False-ceiling models
CADB/T-HE 04 to 33

Vertical models
CADB/T-HE 04 to 33

Vertical and
horizontal outdoor
installation models CADB/T-HE 45 to 100.
Size 100 only available in vertical configuration.

Remote control panel

Security switch
All versions include a On/Off security device.

Heat Recovery

ErP OK

Smart Ventilation Systems

ectechnology

F7
SUPPLY FILTER

M5
EXTRACT FILTER

Versions

HORIZONTAL CONFIGURATION

VERTICAL CONFIGURATION

WITHOUT ADDITIONAL HEAT

ELECTRIC BATTERY INCLUDED

WATER COIL INCLUDED

Compact heat recovery unit with high-efficiency (up to 93%) counter-flow heat exchanger EUROVENT certified. The casing is made from plasticised galvanised steel in white. Panels are double skinned with thermo-acoustic flameproof insulation (A1/M0), made from 25mm thick fiberglass in false ceiling versions (Models 04 to 33) and 47 mm in outdoor versions (Models 45 to 100).
Configurable and airtight supply and exhaust spigots, suitable for horizontal and vertical installation.
Minimum outdoor temperature -10ºC. For lower temperatures it is necessary to use preheating batteries located in the outdoor air inlet.

Applications
Commercial premises, offices, restaurants, public buildings, schools.

CADB/T-HE D PRO-REG
Heat recovery units without additional incorporated heater.

CADB/T-HE DC PRO-REG
Heat recovery units with built-in hot water coil.

The 3-Way valve is provided as an accessory (see accessories table for this series)

CADB/T-HE DI PRO-REG
Heat recovery units with built-in electric heater battery.

Motors
Models 04 to 33: Single phase EC motors with integrated electronic protection, 230V/I/50-60Hz IP44, Class B.
Models 45 to 100: Three phase EC motors with integrated electronic protection, 400V/III/50-60Hz IP 54 class B.

Fans
Plug-fan with backward curved impeller.

Filters
- F7: Low pressure F7 filters (ePM1 70%) for supply air.
- M5: M5 filters (ePM10 50%) for extract air.
- Possibility of mounting a second filter inside the unit (accessory).

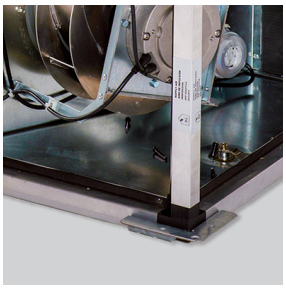
It is possible to complement the heat recovery unit with a specific range of water and direct expansion coils. Also available, the exclusive module IAQ with a high efficiency in the retention of pollutants associated with outdoor pollution (gases and particulate matter), providing adequate quality to the supplied air, even in polluted outdoor environments.

Control
It includes an integral operation control, from factory assembled and wired to all the components included in the unit (fans, by-pass, filter pressure switches, temperature probes, etc.).
Allows fans control in manual or automatic mode with the display of supply and extract real air volume in all the operation modes (fans pressure transmitters included): Variable airflow (VAV), constant pressure (COP) or constant airflow (CAV) (Available accessories for each mode).
Also allows the management of heating coils (DI and DC versions). Integrated air and water temperature probes.

Description of the fan control modes which can be configured:
VAV- variable air volume
Fans speed can be regulated by a 0 - 10V signal from the remote touchscreen panel (included) or an external CO_2, temperature or humidity sensor (accessories).
CAV - constant air volume
Fans speed are automatically adjusted in order to maintain a constant airflow regardless of the filters fouling. Supply and extract fans are controlled independently allowing the configuration of differents airflow values for each one. No accessoires are required.
COP - constant pressure
Constant pressure measured by an external pressure sensor TDP-S (accessory).
Appropriate control mode for multi-room installations with flow control dampers.

Additional information
Single phase (CADB-HE PRO-REG) and three phase models (CADT-HE PRO-REG).
Airflows from 450 to 10.000 m^3/h.
All versions and models include by-pass.
Mounting flexibility provided by the interchangeable side panels.

CADB/T-HE 04 TO 33 PRO-REG HORIZONTAL MODELS



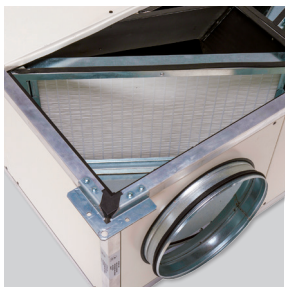
1 Low noise level and robust construction
Casing with double skinned 25mm panels with thermoacoustic flameproof insulation A1/M0, with high-quality finish and plastic corners.

2 PRO-REG Controller
Mounted in an IP54 weatherproof electrical box.

3 Motors
Plug-fans with EC single-phase motor.

4 By-pass
All versions include internal bypass (approximately 75% over the nominal airflow).

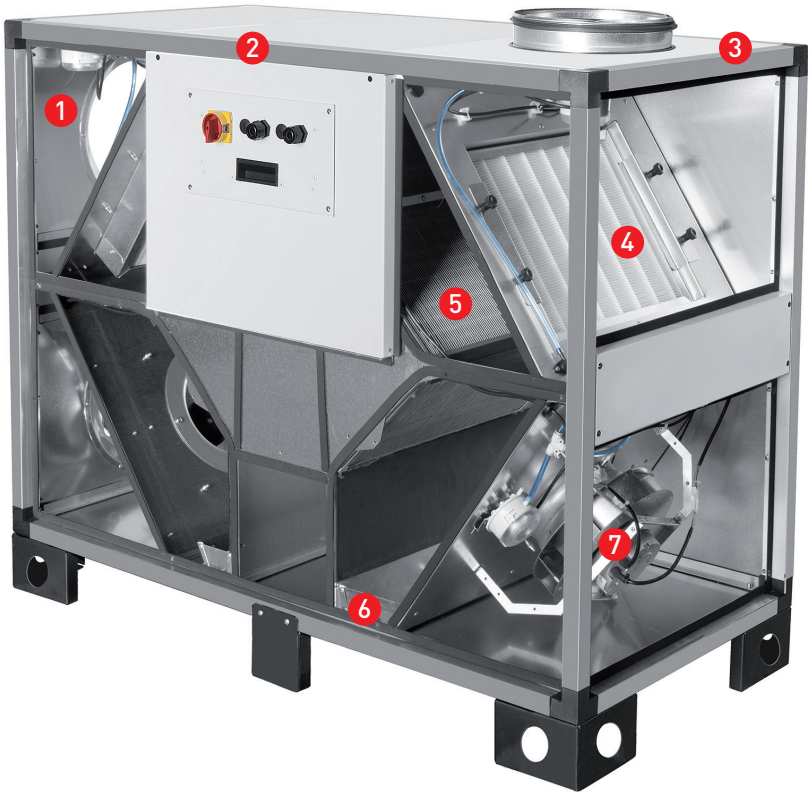
5 Counterflow heat exchanger
high-efficiency (up to 93%), EUROVENT certified.

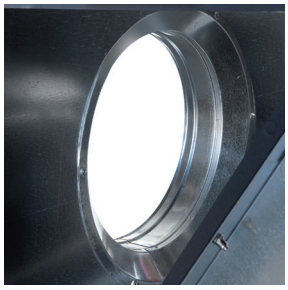


6 High-efficiency filters:
- Low pressure F7 filters (ePM1 70%) for supply air.
- M5 filters (ePM10 50%) for extract air. Possibility of mounting a second filter inside the unit (accessory).

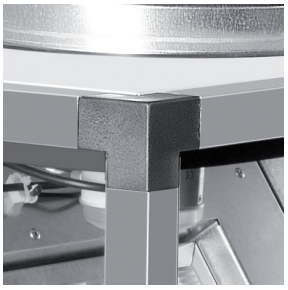
7 Easy installation
Specific supports to allow installation in false ceilings via threaded rods.

CADB/T-HE 04 TO 33 PRO-REG VERTICAL MODELS





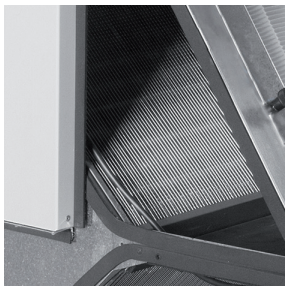
1 Ecodesign
Streamlined aerodynamic design, to reduce internal pressure drop.



2 Low noise level and robust construction
Casing with double skinned 25mm panels with thermoacoustic flameproof insulation A1/M0, with high-quality finish and plastic corners.

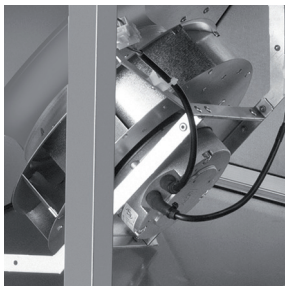
3 Versatility
Designed to allow the quickly reorientation of inputs and outputs through the exchange of two contiguous panels.

4 High-efficiency filters
- Low pressure F7 filters (ePM1 70%) for supply air.
- M5 filters (ePM10 50%) for extract air. Possibility of mounting a second filter inside the unit (accessory).



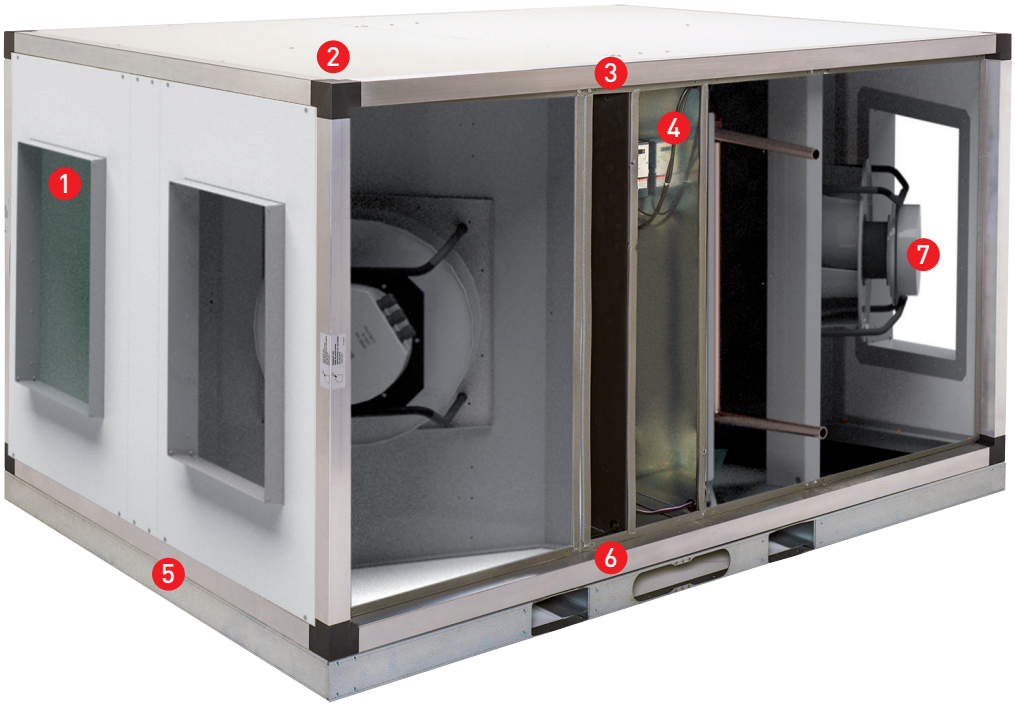
5 Counterflow heat exchanger
high-efficiency (up to 93%), EUROVENT certified. All versions include internal bypass (approximately 75% over the nominal airflow).

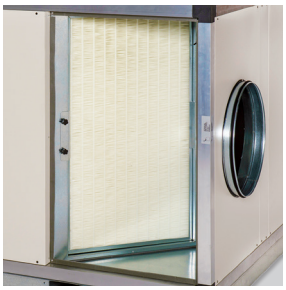
6 Condensate Tray
Double tray for summer and winter, with drain outlet by the bottom.



7 High-efficiency motors
Plug-fans with EC single-phase motor.

CADB/T-HE 45 TO 100 PRO-REG MODELS





1 High-efficiency filters
- Low pressure F7 filters (ePM1 70%) for supply air.
- M5 filters (ePM10 50%) for extract air. Possibility of mounting a second filter inside the unit (accessory).

2 Low noise level and robust construction
Casing with 50mm aluminum profiles structure. Double skinned panels with thermoacoustic flameproof insulation A1/M0, with high-quality finish and plastic corners.

3 By-pass
All versions include internal bypass (approximately 75% over the nominal airflow).

4 PRO-REG Controller
Mounted inside the unit, IP55.

5 Structural base
It provides a high rigidity and allows the easy levelling of the unit in outdoor installations.

6 Counterflow heat exchanger of high-efficiency (up to 93%), EUROVENT certified.

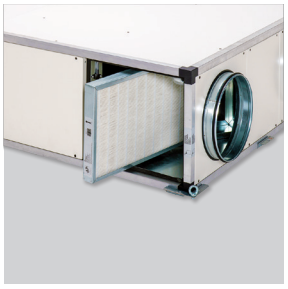
7 Motors
Plug-fans with EC three-phase motor.

HIGHEST FLEXIBILITY




Versatile assembly
The design of our heat recovery units makes it possible for the user to configure them on site. Panels are interchangeable (except the control panel), which makes it possible to change the position of inlet and outlet connections directly on site, depending on the specific requirements.

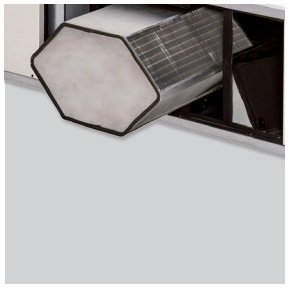
Multiple possibilities for exchanging the panels

Easy maintenance
Models 04 to 100: Easy access to filters from side panels.


Easy maintenance
Models 04 to 33: Easy access to filters from bottom panels.





Models 04 to 33: Easy access for cleaning the exchanger from side and bottom panels. Disassembly required.
Models 45 to 100: Easy access for cleaning the exchanger from side panels.

REFERENCE

C A D B - HE	D I	16	LH	PRO-REG
1	2	3	4	5

1 - Series:
CADB-HE: Single-phase power supply.
CADT-HE: Three-phase power supply.

2 - Heater options range:
D: Standard range (Without additional incorporated heater)
DC: Range with built-in hot water coil
DI: Range with built-in electric heater battery

3 - Size

4 - Type of configuration:
LH: Left horizontal
RH: Right horizontal
LV: Left vertical
RV: Right vertical

5 - PRO-REG: Control Plug & Play PRO-REG included

STANDARD VERSIONS CADB/T-HE PRO-REG

Horizontal Versions

D Models: Without heater battery

CADB-HE	-D	04	LH	PRO-REG	CADB-HE	-D	04	RH	PRO-REG
CADB-HE	-D	08	LH	PRO-REG	CADB-HE	-D	08	RH	PRO-REG
CADB-HE	-D	12	LH	PRO-REG	CADB-HE	-D	12	RH	PRO-REG
CADB-HE	-D	16	LH	PRO-REG	CADB-HE	-D	16	RH	PRO-REG
CADB-HE	-D	21	LH	PRO-REG	CADB-HE	-D	21	RH	PRO-REG
CADB-HE	-D	27	LH	PRO-REG	CADB-HE	-D	27	RH	PRO-REG
CADB-HE	-D	33	LH	PRO-REG	CADB-HE	-D	33	RH	PRO-REG
CADT-HE	-D	45	LH	PRO-REG	CADT-HE	-D	45	RH	PRO-REG
CADT-HE	-D	60	LH	PRO-REG	CADT-HE	-D	60	RH	PRO-REG

DC Models: With built-in hot water coil

CADB-HE	-DC	04	LH	PRO-REG	CADB-HE	-DC	04	RH	PRO-REG
CADB-HE	-DC	08	LH	PRO-REG	CADB-HE	-DC	08	RH	PRO-REG
CADB-HE	-DC	12	LH	PRO-REG	CADB-HE	-DC	12	RH	PRO-REG
CADB-HE	-DC	16	LH	PRO-REG	CADB-HE	-DC	16	RH	PRO-REG
CADB-HE	-DC	21	LH	PRO-REG	CADB-HE	-DC	21	RH	PRO-REG
CADB-HE	-DC	27	LH	PRO-REG	CADB-HE	-DC	27	RH	PRO-REG
CADB-HE	-DC	33	LH	PRO-REG	CADB-HE	-DC	33	RH	PRO-REG
CADT-HE	-DC	45	LH	PRO-REG	CADT-HE	-DC	45	RH	PRO-REG
CADT-HE	-DC	60	LH	PRO-REG	CADT-HE	-DC	60	RH	PRO-REG

DI Models: With built-in electric heater battery

CADB-HE	-DI	04	LH	PRO-REG	CADB-HE	-DI	04	RH	PRO-REG
CADB-HE	-DI	08	LH	PRO-REG	CADB-HE	-DI	08	RH	PRO-REG
CADB-HE	-DI	12	LH	PRO-REG	CADB-HE	-DI	12	RH	PRO-REG
CADB-HE	-DI	16	LH	PRO-REG	CADB-HE	-DI	16	RH	PRO-REG
CADT-HE	-DI	21	LH	PRO-REG	CADT-HE	-DI	21	RH	PRO-REG
CADT-HE	-DI	27	LH	PRO-REG	CADT-HE	-DI	27	RH	PRO-REG
CADT-HE	-DI	33	LH	PRO-REG	CADT-HE	-DI	33	RH	PRO-REG
CADT-HE	-DI	45	LH	PRO-REG	CADT-HE	-DI	45	RH	PRO-REG
CADT-HE	-DI	60	LH	PRO-REG	CADT-HE	-DI	60	RH	PRO-REG

STANDARD VERSIONS CADB/T-HE PRO-REG

Vertical Versions

D Models: Without heater battery

CADB-HE	-D	04	LV	PRO-REG	CADB-HE	-D	04	RV	PRO-REG
CADB-HE	-D	08	LV	PRO-REG	CADB-HE	-D	08	RV	PRO-REG
CADB-HE	-D	12	LV	PRO-REG	CADB-HE	-D	12	RV	PRO-REG
CADB-HE	-D	16	LV	PRO-REG	CADB-HE	-D	16	RV	PRO-REG
CADB-HE	-D	21	LV	PRO-REG	CADB-HE	-D	21	RV	PRO-REG
CADB-HE	-D	27	LV	PRO-REG	CADB-HE	-D	27	RV	PRO-REG
CADB-HE	-D	33	LV	PRO-REG	CADB-HE	-D	33	RV	PRO-REG
CADT-HE	-D	45	LV	PRO-REG	CADT-HE	-D	45	RV	PRO-REG
CADT-HE	-D	60	LV	PRO-REG	CADT-HE	-D	60	RV	PRO-REG
CADT-HE	-D	100	LV	PRO-REG	CADT-HE	-D	100	RV	PRO-REG

DC Models: With built-in hot water coil

CADB-HE	-DC	04	LV	PRO-REG	CADB-HE	-DC	04	RV	PRO-REG
CADB-HE	-DC	08	LV	PRO-REG	CADB-HE	-DC	08	RV	PRO-REG
CADB-HE	-DC	12	LV	PRO-REG	CADB-HE	-DC	12	RV	PRO-REG
CADB-HE	-DC	16	LV	PRO-REG	CADB-HE	-DC	16	RV	PRO-REG
CADB-HE	-DC	21	LV	PRO-REG	CADB-HE	-DC	21	RV	PRO-REG
CADB-HE	-DC	27	LV	PRO-REG	CADB-HE	-DC	27	RV	PRO-REG
CADB-HE	-DC	33	LV	PRO-REG	CADB-HE	-DC	33	RV	PRO-REG
CADT-HE	-DC	45	LV	PRO-REG	CADT-HE	-DC	45	RV	PRO-REG
CADT-HE	-DC	60	LV	PRO-REG	CADT-HE	-DC	60	RV	PRO-REG
CADT-HE	-DC	100	LV	PRO-REG	CADT-HE	-DC	100	RV	PRO-REG

DI Models: With built-in electric heater battery

CADB-HE	-DI	04	LV	PRO-REG	CADB-HE	-DI	04	RV	PRO-REG
CADB-HE	-DI	08	LV	PRO-REG	CADB-HE	-DI	08	RV	PRO-REG
CADB-HE	-DI	12	LV	PRO-REG	CADB-HE	-DI	12	RV	PRO-REG
CADB-HE	-DI	16	LV	PRO-REG	CADB-HE	-DI	16	RV	PRO-REG
CADT-HE	-DI	21	LV	PRO-REG	CADT-HE	-DI	21	RV	PRO-REG
CADT-HE	-DI	27	LV	PRO-REG	CADT-HE	-DI	27	RV	PRO-REG
CADT-HE	-DI	33	LV	PRO-REG	CADT-HE	-DI	33	RV	PRO-REG
CADT-HE	-DI	45	LV	PRO-REG	CADT-HE	-DI	45	RV	PRO-REG
CADT-HE	-DI	60	LV	PRO-REG	CADT-HE	-DI	60	RV	PRO-REG
CADT-HE	-DI	100	LV	PRO-REG	CADT-HE	-DI	100	RV	PRO-REG

TECHNICAL CHARACTERISTICS

D Models: Without heater battery

	Complete unit						Fan		Weight (kg)
	Air connections diameter (mm)	Nominal airflow at 150Pa*2 (m^3/h)	Efficiency*1 (%)	Electrical supply	Max. abs. power (kW)	Maximum current (A)	Speed (r.p.m.)	Maximum current (A) each fan	
CADB-HE D 04 PRO-REG	200	450	87	1/230V, 50Hz	0,35	2,2	3700	1,0	147
CADB-HE D 08 PRO-REG	250	800	86,4	1/230V, 50Hz	0,53	2,9	2650	1,3	183
CADB-HE D 12 PRO-REG	315	1.200	85,3	1/230V, 50Hz	1,10	3,5	2550	1,6	190
CADB-HE D 16 PRO-REG	315	1.600	85,5	1/230V, 50Hz	1,10	4,3	2845	2,0	235
CADB-HE D 21 PRO-REG	400	2.100	86,5	1/230V, 50Hz	1,13	4,7	1580	2,2	333
CADB-HE D 27 PRO-REG	400	2.700	83,8	1/230V, 50Hz	1,84	7,5	2450	3,6	367
CADB-HE D 33 PRO-REG	400	3.300	89,9	1/230V, 50Hz	2,32	9,6	2200	4,6	420
CADT-HE D 45 PRO-REG	400x600	4.500	88,4	3+N/400V, 50Hz	4,43	6,3	2200	3,0	597
CADT-HE D 60 PRO-REG	500x700	6.100	89	3+N/400V, 50Hz	4,43	6,3	2200	3,0	730
CADT-HE D 100 PRO-REG	1100x610	10.000	88,9	3+N/400V, 50Hz	8,13	11,9	2160	5,8	862

*1 Wet efficiency referring to nominal airflow, outdoor conditions (-5ºC / 80% RH) and indoor (20ºC / 50% RH)
*2 CADT-HE 45 airflow referred to 450Pa. CADT-HE 100 airflow referred to 300 Pa.

