



# TECHNICAL DATA





			A+
UNIT	VERSION	CLASS	A
	ANALOGIC	A	В
AURA I	ELECTRONICS	А	C
	ANALOGIC	А	E
AURA Z	ELECTRONICS	A	F
		1	0

# AURA/AURA evo



HEAT RECOVERY VENTILATION UNITS for RESIDENTIAL BUILDINGS



#### AURA

It is a unit for decentralized Mechanical Ventilation with heat recovery that does not require the construction of an air distribution ducting system and diffusers. The unit uses a regenerative heat exchanger (ceramic exchanger). There are two flow sizes: size 1 with a nominal capacity MAX 24 m<sup>3</sup> / h, size 2 with a nominal capacity MAX 50 m<sup>3</sup> / h. The operation mode can be ANALOG or ELECTRONIC.

#### AURA - ANALOG VERSION

- Analogue control to manage up to 4 base modules mode combined
- 230V 50 Hz power supply -> 12 VC available as an accessory; can power up to 4 units
- Design panel, size 140 x 34 x 85 (h) mm
- Degree of protection IP 22

#### FAN function (speed)

- The speed change function MAX / MIN / OFF (OFF)

#### CYCLE function (mode)

- Manual operation: IN = single entry, OUT = only extraction
- Automatic operation AUTO: activation of Cyclic extraction /air inlet, with adjustable cycles (35 ÷ 200 sec.) according to the difference between indoor and outdoor temperature (AT)

#### AURA evo - ELECTRONIC version

- Combinations: 1 MASTER and up to 12 SLAVE

#### Unit MASTER

- Power supply 230-Volt 1-phase 50Hz (power supply on board the machine)
- Serial remote control

#### Unit SLAVE

- Flow direction: configurable like as unit Master or the other
- by remote control (several tens of meters from the master unit)
- only power supply (cabling is not required)

#### Function FAN (Unified for all units, master and slave) - Speed function: MAX / INTERMEDIATE / MIN / OFF

#### CYCLE function (Operation mode, separate from speed)

- manual operation: IN = only input OUT= only extract
- automatic operation AUTO:
- . sensor T (external) on the master unit, to avoid introducing air too cold
- . check T and U.R. every 12 hours to optimize the cycle duration (35  $\div$  200 sec.) And have the best possible efficiency

- . U.R. sensor on master and slave = MAX speed releases from "Nominal" on the basis of humidity detection
- "Nominal" with light off
- . night operation (SLEEP): minimum flow/maintenance (e.g. absence several days)
- . flow direction configurable (as MASTER unit or opposite to)

#### - COMPLETE

All AURA units have every component for its functioning and are ready for use

#### - SIMPLIFIED INSTALLATION

The installation kit complete with every component for fast and easy installation in new or existing homes

#### - VENTILATION

Brushless axial fan with electronic motor Erp-2015. High efficiency and low noise levels

#### - FILTRATION

Filter Coarse 45% (ex G3) with low load loss, easily removable for maintenance from the front side of the unit

#### - STRUCTURE

Structure made of ABS plastic anti-static and protected against UV rays.

#### - HEAT EXCHANGER

Heat exchanger with alternating flow rigenerating operation. Made of ceramic with high heat exchange efficiency and low pressure loss

#### - OUTDOOR GRILL FOLDING (standard)

Standard: outdoor foldin grill Ø 190 mm; easy installation even from the inside (no need external structure). On request: external design grid with best anti-weathering function







# AURA 1

# HEAT RECOVERY PERFORMANCE (sensible efficiency)

Values refered to the following conditions (UNI EN 13141-7): Tbs external air 7°C; U.R. esternal 72 %; Tbs environment 20°C; U.R. environment 28% N.B. – flow efficiency values "in the cycle", that is, considering the fan stopping time for inversion of the direction of travel



# AURA 2

# HEAT RECOVERY PERFORMANCE (sensible efficiency)

Values refered to the following conditions (UNI EN 13141-7): Tbs external air 7°C; U.R. esternal 72 %; Tbs environment 20°C; U.R. environment 28% N.B. – flow efficiency values "in the cycle", that is, considering the fan stopping time for inversion of the direction of travel

Speed (nr.)	1	2	3
Air flow (m <sup>3</sup> /h)	12	20	38
Efficiency (%)	85,5	82	77



Air flow (m³/h)



