


ERP2018
 CALADAIR RESPECT


The perfect match between dimensional criteria and air handling and acoustic performance.

Low consumption ventilation module in compliance with RT 2012.

APPLICATION

- Ventilation of premises requiring average and high air flows.
- Can be used for air extraction or blowing.
- Particularly suited where there are high sound and heat insulation requirements.
- Intake and discharge in line horizontally or vertically with rejection upwardly.
- **Low consumption** *econological*® solution.

RANGE

- Available in 5 sizes and 7 models, the **CBZ EC** range covers air flows from 200 to 10 000 m³/h.

CONSTRUCTION

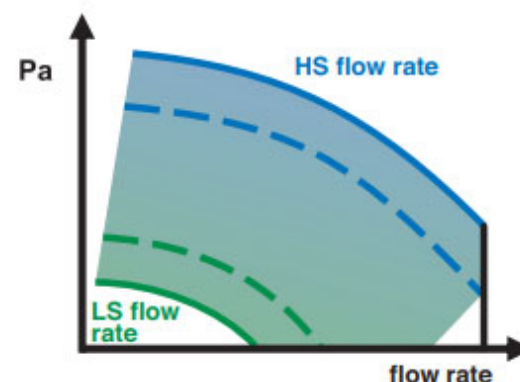
- Structure in aluminium profile.
- Polyamide reinforced angles.
- Removable panels.
- RAL 7035 pre-lacquered external face with protective film.
- High density 25 mm MO mineral wool insulation.
- Internal face in galvanized steel.
- Access panels to internal components.
- Nuts crimped into the structure for floor/wall/ceiling fixing.
- Module fitted as standard with intake and discharge panels with circular connections and lip seals to guarantee sealing system.
- IP55 regulation AHU (Air Handling Unit) factory-wired and fitted, equipped with a local padlockable switch. This AHU allows a fan fault report and remote manual or timed on/off switch to be wired.
- **DIVA EC**, **MAC2 EC** and **LOBBY EC** version of the CBZ AHU communicate using MODBUS (RS 485) and comply with EN 15232 (active building efficiency).
- *Econological*® solution compliant with **ERP 2009/125/EC** and RT 2012.

MOTOR FANS

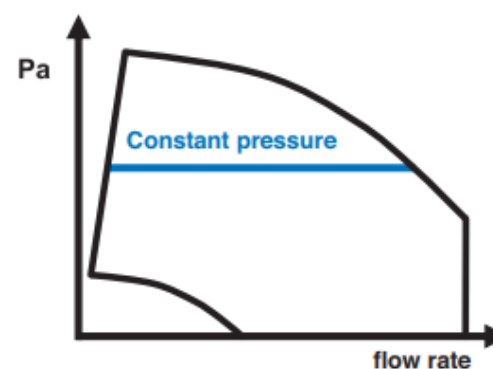
- Plug fans.
- Direct drive DC motor with high efficiency electronic commutation (EC), integral thermal cut-out and speed variation. EC technology is an *econological*® solution that guarantees low energy consumption (**RT 2012**) for the management, checking and control of the operating point (regulation of air flows from 10 to 100%). Low sound levels for better acoustic comfort.

AIR FLOW MODULATION

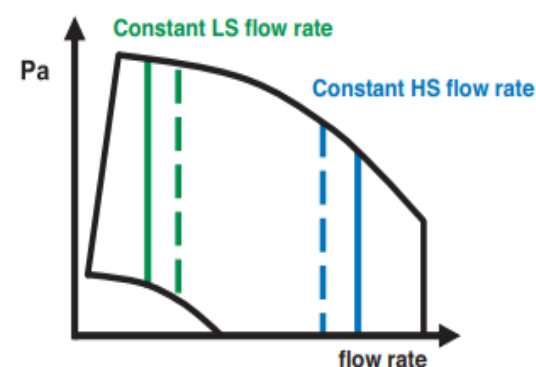
- The **CBZ EC** ventilation module is available in 4 versions and 4 types of air flow modulation.
- **CBZ EC**: modulation by potentiometer integrated in the regulation AHU allowing air flows to be adapted to the requirements of the installation.
- **CBZ DIVA EC**: proportional modulation of low rate by **CO₂ probe** built in to the AHU.



- **CBZ LOBBY EC**: modulation of air flow at **constant pressure** and pressure transmitter built in to the AHU.



- **CBZ MAC2 EC**: modulation for 1 or 2 **constant air flow(s)** (except CBZ 4A).



INSTALLATION

- Can be installed internally or externally (optional rain cover).
- Ground/wall/ceiling fixing brackets.

INSTALLATION OPTIONS

- Numerous options are available, see **COMBIBOX CONCEPT**® program.

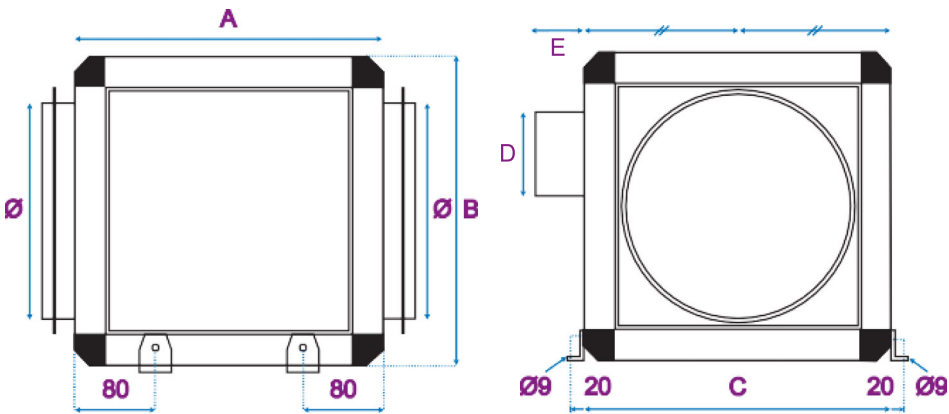
DIMENSIONS
CHARACTERISTICS

CBZ EC



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Model COMBIBOX®	Module size	A mm	B mm	C mm	Ø mm	Weight CBZ EC kg
CBZ EC	4A	445	445	445	315	29
	4C	445	445	445	315	32
CBZ EC	5	545	545	545	400	43
CBZ EC	6	645	645	645	450	64
CBZ EC	7A	745	745	745	500	86
	7B	745	745	745	500	90
CBZ EC	8	845	845	970	630	125