DC Models: With built-in hot water coil

	Complete unit						Fan		Hot water coil		Weight (kg)
	Air connections diameter (mm)	Nominal airflow at 150Pa*2 (m^3/h)	Efficiency*1 (%)	Electrical supply	Max. abs. power (kW)	Maximum current (A)	Speed (r.p.m.)	Maximum current (A) each fan	Heat power T.water 80/60ºC (kW)	Heat power T.water 50/45ºC (kW)	
CADB-HE DC 04 PRO-REG	200	450	87	1/230V, 50Hz	0,35	2,2	3700	1,0	2,7	1,6	149
CADB-HE DC 08 PRO-REG	250	800	86,4	1/230V, 50Hz	0,53	2,9	2650	1,3	5,1	3,1	186
CADB-HE DC 12 PRO-REG	315	1.200	85,3	1/230V, 50Hz	1,10	3,5	2550	1,6	7,1	4,3	193
CADB-HE DC 16 PRO-REG	315	1.600	85,5	1/230V, 50Hz	1,10	4,3	2845	2,0	8,6	5,3	239
CADB-HE DC 21 PRO-REG	400	2.100	86,5	1/230V, 50Hz	1,13	4,7	1580	2,2	12,6	7,8	338
CADB-HE DC 27 PRO-REG	400	2.700	83,8	1/230V, 50Hz	1,84	7,5	2450	3,6	16,2	10,0	375
CADB-HE DC 33 PRO-REG	400	3.300	88,4	1/230V, 50Hz	2,32	9,6	2200	4,6	18,2	11,1	427
CADT-HE DC 45 PRO-REG	400x600	4.500	89	3+N/400V, 50Hz	4,43	6,3	2200	3,0	25,6	15,5	606
CADT-HE DC 60 PRO-REG	500x700	6.100	88,9	3+N/400V, 50Hz	4,43	6,3	2200	3,0	34,7	21,1	742
CADT-HE DC 100 PRO-REG	1100x610	10.000	87,9	3+N/400V, 50Hz	8,13	11,9	2160	5,8	58,9	35,4	882

*1 Wet efficiency referring to nominal airflow, outdoor conditions (-5ºC / 80% RH) and indoor (20ºC / 50% RH)
*2 CADT-HE 45 airflow referred to 450Pa. CADT-HE 100 airflow referred to 300 Pa.

DI Models: With built-in electric heater battery

	Complete unit						Fan		Electric battery		Weight (kg)
	Air connections diameter (mm)	Nominal airflow at 150Pa*2 (m^3/h)	Efficiency*1 (%)	Electrical supply	Max. abs. power (kW)	Maximum current (A)	Speed (r.p.m.)	Maximum current (A) each fan	Heating power (kW)	Maximum current (A)	
CADB-HE DI 04 PRO-REG	200	450	87	1/230V, 50Hz	1,3	6,7	3700	1,0	1	4,5	148
CADB-HE DI 08 PRO-REG	250	800	86,4	1/230V, 50Hz	2,5	12,0	2650	1,3	2	9,1	185
CADB-HE DI 12 PRO-REG	315	1.200	85,3	1/230V, 50Hz	4,1	14,9	2550	1,6	3	11,4	192
CADB-HE DI 16 PRO-REG	315	1.600	85,5	1/230V, 50Hz	4,6	20,2	2845	2,0	3,5	15,9	237
CADT-HE DI 21 PRO-REG	400	2.100	86,5	3+N/400V, 50Hz	7,1	13,8	1580	2,2	6	9,11	336
CADT-HE DI 27 PRO-REG	400	2.700	83,8	3+N/400V, 50Hz	7,8	16,6	2450	3,6	6	9,1	373
CADT-HE DI 33 PRO-REG	400	3.300	88,4	3+N/400V, 50Hz	9,8	21,0	2200	4,6	7,5	11,4	424
CADT-HE DI 45 PRO-REG	400x600	4.500	89	3+N/400V, 50Hz	13,4	20,0	2200	3,0	9	13,7	602
CADT-HE DI 60 PRO-REG	500x700	6.100	88,9	3+N/400V, 50Hz	16,4	24,5	2200	3,0	12	18,2	737
CADT-HE DI 100 PRO-REG	1100x610	10.000	87,9	3+N/400V, 50Hz	32,13	48,3	2160	5,8	24	36,4	874

*1 Wet efficiency referring to nominal airflow, outdoor conditions (-5ºC / 80% RH) and indoor (20ºC / 50% RH)
*2 CADT-HE 45 airflow referred to 450Pa. CADT-HE 100 airflow referred to 300 Pa.

ACOUSTIC CHARACTERISTICS

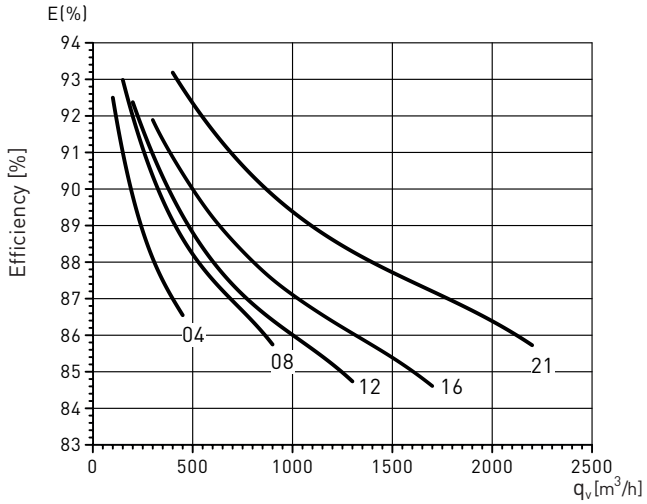
Model	Sound Pressure (LpA)*			Sound Power (LwA)		
	Inlet	Outlet	Radiated	Inlet	Outlet	Radiated
CADB-HE 04 PRO-REG	34	55	43	54	75	63
CADB-HE 08 PRO-REG	37	54	38	57	74	58
CADB-HE 12 PRO-REG	46	61	44	66	81	64
CADB-HE 16 PRO-REG	45	60	45	65	80	65
CADB/T-HE 21 PRO-REG	42	58	42	62	78	62
CADB/T-HE 27 PRO-REG	47	62	49	67	82	69
CADB/T-HE 33 PRO-REG	47	67	53	67	87	73
CADT-HE 45 PRO-REG	46	68	57	66	88	77
CADT-HE 60 PRO-REG	47	65	58	67	85	78
CADT-HE 100 PRO-REG	50	68	61	70	88	81

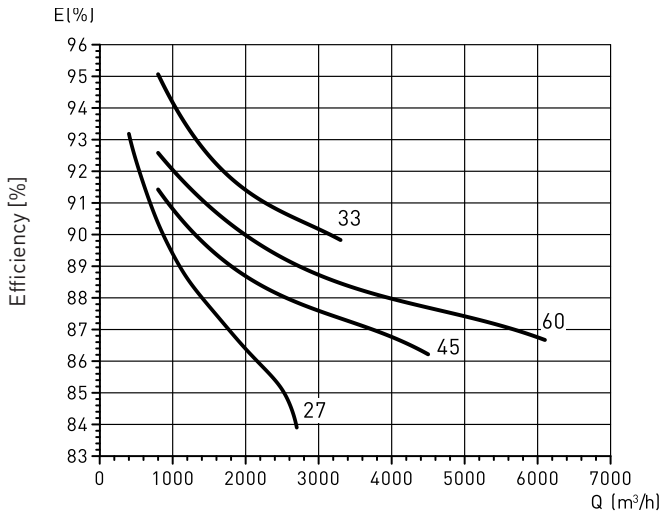
* Average sound pressure level, in dB(A), in free field conditions at 3m distance.
Depending on the installation conditions, type of enclosures, as well as characteristics of the materials used in walls and false ceilings, the real sound pressure levels may be very different from the values given in the table.

RECOVERY EFFICIENCY ACCORDING TO THE AIRFLOW

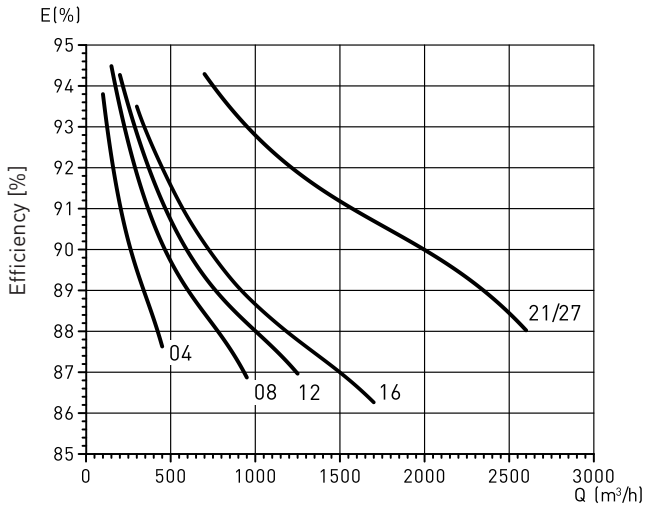
Values referring to the following conditions:
Outdoor temperature: -5ºC, RH=80%
Indoor temperature: 20ºC, RH-=50%

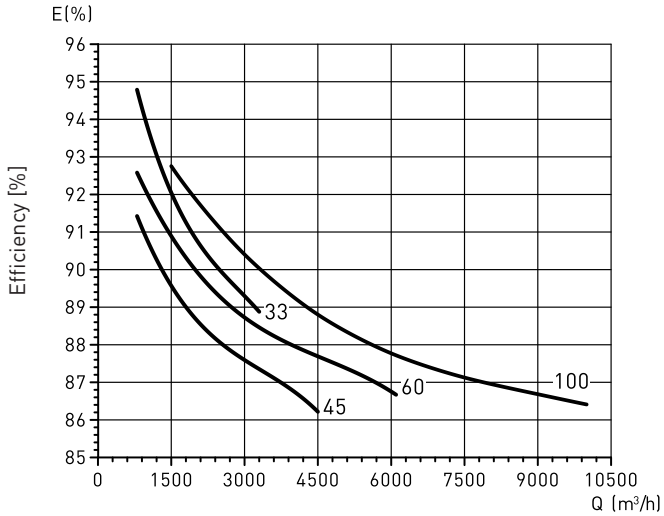
Horizontal Versions





Vertical Versions





RECOVERY EFFICIENCY RELATIVE TO OUTDOOR TEMPERATURE

Horizontal Versions

		OUTDOOR AIR		SUPPLY AIR*		PERFORMANCE*	
Model	**Airflow (m^3/h)**	**Temperature (ºC)**	**RH (%)**	**Temperature (ºC)**	**RH (%)**	**Efficiency (%)**	**Recovered power (kW)**
CADB-HE 04	400	-10	80	17,2	10,6	90,7	3,65
		-5	80	16,7	16,9	87	2,92
		0	70	16,6	22,7	82,8	2,23
		5	70	17,1	31,3	80,9	1,63
CADB-HE 08	800	-10	80	17	10,7	90,1	7,3
		-5	80	16,6	17	86,4	5,8
		0	70	16,6	22,9	82,2	4,4
		5	70	17	31,5	80,2	3,2
CADB-HE 12	1.200	-10	80	16,7	12	89,2	10,8
		-5	80	16,3	18,2	85,3	8
		0	70	16,2	23,2	80,9	6,5
		5	70	16,8	31,8	78,9	4,8
CADB-HE 16	1.600	-10	80	16,7	10,9	89,1	14,4
		-5	80	16,3	17,3	85,3	11,5
		0	70	16,2	23,3	80,9	8,7
		5	70	16,8	31,9	78,8	6,4
CADB/T-HE 21	2.100	-10	80	17,1	10,7	90,2	19,1
		-5	80	16,6	17	86,5	15,2
		0	70	16,5	22,9	82,3	11,6
		5	70	17	31,4	80,3	8,5
CADB/T-HE 27	2700	-10	80	17	10,7	90,1	24,3
		-5	80	16,6	17,1	86,3	19,2
		0	70	16,4	23	82	14,4
		5	70	17	31,6	80	10,8
CADB/T-HE 33	3.300	-10	80	17,6	10	92,1	30,3
		-5	80	17,1	16	88,4	24,0
		0	70	16,8	22	84,2	18,0
		5	70	17,3	31	82,2	12,7
CADT-HE 45	4.500	-10	80	17,2	11,7	90,6	39,5
		-5	80	17,2	17,1	89	32,6
		0	70	17,5	21,4	87,3	25,8
		5	70	17,7	30,1	84,8	19
CADT-HE 60	6.100	-10	80	17,2	11,7	90,5	53,5
		-5	80	17,2	17,1	88,9	44,2
		0	70	17,4	21,4	87,2	34,9
		5	70	17,7	30,1	84,8	25,7

*For indoor temperature 20ºC 50%

RECOVERY EFFICIENCY RELATIVE TO OUTDOOR TEMPERATURE

Vertical Versions

		OUTDOOR AIR		SUPPLY AIR*		PERFORMANCE*	
Model	**Airflow (m^3/h)**	**Temperature (ºC)**	**RH (%)**	**Temperature (ºC)**	**RH (%)**	**Efficiency (%)**	**Recovered power (kW)**
CADB-HE 04	450	-10	80	17,5	10,4	91,7	3,7
		-5	80	17	16,7	87,8	3
		0	70	16,7	22,8	83,3	2,3
		5	70	17,1	31,4	80,8	1,7
CADB-HE 08	800	-10	80	17,5	10,4	91,7	6,6
		-5	80	17	16,7	87,9	5,4
		0	70	16,7	22,6	83,4	4,2
		5	70	17,1	31,4	80,9	3,1
CADB-HE 12	1.200	-10	80	17,3	10,5	91,2	9,9
		-5	80	16,8	16,9	87,2	8
		0	70	16,5	22,9	82,6	6,2
		5	70	17	31,6	80,1	4,6
CADB-HE 16	1.600	-10	80	17,2	10,6	90,8	13,1
		-5	80	16,7	17,2	86,8	10,7
		0	70	16,4	23,1	82,2	8,3
		5	70	17	31,7	79,9	6,1
CADB/T-HE 21	2100	-10	80	16,7	12	89,1	18,9
		-5	80	16,9	17,5	87,6	15,5
		0	70	17,2	21,8	85,9	12,2
		5	70	17,5	30,4	83,6	8,9
CADB/T-HE 27	2700	-10	80	16,4	12,2	88	24
		-5	80	16,6	17,8	86,4	19,6
		0	70	16,9	22,2	84,5	15,4
		5	70	17,3	31	81,8	11,2
CADB/T-HE 33	3.300	-10	80	16,7	12	88,9	28,4
		-5	80	16,8	17,6	87,1	23,4
		0	70	17	22	85,0	18,4
		5	70	17,3	30,9	82,0	13,5
CADT-HE 45	4.500	-10	80	17,2	11,7	90,6	39,5
		-5	80	17,2	17,1	89	32,6
		0	70	17,5	21,4	87,3	25,8
		5	70	17,7	30,1	84,8	19
CADT-HE 60	6.100	-10	80	17,2	11,7	90,5	53,5
		-5	80	17,2	17,1	88,9	44,2
		0	70	17,4	21,4	87,2	34,9
		5	70	17,7	30,1	84,8	25,7
CADT-HE 100	10.000	-10	80	16,4	12,2	87,9	88,7
		-5	80	16,6	17,8	86,4	72,7
		0	70	16,9	22,2	84,4	57
		5	70	17,3	31	81,7	41,5

*For indoor temperature 20ºC 50%

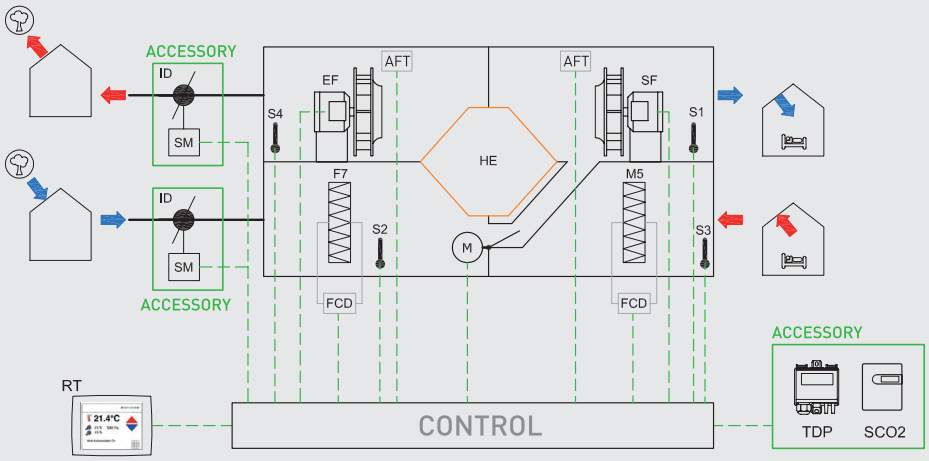
HEATING POWER OF WATER COILS RELATIVE TO OUTDOOR TEMPERATURE AND AIRFLOW (DC MODELS)*