## ELECTRICAL DATA

# FANS

# Axial DC brushless Fans (data refer to the norm UNI EN 13141-8)

UNIT	SPEED NUMBER	NOMINAL AIR FLOW (m³/h)	AIR FLOW IN CYCLE (m³/h)	SPEED AIR FLOW (m³/h)	AIR FLOW SPEED CYCLE (m³/h)	AIR FLOW NIGHT* (m³/h)
AURA 2 ANALOGIC	2	50	38	50/25	38/20	-
AURA 2 ELECTRONIC	3	50	38	50/25/15	38/20/12	10
AURA 1 ANALOGIC	2	24	18	24/12	18/9	-
AURA 1 ELECTRONIC	3	24	18	24/12/8	18/9/6	5

(\*) - funzione SLEEP

### **REGENERATIVE EXCHANGE**

Heat exchanger (data refers to UNI EN 13141-8) Inside Temp. 20°C - indoor humidity 28% - outside Temp. 7°C - outdoor humidity 72%

	AURA 2 ANALOGIC	AURA 2 ELECTRONIC	AURA 1 ANALOGIC	AURA 1 ELECTRONIC
RECOVERY EFFICIENCY (%)	77	77	79	79

#### FILTERS

	AURA 2 ANALOGIC	AURA 2 ELECTRONIC	AURA 1 ANALOGIC	AURA 1 ELECTRONIC
FILTRATION CLASS	G3	G3	G3	G3

# ACOUSTIC DATA (At different speeds)

(data refers to UNI EN 3741)

	AURA 2 ANALOGIC	AURA 2 ELECTRONIC	AURA 1 ANALOGIC	AURA 1 ELECTRONIC
SOUND POWER Lw dB(A)	44/38	44/38/29	39/37	39/37/34
SOUND PRESSURE at 1 mt dB(A)	32/26	32/26/18	28/26	28/26/23

Noise tested inside the room

# ELECTRICAL DATA

Supply voltage 230/1/50 Hz

	AURA 2 ANALOGIC	AURA 2 ELECTRONIC	AURA 1 ANALOGIC	AURA 1 ELECTRONIC
ABSORBED POWER (W)	2,8	2,8	2	2
ABSORBED POWER (A)	0.018	0.018	0.0087	0.0087
DEGREE OF PROTECTION (IP)	X4	X4	X4	X4

# DIMENSIONS

	AURA 2 ANALOGIC	AURA 2 ELECTRONIC	AURA 1 ANALOGIC	AURA 1 ELECTRONIC
MASK INTERNAL (mm)	180x180	180x180	180x180	180x180
PVC DUCT DIAMETER (mm)	160	160	100	100
DUCT DEPTH (mm)	Min 240/ Max 530	Min 240/ Max 530	Min 240/ Max 530	Min 240/ Max 530

# NOISE REDUCTION

NOISE REDUCTION (insertion loss) compared to external noise							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Attenuation (dB)	5,6	3,3	4,9	8,1	9,9	7,1	11,6



#### **ERP ECODESIGN AURA 1**

UNIT		CONTROL MANUAL ANALOGIC VERSION	CONTROL MANUAL ELECTRONIC VERSION + regulator UR	
	COLD	-70,0	-78,6	
SEC (kWh/m².a)	AVERAGE	-34,9	-41,3	
	WARM	-12,2	-17,3	
SEC CLASS		А	A	
DECLARED TYPE		UVF	? - Bidirezionale	
TYPE OF DRIVE IN	STALLATED	Varia	atore di velocità	
HEAT RECOVERY	SYSTEM	Ŀ	ligenerativo	
THERMAL EFFICIE	NCY HEAT RECOVERY (%)		79	
MAXIMUM FLOW	(m³/s)		0,0050	
ELECTRIC POWER	INPUT TO THE MAX FLOW (W)		2	
SOUND POWER L	EVEL (Lwa)	39		
REFERENCE RANGE (m³/s)		0,0050		
REFERENCE PRESSURE (Pa)		0		
SPI (W/m³/h)		0,222		
CONTROL FACTO	OR CLTR	1 0,65		
MAXIMUM DECLA	ARED PERCENTAGE OF LEAKAGE (%)	N.A		
MIXING RATE (%)		5		
LOCATION AND [	DESCRIPTION OF THE SIGNAL ON THE FILTER	Displayed on filter inspection and in the instruction man	Displayed on remote command and on the instruction manual	
INTERNET ADDRES	IS OF DISASSEMBLY INSTRUCTIONS			
AIR FLOW SENSITIVITY (%)		N.A		
INDOOR/OUTDOOR AIR TIGHTNESS (m³/h)			2	
AEC - ANNUAL CONSUMPTION OF ELECTRICITY (kWh/a)		7,41	3,39	
		8278 (COLD)	8736 (COLD)	
AHS - HEATING A	NNUAL SAVINGS (kWh/a)	4231 (AVERAGE)	4465 (AVERAGE)	
		1913 (WARM)	2019 (WARM)	

