

Installation and operation manual

CrossStar



Order number	
Unit	
Serial Number	
Date	



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This instruction is the general operating document of the installation with heat recovery (hereinafter referred to as «installation»). Passport-instruction required for proper and safe operation of the installation and its maintenance in good condition.

1. GENERAL

1.1. Application

CrossStar units are used to create a comfortable climate with air consumption in the range of 1 000 - 14 000 m³ / h.

CrossStar are designed to supply air without solid, fibrous, sticky, aggressive or air-hazardous impurities. The air must not contain substances that promote corrosion or decomposition of zinc, steel or aluminum. Range of working temperatures in standard execution from -30 ° C to +40 ° C.

- Manufactured in accordance with current Ukrainian and European technical norms and rules.
- CrossStar installations must only be installed and used in accordance with this documentation.
- The BUYER is liable for damages caused by improper use of the equipment.
- Installation and operating documentation must be available to service personnel and service organization. It is recommended to place it near the ventilation system.
- During operation, installation, electrical connection, commissioning, as well as repair and maintenance operations, the personnel shall comply with the applicable safety rules, standards and generally accepted technical regulations. First of all, it is necessary to use personal protective equipment (gloves), since the unit has sharp edges and corners. All connected equipment shall comply with applicable safety standards.
- It is strictly prohibited to replace or repair any individual components of the CrossStar unit, which could affect safe and proper operation of the equipment.
- Carefully read and strictly follow the instructions and recommendations provided in the following sections before installation and use of the equipment.
- Installation and commissioning of the equipment may only be carried out by qualified personnel of a specialized company authorized by the Manufacturer in accordance with applicable standards and regulations.
- Properly designed and installed air handling unit will not work efficiently unless it is not properly maintained.
- After the installation is completed, the air handling unit shall be checked (tested), adjusted in accordance with the project design and transferred to operational personnel in perfect condition and ready for operation.
- During the testing it shall be checked whether the actual fan capacity and heaters output match the ones indicated in the design.



NOTE!

- UNIT DESIGN CAN HAVE modifications that do not deteriorate its consumer properties and are not described in this manual.

- Operation and installation MANUAL for automation system is provided by the automation system supplier.

1.2. Working principles

Heat recovery units clean, heat and supply fresh air.

Extract heat from the exhaust and transfer it to the supply using a rotary recuperator with high efficiency. This is the best way to achieve high efficiency in small spaces. Due to the design of the rotor there is a constant rotation of hot exhaust and cold fresh air. Exhaust air heats the storage tank, cold air takes away heat. This allows you to recover up to 80% of the heat and humidity of the exhaust air.

Rotating regenerative devices can transfer both explicit and complete heat.

The accumulating mass of the rotor consists of aluminum foil. One corrugated strip of foil is wound in the form of a wheel in parallel with another smooth strip. Depending on the size of the wave, air ducts of different sizes are created.

2. SPECIFICATIONS

2.1. Installation design

CrossStar installations, from the 1rd to the 4th standard size inclusive, have a frameless design consisting of the metal panels filled with mineral wool.

Structural strength

Achieving by labyrinthine connection of panels and a special frame.

The panels and partitions are fastened together with screw connections. Panels with access to built-in equipment for service purposes is rarely provided are equipped with M6 handles and clamps. For the purpose of maintenance or control of the equipment (replacement of filters, fans, cleaning), on some sections doors with handles are established.

Sections in which maintenance of internal knots is carried out seldom (electric heating, section of valves, the recuperator, etc.) are equipped with removable panels.

The following panels are fastened with DSTU ISO 4762: 2006 screws.

Sealing of panels is made by a sealant of 9x7.5 mm. In the fan and filter sections (pocket or cassette) the rear panels are fixed with M6x45 screws and self-tapping screws DSTU ISO 4762: 2006.

Material of galvanized panels: galvanized steel zinc content 100g / m², corrosion resistance for the environment C2 according to ISO 14713.

Material of painted panels: galvanized steel zinc content 100g / m², polymer coating, color according to RAL 7024 (corrosion resistance RC3) corrosion resistance for environment C3 according to ISO 14713. Insulation of panels from non-combustible mineral wool 50 mm thick with a density of 50 kg / m³, heat, 0.0384 W / (m * K), water absorption with short-term partial immersion 0.25 kg / m². The joints of the panels are equipped with rubber sealing gaskets EPDM (ethylene-propylene diene-monomer), heat resistance from -40 ° C to + 65 ° C does not absorb moisture and meets the requirements of DSTU B B.2.7-242: 2010. The cracks are reinforced with a sealant that does not dissolve in water.