			AIR			WATER	
Model	**Water T. In/Out (ºC)**	**Airflow (m³/h)**	**Power (kW)**	**Out. T (ºC)**	**Out. RH (%)**	**Water flow (l/h)**	**Press. Drop (KPa)**
CADB-HE DC 04	80/60	400	2,7	36,7	8	115	2
		280	2,1	39,4	7	92	2
	70/60	400	2,5	35,6	8	217	6
		280	2,0	38,1	7	172	4
	50/45	400	1,6	28,8	12	277	10
		280	1,3	30,4	11	220	7
CADB-HE DC 08	80/60	800	5,1	35,7	8	218	5
		560	4,1	38,6	7	175	3
	70/60	800	4,8	34,7	9	415	14
		560	3,8	37,2	8	330	9
	50/45	800	3,1	28,3	13	530	22
		560	2,4	29,8	12	422	15
CADB-HE DC 12	80/60	1200	7,1	34,3	9	304	2
		840	5,7	36,8	8	244	2
	70/60	1200	6,7	33,5	9	581	7
		840	5,4	35,9	8	465	5
	50/45	1200	4,3	27,5	13	743	11
		840	3,4	29,0	12	594	8
CADB-HE DC16	80/60	1600	8,6	32,8	10	370	6
		1120	6,9	35,2	9	298	3
	70/60	1600	8,3	32,2	10	370	15
		1120	6,6	34,5	9	298	10
	50/45	1600	5,3	26,7	14	370	25
		1120	4,2	28,2	13	298	17
CADB-HE DC 21	80/60	2100	12,6	34,6	9	542	3
		1470	10,1	37,1	8	433	2
	70/60	2100	12,2	34,0	9	1050	11
		1470	9,7	36,4	8	837	8
	50/45	2100	7,8	27,9	13	1342	18
		1470	6,2	29,4	12	1070	12
CADB-HE DC 27	80/60	2700	15,1	33,4	9	648	14
		1890	12,1	35,9	8	522	9
	70/60	2700	14,4	32,7	10	1242	49
		1890	11,6	35,0	9	997	32
	50/45	2700	9,2	27,0	14	1587	80
		1890	7,4	28,5	12	1273	53
CADB-HE DC 33	80/60	3300	18,2	33,2	10	780	2
		2300	14,6	35,6	8	627	1
	70/60	3300	17,4	32,5	10	1496	5
		2300	14,0	34,8	9	1200	4
	50/45	3300	11,1	26,9	14	1912	9
		2300	8,9	28,4	13	1532	6
CADT-HE DC 45	80/60	4500	25,6	33,7	9	1100	6
		3150	20,6	36,2	8	886	4
	70/60	4500	24,2	32,8	10	2082	16
		3150	19,5	35,1	9	1673	12
	50/45	4500	15,5	27,1	14	2660	27
		3150	12,4	28,6	12	2135	18
CADT-HE DC 60	80/60	6100	34,7	33,7	9	1491	3
		4300	28,1	36,2	8	1206	2
	70/60	6100	33,1	32,9	10	2847	10
		4300	26,7	35,2	9	2295	7
	50/45	6100	21,1	27,2	13	3640	16
		4300	17,0	28,6	12	2932	10
CADT-HE DC 100	80/60	10000	58,9	34,3	9	1535	7
		7000	47,4	36,9	8	2037	5
	70/60	10000	55,6	33,7	9	4787	22
		7000	44,6	35,7	8	3837	15
	50/45	10000	35,4	27,4	13	6113	36
		7000	28,4	28,9	12	4896	24

* Air inlet conditions to the battery (output from the heat recovery unit) = 17ºC 25% RH

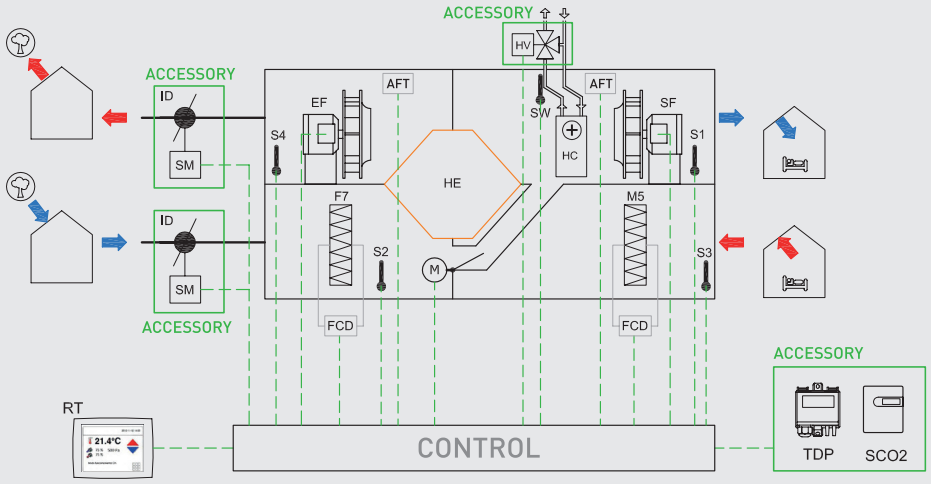
SCHEMATIC DIAGRAM

CADB/T-HE D PRO-REG
D Models: Versions without post-heating



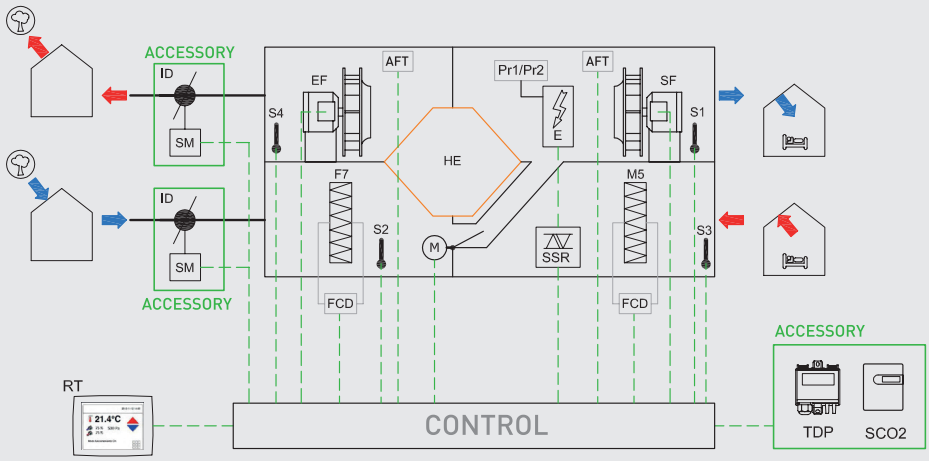
SF	Supply fan
EF	Extract fan
S1	Supply temperature probe
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
FCD	Polluted filters detector (pressure switch)
AFT	Air flow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
SCO_2	CO2 sensor (accessory)
TDP	Pressure sensor TDP-S (accessory for COP mode)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)

CADB/T-HE-DC PRO-REG
DC Models: Versions with hot water coil



SF	Supply fan
EF	Extract fan
S1	Supply temperature probe
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
SW	Water temperature probe
FCD	Polluted filters detector (pressure switch)
AFT	Air flow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
HC	Hot water coil
HV	Water valve (accessory)
SCO_2	CO2 sensor (accessory)
TDP	Pressure sensor TDP-S (accessory for COP mode)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)

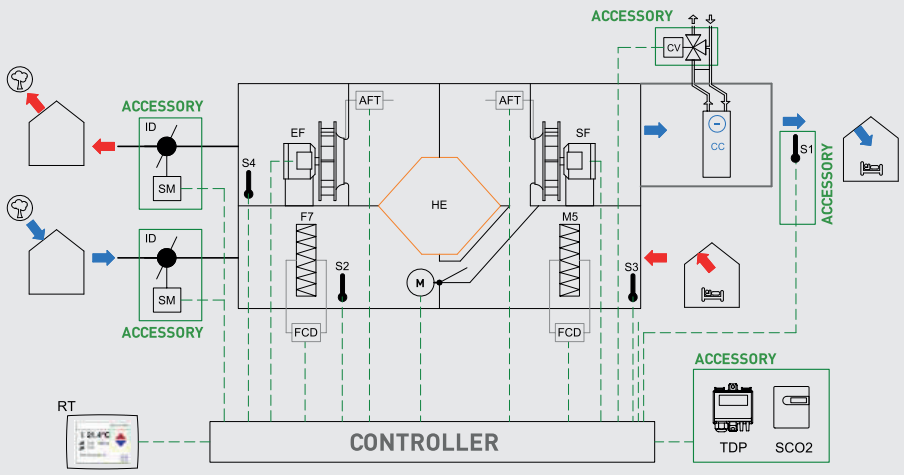
CADB/T-HE-DI PRO-REG
DI Models: Versions with electric heater coil



SF	Supply fan
EF	Extract fan
S1	Supply temperature probe
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
FCD	Polluted filters detector (pressure switch)
AFT	Air flow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
Pr1/Pr2	Security protectors (Manual/Auto)
SSR	Electric heater battery proportional regulator
SCO_2	CO2 sensor (accessory)
TDP	Pressure sensor TDP-S (accessory for COP mode)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)

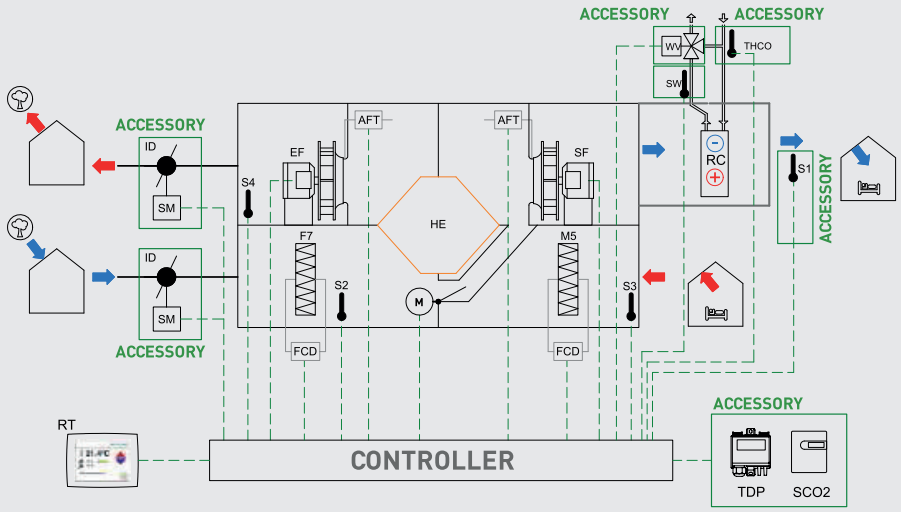
SCHEMATIC DIAGRAM

CADB/T-HE D PRO-REG + BA-AF HE
D Models: With external cool water coil



SF	Supply fan
EF	Extract fan
S1	Supply temperature probe TG/K3 PT 1000 (Acces.)
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
FCD	Polluted filters detector (pressure switch)
AFT	Airflow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
CC	Cold water coil
CV	Water valve (accessory)
SCO2	CO2 sensor (accessory)
TDP	Pressure sensor TDP-S (accessory)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)

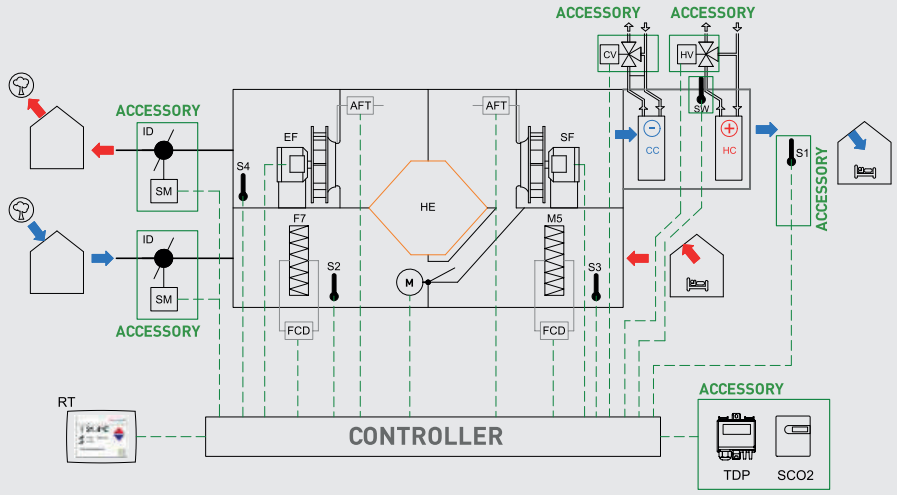
CADB/T-HE D PRO-REG + BA-AF HE
D Models: With reversible hot/cool water coil



SF	Supply fan
EF	Extract fan
S1	Supply temperature probe TG/K3 PT 1000 (Acces.)
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
SW	Water temperature probe PT1000 CURVA (Accesorio)
FCD	Polluted filters detector (pressure switch)
AFT	Airflow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
RC	Reversible water battery (cold/hot)
WV	Water valve (accessory)
SCO2	CO2 sensor (accessory)
TDP	Pressure sensor TDP-S (accessory)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)
THCO	Winter/Summer detection thermostat (Accessory)

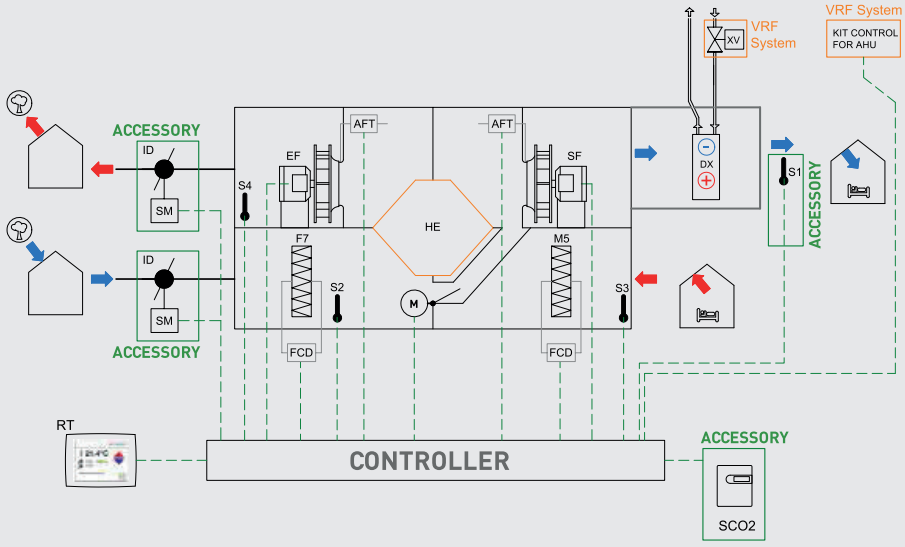
SCHEMATIC DIAGRAM

CADB/T-HE D PRO-REG + BA-AFC HE
D Models: With external cold and hot water coil



SF	Supply fan
EF	Extract fan
S1	Supply temperature probe TG/K3 PT 1000 (Acces.)
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
SW	Water temperature probe PT1000 CURVA (Accesorio)
FCD	Polluted filters detector (pressure switch)
AFT	Airflow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
CC	Cold water coil
CV	Water valve (accessory)
HC	Hot water coil
HV	Water valve (accessory)
SCO2	CO2 sensor (accessory)
TDP	Pressure sensor TDP-S (accessory)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)

CADB/T-HE D PRO-REG + BA-DX HE
D Models: With external direct expansion coil



SF	Supply fan
EF	Extract fan
S1	Supply temperature probe TG/K3 PT 1000 (Acces.)
S2	Extract temperature probe
S3	Inlet temperature probe
S4	Outlet temperature probe
FCD	Polluted filters detector (pressure switch)
AFT	Airflow transmitter
HE	High-efficiency heat exchanger
RT	Remote control panel
F7	Supply filter
M5	Extract filter
M	Bypass actuator
DX	Direct expansion battery
XV	Expansion valve (Not supplied by S&P)
SCO2	CO2 sensor (accessory)
ID	Isolation damper (accessory)
SM	Actuator damper (accessory)

PLUG & PLAY CONTROL PRO-REG FUNCTIONS

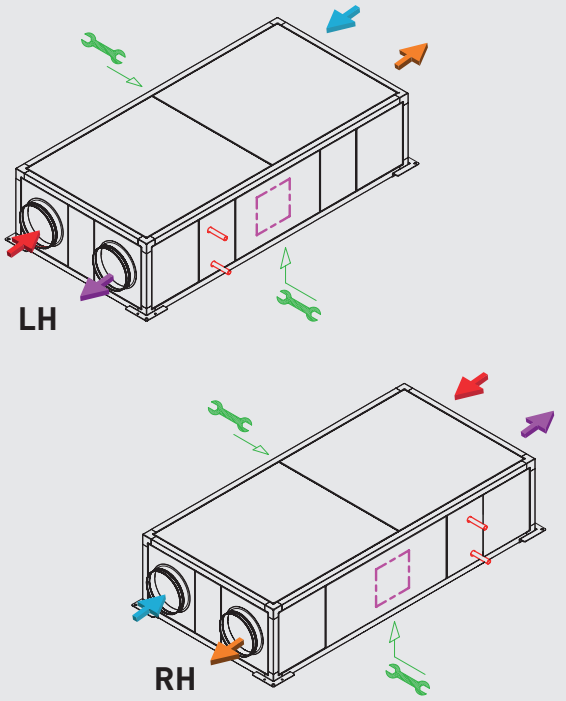
MAIN ELEMENTS
Control panel includes:
General switch
Electric box including control and wiring components, with access from side panel.
FUNCTIONS
Airflow adjustments
Supply and Exhaust airflow values shown in the display (For all working modes VAV,COP and CAV)
Manual airflow adjustment, adjustable at any point of the fan curve.
Automatic airflow adjustment, according to a configurable time schedule (Configurable Timer).
Automatic airflow adjustment in VAV mode, according to external signal 0-10V (CO_2 accessory).
Automatic speed adjustment of the fans in Constant Arflow mode (Increase of fan speed to compensate filters fouling. Supply and extract fans independent control allowing the configuration of differents airflow values for each one. No accessoires are required).
Automatic speed adjustment of the fans in Constant Pressure mode (Increase of fan speed when pressure in the duct system decreases).
BOOST function (Forced speed preset via external free voltage contact).
ON/OFF function (Remote ON/OFF via external free voltage contact).
Temperature regulation
Temperature probes integrated within the unit (supply, extract, inlet and outlet).
Anti-frost probe water coil (DC Versions).
Thermal power regulation of hot water coil (DC Versions). 0-10V to manage 3 ways valve (accessory).
Thermal power regulation of external cooling coil BA-AF HE in cooling mode and reversible mode (cooling and heating). 0-10V to manage 3 ways valve (accessory).
Thermal power regulation of external 4-pipes coils BA-AFC HE (cooling and heating). 0-10V to manage 3 ways valve (accessory).
Integrable in VRF networks through the corresponding DX valve kit supplied by the manufacturer of the refrigeration unit. With capacity to manage the cold / heat demand of the BA-DX HE evaporator module. Allows Defrost DX function in heat pump mode.
Regulation of electric heater battery thermal power in DI versions. Proportional control via SSR.
0-10V output for the control of a preheating battery (accessory).
Bypass adjustments
Manual actuation of bypass.
Automatic actuation of bypass function free-cooling/ free-heating.
Night free-cooling functionality (Cooling of the building at night).
SECURITY FUNCTIONS
Control of polluted filters via pressure switches (included).
Alarm display in remote control.
Detailed information about alarms.
Failure in temperature probes.
Failure in fan via pressure transmitters (included).
Fire alarm indication, via activation by external contact coming from fire switchboard.
Anti-frost protection of heat exchanger via bypass activation.
COMMUNICATION
Remote wiring control.
ON/OFF remote digital input via external power free voltage contact.
Alarm digital output via power free contact.
Modbus RTU (RS-485).
Bacnet TCP/IP.

STANDARD CONFIGURATIONS CADB/T-HE D/DC/DI PRO-REG

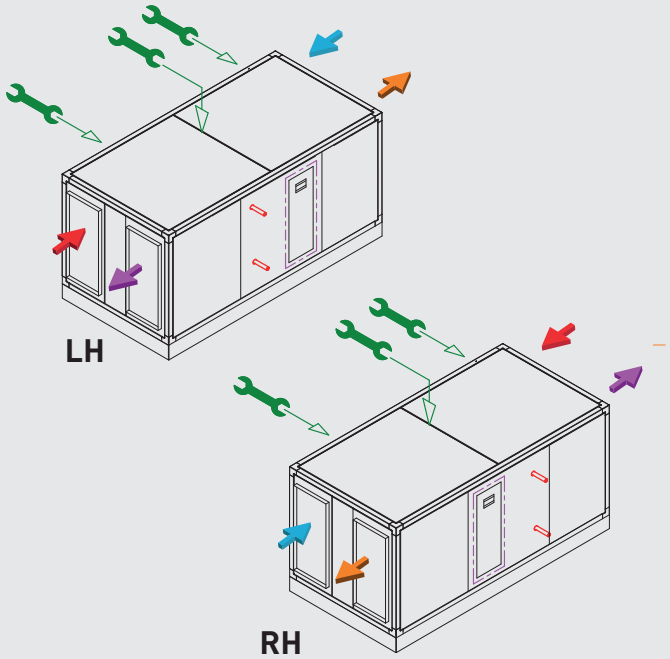
Based on these standard configurations other configurations can be quickly adapted by the installer.