# DIMENSIONS AND FUNCTIONAL SPACES AURA 1







ventilating units with heat recovery \* for wall thicknesses of less than 280 mm cut the pipe depending on the own needs and use a external standard grid (not supplied)



Remote control electronic version



Front size	mm	180 x 180
Hole diameter	mm	105
Length	mm	230/540
Weight	kg	3,8



#### **ERP ECODESIGN AURA 2**

UNIT		CONTROL MANUAL ANALOGIC VERSION	CONTROL MANUAL ELECTRONIC VERSION + regulator UR	
	COLD	-71,1	-78,8	
SEC (kWh/m².a)	AVERAGE	-36,6	-41,8	
	WARM	-14,2	-18,1	
SEC CLASS		А	А	
DECLARED TYPE		UVR	- Bidirezionale	
TYPE OF DRIVE IN	ISTALLATED	Varia	tore di velocità	
HEAT RECOVERY	SYSTEM	R	igenerativo	
THERMAL EFFICIE	NCY HEAT RECOVERY (%)		77	
MAXIMUM FLOW	′ (m³/s)		0,0105	
ELECTRIC POWER	R INPUT TO THE MAX FLOW (W)		2,8	
SOUND POWER LEVEL (Lwa)		44		
REFERENCE RANGE (m³/s)		0,0105		
REFERENCE PRES	SURE (Pa)	0		
SPI (W/m³/h)		0,147		
CONTROL FACTO	DR CLTR	1	0,65	
MAXIMUM DECL	ARED PERCENTAGE OF LEAKAGE (%)	N.A		
MIXING RATE (%)		4		
LOCATION AND	DESCRIPTION OF THE SIGNAL ON THE FILTER	Displayed on filter inspection and in the instruction manu	ns Displayed on remote command and on the instruction manual	
INTERNET ADDRE	SS OF DISASSEMBLY INSTRUCTIONS			
AIR FLOW SENSITIVITY (%)		N.A		
INDOOR/OUTDOOR AIR TIGHTNESS (m³/h)			3	
AEC - ANNUAL C	CONSUMPTION OF ELECTRICITY (kWh/a)	5,06	2,40	
		8153 (COLD)	8654 (COLD)	
AHS - HEATING A	NNUAL SAVINGS (kWh/a)	4167 (AVERAGE)	4424 (AVERAGE)	
		1884 (WARM)	2000 (WARM)	

# DIMENSIONS AND FUNCTIONAL SPACES AURA 2

190







\* for wall thicknesses of less than 280 mm cut the pipe depending on the own needs and use a external standard grid (not supplied)



Remote control electronic version



Front size	mm	180 x 180
Hole diameter	mm	162
Length	mm	230/540
Weight	kg	3,8



#### AURA installation with longer tube

If necessary, a tube (same diameter) larger than the standard (up to 540 mm) can be provided; this entails a decrease in performance: the aeraulic circuit will have increased leakage, and the fan will work at a lower flow rate to compensate them.

Relative to the AURA 2 size (nominal flow 50 m<sup>3</sup>/h), the graph shows the reduction of air flow (axis ordered) with increasing length of the pipe (extension from 0.5 to 4 mt, axis of ascites); the test was conducted with non-curved piping, ie without localized pressure drops.

m³/h	mt
13,90	4,0
24,16	3,0
35,60	2,0
50,86	0,5

NOTE: It is not appropriate to apply an extension over 4 mt

The RED curve refers to the STANDARD unit; the BLUE curve refers to the appliance with INCREASED PERFORMANCE which we can provide in case of a minimum lot (about 20 units, with delivery NOT from the Warehouse)



# COMPOSITION AND SETTINGS UNIT AURA ELECTRONIC VERSION

In version ELECTRONICS, AURA "MASTER" can communicate through the wireless network with multiple units AURA "SLAVE" (up to 12)



![](_page_7_Picture_0.jpeg)

#### COMPOSITION AND SETTINGS AURA UNIT ANALOG VERSION

#### Installation with SINGLE unit

Control unit

Power supply

#### Installation with TWO units

Each unit can be combined with a separate command. You can set the desired operation that will act on the single unit.