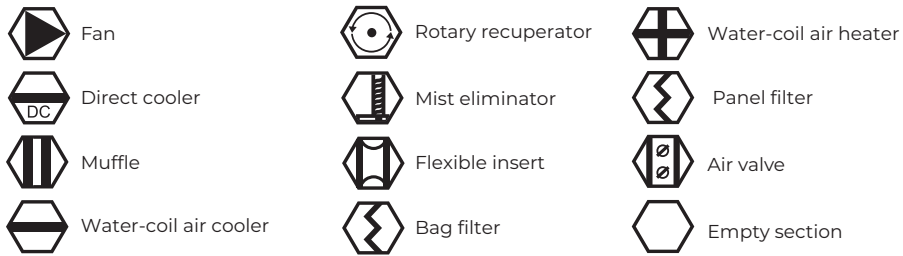
Connection side

The CrossStar design allows you to combine the side of the connection to external power sources and service space. The side is determined according to the direction of supply air flow, right or left.

Information and security

CrossStar units and individual sections are also equipped with identification marks that show the functions of the equipment, connection diagrams, supply and discharge of energy (Fig. 1). Functional modules are designed taking into account the necessary parameters:

the size of the mounting and construction slots, which simplifies the process of assembling ventilation units on site.



Signs attached to the unit (fig. 1)



The service panel of the electric heating section, individual terminal boxes and service panels that cover the electrical equipment bear warning label “Danger – Electricity”.



Rotating parts warning sign with warning notice “Danger” is located on the outside of the unit's service doors.

EC electric motor

In EC fans, the speed is regulated depending on the required load, which saves energy compared to conventional cascade on / off, and reduces noise characteristics.

High working pressure: up to 2500 Ra.

Wide range of rated voltage: 1 ~ 200..277 V or 3 ~ 380..480 V 50/60 Hz

Long service life: more than 40,000 hours = 4.5 years of continuous operation.

With efficiencies above 90%, it saves at least 30% more electricity than an AC motor.

- Complies with the ErP 2015 directive. The built-in EMC filter protects against phase loss and undervoltage.
- Protection against overheating of the motor and electronics, and also protection at blocking of a rotor.
- No high starting currents.
- Does not require service.
- The absence of a frequency converter saves installation space.
- Allows you to reduce the speed to 10%.
- It is possible to exchange data via MODBUS RTU protocol.

Option. Application of Flow technology Grid: grille-rectifier of air flow.

Innovative PVC profile case

- Powder coating on the outside and inside of the case.
- Easy and tight connection of sections.
- Reduced unit weight.
- Reduced production time.
- 50 mm thick sandwich panels made of 50 kg / m² stone wool.
- Minimization of thermal bridges.
- Valve of the increased tightness (from heating).
- Minimum energy loss per square meter of surface.
- PVC profiles are reinforced with a reinforced insert.

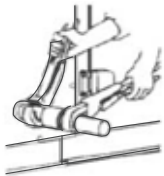
2.2. Complete set

Supplied equipment set

Title	Amount
CrossStar assembly unit	1
Installation and operation manual	1
Passport	1
Elements of instrumentation and automation (optional). Accessories according to invoices	

installation, external connection and grounding of the unit, as well as spare parts and tools are NOT included. They are provided by the client or the installation organization on the basis of the project specification.

Important	
Must trap condensate. Unit must be level to drain properly.	

Attention!	
When connecting two wrenches must be used.	

3. TRANSPORTATION AND STORAGE

3.1. Packing

CrossStar unit sections are packaged in PE film. For lifting using a crane, the holes in the support frame can be used (Fig. 2).



Packing of section (Fig. 2)

3.2. Handling operations

CrossStar units are delivered to the installation site either disassembled in transportable sections or assembled. Loading and unloading is carried out using a forklift or crane.

When lifting with crane, the unit shall be protected from damage and deformation by inserting spacers between the cable ropes.

When lifting a section without a support frame, the forks of a forklift shall be placed under the entire width of the section. When lifting a section with a support frame, the forks of a forklift shall be placed under the entire width of the section, so that the section can be lifted resting on two side members of the support frame. Before lifting, it is always necessary to slightly raise the section to determine its centre of gravity. Move the section with care.

