

COLLECTIVE VENTILATION



# ECOVOR<sup>®</sup>

## RANGE

C4 - 400° C - 1/2 hrs  
Very low consumption  
CMV/Collective extraction units Air  
flow 200 to 5000 m<sup>3</sup>/h



## Ventilation unit

EC MOTOR (direct current), air flow 200 to 5 000 m³/h

CTICM C4 - 400° C - 1/2 h approved  
Report no. 09-E-18

CSTB technical notification for Hygro A,  
Hygro B and Hygro Gas usage  
CMV POWER selection software  
Econological® solution



### APPLICATION

- Intended mainly for air extraction in houses and public assembly buildings requiring low and average air flows.
- C4, 400° C 1/2 h certified 50 Hz and 60 Hz.
- **ECOVOR®** units fitted with the EC motor (direct current) fulfil the requirements of directive ErP 2009/125/EC (2nd phase, 2015). Fitted with a **MODBUS RS485** smart regulation system, the **ECOVOR®** unit operates in accordance with 2 pre-programmed regulation modes:  
**Mode 1 : LOBBY®** operation.  
The **ECOVOR®** self-regulates in constant pressure mode. Factory-set at 180 Pa, this pressure may be adjusted from the built-in control panel.  
**Mode 2 : BLUETECH®** operation.  
20 curves, by unit size, factory pre-regulated using a new and innovative program which provides maximum optimization of consumption according to the actual requirements of the building and also guarantees very low noise levels.  
These features reduce the energy consumption of collective buildings to **very low levels**. This innovative regulation system enables the **ECOVOR®** unit to be combined with a high-efficiency energy recovery unit from the **CARMA®** range in accordance with CH41 or CH43 installation principles.

### RANGE

- Comprising 3 models, the range covers air flows from 200 to 5000 m³/h.

### INSTALLATION

- Can be installed inside or outside.
- Its cubic shape adapts to all intake/discharge combinations.
- Easy access to all internal parts.

### CONSTRUCTION

- Housing: galvanized steel sheet. Amply dimensioned, it offers powerful air handling and acoustic performance characteristics.
- Removable access panels.

- Bird protection grid on discharge.
- Two circular nozzles with double lipseal for watertight networks (ATEC CSTB No. 13-224-V2).
- Local padlockable switch on front panel.
- Control panel with IP54 LCD display.
- The **ECOVOR®** incorporates an **air flow defect relay**. This is programmed using the following information:  
**Defect:** contact signal if pressure less than 80.  
**Mistral 60 S:** time delay of 60 secs on the **defect** contact in order not to trigger spurious alarms  
**Indicator light:** this spare contact enables a green indicator light to be connected showing the unit is in operation.

### MOTOR FAN

- Direct drive DC motor with high efficiency electronic commutation (EC) (ErP 2009/125/EC, 2nd phase 2015 compliant).
- High efficiency epoxy-treated reaction turbine.  
The combination within the **ECOVOR®** unit of an EC motor and a reaction coil guarantees very high efficiency and very low consumption using an **econological® solution** which complies with RT2012.

### CONTROL PANEL

**ECOVOR®** has a control panel with LCD display which provides access to all functions (2 regulation modes: **LOBBY®**, **BLUETECH®**). It is simple to use and instantaneously shows setpoint data for the operating mode selected.

### CAISSON DE COUPLAGE

- 400° C 1/2 h certified. The use of this unit insulated with 25 mm A2-s1, do (Mo) mineral wool coupled to the **ECOVOR®** allows the already excellent acoustic performance characteristics to be improved still more and to obtain the following configurations:  
- 3 intakes + 1 horizontal or vertical discharge.  
- 1 intake and offset in-line discharge.