CBZ MAC2 EC / CBZ DIVA EC / CBZ LOBBY EC : D = 245 / E = 180

ELECTRICAL
CHARACTERISTICS

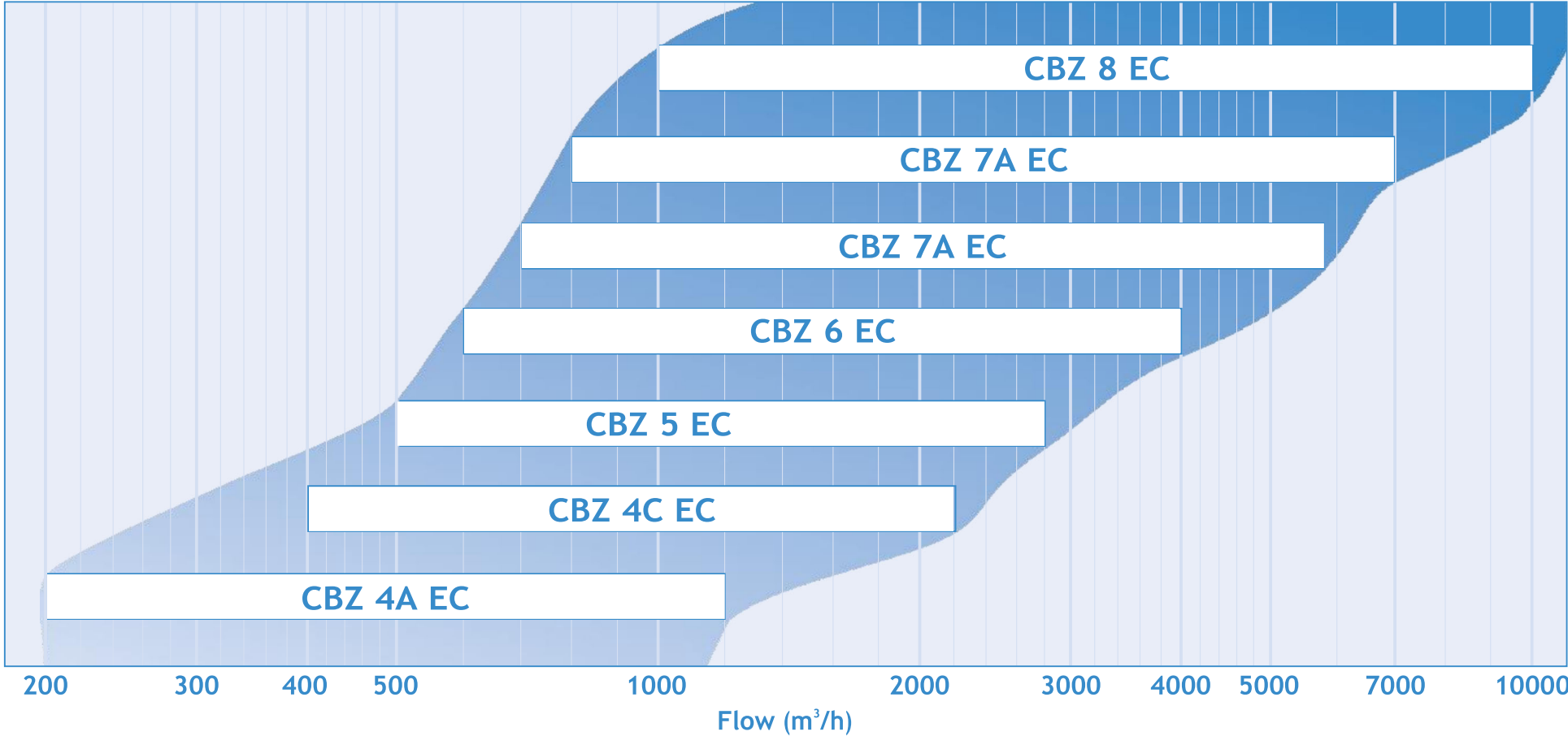
CBZ EC

Model	Module size	Power supply voltage (V / Ph / Hz)	Electrical power (W)	Protection current (A)	Usage temp. (°C/°C)	Protection Index Class	Thermal protection *
CBZ EC	4A	230 / 1 / 50	230	1,6	-20 / 60	IP44 / B	PTI
	4C	230 / 1 / 50	490	2,3	-20 / 60	IP54 / B	PTI
CBZ EC	5	230 / 1 / 50	700	3	-20 / 40	IP54 / B	PTI
CBZ EC	6	400 / 3 / 50	1000	1,6	-20 / 55	IP54 / B	PTI
CBZ EC	7A	400 / 3 / 50	1700	2,6	-20 / 40	IP54 / B	PTI
	7B	400 / 3 / 50	1950	3,15	-20 / 40	IP54 / B	PTI
CBZ EC	8	400 / 3 / 50	2730	4,2	-20 / 40	IP54 / F	PTI

*PTI: Integrated thermal cutout

PRESELECTION
TABLE

CBZ EC



- The values Lp4m dB (A) (○) shown on the curves correspond to the sound pressure level at 4 m hemispherical free field on a reflective surface, rejection not connected box.
- The values cond Lw dB (A) (□) indicated on the curves correspond to the total sound power radiated in the upstream duct.
- For the acoustic spectrum of sound power Lw cond dB (A), upstream side, add the following values to the sound power Lw cond dB (A) (□) indicated on the curves.

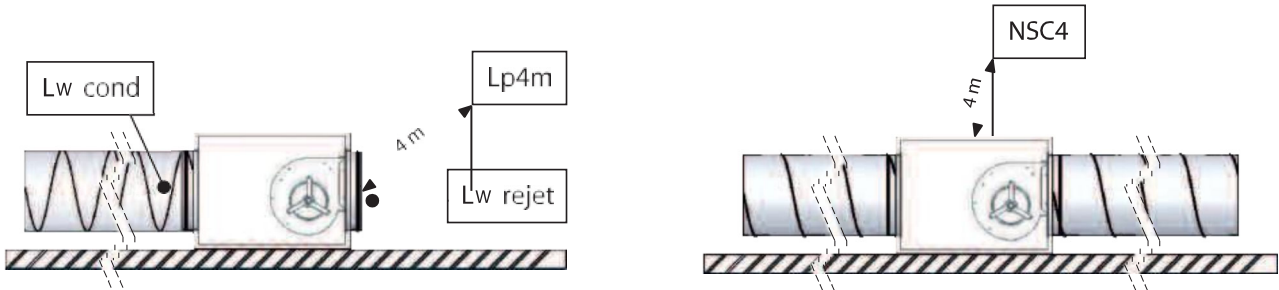
Upstream acoustic spectrum weighting function cond Lw dB (A) () shown on the curves									
Frequency	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	Overall sound power dB(A)
Weighted CBZ 4A dB(A)	-27	-16	-9	-5	-5	-10	-14	-18	Lw cond dB(A) (□)
Weighted CBZ 4C dB(A)	-27	-19	-9	-7	-8	-6	-10	-17	
Weighted CBZ 5 dB(A)	-24	-24	-11	-6	-7	-8	-11	-12	
Weighted CBZ 6 dB(A)	-36	-25	-10	-7	-10	-7	-9	-10	
Weighted CBZ 7A dB(A)	-36	-26	-10	-7	-9	-7	-10	-9	
Weighted CBZ 7B dB(A)	-30	-17	-9	-5	-8	-8	-10	-15	
Weighted CBZ 8 dB(A)	-36	-25	-9	-7	-8	-8	-11	-10	

- The overall sound power radiated to the rejection of the box is given by:
CBZ : Lw rejection dB(A) = Lp4m dB(A) (○) + 20
- For the sound pressure level Lp dB (A) in a hemispherical free field, at a distance, camera placed on the floor reflecting surface upstream side connected discharge side not connected, add the following values in dB Lp4m (A) (○) indicated on the curves.

Weighted Lp at various distances depending on Lp4m						
Distance (m)	2	3	4	5	7	10
Distance weighting dB(A)	6	2	0	-2	-5	-8

NOTA :
Tolerance = Global Values + / - 3 dB (A)
Acoustic spectra +/- 5 dB(A)

- For the sound level 4m (NSC4) connected to the suction and discharge by a sheath as well as the soundproofing box, apply the following unit weights:
CBZ : NSC4 dB(A) = Lp4m dB(A) (○) - 20



Nota : The curves are made with suction and discharge chamber connected (D configuration according to NF N 13141-4) nozzles.



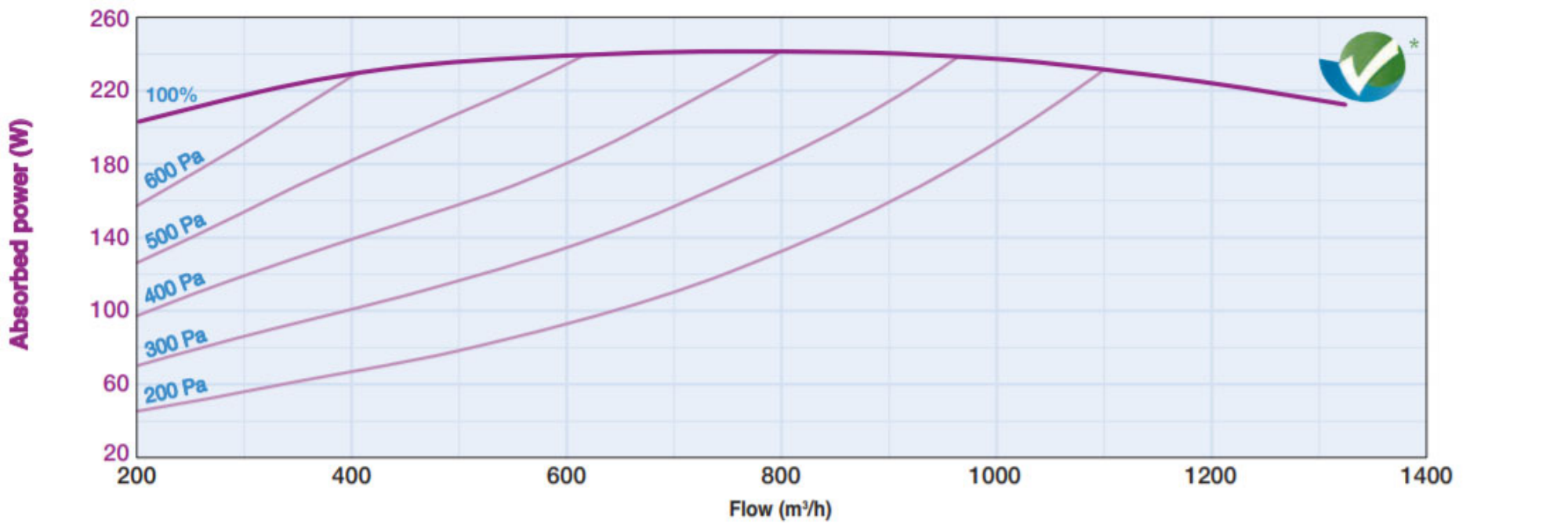
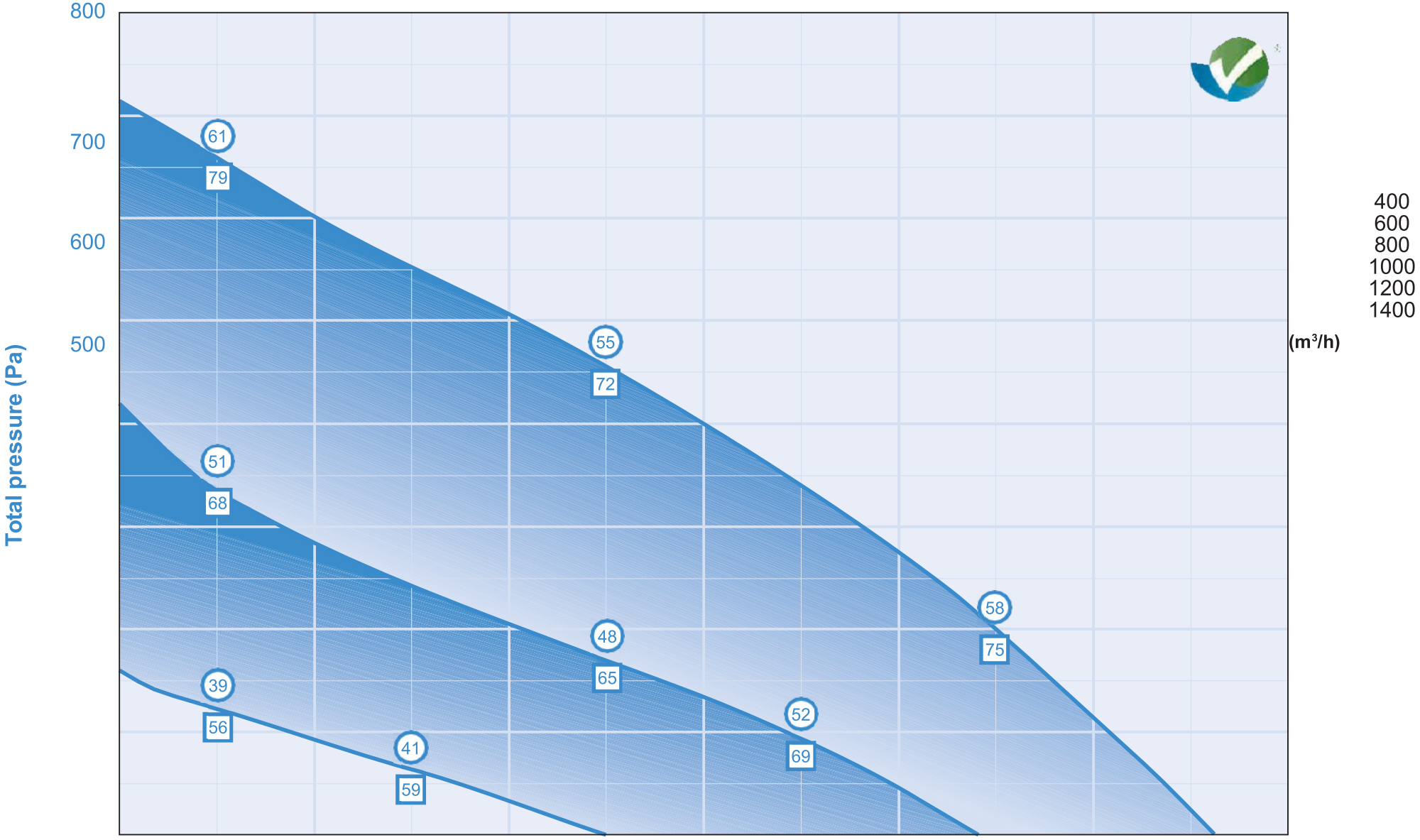
CBZ 5 DIVA EC
1 2 3 4

