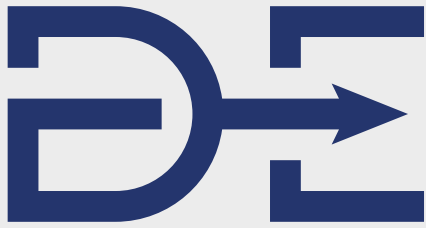


# DECACLIMA

INNOVATION IN AIR CONDITIONING  
AND AIR QUALITY EQUIPMENT



**GENERAL CATALOGUE**



# DECACLIMA

## AIR CONDITIONING SOLUTIONS

Company specialised in air conditioning equipment and solutions as well as air treatment and purification for clients requiring personalised solutions and with high technical requirements; especially air treatment units for applications in highly demanding sectors such as the healthcare, pharmaceutical and food sectors as well as automotive industry and other similar types of industries.

## HIGH-LEVEL EQUIPMENT

High-level equipment for critical applications that integrate specific filtration requirements, including HEPA in the same unit, constant flow rate control, temperature control of air supply or return, control of humidity and built using stainless ASI 314/316 steel and fully compatible with VRF solutions on the market.

## PLUG&PLAY

Our units are designed as PLUG&PLAY, making them easy to connect and unifying all the control systems required **for any application or overall solution**. Our units also use known communication protocols such as Modbus, BACnet, KNX, LonWorks, and others.

Our **commitment** towards overall sustainability, excellence and innovation are the three essential pillars we use to manage our future as a company at the service of our clients.



### SUSTAINABILITY

At DECACLIMA, our commitment towards sustainability can be seen in how our products are designed to consume the minimum amount of natural resources and in our work on environmental projects to achieve global wellness and a circular economy.



### EXCELLENCE

Excellence is a set of concepts to achieve maximum efficiency in each of the projects we work on with our clients, including entrepreneurial excellence, which is DECACLIMA's main objective.



### INNOVATION

Our Focus on customer service, our commitment towards environmental sustainability and excellence in our projects makes innovation the main resource of DECACLIMA for creating new projects and technological solutions within and outside our company.

## QUALITY

DECACLIMA is a young services company with its own technical team that is highly experienced in the air conditioning sector. Their clear focus on the client is noteworthy, providing value, innovation and efficiency to each one of the designs and units.



### SERVICE

We tailor the service to each of our client's needs and we accompany them throughout the entire process; from the start of the design, to the commissioning of the installation.



### ENGINEERING

We are specialised in designing and manufacturing solutions and tailor made equipment. Our products integrate the most innovative and efficient equipment to achieve the best possible result.



### CONSTRUCTION

At DECACLIMA we use the best construction systems to guarantee an improved operation and finish of our equipment. An illustrative example is the construction of the AHU (Air Handling Unit).



### STRUCTURE

Built using aluminium sections with sanitation baseboard. A closed-cell neoprene seal is installed on the section to guarantee the water-tightness of the union with the panels.

The union between sections is carried out using pressure cast angled nylon joints.

Available as an optional treatment for corrosive environments and interior and exterior stainless steel finishes.

# EQUIPMENT WITH GUARANTEED EFFECTIVENESS

DECACLIMA gives its clients reassurance of guaranteed equipment effectiveness and quality, through testing and certification by independent laboratories.

## High mechanical performance in accordance with DIN EN 1886: 2009

**Air Treatment units** have passed the most demanding tests, obtaining excellent results (according to DIN EN 1886: 2009), accredited by the independent laboratory TÜV NORD (**Test Report No. : TR-KKL-2021-062**). The tests certify good mechanical characteristics of the equipment with **transmittance thermal bridge classes T2 and TB2**. The results obtained confirm maximum mechanical resistance, minimal air leakage through filter and minimal heat transfer through the structure.



GC range characteristics	DIN EN 1886:2009 class
Mechanical resistance	D1 (M)
Bypass through filter	F9 (M)
Transmittance thermal bridge	T2
Thermal bridge	TB2



Tested by:

**TÜV NORD  
Systems  
GmbH & Co. KG**

According EN 1886:2009

**T2**

**TB2**

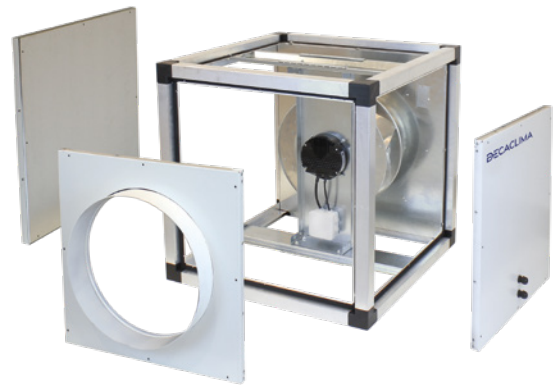


## SUPPORT BRACKETS AND FRAMES

We adapt the supporting structures to the needs of the client, occasionally manufacturing supporting structures such as feet supports, Omegas or perimeter frames depending on the fixing needs of each installation. The frames can be made of a UPN profile forming a self-supporting base.

## CASING

The standard panels are 25 to 45 mm thick sandwich type with a lacquered panel. On special order, we can supply units with up to a 100 mm thick panel and a galvanised or stainless steel interior finish. We also have acoustic interior panels for low noise level units.



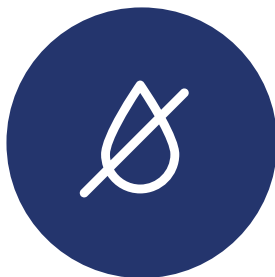
## INSPECTION DOORS

Inspections doors that facilitate conducting maintenance on the unit and ensure water-tightness under overpressure as well as low pressure conditions.

**We also manufacture units with water-tight doors with interior locks made of aluminium or with a pressurised perimeter for applications that require it.**

## TRAYS AND HATCHES

Manufactured in stainless AISI304 steel and with a drop to collect condensates as standard. The outlet tube provides 3/4" with a 20 mm outer thread to connect with the drain system. Thermal insulation is installed on the outside.



### WATER-TIGHT SEAL

The regulation hatches are entirely manufactured using extruded aluminium with aerodynamic mobile slats and a water-tight seal.



### GEAERS WITH SHAFT

Movement is transmitted using gears with a shaft ready to install actuators or manually actuated handles. These handles can be supplied in steel or aluminium.



DECACLIMA

# 01. INDUSTRIAL

Equipment for  
industrial  
applications  
and processes

## GENERAL INDEX OF PRODUCTS

### 10 COMPACT AHUs

Small size Plug&Play air conditioning units



Horizontal low profile units



Vertical low profile units



Roof-top units



Vertical UP-FLOW units

### 17 HIGH FLOW RATE AHUs

HIGH FLOW RATE air treatment units



### 20 ROOF TOP VRF

Direct expansion units with VRF units



### 23 SUPPLY ROOM AHUs

Air conditioning units for food processing rooms



### 28 DEHUMIDIFIERS

Horizontal dehumidifier units





# 02. COMFORT

Equipment for commercial applications and for the service sector

## 31 HEAT RECOVERY UNITS

High-efficiency heat recovery units



Low profile units



Roof-top units

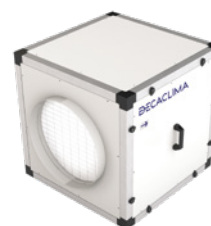
## 42 AIR PURIFICATION

Air purifiers with different stage filters



## 48 AIR FILTRATION

Air filter units with different stage filters



## 63 VENTILATION UNITS

Direct-drive and belt-driven ventilation units

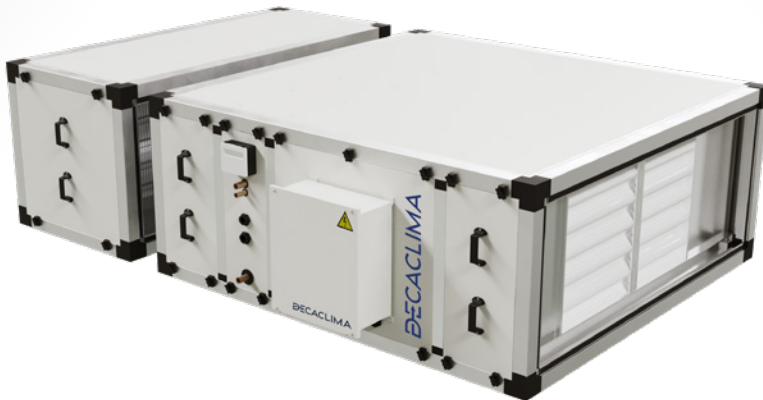


# COMPACT air conditioning units that are small-size, Plug&Play and with a hygienic construction

LOW PROFILE UNITS  
ACB / ACBV

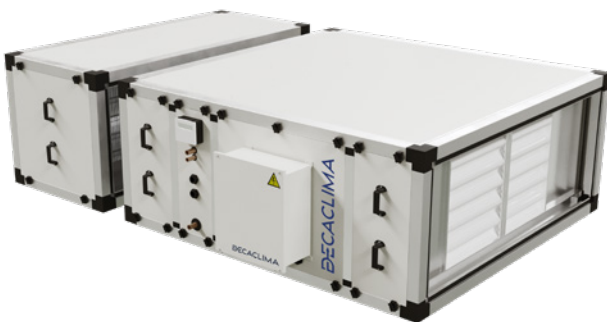
ROOF-TOP UNITS  
ACCI / ACCE

VERTICAL UP-FLOW UNITS  
ACV UP-FLOW



## COMPACT air conditioning units that are small-size, Plug&Play and with a hygienic construction

The COMPACT series of air conditioning units are manufactured using high quality hygienic construction standards, a Plug&Play operation and built-in control compatible with any standard BMS protocol on the market. These units are ideal for air conditioning critical areas such as hospitals, clean rooms, laboratories or for health applications. The units can be connected to coolers, direct expansion or VRF units on the market.



### MAIN CHARACTERISTICS

- Hygienic construction in accordance with UNE/EN 13053, DIN 1946-4 and ASHRAE 170.
- G4 and F9 filtering.
- Dirty filter pressure switch.
- Plug Fan EC fans with flow rate regulator or constant pressure.
- AISI 304 stainless steel condensates tray.
- Double sided panels with a 30 mm interior thermal insulation.
- Smooth interior.
- Plug & Play control panel.
- PLC that can be connected to different BMS protocols.
- Low noise level.

### STANDARD FINISHES

- Galvanised interior / painted exterior.
- Aluminium structure with thermal bridge.

### OPTIONS

- HEPA filtration module.
- Humidifier module.
- UVc germicidal chamber.
- PID temperature and humidity control.
- AISI 304 stainless steel interior.
- Panel with 50 mm insulation.
- Canopy for use outdoors.
- Other configurations in accordance with the requirements.

### CONFIGURATIONS

- ACB: Horizontal low profile units.
- ACBV: Vertical low profile units.
- ACCI: Roof-top units for installation indoors.
- ACCE: Roof-top units for installation outdoors.
- ACV UP-FLOW: Bi-directional vertical UP-FLOW units.

### VERSIONS

- For direct expansion and VRF.
- For water.



## Operation

For an easy installation and operation of all COMPACT series equipment, they may be equipped with specific controls that integrate the processes required by the air conditioning unit and establish communications with the building's BMS via any communications protocol.

Different versions of control exist for the most common applications, thus facilitating the integration of the project:



### BASIC CONTROL

Designed for basic applications that do not require a strict control of the settings; ideal for use in comfort areas.

- ON / OFF
- Operating mode selection
- Temperature setting
- Constant flow rate ventilation
- Dirty filter indication
- 3 way valves outlet ON/OFF with 2 and 4 ducts
- Modbus RTU communication



### LABORATORY CONTROL

Fully programmable control with functions that can be adapted to the needs of the client's project and especially designed for rooms requiring a control that is configurable and adaptable to the process such as operating rooms, clean rooms or isolation rooms.

- ON / OFF
- Operating mode selection
- Temperature setting
- Constant flow rate ventilation
- Outlet for extraction
- Outlet for exterior air mixture hatches
- Speed settings
- Pressure and CO<sub>2</sub> probe inlet
- Dirty filters indication
- Modulating 3 way valves outlet with 2 and 4 ducts
- Modbus RTU communication

### ENVIRONMENTAL CONTROL

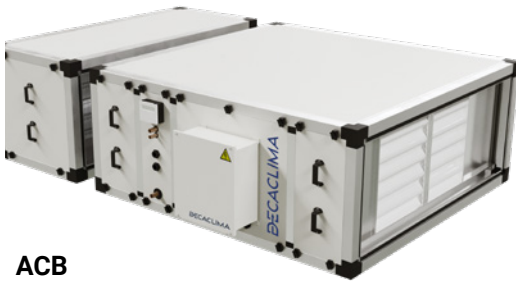
Control based on an open programming PLC to control the temperature and humidity of the room as well as settings to achieve a thermal stability inside the room regardless of the condition of the exterior air that is entering the room. Specifically designed for laboratories, surgery rooms, document files, museums or locations that require very stable environmental conditions.

- ON / OFF
- Operating mode selection
- Temperature setting
- Humidity setting
- Constant flow rate ventilation
- Outlet for extraction
- Outlet for exterior air mixture hatches
- Air supply T/H limiting probe
- Speed settings
- Pressure and CO<sub>2</sub> probe inlet
- Dirty filters indication
- Modulating 3 way valves outlet with 2 and 4 ducts
- Modulating outlet to the dehumidifier
- Modbus RTU communication

# Low profile units

## ACB / ACBV

Low profile air conditioning units with a horizontal construction (ACB) or vertical construction (ACBV) to be installed in tight areas such as technical ceilings. The adaptation of the manufacturing to the client's project allows manufacturing units tailored to each need.



ACB



ACBV

### Technical characteristics

Model		ACB ACBV 1.0 7 19 DX/Ho	ACB ACBV 1.5 9 19 DX/Ho	ACB ACBV 3.0 20 19 DX/Ho	ACB ACBV 4.0 28 19 DX/Ho
COOLING CAPACITY	kW	7.1	9	20	28
	TR	2	2.6	5.7	8
HEATING CAPACITY	kW	8.2	10.5	22	31
	KCAL	7052	9030	18920	26660
FLOW RATE	m <sup>3</sup> /h	1000 (800-1000)	1500 (1100-2000)	3000 (2300-3500)	4000 (3600-4500)
	CFM	590	880	1800	2350
NOISE LEVEL	DB A	42	42	47	49
STATIC PRESSURE	PA	450	450	450	450
POWER SUPPLY	V	1x200-230 V 50/60 Hz	1x200-230 V 50/60 Hz	1x200-230 V 50/60 Hz	1x200-230 V 50/60 Hz
FAN	TYPE	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC
	kW	0.9	1.15	1.44	2.03

\*Noise levels calculated at 1 m from the free discharge and inlet unit for the indoor unit.

### Dimensions mm

Model		ACB ACBV 1.0 7 19 DX/Ho	ACB ACBV 1.5 9 19 DX/Ho	ACB ACBV 3.0 20 19 DX/Ho	ACB ACBV 4.0 28 19 DX/Ho
LENGTH (L)	mm	1600	1600	1600	1700
WIDTH (W)	mm	1050	1050	504	1950
HEIGHT (H)*	mm	475	475	504	504
WEIGHT	kg	115	115	152	178
HEPA MODULE	kg	400	400	400	400
HUMIDIFIER MODULE	kg	300	300	300	300
HATCHES MODULE	kg	300	300	300	300

\*Modules add to the total length of the air conditioning unit.

\*HEIGHT (H): varies depending on the mounting method. Guides for suspending the unit from the ceiling Height + 30 mm. Frame height + 50 mm.

\*The ACB V vertical version does not allow installing the dehumidifier module.

The nominal cooling capacities under conditions: Return 27° CBS/19° CBH, outdoor temperature 35° CBS. The nominal heating capacities under conditions: Return 20° CBS, outdoor temperature 7° CBS/6° CBH. Range in indoor operating conditions: Cooling 17° CBS to 32° CBS heat 10° CBS to 28° CBS. Range in outdoor operating conditions: Cooling 10°C to 45°C Heat -7°C to 24°C.

## Roof-top units

Air conditioning units designed to be installed on the roof-tops of buildings and can also be installed indoors (ACCI) as well as outdoors (ACCE).

## ACCI / ACCE



ACCI

### Technical characteristics

Model		ACCI ACCE	ACCI ACCE	ACCI ACCE	ACCI ACCE	ACCI ACCE
		3.0 20 19 DX/Ho	4.5 28 19 DX/Ho	6.0 33.5 19 DX/Ho	9.0 56 19 DX/Ho	12.0 67 19 DX /Ho
COOLING CAPACITY	kW	20	28	35	56	67
	TR	5.7	8.0	10.0	15.9	19.1
HEATING CAPACITY	kW	22.5	28.5	45	61	71
	KCAL	19350	24510	38700	52460	61060
FLOW RATE	m <sup>3</sup> /h	3000 (2500-3500)	4500 (3500-5000)	6000 (5000-6500)	9000 (8000-9500)	12000 (10000-13000)
	CFM	1800	2700	3500	5300	7000
NOISE LEVEL	DB A	52	52	56	56	61
STATIC PRESSURE	PA	350	350	400	400	400
POWER SUPPLY	V	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz
REFRIGERANT	-	R410A/R32	R410A/R32	R410A/R32	R410A/R32	R410A/R32
FAN	TYPE	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC
	kW	1.63	2.49	3.25	5.08	6.61

\*Noise levels calculated at 1 m from the free discharge and inlet unit for the indoor unit.

### Dimensions mm

Model		ACCI ACCE	ACCI ACCE	ACCI ACCE	ACCI ACCE	ACCI ACCE
		3.0 20 19 DX/Ho	4.5 28 19 DX/Ho	6.0 33.5 19 DX/Ho	9.0 56 19 DX/Ho	12.0 67 19 DX /Ho
LENGTH (L)	mm	2000	2000	2000	2000	2000
WIDTH (W)	mm	900	1200	1500	1500	1600
HEIGHT (H)*	mm	920	920	460	460	580
WEIGHT	kg	330	330	460	460	580
HEPA MODULE	kg	600	600	600	800	800
HUMIDIFIER MODULE	kg	600	600	600	800	800
HATCHES MODULE	kg	400/300 (WITH INDOOR/OUTDOOR HATCH)				

\*Modules add to the total length of the air conditioning unit.

# Vertical UP-FLOW units

## ACV UP-FLOW

Bidirectional vertical air conditioning units with a hygienic construction for UP-FLOW operation and especially designed to be easily transported using lifts, hoists or through 80 cm doors, making them ideal for use during building renovations. These units may be configured with a bottom or top supply and return.



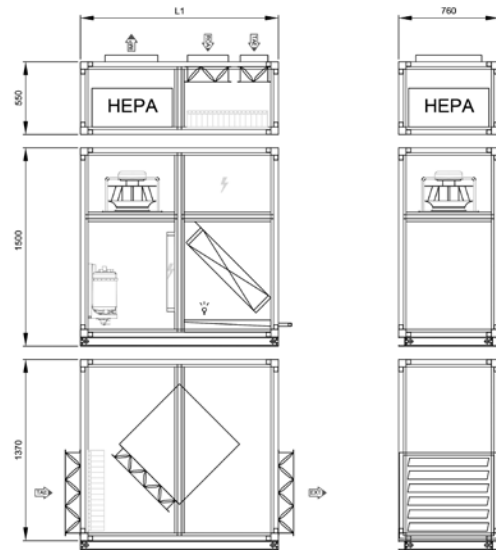
### Technical characteristics

Model		ACV UP-FLOW 2.0 14 18 DX T	ACV UP-FLOW 3.0 20 18 DX T	ACV UP-FLOW 4.0 26 18 DX T	ACV UP-FLOW 4.5 30 18 DX T
COOLING CAPACITY	kW	13.17	19.74	26.53	29.91
	TR	3.7	5.6	7.5	8.5
HEATING CAPACITY	kW	12.31	18.46	24.61	27.69
	KCAL	10587	15876	21165	23813
FLOW RATE	m <sup>3</sup> /h	2000	3000	4000	4500
	CFM	1176	1765	2353	2647
CONSUMPTION	W	763	1217	1384	1572
	A	1.29	2.1	2.3	2.7
NOISE LEVEL	DB A	42	46	43	46
STATIC PRESSURE	PA	400*	400*	400*	400*
POWER SUPPLY	V	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz	3x380-415 V 50/60 Hz
REFRIGERANT	-	R410A / R32	R410A / R32	R410A / R32	R410A / R32
FAN	TYPE	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC

\*Noise levels calculated at 1 m from the free discharge and inlet unit for the indoor unit.

\*Pressure available with a single battery and G4+F8 filtering. \*Considered air supply temperature 12.5°C and 38°C. The nominal cooling capacities under conditions: Return 27° CBS/19° CBH, outdoor temperature 35° CBS. The nominal heating capacities under conditions: Return 20° CBS, outdoor temperature 7° CBS/6° CBH.

## Dimensions mm



MAIN MODULE		ACV UP-FLOW 2.0/3.0 DX T	ACV UP-FLOW 4.0/4.5 DX T
LENGTH (L)	mm	1500	2150
WIDTH (W)	mm	1500	1500
DEPTH	mm	760	760

FILTER HOLDER MODULE		ACV UP-FLOW 2.0/3.0 DX T	ACV UP-FLOW 4.0/4.5 DX T
LENGTH (L)	mm	1500	2150
WIDTH (W)	mm	550	550
DEPTH	mm	760	760

RECOVERY MODULE		ACV UP-FLOW 2.0/3.0 DX T	ACV UP-FLOW 4.0/4.5 DX T
LENGTH (L)	mm	1500	2150
WIDTH (W)	mm	1370	1550
DEPTH	mm	760	760



## HIGH FLOW RATE air conditioning units Air treatment units with a hygienic construction

UNITS FOR  
INDUSTRIAL  
AND COMMERCIAL  
APPLICATIONS



## High flow rate air treatment units

High flow rate and high energy efficiency UTA/AHU that are suitable for all types of air conditioning installations in industrial processes. Designed to satisfy the most stringent requirements in terms of low energy consumption and high efficiency performance. The flexibility of its modular construction allows optimising the unit and adapting it to any HVAC project requirement, thus simplifying its installation. Plug & Play concept for an easy installation and commissioning.



### MAIN CHARACTERISTICS

- Flow rates from 1,000 m<sup>3</sup>/h to 80,000 m<sup>3</sup>/h.
- Plug Fan EC Fans.
- Hygienic construction in accordance with EN-13053.
- High quality components.
- Wide range of functions and options.
- Extruded aluminium profile with thermal bridge break.
- Rubber seal for sealing the panels.
- 25 to 45 mm thick sandwich type panels with a lacquered outer panel.
- High quality doors with locks for conducting inspections and cleaning.
- Support frames adapted to the needs of the installation.

### STANDARD FINISHES

- Galvanised steel interior.
- Lacquered sheet exterior.
- Aluminium modular structure.

### OPTIONS

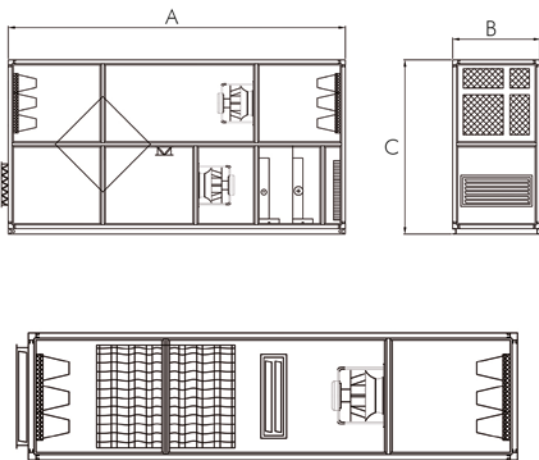
- Sandwich panel measuring up to 100 mm.
- Lacquered or stainless interior finish.
- Sound absorbing panels.
- Possibility of installing windows for conducting inspections and illuminating the interior.

This series is presented with flexible solutions adapted to the needs of the project and can be configured with heat recovery units (rotary, static, run-around), filtration stages with the efficiency required by the project or humidification systems (water panel, steam, spray). These units may be equipped with communication protocols for built-in control systems such as Modbus, BACnet, KNX, LonWorks and others.

**Technical characteristics**

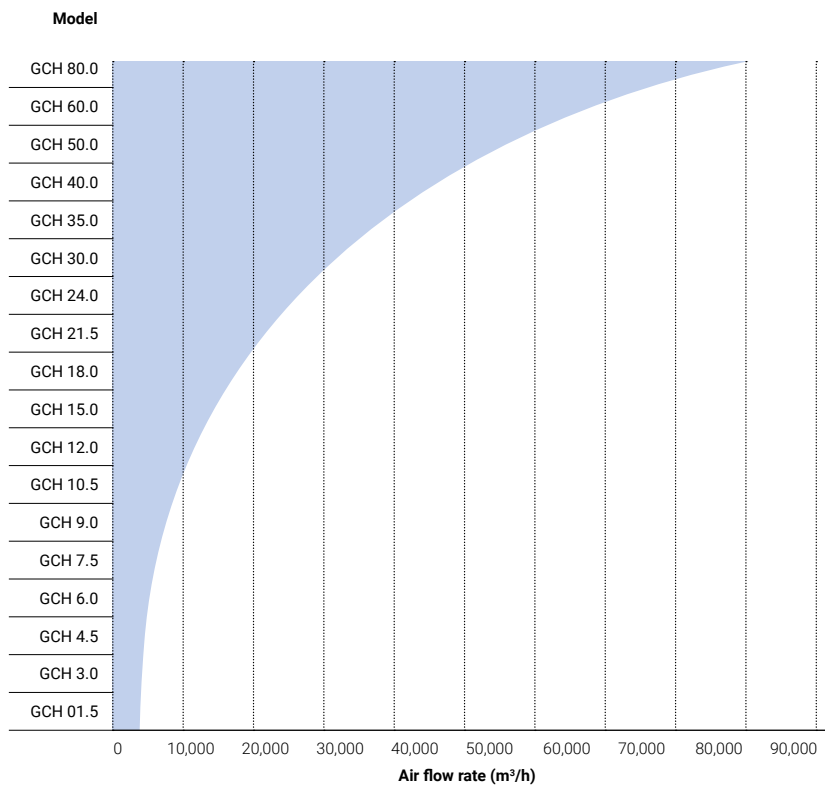
Model	Nominal flow rate m <sup>3</sup> /h	Model	Nominal flow rate m <sup>3</sup> /h	Model	Nominal flow rate m <sup>3</sup> /h
GCH 1.5	1500	GCH 10.5	10500	GCH 30.0	30000
GCH 3.0	3000	GCH 12.0	12000	GCH 35.0	35000
GCH 4.5	4500	GCH 15.0	15000	GCH 40.0	40000
GCH 6.0	6000	GCH 18.0	18000	GCH 50.0	50000
GCH 7.5	7500	GCH 21.5	21500	GCH 60.0	60000
GCH 9.0	9000	GCH24.0	24000	GCH 80.0	80000

**Dimensions mm**



Model	Width (B) mm	Height (C) mm	Model	Width (B) mm	Height (C) mm
GCH 1.5	1000	550	GCH 18.0	2200	1550
GCH 3.0	1000	850	GCH 21.5	2500	1700
GCH 4.5	1300	850	GCH 24.0	2500	1700
GCH 6.0	1600	850	GCH 30.0	2500	2050
GCH 7.5	1650	1000	GCH 35.0	2500	2350
GCH 9.0	1600	1250	GCH 40.0	2800	2350
GCH 10.5	1900	1150	GCH 50.0	3400	2350
GCH 12.0	1900	1300	GCH 60.0	3400	2650
GCH 15.0	2200	1400	GCH 80.0	4400	2650

**Quick selection**



# ROOF TOP VRF air conditioning units

## Direct expansion units with VRF

AIR RECIRCULATION UNITS

100% EXTERNAL AIR UNITS



# Direct expansion air conditioning equipment for large spaces with the advantages provided by VRF

With a compact design, hygienic finish and easy installation, to be installed on a roof or at ground level. The outdoor unit as well as the indoor unit are supplied connected, saving time since you don't have to connect the ducts.