## ELECTRICAL CHARACTERISTICS

## ECOVOR®

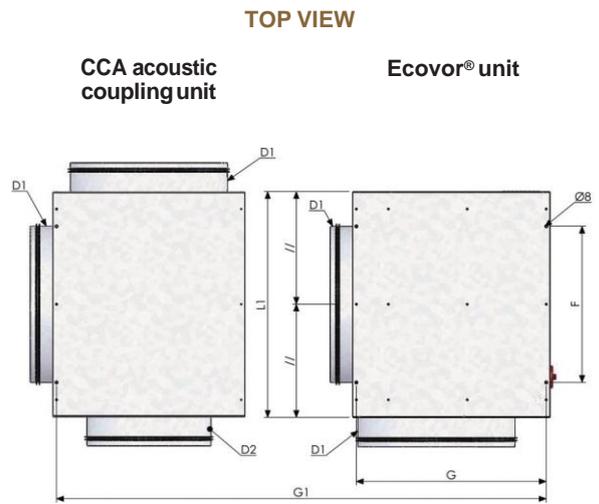
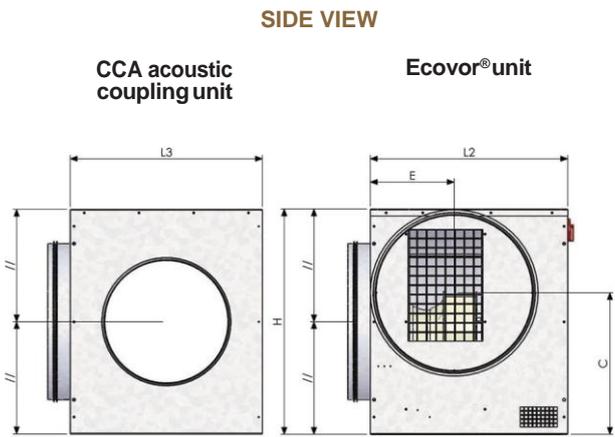
ECOVOR® Model	Power supply voltage (V / Ph / Hz)	Electrical power (W)	Protection current (A)	Usage temp. (°C / °C)	Motor IP/Class	Thermal protection *
ECOVOR® 1500	230 / 1 / 50	360	1,9	-20 / 40	IP54 / F	PTI
ECOVOR® 3000	230 / 1 / 50	650	3,5	-20 / 40	IP54 / F	PTI
ECOVOR® 5000	400 / 3 / 50	1200	2,7	-20 / 40	IP44 / F	PTI

\* PTI: Integrated thermal cutout



DIMENSIONS CHARACTERISTICS

ECOVOR®



Reference	Dim. Unit overall			Dim. CCA	Ground fixing			Discharge position		Branch connection		Weight	
	Length	Width	Height	Width	Length	Width	Width CCA	Height	Width	Diam.	Diam.	ECOVOR® (kg)	CCA
ECOVOR®	L1 (mm)	L2 (mm)	H (mm)	L3 (mm)	F (mm)	G (mm)	G1 (mm)	C (mm)	E (mm)	D1 (mm)	D2 (mm)	ECOVOR® (kg)	CCA
1500	520	510	520	390	370	490	860	335	185	315	250	35	9
3000	650	565	650	550	450	545	1075	410	240	450	355	50	13
5000	730	670	730	650	550	650	1280	460	290	500	400	63	17



ACOUSTIC CHARACTERISTICS

ECOVOR®

The  $L_{p4m}$  dB(A) (C) values shown on the curves relate to the average overall acoustic pressure level radiated in a free field on a reflecting plane, unit discharge not connected. These values are also valid for ECOVOR® units with CCA acoustic unit.

The  $L_{w\ cond}$  dB(A) (□) values shown on the curves relate to the average overall acoustic pressure level radiated in the intake duct.

To obtain the overall  $L_{w\ cond}$  dB(A) for an ECOVOR® fitted with a CCA unit, subtract 4 dB(A) from the overall  $L_{w\ cond}$  dB(A) (□) value shown on the curves.

To obtain the acoustic power spectrum radiated in the intake duct in dB(A), add the correction coefficients from the table below to the  $L_{w\ cond}$  dB(A) (□) value shown on the curves.

Acoustic spectrum weighting on $L_{w\ cond}$ dB(A) (□) shown on the curves								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Weighting ECOVOR® 1500 dB(A)	-25	-12	-8	-8	-6	-9	-8	-17
Weighting ECOVOR® 1500 + CCA dB(A)	-26	-13	-11	-11	-11	-16	-16	-26
Weighting ECOVOR® 3000 dB(A)	-32	-13	-8	-6	-8	-8	-10	-17
Weighting ECOVOR® 3000 + CCA dB(A)	-33	-14	-11	-9	-13	-15	-18	-26
Weighting ECOVOR® 5000 dB(A)	-28	-14	-15	-5	-8	-7	-9	-16
Weighting ECOVOR® 5000 + CCA dB(A)	-29	-15	-18	-8	-13	-14	-17	-25

To define the average overall acoustic pressure level radiated at a certain distance in dB(A) in free field on a reflecting plane, discharge unit not connected, add the value from the table below to the  $L_{p4m}$  dB(A) (C) value shown on the curves.