1: COMBIBOX® free impeller range
2: COMBIBOX® Module size
3: Air flow modulation
4: Low consumption EC motor

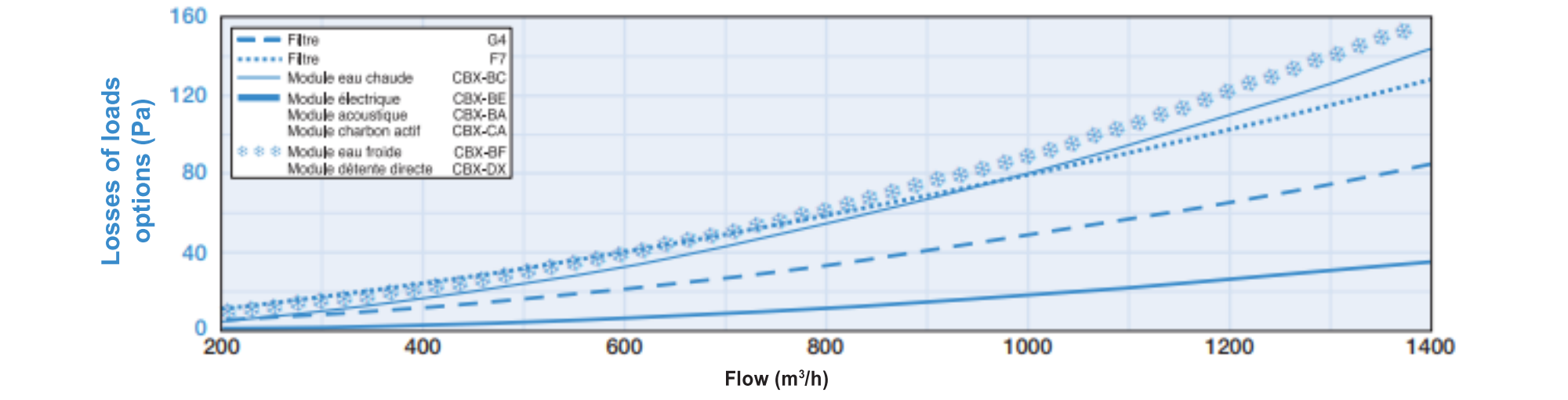
CBZ 4A - EC
1 2 3 4



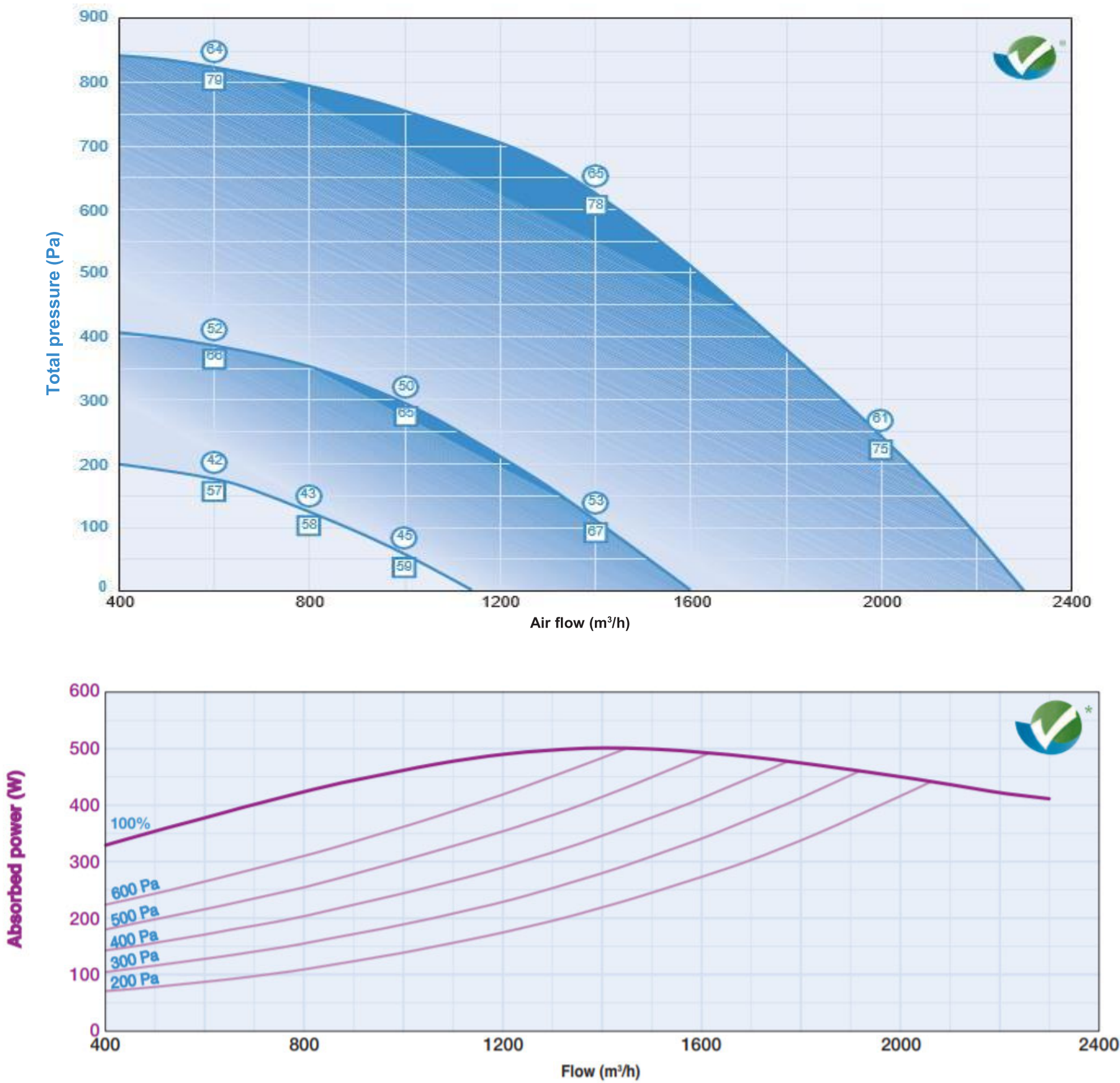