The exception are sections with protruding service accesses (electric and gas heating, water heating with concealed connections). When being lifted and transported, these sections shall be picked up from the side opposite to the service access.

Attention: When transporting or loading, special attention shall be paid to the parts of the transport section (pipes, wiring elements) protruding from the panels.

All sections shall be transported in the position of subsequent installation



Warning!

During transportation and under a load it is necessary to pay special attention to the parts of the transport section protruding from the walls (tubes, electrical elements). All sections must be transported in the position in which they will be installed later!

The installation is transported in assembled form. The following steps should be taken during transportation:

- transport the unit is allowed only in a horizontal position;
- special attention should be paid to the prevention of mechanical damage to the protruding parts;
- the installation can be transported by any type of transport, which can ensure its safety and exclude mechanical damage, in accordance with the rules of transportation of goods operating on the transport of this type.

If the installation requires storage before installation, the following recommendations must be followed:

- do not remove the equipment from the packaging;
 - put in a horizontal position on a flat hard surface, turning over on either side can damage some components;
 - provide protection of the installation from mechanical damage;
 - cover the unit to protect it from dust, precipitation, frost, chemically aggressive environments, etc.
 - the permissible storage period of the installation depends on the environmental conditions;
- Never place heavy foreign objects on the equipment.

3.3. Transportation of the rotary recuperator

Particular attention, in terms of human safety and material protection, should be paid to the section of the rotary recuperator, which, due to its size, weight and high center of gravity, is very unstable.

It is recommended to fix the position of the rotary recuperator with ropes!

The manufacturer strongly recommends to fix the recuperator by means of correct fastening of cables if the recuperator is not disassembled!

The rotary recuperator can only be stored, transported and moved in a vertical position. Any tilt can damage the rotor mount.

If the size of the recuperator section is larger than the height of the machine, it is necessary to additionally stretch the awning.

3.4. Storage

The installation is delivered to the object packed in a heat-shrinkable film and protected by inserts from polystyrene.

Must be stored indoors where:

- max. relative humidity does not exceed 85%;
- there is no condensation of moisture;
- temperature ranges from -20 to + 40 ° C;
- dust, gases and vapors of corrosive chemicals that contribute to the corrosion of the structure and internal equipment must not enter the installation;
- installation sections can only be stored in the position in which they will be operated;
- transport sections may be installed on top of each other only if the following rules are observed:
 1. A maximum of 2 sections can be placed one on top of the other;
 2. The upper section must be without a support frame;
 3. The upper section shall in no case exceed the overall dimensions of the section on which it stands;
 4. Protective gaskets must be inserted between the sections to avoid damage;
 5. The fan section during stacking should always be placed only at the bottom;
 6. Sections of plate and rotor recuperators cannot be established on each other.

4. SECURITY MEASURES

Conditions for safe operation of the Unit shall be provided by specialized maintenance personnel that meets the requirements of: DNAOP 0.00-1.21-98 "Safety code for operation of electric installations of consumers", "Rules of technical operation of electric installations of consumers" and NAPB A.01.001-2014 "Regulation of fire safety in Ukraine".

Only persons who have read and understood this installation and operation manual and were instructed to comply with safety regulations are allowed to install and operate the unit. Before turning on the power supply, make sure that there are no damages posing risk to life and health.



Do not turn the unit on without grounding!

Unit grounding shall be carried out according to the "Electrical installation code". Connection to the ground loop is mandatory. Grounding resistance shall comply with the requirements of the "Electrical installation code". The resistance between the grounding bolt and each touchable metal part of the Unit, which may be energized, shall not exceed 0.1 Ohm.



Check the supply voltage, the integrity of the grounding conductors and the reliability of their contact with the grounding terminal (the terminals shall be cleaned)!



Unit installation shall provide free access to the service points during its operation!



The ventilation system shall be equipped with devices preventing foreign objects from entering the Unit!



Unit maintenance and repair shall be carried out only after disconnecting it from the power supply network and full stop of rotating parts.



During testing, setting up and operating the unit, the suction and discharge openings shall be protected so as to prevent injury by air flow and rotating parts!



Before turning on the unit make sure that all covers are installed and fixed!



If the ventilation unit is operated with an automation system that is not coordinated with the manufacturer, the company that installed the automation system shall be responsible for unit functionality, reliability and safety!

5. INSTALLATION

5.1. Positioning

The unit installation place shall be horizontal and have a smooth surface, which is important for the installation and proper operation of the equipment. The unit requires no special anchoring.