Lp weighting at various distances						
Distance	2 m	3 m	4 m	5 m	7 m	10 m
Distance weighting	6	2	0	-2	-5	-8

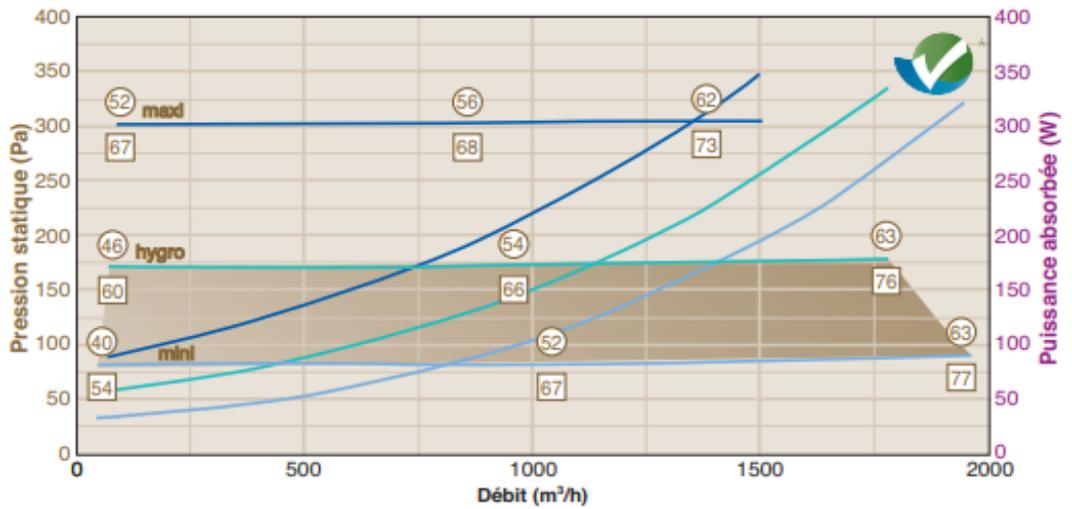
**Tolerance:** Overall values +/- 3 dB(A)  
Acoustic spectrum +/- 5 dB(A)

• Overall acoustic pressure level radiated rejection:  
 $L_{w\ rejet}$  dB(A) =  $L_{p4m}$  dB(A) (C) + 20



