

# ACFR MICRO E

Heat recovery unit with enthalpy exchanger



## Technical and construction features

The air renewal units of the ACFR MICRO E series are characterized by the adoption of a special enthalpy type air / air exchanger.

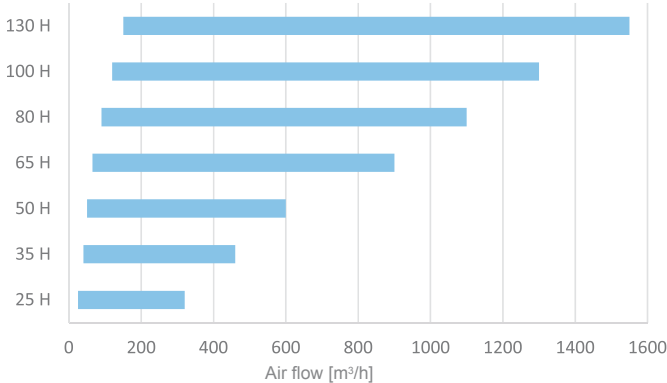
This makes it possible to avoid, or at least significantly reduce the use of replacement air post-treatment systems with the resulting energy and plant engineering. These units are optimally integrated with traditional heating and environmental conditioning systems, whether they are located in series or in parallel.

All models can be supplied in combination with an air ionization system called BIOXIGEN®.

This unique system, unique of its kind, aims to sanitize

or deodorize the air and the surfaces of the machine, ducts and neighboring environments.

- Self-supporting structure in internally insulated galvanized sheet and externally; accessibility through a side door.
- Air filtration in ISO 16890 ePM2.5 efficiency class 95% (with COARSE 50% pre-filter) on the fresh air, filter COARSE 50% on the recovery flow.
- Integrated dirty filter pressure switch.
- Motorized by-pass system of the implemented recuperator automatically by the electronic control to ensure free cooling with outside air when convenient.
- Electric fans with high consumption low consumption EC motor performance and silence; possibility of managing 10 levels of speed.
- Connections to the ducts with plastic material fittings.
- Built-in electrical panel with electronic card for controlling the ventilation and free-cooling functions.



ERP 2018 COMPLIANT



ENERGY SAVING



HEAT RECOVERY HIGH EFFICIENCY



EXCHANGER ENTALPICO



TECHNOLOGY EC



EASY INSTALLATION

Model	Air flow m³/h	Winter thermal efficiency	Code	€
<b>ACFR MICRO E 25H</b>	<b>250</b>	<b>73,0%</b>	<b>75800500</b>	<b>1.443,00</b>
<b>ACFR MICRO E 35H</b>	<b>350</b>	<b>74,0%</b>	<b>75800511</b>	<b>1.834,00</b>
<b>ACFR MICRO E 50H</b>	<b>500</b>	<b>76,0%</b>	<b>75800512</b>	<b>2.149,00</b>
<b>ACFR MICRO E 65H</b>	<b>650</b>	<b>74,0%</b>	<b>75803300</b>	<b>2.694,00</b>
<b>ACFR MICRO E 80H</b>	<b>800</b>	<b>76,0%</b>	<b>75800513</b>	<b>3.101,00</b>
<b>ACFR MICRO E 100H</b>	<b>1000</b>	<b>76,0%</b>	<b>75800514</b>	<b>3.502,00</b>
<b>ACFR MICRO E 130H</b>	<b>1300</b>	<b>74,0%</b>	<b>75800515</b>	<b>3.956,00</b>

## Accessories ACFR MICRO E



Unit control panel Touch Screen

**75801800**

**180,00**



Wall sensor CO2

**75802500**

**373,00**



Humidity sensor wall installation




**75802600**

**187,00**

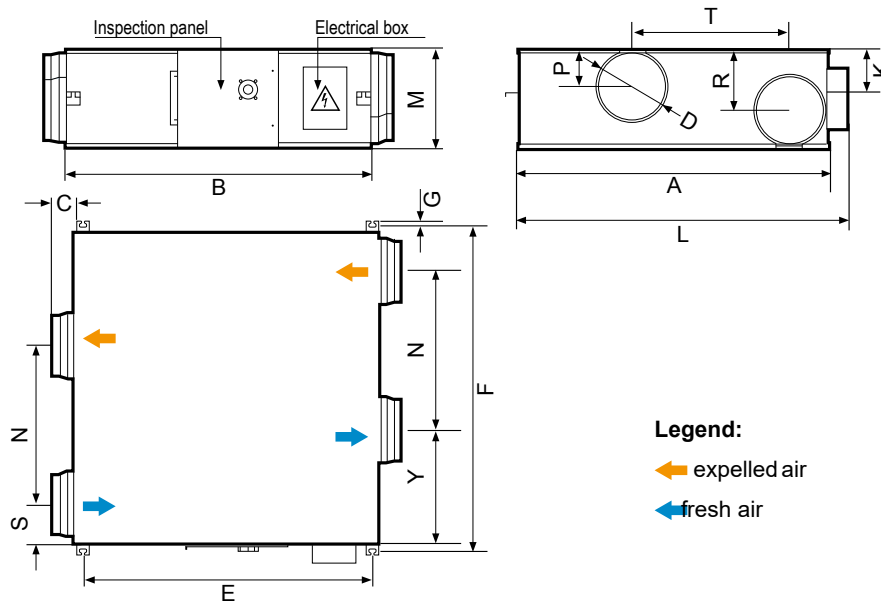
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## Accessories ACFR MICRO E