- FRESH OUTDOOR AIR
- FRESH OUTDOOR AIR SUPPLY
- INDOOR AIR EXTRACTION
- INDOOR AIR EXPULSION
- MAINTENANCE REGISTER
- TERMINAL BOX POSITION
- WATER CONNECTIONS (DC – VERSIONS)

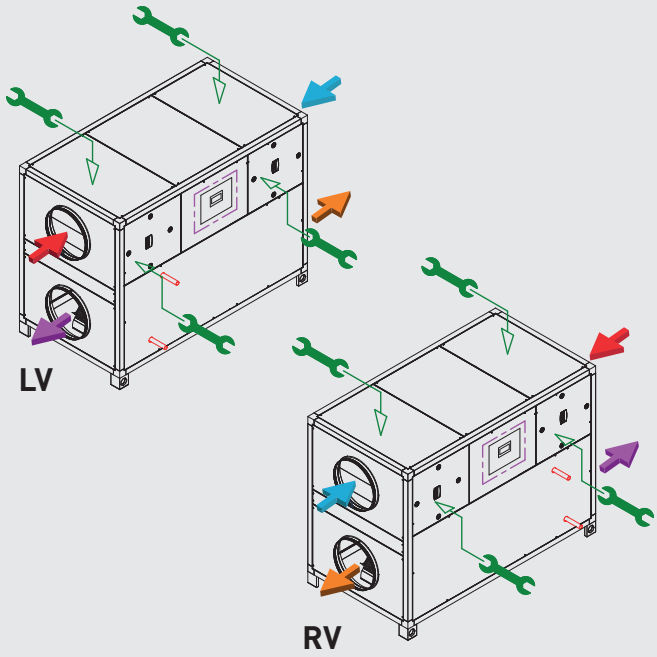
CADB/T-HE 04 to 33
Horizontal versions (false-ceiling)



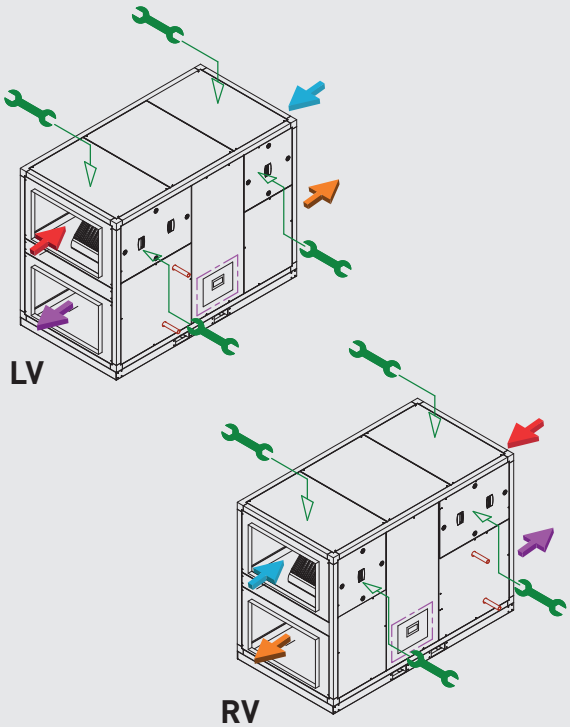
CADB/T-HE 45 and 60
Horizontal versions



CADB/T-HE 04 to 33
Vertical versions



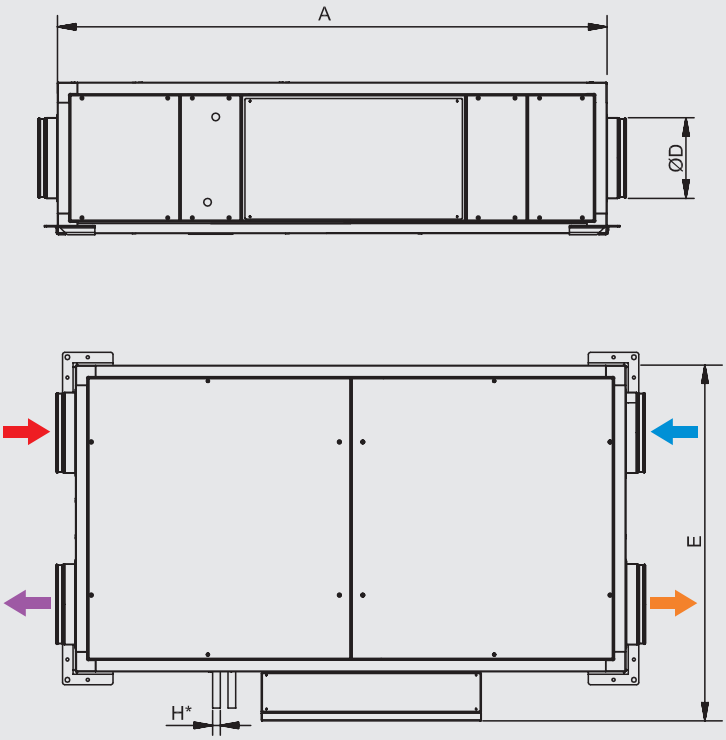
CADB/T-HE 45 to 100
Vertical versions



DIMENSIONS (mm)

CADB/T-HE 04 to 33 LH

FRESH OUTDOOR AIR
FRESH OUTDOOR AIR SUPPLY
INDOOR AIR EXTRACTION
INDOOR AIR EXPULSION

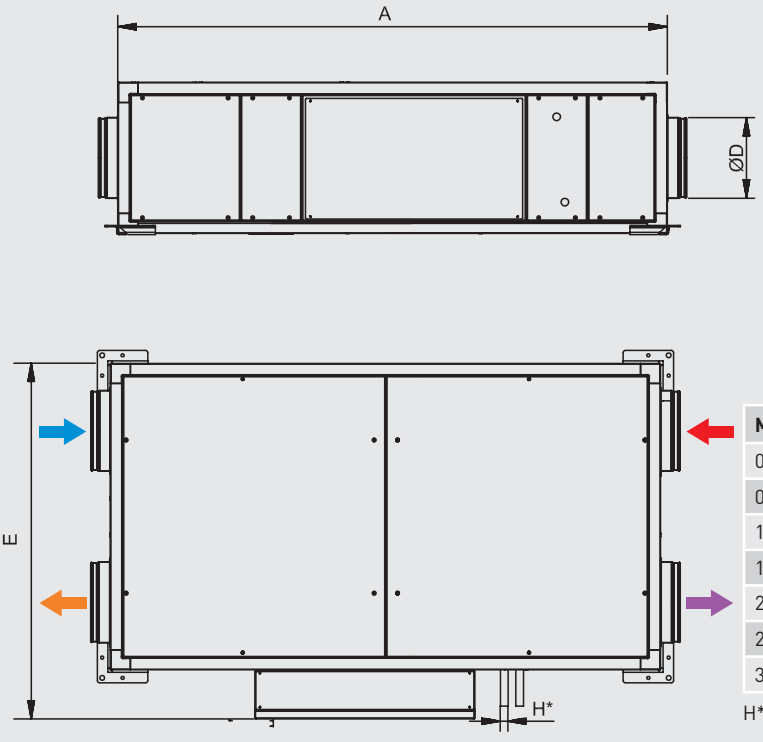


Model	A	B	C	D	E	F	G	H*
04	1520	760	375	200	885	187	167	1/2" GM
08	1750	910	425	250	1035	212	198	1/2" GM
12	1700	1050	425	315	1175	212	225	1/2" GM
16	1950	1240	450	315	1365	225	245	1/2" GM
21	2300	1640	550	400	1765	275	300	1/2" GM
27	2300	1640	550	400	1765	275	300	1/2" GM
33	2300	1640	650	400	1765	325	300	1/2" GM

H*: Only in DC versions

CADB/T-HE 04 to 33 RH

FRESH OUTDOOR AIR
FRESH OUTDOOR AIR SUPPLY
INDOOR AIR EXTRACTION
INDOOR AIR EXPULSION

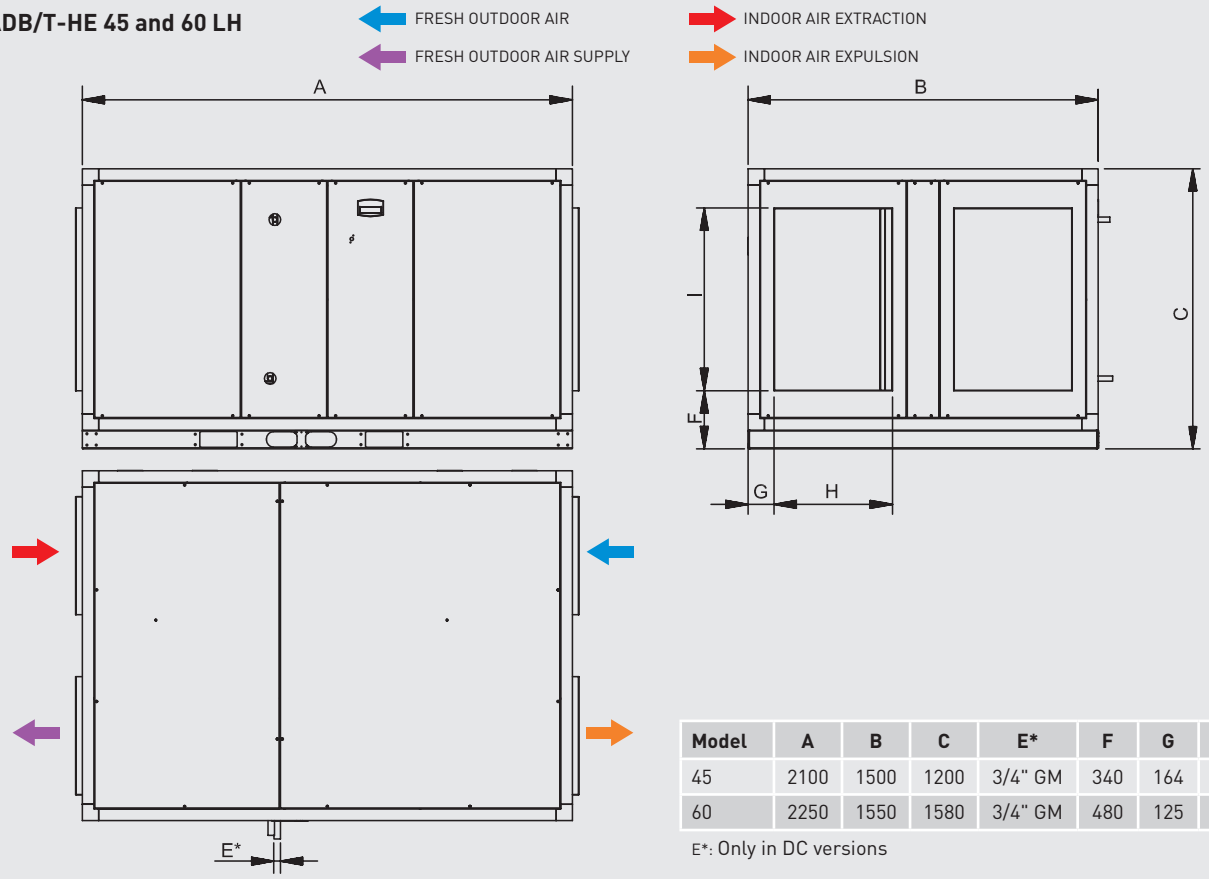


Model	A	B	C	D	E	F	G	H*
04	1520	760	375	200	885	187	167	1/2" GM
08	1750	910	425	250	1035	212	198	1/2" GM
12	1700	1050	425	315	1175	212	225	1/2" GM
16	1950	1240	450	315	1365	225	245	1/2" GM
21	2300	1640	550	400	1765	275	300	1/2" GM
27	2300	1640	550	400	1765	275	300	1/2" GM
33	2300	1640	650	400	1765	325	300	1/2" GM

H*: Only in DC versions

DIMENSIONS (mm)

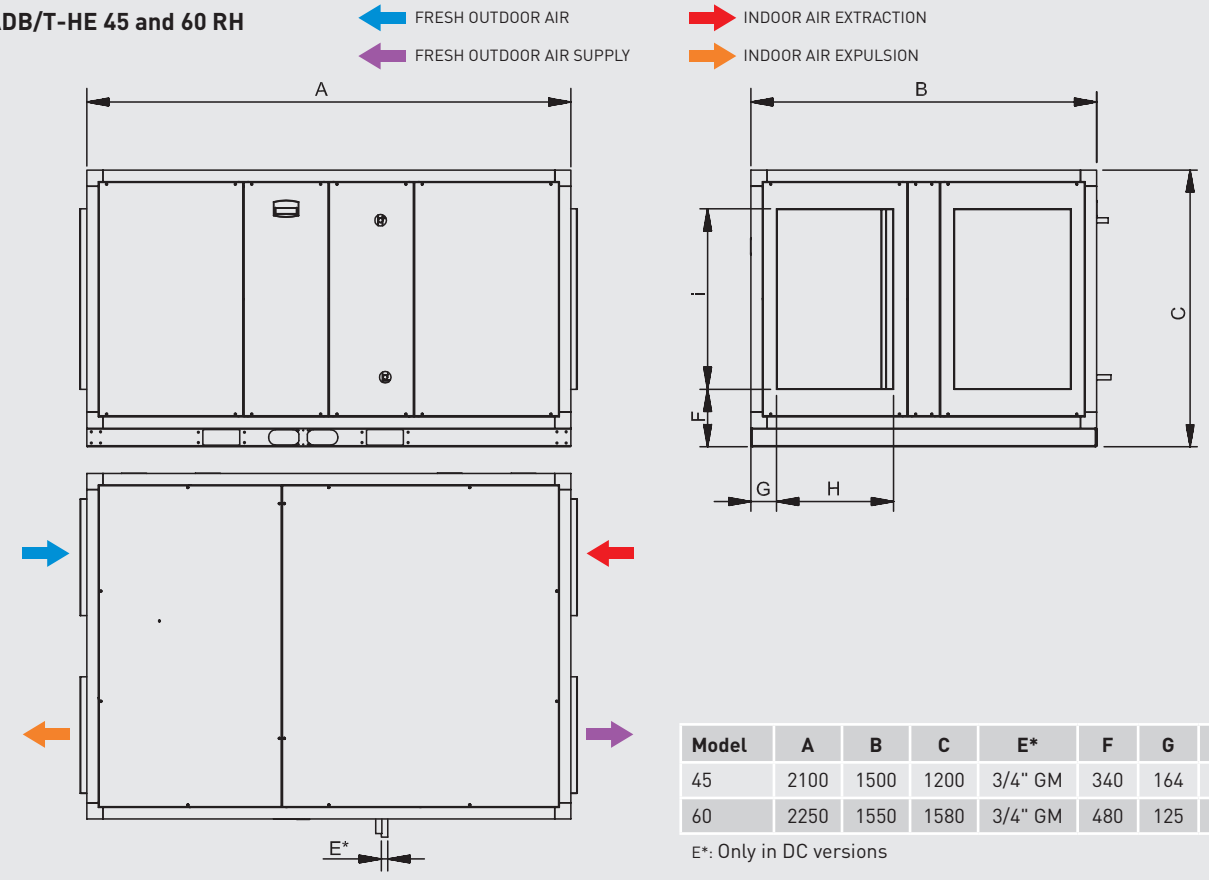
CADB/T-HE 45 and 60 LH



Model	A	B	C	E*	F	G	H	I
45	2100	1500	1200	3/4" GM	340	164	400	600
60	2250	1550	1580	3/4" GM	480	125	500	700

E*: Only in DC versions

CADB/T-HE 45 and 60 RH



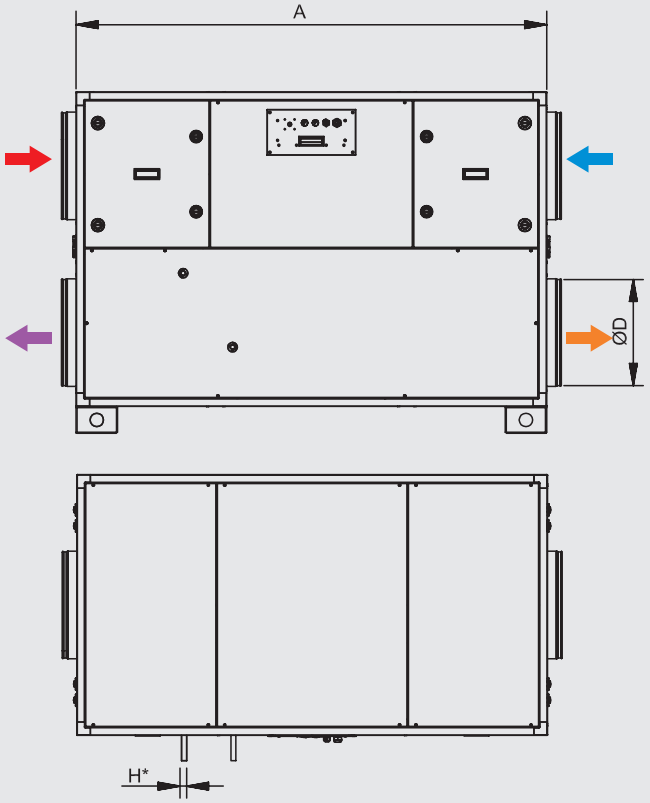
Model	A	B	C	E*	F	G	H	I
45	2100	1500	1200	3/4" GM	340	164	400	600
60	2250	1550	1580	3/4" GM	480	125	500	700

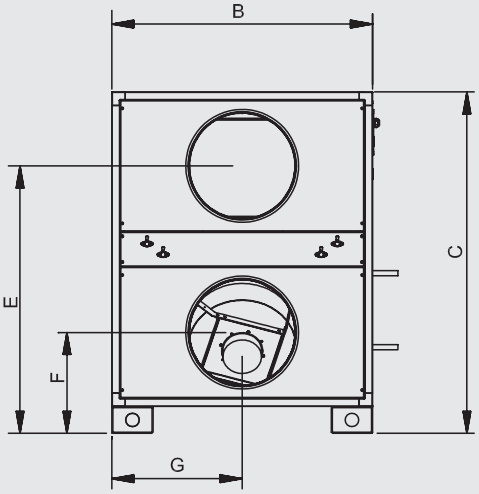
E*: Only in DC versions

DIMENSIONS (mm)

CADB/T-HE 04 to 33 LV

FRESH OUTDOOR AIR
FRESH OUTDOOR AIR SUPPLY
INDOOR AIR EXTRACTION
INDOOR AIR EXPULSION



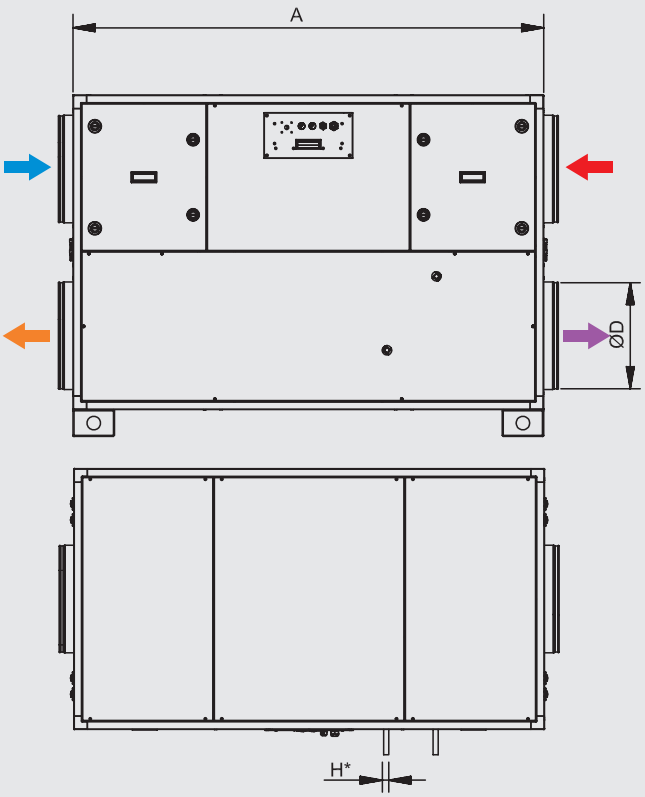


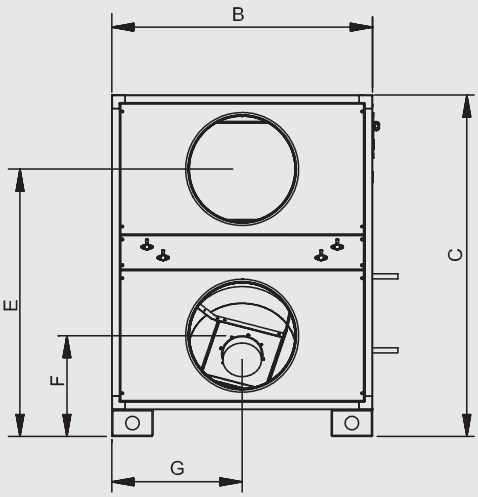
Model	A	B	C	D	E	F	G	H*
04	1125	540	920	200	732	287	270	1/2" GM
08	1275	610	1020	250	808	312	305	1/2" GM
12	1325	770	1020	315	808	312	385	1/2" GM
16	1475	770	1070	315	845	325	385	1/2" GM
21	1750	970	1270	400	995	375	485	1/2" GM
27	1750	970	1270	400	995	375	485	1/2" GM
33	1750	1170	1270	400	995	375	585	1/2" GM

