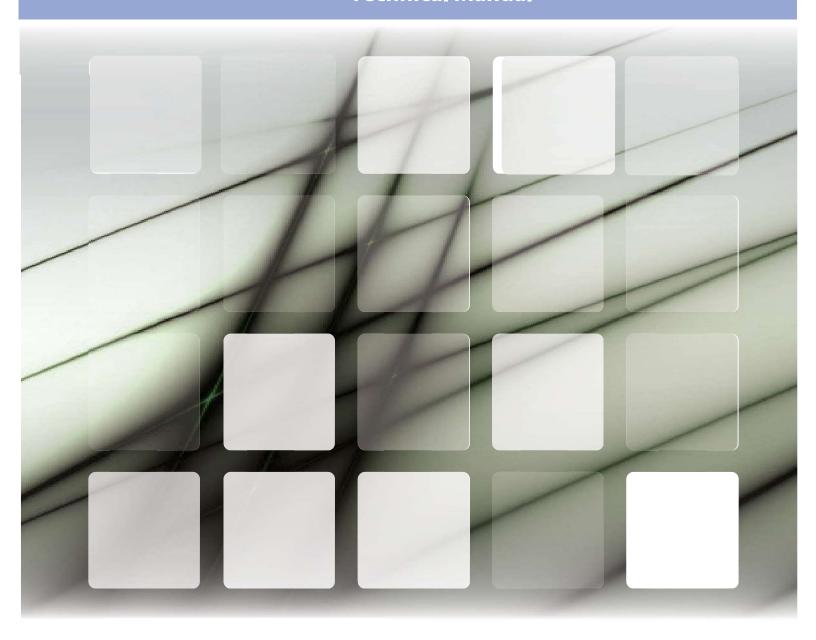




**ERVR Series**Mini-Split Energy Recovery Ventilator **Technical Manual** 

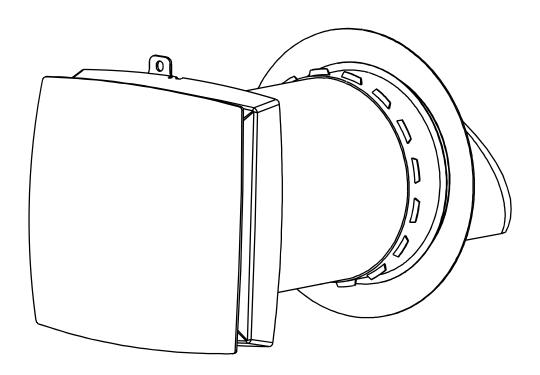






# CONTENT

1. Safety Requirements	1
2. Introduction	3
3. Technical Manual	4
3.1 Main Technical Parameters	4
3.2 Ventilator Overall Dimensions	4
3.3 Technical Data	5
4. Working Principle	6
4.1 Cold Environment	6
4.2 Hot Environment	7
5. Applications	7



### 1. Safety Precautions

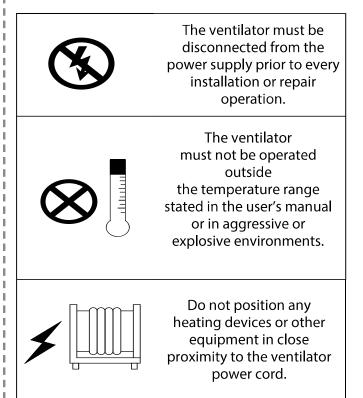
#### **SAFTY REQUIREMENTS**

- Read the user's manual carefully before the operation and installation of the heat recovery ventilator AA-TTW6
- Installation and operation of the ventilator shall be performed in accordance with the present user's manual as well as the provisions of all the applicable local and national construction, electrical and technical codes and standards.
- The warnings contained in the present user's manual must be considered seriously since they contain vital personal safety information.
- Failure to follow the safety regulations may result in an injury or ventilator damage.
- Read the manual carefully and keep it as long as you use the ventilator.
- While transferring the ventilator control the user's manual must be turned over to the receiving operator.

#### SYMBOL LEGEND USED IN THE MANUAL:



#### **VENTILATOR MOUNTING SAFETY PRECAUTIONS**



### 1. Safety Precautions



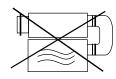
Do not use damaged equipment or conductors to connect the ventilator to power mains.