When positioning the unit, make sure to provide sufficient space for maintenance. This space depends on the unit configuration, i.e. on the functional sections selected (Fig. 3).

5.2. Inspection before installation

Check the following before installation: integrity of the cargo (scope of delivery according to the consignment note), the free rotation of fans, dampers, rotary recuperator, parameters of electric equipment and the connected utilities. All detected faults shall be repaired before installation.

The Equipment certificate (Passport) for the unit is stuck (and enclosed in a special pocket) onto the inner surface of the fan section door. When installing the sections, it is important to use the Equipment certificate (Passport) to position the sections in correct order.

Sections bolted together.

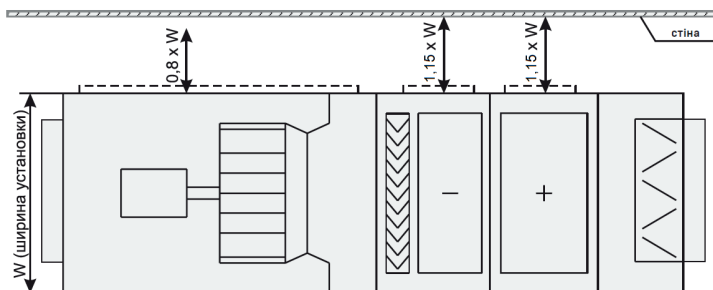
Bolted joints are located inside the section, as well as along the section frame. It is necessary to dismantle the side panels or to open the door to gain access to bolt locations. Remove the internal elements of the section (filter, heat exchanger, electric heater frame) for convenience of installation.

Ensure the following clearances from the walls to provide adequate space for maintenance:

1.) $0.8 \times \text{unit width (W)}$ = clearance between wall and unit; factor 0.8 shall be used for the following components: fan, filter, rotary recuperator.

2.) $1.15 \times \text{unit width (W)}$ = clearance between wall and unit; factor 1.15 shall be used for the following components: heater, cooler, mist eliminator, plate recuperator.

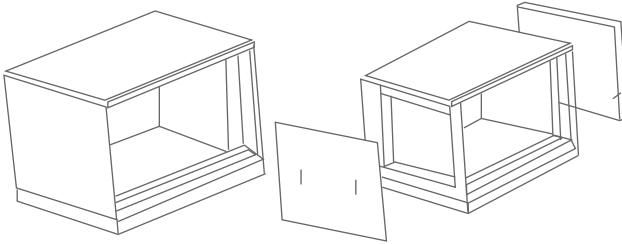
Plane view:



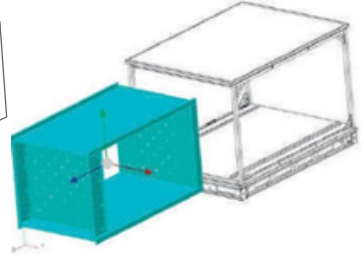
The clearance from the wall required for service maintenance (Fig. 3)

5.3. Sequence for joining unit sections and support frames

1. Remove the side panels from one of the sections to be connected, or, in case there is a door in the section, open it. Remove the internal elements of the section (filter, heat exchanger, electric heater frame) for convenience of installation. Front panels are fastened with M6x40 screws. Check integrity of the seal under the panel.



(Fig. 4)



(Fig. 5)

2. For convenience, when installing such sections as the bag and panel filters section, water and Freon heat exchangers, it is recommended to remove the component parts (filters, heat exchangers, frame with heaters) (Fig. 5).

3. Push sections to each other until their mating planes come in contact. Align sections relative to each other.

4. Join the sections using M8x25 bolts in points indicated in the figure. Place washers under the bolt head and nut. Do not install washers under the screws of special aluminium fasteners.

5. Reassemble the panels in the reverse order.

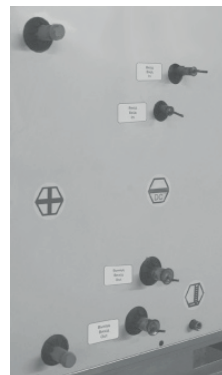
8. When installing and fix the sections together, the gaps at the joints of sections should be filled and secure to ensure a hermeticity of the unit. To perform this operation use a silicone gel sealant.

Heat exchanger connections

All power connections are performed outside the unit (Fig. 6). Internal connections are made during manufacture of the unit.