H*: Only in DC versions

CADB/T-HE 04 to 33 RV

FRESH OUTDOOR AIR
FRESH OUTDOOR AIR SUPPLY
INDOOR AIR EXTRACTION
INDOOR AIR EXPULSION



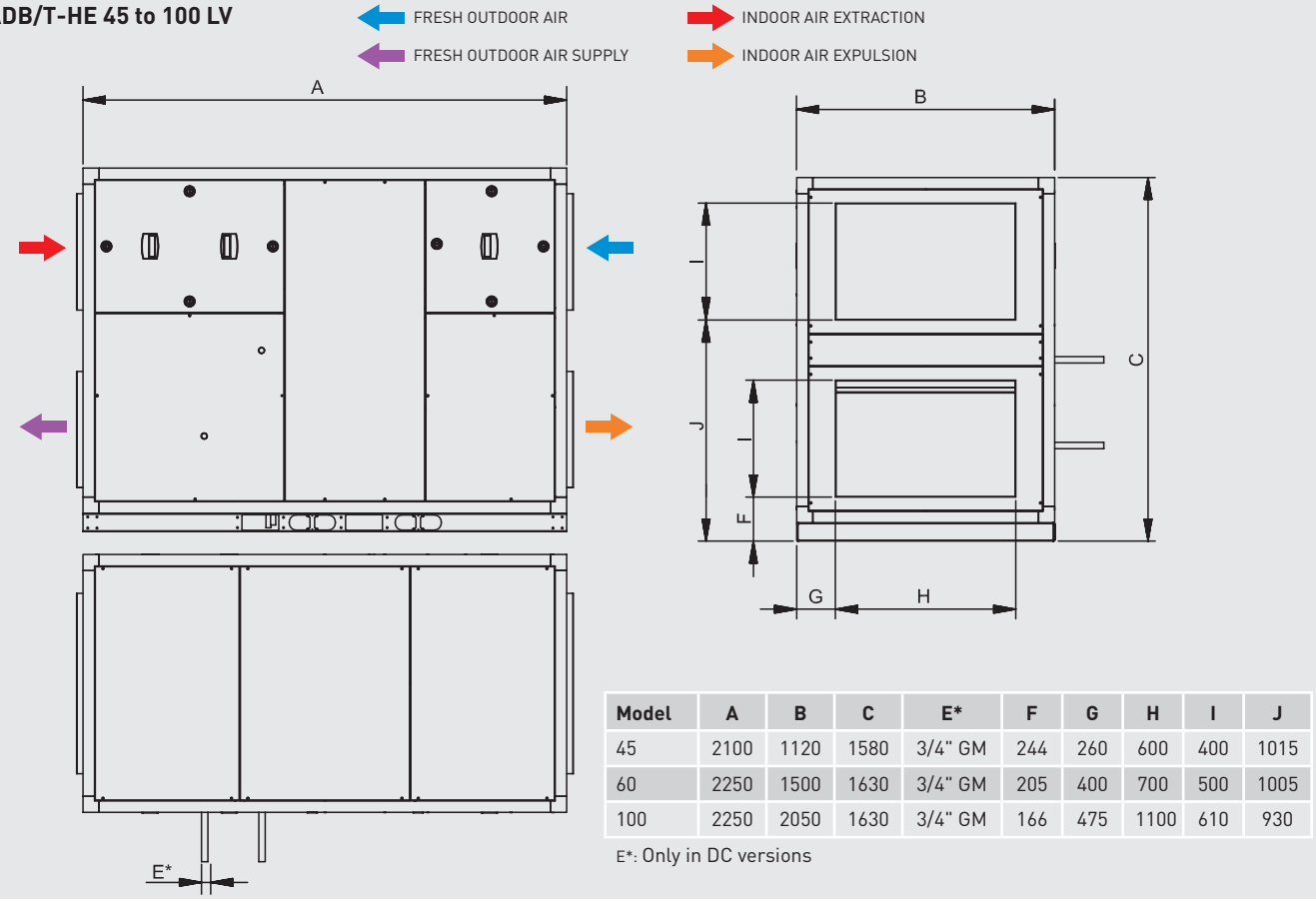


Model	A	B	C	D	E	F	G	H*
04	1125	540	920	200	732	287	270	1/2" GM
08	1275	610	1020	250	808	312	305	1/2" GM
12	1325	770	1020	315	808	312	385	1/2" GM
16	1475	770	1070	315	845	325	385	1/2" GM
21	1750	970	1270	400	995	375	485	1/2" GM
27	1750	970	1270	400	995	375	485	1/2" GM
33	1750	1170	1270	400	995	375	585	1/2" GM

H*: Only in DC versions

DIMENSIONS (mm)

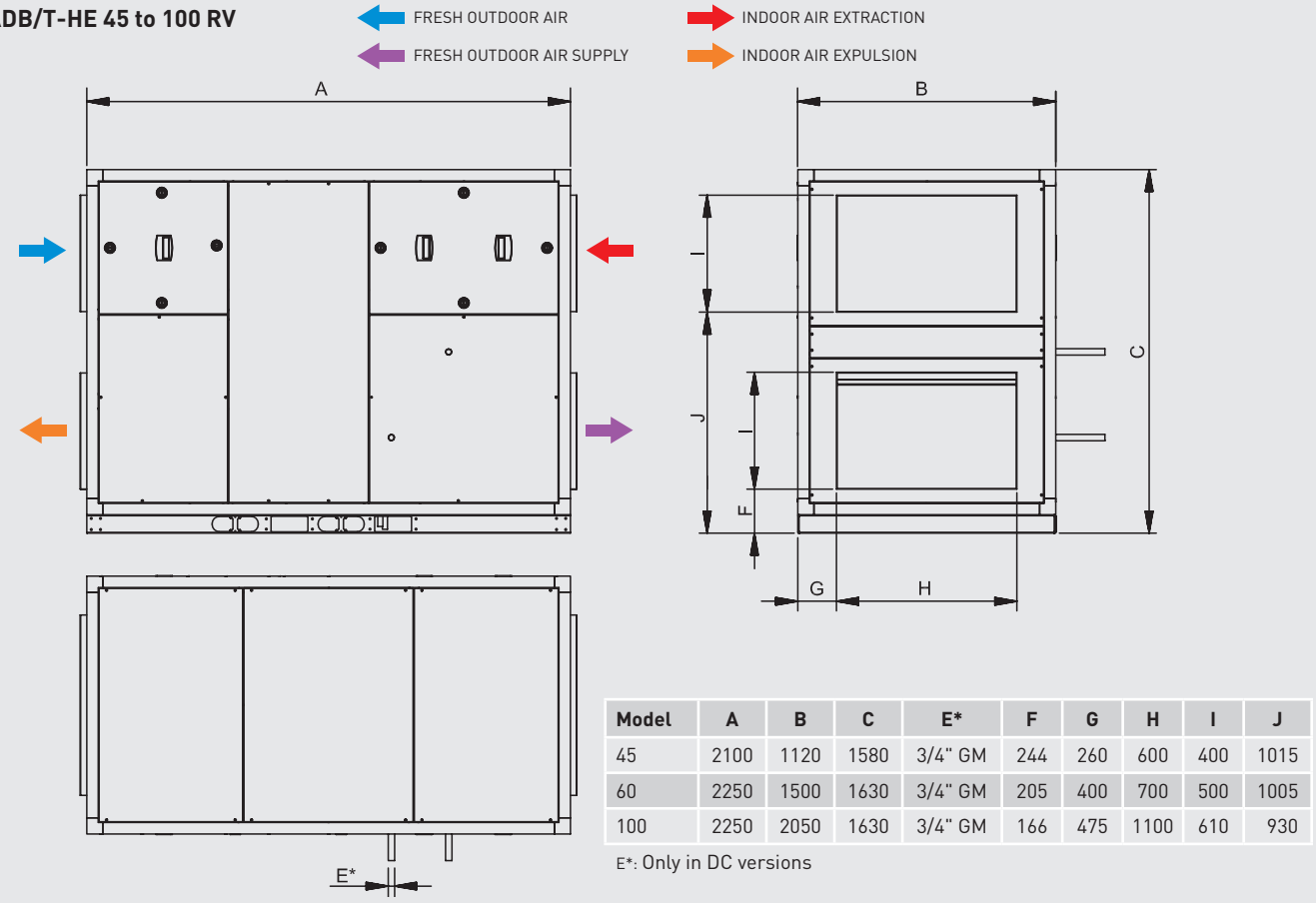
CADB/T-HE 45 to 100 LV



Model	A	B	C	E*	F	G	H	I	J
45	2100	1120	1580	3/4" GM	244	260	600	400	1015
60	2250	1500	1630	3/4" GM	205	400	700	500	1005
100	2250	2050	1630	3/4" GM	166	475	1100	610	930

E*: Only in DC versions

CADB/T-HE 45 to 100 RV



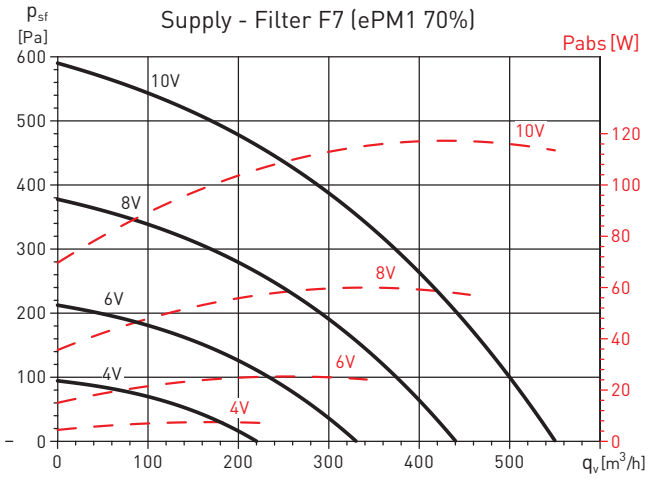
Model	A	B	C	E*	F	G	H	I	J
45	2100	1120	1580	3/4" GM	244	260	600	400	1015
60	2250	1500	1630	3/4" GM	205	400	700	500	1005
100	2250	2050	1630	3/4" GM	166	475	1100	610	930

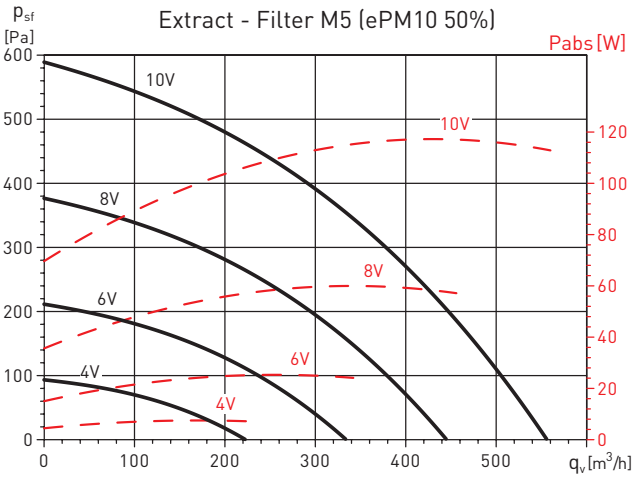
E*: Only in DC versions

PERFORMANCE CURVES

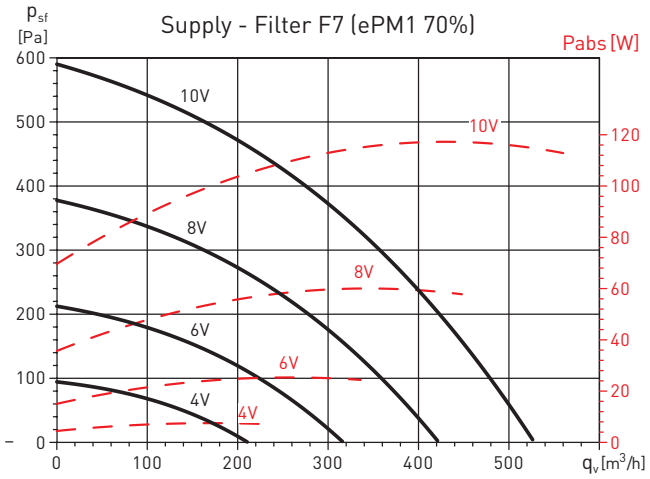
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

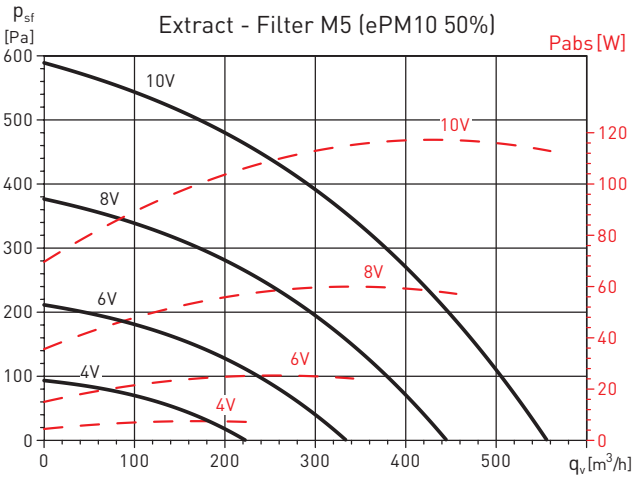
CADB-HE-D 04



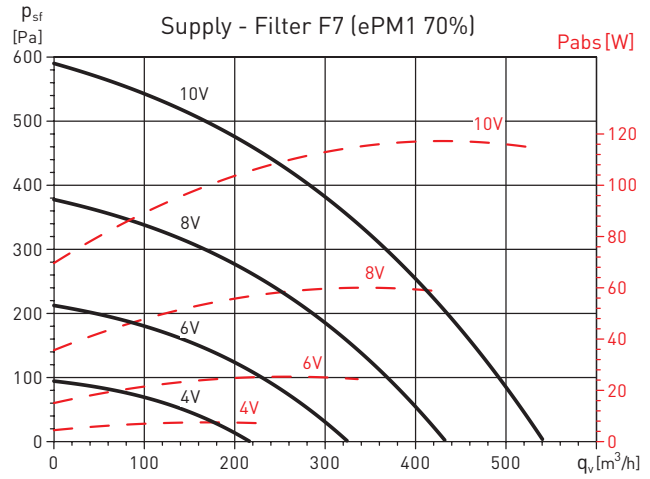


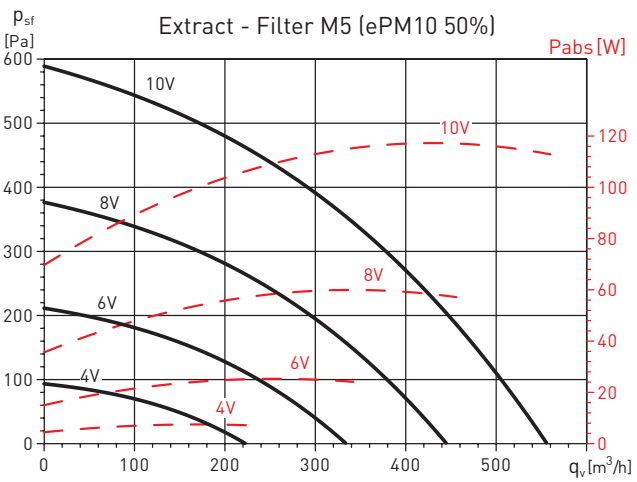
CADB-HE-DC 04





CADB-HE-DI 04

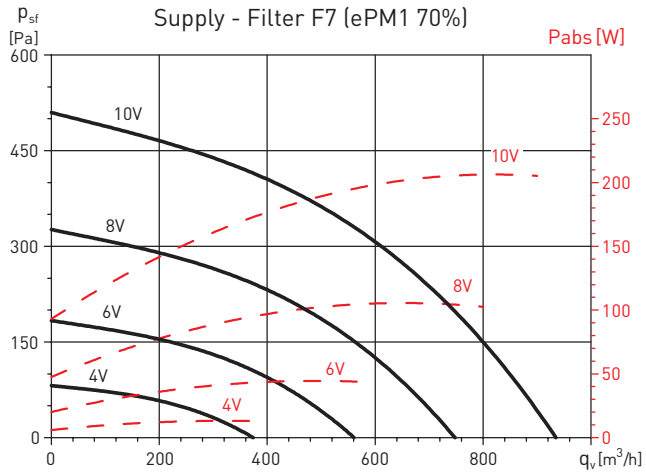


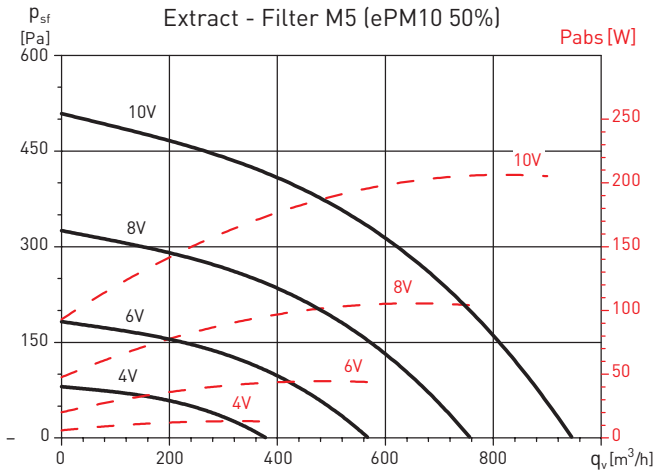


PERFORMANCE CURVES

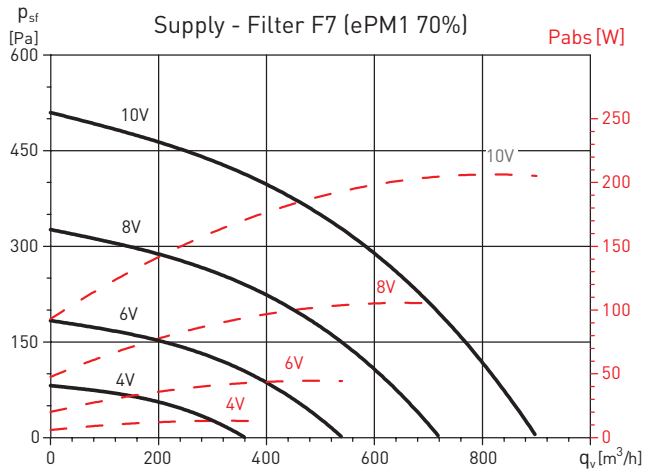
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