While installing the ventilator follow the safety regulations specific to the use of electric tools.



Unpack the ventilator with care.

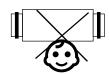


Use the ventilator only as intended by the manufacturer.

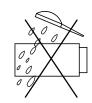
**VENTILATOR MOUNTING SAFETY PRECAUTIONS** 



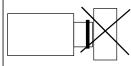
Do not touch the controller or the remote control with wet hands. Do not carry out the ventilator maintenance with wet hands.



Do not let children operate the ventilator.



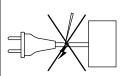
Do not wash the ventilator with water. Protect the ventilator electric parts from water ingress.



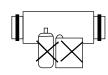
Do not block the air duct when the ventilator is on.



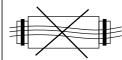
Disconnect the ventilator from power supply before maintenance.



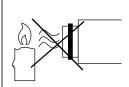
Do not damage the power cable while operating the ventilator. Do not put any objects on the power cable.



Keep explosive and inflammable products away of the ventilator.



Do not open the operating ventilator.



Do not let air flow from the ventilator be directed to the open flame devices or candles.

#### **INTRODUCTION**

This user's manual includes technical description operation, installation and mounting guidelines, technical data for the heat recovery ventilator AA-TTW6.

#### **USE**

- The ventilator is designed to arrange permanent controllable air exchange in apartments, villas, hotels, cafes and other domestic and public buildings. The ventilator is equipped with a ceramic heat exchanger that enables supply of fresh air and extract air with heat energy recovery.
- The ventilator is designed for through-the-wall mounting. The telescopic ventilator design enables its installation in the walls from 230 mm to 420mm thickness for the ventilator AA-TTW6.
- The ventilator is rated for continuous operation always connected to power mains.
- Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, coarse dust, soot and oil particles, sticky substances, fibrous materials, pathogens or any other harmful substances.



BE USED BY CHILDREN PHYSICAL BE USED BY CHILDREN PHYSICALLY OR MENTALLY DISABLED PERSONS, PERSONS WITH SENSORY DISORDER, PERSONS WITH NO APPROPRIATE QUAUFICATIOH.

INSTALLATION AND CONNECTION OPERATIONS MUST BE PERFORMED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE SAFETY BRIEFING. THE VENTILATOR INSTALLATION SITES MUST PREVENT ACCESS BY UNATTENDED CHILDREN.

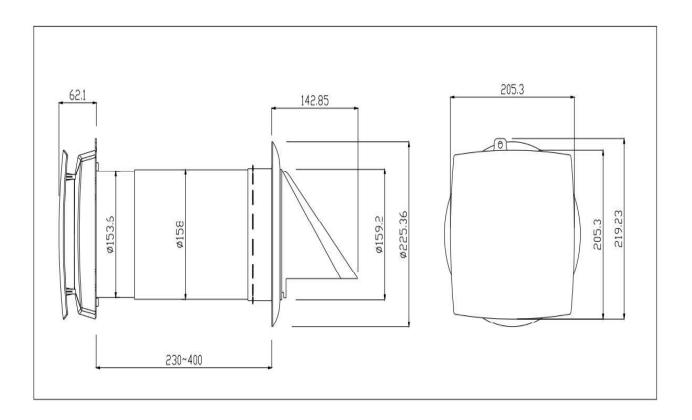
#### **DELIVERY SET**

Ventilator	1
Accessories bag	1
Remote controller	1
User's manual	1
Packing box	1

#### **MAIN TECHNICAL PARAMETERS**

- The ventilator is designed for indoor application with the ambient temperature ranging from-20°C (-4F) to +50°C (+122F) and relative humidity up to 80%.
- The ventilator is classified as a class I electric appliance.
- Ingress Protection (IP) rating from solid objects and liquids IP22.
- The ventilator design is regularly improved, so some models may slightly differ from those ones described in this manual.