Water-medium heat exchangers

When connecting heat transfer lines, make sure the loads from the lines are not transferred to the unit.



Power connections (Fig. 6)

5.4. Water heat exchangers connections

To achieve maximum efficiency, the heat exchanger shall be connected reversely. When connecting the fittings, tighten them using two wrenches in order to avoid rotating the manifold connection. Water-coil heat exchangers of all coolers are connected by means of external thread CI. The maximum allowable pressure is 1.5 MPa.

The cooler is tested for tightness by the Manufacturer by applying compressed air at a pressure of 2 MPa for 5 minutes under water.

After connection of the heat exchangers and mixing valves it is necessary to water-pressurize and remove air from the system, check tightness of the connections and the heat exchanger itself, including inspection inside the unit section.

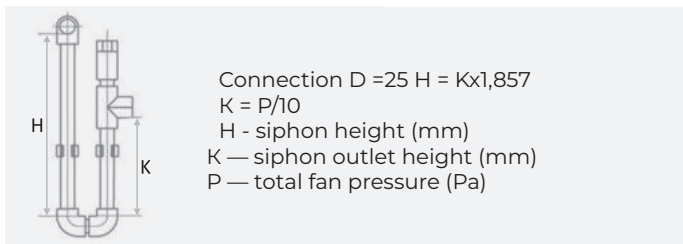
The Manufacturer does not accept claims for damage caused by spills due to leaks in the connections or damage to the heat exchanger. It should be noted that frequent change of water in the water heating system leads to accelerated corrosion of pipelines due to oxidation by atmospheric oxygen contained in fresh tap water. Besides, the same air, when trapped in the heating system during heat exchangers connection, may block water circulation in certain parts of the system.

Condensate drain

In the sections of cooling, plate recuperator and steam humidification, condensate collectors are installed, equipped with a drain for connecting the condensate drain system (Fig. 7), which is supplied separately. Each section is equipped with a separate system. The siphon height depends on the total fan pressure and ensures its proper operation. The siphon shall be selected according to the fan pressure. If the siphon height is bigger than the frame height, it is recommended to provide legs with a height of 150 mm under the frame. The legs can be ordered from the Manufacturer as a separate item.

Before starting and after long downtime of the equipment, it is necessary to fill the siphon with water.

The siphon can be equipped with an anti-odour valve and a ball valve (with negative pressure). Such siphon shall not be filled with water before start of operation.



Condensate drain (Fig. 7)

6. ELECTRICAL CONNECTIONS

The wiring and connection diagram is separately attached with this document. Wiring and connection of instrumentation and automation components shall be performed by qualified personnel authorized to install this type of equipment. The connection shall meet the requirements of applicable regulations. Before starting, an initial check of the electrical equipment shall be carried out.

Check the following before connection:

- mains voltage, frequency, and protection shall agree with the data indicated on the nameplate of the section to be connected;
- cross-section of cables used for wiring.

6.1. Electrical requirements

Electrical connections shall be performed with due consideration of the following recommendations:

- The units shall be designed in accordance with the Electrical Installation Code (PUE).
- Resistance between the grounding terminal and each accessible metallic current-conducting component of the unit that may get energized shall not exceed 0.1 Ohm.
- Use the necessary protective equipment during wiring.
- Technician performing the electrical wiring shall have the required permit for high-voltage operations.

7. OPERATION

8.1. Commissioning

Installation of the unit, its connection to the mains and grounding, adjustment and testing must be carried out by qualified personnel of a specialized organization in compliance with all safety rules during installation and operation.

Particular attention should be paid to compliance with electrical safety requirements during installation and commissioning.

Installation must be carried out in accordance with the requirements of DSTU B A.3.2-12: 2009, DSTU-N B B.2.5-73: 2013, design documentation and installation instructions.

During operation of the installation should be guided by the requirements of DSTU B A.3.2-12: 2009 and this manual for installation and operation.

Before installation and connection it is necessary to fulfill all requirements of experts of the power supply organization and to receive the permission for connection to the power supply network. The worker who starts the installation is obliged to take measures in advance to stop all work on the installation (assembly, cleaning, etc.), as well as to make sure that there are no tools and other foreign objects inside the installation, and to inform the personnel about the start-up. The unit must be mounted on a hard and stable surface.

Connect the air ducts following the instructions on the unit housing.