CBZ 4A EC



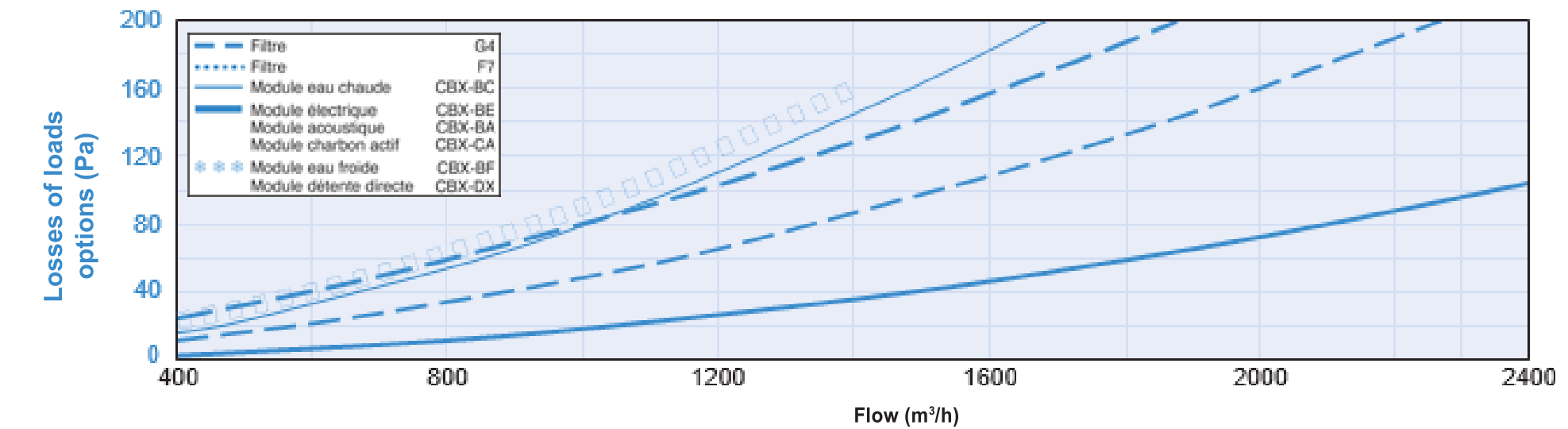
Additional modules CBX 4



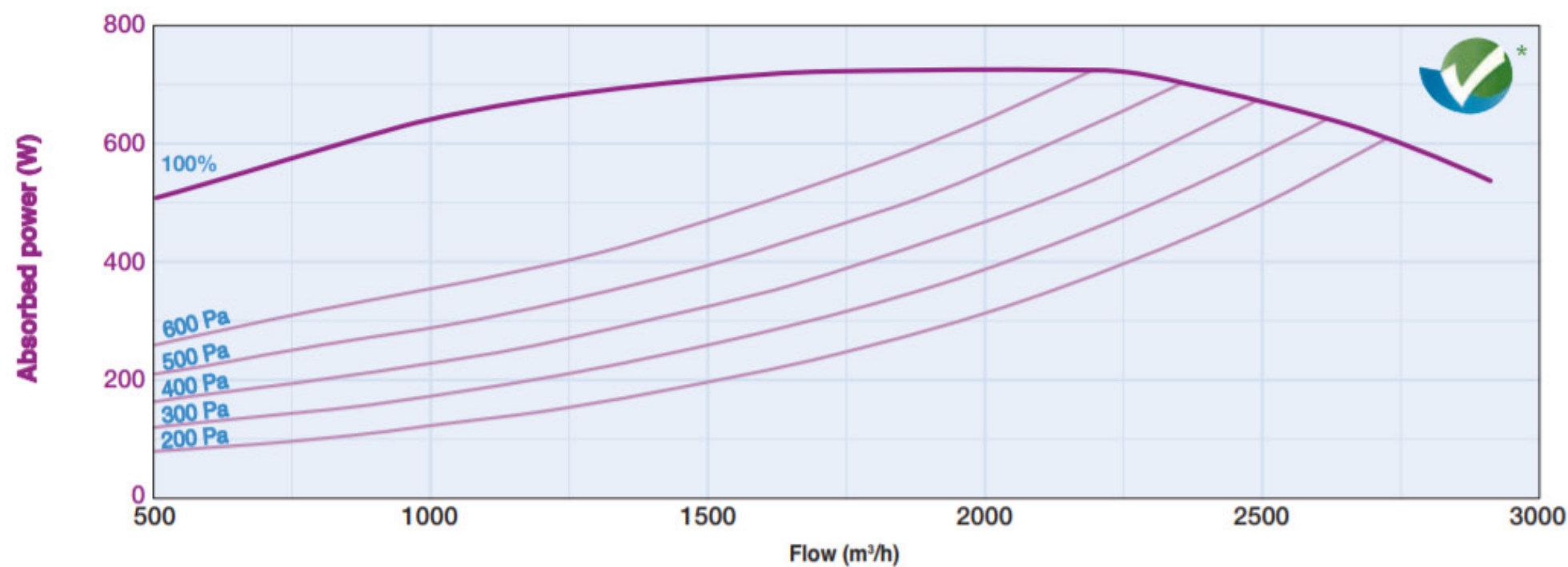
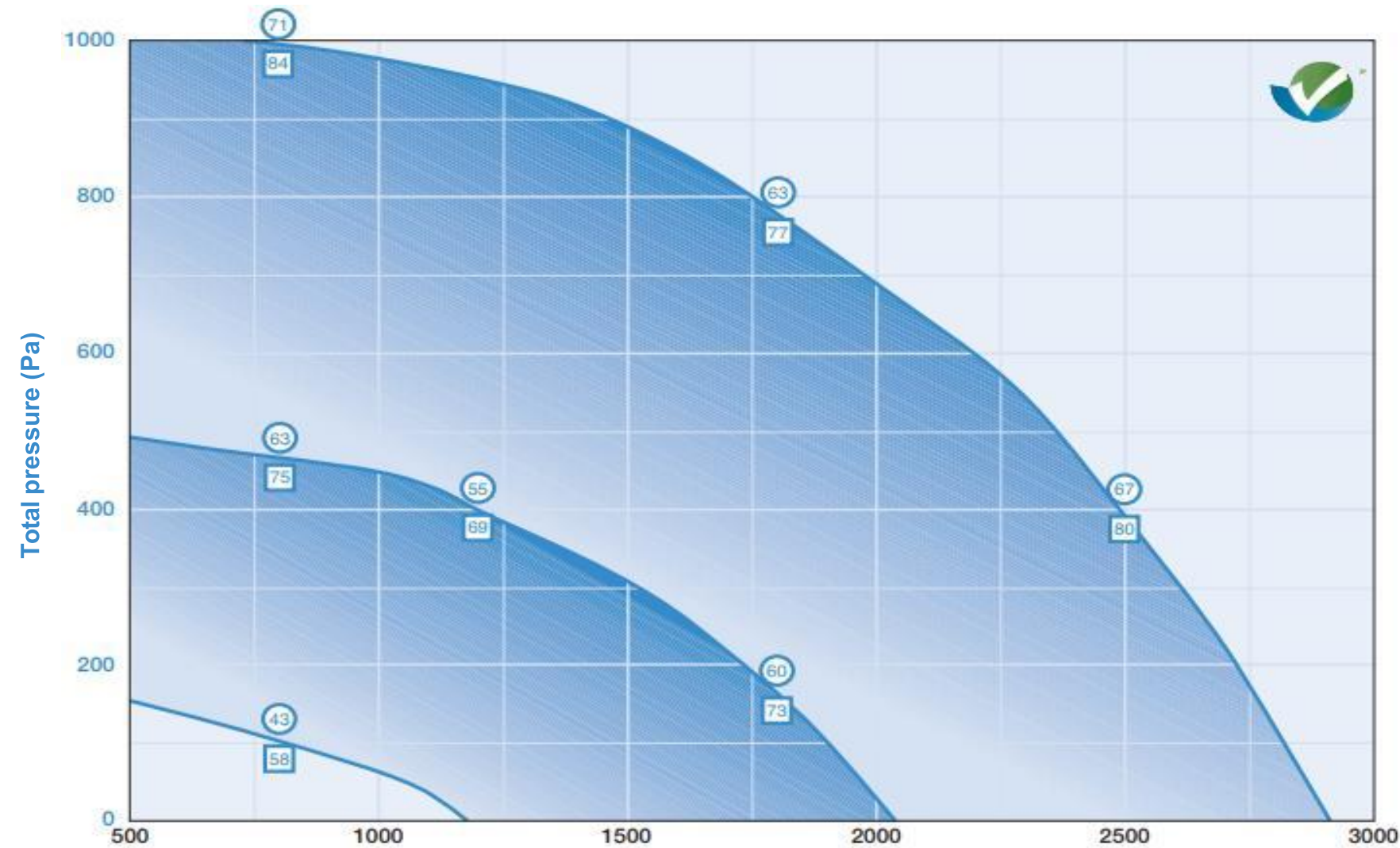
CBZ 4C EC