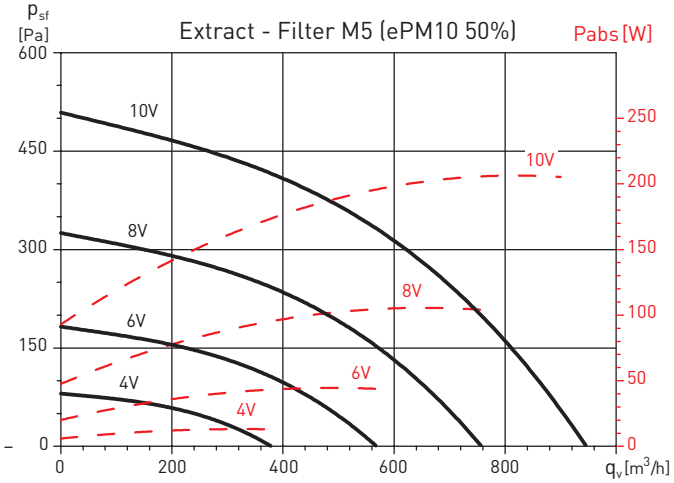
CADB-HE-D 08



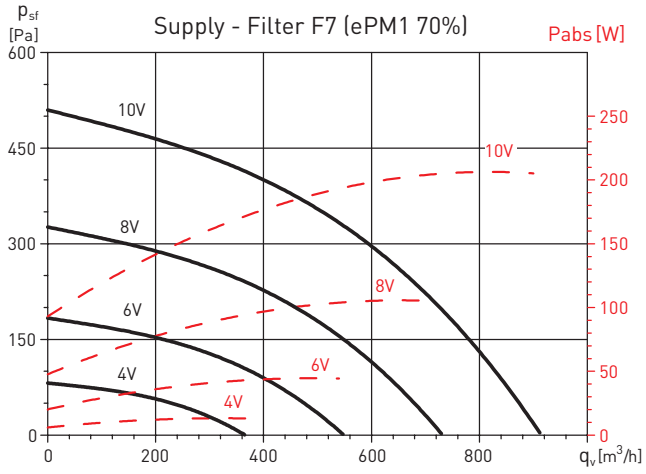


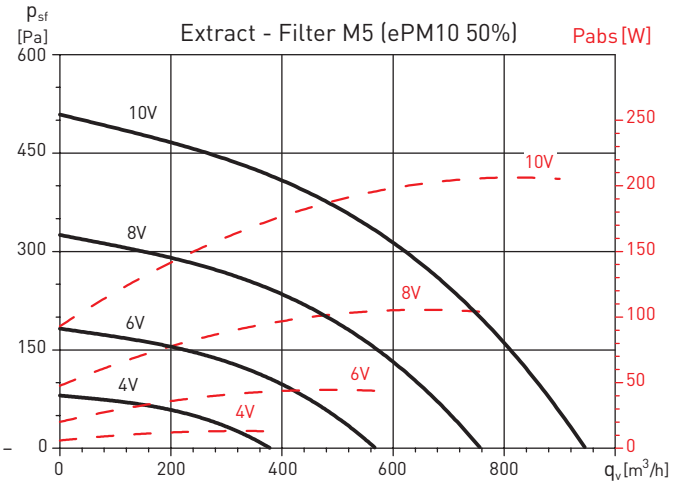
CADB-HE-DC 08





CADB-HE-DI 08

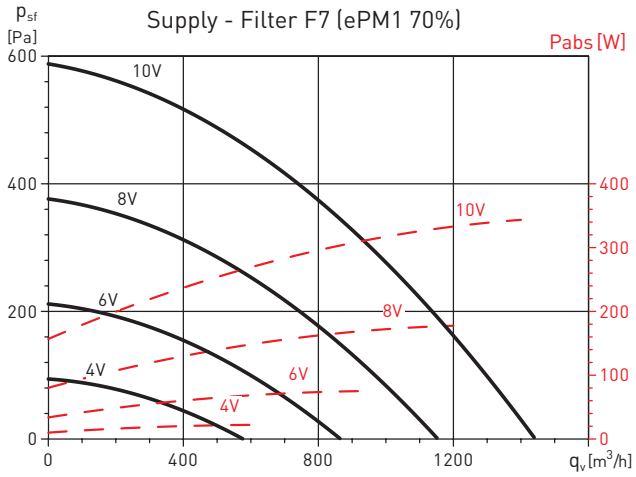


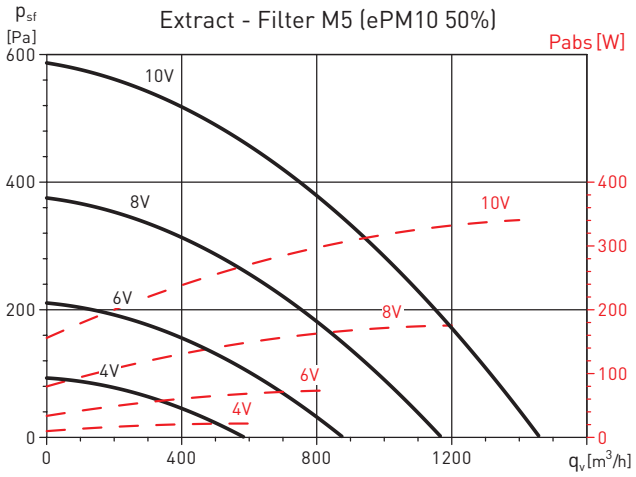


PERFORMANCE CURVES

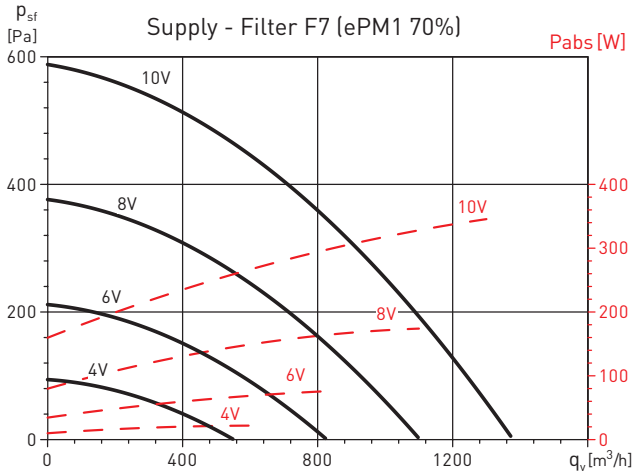
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

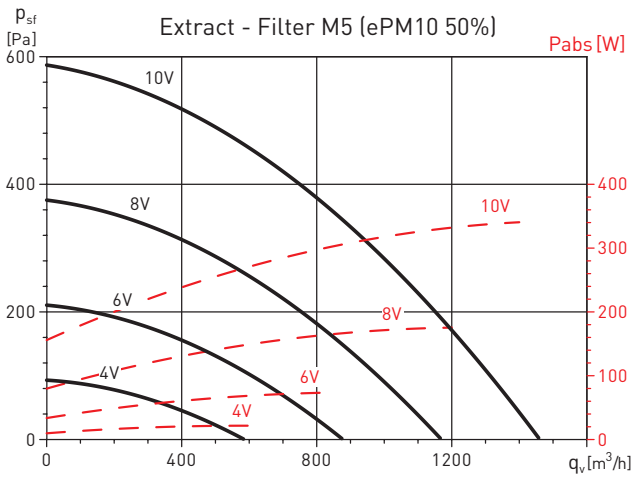
CADB-HE-D 12



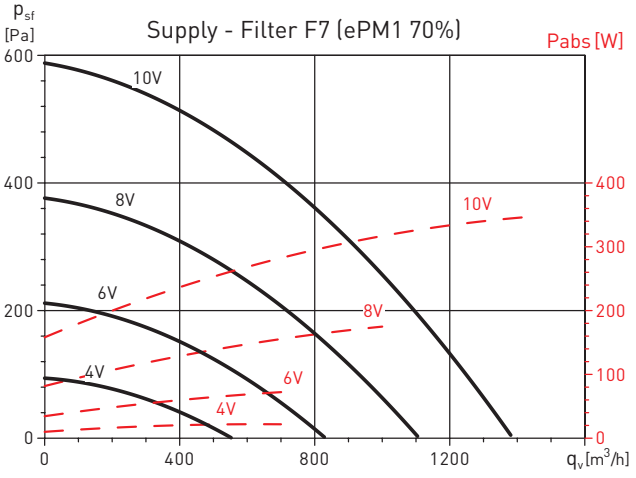


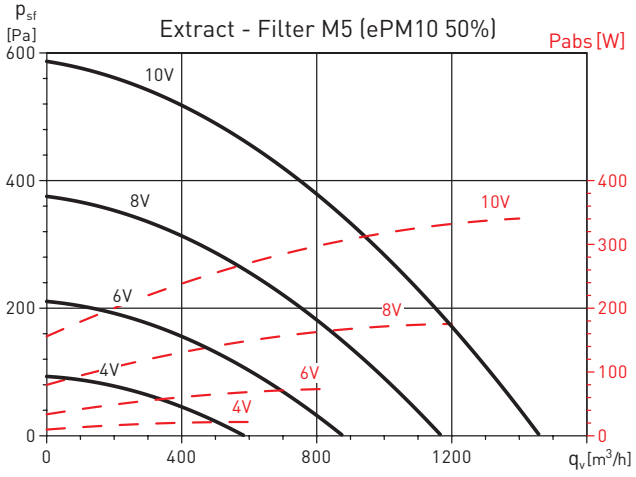
CADB-HE-DC 12





CADB-HE-DI 12

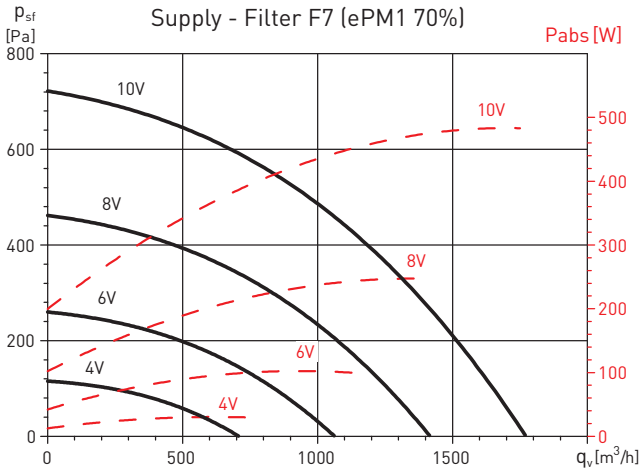


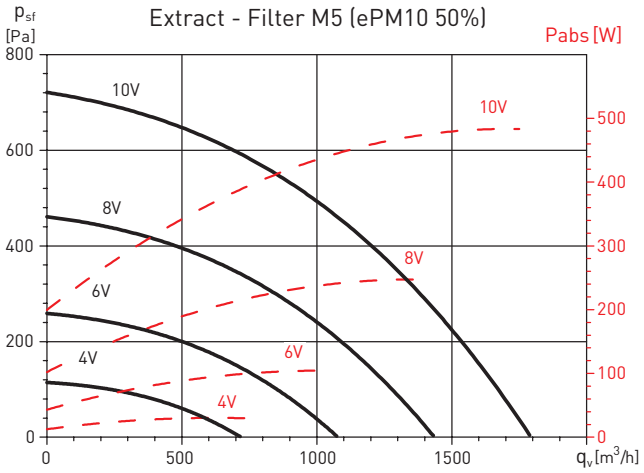


PERFORMANCE CURVES

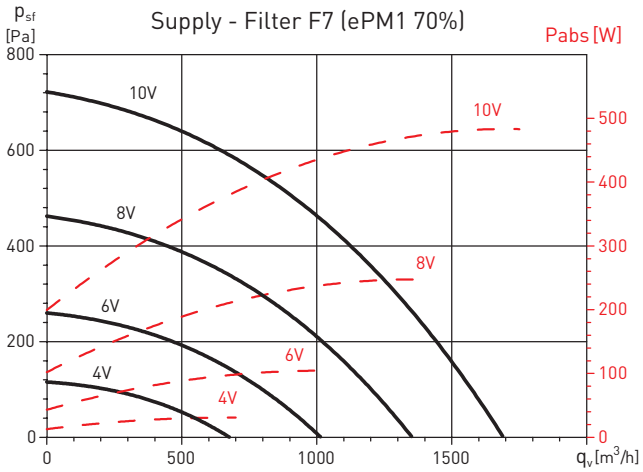
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

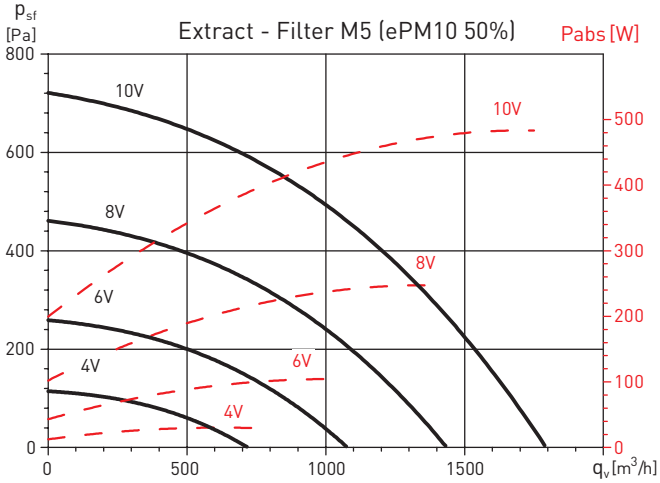
CADB-HE-D 16



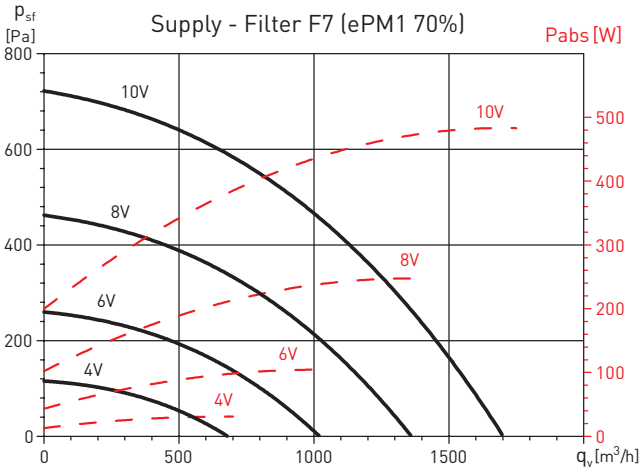


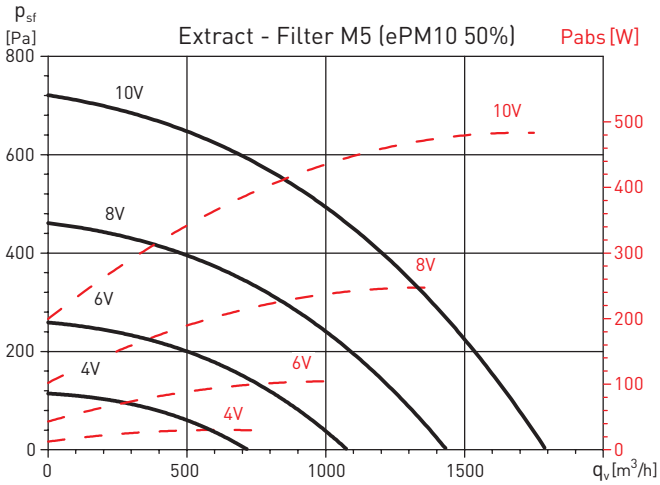
CADB-HE-DC 16





CADB-HE-DI 16

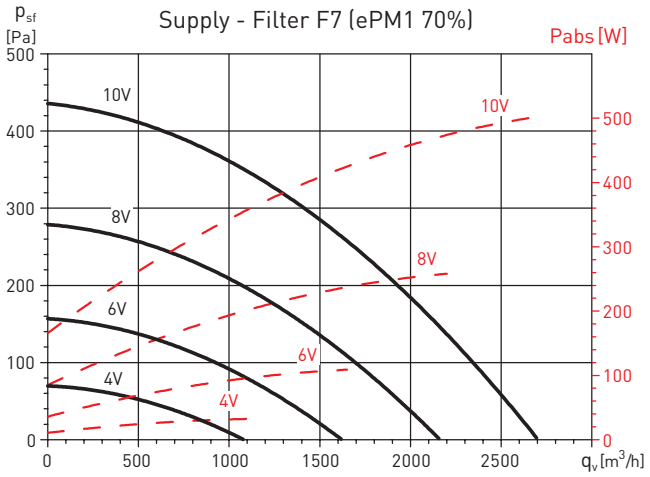


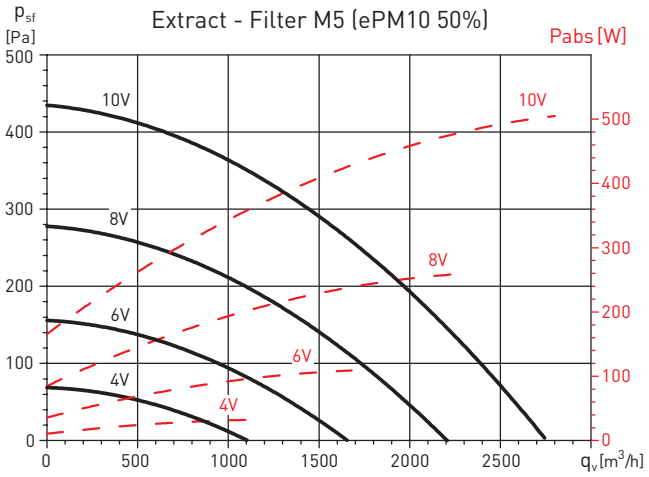


PERFORMANCE CURVES

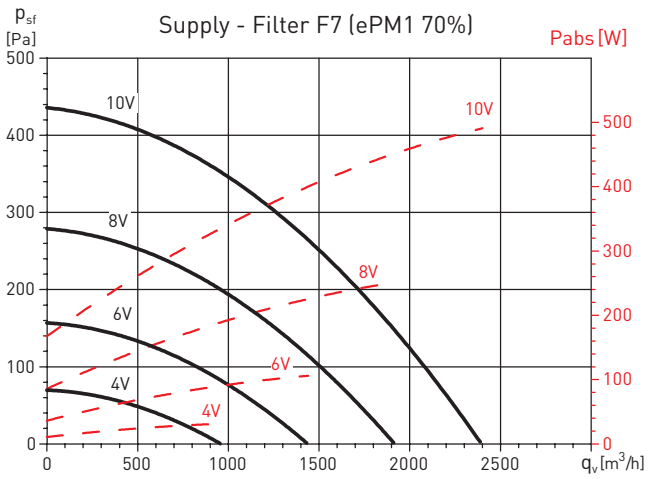
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

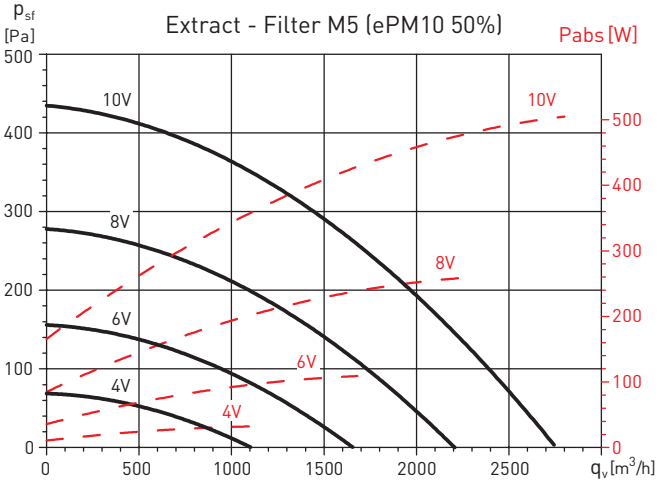
CADB-HE-D 21



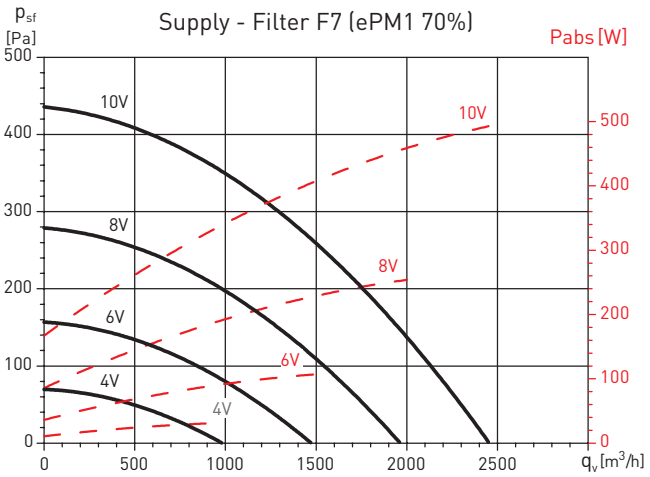


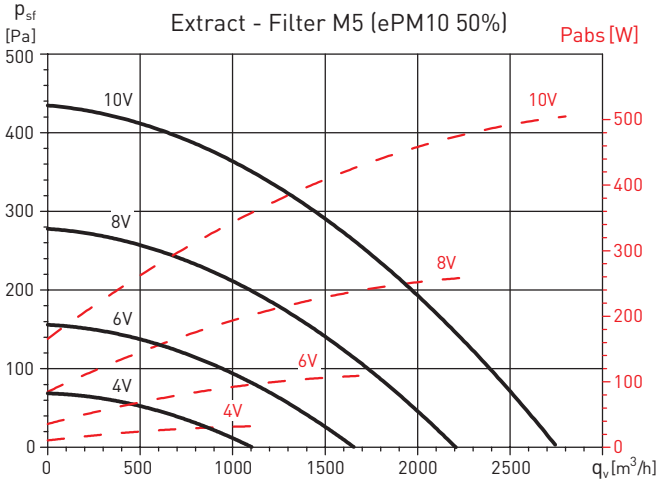
CADB-HE-DC 21





CADT-HE-DI 21

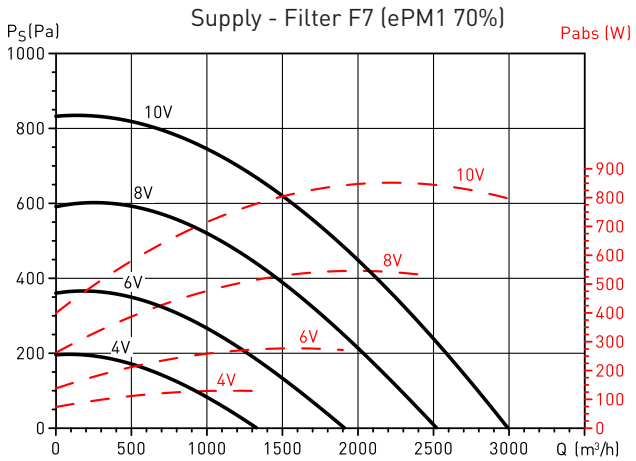


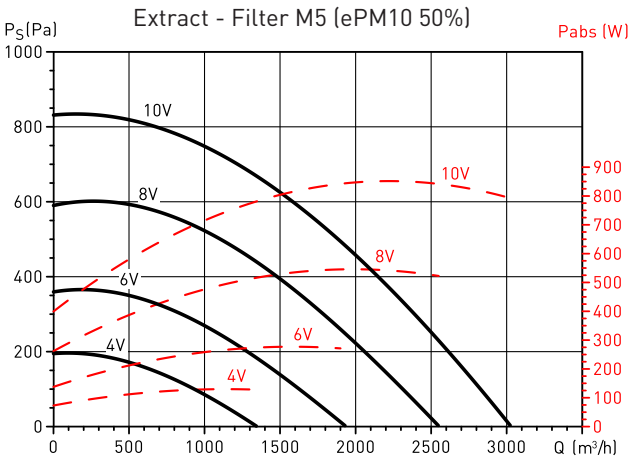


PERFORMANCE CURVES

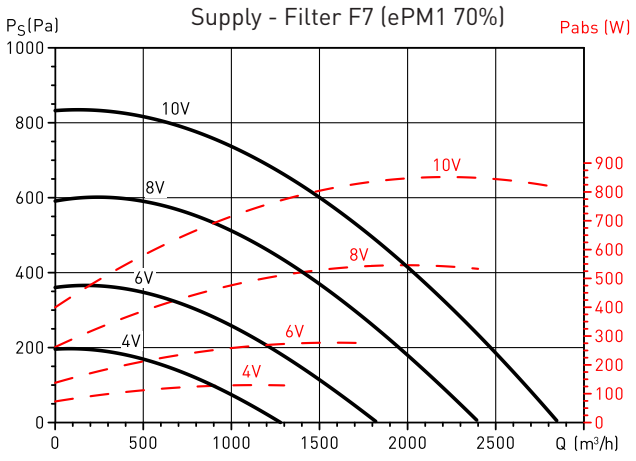
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