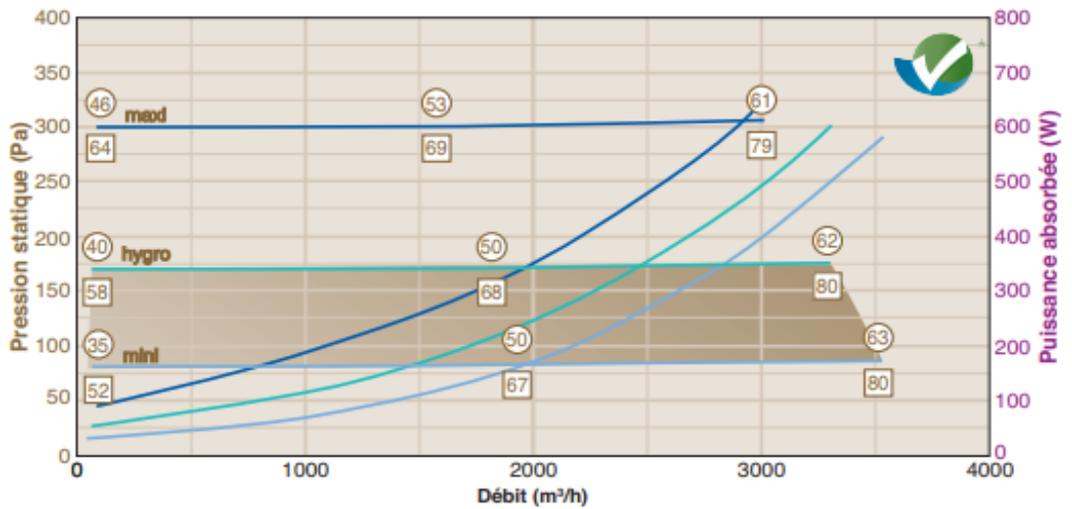
**ECOVOR® 1500**  
Mode : LOBBY®

- 90 Pa
- 200 Pa
- 300 Pa



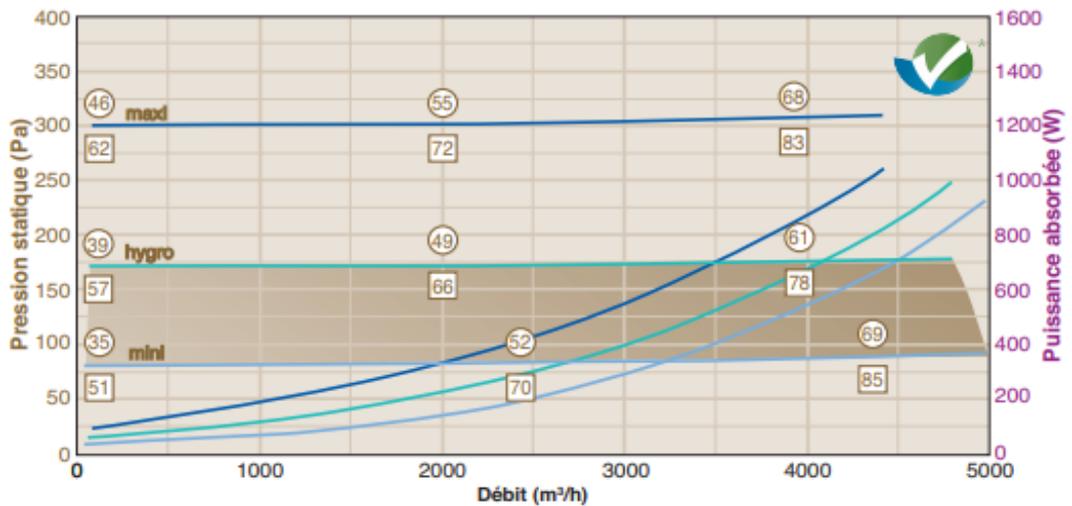
**ECOVOR® 3000**  
Mode : LOBBY®

- 90 Pa
- 200 Pa
- 300 Pa



**ECOVOR® 5000**  
Mode : LOBBY®

- 90 Pa
- 200 Pa
- 300 Pa

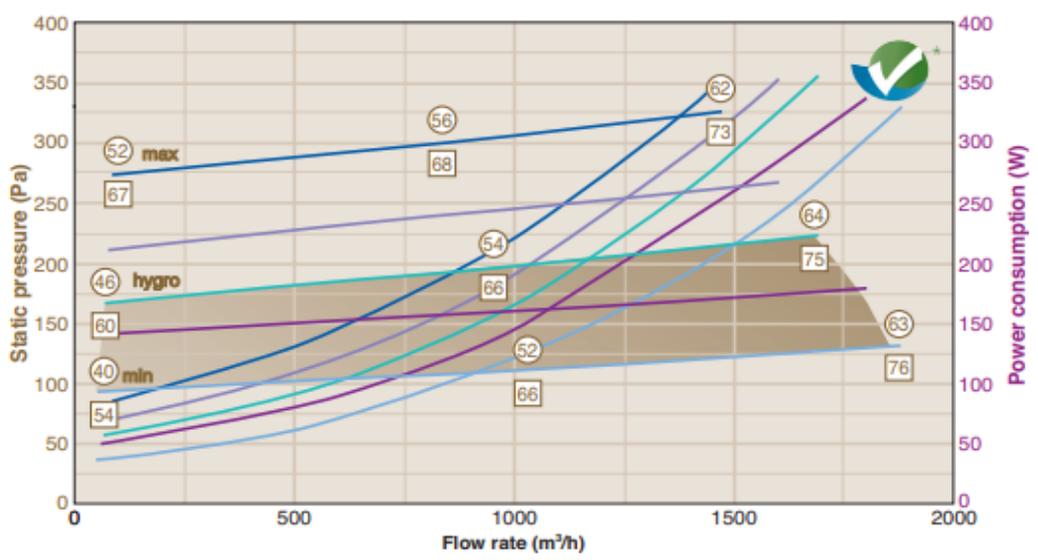


\* **NOTA :** The curves are made with a suction and discharge nozzle connected sub-woofer is not connected (C configuration according to NF N 13141-4).