## MAIN CHARACTERISTICS

- Compatible with any VRF system.
- High efficiency units.
- Flow rates from 3,800 m<sup>3</sup>/h to 15,000 m<sup>3</sup>/h.
- Plug Fan EC Fans.
- Hygienic construction.
- Extruded aluminium profile with thermal bridge break.
- Rubber seal for water-tight panels.
- 25 to 45 mm thick sandwich type panels with a lacquered outer panel.
- Support frames adapted to the needs of the installation.

## STANDARD FINISHES

- Galvanised steel interior.
- Lacquered sheet exterior.
- Aluminium modular structure.

## OPTIONS

- Control built-in to the unit.
- Dehumidification stage.
- Stainless interior finish.
- UVc germicidal chamber.
- Different filtering stages and characteristics.
- Hatches module with heat recovery unit.
- Different communication protocols.

## OPERATION

The ROOF TOP VRF series of air conditioners are high efficiency units since they can be used with any VRF system. The selected outdoor units use R410A or R32 refrigerant, which are more efficient and are supplied charged from the factory to guarantee a more efficient operation.



## Technical characteristics

Model		ACRT 2.1 12 1 DX T	ACRT 2.2 14 1 DX T	ACRT 3.4 16 1 DX T	ACRT 4.8 18 1 DX T	ACRT 4.9 20 1 DX T	ACRT 4.9 26 1 DX T
Cooling Capacity	kW	12.3	14	15.5	17.5	20	26
	Tr	3.5	4.0	4.4	5.0	5.7	7.4
Heating Capacity	kW	13.2	15.5	17	19	22	28.5
	Tr	3.8	4.4	4.8	5.4	6.3	8.1
Flow rate	m <sup>3</sup> /h	2050	2200	3400	4800	4850	4900
	cfm	1211	1300	2009	2836	2866	2895
Cooling Consumption	W	3413	4148	4746	5565	6405	7980
	A	5.5	6.7	7.6	8.9	10.3	12.8
EER	-	3.60	3.38	3.27	3.14	3.12	3.26
Heating Consumption	W	3570	4260	5009	5775	6615	8190
	A	5.7	6.8	8	9.3	10.6	13.1
COP	-	3.70	3.64	3.39	3.29	3.33	3.48
Noise level	dB A	57	57	57	59	59	60
Static pressure	Pa	250	250	250	250	250	250
Power supply	V	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz
Refrigerant	-	R410A	R410A	R410A	R410A	R410A	R410A
Charge	kg	3.9	4.5	4.9	5.2	5.8	7.2
Control	Type	By return temperature	By return temperature	By return temperature	By return temperature	By return temperature	By return temperature
	Type	Constant flow rate	Constant flow rate	Constant flow rate	Constant flow rate	Constant flow rate	Constant flow rate
Fan	Type	Plug Fan EC	Plug Fan EC	Plug Fan EC	Plug Fan EC	Plug Fan EC	Plug Fan EC
Compressors	Type	DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Exterior flow rate	m <sup>3</sup> /h	6,000	6,000	6,000	6,800	11,000	11,000

Model		ACRT 6.0 32 1 DX T	ACRT 7.5 40 1 DX T	ACRT 8.0 45 1 DX T	ACRT 9.5 54 1 DX T	ACRT 14.0 80 1 DX T	ACRT 15.0 90 1 DX T
Cooling Capacity	kW	31	40	45	54	80	90
	Tr	8.87	11.4	12.8	15.4	22.8	25.6
Heating Capacity	kW	34	45	50	57	90	100
	Tr	9.7	12.8	14.2	16.2	25.6	28.4
Flow rate	m <sup>3</sup> /h	6000	7500	8000	9500	14000	15500
	cfm	3545	4432	4727	5614	8273	9159
Cooling Consumption	W	9492	12257	14008	15960	24514	28016
	A	15.2	19.7	22.5	25.6	39.3	44.9
EER	-	3.27	3.26	3.21	3.38	3.26	3.21
Heating Consumption	W	10017	12463	14111	16380	24926	28222
	A	16.1	20	22.6	26.3	40	45.3
COP	-	3.39	3.61	3.54	3.48	3.61	3.54
Noise level	dB A	60	62	62	63	63	63
Static pressure	Pa	400	400	400	400	400	400
Power supply	V	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz	380-415 V 3 Phases + neutral 50 Hz
Refrigerant	-	R410A	R410A	R410A	R410A	R410A	R410A
Charge	kg	9.8	10.5	13.2	14.4	21	26.4
Control	Type	By return temperature	By return temperature	By return temperature	By return temperature	By return temperature	By return temperature
	Type	Constant flow rate	Constant flow rate	Constant flow rate	Constant flow rate	Constant flow rate	Constant flow rate
Fan	Type	Plug Fan EC	Plug Fan EC	Plug Fan EC	Plug Fan EC	Plug Fan EC	Plug Fan EC
Compressors	Type	DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Exterior flow rate	m <sup>3</sup> /h	12000	16600	16600	22000	33200	33200

The nominal cooling capacities under conditions: Return 27° CBS/19° CBH, outdoor temperature 35° CBS.

The nominal heating capacities under conditions: Return 20° CBS, outdoor temperature 7° CBS/6° CBH.

Range in indoor operating conditions: Cooling 17° CBS to 32° CBS heat 10° CBS to 28° CBS.

Range in outdoor operating conditions: Cooling 10°C to 45°C Heat -7°C to 24°C.

# EPA air conditioning units for power supply rooms

UNITS FOR COLD ROOMS  
EPA



# EPA air conditioning units for power supply rooms

The EPA series of air conditioning units with a simple or dual air supply are especially designed for use in food processing or handling rooms that require maintaining a positive temperature while also reducing the humidity inside the space.

Unlike standard evaporators for refrigeration chambers, the EPA series is built with thermally insulated panels and an aluminium perimeter structure with a thermal bridge, thus preventing condensation from forming outside the casing



**EPA SERIES  
SIMPLE AIR SUPPLY**



**EPA SERIES  
DUAL AIR SUPPLY**



## MAIN CHARACTERISTICS

- G4 washable filter and UL MERV8 certificate.
- Plug Fan EC Fans.
- AISI 304 stainless steel sliding condensates tray.
- Exchangers protected with an Epoxy treatment.
- Fully removable for cleaning and maintenance.
- Panels with interior thermal insulation.
- Flow rate control built-in to the unit.

## STANDARD FINISHES

- AISI 304 stainless interior/painted exterior.
- Aluminium structure with thermal bridge.

## OPTIONS

- Control built-in to the unit.
- Dehumidification stage.
- UVc germicidal chamber.
- F7 filtering of air supply.
- AISI 304 stainless steel structural sections.
- AISI 304 stainless steel interior and exterior.
- Air supply nozzles.
- Electrical heating elements kit.
- Bottom section return in simple air supply units.

## CONFIGURATIONS

- Simple air supply construction.
- Dual air supply construction.

## VERSIONS

- BASIC: Only flow rate control.
- PLUS: Carel IR33 temperature / humidity type control.
- MAX: Carel PCo+ type control with Modbus or other communication protocols upon special request.



**Operation**

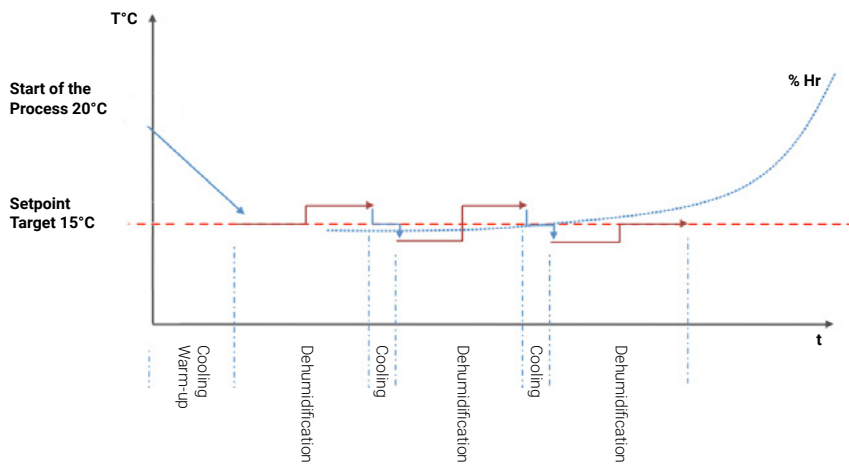
The EPA series air conditioning units replace typical evaporators and include cooling, dehumidifying and filtering into a single unit, preventing temperature from dropping below the set limit and thus preventing condensation from forming as well as excess cold air from being blown on the workers.



UVc germicidal lamps may be integrated in the units to ensure an optimum quality of bacteria free air is produced.

These units are capable of providing the air conditioning and filtering requirements of any food handling room with positive temperatures between 6°C and 18°C, although the flexibility in adapting to the project allows designing and manufacturing the ideal equipment for each application.

**Basic Diagram of the process**



**DEHUMIDIFICATION TABLE in kg/h at 0 m of altitude above sea level**

Room	Water -2°C ΔT 6°C												
10°C 85%	1.4	1.9	2.4	2.9	3.1	4.1	4.4	4.7	5.0	5.3	5.6	5.9	6.2
10°C 90%	2.0	2.7	3.4	4.1	4.5	5.0	5.7	6.4	7.1	7.8	8.5	9.2	9.9
15°C 75%	1.7	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7
15°C 80%	2.3	3.0	3.7	4.4	5.1	5.8	6.3	7.2	7.9	8.6	9.3	10.0	10.7
Q M3/h	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500

Room	Water 0°C ΔT 6°C												
10°C 85%	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2
10°C 90%	1.3	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.5	4.9	5.3	5.7	6.1
15°C 75%	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.2
15°C 80%	2.0	2.6	3.2	3.8	4.4	5.0	5.6	6.2	6.8	7.4	8.0	8.6	9.2
Q M3/h	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500

## Technical characteristics

### EPA SERIES SIMPLE AIR SUPPLY

Model		EPA 1.3 4 1	EPA 2.5 8 1	EPA 3.8 14 1	EPA 5.0 17 1	EPA 6.5 22 1	EPA 7.5 26 1
COOLING CAPACITY	kW (0°C-Δ12°C)	4.3	8.8	14	17	22.5	26.5
	kW (+2°C-Δ10°C)	3.6	7.3	11.0	14.6	18.5	22.0
FLOW RATE	m³/h	1300	2500	3800	5000	6500	7500
	CFM	765	1471	2235	2941	3824	4412
FILTERING		G4 Washable corrosion resistant plastic					
REACH	M	6.0	8.0	10.0	10.0	10.0	11.0
HEATING ELEMENTS*	W (DEFROSTING)	1400	3000	3500	4500	5500	6500
	W (SUPPORT)	1000	2000	2500	3000	4000	4500
POWER SUPPLY	V	1x200-230 V 50/60 Hz			1x200-230 V 50/60 Hz or 3x380-400 V+N 50/60 Hz		

\*Optional electrical heating elements kit

### EPA SERIES DUAL AIR SUPPLY

Model		EPA 1.6 5 1 2D	EPA 2.5 8 1 2D	EPA 3.1 10 1 2D	EPA 4.5 17 1 2D	EPA 5.6 22 1 2D	EPA 6.8 26 1 2D
COOLING CAPACITY	kW (0°C-Δ12°C)	5.7	8.2	10	17	22	26
	kW (+2°C-Δ10°C)	4.2	6.5	8.4	14.1	17.9	22.0
FLOW RATE	m³/h	1600	4500	3100	4500	5600	6800
	CFM	941	2647	1824	2647	3294	4000
FILTERING		G4 Washable corrosion resistant plastic					
REACH	M	3.8	4.5	7.0	8.0	8.0	9.0
HEATING ELEMENTS*	W (DEFROSTING)	1300	1800	2500	6000	7500	8800
	W (SUPPORT)	1300	1800	2500	3000	4000	4500
POWER SUPPLY	V	1x200-230 V 50/60 Hz			1x200-230 V 50/60 Hz or 3x380-400 V+N 50/60 Hz		

\*Optional electrical heating elements kit

## Dimensions mm

### EPA SERIES SIMPLE AIR SUPPLY

Model	EPA 1.3 4 1	EPA 2.5 8 1	EPA 3.8 14 1	EPA 5.0 17 1	EPA 6.5 22 1	EPA 7.5 26 1
HEIGHT	400	400	400	400	700	700
WIDTH	1500	1500	1500	2100	2700	2700
DEPTH	650	650	650	650	800	800
FIN SEPARATION	2.5/3.0	2.5/3.0	2.5/3.0	2.5/3.0	2.5/3.0	2.5/3.0

### EPA SERIES DUAL AIR SUPPLY

Model	EPA 1.6 5 1 2D	EPA 2.5 8 1 2D	EPA 3.1 10 1 2D	EPA 4.5 17 1 2D	EPA 5.6 22 1 2D	EPA 6.8 26 1 2D
HEIGHT	400	400	400	400	400	400
WIDTH	1500	1500	1500	2100	2700	2700
DEPTH	1200	1200	1200	1200	1400	1400
FIN SEPARATION	2.5	2.5	2.5	2.5	2.5	2.5

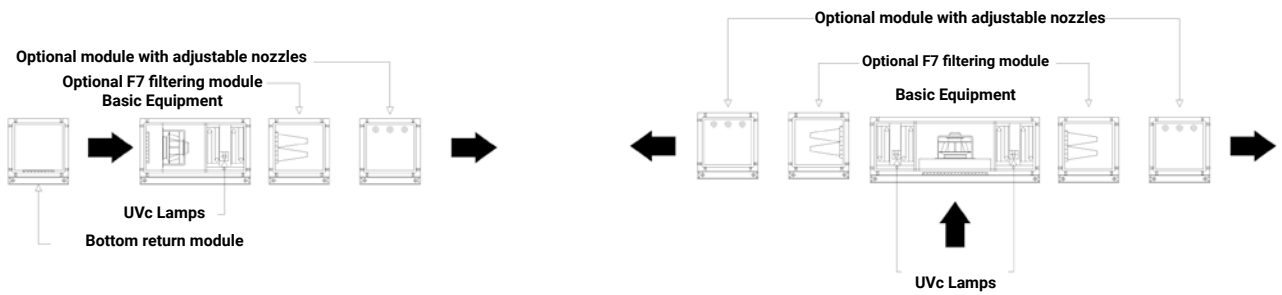
**Configurations**



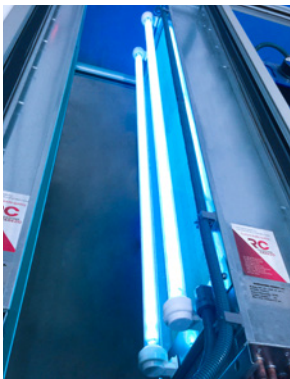
**EPA STAINLESS SERIES  
SIMPLE AIR SUPPLY**



**EPA STAINLESS SERIES  
DUAL AIR SUPPLY**



**Upon request**



Germicide chamber with UVc lamps upon request

**Examples of application**



# DH dehumidifiers

Horizontal units for use in pools, sports complexes, leisure centres, spas or health resorts

DEHUMIDIFIER  
UNITS



## DH dehumidifiers are units with a heating pump and a Free Cooling outside air heat recovery stage

The water vapour that is generated through natural evaporation in any application where a high level of humidity is present causes damage to construction materials and furniture in the surrounding area and also has adverse effects on personnel that are present inside the space. In accordance with RITE, the air extracted from an indoor pool must be recovered at a rate of 9 m<sup>3</sup>/h for each m<sup>2</sup> of pool.



### OPTIONS

- Control built-in to the unit.
- UVc germicidal chamber.
- Different filtering stages and characteristics.
- Hatches module with heat recovery unit.
- Different communication protocols.

### MAIN CHARACTERISTICS

- Flow rates from 3,000 m<sup>3</sup>/h to 17,000 m<sup>3</sup>/h.
- Plug Fan EC Fans.
- Extruded aluminium profile with thermal bridge break.
- Rubber seal for water-tight panels.
- 25 to 45 mm thick sandwich type panels with a lacquered outer panel.
- Evaporator with direct expansion exchanger, copper pipes and aluminium fins with a special anti-corrosive finish.
- Condenser with exchanger and cooling circuit that uses hermetic scroll compressors.
- High-efficiency cross-flow heat recovery units.
- Filtering stages for retaining particles.
- Built-in electrical panel.
- Support frames adapted to the needs of the installation.

### STANDARD FINISHES

- Galvanised steel interior.
- Lacquered sheet exterior.
- Aluminium modular structure.

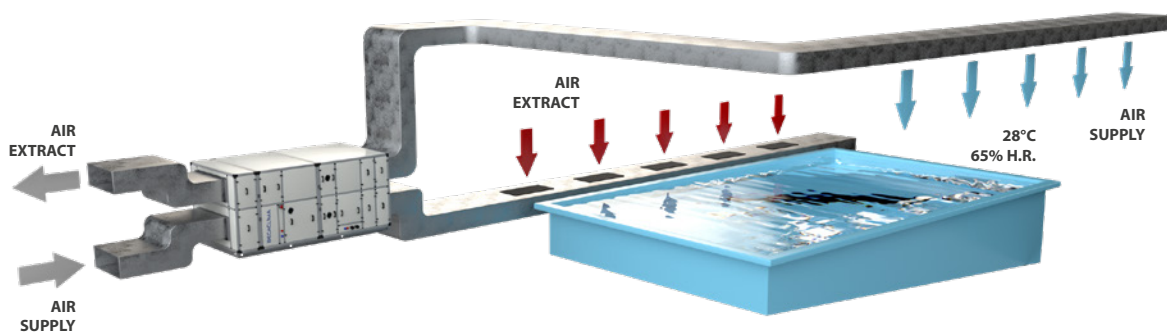
## OPERATION

DH dehumidifiers have been designed for controlling the heating and dehumidifying of a space, ensuring the necessary air is renewed as well as a good quality air that is ideal for keeping personnel comfortable as well as ensuring the durability of construction materials and furniture.

These units are designed to create a machine with a fully independent operation including all the necessary features for reaching and maintaining the pre-set comfort conditions.

DH dehumidifiers are capable of maintaining the desired temperature and humidity values in any installation such as indoor pools or sports complexes, including a hot water coil to raise the temperature of the air and a cooling circuit that is used to dehumidify while also heating the air.

The units incorporate a cross-flow heat recovery unit to improve the efficiency of the machine.



## CONSTRUCTIVE DETAILS

### EXTERNAL PANELS

Sandwich type panels with a steel surface finish and polyurethane foam interior of a thickness between 25 mm and 45 mm depending on the size. Designed to achieve an optimum thermal insulation with thermal conductivity values of 0.024 w/m°C and also ensuring a great acoustic insulation with a great mechanical strength is achieved.

### HOT WATER COIL

Coil with heat exchangers via the energy provided by the hot water generated by a boiler.

### EXTERNAL STRUCTURE

Extruded aluminium profiles with nylon corners to ensure a perfect closure



### FILTERS

Filtering stages for capturing particles is required in order to improve the conditions of the indoor air and improve the health of personnel breathing this air.

### COOLING CIRCUIT

Cooling circuit comprised of a sealed or semi-sealed compressor with internal protection and evaporator battery and condenser made of copper pipes and aluminium fins.

### CONTROL

Different controllers and communication protocols may be used depending on the needs of each installation.

### REFRIGERATION BATTERIES

They are heat exchangers used for transferring energy to or from the air. Using R410A refrigerant gas we can provide the energy required for heating and cooling the air through its stage changes.

# Heat recovery units with high efficiency counterflow plate heat exchanger

LOW PROFILE UNITS  
REC BS

ROOF-TOP UNITS  
REC H



## REC BS

High efficiency heat recovery units with counterflow plate heat exchanger, automatic control and E.C. Technology motors for installation in a false ceiling



### FINISH:

- Aluminium profile structure and prefinished sheet exterior.
- Panels with 25 mm thermal and acoustic insulation.
- Low profile for installation in false ceilings.
- Interchangeable nozzles for a better adaptation.

### UPON REQUEST:

- External battery modules for treating the air.
- Special efficiency filters.
- Modules with UVc germicidal chamber.

### COMMON CHARACTERISTICS:

- EC type Plug Fans adjustable between 0-10 V.
- Built-in maintenance circuit-breaker switch.
- Thermal efficiency of the unit 85-90%.
- Reinforced aluminium profile structure.
- Panel with 25 mm thermal and acoustic insulation and prefinished sheet exterior.
- XPS type panels with thermal bridge break.
- High efficiency filtration:
  - M6+F8
  - F7+F9
- Wide access for maintenance.
- Free cooling with motorised hatch for BY-PASS.
- Condensate collection and drainage tray.

### BUILT-IN CONTROL PANEL:

- Free cooling function by means of a motorised BY-PASS.
- Fan speed control by manual selection or by optional external sensors (CO<sub>2</sub> or pressure).
- Built-in control system with remote control panel.
- STOP / START and speed control available through control panel or external contacts.
- Built-in temperature and humidity sensors.
- Filter status control by means of built-in pressure switches.
- Alarms management of faults and stoppage due to a fire alarm.
- Compatible with MODBUS RTU.



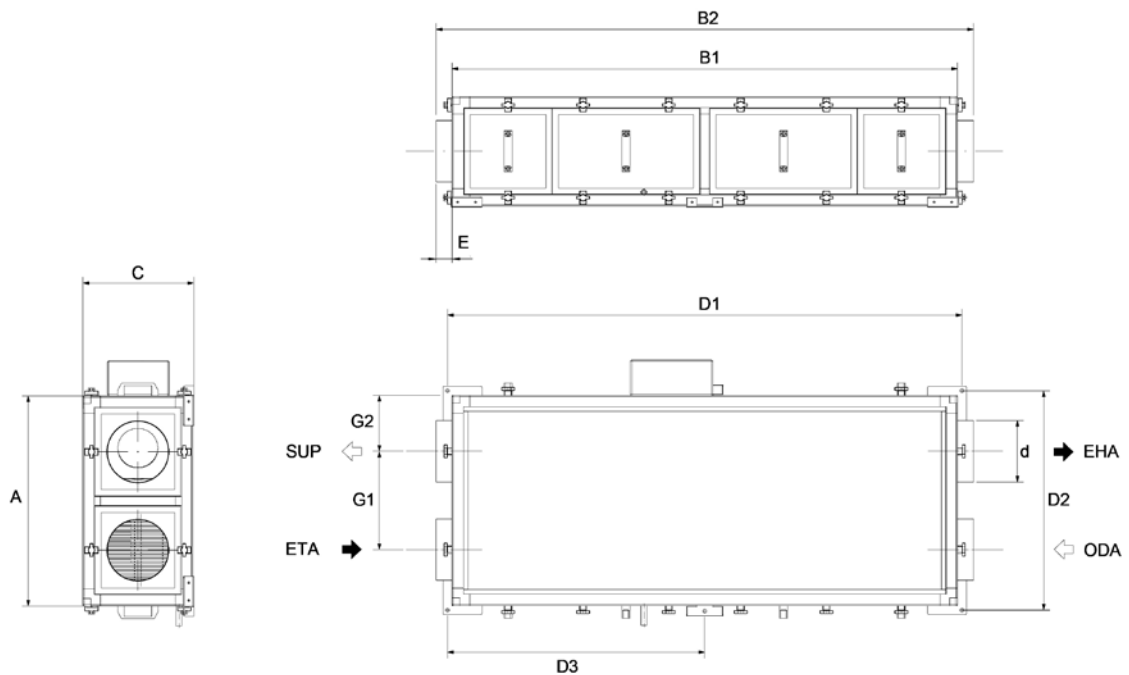
**Characteristics based on the size**

	REC BS-800	REC BS-1200	REC BS-1600	REC BS-2100	REC BS-2700
Supply filter (ODA)	M6+F8 / F7+F9	M6+F8 / F7+F9	M6+F8 / F7+F9	M6+F8 / F7+F9	M6+F8 / F7+F9
Extract filter (ETA)	M6	M6	M6	M6	M6
Free cooling function by means of a motorised BY-PASS	SI	SI	SI	SI	SI
Panel thickness	25 mm	25 mm	25 mm	25 mm	25 mm
Discharging of condensates	SI	SI	SI	SI	SI
Status control pressure switch for built-in filters	SI	SI	SI	SI	SI
Safety and maintenance switch	SI	SI	SI	SI	SI
Built-in control panel	SI	SI	SI	SI	SI

**Technical characteristics**

Model	Nominal flow rate (m³/h)	Efficiency of recovery unit (%)	Available pressure (Pa)	Nominal power (kW)	Nominal current (A)	Voltage (V)	Irradiated noise level at 5 m dB(A)	Weight (kg)	According ErP
REC BS-800	800	86.5	70	0.39	2.91	1/230	45	78	2018
REC BS-1200	1200	86.8	70	0.32	1.16	1/230	34	105	2018
REC BS-1600	1600	86.2	100	0.53	2.11	1/230	40	178	2018
REC BS-2100	2100	88.0	100	0.76	3.14	1/230	43	216	2018
REC BS-2700	2700	86.9	100	1.23	5.17	1/230	50	216	2018

**Dimensions mm**



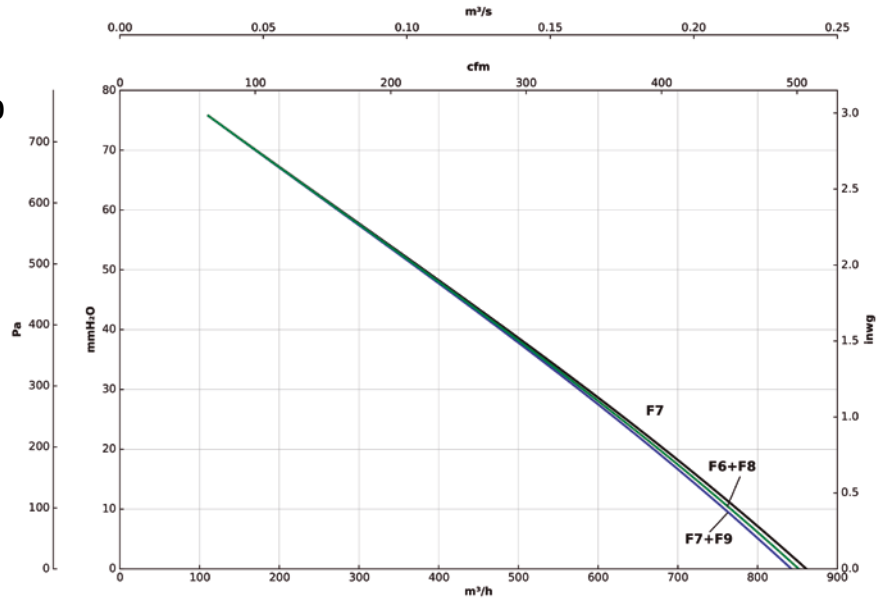
Model	A	B1	B2	C	D1	D2	D3	E	G1	G2	d
REC BS-800	684	1644	1694	357	1664	704	832	25	320	182	200
REC BS-1200	1124	1890	1940	480	1910	1144	955	25	695	214	315
REC BS-1600	1250	1970	2020	480	1990	1270	995	25	781	235	355
REC BS-2100	1250	2198	2248	620	2218	1270	1109	25	736	257	400
REC BS-2700	1250	2198	2248	620	2218	1270	1109	25	736	257	400

ODA: Fresh outdoor air / SUP: Air supply to the premise / EHA: Exhaust air outlet / ETA: Air extraction from the premise.