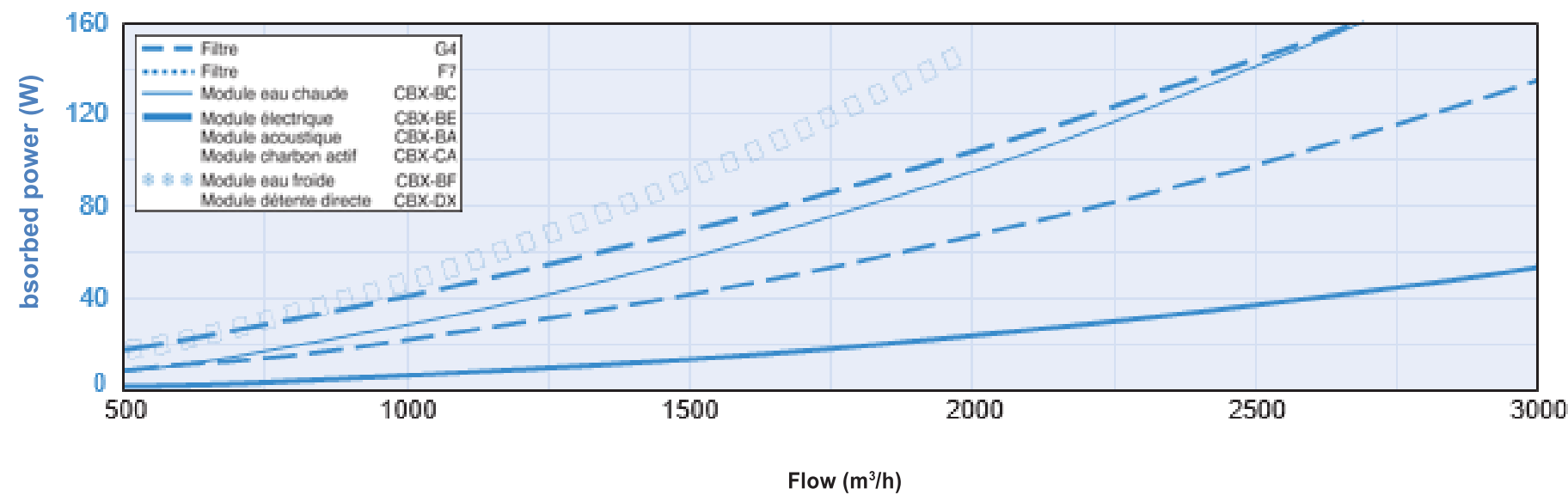
Additional modules CBX 4



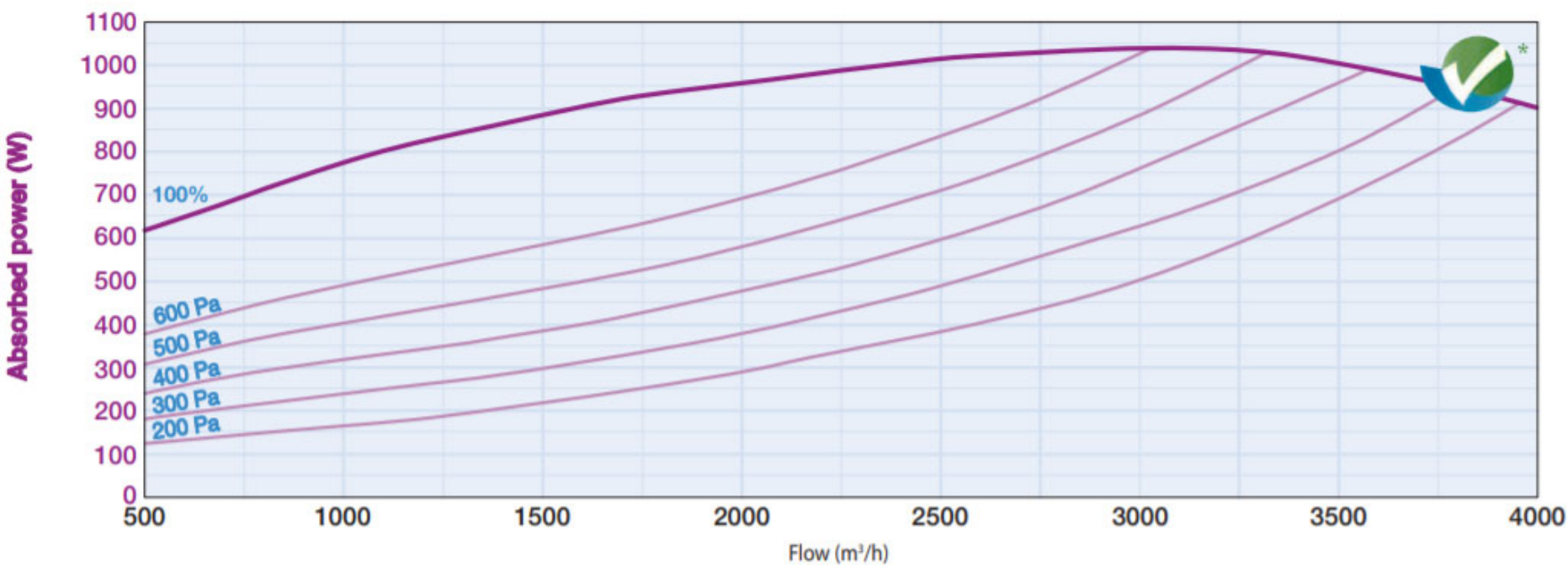
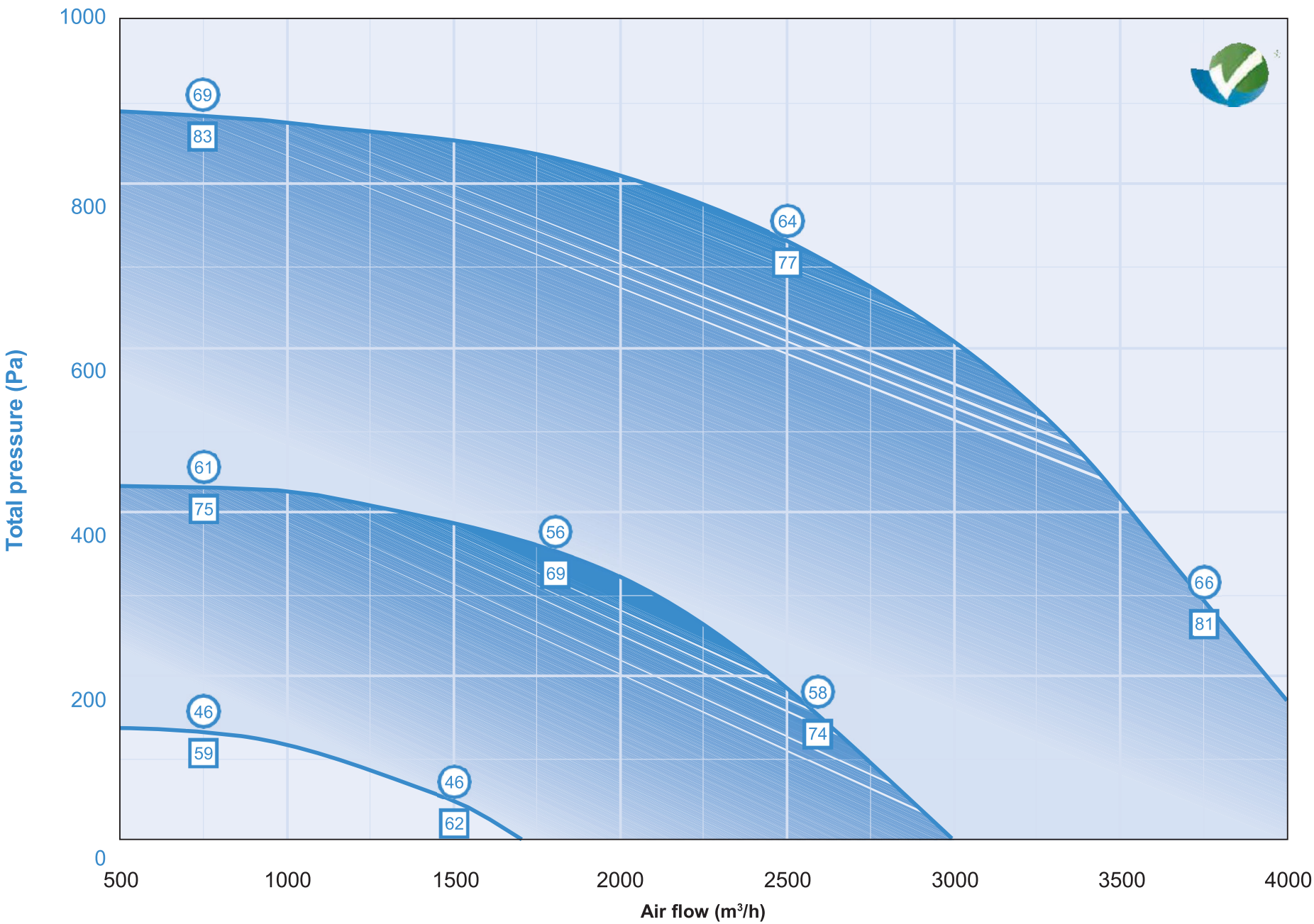
CBZ 5 EC