7.2. Maintenance

The CrossStar installations is noted for a high degree of reliability. For effective operation of the equipment, regular maintenance is required. Maintenance shall only be carried out by experienced and qualified professionals. Before starting maintenance or repair, make sure that the unit is disconnected from the power supply and any mechanical movement is stopped.

8. ROUTINE MAINTENANCE RECOMMENDED BY THE VENTSERVICE COMPANY SERVICE DEPARTMENT FOR AIR HANDLING UNITS

Once per month:

1. External inspection of equipment, checking of fastenings, fences and air handling unit structures;
2. Phase power check (voltage imbalance check, flow imbalance check);
3. Condition monitoring and cleaning (replacement) of air filters;
4. Checking the electric actuators of regulating and stop valves;
5. Control and recording the status of automation and instruments readings;
6. Checking the vibration isolation supports;
7. Water pump maintenance;
8. Unit drainage system operation check and cleaning the drainage if necessary;
9. Checking the heat exchanger status;

Once per quarter:

1. It is recommended to replace the filters every 3-4 months
2. Checking t power and control circuits of the Equipment and tightening the threaded connections if necessary;
3. Control and check-out of the three-way valve of the water air heater;
4. Control and check-out of the three-way valve of the water air cooler;
5. Lubrication of inlet-air handling bearings;
6. Drive belts checking and tensioning;
7. Checking and centring the impeller on the shaft;
8. Removing plaque from the impeller;
9. Tightening the damping springs at the base of the fan motor;
10. Checking the flexibility and strength of fasteners;

Once per 6 months:

Inspection is recommended to be conducted at least once per 6 months. Disconnect the fan from the unit. Inspect the fan impeller carefully. Dust or other contaminants can disrupt the impeller balancing. Do not use high-pressure jets, abrasives, sharp objects or aggressive solvents that could scratch or damage the fan impeller to clean it. Do not immerse the impeller in liquid! Put the fan back into the unit and connect it to the mains.



Warning!

If the installed fan does not turn on or the thermal protection contacts are activated - contact the manufacturer!

Carefully remove the cartridge, immerse it in a tank with warm water and soap (do not use soda!). Rinse with a mild hot water (too much pressure can deform the plates). Put a completely dry heat exchanger back into the unit. To ensure high drainage efficiency, close the windows and the doors in the room. Windows and doors shall be opened only for air change. Use only the designated tools for maintenance and repair. Drainage system. Once per month check the operation of the unit drainage system. If necessary, clean the drainage and drainage siphons.

9. WARRANTY TERMS

9.1. Conditions warranty period

The warranty period for the equipment makes 36 calendar months from the date of shipment of the Equipment.



The Supplier shall independently decide on replacement of the failed equipment components.

The warranty period for the equipment components is to be extended for the period when the repair activities prevented its normal operation.

9.2. Warranty exclusions

- Parts of equipment and maintenance materials subject to normal physical wear (filters, gaskets, V-belts, electric lamps, fuses, etc.).
- Defects of the equipment that arose due to reasons, which are not defined by the properties and characteristics of the equipment under warranty.
- Damage to the equipment caused by environmental effects, transportation, and improper storage by the Buyer, any mechanical damages and breakdowns resulting from unsatisfactory operation and maintenance or non-compliance with recommendations and requirements of the technical and operational documentation (hereinafter referred to as TOD).
- Any modifications, changes in operating parameters, reconstruction, repair and replacement of parts of equipment not agreed with the Supplier.
- Routine maintenance, equipment inspections, configuration and programming of the controllers shall be carried out in accordance with the requirements of TOD in regard to normal functioning of the equipment.
- Losses caused by downtime of the equipment during warranty service waiting or any damage caused to Buyer's property, except for equipment under warranty.

9.3. Warranty services

1. Work under this warranty is carried out within 14 days from the date of filing the complaint.

In some cases, this period is extended, in particular when it takes time to deliver parts or when the service is unable to work on site.

2. Parts that service personnel dismantle from the installation as part of warranty repairs and replace with new ones are the property of the manufacturer.

3. Costs arising from unfounded complaints or due to a break in service work at the request of the complainant shall be borne by the complainant.

Repairs are priced according to the price for the service set by the distributor or the manufacturer.

4. The manufacturer has the right to refuse to perform warranty work or maintenance if the customer delays payment for equipment or for previous service work.