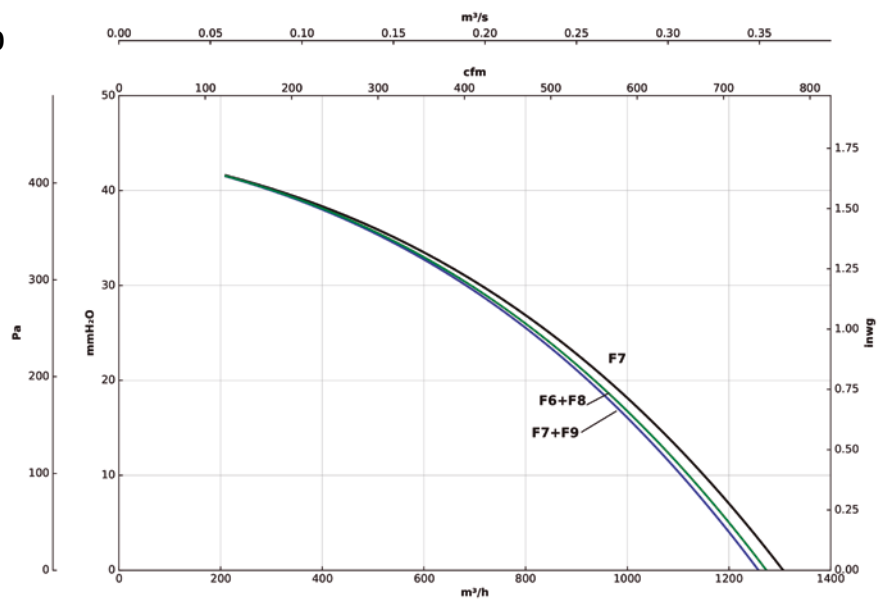
**Characteristic curves**

Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Static pressure in mmH<sub>2</sub>O, Pa and inwg.

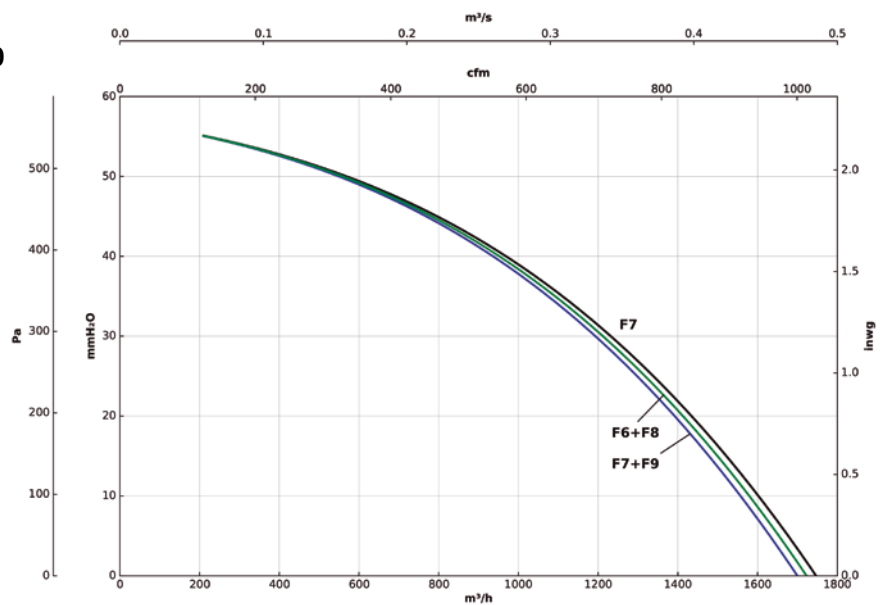
**REC BS-800**



**REC BS-1200**



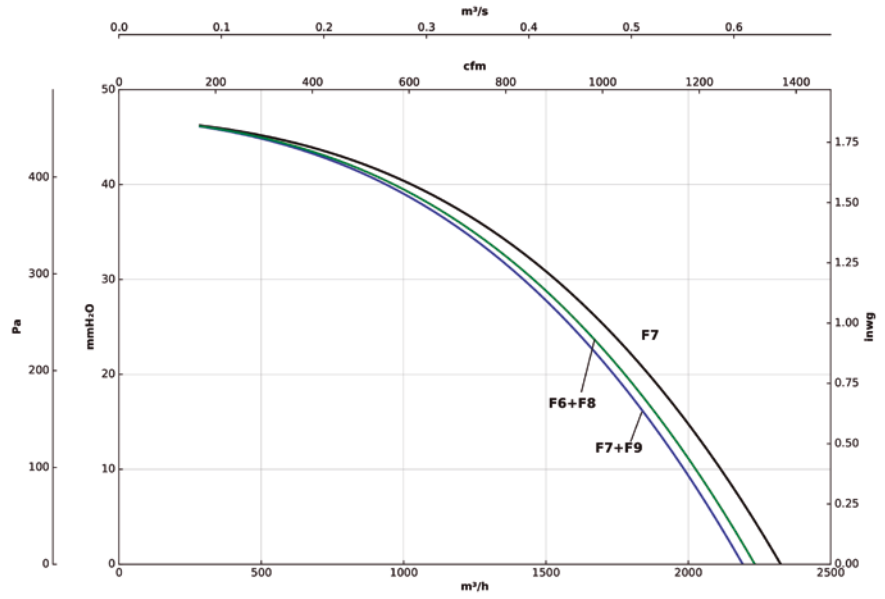
**REC BS-1600**



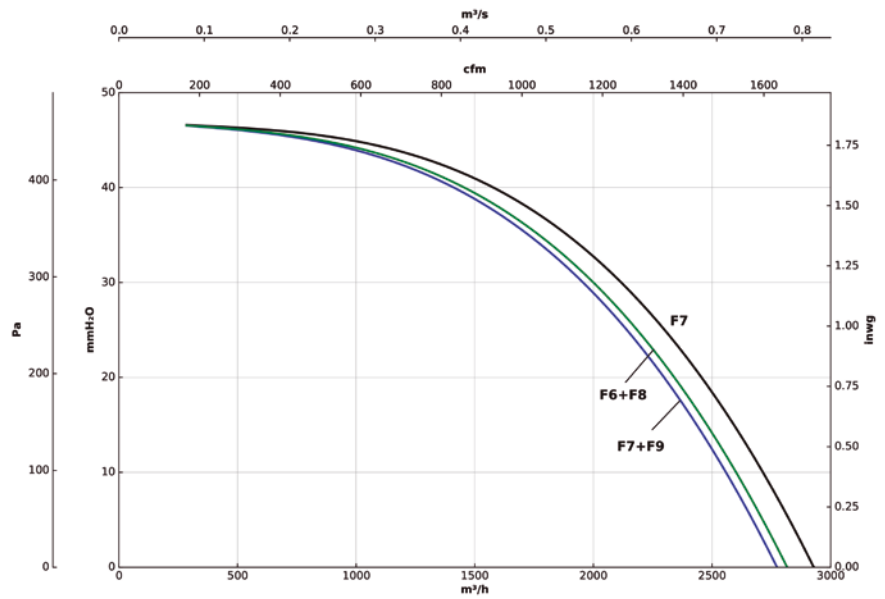
**Characteristic curves**

Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Static pressure in mmH<sub>2</sub>O, Pa and inwg.

**REC BS-2100**

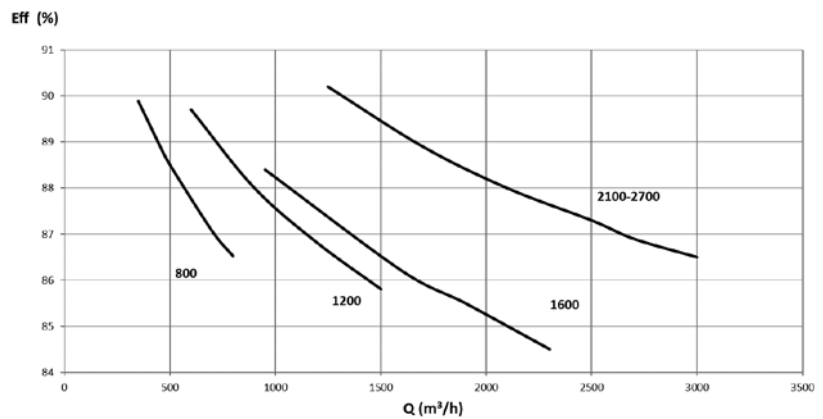


**REC BS-2700**



**Efficiency curves**

Flow rate in m<sup>3</sup>/h  
 % efficiency



## REC H

High efficiency heat recovery units with counterflow plate heat exchanger, automatic control and E.C. Technology motors for installation in roof-tops or technical room



### FINISH:

- Aluminium profile structure and prefinished sheet exterior.
- Panels with 25 mm thermal and acoustic insulation up to model 2700.
- Panels with 50 mm thermal and acoustic insulation beginning with model 3300 and subsequent models.

### UPON REQUEST:

- External battery modules for treating the air.
- Special efficiency filters.
- Modules with UVc germicidal chamber.

### COMMON CHARACTERISTICS:

- EC type Plug Fans adjustable between 0-10 V.
- Built-in maintenance circuit-breaker switch.
- Thermal efficiency of the unit 85-90%.
- High quality reinforced aluminium profile structure.
- Panels with thermal and acoustic insulation; prefinished sheet exterior.
- XPS type panels with thermal bridge break.
- G4 pre-filter + M6 or F7 filter in the air supply.
- High efficiency F8 or F9 filtration in the air supply.
- Wide access for maintenance.
- Free cooling with motorised hatch for BY-PASS.
- Condensate collection and drainage tray.

### BUILT-IN CONTROL PANEL:

- Free cooling function by means of a motorised BY-PASS.
- Fan speed control by manual selection or by optional external sensors (CO<sub>2</sub> or pressure).
- Built-in control system with remote control panel.
- STOP / START and speed control available through control panel or external contacts.
- Built-in temperature and humidity sensors.
- Filter status control by means of built-in pressure switches.
- Alarms management of faults and stoppage due to a fire alarm.
- Compatible with MODBUS RTU.

### Characteristics based on the size

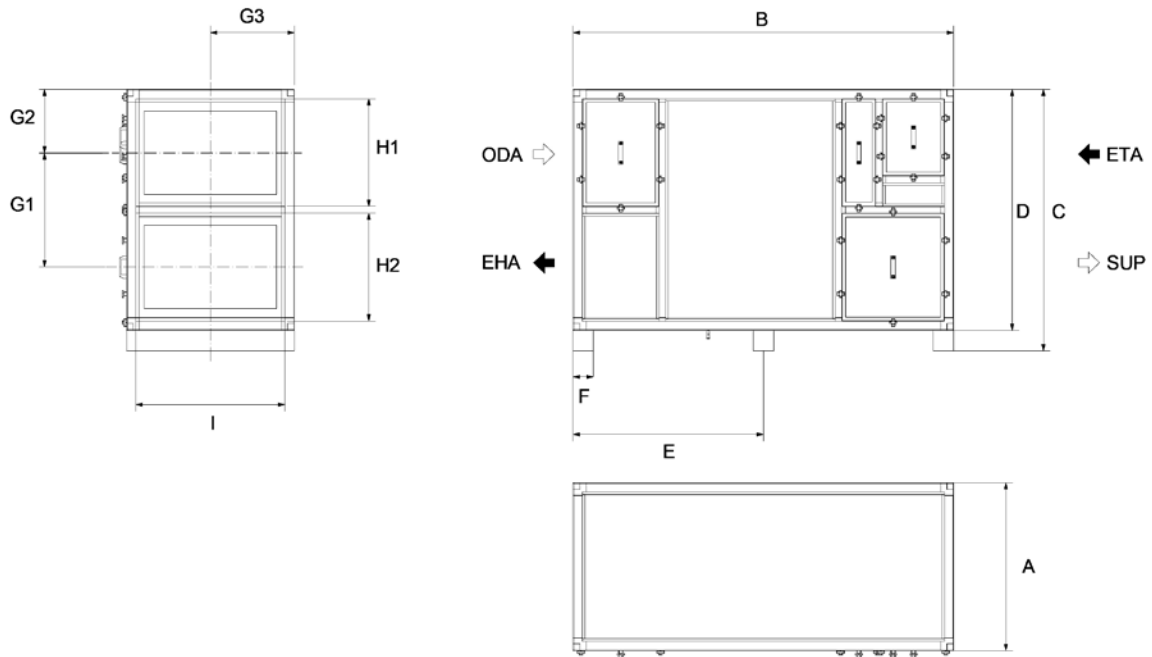
	REC H-1200	REC H-1600	REC H-2100	REC H-2700	REC H-3300
Supply filter (ODA)	G4+M6/F7	G4+M6/F7	G4+M6/F7	G4+M6/F7	G4+M6/F7
Impulsion filter (SUP)	F8/F9	F8/F9	F8/F9	F8/F9	F8/F9
Extract filter (ETA)	M6	M6	M6	M6	M6
Free cooling function by means of a motorised BY-PASS	SI	SI	SI	SI	SI
Panel thickness	25 mm	25 mm	25 mm	25 mm	50 mm
Discharging of condensates	SI	SI	SI	SI	SI
Status control pressure switch for built-in filters	SI	SI	SI	SI	SI
Safety and maintenance switch	SI	SI	SI	SI	SI
Built-in control panel	SI	SI	SI	SI	SI

	REC H-4500	REC H-6000	REC H-8000	REC H-10000
Supply filter (ODA)	G4+M6/F7	G4+M6/F7	G4+M6/F7	G4+M6/F7
Impulsion filter (SUP)	F8/F9	F8/F9	F8/F9	F8/F9
Extract filter (ETA)	M6	M6	M6	M6
Free cooling function by means of a motorised BY-PASS	SI	SI	SI	SI
Panel thickness	50 mm	50 mm	50 mm	50 mm
Discharging of condensates	SI	SI	SI	SI
Status control pressure switch for built-in filters	SI	SI	SI	SI
Safety and maintenance switch	SI	SI	SI	SI
Built-in control panel	SI	SI	SI	SI

### Technical characteristics

Model	Nominal flow rate (m <sup>3</sup> /h)	Efficiency of recovery unit (%)	Available pressure F7 (Pa)	Nominal power (kW)	Nominal current (A)	Voltage (V)	Irradiated noise level at 5 m dB(A)	Weight (kg)	According ErP
REC H-1200	1200	90	200	0.45	1.78	1/230	37	210	2018
REC H-1600	1600	88.8	200	0.63	2.54	1/230	40	210	2018
REC H-2100	2100	88.8	200	0.82	1.48	3+N/400	43	281	2018
REC H-2700	2700	87.8	200	1.11	1.88	3+N/400	46	281	2018
REC H-3300	3300	88.8	300	1.68	2.65	3+N/400	50	324	2018
REC H-4500	4500	88.6	300	2.53	4.34	3+N/400	57	342	2018
REC H-6000	6000	89.1	300	2.55	4.26	3+N/400	47	385	2018
REC H-8000	8000	88	300	4.04	6.41	3+N/400	51	385	2018
REC H-10000	10000	87	300	6.11	9.38	3+N/400	56	385	2018

Dimensions mm



Model	A	B	C	D	E	F	G1	G2	G3	H1	H2	I
REC H-1200	566	2213	1507	1387	1030	120	672	355	283	637	647	492
REC H-1600	566	2213	1507	1387	1030	120	672	355	283	637	647	492
REC H-2100	669	2213	1507	1387	1030	120	672	355	335	637	647	595
REC H-2700	669	2213	1507	1387	1030	120	672	355	335	637	647	595
REC H-3300	992	2250	1544	1424	1048	120	677	374	496	637	637	881
REC H-4500	1297	2250	1544	1424	1048	120	677	374	649	637	637	1186
REC H-6000	1889	2250	1544	1424	1048	120	677	374	945	637	637	1778
REC H-8000	1889	2250	1544	1424	1048	120	677	374	945	637	637	1778
REC H-10000	1889	2250	1544	1424	1048	120	677	374	945	637	637	1778

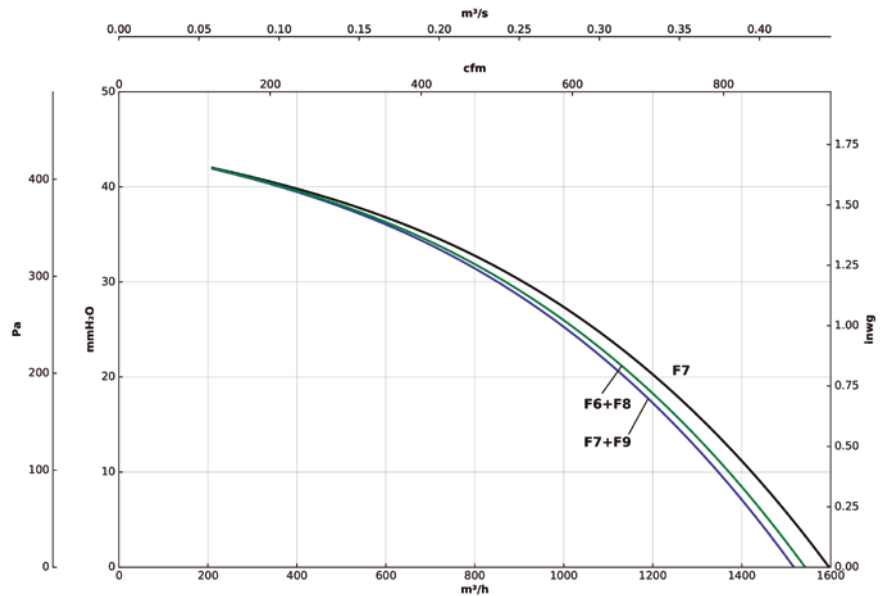
ODA: Fresh outdoor air / SUP: Air supply to the premise / EHA: Exhaust air outlet / ETA: Air extraction from the premise.

Characteristic curves

Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Static pressure in mmH<sub>2</sub>O, Pa and inwg.

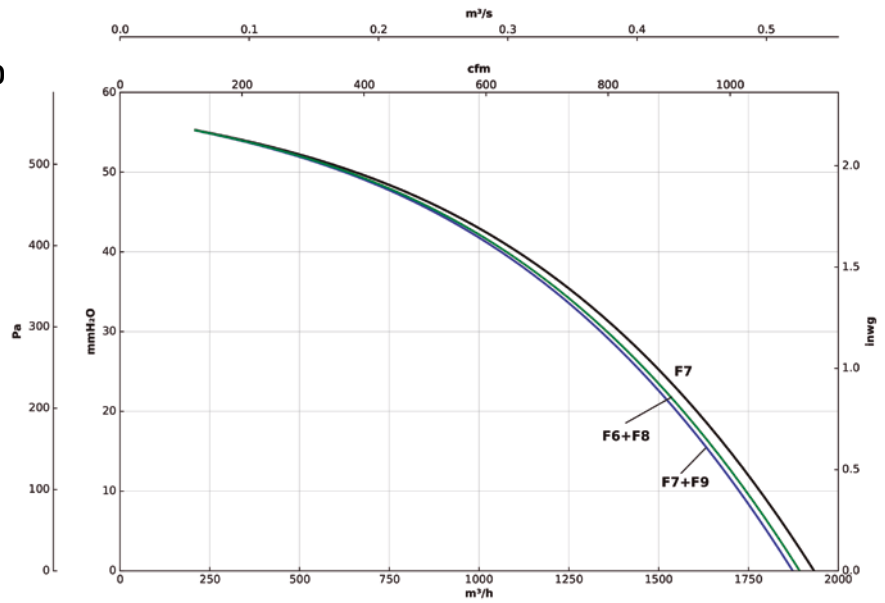
REC H-1200



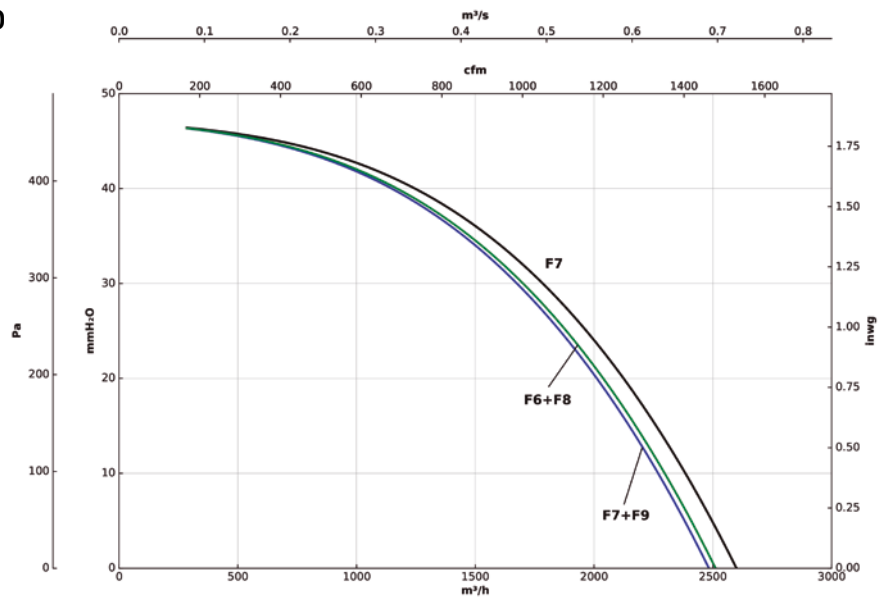
**Characteristic curves**

Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Static pressure in mmH<sub>2</sub>O, Pa and inwg.

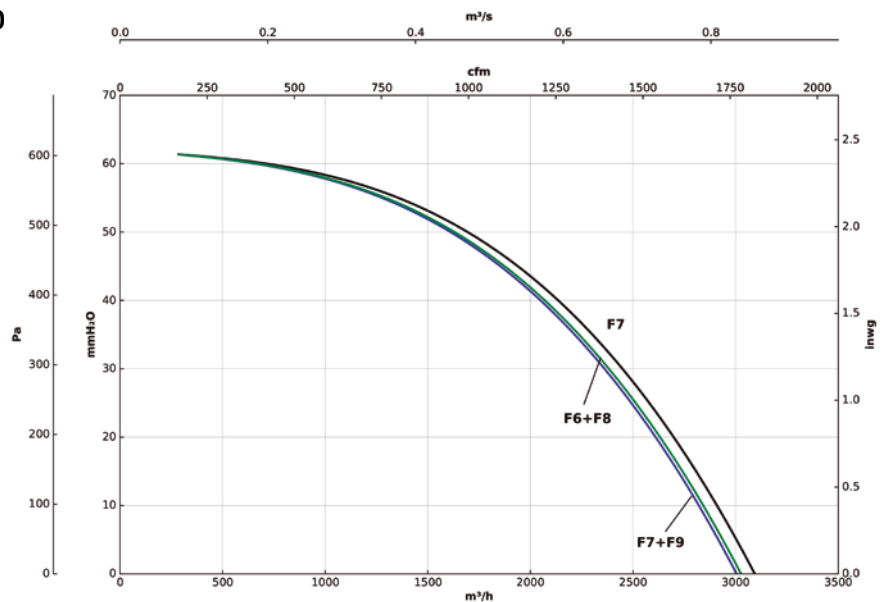
**REC H-1600**



**REC H-2100**



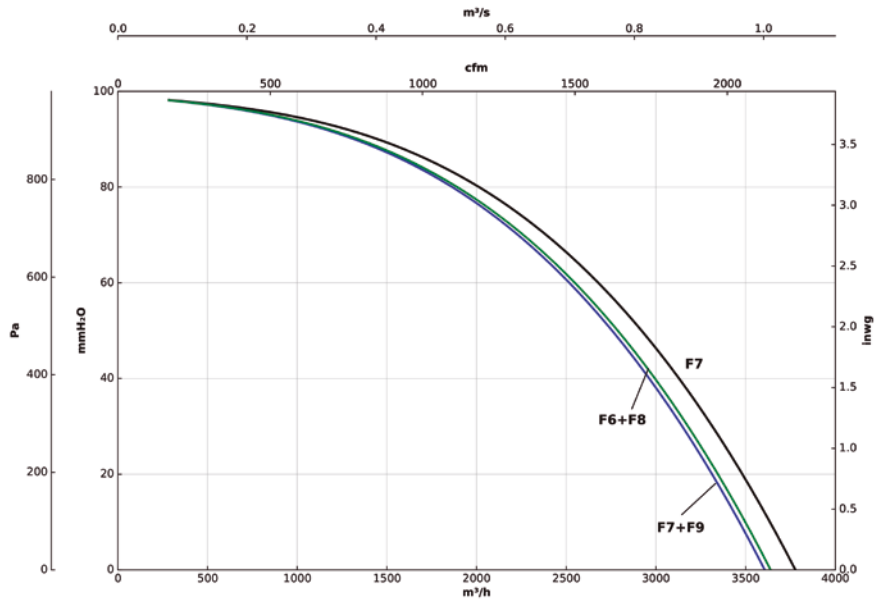
**REC H-2700**



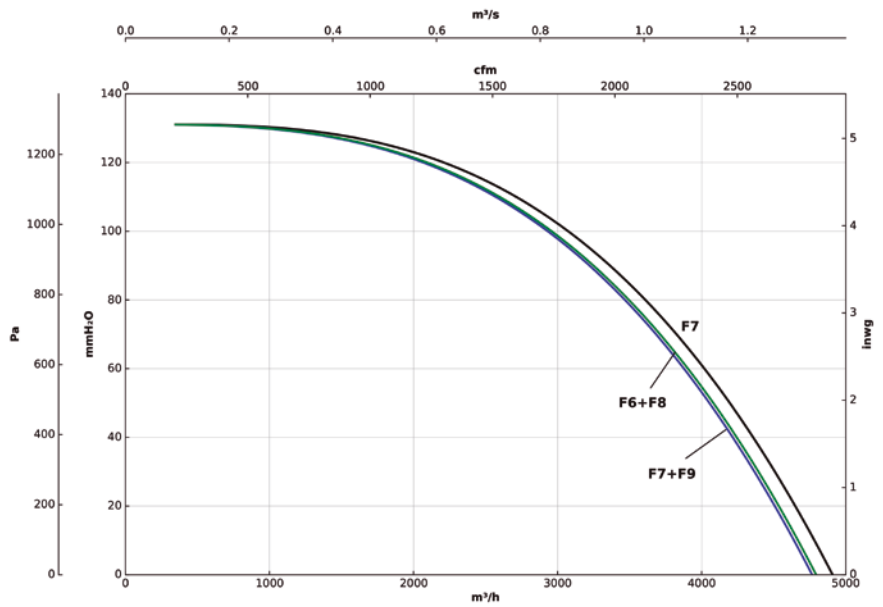
**Characteristic curves**

Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Static pressure in mmH<sub>2</sub>O, Pa and inwg.