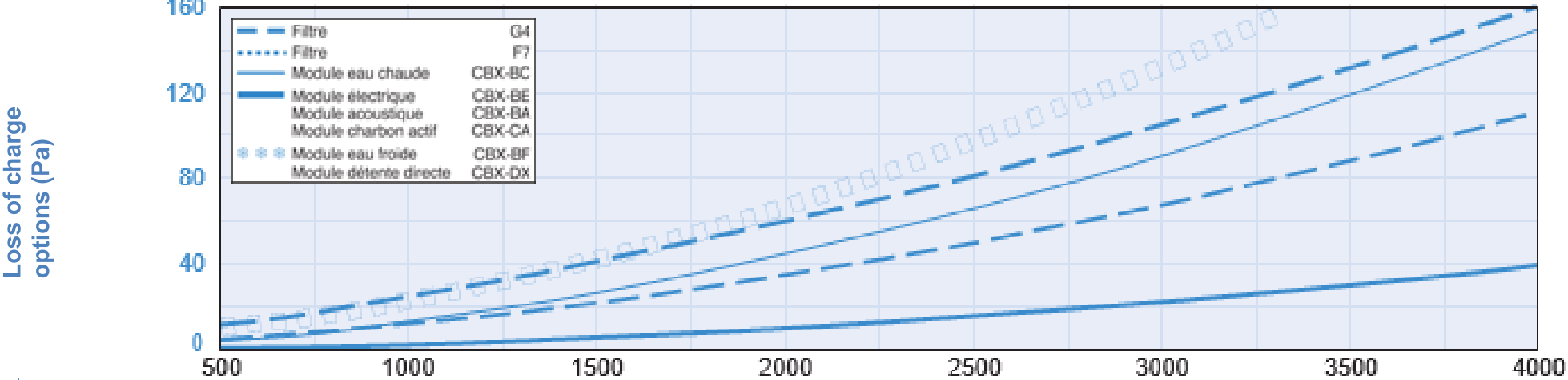
Additional modules CBX 5 (Voir p 85)



CBZ 6 EC

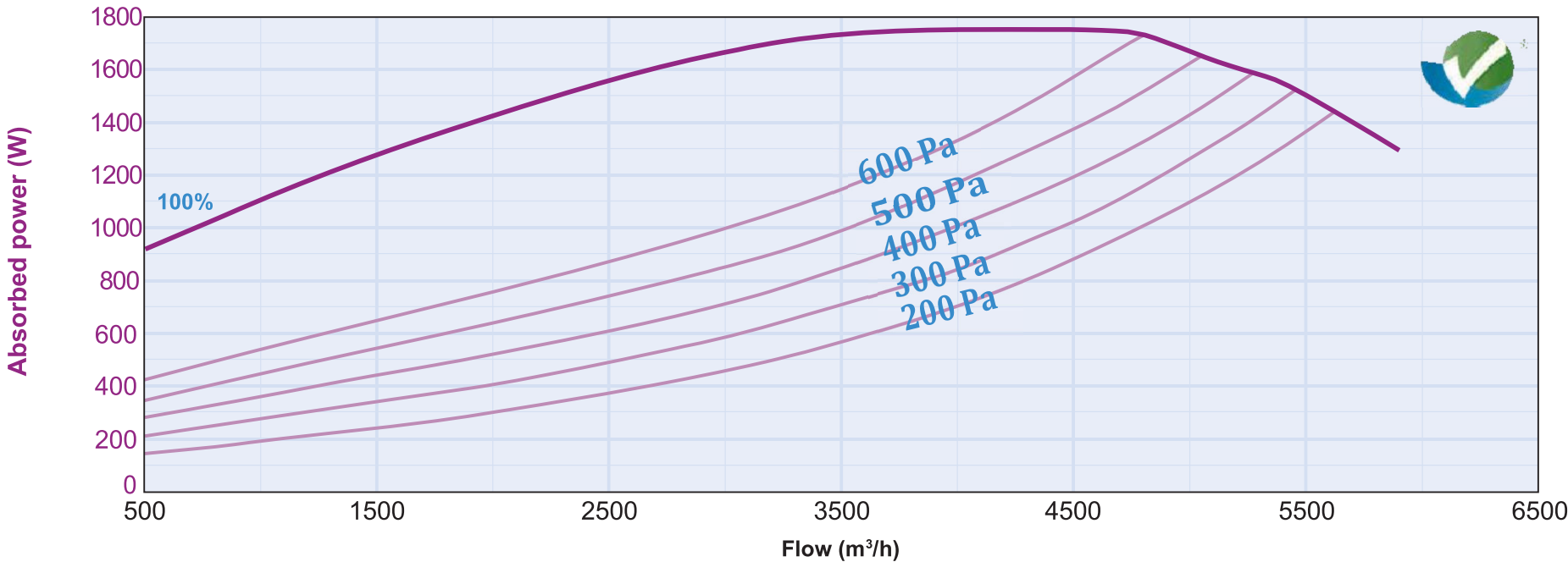
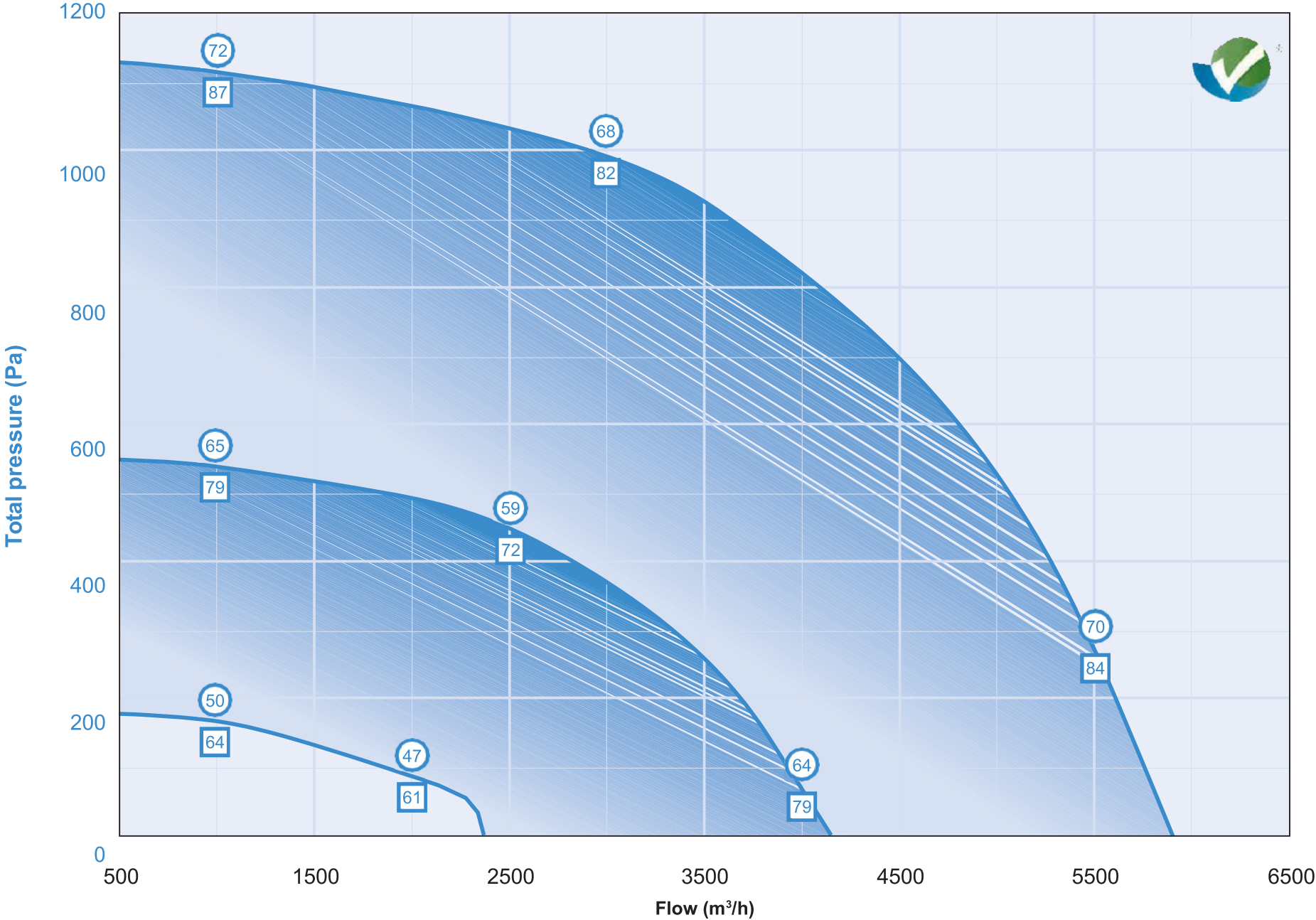