5. The client must assist the service staff in carrying out repair work at the location of the equipment, namely:

- a) prepare in due time access to the installation and to the documentation;
- b) ensure the protection of the service department and its property, as well as compliance with all requirements of labor protection and safety at the place of work;
- c) create conditions for the rapid start of work, immediately after the arrival of service workers, and their implementation without any obstacles;

d) provide free necessary assistance for the work, for example, provide lifts, free sources of electricity.

6. The customer is obliged to accept the performed warranty work immediately after their completion.

10. INFORMATION ABOUT COMPLAINTS

- Acceptance of products is carried out by the consumer in accordance with the «Instructions on the procedure for acceptance of products for industrial and technical purposes and consumer goods by quality.»
- If a quality discrepancy is found, the consumer is obliged to send a complaint to the distributor, which is the basis for resolving the issue of legality of the bearer's claim. A list of distributors and their contact information can be found at aerostar-vent.com.
- Complaints to the distributor should be submitted in writing. Complaints by fax or e-mail are allowed.
- The complaint must contain: ORDER NUMBER! If possible: type, serial number and date of transfer of the installation, installation addresses, telephone numbers and full name. responsible person.
- The complaint should also include a description of the installation problems as well as (if possible) the names of the damaged parts.
- If the client violates the rules of transportation, acceptance, storage, installation and operation, quality claims are not accepted.

11. COMMISSIONING PROTOCOL

COMMISSIONING PROTOCOL			
unit type		object	
serial number		address	
manufacturer		date	
customer			
EQUIPMENT OPERATION PARAMETERS			
supply voltage, V	according to the certificate		actual values
inlet fan motor current, A			
exhaust fan motor current, A			
inlet air flow rate, m ³ /h			
exhaust air flow rate, m ³ /h			
compressor (compressors) current, A (*optional)			
AUTOMATION TESTING			
shut down in case of fire		outdoor temperature sensor	
phase control relay		inlet air temperature sensor	
air heater freezing risk		exhaust air temperature sensor	
recuperator freezing risk		indoor air temperature sensor	
electric air heater overheating		heat conductor temperature sensor	
humidity transducer		inlet damper servomotor	
humidistat		exhaust damper servomotor	
circulation pump		recirculation damper servomotor	
remote control		recuperator damper servomotor	
cooling unit failure		fan differential pressure sensors	
heater valve servomotor		filter differential pressure sensors	
cooler valve servomotor		rotary recuperator rotation	
cooling unit start		rotary recuperator fault	
AIR PREPARATION PROCESSES CONTROL			
heating		recovery	
cooling		humidification	
recycling		dehumidification	
PREPARED BY		CONFIRMED BY	
FULL NAME		FULL NAME	
position		position	
company		company	
signature		signature	

12. ACCEPTANCE CERTIFICATE

The CrossStar ventilation unit is manufactured in accordance with the Order. It has passed acceptance tests. Based on the results, it meets the requirements of technical specification TU U 28.2-35851853-002:2013 and is considered to be operational.

Production date “___” _____ 202__

Controller

Signature _____ Seal

13. QUALITY CERTIFICATES

Form QAT_10-M05, version 00, effective since March 25th, 2020

Certificate of Compliance

No. 0D220131.VS0Q45



Certificate's
Holder:

«Vent-Service» LLC
Office 230, 95 (A2) Vidradnyi avenue
Kyiv, 03061, Ukraine

Certification ECM
Mark:



Product:
Model(s):

Air Handling Units
(see the following annex)

Verification to:

Standard:
EN 60335-1:2012/A13:2017,
EN 60335-2-80:2003/A2:2009,
EN 60204-1:2018, EN 55014-1:2017/A11:2020,
EN 55014-2:1997/AC:1997,
EN 61000-3-2:2014, EN 61000-3-3:2013

related to CE Directive(s):
2006/42/EC (Machinery)
2014/35/EU (Low Voltage)
2014/30/EU (Electromagnetic Compatibility)

Remark: This document has been issued on a voluntary basis and upon request of the manufacturer. It is our opinion that the technical documentation received from the manufacturer is satisfactory for the requirements of the ECM Certification Mark. The conformity mark above can be affixed on the products accordingly to the ECM regulation about its release and its use.