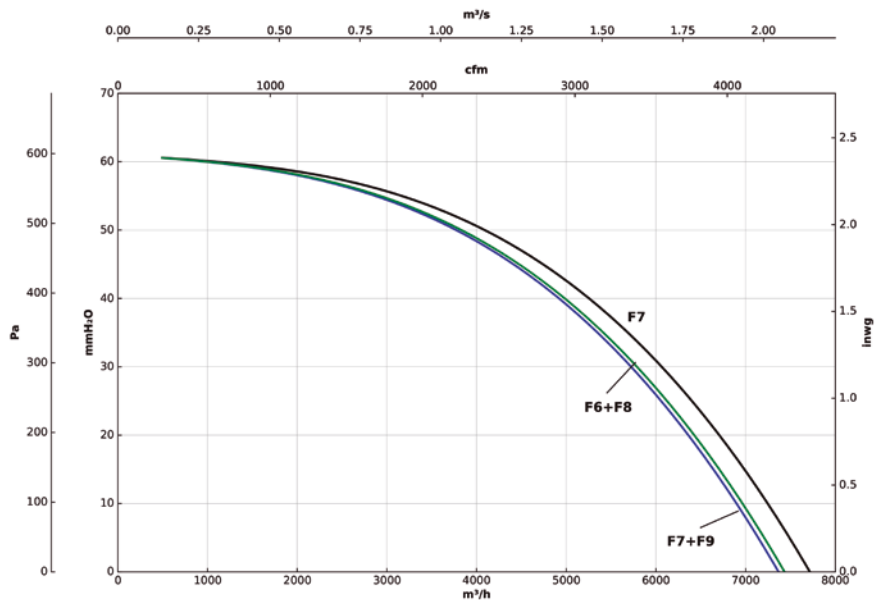
**REC H-3300**



**REC H-4500**



**REC H-6000**

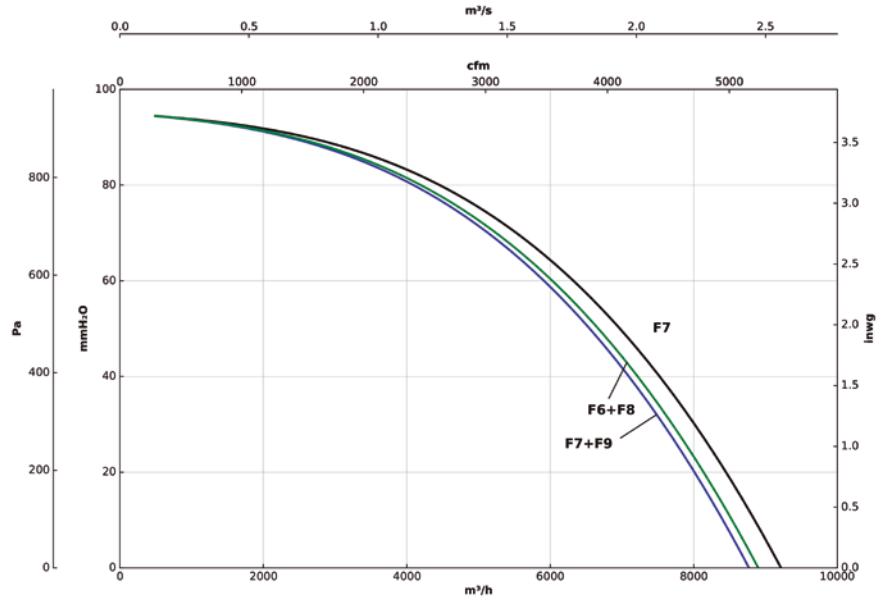




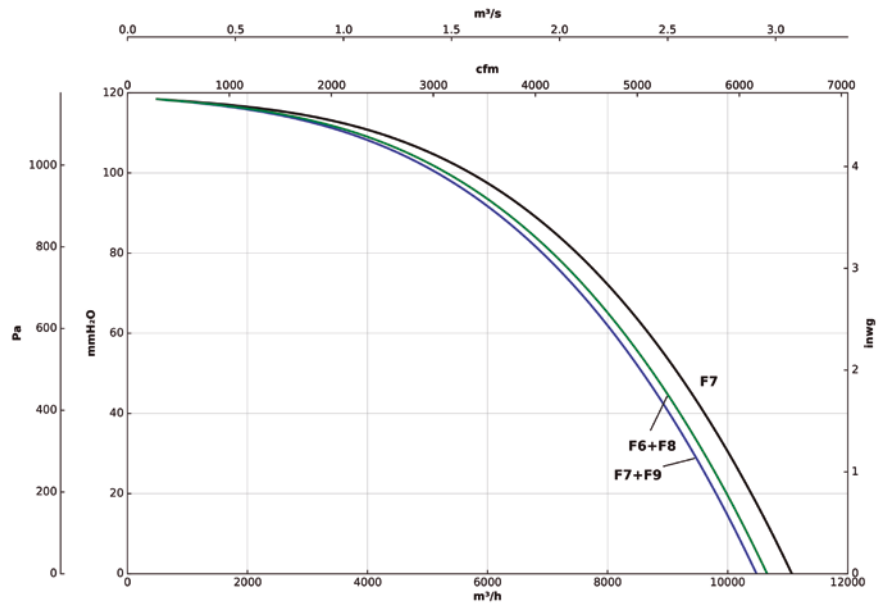
**Characteristic curves**

Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Static pressure in mmH<sub>2</sub>O, Pa and inwg.

**REC H-8000**

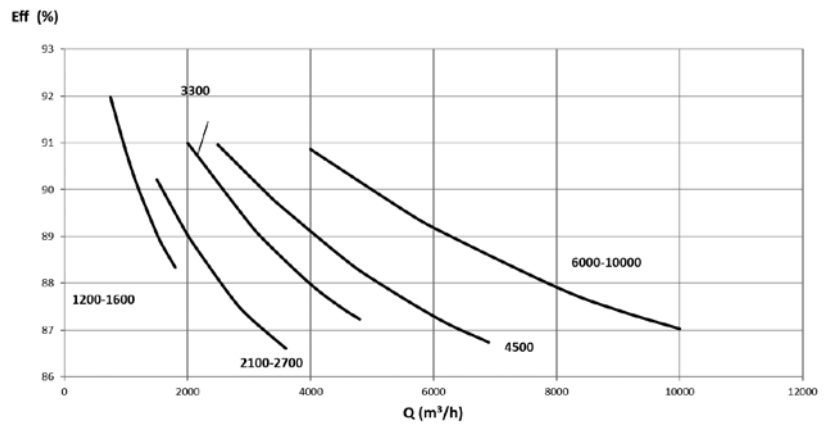


**REC H-10000**



**Efficiency curves**

Flow rate in m<sup>3</sup>/h  
 % efficiency



# Air purifiers

## with different filtration stages

AIR PURIFIER UNITS  
PA





# ANTIVIRAL EFFECTIVENESS

## AIR PURIFYING UNITS WITH CERTIFIED EFFECTIVENESS

The air purifying units are certified for antiviral effectiveness (100% in 10 minutes) and effectiveness against bacteria and fungi (in 20 minutes), without ozone emission. The tests have been carried out with mengovirus, a microorganism from the same family as SARS-CoV-2.

**INDUSTRIAL LAB R.REIG**  
 Gerardo, 4 Barrio  
 939 909 940  
 laborator@industrialreig.com  
 www.industrialreig.com

Dra. ROSER REIG RIUS, directora de INDUSTRIAL LAB R. REIG, S.L. con CIF B-65324238 y domicilio en C/ Garcilaso, 4, de Sabadell.

**CERTIFICA:**  
 Que INDUSTRIAL LAB R. REIG, S.L. ha obtenido, por cuenta de SODECA, S.L.U. una cota de Mengovirus vMCo CECT30000 procedente de la Colección Española de Cultivos Tipo.

Los mengovirus son virus ARN sin envoltura, igual que los microorganismos de ensayo mencionados en la norma. El Mengovirus pertenece a la familia Picornaviridae, causante de la enfermedad de la fiebre aftosa.

Según los ensayos e AINDOG Model X3 actividad antiviral. Después de esta ha detectado presencia de virus en el aire.

Sabadell, 25 de enero del 2021

**INDUSTRIAL LAB R. REIG**  
 Gerardo, 4 Barrio  
 939 909 940  
 laborator@industrialreig.com  
 www.industrialreig.com

Dra. ROSER REIG RIUS, directora de INDUSTRIAL LAB R. REIG, S.L. con CIF B-65324238 y domicilio en C/ Garcilaso, 4, de Sabadell.

**CERTIFICA:**  
 Que INDUSTRIAL LAB R. REIG, S.L. ha obtenido, por cuenta de SODECA, S.L.U. una cota de Mengovirus vMCo CECT30000 procedente de la Colección Española de Cultivos Tipo.

Los mengovirus son virus ARN sin envoltura, igual que los microorganismos de ensayo mencionados en la norma. El Mengovirus pertenece a la familia Picornaviridae y el coronavirus, causante de la enfermedad COVID-19, a la Coronaviridae. Ambos son virus de clase B en el sistema de bioseguridad y son virus con RNA monocatenario de sentido positivo. El ARN monocatenario es en última instancia el objetivo de la acción destructiva por lo tanto, el mengovirus se ha utilizado para certificar las pruebas de destrucción del SARS-CoV-2 según la adaptación a la norma UNE-EN 18476 (Antisépticos y desinfectantes químicos, ensayo cuantitativo de suspensión para la evaluación de la actividad viricida en medicina, métodos de ensayo y requisitos) para evaluar la eficacia del equipo "UPA-UV-1500-H14-GC-UV-1500" que SODECA, S.L.U. comercializa, analizando el aire inoculado con el virus a la salida de aire del equipo antes y después del tratamiento.

Según los ensayos realizados en el laboratorio INDUSTRIAL LAB R. REIG, el equipo UPA-UV-1500-H14-GC-UV-1500 testado ha demostrado, a partir de los 10 minutos, una actividad antiviral sobre los virus inoculados del 100%.

Después de 20 minutos de funcionamiento del equipo UPA-UV-1500-H14-GC-UV-1500 NO se ha detectado presencia de virus en el ambiente tratado (c. 0,001 ppm).

Sabadell, 25 de Enero del 2021

**INDUSTRIAL LAB R. REIG**  
 Gerardo, 4 Barrio  
 939 909 940  
 laborator@industrialreig.com  
 www.industrialreig.com

Dra. Roser Reig  
 Directora



# PA SERIES Air purifier units

Units specifically designed for cleaning the air inside any type of premise; primarily in high occupancy areas. Also suitable for use in health applications.



## MAIN CHARACTERISTICS

- G4 and F7 filtering.
- EC variable speed fans.
- 100% removable for cleaning.
- Active carbon filter.
- F9 final filter with a 70% efficiency.
- Panels with interior insulation.

## STANDARD FINISHES

- Galvanised steel interior/painted exterior.
- Aluminium modular structure.

## OPTIONS

- UVc germicidal chamber.
- HEPA filter with a 99.995% efficiency.
- 1 grate supply module.
- 3 grate supply module.
- Wheels assembly.
- Radiometer (indicates radiation, hours and percentage).

## CONFIGURATIONS

- PAV vertical construction.
- PAB horizontal construction.

The product range is introduced in two vertical configurations that are ideal for direct mobile use in rooms with 240V connections and may incorporate a supply module with outlets to 1 or 3 sides. The horizontal configuration is conceived to be installed in technical ceilings and connected using ducting in premises requiring air treatment and also allows installing an exterior air connection.



In both cases these units incorporate a filter package capable of removing a minimum of 70% of particles larger than 0.4µm (microns). As an option, HEPA H14 type filters may be installed, which are capable of retaining a minimum of 99.995% of particles larger than 0.3µm (microns).

As standard, both versions also include an active carbon stage used for removing bad odours produced by its usage and the occupation of the premises.

Finally, a germicidal chamber built using "C" range UV lamps with a 253.7 nm spectrum, which is a wave amplitude that is prescribed for deactivating a large variety of micro-organisms can be built-in to the unit. Cellular DNA and RNA absorb the UVc energy of the short wave length.

**Technical characteristics**

Model		PAV 1.5 17FG9 UV	PAV 3.0 17FG9 UV	PAV 4.5 17FG9 UV	PAV 6.0 17FG9 UV	PAB 1.5 17FG9 UV	PAB 3.0 17FG9 UV	PAB 4.5 17FG9 UV	PAB 6.0 17FG9 UV
FLOW RATE	m <sup>3</sup> /h	1500	3000	4500	6000	1500	3000	4500	6000
	CFM	883	1766	2649	3531	883	1766	2649	3531
AVAILABLE PRESSURE	PA <sup>1</sup>	300	300	300	300	300	300	300	300
POWER SUPPLY	V	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz
NOISE LEVEL	dB <sup>2</sup>	47	51	55	59	47	52	55	59
FAN	TYPE	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC	PLUG FAN EC
	kW	0.78	1.35	2.7	2 x 2.7	0.78	1.56	2.7	2 x 2.7
UVc	Units	3	7	4	14	3	2	4	4
	W <sup>3</sup>	21	49	70	98	21	51	70	102

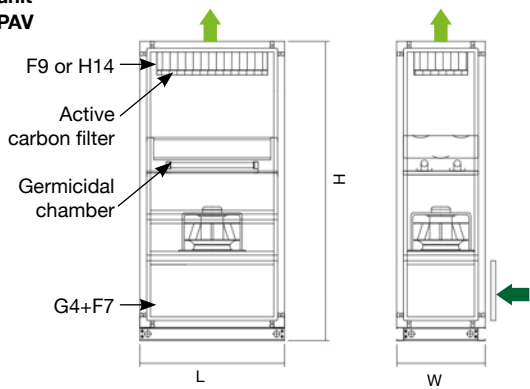
<sup>1</sup> Available pressure given with G4 and F9 filter

<sup>2</sup> Noise levels calculated at 1 m from the unit

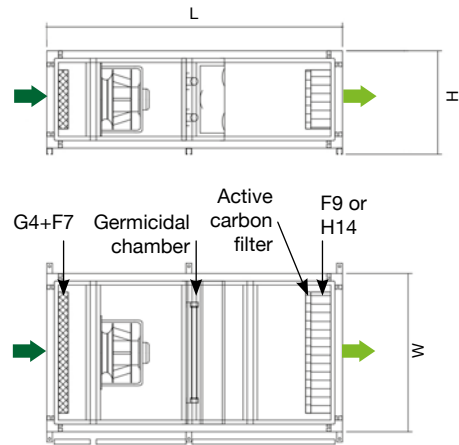
<sup>3</sup> Effective power of UVc radiation

**Dimensions mm**

**Vertical unit PAV**



**Horizontal unit PAB**



Model		PAV 1.5 17FG9 UV	PAV 3.0 17FG9 UV	PAV 4.5 17FG9 UV	PAV 6.0 17FG9 UV	PAB 1.5 17FG9 UV	PAB 3.0 17FG9 UV	PAB 4.5 17FG9 UV	PAB 6.0 17FG9 UV
LENGTH (L)	mm	774	774	1079	1504	1450	1450	1450	1450
WIDTH (W)	mm	474	779	779	779	774	1366	1079	1366
HEIGHT (H)	mm	1600	1600	1600	1600	474	474	779	779
SUPPLY MODULE	mm	324	490	490	490	-	-	-	-
BASIC WEIGHT	kg	113	140	190	215	108	138	135	155
UVc MODULE	kg	5	5	6	14	5	6	9	10
SUPPLY MODULE	kg	25	33	42	55	-	-	-	-

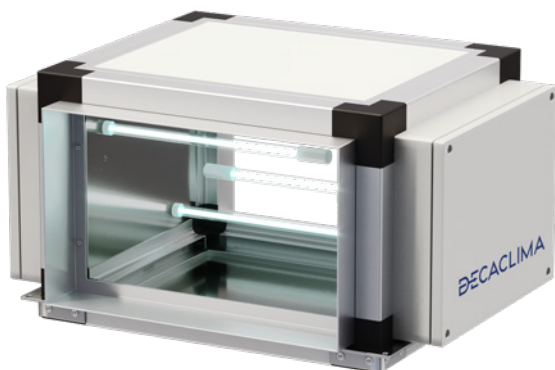
\*Data subject to change without prior warning

**Optional air outlet modules**



## Germicidal modules for ducts

Units specifically designed to be installed inserted in ducting and used for cleaning the air inside any type of premise; primarily in high occupancy areas. The product range is introduced for connection to 240 V and easy to install in technical ceilings.



Unit built using "C" range UV lamps with a 253.7 nm spectrum, which is the wave amplitude that is prescribed for deactivating a large variety of micro-organisms.

Cellular DNA and RNA absorb the UVc energy of the short wave length. UVGI technology has demonstrated an effectiveness of 99% for controlling microbial growth in the battery area and the drainage tray when it is properly installed.

### MAIN CHARACTERISTICS

- UVc Lamps.
- Panels with interior insulation.
- Lugs so the unit can be easily hoisted.
- Nozzles to facilitate installation in the duct.
- Galvanised steel interior/painted exterior.
- Aluminium modular structure.

### OPTIONS

- Radiometer (indicates radiation, hours and percentage)

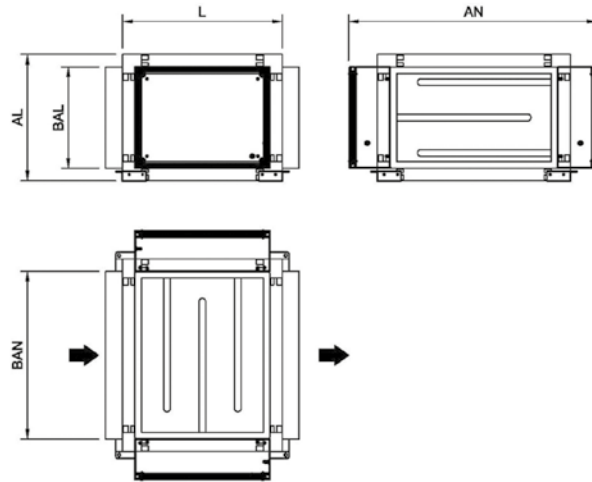
### Technical characteristics

Model		MGC 800 UV	MGC 1.200 UV	MGC 2.000 UV	MGC 3.000 UV	MGC 5.000 UV
FLOW RATE	m <sup>3</sup> /h	800	1200	2000	3000	5000
	CFM	471	706	1177	1766	2943
POWER SUPPLY	V	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz	I-200-230 V 50/60 Hz
UVc	Units	2	4	6	10	12
	W*	14	28	42	70	84

\*Effective power of UVc radiation

\*Data subject to change without prior warning

**Dimensions mm**



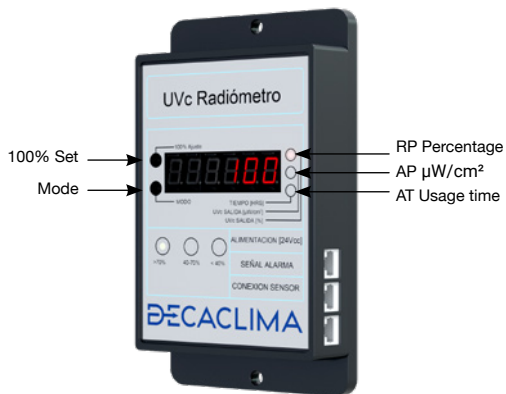
Model		MGC 800 UV	MGC 1.200 UV	MGC 2.000 UV	MGC 3.000 UV	MGC 5.000 UV
LENGTH (L)	mm	376	376	476	476	676
WIDTH (W)	mm	517	660	740	1040	1140
HEIGHT (H)	mm	276	276	376	376	476
NOZZLE (BAL)	mm	202	202	302	302	402
NOZZLE (BAN)	mm	400	500	500	800	900
WEIGHT	kg	15	21	29	37	50

\*Data subject to change without prior warning

**Radiometers**

Equipment that allows monitoring radiation levels (in  $\mu\text{W}/\text{cm}^2$ ) and setting the percentages to the desired level between 0 and 100%. The system includes an operating hours counter and monitoring of radiation for equipment in critical applications.

The radiometer ensures that UVc lamps are operating properly.



**MAXIMUM ABSOLUTE RATES**

Parameter	Value		Comments
	Min.	Max.	
Supply voltage (V)	9	24	*Only 5V (optional)
Supply current (A)		0.2	
Operating temperature ( $^{\circ}\text{C}$ )	-15	65	

**CHARACTERISTICS AT 25°C**

Parameter	Value		Comments
	Min.	Max.	
Detection range (nm)	220	280	10% of peak
Detection power range ( $\mu\text{W}/\text{cm}^2$ )	1	2,500	

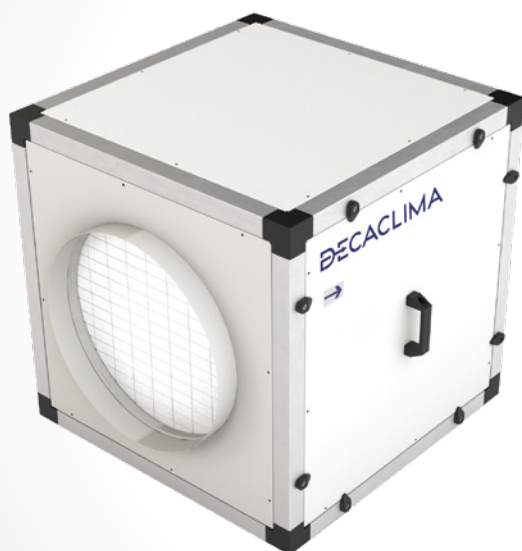
# Air filtration

## Air filter units with different filtration stages

UNITS WITH E.C. TECHNOLOGY MOTOR  
**CAKS/EC/FILTER**

UNITS WITH DIRECT DRIVE  
**CADTM/ALPF**

BELT DRIVEN UNITS WITH IE3 MOTOR  
**CADT/ALPF**





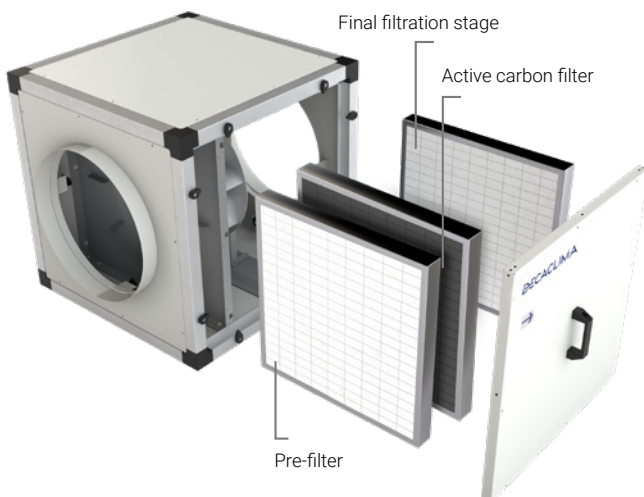
# CAKS/EC/FILTER

Filter units with F9 or HEPA filter for circular ducting, with a 25 mm thick insulating acoustic casing to reduce noise; E.C. Technology motor



### FILTRATION STAGES:

Depending on the model, the units incorporate two filtration stages, F7+F9 or F7+HEPA H14, as well as an active carbon filter for eliminating odours, which provides the unit with an excellent performance in terms of filtration.



### CHARACTERISTICS:

- Covers with a high quality, 25 mm thick acoustic casing.
- Backward curved impeller.
- Filtration stages depending on the model:
  - F7+F9
  - F7+HEPA H14
  - Active carbon filter for eliminating odours
- Inspection cover for conducting maintenance and replacing the filters.
- Air inlet nozzle with diffusers that increases the efficiency of the fan.

### MOTOR:

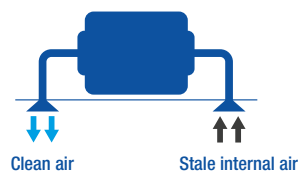
- High efficiency E.C. Technology motors with external rotor, regulated by a 0-10 V signal.
- Single-phase 200/240 V-50/60 Hz and three-phase 380/480 V-50/60 Hz.
- Maximum temperature of the air to be carried: -25°C +60°C.

### FINISH:

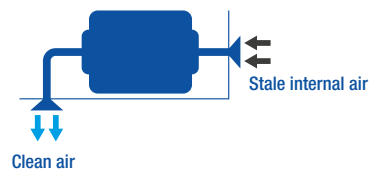
- Aluminium profile structure and prefinished sheet.

### EXAMPLE OF APPLICATION:

- Purification of indoor air



- Collection and purification of indoor air



## Characteristics of the filters

Filters	EN 779	EN 1822	ISO 16890			
			ISO ePM <sub>1</sub>	ISO ePM <sub>2.5</sub>	ISO ePM <sub>10</sub>	ISO COARSE
F7	90%	-	>50%	>65-95%	>85%	-
F9	95%	-	>80%	>95%	>95%	-
HEPA H14	-	>99.995%	-	-	-	-

## Technical characteristics

Model	Recommended working surface <sup>1</sup>		Speed (r/min)	Maximum power (W)	Power supply	Sound pressure level at 50% of max. speed <sup>2</sup> dB (A)	Maximum flow rate		Weight (kg)
	(m <sup>2</sup> ) (F7+F9)	(F7+F14)					(m <sup>3</sup> /h) (F7+F9)	(F7+F14)	
CAKS/EC/FILTER-220	50	-	3265	176	200-240V 50/60Hz 1Ph	48	420	-	32
CAKS/EC/FILTER-250	60	-	2850	180	200-240V 50/60Hz 1Ph	49	500	-	33
CAKS/EC/FILTER-310	65	55	1920	175	200-240V 50/60Hz 1Ph	47	550	450	34
CAKS/EC/FILTER-400	190	155	1550	460	200-240V 50/60Hz 1Ph	47	1600	1300	68
CAKS/EC/FILTER-500	270	230	1250	1150	380-480V 50/60Hz 3Ph	51	2250	1950	118

<sup>1</sup> Recommended surface for a space 3 metres high.