Additional modules CBX 6

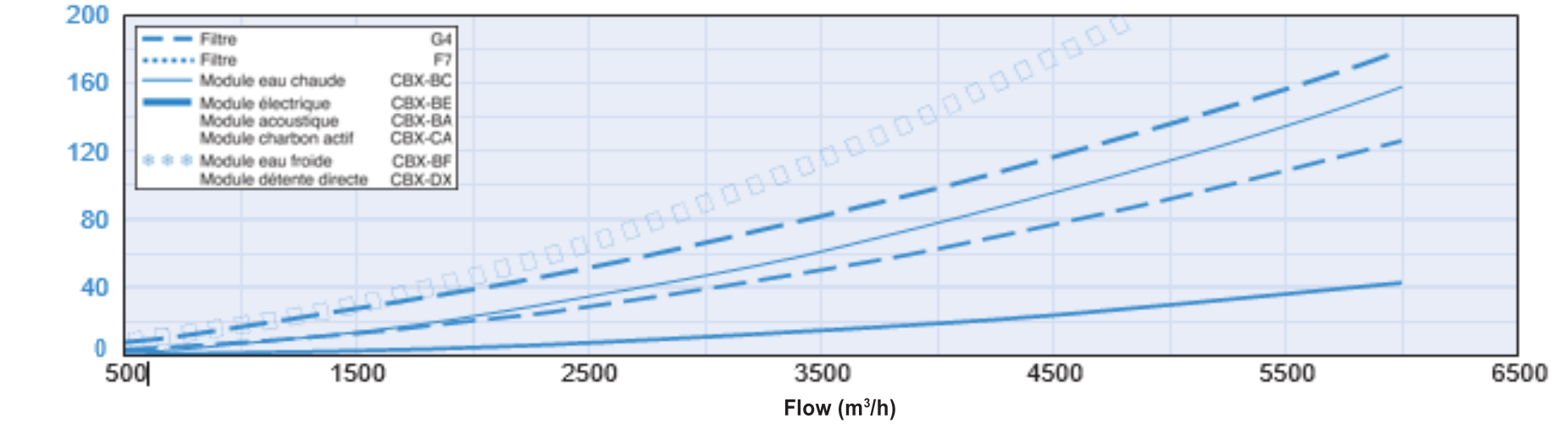




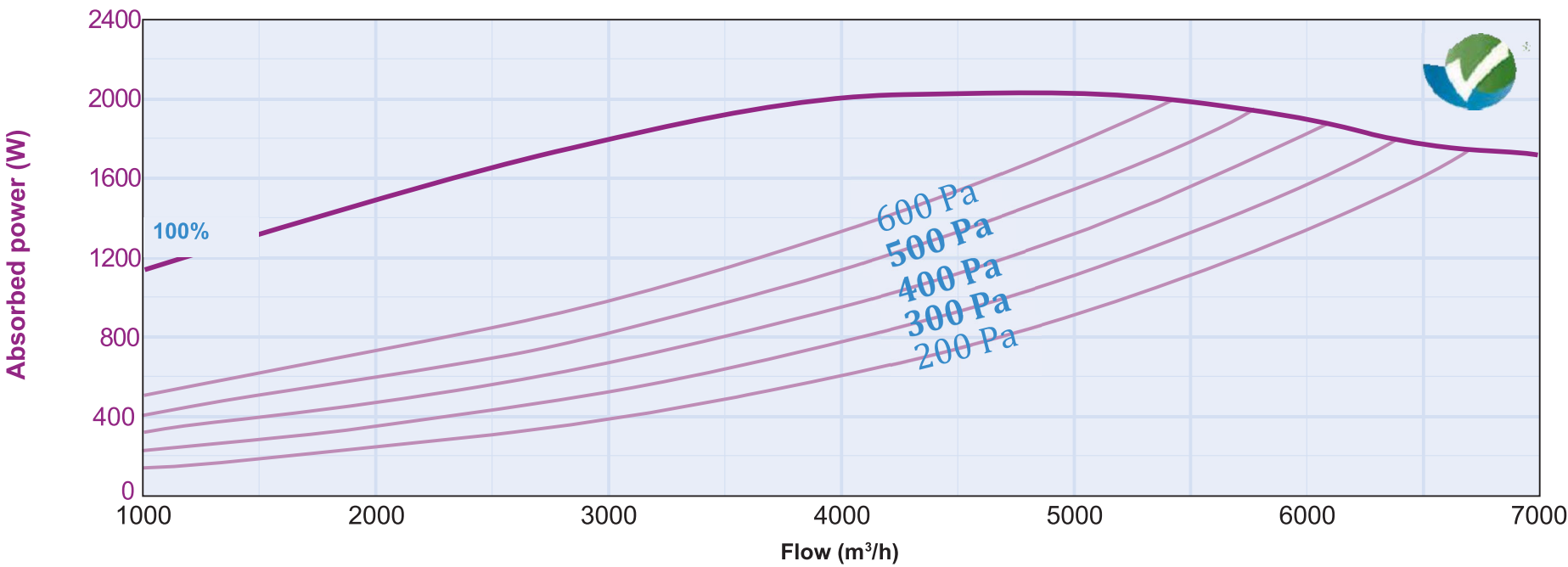
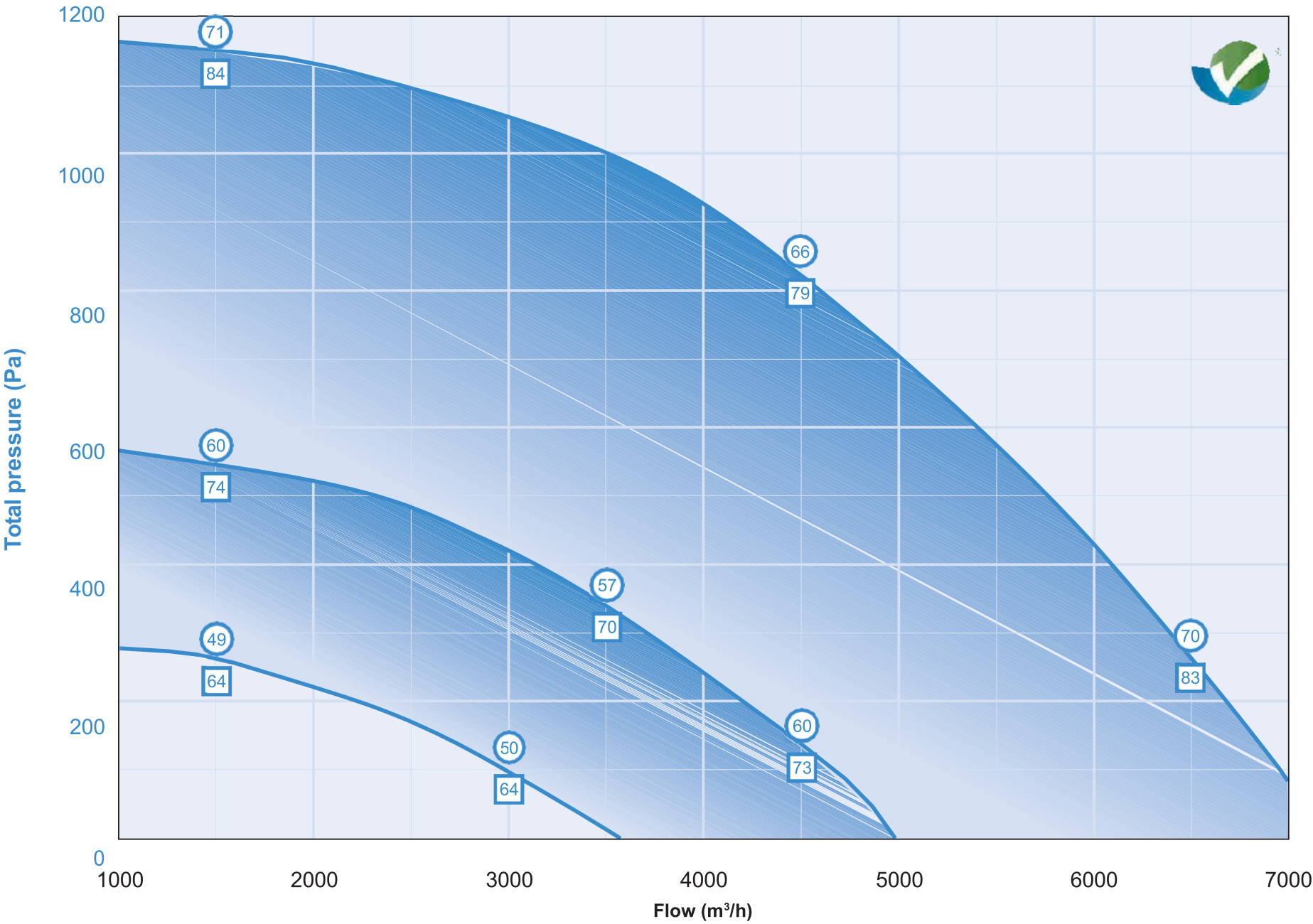
CBZ 7A EC



