

# PICO 100 LOCAL VENTILATION WITH HEAT RECOVERY



www.orcaenergy.eu

### **PICO 100**

Device for heat recovery PICO100, is suitable for both, renovated and newly constructed buildings. This simple and effective solution brings freshness into your home. Reduce the heating costs and say goodbye to mould.

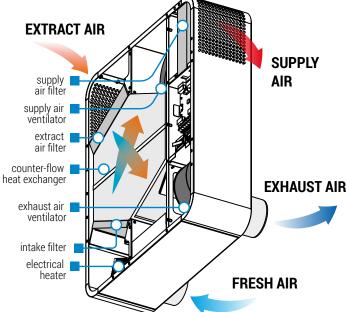
#### MAIN ADVANTAGES

- EC fans
- Bulit-in 600 W preheater enables operation up to -25 °C
- three different fan speeds
- less energy-consumption because of EC fans
- enthalpic membrane enables that a part of moisture is returned back to the room
- counter-flow heat exchanger enables better efficiency
- bulit-in control panel + remote control
- optionally: connection of the bathroom extract duct
- constant operation
- easy installation

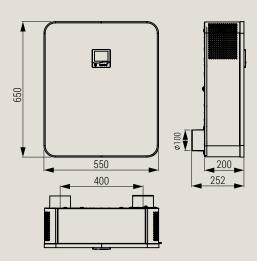
The unit is designed to ensure continuous mechanical air exchange in houses, offices, cafes, hotels, conference halls and other utility and public spaces as well as to recover the heat energy contained in the air extracted from the premises to warm up the filtered steam of supply air.

### DEMONSTRATION OF UNIT OPERATION

PICO100 unit operates continuously.

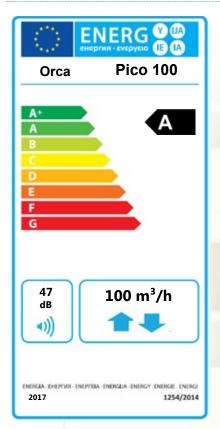


	PICO 100						
Specific energy consumption (SEC), kWh/(m².a)	Cold		Average		Warm		
	-78,7	A+	-40,3	A	-15,6	E	
Type of ventilation unit	Bidirectional						
Type of drive installed	Variable	Variable speed (3 stages)					
Type of heat recovery system	recupera	recuperative with enthalpic membrane					
Thermal efficiency of heat recovery, %	96		92		87		
Maximum flow rate, m <sup>3</sup> /h 100	30		60		100		
Electric power input, W	12		21		45		
Sound power level, dB(A)	47						
Reference flow rate, m <sup>3</sup> /s	0,017	0,017					
Reference pressure difference, Pa	N/A						
Specific power input (SPI), W/(m³/h)	0,35						
Control typology	local demand control, wireless IR controller						
Maximum internal leakage rates, %	0,1						
Maximum external leakage rates, %	0,9						
Mixing rate of bidirectional units, %	20	20					
Airflow sensitivity at +20 Pa and -20 Pa	0,930000	0,9300000					
The indoor/outdoor air tightness, m3/h	7	7					
The annual electricity consumption (AEC),	Cold		Average		Warm		
kWh electricity/a	7,9		2,5		2		
The annual heating saved (AHS), kWh	Cold		Average		Warm	_	
primary energy/a	89,6		45,8		20,7		



Possibility of air recovery in the bathroom.





### **COST-EFFECTIVE**

Ventilation systems of the individual rooms are ready-to-use ventilation devices, continuously supplying fresh air, cleaning the air, and at the same time removing the exhaustion air from your rooms.

### **ENERGY EFFICIENT**

According to sustainable heat losses in every home, this technology for heat recovery is highly economical and modern.

### **DIVERSE**

Ventilation devices are individual and useful in every phase of the projects, either when planning the ventilation equipment for new buildings, including post-fitting, as well as when renovating old buildings, or buildings, for which the central ventilation is economically inappropriate.

## **HIGHLY EFFECTIVE**

Efficiency of heat recovery with ventilation devices is very high, up to 90 %. In addition a part of moisture can be returned back to the room.

## EASY AND COMFORTABLE

Ventilation systems have a compact size and do not require separate connecting elements or air lines. They are ready for immediate use.

## ORCA HEATS AND COOLS MORE THAN 15.000 HOMES ALL OVER EUROPE

Orcas are social beings that take exemplary care of their families. They seem so similar to humans in their behaviour, that even some tribes believed they were actually human spirits, trapped in these wonderful creatures. Orcas are not susceptible to cold or heat. They create a home for themselves in the extreme frost of the arctic sea and in the tropical waters near the equator. No matter the cold, they hunt there, socialize and love each other there.

#### FREEDOM

You and your family would also like to be this independent from climate circumstances. This includes financially, right? We share those wishes and values with the orcas in our company and have thus proudly dubbed ourselves with the name of this free sea creature.

#### QUALITY

We have collected the finest experts from the field of efficient heating in our development laboratory and have simultaneously devised a production of heating and cooling systems that, due to progressive technology and precise realization, leaves practically no room for errors. We realize that the purchase of our heating or cooling product is a long-term investment and that is why we keep a longstanding lifespan in mind from the first design to the final product.

#### ENVIRONMENT

The use of green energy sources, used also in our products, represents a responsibility to the natural environment: the kind around us directly and the one distant, global. Together, we will make a small step towards ending climate change which endanger both humanity and the oceans, thus also endangering the orcas- our symbol.

Your vendor