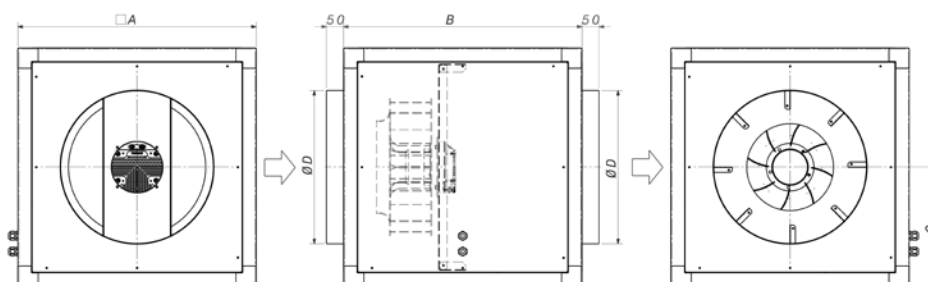
<sup>2</sup> Irradiated sound pressure level in dB (A) at 3 m distance.

## Acoustic characteristics

Sound power level L<sub>w</sub>(A) in dB(A) per frequency band in Hz. Irradiated values at maximum speed and medium flow rate.

	63	125	250	500	1000	2000	4000	8000
CAKS/EC/FILTER-220	63	65	63	58	55	51	45	35
CAKS/EC/FILTER-250	64	66	64	59	56	52	46	36
CAKS/EC/FILTER-310	62	64	62	57	54	50	44	34
CAKS/EC/FILTER-400	66	61	56	53	54	49	43	32
CAKS/EC/FILTER-500	69	65	60	61	61	58	59	54

## Dimensions mm

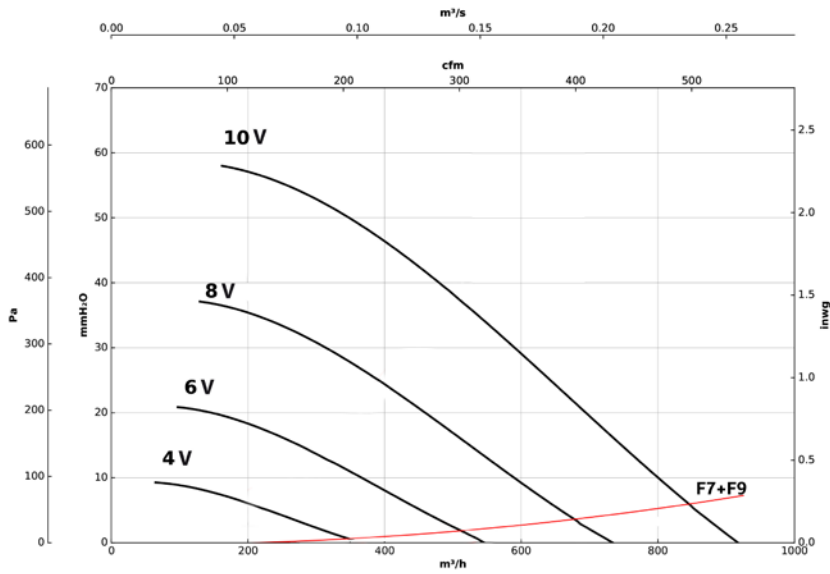


	A	B	C	ØD
CAKS/EC/FILTER-220	500	500	250	315
CAKS/EC/FILTER-250	500	500	250	355
CAKS/EC/FILTER-310	500	500	250	355
CAKS/EC/FILTER-400	700	700	350	450
CAKS/EC/FILTER-500	900	900	450	500

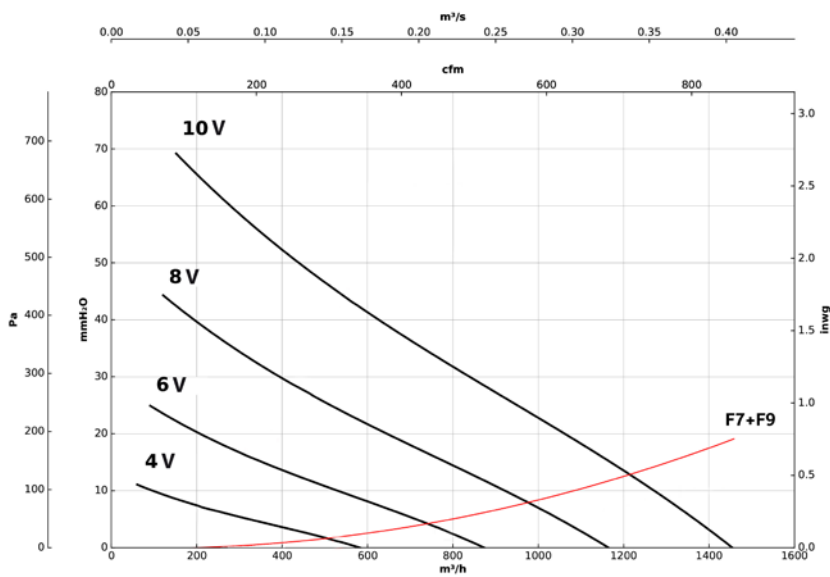
Characteristic curves

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

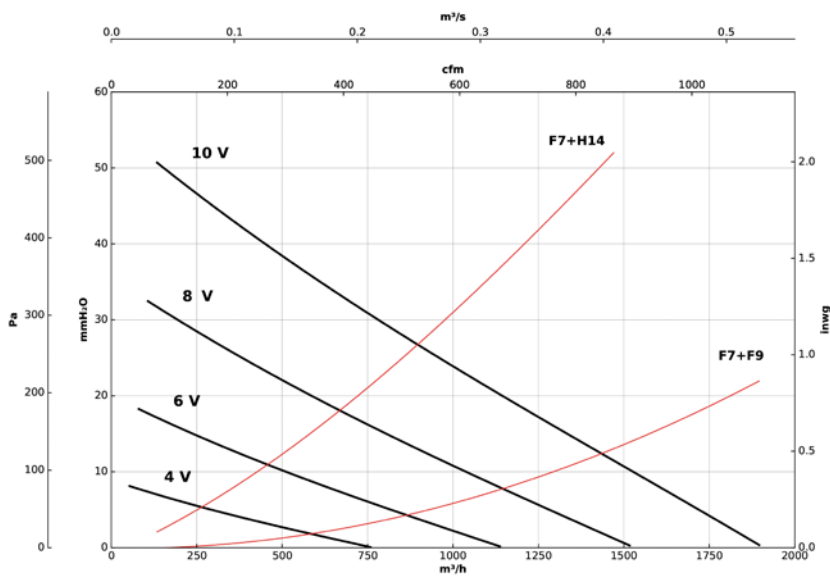
CAKS/EC/FILTER-220



CAKS/EC/FILTER-250



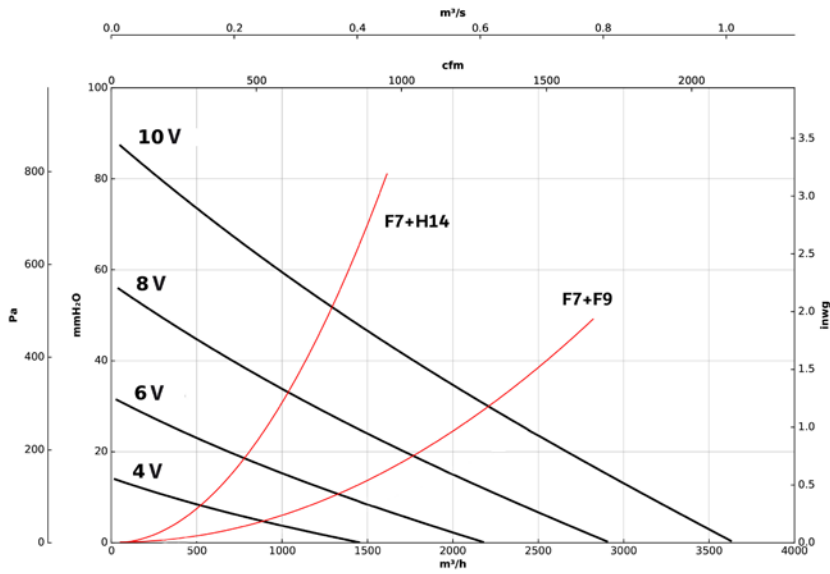
CAKS/EC/FILTER-310



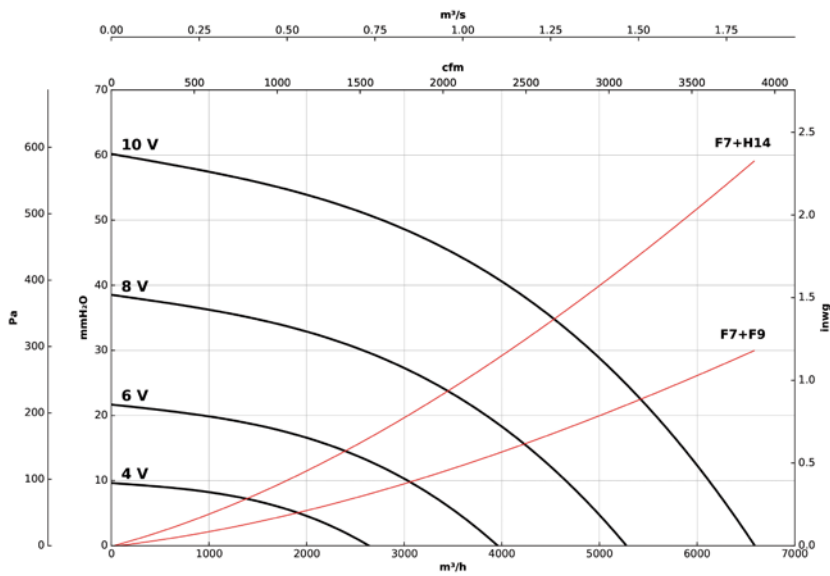
**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

**CAKS/EC/FILTER-400**



**CAKS/EC/FILTER-500**



# CADTM/ALPF

Ventilation units with prefinished sheet steel, built-in filters and aluminium profiles



**FAN:**

- Aluminium profiles structure with thermal and acoustic insulation.
- Action impeller made of galvanised sheet steel.
- Cable gland for cable inlet.
- Double inlet, DTM series fans.

**MOTOR:**

- Closed motors with built-in thermal protector, class F, with ball bearings, IP54 protection.
- Single-phase 220/240 V -50Hz and three-phase 220-240/380-415 V -50Hz.
- Maximum temperature of the air to be carried: -20°C+ 60°C.

**FINISH:**

- Anti-corrosive prefinished sheet steel and aluminium profiles.

**UPON REQUEST:**

- With circular air supply.

**Technical characteristics of the fan without filter**

Model		Speed (r/min)	Maximum admissible current (A)		Installed power (kW)	Maximum flow rate (m³/h)	Sound pressure level dB (A)	Approx. weight (kg)	According ErP
			230 V	400 V					
CADTM/ALPF	7/7-4M 1/5	1320	1.15		0.15	1500	58	22.5	2018
CADTM/ALPF	7/7-6M 1/10	820	0.85		0.08	1230	53	22.5	2018
CADTM/ALPF	9/9-4M 1/2	1320	2.30		0.37	2800	66	31.8	2018
CADTM/ALPF	9/9-4M 3/4	1310	3.65		0.55	3600	70	32.6	2018
CADTM/ALPF	9/9-6M 1/5	850	1.50		0.15	2200	60	30.1	2018
CADTM/ALPF	9/9-6M 1/3	940	1.60		0.25	2700	61	31.3	2018
CADTM/ALPF	10/10-4M 1/2	1320	2.30		0.37	2800	65	37.3	2018
CADTM/ALPF	10/10-4M 3/4	1310	3.65		0.55	3950	70	38.1	2018
CADTM/ALPF	10/10-6M 1/3	940	1.60		0.25	3200	61	36.8	2018
CADTM/ALPF	12/12-6T 1 1/2	850	6.60	3.80	1.10	7800	74	53.8	2018
CADTM/ALPF	12/12-6M 3/4	930	3.30		0.55	4750	63	52.3	2018
CADTM/ALPF	12/12-6M 1	850	5.37		0.75	6000	70	53.3	2018
CADTM/ALPF	15/15-6T 3	890	10.90	6.30	2.20	11400	74	80.0	2018

To calculate the final flow rate, add the load loss introduced by the chosen filter

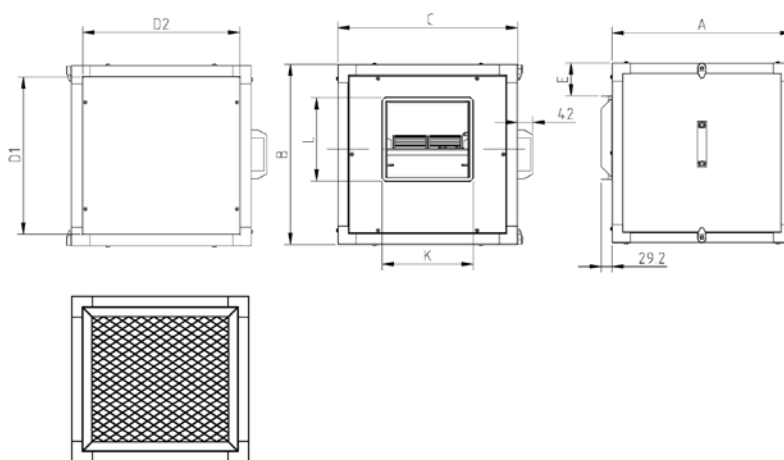
## Acoustic characteristics

Sound power level Lw(A) in dB(A) per frequency band in Hz

Model	63	125	250	500	1000	2000	4000	8000
7/7-4M 1/5	43	54	58	62	64	63	62	53
7/7-6M 1/10	38	49	53	57	59	58	57	48
9/9-4M 1/2	51	62	66	70	72	71	70	61
9/9-4M 3/4	55	66	70	74	76	75	74	65
9/9-6M 1/5	44	55	59	63	65	64	63	54
9/9-6M 1/3	46	57	61	65	67	66	65	56
10/10-4M 1/2	50	61	65	69	71	70	69	60

Model	63	125	250	500	1000	2000	4000	8000
10/10-4M 3/4	55	66	70	74	76	75	74	65
10/10-6M 1/3	46	57	61	65	67	66	65	56
12/12-6T 1 1/2	59	70	74	78	80	79	78	69
12/12-6M 3/4	48	59	63	67	69	68	67	58
12/12-6M 1	55	66	70	74	76	75	74	65
15/15-6T 3	61	72	77	81	83	81	80	71

## Dimensions mm



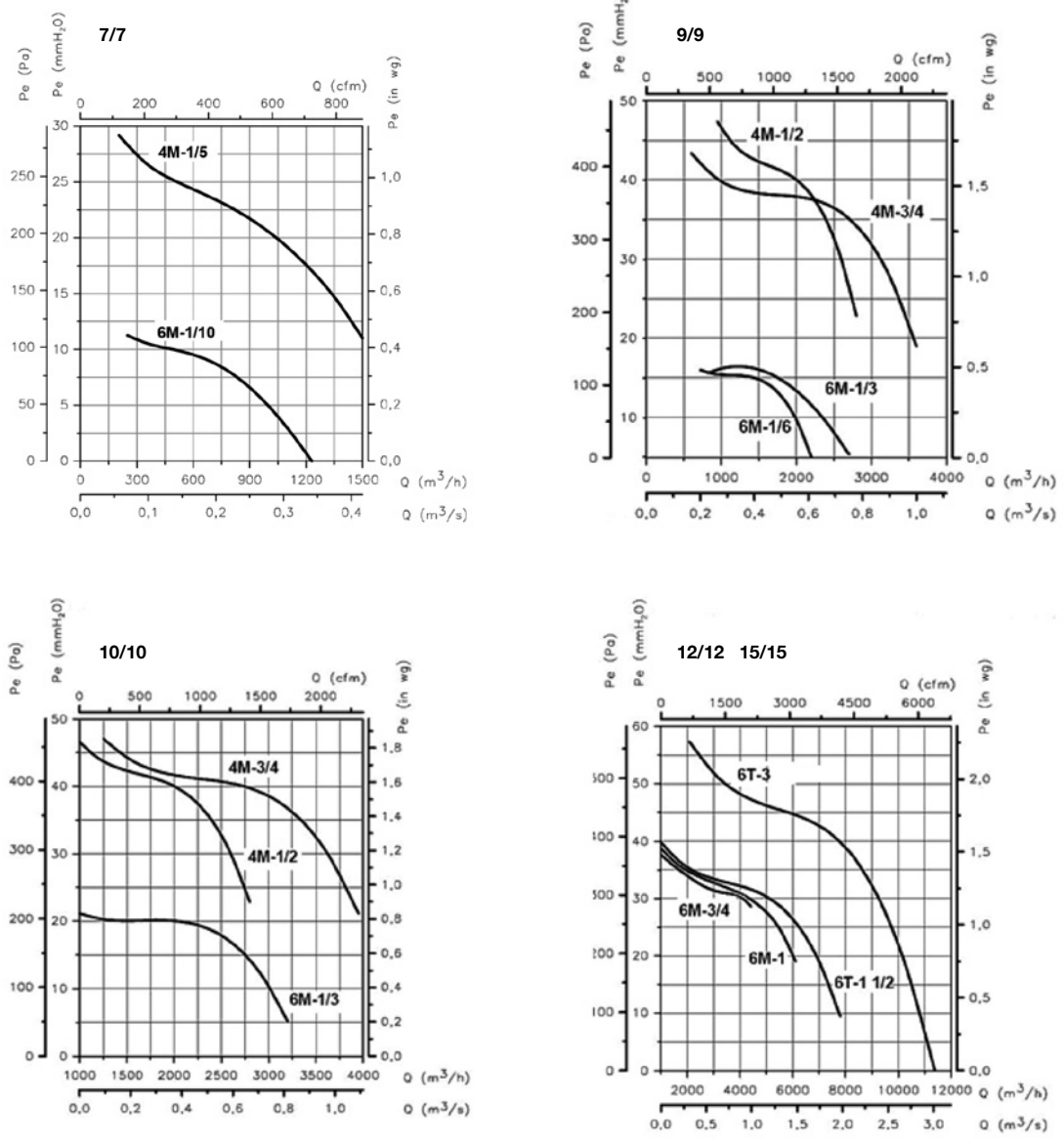
	A	B	C	D1	D2	E	L	K
CADTM/ALPF 7/7	490	490	490	428	428	91	226	247
CADTM/ALPF 9/9	550	550	550	488	488	86	279	317
CADTM/ALPF 10/10	605	605	605	543	543	88	306	343
CADTM/ALPF 12/12	680	680	680	618	618	84	360	404
CADTM/ALPF 15/15	855	855	855	793	793	119	423	490

**Characteristic curves of the fan without filter**

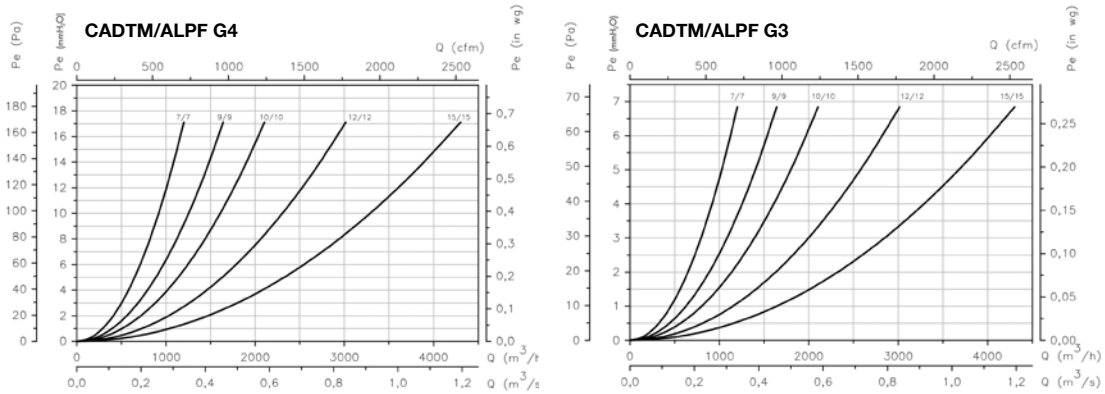
Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter



**Load loss curves of units with filters**



# CADT/ALPF

Belt-driven ventilation units with prefinished sheet steel, built-in filters and aluminium profiles



## FAN:

- Ventilation units fitted with double-inlet fans from the DTS, DTC and DTR series.
- Aluminium profiles structure with thermal and acoustic insulation.
- Action impeller made of galvanised sheet steel.
- Cable gland for cable inlet.

## MOTOR:

- IE3 efficiency motors for powers equal to or higher than 0.75 kW except single-phase, 2-speed and 8-pole.
- Class F motors with ball bearings and IP55 protection.
- Three-phase 230/400 V - 50 Hz (up to 4 kW) and 400/690 V - 50 Hz. (powers higher than 4kW)
- Maximum temperature of the air to be carried: -20°C+ 60°C.

## FINISH:

- Anti-corrosive prefinished sheet steel and aluminium profiles.

## UPON REQUEST:

- With circular air supply.

## Technical characteristics of the fan without filter

Model	Speed (r/min)	Maximum admissible current (A)			Installed power (kW)	Maximum flow rate (m <sup>3</sup> /h)	Sound pressure level dB (A)	Approx. weight (kg)	Mounting version	According ErP
		230 V	400 V	690 V						
CADT/ALPF	7/7-0.75	1400	2.92	1.69	0.55	1200	56	41	A	2018
CADT/ALPF	7/7-1 IE3	1600	3.10	1.79	0.75	1450	58	43	A	2018
CADT/ALPF	9/9-0.25	825	1.23	0.71	0.18	1700	45	48	A	2018
CADT/ALPF	9/9-0.33	920	1.66	0.96	0.25	1800	48	50	A	2018
CADT/ALPF	9/9-0.5	1020	2.02	1.17	0.37	2200	51	52	A	2018
CADT/ALPF	9/9-0.75	1050	2.92	1.69	0.55	2900	55	55	A	2018
CADT/ALPF	9/9-1 IE3	1070	3.10	1.79	0.75	3200	56	56	A	2018

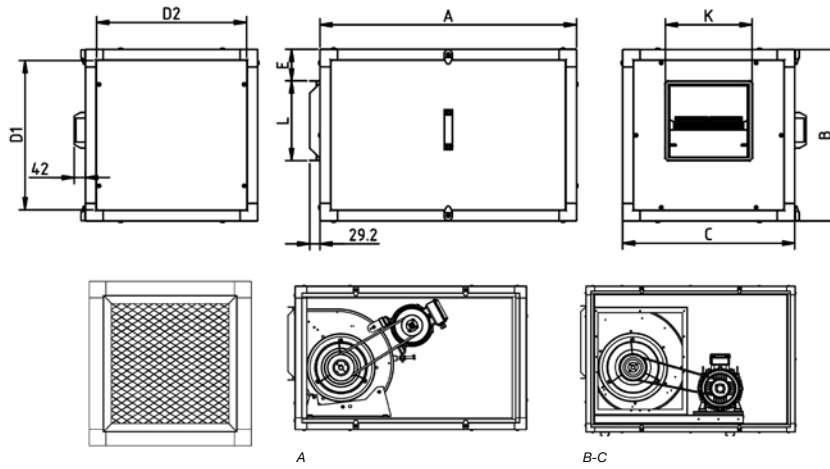
To calculate the final flow rate, add the load loss introduced by the chosen filter



### Technical characteristics of the fan without filter

Model	Speed	Maximum admissible current			Installed power	Maximum flow rate	Sound pressure level	Approx. weight	Mounting version	According ErP
		(r/min)	230 V	(A) 400 V						
CADT/ALPF 9/9-1.5 IE3	1260	4.03	2.32		1.10	3750	60	59	A	2018
CADT/ALPF 10/10-0.75	845	2.92	1.69		0.55	3800	56	57	A	2018
CADT/ALPF 10/10-1 IE3	960	3.10	1.79		0.75	4175	58	59	A	2018
CADT/ALPF 10/10-1.5 IE3	1070	4.03	2.32		1.10	4800	61	61	A	2018
CADT/ALPF 10/10-2 IE3	1140	5.96	3.44		1.50	5400	63	65	A	2018
CADT/ALPF 12/12-0.5	595	2.02	1.17		0.37	4200	52	69	A	2018
CADT/ALPF 12/12-0.75	675	2.92	1.69		0.55	4800	54	71	A	2018
CADT/ALPF 12/12-1 IE3	765	3.10	1.79		0.75	5400	57	72	A	2018
CADT/ALPF 12/12-1.5 IE3	855	4.03	2.32		1.10	5800	59	75	A	2018
CADT/ALPF 12/12-2 IE3	965	5.96	3.44		1.50	6500	62	79	A	2018
CADT/ALPF 12/12-3 IE3	1180	8.36	4.83		2.20	7400	65	87	B	2018
CADT/ALPF 15/15-0.75	525	2.92	1.69		0.55	5900	49	85	B	2018
CADT/ALPF 15/15-1 IE3	595	3.10	1.79		0.75	6500	52	86	B	2018
CADT/ALPF 15/15-1.5 IE3	635	4.03	2.32		1.10	7500	54	89	B	2018
CADT/ALPF 15/15-2 IE3	670	5.96	3.44		1.50	8200	56	93	B	2018
CADT/ALPF 15/15-3 IE3	740	8.36	4.83		2.20	9500	59	101	B	2018
CADT/ALPF 15/15-4 IE3	805	10.96	6.33		3.00	10600	61	103	B	2018
CADT/ALPF 18/18-1.5 IE3	480	4.03	2.32		1.10	9000	48	122	B	2018
CADT/ALPF 18/18-2 IE3	605	5.96	3.44		1.50	9250	51	125	B	2018
CADT/ALPF 18/18-3 IE3	590	8.36	4.83		2.20	11500	54	134	B	2018
CADT/ALPF 18/18-4 IE3	640	10.96	6.33		3.00	13200	56	136	B	2018
CADT/ALPF 18/18-5.5 IE3	675	14.10	8.12		4.00	15000	58	141	C	2018
CADT/ALPF 18/18-7.5 IE3	760		11.60	6.72	5.50	17000	60	155	C	2018
CADT/ALPF 20/20-2 IE3	430	5.96	3.44		1.50	11500	56	222	C	2018
CADT/ALPF 20/20-3 IE3	530	8.36	4.83		2.20	12800	57	231	C	2018
CADT/ALPF 20/20-4 IE3	575	10.96	6.33		3.00	14200	58	233	C	2018
CADT/ALPF 20/20-5.5 IE3	635	14.10	8.12		4.00	15500	61	238	C	2018
CADT/ALPF 20/20-7.5 IE3	675		11.60	6.72	5.50	17500	63	252	C	2018
CADT/ALPF 20/20-10 IE3	725		13.90	8.06	7.50	20000	65	283	C	2018
CADT/ALPF 22/22-2 IE3	385	5.96	3.44		1.50	14000	50	250	C	2018
CADT/ALPF 22/22-3 IE3	475	8.36	4.83		2.20	15000	54	257	C	2018
CADT/ALPF 22/22-4 IE3	515	10.96	6.33		3.00	17000	55	261	C	2018
CADT/ALPF 22/22-5.5 IE3	570	14.10	8.12		4.00	19000	57	265	C	2018
CADT/ALPF 22/22-7.5 IE3	605		11.60	6.72	5.50	21500	60	279	C	2018
CADT/ALPF 22/22-10 IE3	675		13.90	8.06	7.50	25000	63	306	C	2018
CADT/ALPF 22/22-15 IE3	765		20.90	12.10	11.00	27000	65	341	C	2018
CADT/ALPF 25/25-3 IE3	375	8.36	4.83		2.20	17000	53	297	C	2018
CADT/ALPF 25/25-4 IE3	405	10.96	6.33		3.00	20500	55	299	C	2018
CADT/ALPF 25/25-5.5 IE3	450	14.10	8.12		4.00	22000	57	304	C	2018
CADT/ALPF 25/25-7.5 IE3	485		11.60	6.72	5.50	24500	59	318	C	2018
CADT/ALPF 25/25-10 IE3	545		13.90	8.06	7.50	28000	61	345	C	2018
CADT/ALPF 25/25-15 IE3	610		20.90	12.10	11.00	32000	64	374	C	2018
CADT/ALPF 30/28-3 IE3	330	8.36	4.83		2.20	20000	54	380	C	2018
CADT/ALPF 30/28-4 IE3	360	10.96	6.33		3.00	22000	56	382	C	2018
CADT/ALPF 30/28-5.5 IE3	380	14.10	8.12		4.00	25000	59	387	C	2018
CADT/ALPF 30/28-7.5 IE3	380		11.60	6.72	5.50	31500	60	402	C	2018
CADT/ALPF 30/28-10 IE3	410		13.90	8.06	7.50	36000	63	431	C	2018
CADT/ALPF 30/28-15 IE3	430		20.90	12.10	11.00	42000	65	451	C	2018
CADT/ALPF 30/28-20 IE3	480		27.90	16.20	15.00	48000	68	466	C	2018