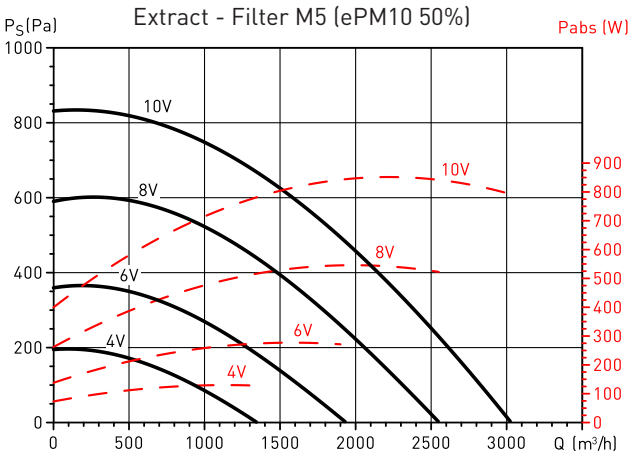
CADB-HE-D 27



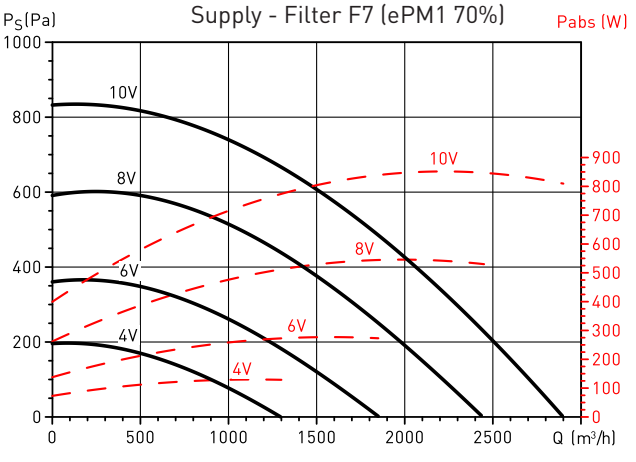


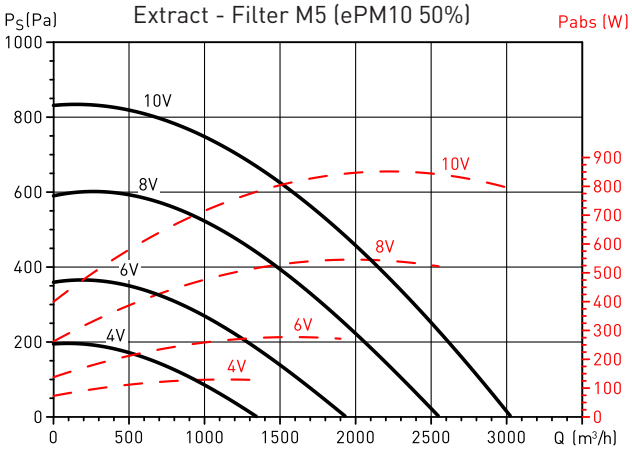
CADB-HE-DC 27





CADT-HE-DI 27

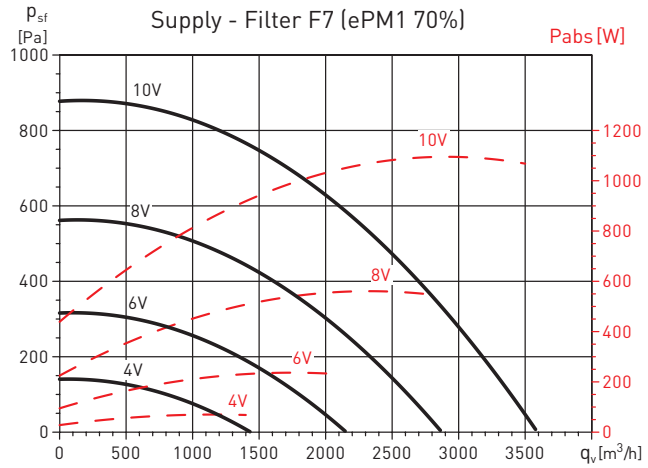


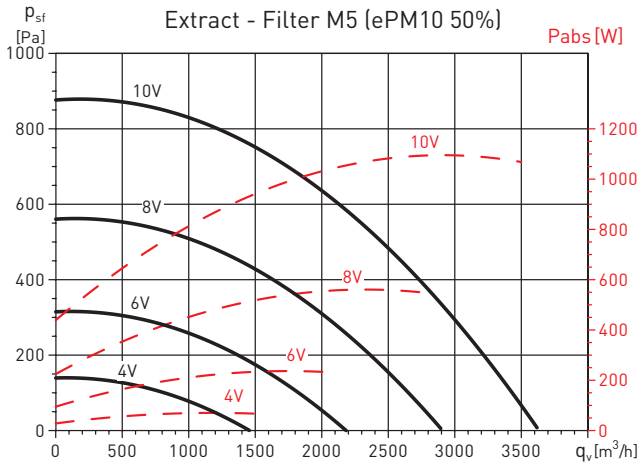


PERFORMANCE CURVES

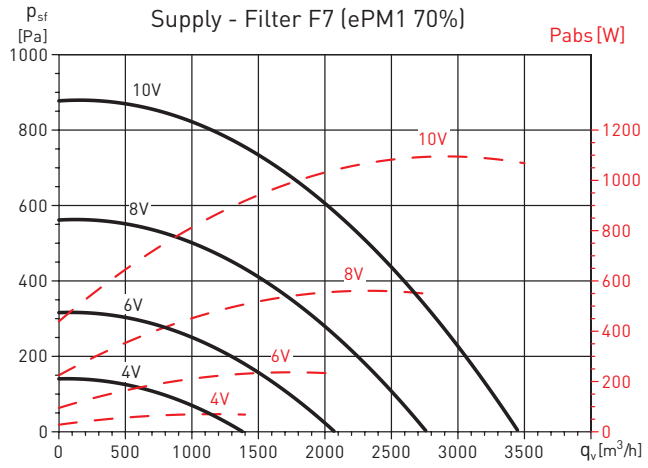
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

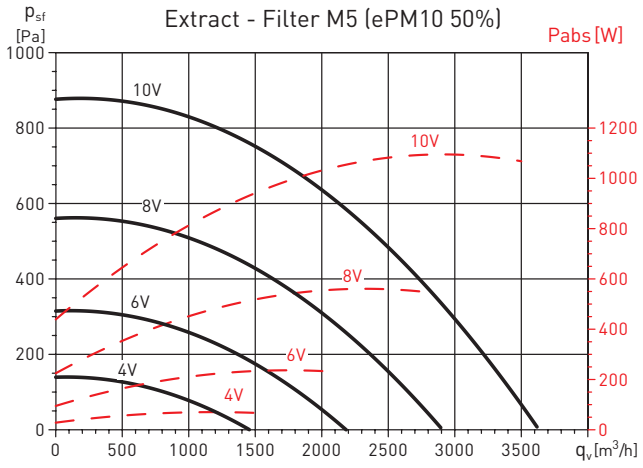
CADB-HE-D 33



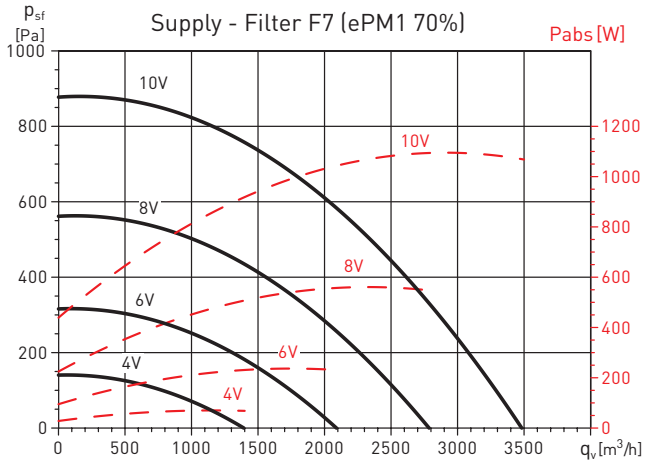


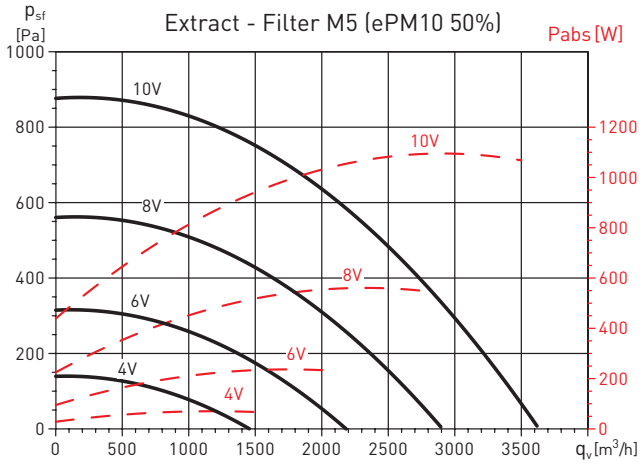
CADB-HE-DC 33





CADT-HE-DI 33

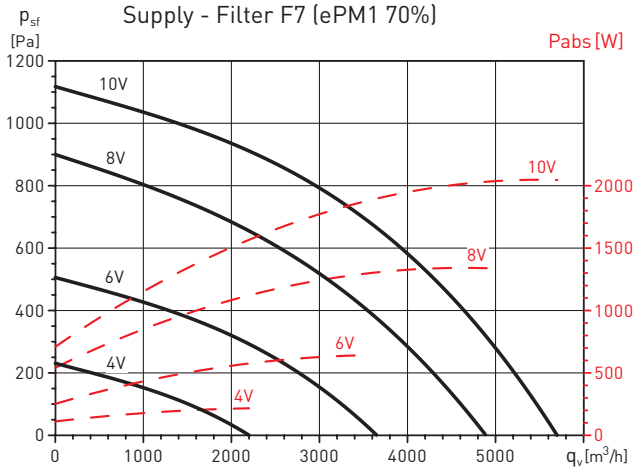


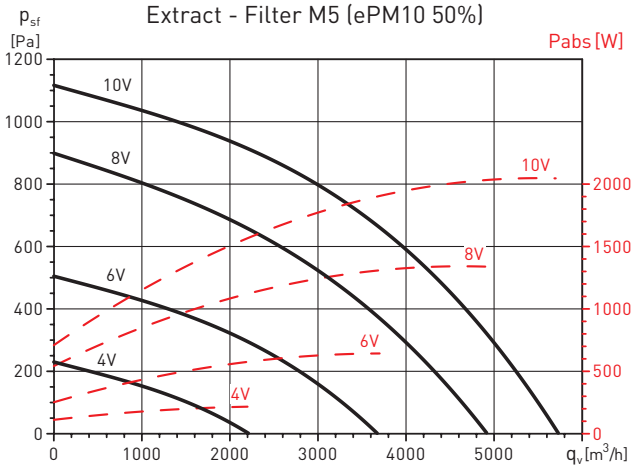


PERFORMANCE CURVES

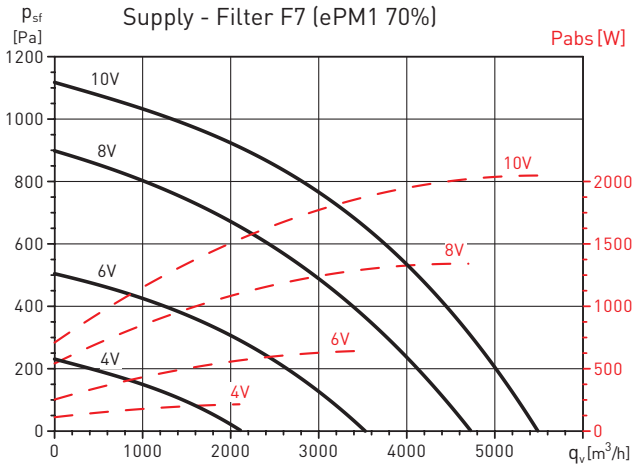
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

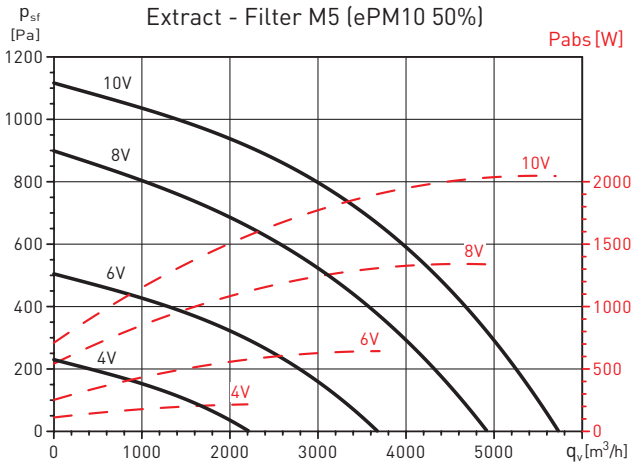
CADT-HE-D 45



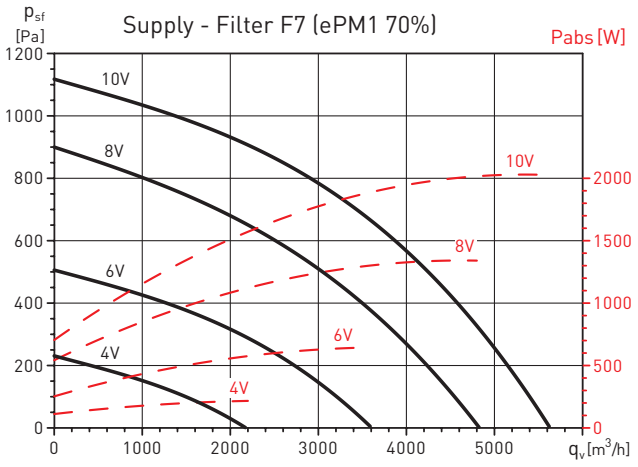


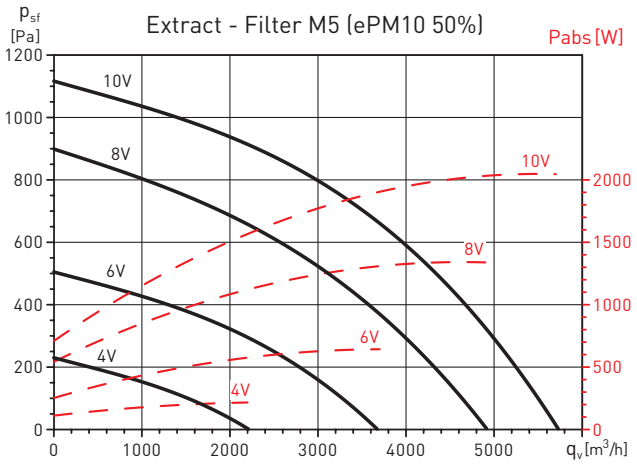
CADT-HE-DC 45





CADT-HE-DI 45

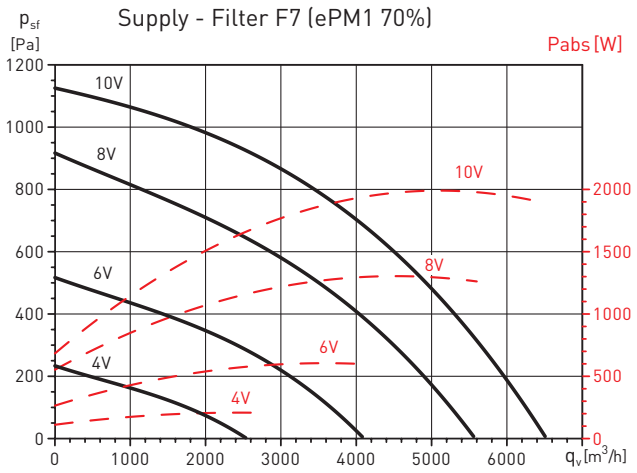


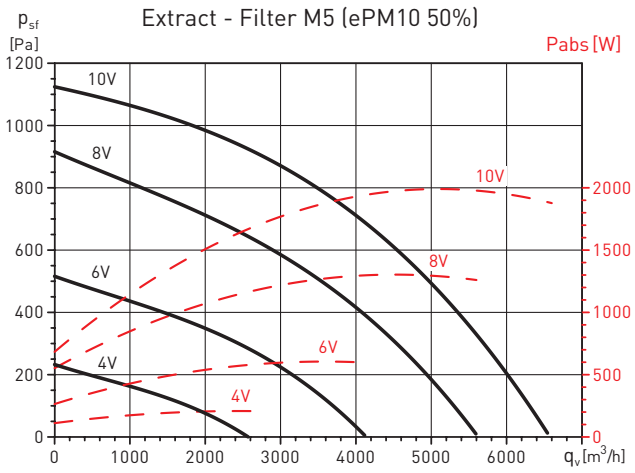


PERFORMANCE CURVES

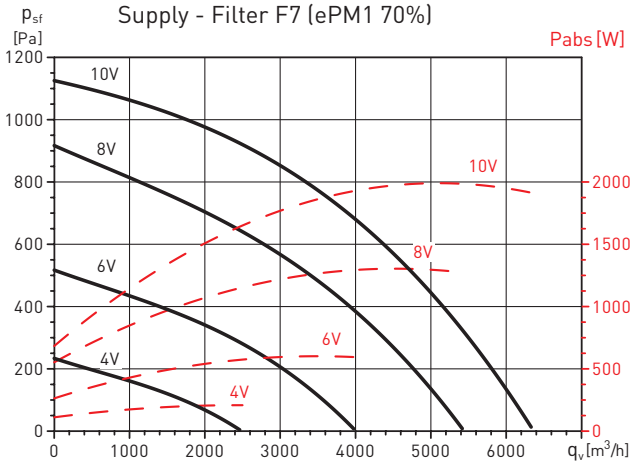
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

