ribs must be cleaned of dirt and dust once a year with a wet cloth or a vacuum cleaner. If the internal environment is clean enough, the cleaning may be performed more seldom, as required. Disconnect the unit from power mains prior to any maintenance operations.



TROUBLESHOOTING

Possible faults and troubleshooting

| Problem | Possible reasons | Troubleshooting |
|--|--|--|
| When switching on the unit the fan does not start. | No power supply. | Make sure the power supply line is connected correctly, otherwise troubleshoot a connection error. |
| | The motor is jammed, the impeller blades are soiled. | Turn the unit off. Troubleshoot the motor jam and the impeller clogging. Clean the blades. Restart the unit. |
| Circuit breaker tripping during the unit start-up. | High current consumption due to short circuit in power line. | Turn the unit off. Contact the Seller. |
| Low air flow. | Low set fan speed. | Set higher speed. |
| | Control system malfunction. | Turn the unit off. Contact the Seller. |
| Heater malfunction. | Control system malfunction. | Turn the unit off. Contact the Seller. |
| Noise, vibration. | The impeller is soiled. | Clean the impeller. |
| | The fan or casing screw connection is loose. | Tighten the screw connection of the fans or the casing against stop. |

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 and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors 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 must 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 operating 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 Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council 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.



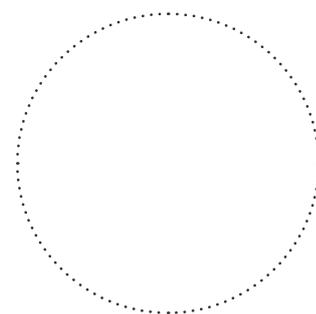
USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

CERTIFICATE OF ACCEPTANCE

| | |
|----------------------------------|----------------------------|
| Unit Type | AIR HEATING (COOLING) UNIT |
| Model | AOW _____ |
| Serial Number | |
| Manufacture Date | |
| Quality Inspector's Stamp | |

SELLER INFORMATION

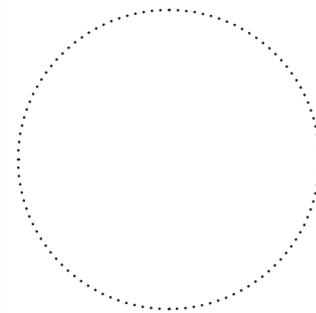
| | |
|---|--|
| Seller | |
| Address | |
| Phone Number | |
| E-mail | |
| Purchase Date | |
| This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted. | |
| Customer's Signature | |



Seller's Stamp

INSTALLATION CERTIFICATE

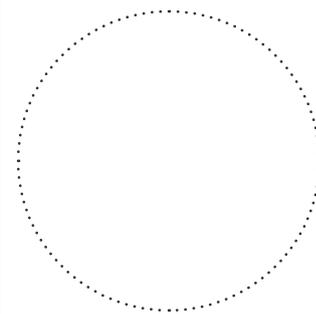
| | |
|--|-------------------|
| The AOW _____ unit is installed pursuant to the requirements stated in the present user's manual. | |
| Company name | |
| Address | |
| Phone Number | |
| Installation Technician's Full Name | |
| Installation Date: | Signature: |
| The unit has been installed in accordance 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: | |



Installation Stamp

WARRANTY CARD

| | |
|-------------------------|----------------------------|
| Unit Type | AIR HEATING (COOLING) UNIT |
| Model | AOW _____ |
| Serial Number | |
| Manufacture Date | |
| Purchase Date | |
| Warranty Period | |
| Seller | |



Seller's Stamp