Dimensions mm



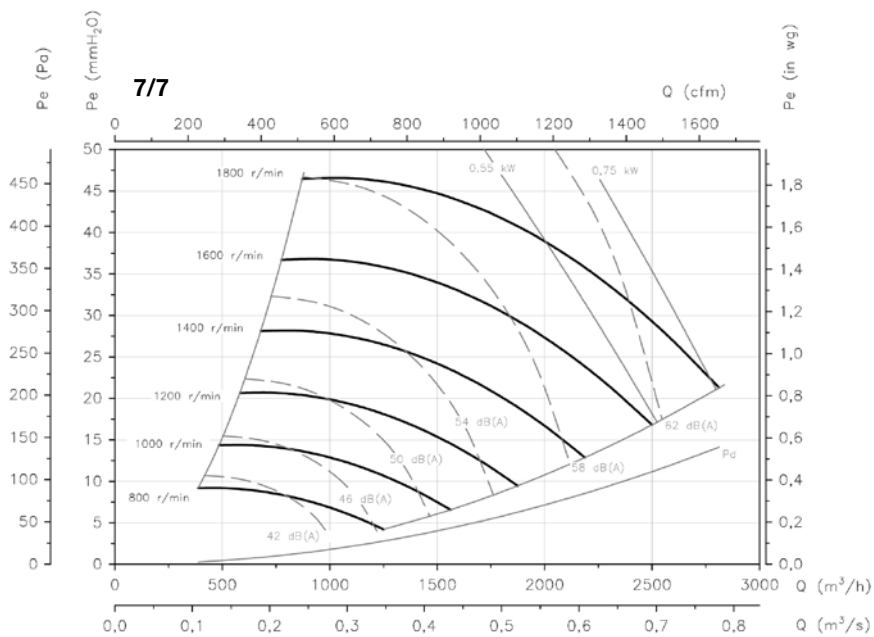
	A	B	C	D1	D2	E	L	K	Installation
CADT/ALPF 7/7	830	490	490	428	428	91	226	247	A
CADT/ALPF 9/9	920	550	550	488	488	86	279	317	A
CADT/ALPF 10/10	970	605	605	543	543	88	306	343	A
CADT/ALPF 12/12	1050	680	680	618	618	84	360	404	A-B
CADT/ALPF 15/15	1220	855	855	793	793	119	423	490	B
CADT/ALPF 18/18	1356	1000	1000	938	938	137	498	554	B-C
CADT/ALPF 20/20	1500	1195	1195	1115	1115	140	615	615	C
CADT/ALPF 22/22	1600	1250	1250	1170	1170	104	705	668	C
CADT/ALPF 25/25	1870	1450	1450	1370	1370	200	792	767	C
CADT/ALPF 30/28	1975	1670	1670	1590	1590	188	938	896	C

Characteristic curves of the fan without filter

Q = Flow rate in m³/h, m³/s and cfm.

Pe = Static pressure in mmH₂O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

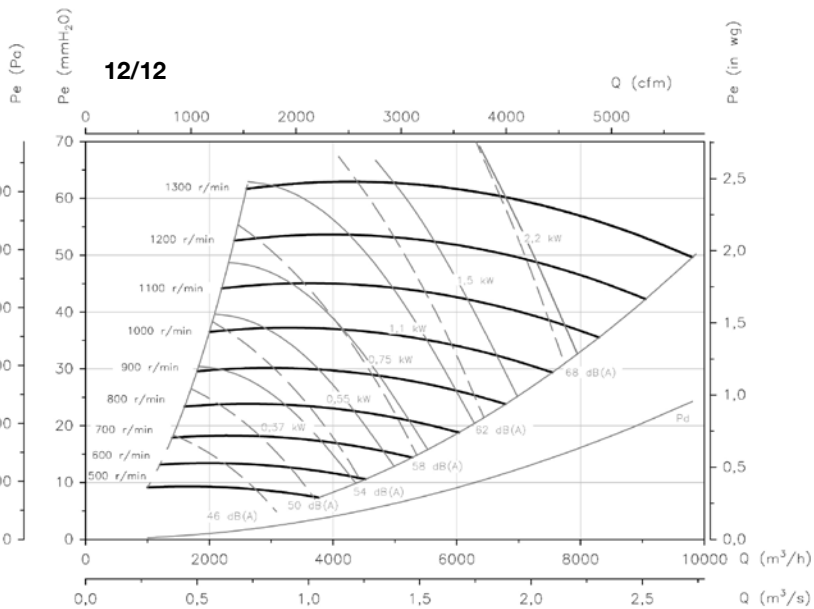
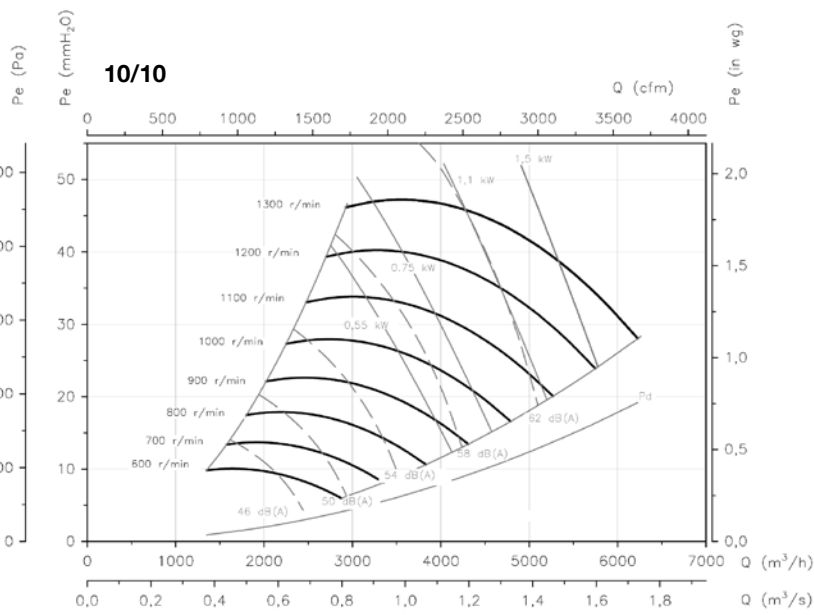
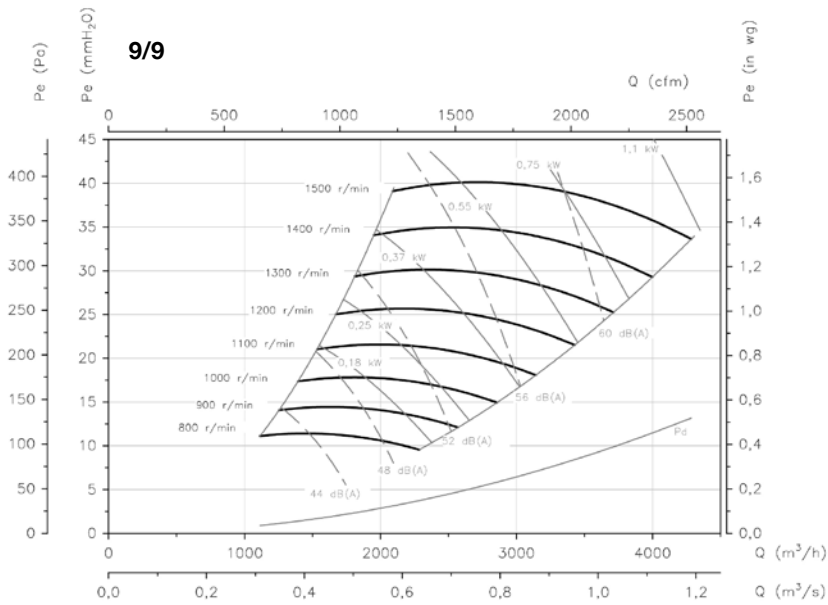


**Characteristic curves of the fan without filter**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

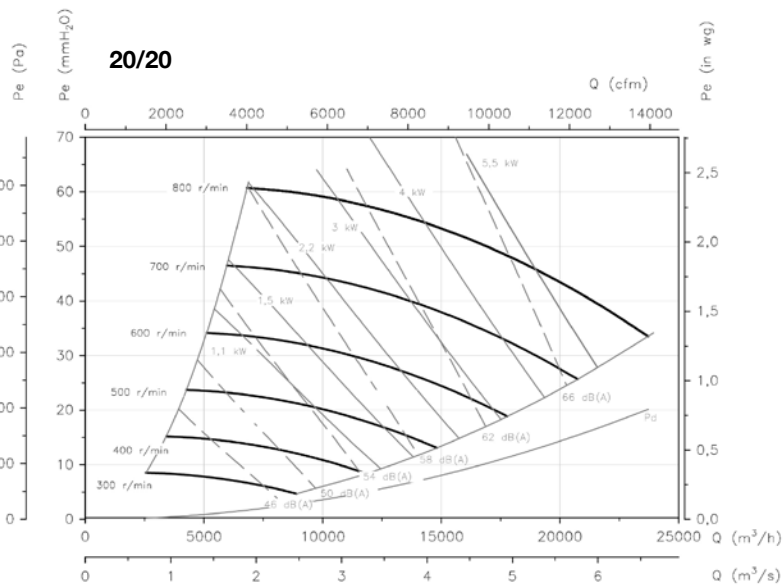
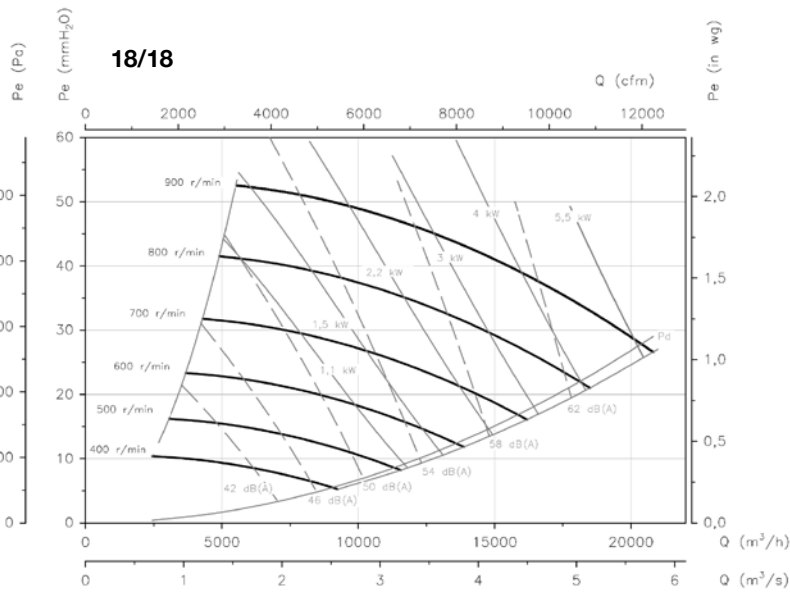
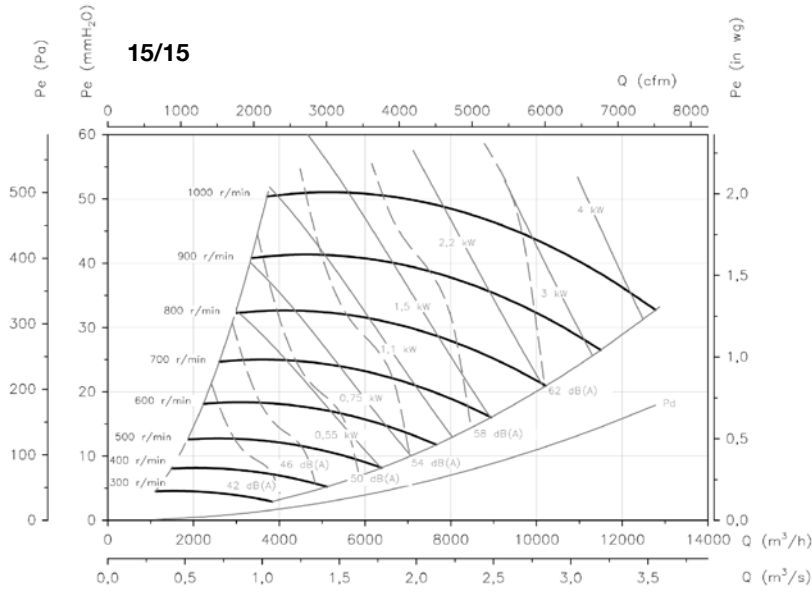


**Characteristic curves of the fan without filter**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

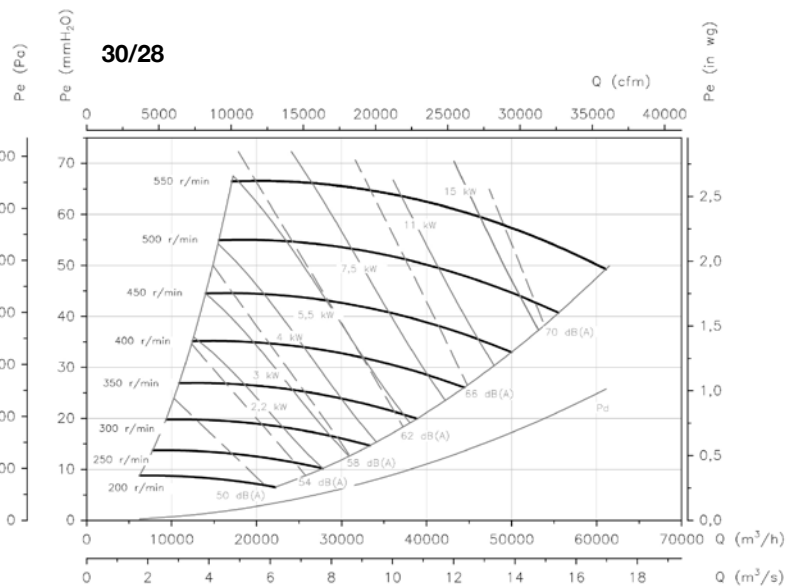
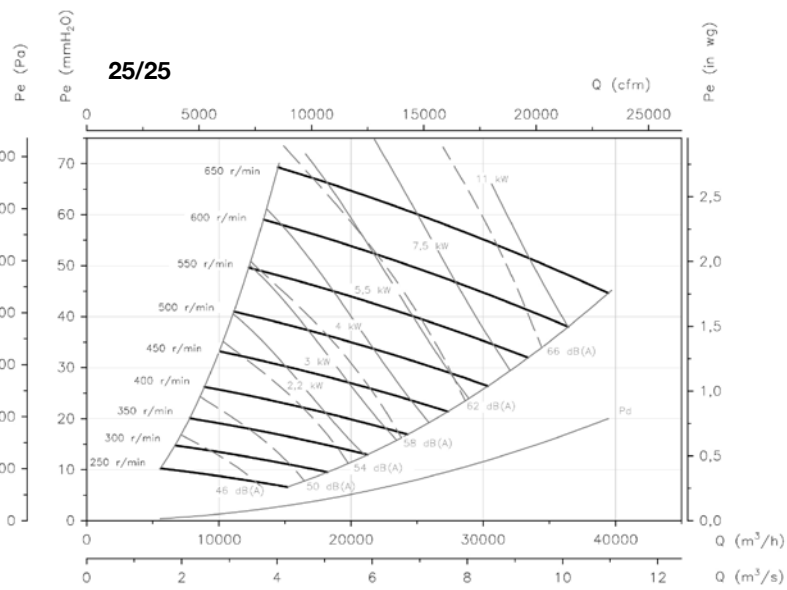
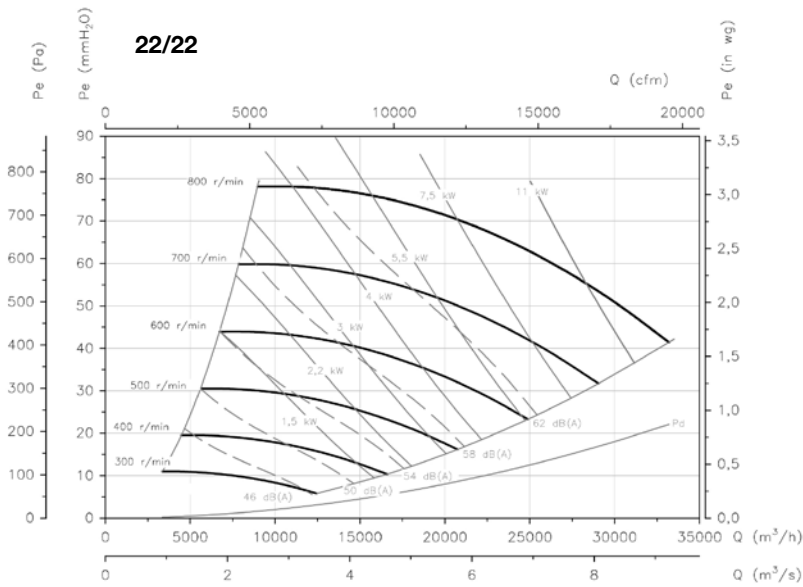


### Characteristic curves of the fan without filter

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter



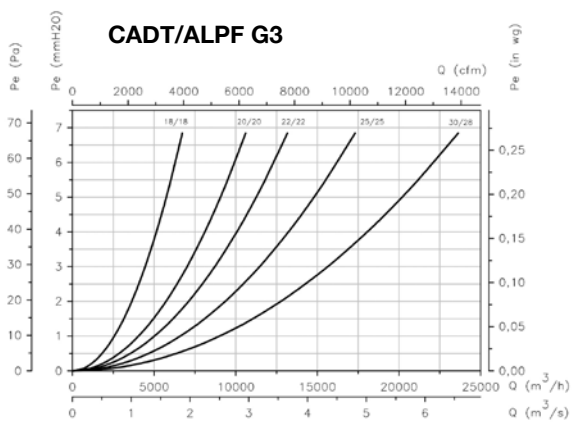
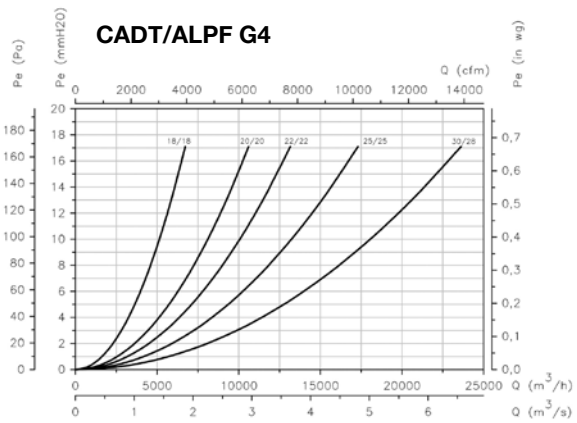
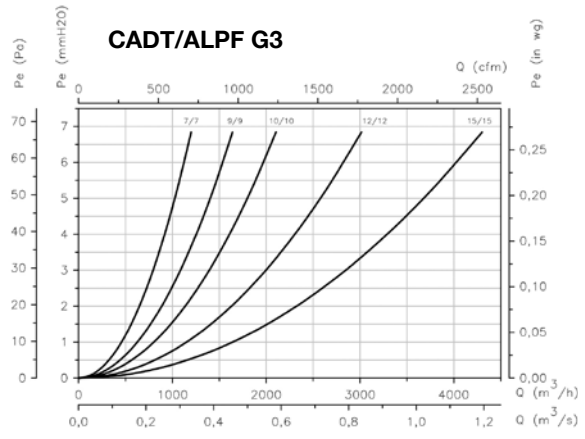
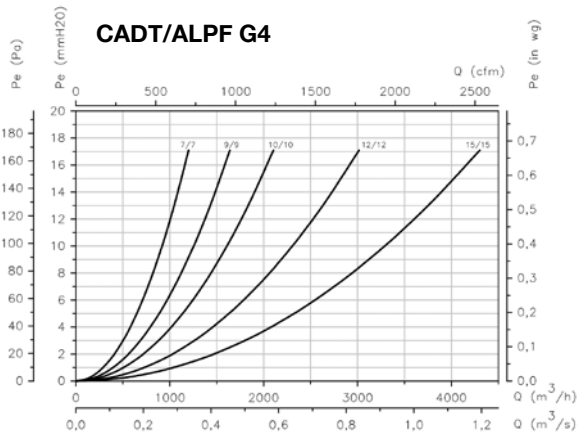
### Characteristic curves of the fan without filter

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and in wg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

#### Load loss curves of units with filters



# Ventilation

## Ventilation units

UNITS WITH E.C. TECHNOLOGY MOTOR  
**CAKS/EC**

UNITS WITH DIRECT DRIVE  
**CADTM/ALP**

BELT DRIVEN UNITS WITH IE3 MOTOR  
**CADT/ALP**



## CAKS/EC

Ventilation units for circular ducting, with a 25 mm thick insulating acoustic casing to reduce noise, interchangeable covers and E.C. Technology motor



### CHARACTERISTICS:

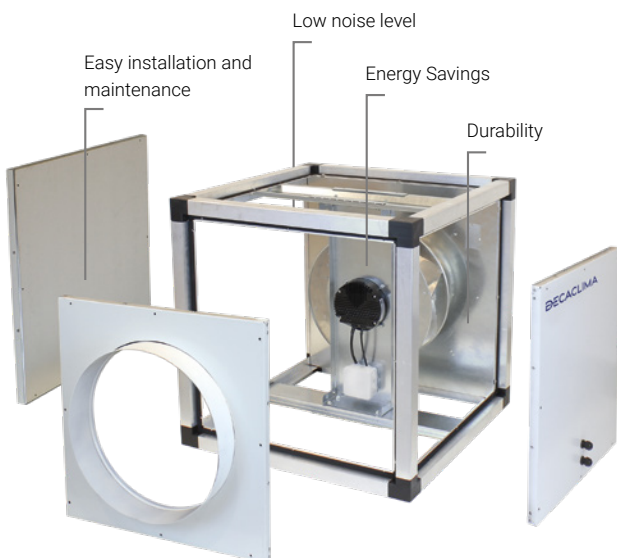
- Aluminium profile structure.
- Covers with a high quality, 25 mm thick acoustic casing made of prefinished sheet.
- Impeller with reaction blades.
- Standardised inlet and outlet flanges allowing for easy installation in ducts.
- Interchangeable covers to supply air on either side.
- Air inlet nozzle with diffusers that increases the efficiency of the fan.

### MOTOR:

- High efficiency E.C. Technology motors with external rotor, regulated by a 0-10 V signal.
- Single-phase 200/240 V-50/60 Hz and three-phase 380/480 V-50/60 Hz.
- Maximum temperature of the air to be carried: -25°C +60°C.

### FINISH:

- Anti-corrosive prefinished sheet steel and aluminium profiles.



The CAKS/EC series of cubed and insulated fans have been designed for extracting and supplying air in areas requiring a high degree of soundproofing and versatility.



Guides that prevent the air flow from swirling and increase efficiency.



The units may be installed in the vertical position



### Technical characteristics

Model	Speed (r/min)	Maximum admissible current		Maximum electric power (W)	Maximum flow rate (m <sup>3</sup> /h)	Sound pressure level at 50% of max. speed* dB (A)	Approx. weight (kg)	According ErP
		(A) 230 V	400 V					
CAKS/EC-220	3265	1.35		176	966	36	28	2018
CAKS/EC-250	2850	1.35		180	1455	38	29	2018
CAKS/EC-310	1920	1.35		175	1920	29	30	2018
CAKS/EC-400	1550	2.00		460	3642	38	61	2018
CAKS/EC-500	1250		2.00	1150	6577	36	106	2018

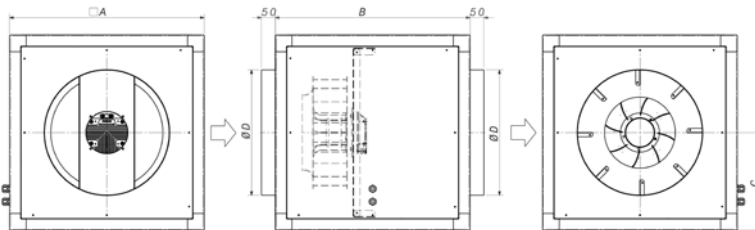
\*Irradiated sound pressure level in dB(A) at a distance of 1.5 m and at maximum flow rate.

### Acoustic characteristics

Sound power level Lw(A) in dB(A) per frequency band in Hz. Irradiated values at maximum speed and medium flow rate.