#### **VENTILATOR OVERALL DIMENSIONS (MM)**



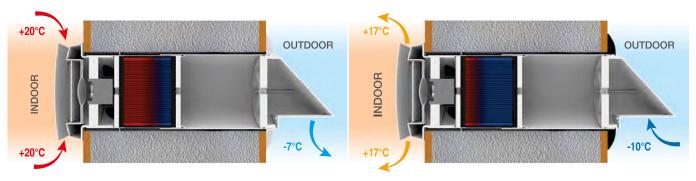
#### **Technical Data**

Voltage	220-240V
Frequency	50/60Hz
Input Power	11W
Current	0.08A
RPM	2000(ma)
Airflow (L/M/H)	20/42/64ms/h
Noise	36.7dB(A)
Regeneration Efficiency	92%
Ingress Protection Rating	lp22
Air Duct	158mm
SEC	Class A
Mounting	Wall Mounting
Weight	3.4kg

# **Working Principle**

The reversible operation of the ventilator enables energy regeneration and consists of two cycles:

#### When it is cold outside:

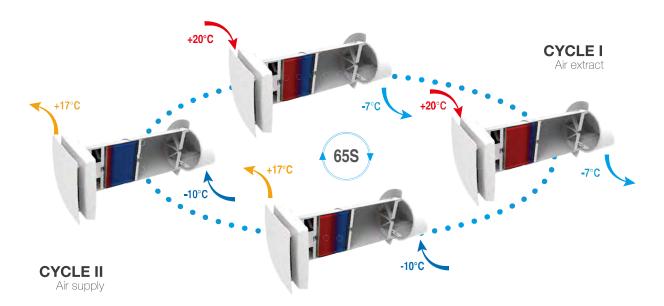


#### **CYCLE I**

The polluted warm air is extracted from the room and while passing the ceramic energy regenerator, the recuperator will absorb the heat and moisture. In 65 seconds, as the energy regenerator gets warmed, the ventilator automatically switches to the supply mode.

#### **CYCLE II**

The fresh, but cold outdoor air flows through the heat regenerator and absorbs the accumulated heat and moisture so that the temperature of supply air flow will close to the room temperature. In 65 seconds, when the energy regenerator gets cold, the ventilator switches to the air extract mode. The cycle starts from the beginning.



### When it is hot outside:



#### CYCLE II CYCLE II

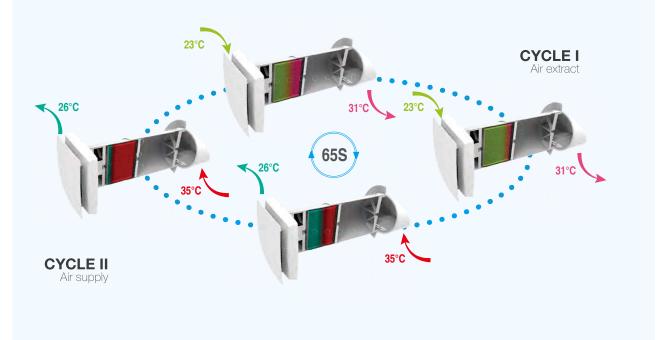
The cold stale air is extracted and while passing the ceramic energy regenerator, the recuperator will be cooled. In 65 seconds, the ventilator automatically switches to the air supply mode.

Filter removes dust and insects from the air.

Fresh warm outside air passes through the regenerator and the recuperator becomes cool due to the cold accumulated in it.

**OUTDOOR** 

Filter removes dust and insects from the air. The cycle starts from the beginning.



26°C

INDOOR

# **Applications**

The ventilator is designed to ensure continuous mechanical air exchange in houses, offices, hotels, cafes, conference halls and other residential and public premises. The ventilator is equipped with a ceramic heat exchanger that enables supply of fresh filtered air heated by means of extract air heat regeneration. The ventilator is designed for through-the-wall mounting and is rated for non-stop operation. Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).







17702 Mitchell North, #101 Irvine, CA. 92614.USA Tel: 714 795 2830 Fax: 714 966 1646 info@otecomega.com www.otecomega.com



#### **Showroom & Technology Center**

11380 Interchange Circle North Miramar,FL 33025 .USA Tel: 305 901 1270 Fax: 954 212 8280 info@omegainverter.com www.omegainverter.com

ERVRA0N-TM1H0722