		Code	€
	PRE/POST electrical heating	mod. PRE 25 - 35	75802700 484,00
		mod. PRE PRE 50	75802800 620,00
		mod. PRE 65 - 130	75802900 716,00
		mod. POST 25 - 35	75803000 631,00
		mod. POST PRE 50	75803100 695,00
		mod. POST 65 - 130	75803200 866,00
	Circular duct silencer	mod. 25 - 35	75801900 107,00
		mod. 50	75802000 125,00
		mod. 65 - 130	75802100 151,00
	Sanitation system BIOXGEN®	mod. 25 - 35	75802200 599,00
		mod. 50	75802300 642,00
		mod. 65 - 130	75802400 727,00

## Dimensions ACFR MICRO E



**Legend:**

-  expelled air
-  fresh air

Model	U.M.	25H	35H	50H	65H	80H	100H	130H
A	mm	599	804	904	884	1134	1216	1216
B	mm	814	814	894	1186	1186	1199	1199
C	mm	100	100	107	85	85	85	85
D	mm	150	150	200	250	250	250	250
E	mm	675	675	754	1115	1115	1130	1130
F	mm	657	862	960	940	1190	1273	1273
G	mm	19	19	19	19	19	19	19
L	mm	650	855	955	945	1200	1290	1290
T	mm	315	480	500	428	678	621	621
K	mm	111	111	135	170	170	171	171
M	mm	270	270	270	388	388	388	388
N	mm	315	480	500	428	678	621	621
P	mm	111	111	135	170	170	146	146
R	mm	111	111	135	170	170	241	241
S	mm	142	162	202	228	228	151	151
Y	mm	142	162	202	228	228	442	442
Net / Gross Weight	Kg	30/33	37/41	43/47	65/70	71/76	83/88	83/88

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## Technical data table ACFR MICRO E

Model	U.M.	25H	35H	50H	65H	80H	100H	130H
Nominal air flow	m <sup>3</sup> /h	250	350	500	650	800	1000	1300
Useful static pressure	Pa	90	140	110	100	140	140	135
Power supply		230V/1/50Hz						
Total rated absorbed power	kW	0,11	0,14	0,15	0,27	0,33	0,49	0,63
Total rated absorbed current	A	0,5	0,6	0,6	1,2	1,4	2,1	2,7

## FUNCTIONAL LIMITS

Limiting operating conditions		(-15 °C) ÷ (+40 °C) / (+10%) ÷ (95%)						
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## FANS

Motor type		EC						
Speed	n.	10						
Ventilation control (1)		Man - VDS						
Total rated absorbed power	kW	0,08	0,13	0,15	0,23	0,32	0,39	0,49
Total rated absorbed current	A	0,35	0,55	0,65	0,97	1,36	1,65	2,10
Static efficiency of fans according to (EU) no. 327/2011	%	49,25	41,80	40,20	47,30	48,55	54,50	55,00

## HEAT RECOVERY

Winter thermal efficiency (3)	%	73,0	74,0	76,0	74,0	76,0	76,0	74,2
Winter enthalpy efficiency (3)	%	65,0	65,0	67,0	65,0	65,0	62,0	59,0
Total heat output recovered (3)	kW	1,53	2,17	3,19	4,03	5,10	6,37	8,09
Supply air temperature (3)	°C	13,3	13,5	14,0	13,5	14,0	14,0	13,6
Summer thermal efficiency (4)	%	73,0	74,0	76,0	74,0	76,0	76,0	74,0
Summer enthalpy efficiency (4)	%	62,0	62,0	63,0	60,0	63,0	60,0	58,0
Cooling capacity recovered (4)	kW	0,36	0,51	0,75	0,95	1,20	1,50	1,90
Supply air temperature (4)	°C	27,6	27,6	27,4	27,6	27,4	27,4	27,6
Dry thermal efficiency (5)	%	73,0	74,0	76,0	74,0	76,0	76,0	74,0

## ECODESIGN SPECIFIC DATA

Type declared		NRVU - BVU						
Internal specific power of ventilation- SFP int (5)	W/(m <sup>3</sup> s)	812	670	547	846	865	881	873
Maximum specific internal power of the ventilation components	W/(m <sup>3</sup> s)	940	965	1019	953	1007	998	926
Front speed at nominal flow	m/s	4,24	5,96	4,70	3,94	4,83	6,05	7,85
Pressure loss of internal ventilation components	Pa	200	140	110	200	210	240	240
Maximum external leakage of the casing	%	< 3						
Maximum internal leakage or residual flow	%	7,8	7,8	7,7	7,7	7,8	7,8	7,8
Annual energy consumption of filters F7 and M5 (8760h of operation)	kWh/a	91	129	139	399	480	461	609
Sound power level radiated to the casing (2)	dB(A)	46	49	51	53	54	55	55

(1) Multiple = Multi-speed > 3

Man = Manual from selector or keyboard: 0-10V = from potentiometer or keyboard

VDS = Modulation from air quality / humidity sensor

(2) Sound power level at nominal operating conditions

(3) Outdoor air -5 °C 80% RH; ambient air 20 °C 50% RH

(4) Outdoor air 32 °C 50% RH; ambient air 26 °C 50% RH

(5) According to EU regulation 1253/2014: at nominal pressure; temperature and humidity conditions referred to EN 308