Model	63	125	250	500	1000	2000	4000	8000
CAKS/EC-220	50	50	43	50	44	42	45	45
CAKS/EC-250	46	44	43	45	55	35	34	30
CAKS/EC-310	30	44	33	32	44	25	24	19
CAKS/EC-400	37	52	41	42	34	29	27	27
CAKS/EC-500	30	42	45	50	50	50	47	41

### Dimensions mm

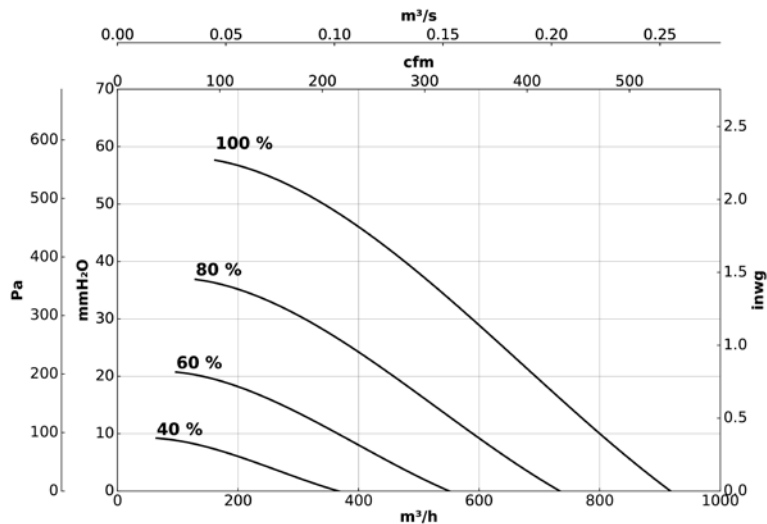


	A	B	C	ØD
CAKS/EC-220	500	500	250	315
CAKS/EC-250	500	500	250	355
CAKS/EC-310	500	500	250	355
CAKS/EC-400	700	700	350	450
CAKS/EC-500	900	900	450	500

### Characteristic curves

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

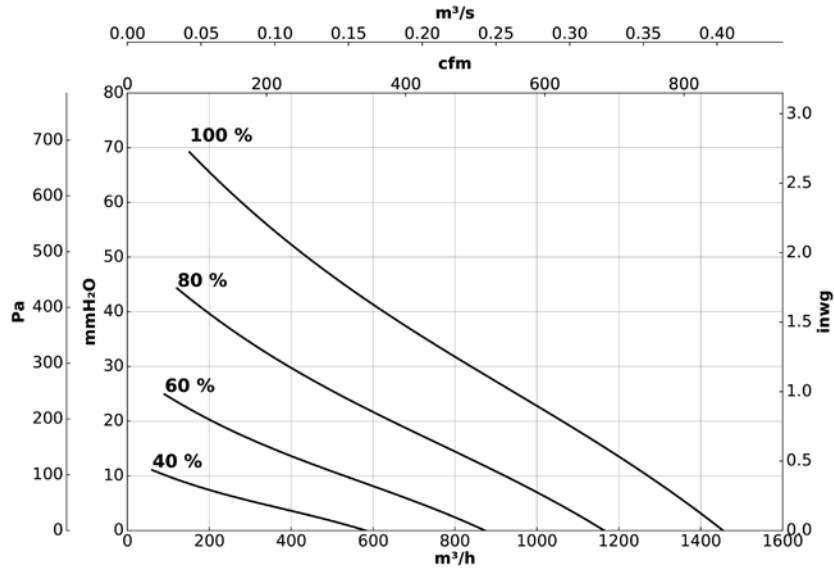
#### CAKS/EC-220



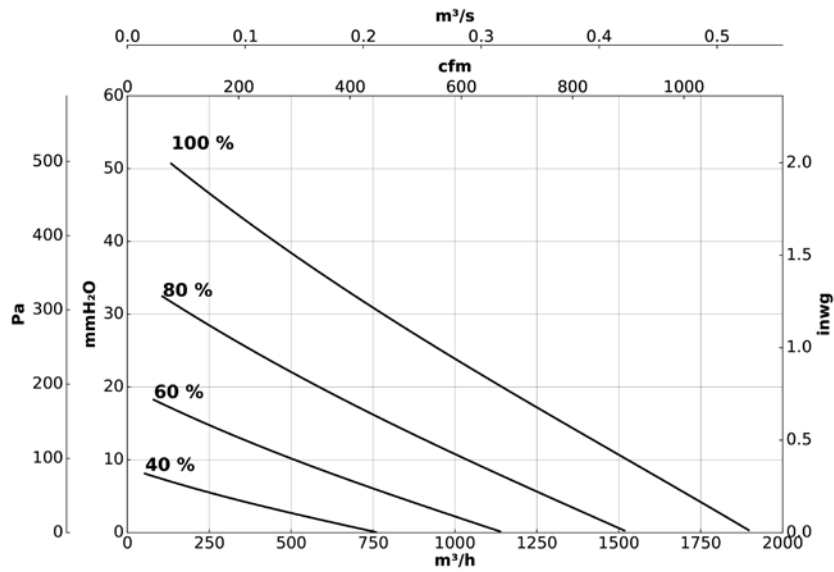
**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Pe= Static pressure in mmH<sub>2</sub>O, Pa and inwg.

**CAKS/EC-250**



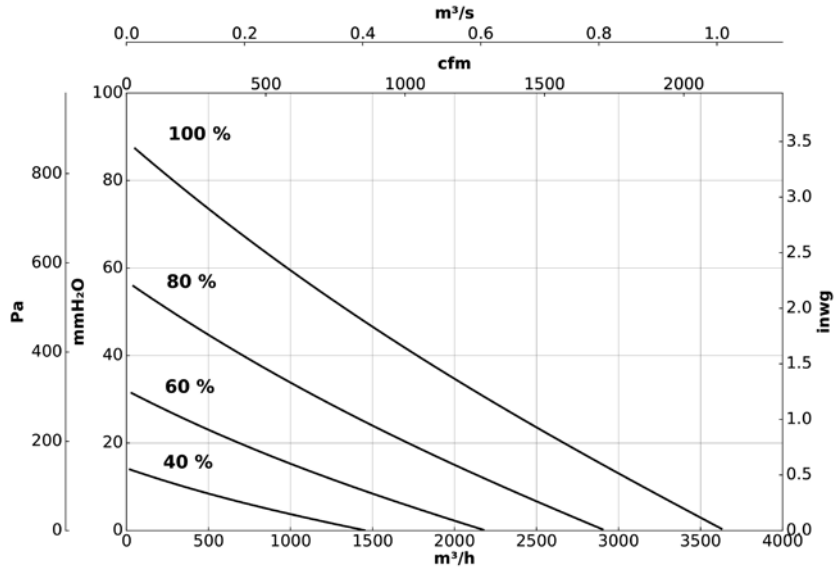
**CAKS/EC-310**



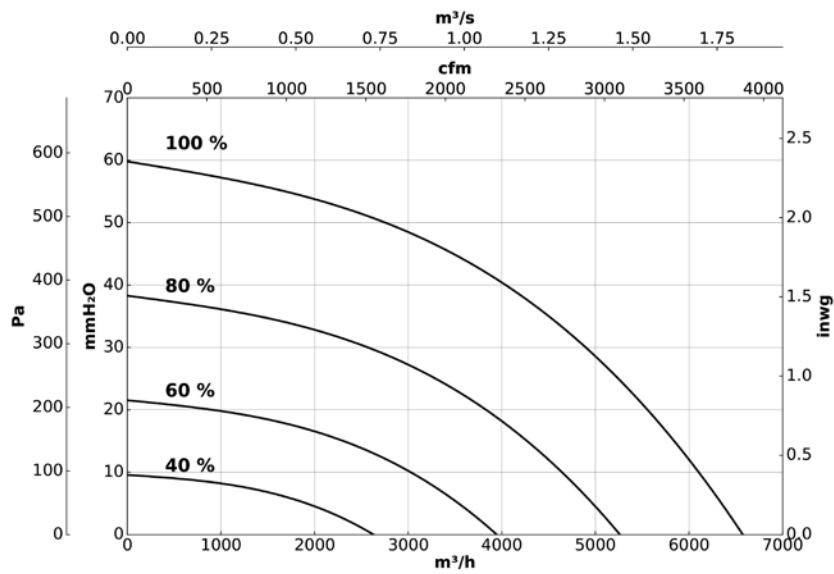
**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.  
 Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

**CAKS/EC-400**



**CAKS/EC-500**



# CADTM/ALP

Ventilation units with aluminium profiles, prefinished sheet steel and acoustic insulation



## FAN:

- Aluminium profiles structure with thermal and acoustic insulation.
- Action impeller made of galvanised sheet steel.
- Cable gland for cable inlet.
- Double inlet, DTM series fans.

## MOTOR:

- Closed motors with built-in thermal protector, class F, with ball bearings, IP54 protection.
- Single-phase 220/240 V -50Hz and three-phase 220-240/380-415 V -50Hz.
- Maximum temperature of the air to be carried: -20°C+ 60°C.

## FINISH:

- Anti-corrosive prefinished sheet steel and aluminium profiles.

## UPON REQUEST:

- With circular air supply.

## Technical characteristics

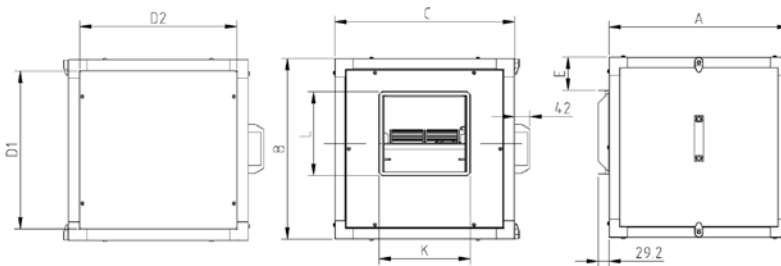
Model	Speed (r/min)	Maximum admissible current (A)		Installed power (kW)	Maximum flow rate (m³/h)	Sound pressure level dB (A)	Approx. weight (kg)	According ErP
		230 V	400 V					
CADTM/ALP 7/7-4M 1/5	1320	1.15		0.15	1500	58	22.5	2018
CADTM/ALP 7/7-6M 1/10	820	0.85		0.08	1230	53	22.5	2018
CADTM/ALP 9/9-4M 1/2	1320	2.30		0.37	2800	66	31.8	2018
CADTM/ALP 9/9-4M 3/4	1310	3.65		0.55	3600	70	32.6	2018
CADTM/ALP 9/9-6M 1/5	850	1.50		0.15	2200	60	30.1	2018
CADTM/ALP 9/9-6M 1/3	940	1.60		0.25	2700	61	31.3	2018
CADTM/ALP 10/10-4M 1/2	1320	2.30		0.37	2800	65	37.3	2018
CADTM/ALP 10/10-4M 3/4	1310	3.65		0.55	3950	70	38.1	2018
CADTM/ALP 10/10-6M 1/3	940	1.60		0.25	3200	61	36.8	2018
CADTM/ALP 12/12-6T 1 1/2	850	6.60	3.80	1.10	7800	74	53.8	2018
CADTM/ALP 12/12-6M 3/4	930	3.30		0.55	4750	63	52.3	2018
CADTM/ALP 12/12-6M 1	850	5.37		0.75	6000	70	53.3	2018
CADTM/ALP 15/15-6T 3	890	10.90	6.30	2.20	11400	74	80.0	2018

### Acoustic characteristics

Sound power level Lw(A) in dB(A) per frequency band in Hz

Model	63	125	250	500	1000	2000	4000	8000	Model	63	125	250	500	1000	2000	4000	8000
7/7-4M 1/5	43	54	58	62	64	63	62	53	10/10-4M 3/4	55	66	70	74	76	75	74	65
7/7-6M 1/10	38	49	53	57	59	58	57	48	10/10-6M 1/3	46	57	61	65	67	66	65	56
9/9-4M 1/2	51	62	66	70	72	71	70	61	12/12-6T 1 1/2	59	70	74	78	80	79	78	69
9/9-4M 3/4	55	66	70	74	76	75	74	65	12/12-6M 3/4	48	59	63	67	69	68	67	58
9/9-6M 1/5	44	55	59	63	65	64	63	54	12/12-6M 1	55	66	70	74	76	75	74	65
9/9-6M 1/3	46	57	61	65	67	66	65	56	15/15-6T 3	61	72	77	81	83	81	80	71
10/10-4M 1/2	50	61	65	69	71	70	69	60									

### Dimensions mm



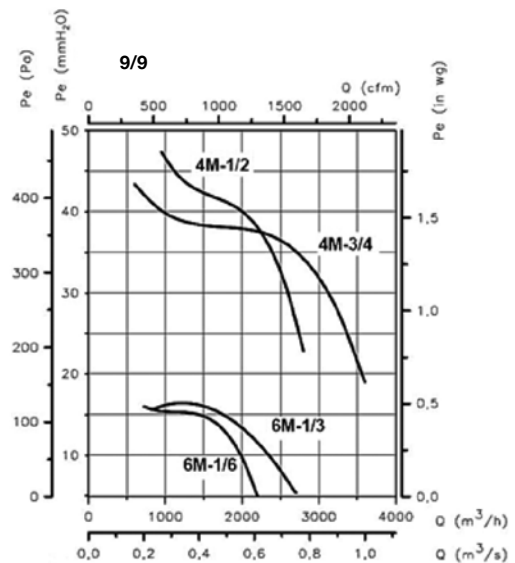
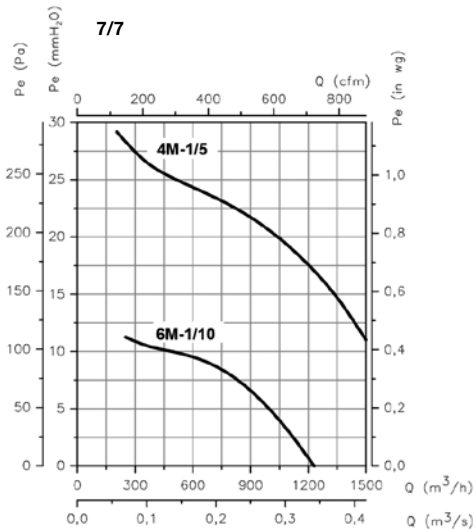
	A	B	C	D1	D2	E	L	K
CADTM/ALP 7/7	490	490	490	428	428	91	226	247
CADTM/ALP 9/9	550	550	550	488	488	86	279	317
CADTM/ALP 10/10	605	605	605	543	543	88	306	343
CADTM/ALP 12/12	680	680	680	618	618	84	360	404
CADTM/ALP 15/15	855	855	855	793	793	119	423	490

### Characteristic curves

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

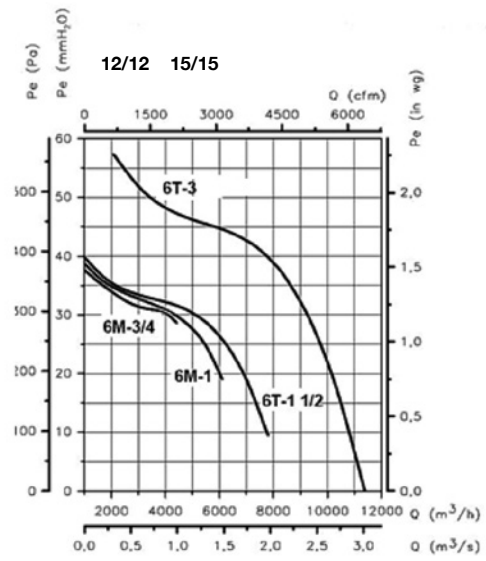
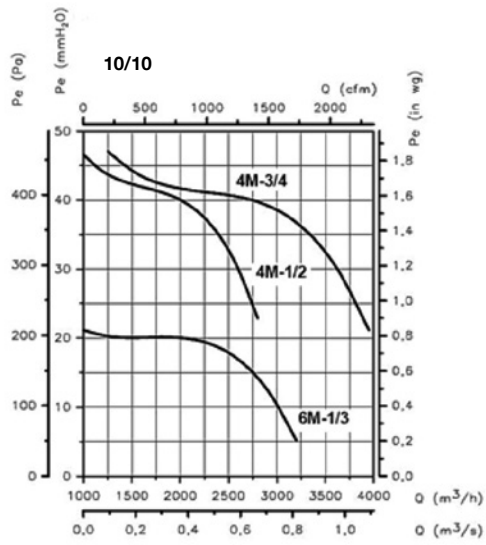


### Characteristic curves

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter



# CADT/ALP

Belt-driven ventilation units with aluminium profiles, prefinished sheet steel and acoustic insulation.



### FAN:

- Ventilation units fitted with double-inlet fans from the DTS, DTC and DTR series.
- Aluminium profiles structure with thermal and acoustic insulation.
- Action impeller made of galvanised sheet steel.
- Cable gland for cable inlet.

### MOTOR:

- IE3 efficiency motors for powers equal to or higher than 0.75 kW except single-phase, 2-speed and 8-pole.
- Class F motors with ball bearings and IP55 protection.
- Three-phase 230/400 V - 50 Hz (up to 4 kW) and 400/690 V - 50 Hz. (powers higher than 4kW)
- Maximum temperature of the air to be carried: -20°C+ 60°C.

### FINISH:

- Anti-corrosive prefinished sheet steel and aluminium profiles.

### UPON REQUEST:

- With circular air supply.

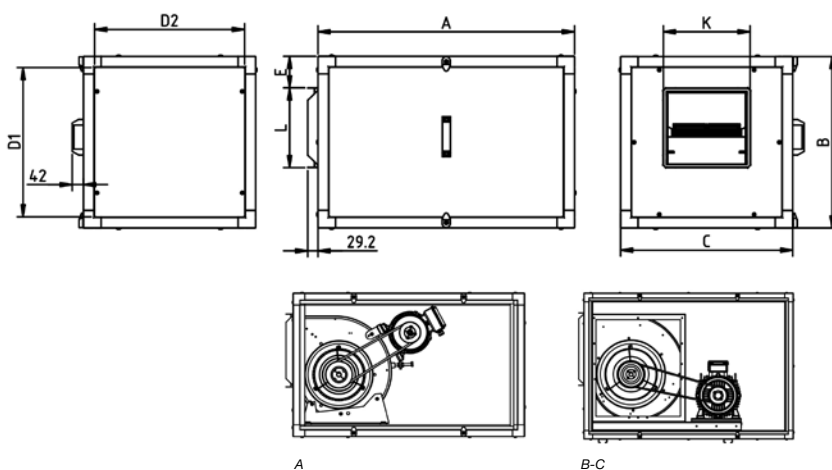
## Technical characteristics

Model	Speed (r/min)	Maximum admissible current			Installed power (kW)	Maximum flow rate (m <sup>3</sup> /h)	Sound pressure level dB (A)	Approx. weight (kg)	Mounting version	According ErP
		230 V	(A) 400 V	690 V						
CADT/ALP	7/7-0.75	1400	2.92	1.69	0.55	1200	56	41	A	2018
CADT/ALP	7/7-1 IE3	1600	3.10	1.79	0.75	1450	58	43	A	2018
CADT/ALP	9/9-0.25	825	1.23	0.71	0.18	1700	45	48	A	2018
CADT/ALP	9/9-0.33	920	1.66	0.96	0.25	1800	48	50	A	2018
CADT/ALP	9/9-0.5	1020	2.02	1.17	0.37	2200	51	52	A	2018
CADT/ALP	9/9-0.75	1050	2.92	1.69	0.55	2900	55	55	A	2018
CADT/ALP	9/9-1 IE3	1070	3.10	1.79	0.75	3200	56	56	A	2018
CADT/ALP	9/9-1.5 IE3	1260	4.03	2.32	1.10	3750	60	59	A	2018
CADT/ALP	10/10-0.75	845	2.92	1.69	0.55	3800	56	57	A	2018
CADT/ALP	10/10-1 IE3	960	3.10	1.79	0.75	4175	58	59	A	2018
CADT/ALP	10/10-1.5 IE3	1070	4.03	2.32	1.10	4800	61	61	A	2018
CADT/ALP	10/10-2 IE3	1140	5.96	3.44	1.50	5400	63	65	A	2018
CADT/ALP	12/12-0.5	595	2.02	1.17	0.37	4200	52	69	A	2018
CADT/ALP	12/12-0.75	675	2.92	1.69	0.55	4800	54	71	A	2018
CADT/ALP	12/12-1 IE3	765	3.10	1.79	0.75	5400	57	72	A	2018
CADT/ALP	12/12-1.5 IE3	855	4.03	2.32	1.10	5800	59	75	A	2018

## Technical characteristics

Model	Speed	Maximum admissible current			Installed power (kW)	Maximum flow rate (m <sup>3</sup> /h)	Sound pressure level dB (A)	Approx. weight (kg)	Mounting version	According ErP
		(r/min)	230 V	(A) 400 V						
CADT/ALP 12/12-2 IE3	965	5.96	3.44	1.50	6500	62	79	A	2018	
CADT/ALP 12/12-3 IE3	1180	8.36	4.83	2.20	7400	65	87	B	2018	
CADT/ALP 15/15-0.75	525	2.92	1.69	0.55	5900	49	85	B	2018	
CADT/ALP 15/15-1 IE3	595	3.10	1.79	0.75	6500	52	86	B	2018	
CADT/ALP 15/15-1.5 IE3	635	4.03	2.32	1.10	7500	54	89	B	2018	
CADT/ALP 15/15-2 IE3	670	5.96	3.44	1.50	8200	56	93	B	2018	
CADT/ALP 15/15-3 IE3	740	8.36	4.83	2.20	9500	59	101	B	2018	
CADT/ALP 15/15-4 IE3	805	10.96	6.33	3.00	10600	61	103	B	2018	
CADT/ALP 18/18-1.5 IE3	480	4.03	2.32	1.10	9000	48	122	B	2018	
CADT/ALP 18/18-2 IE3	605	5.96	3.44	1.50	9250	51	125	B	2018	
CADT/ALP 18/18-3 IE3	590	8.36	4.83	2.20	11500	54	134	B	2018	
CADT/ALP 18/18-4 IE3	640	10.96	6.33	3.00	13200	56	136	B	2018	
CADT/ALP 18/18-5.5 IE3	675	14.10	8.12	4.00	15000	58	141	C	2018	
CADT/ALP 18/18-7.5 IE3	760		11.60 6.72	5.50	17000	60	155	C	2018	
CADT/ALP 20/20-2 IE3	430	5.96	3.44	1.50	11500	56	222	C	2018	
CADT/ALP 20/20-3 IE3	530	8.36	4.83	2.20	12800	57	231	C	2018	
CADT/ALP 20/20-4 IE3	575	10.96	6.33	3.00	14200	58	233	C	2018	
CADT/ALP 20/20-5.5 IE3	635	14.10	8.12	4.00	15500	61	238	C	2018	
CADT/ALP 20/20-7.5 IE3	675		11.60 6.72	5.50	17500	63	252	C	2018	
CADT/ALP 20/20-10 IE3	725		13.90 8.06	7.50	20000	65	283	C	2018	
CADT/ALP 22/22-2 IE3	385	5.96	3.44	1.50	14000	50	250	C	2018	
CADT/ALP 22/22-3 IE3	475	8.36	4.83	2.20	15000	54	257	C	2018	
CADT/ALP 22/22-4 IE3	515	10.96	6.33	3.00	17000	55	261	C	2018	
CADT/ALP 22/22-5.5 IE3	570	14.10	8.12	4.00	19000	57	265	C	2018	
CADT/ALP 22/22-7.5 IE3	605		11.60 6.72	5.50	21500	60	279	C	2018	
CADT/ALP 22/22-10 IE3	675		13.90 8.06	7.50	25000	63	306	C	2018	
CADT/ALP 22/22-15 IE3	765		20.90 12.10	11.00	27000	65	341	C	2018	
CADT/ALP 25/25-3 IE3	375	8.36	4.83	2.20	17000	53	297	C	2018	
CADT/ALP 25/25-4 IE3	405	10.96	6.33	3.00	20500	55	299	C	2018	
CADT/ALP 25/25-5.5 IE3	450	14.10	8.12	4.00	22000	57	304	C	2018	
CADT/ALP 25/25-7.5 IE3	485		11.60 6.72	5.50	24500	59	318	C	2018	
CADT/ALP 25/25-10 IE3	545		13.90 8.06	7.50	28000	61	345	C	2018	
CADT/ALP 25/25-15 IE3	610		20.90 12.10	11.00	32000	64	374	C	2018	
CADT/ALP 30/28-3 IE3	330	8.36	4.83	2.20	20000	54	380	C	2018	
CADT/ALP 30/28-4 IE3	360	10.96	6.33	3.00	22000	56	382	C	2018	
CADT/ALP 30/28-5.5 IE3	380	14.10	8.12	4.00	25000	59	387	C	2018	
CADT/ALP 30/28-7.5 IE3	380		11.60 6.72	5.50	31500	60	402	C	2018	
CADT/ALP 30/28-10 IE3	410		13.90 8.06	7.50	36000	63	431	C	2018	
CADT/ALP 30/28-15 IE3	430		20.90 12.10	11.00	42000	65	451	C	2018	
CADT/ALP 30/28-20 IE3	480		27.90 16.20	15.00	48000	68	466	C	2018	

## Dimensions mm



	A	B	C	D1	D2	E	L	K	Installation
CADT/ALP 7/7	830	490	490	428	428	91	226	247	A
CADT/ALP 9/9	920	550	550	488	488	86	279	317	A
CADT/ALP 10/10	970	605	605	543	543	88	306	343	A
CADT/ALP 12/12	1050	680	680	618	618	84	360	404	A-B
CADT/ALP 15/15	1220	855	855	793	793	119	423	490	B
CADT/ALP 18/18	1356	1000	1000	938	938	137	498	554	B-C
CADT/ALP 20/20	1500	1195	1195	1115	1115	140	615	615	C
CADT/ALP 22/22	1600	1250	1250	1170	1170	104	705	668	C
CADT/ALP 25/25	1870	1450	1450	1370	1370	200	792	767	C
CADT/ALP 30/28	1975	1670	1670	1590	1590	188	938	896	C