Motor A

nand. You The system provides for the installation of two units with only one control and a single power supply that will operate in an alternating manner during the automatic mode. The units will work in the same mode in extraction cycles or in input cycles .

![](_page_7_Figure_6.jpeg)

#### Installation with THREE units

The system provides for the installation of three units with a single control and a single power supply that will work: two units operate in parallel, while the third unit will operate in an alternating manner. The units will work in the same mode in extraction cycles or in input cycles.

#### Installation with FOUR units

The system provides for the installation of four units with a single control and a single power supply that will work: two units operate in parallel, while the other two units operate in an alternating manner during automatic mode. The units will work in the same mode in extraction cycles or in input cycles

![](_page_7_Figure_11.jpeg)

![](_page_7_Figure_12.jpeg)

#### **CE MARKING**

The CE marking (present on every machine) attesting conformity with the following European standards:

- Machine Directive
- Low Voltage Directive
- EMC Electromagnetic Compatibility

2006/42/CEE 2006/95/CEE 2004/108/CEE

![](_page_8_Picture_0.jpeg)

#### ACCESSORIES and PARTS

![](_page_8_Picture_2.jpeg)

Ceramic regenerator replacement.

![](_page_8_Picture_4.jpeg)

#### DIMA FOR WALL MOUNTING

Dima for wall mounting unit with quick disassembly. The dima can 'be useful in all cases where it is preferred for the unit inspection does not need to remove the screws on the wall, but dismantling the unit through comfortable fixing knobs. The dima is provided in a kit with mounting screws and accessories.

![](_page_8_Picture_7.jpeg)

AESTHETIC OUTSIDE GRID Finishing grid made of white plastic. Rear insulation for anticondensation function

![](_page_8_Picture_9.jpeg)

PLASTIC PARTS KIT Complete plastic parts for replacement kit

![](_page_8_Picture_11.jpeg)

REPLACEMENT FILTER G3 Replacement filter class G3.

![](_page_8_Picture_13.jpeg)

#### KIT OUT CORNER

It is possible to install the unit with angular flow direction and exit near the window (eg. The parapet of window and exterior wall); the expultion grid is masked

# The kit includes:

- round / rectangular connection + tube length 1 m
- final connection with aluminum grille
- (Rain fins and protective grid)

Available for AURA AURA 1 and 2, analog and electronic version; on request it is available a data sheet

![](_page_9_Picture_0.jpeg)

![](_page_9_Figure_1.jpeg)

![](_page_9_Picture_2.jpeg)

PRESETTING KIT UNIT - PVC version - INSULATED version. In phase of construction you can place the predisposition (PVC hose kit or isolated), and complete the unit AURA in a second phase.

Complete of closing accessory.

N.B.: for the small size it is necessary to insert, between the PVC (AURA 1) and the duct in PPE, the insulated supplied.

3IBM0E000ADL : PVC duct L = 500 mm - AURA 1 - Predisposition (diameter EXTERNAL 105 mm) 3IBM0E100ADL : INSULATED duct L = 500 mm - AURA 1 - Predisposition (diameter EXTERNAL 155 mm) 3IAM0E000ADL : PVC duct L = 500 mm - AURA 2 - Predisposition (diameter EXTERNAL 165 mm) CADCONPPE036 : INSULATED duct L = 1000 mm - AURA 2 - Predisposition (diameter ESTERNO 190 mm)

![](_page_9_Picture_7.jpeg)

#### FINISHING COVER

The front panels are available in different versions (metal, wood, varnished or painted) to customize AURA in different environments. The faceplates are supplied complete with mounting screws, to replace the standard front panel in a simple and intuitive. Front size 230x230 mm

![](_page_9_Figure_10.jpeg)

MDF

![](_page_9_Picture_12.jpeg)

MDF, painted by the customer

Dear Customer

Thanks for your attention to the product UTEK , designed and manufactured to ensure the real values to the User: Quality, Safety and Savings on working.

![](_page_10_Picture_2.jpeg)

AZIENDA CON SISTEMA DI GESTIONE QUALITÀ CERTIFICATO DA DNV GL ISO 9001 AZIENDA CON SISTEMA DI GESTIONE AMBIENTALE CERTIFICATO DA DNV ISO 14001

AURA\_2016\_8\_IT

![](_page_10_Picture_7.jpeg)