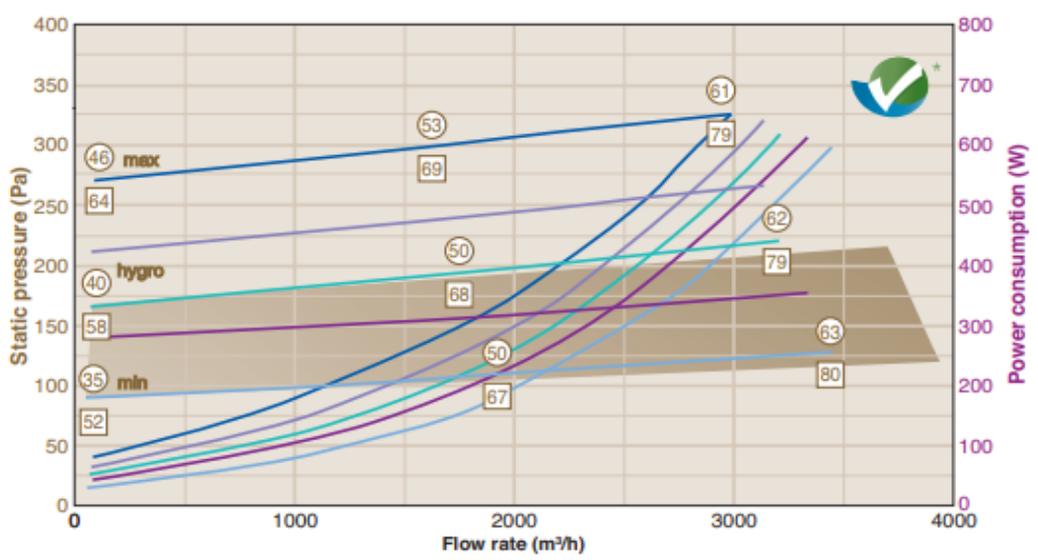
**ECOVOR® 1500  
Mode BLUETECH®**

- 320 Pa
- 260 Pa
- 215 Pa
- 170 Pa
- 120 Pa



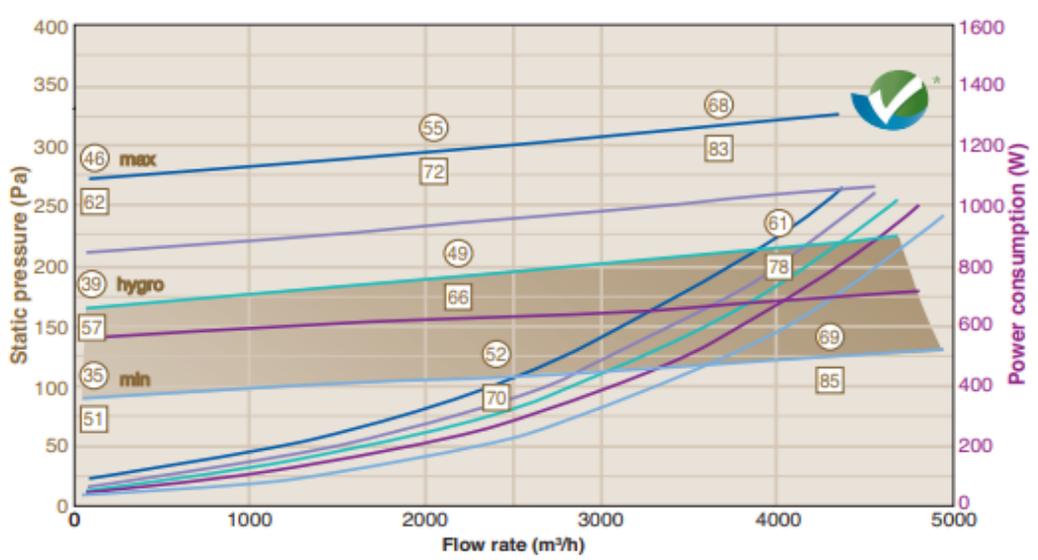
**ECOVOR® 3000  
Mode BLUETECH®**

- 320 Pa
- 260 Pa
- 215 Pa
- 170 Pa
- 120 Pa



**ECOVOR® 5000  
Mode BLUETECH®**

- 320 Pa
- 260 Pa
- 215 Pa
- 170 Pa
- 120 Pa



NOTE: The other pre-programmed curves (20 in all) are available in the start-up manual delivered with the unit and also available from our Web site.