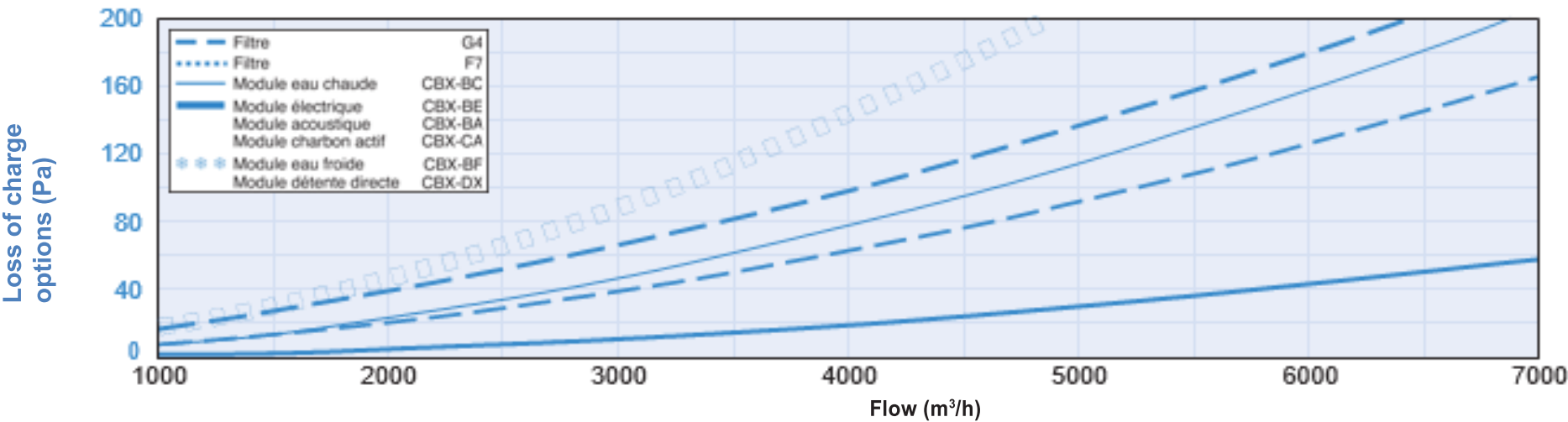
Additional modules CBX 7 (Voir p 89)



CBZ 7B EC

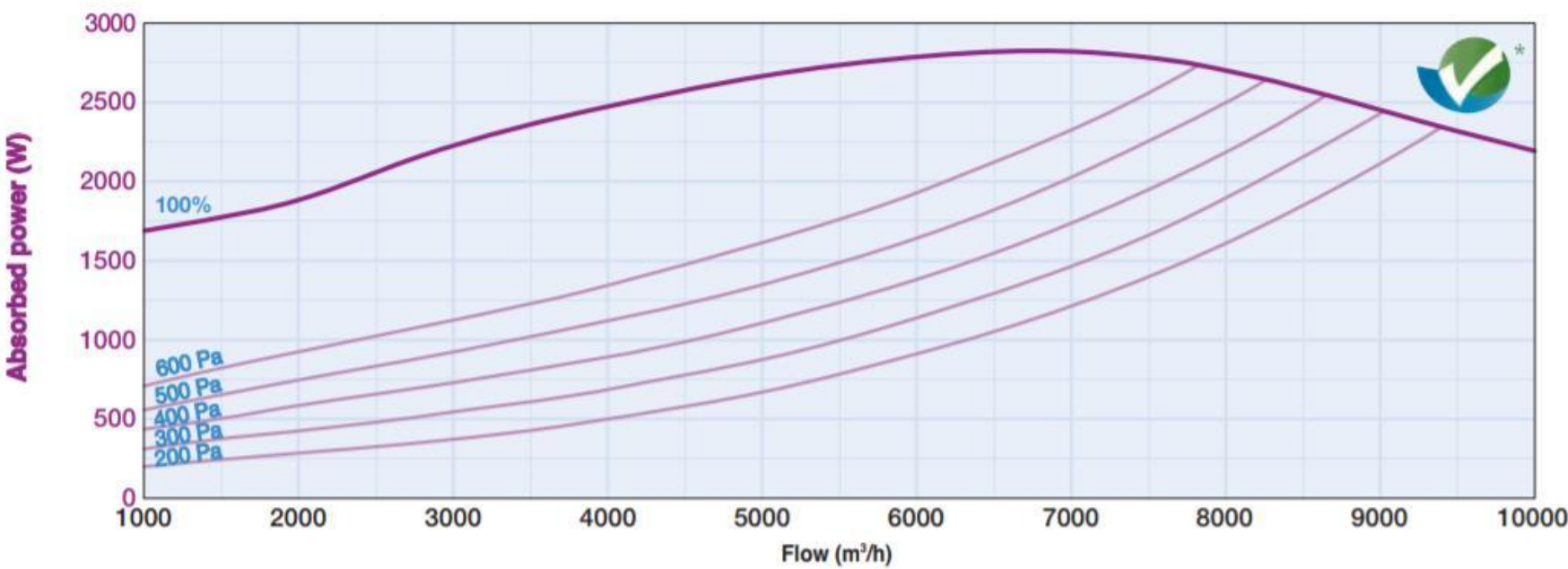
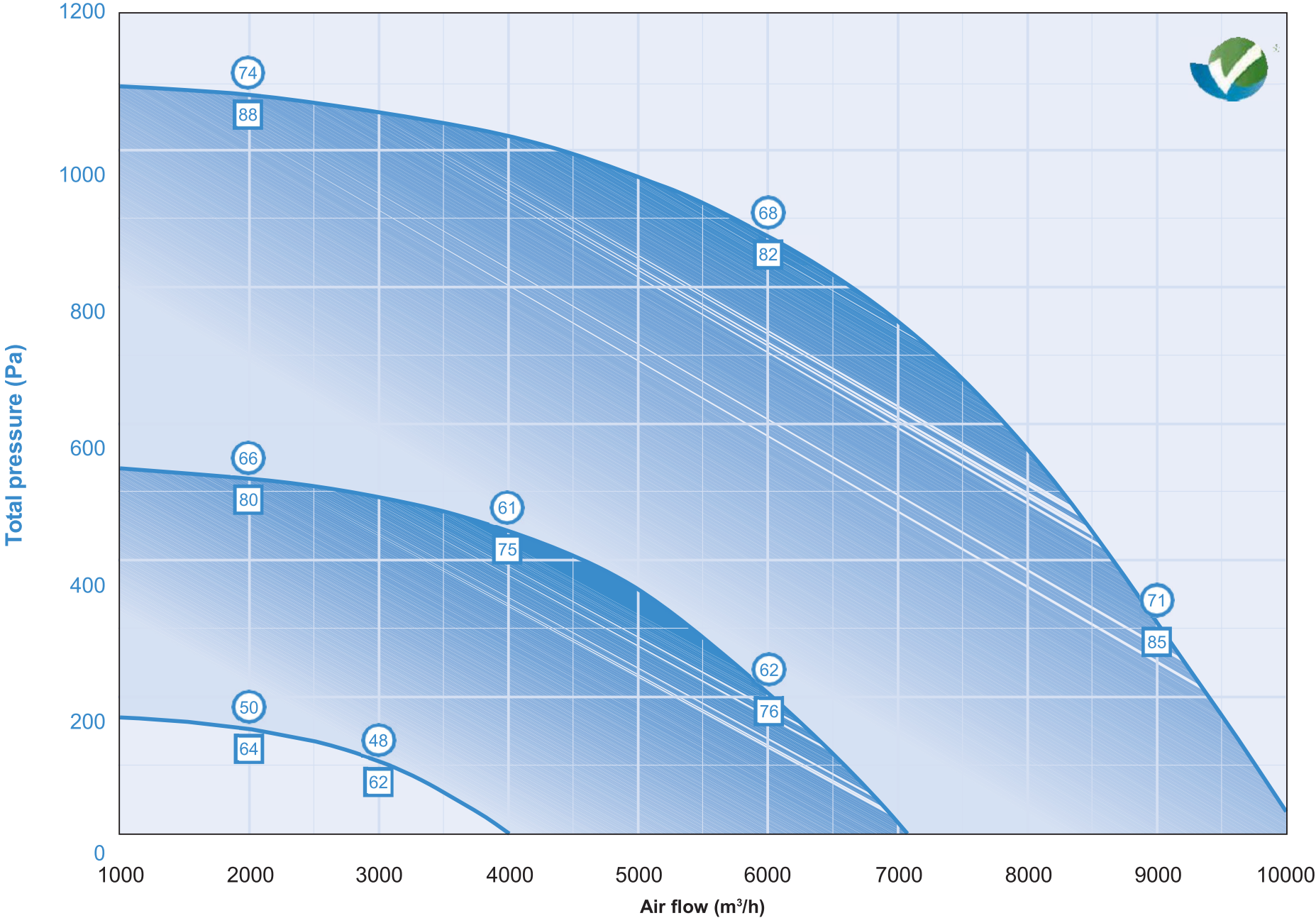


Additional modules CBX 7





CBZ 8 EC



Additional modules CBX 8 (Voir p 113)