Additional information and clarification about the Marking:



The manufacturer is responsible for the CE Marking process, and if necessary, must refer to a Notified Body. This document has been issued on the basis of the regulation on ECM Voluntary Mark for the certification of products. RG01_ECM rev.3 available at: www.entecerma.it

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Reviewer
Technical expert
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ДЕКЛАРАЦІЯ ПРО ВІДПОВІДНІСТЬ

1. Модель апаратури/виріб

Установки вентиляційного типу: GlobalStar (GS3-100), GreenSTR (3-25), SkyStar (1, 2, 4, 2(450), 4(450)), CrossStar (CS1-4), CrossStar mini X (500, 750, 1000), CrossStar mini XV (500, 750, 1000), EcoStar mini X (500, 750, 1000), EcoStar mini XV (500, 750, 1000), SlimStar (250, 500, 750, 1000, 1500, 2000, 2500, 3000), SlimStar PAP (500,1000), SkyStar mini (250, 500, 750, 1000), PoolStar (3-63), PoolStar compact, DryStar, TopStar, RoofStar, з функцією вентиляції, код ДКПП 28.25.12-50.00, код УКТЗЕД 8415

(номер виробу, тип, номер партії чи серійний номер агрегату та/або шифри)

2. Найменування та адреса виробника або його уповноваженого представника

ТОВ «ВЕНТ – СЕРВІС» код ЄДРПОУ 35851853, Україна, 03061, м. Київ, проспект Відродіння, 95 (літ.Б2).

3. Ця декларація видана під відповідальність виробника

4. Об'єкт декларації:

Установки вентиляційного типу: GlobalStar (GS3-100), GreenSTR (3-25), SkyStar (1, 2, 4, 2(450), 4(450)), CrossStar (CS1-4), CrossStar mini X (500, 750, 1000), CrossStar mini XV (500, 750, 1000), EcoStar mini X (500, 750, 1000), EcoStar mini XV (500, 750, 1000), SlimStar (250, 500, 750, 1000, 1500, 2000, 2500, 3000), SlimStar PAP (500,1000), SkyStar mini (250, 500, 750, 1000), PoolStar (3-63), PoolStar compact, DryStar, TopStar, RoofStar, з функцією вентиляції, код ДКПП 28.25.12-50.00, код УКТЗЕД 8415

Виробник: ТОВ «ВЕНТ – СЕРВІС» код ЄДРПОУ 35851853, Україна, 03061, м. Київ, проспект Відродіння, бул. 95 (літ.А2), офіс 230

(ідентифікація апаратури, яка дає змогу забезпечити її простежуваність, може включати кольорове чи чорно-біле зображення у разі потреби для ідентифікації зазначеної апаратури)

5. Об'єкт декларації відповідає вимогам відповідних технічних регламентів:

- Технічного регламенту низьковольтного електричного обладнання (ПКМУ № 1067 від 16.12.2015 р.)
- Технічного регламенту з електромагнітної сумісності обладнання (ПКМУ № 1077 від 16.12.2015 р.)

6. Посилання на відповідні стандарти, включені до переліку національних стандартів, що були застосовані (із зазначенням дат видання стандартів), або посилання на інші технічні специфікації (із зазначенням дат видання специфікації), стосовно яких декларується відповідність:

ДСТУ EN 60335-2-80:2015, ДСТУ EN 55014-1:2019, ДСТУ EN 55014-2:2017, ДСТУ EN 61000-3-2:2016, ДСТУ EN 61000-3-3:2017, ДСТУ EN 60204-1:2019

7. Додаткова інформація:

Технічна документація виробника, протокол випробувань № Т062304/22 від 23.06.2022 р.

Підписано від імені та за дорученням:

ТОВ «ВЕНТ – СЕРВІС» код ЄДРПОУ 35851853, Україна, 03061, м. Київ, проспект Відродіння, бул. 95 (літ.А2), офіс 230.

Директор

(підписування посади)

23.06.2022 р.

(дата)

Сергій АНЦУПОВ

(прізвище, ім'я та по батькові)

Декларація про відповідність є частиною комплексу документів згідно з вимогами ДСТУ EN 60335-2-80:2015, ДСТУ EN 55014-1:2019, ДСТУ EN 55014-2:2017, ДСТУ EN 61000-3-2:2016, ДСТУ EN 61000-3-3:2017, ДСТУ EN 60204-1:2019. Декларація діє на умови використання продукції, чи упаковки.

UA.TR.YT.D.062303-22

23.06.2022 р.

(дата вжиття на виробі)

22.06.2024 р.

(термін дії об'єкту)

Завідуючий сектору сертифікації
оцінки відповідності продукції

Анна КУРОЧКИНА

Листівність декларації можна переглянути за тел +38 056 744 30 14
+38 050 486 22 92

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