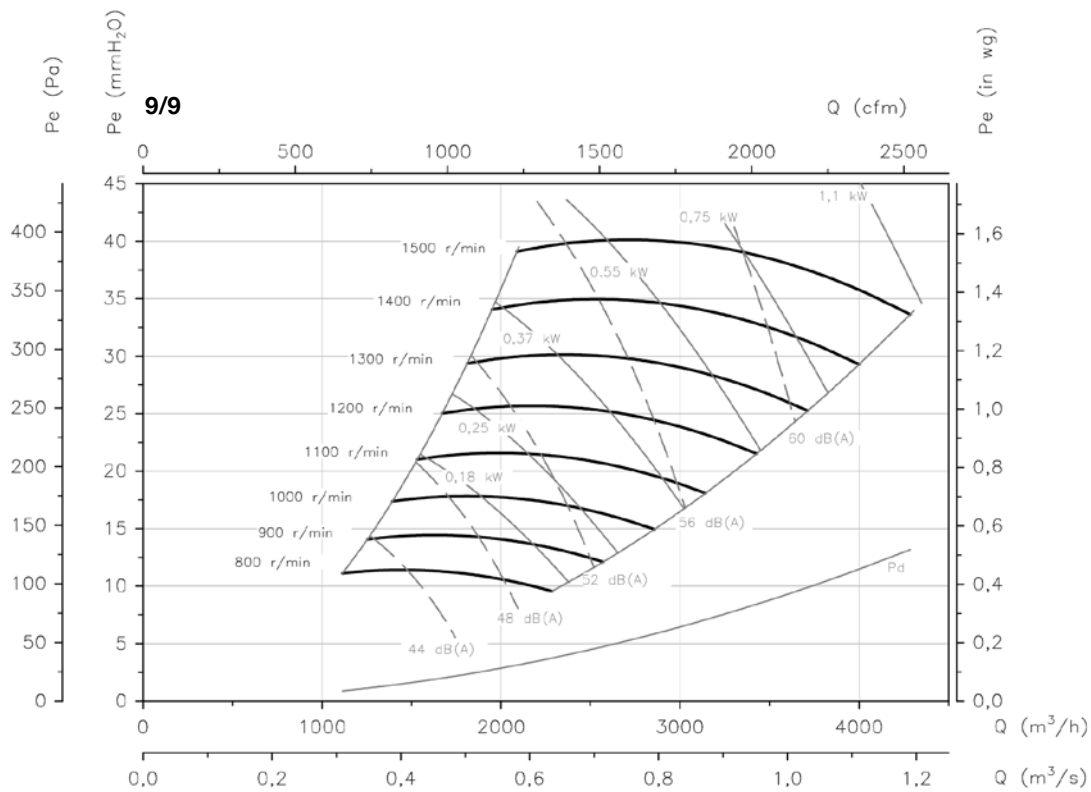
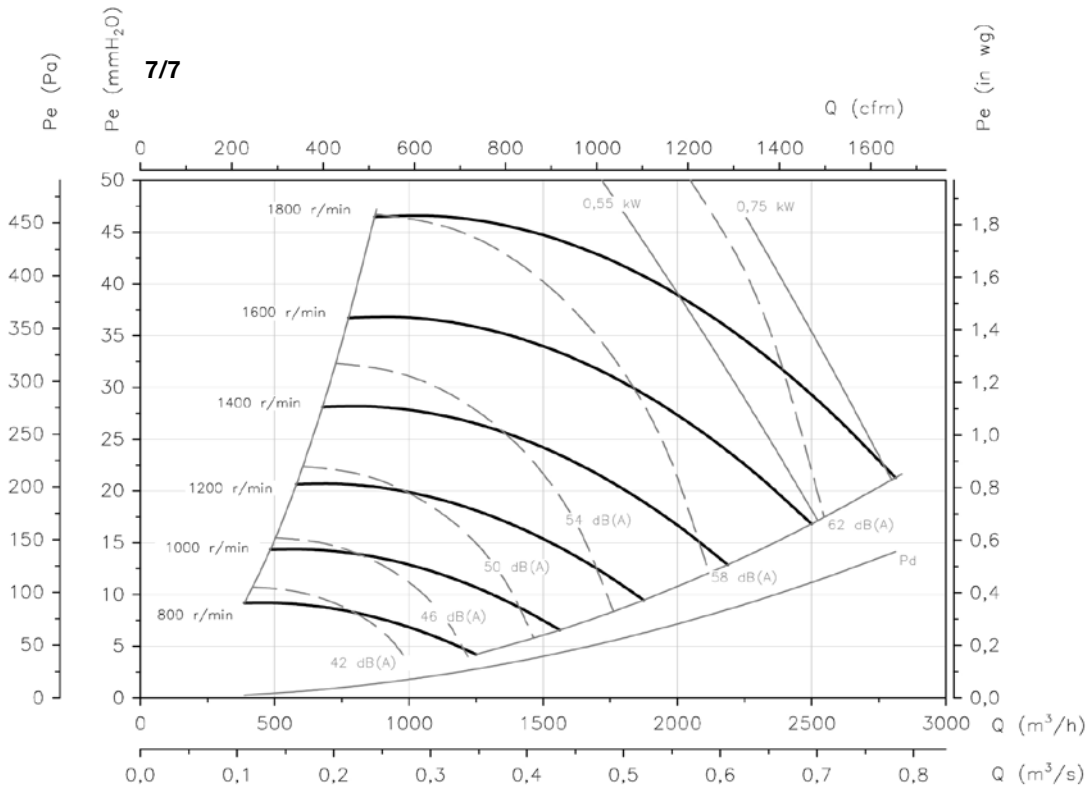


Characteristic curves

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

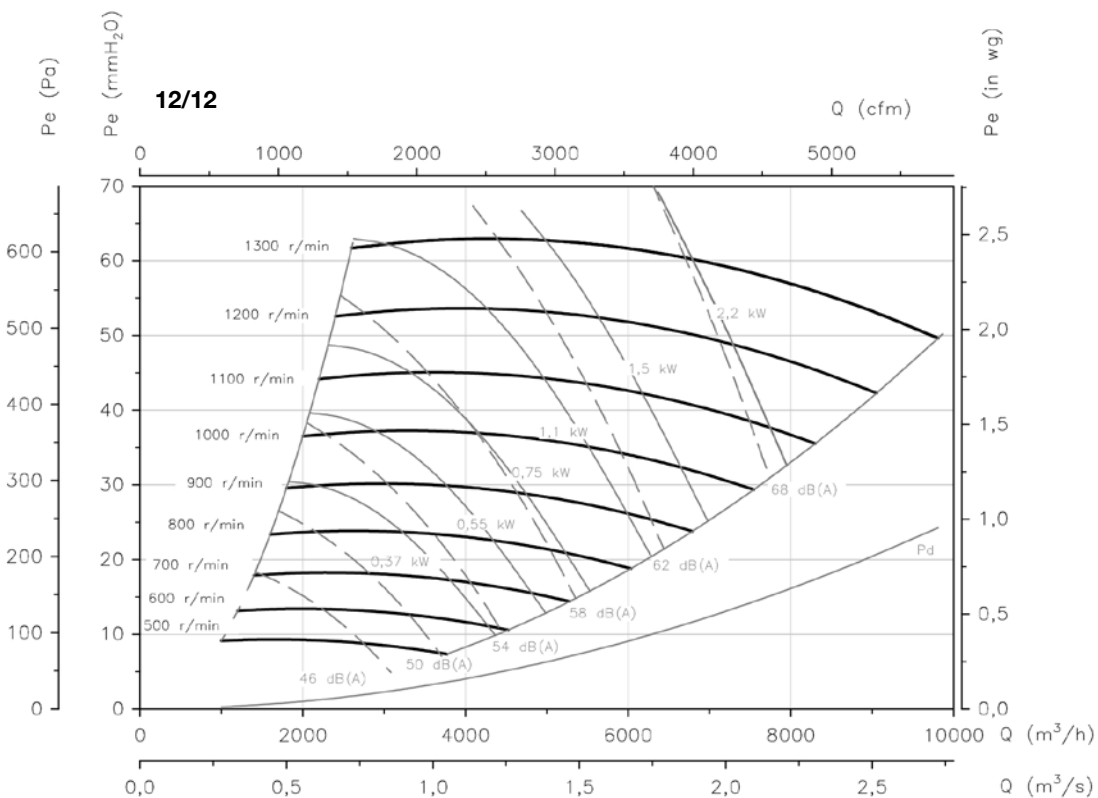
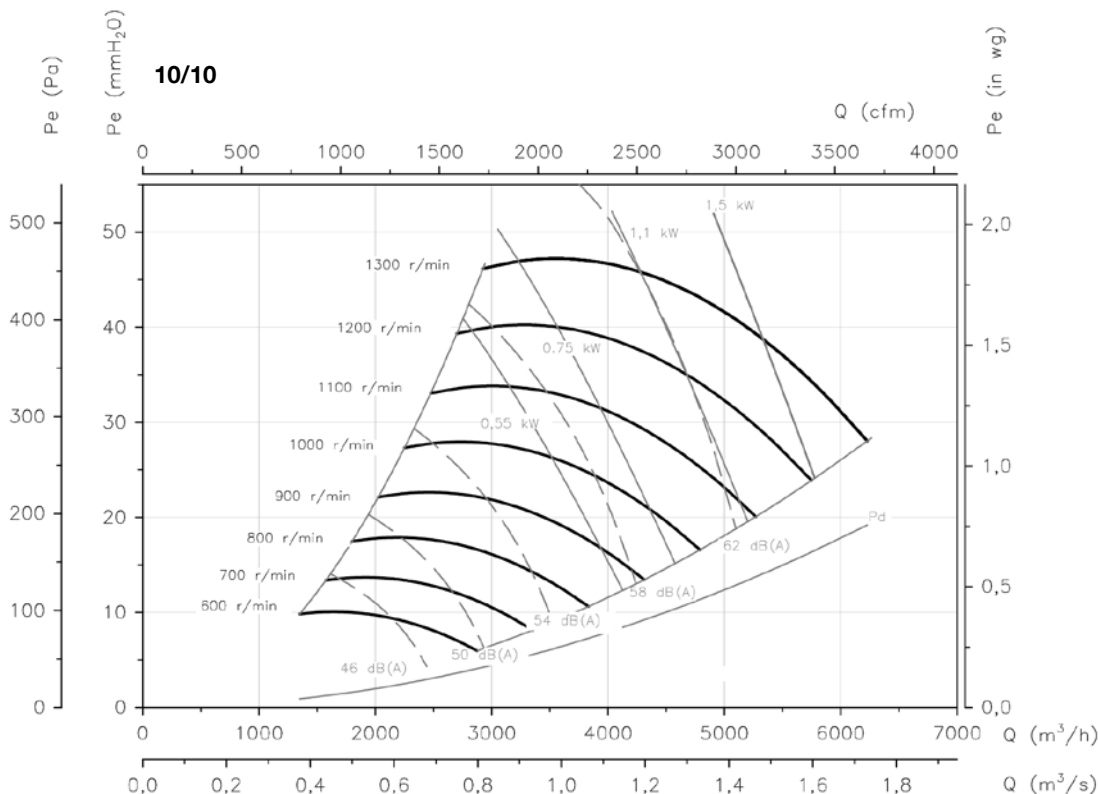


**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

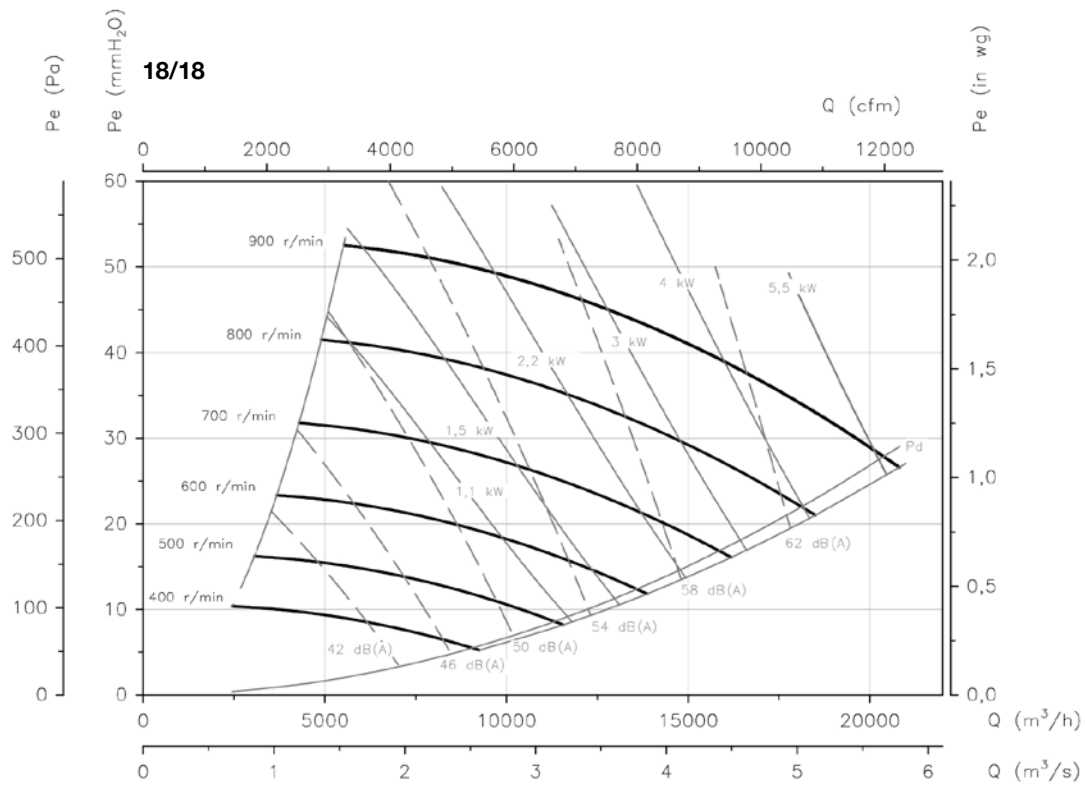
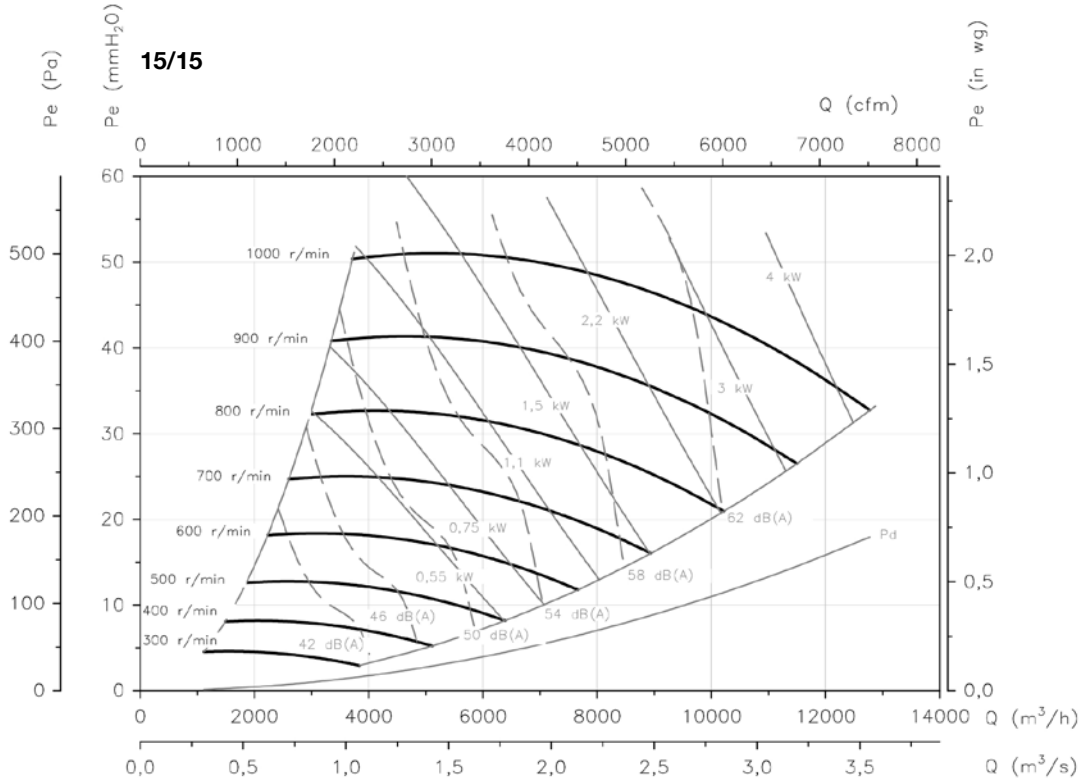


**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

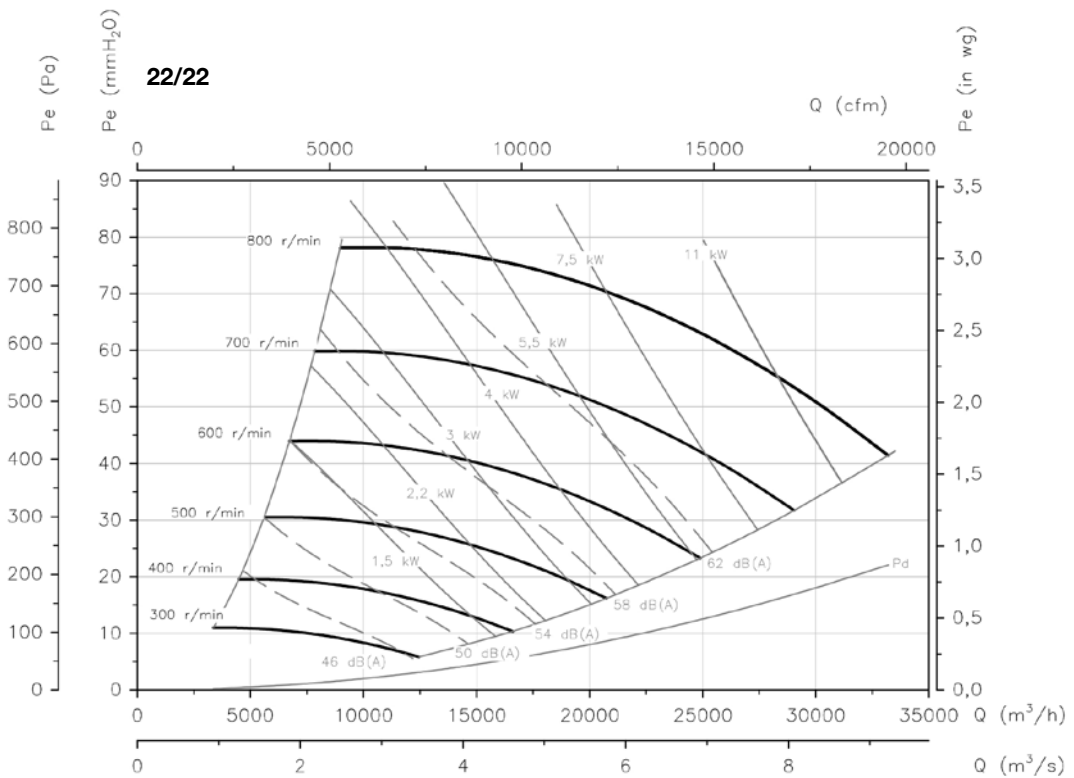
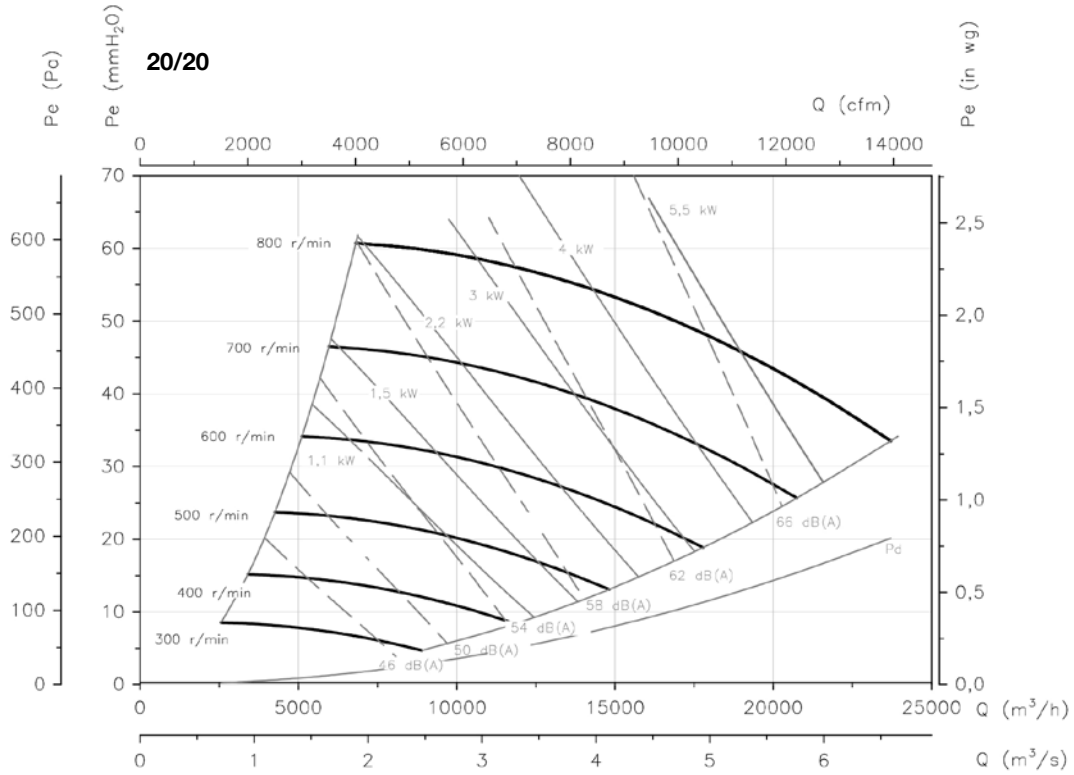


**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

Pe = Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter

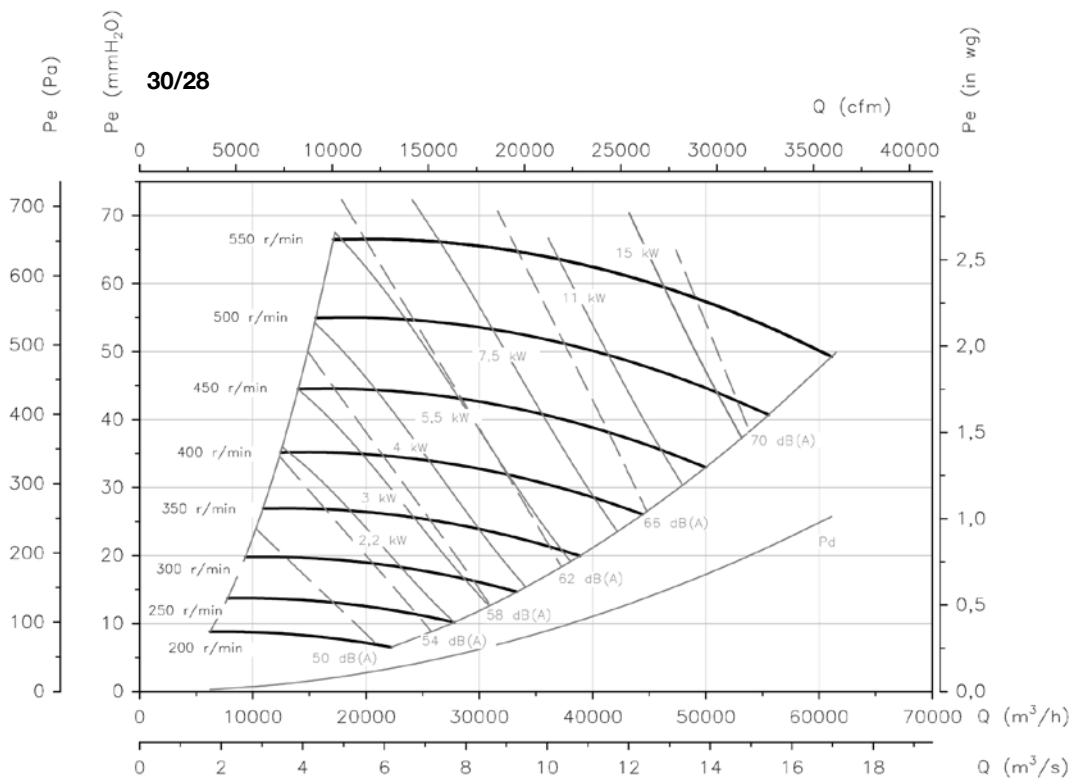
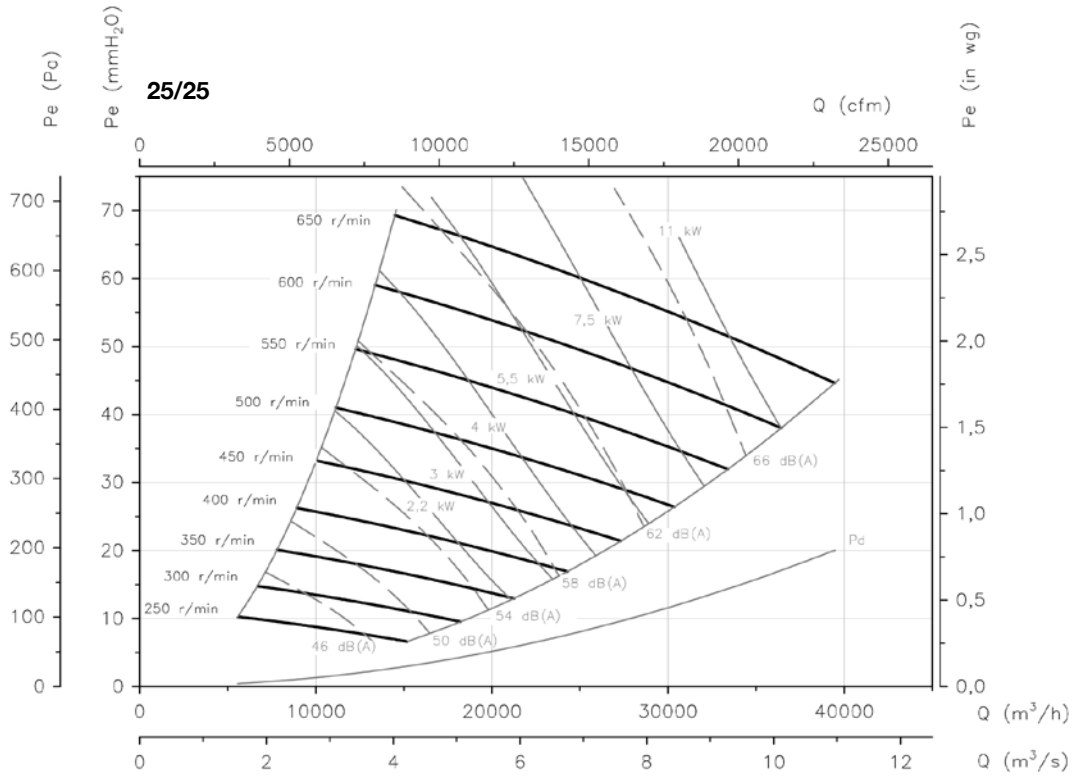


**Characteristic curves**

Q = Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm.

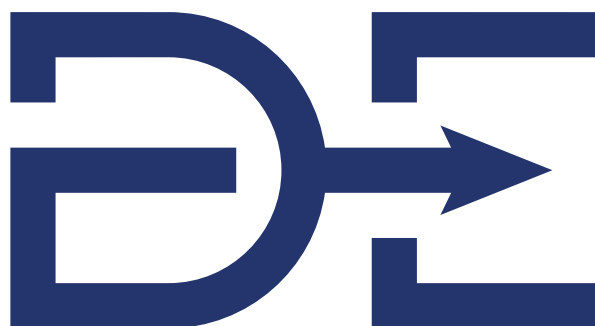
Pe= Static pressure in mmH<sub>2</sub>O, Pa and inwg.

To calculate the final flow rate, add the load loss introduced by the chosen filter









INNOVATION IN AIR CONDITIONING  
AND AIR QUALITY EQUIPMENT

**DECACLIMA**

**DECACLIMA COMFORT SOLUTIONS, S.L.**  
Avda. del Castell, 31  
08570 Torelló (Barcelona)  
Tel. +34 930 130 703  
info@decaclima.com  
[www.decaclima.com](http://www.decaclima.com)

**SODECA** Group