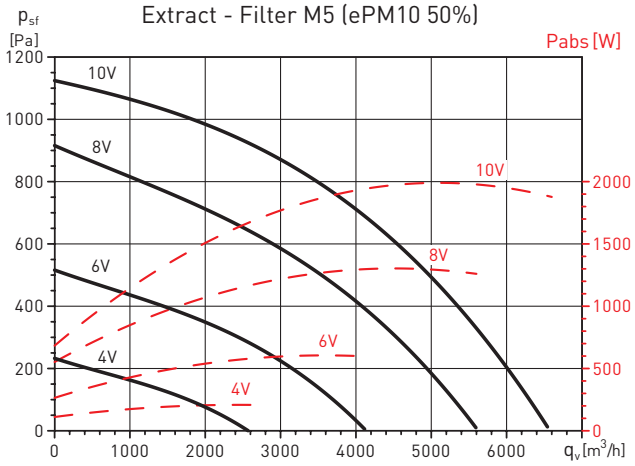
CADT-HE-D 60



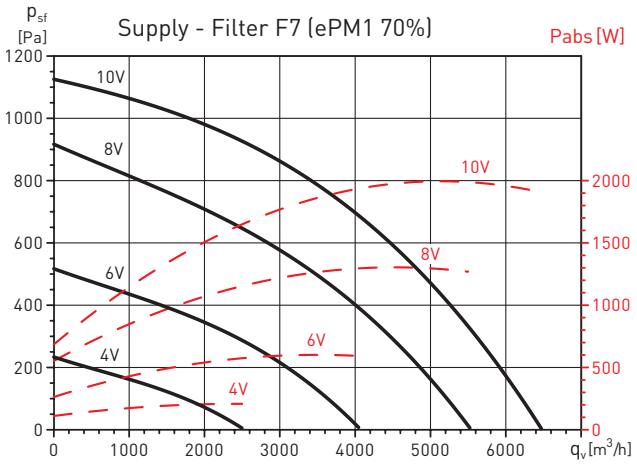


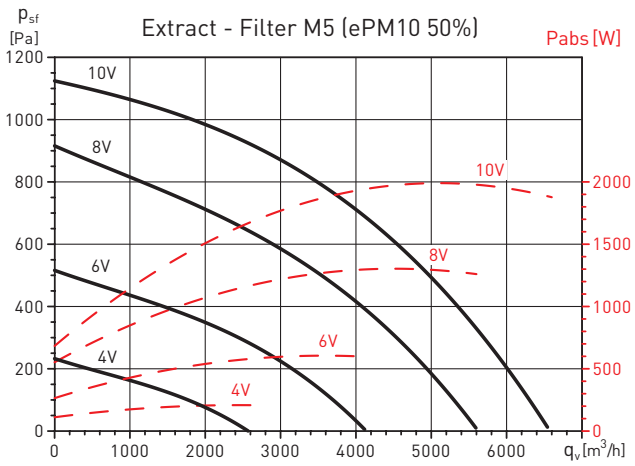
CADT-HE-DC 60





CADT-HE-DI 60



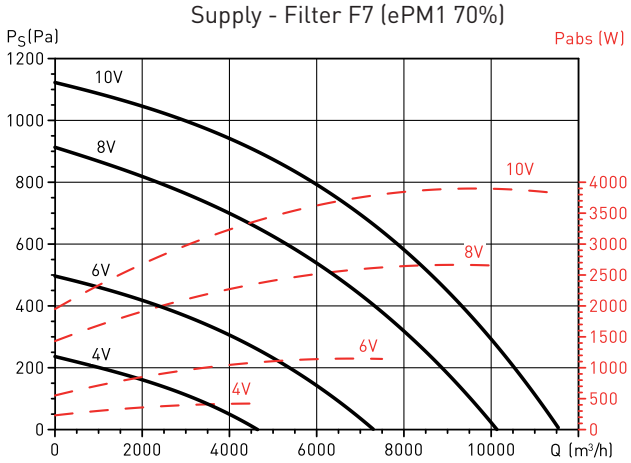


PERFORMANCE CURVES

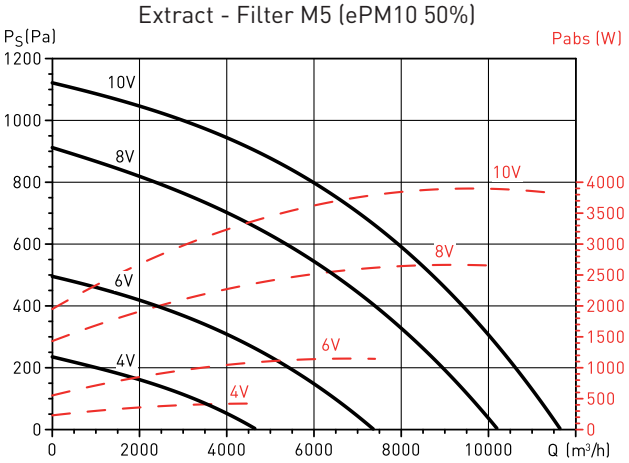
- q_v: Airflow in m^3/h and m^3/s
- p_{sf}: Static pressure in Pa
- Pabs: Absorbed power at maximum speed (W)
- Dry air at 20ºC and 760 mmHg
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards
- Absorbed power corresponding to a single circuit

CADT-HE-D 100

Supply - Filter F7 (ePM1 70%)

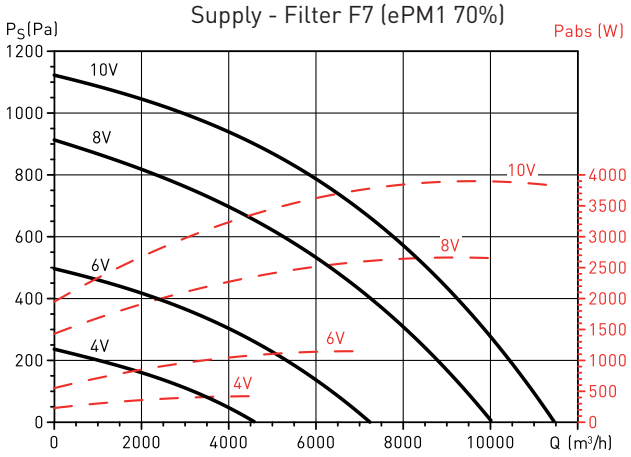


Extract - Filter M5 (ePM10 50%)

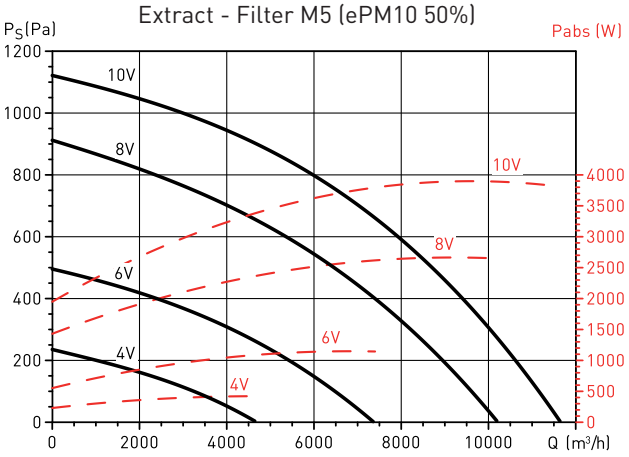


CADT-HE-DC 100

Supply - Filter F7 (ePM1 70%)

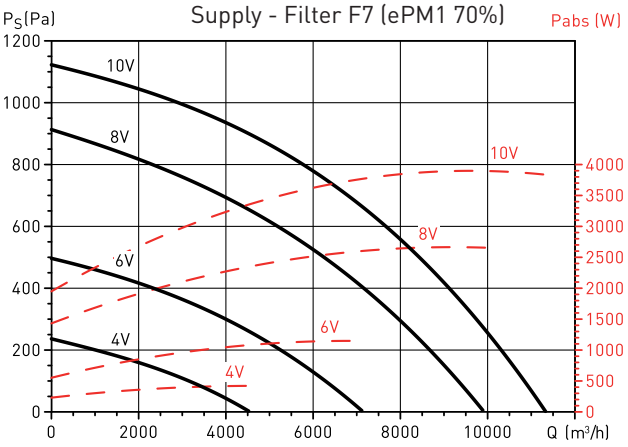


Extract - Filter M5 (ePM10 50%)

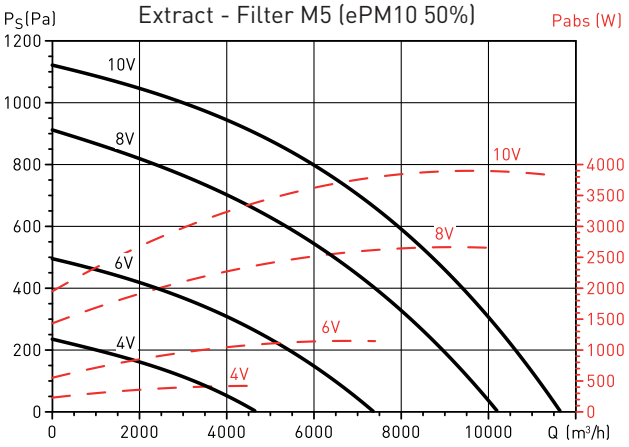


CADT-HE-DI 100

Supply - Filter F7 (ePM1 70%)



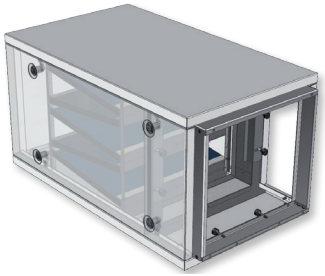
Extract - Filter M5 (ePM10 50%)



SPECIFIC ACCESSORIES FOR CADB-HE RANGE CADB-HE

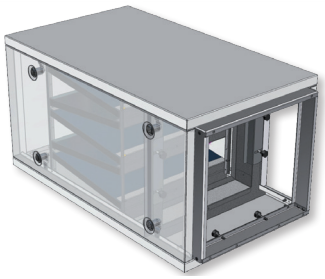
Heat recovery unit are complemented with a wide range of air treatment accessories, specifically design to integrate in the supply inlet.

Module for air purification, specific for areas with high environmental pollution.



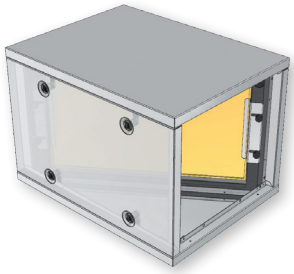
FB-IAQ HE
IAQ modul with a high efficiency in the retention of pollutants associated with outdoor pollution (gases and particulate matter), providing adequate quality to the supplied aire, even in polluted outdoor environments. Especially suitable for integration in ventilation installations of buildings located in urban or industrial areas with high environmental pollution.

Odor removal module



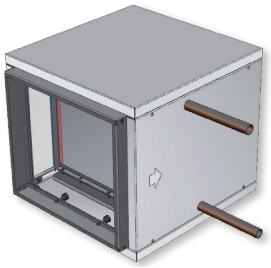
FB-CA HE
Filter module, composed by an activated carbon section and a final filter F9 class. Indicated to protect the ventilation system against the entry of bad odors from outdoor air. It can also be mounted on the extract air.

Outdoor filter module



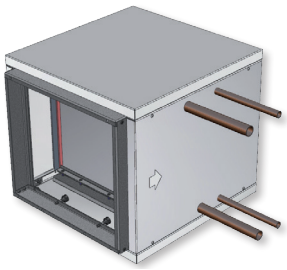
FBL-HE
Filter modules, supplied without filter, to mount filters AFR-HE (capacity for two filters).

Cold water coil module



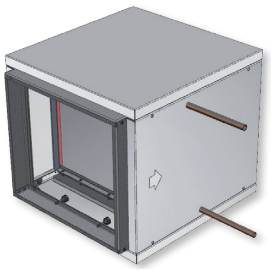
BA-AF HE
External cold water coil module, can also be used for hot water (Reversible coil).

Double coil module (cold water and hot water)



BA-AFC HE
External module that includes a cold water coil and a hot water coil, suitable to be combined with 4 tube-systems.

Direct expansion coil modules



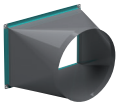
BA-DX HE
External module that includes a direct expansion coil for R-410A, this allows the integration of the unit in air conditioning systems of the main existing manufacfturers.

For more information consult the catalog section SPECIFIC ACCESORIES FOR CADB-HE RANGE

MOUNTING ACCESSORIES TABLE

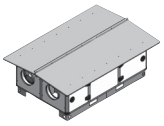
For more information see "Heat recovery accessories" and/or "Mounting accessories".
Mounting accessories supplied in unpainted galvanized sheet.

Heat recovery unit model	Ø (mm)	AFR-HE (spare filter for CADB/T-HE)			
		AFR-HE G4	AFR-HE M5	AFR-HE F7	AFR-HE F9
CADB-HE D/DI/DC 04	200	AFR-HE 200/04 G4	AFR-HE 200/04 M5	AFR-HE 200/04 F7	AFR-HE 200/04 F9
CADB-HE D/DI/DC 08	250	AFR-HE 250/08 G4	AFR-HE 250/08 M5	AFR-HE 250/08 F7	AFR-HE 250/08 F9
CADB-HE D/DI/DC 12	315	AFR-HE 315/12 G4	AFR-HE 315/12 M5	AFR-HE 315/12 F7	AFR-HE 315/12 F9
CADB-HE D/DI/DC 16	315	AFR-HE 315/16 G4	AFR-HE 315/16 M5	AFR-HE 315/16 F7	AFR-HE 315/16 F9
CADB/T-HE D/DI/DC 21	400	AFR-HE 400/21-27 G4	AFR-HE 400/21-27 M5	AFR-HE 400/21-27 F7	AFR-HE 400/21-27 F9
CADB/T-HE D/DI/DC 27	400	AFR-HE 400/21-27 G4	AFR-HE 400/21-27 M5	AFR-HE 400/21-27 F7	AFR-HE 400/21-27 F9
CADB/T-HE D/DI/DC 33	400	AFR-HE 400/33 G4	AFR-HE 400/33 M5	AFR-HE 400/33 F7	AFR-HE 400/33 F9
CADT-HE D/DI/DC 45	600x400	AFR-HE 450/40-45 G4	AFR-HE 450/40-45 M5	AFR-HE 450/40-45 F7	AFR-HE 450/40-45 F9
CADT-HE D/DI/DC 60	700x500	AFR-HE 500/54-60 G4	AFR-HE 500/54-60 M5	AFR-HE 500/54-60 F7	AFR-HE 500/54-60 F9
CADT-HE D/DI/DC 100	1100x610	AFR-HE-710/100 G4	AFR-HE-710/100 M5	AFR-HE-710/100 F7	AFR-HE-710/100 F9




Heat recovery unit model	PRRE From rectangular to circular adapter	SIL Circular sound attenuators	ACOPEL F400 Circular flexible connector	APC - APR Inlet/outlet protection guards	
				Horizontal	Vertical
CADB-HE D/DI/DC 04	-	SIL-200	ACOPEL F400-200/160N	APC-200	
CADB-HE D/DI/DC 08	-	SIL-250	ACOPEL F400-250/160N	APC-250	
CADB-HE D/DI/DC 12	-	SIL-315	ACOPEL F400-315/160N	APC-315	
CADB-HE D/DI/DC 16	-	SIL-315	ACOPEL F400-315/160N	APC-315	
CADB/T-HE D/DI/DC 21	-	SIL-400	ACOPEL F400-400/160N	APC-400	
CADB/T-HE D/DI/DC 27	-	SIL-400	ACOPEL F400-400/160N	APC-400	
CADB/T-HE D/DI/DC 33	-	SIL-400	ACOPEL F400-400/160N	APC-400	
CADT-HE D/DI/DC 45	PRRE 600x400/500	SIL-500*	ACOPEL F400-500/160N*	APR CADT-HE 45/60 H	APR CADT-HE 45/60 V
CADT-HE D/DI/DC 60	PRRE 700x500/560	SIL-560*	ACOPEL F400-560/160N*	APR CADT-HE 45/60 H	APR CADT-HE 45/60 V
CADT-HE D/DI/DC 100	PRRE 1100x610/710	SIL-710*	ACOPEL F400-710/180N*	-	APR CADT-HE 100

* In order to use the circular accessories, you need to install the PRRE adapter.

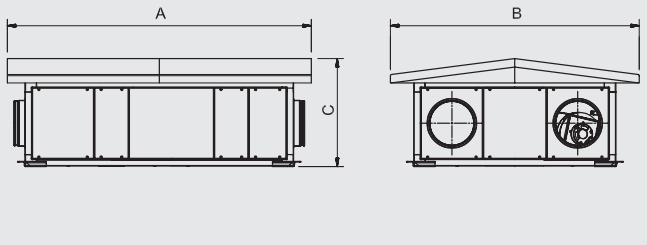



Heat recovery unit model	TPP-HE Rain protection cowl model		Accessories for batery control (DC-Versions)	Insulation damper	
	Horizontal	Vertical	Valve	Damper	On-off actuator/ spring return
CADB-HE D/DI/DC 04	TPP-HE-H-04	TPP-HE-V-04	3WV DN 15 KVS1 PROP 24V	REMV-200	LF-24S
CADB-HE D/DI/DC 08	TPP-HE-H-08	TPP-HE-V-08	3WV DN 15 KVS1,6 PROP 24V	REMV-250	
CADB-HE D/DI/DC 12	TPP-HE-H-12	TPP-HE-V-12	3WV DN 15 KVS2,5 PROP 24V	REMV-315	
CADB-HE D/DI/DC 16	TPP-HE-H-16	TPP-HE-V-16	3WV DN 15 KVS2,5 PROP 24V	REMV-315	
CADB/T-HE D/DI/DC 21	TPP-HE-H-21-27-33	TPP-HE-V-21-27	3WV DN 20 KVS4 PROP 24V	REMV-400	
CADB/T-HE D/DI/DC 27	TPP-HE-H-21-27-33	TPP-HE-V-21-27	3WV DN 20 KVS4 PROP 24V	REMV-400	
CADB/T-HE D/DI/DC 33	TPP-HE-H-21-27-33	TPP-HE-V-33	3WV DN 25 KVS6,3 PROP 24V	REMV-400	
CADT-HE D/DI/DC 45	TPP-HE-H-45	TPP-HE-V-45	3WV DN 25 KVS6,3 PROP 24V	-	
CADT-HE D/DI/DC 60	TPP-HE-H-60	TPP-HE-V-60	3WV DN 25 KVS10 PROP 24V	-	
CADT-HE D/DI/DC 100	–	TPP-HE-V-100	3WV DN 32 KVS16 PROP 24V	-	

MOUNTING ACCESSORIES

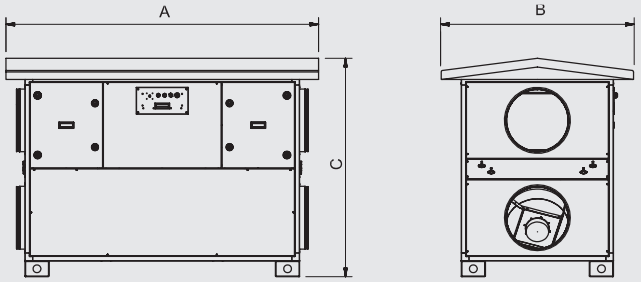
TPP-HE

Rain protection cowl
Rain protection cowls are supplied with a finish of galvanized sheet without painting.



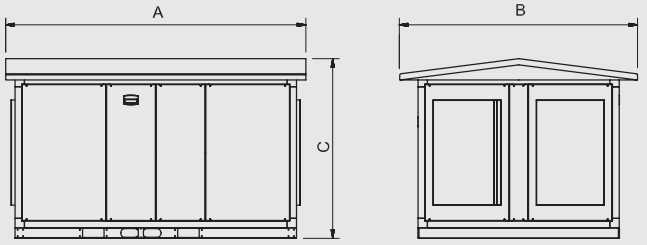
Model	A	B	C
04	1717	1123	514
08	1947	1273	577
12	1896	1413	589
16	2146	1603	631
21	2496	2003	766
27	2496	2003	766
33	2496	2003	866

CADB/T-HE 04 to 33 LH/RH



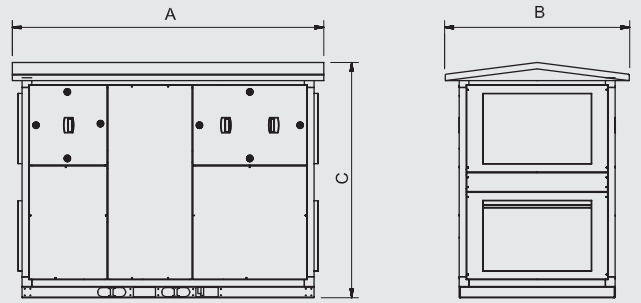
Model	A	B	C
04	1322	903	1039
08	1478	973	1145
12	1522	1133	1160
16	1672	1133	1210
21	1947	1333	1427
27	1947	1333	1427
33	1947	1533	1445

CADB/T-HE 04 to 33 LV/RV



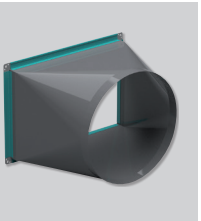
Model	A	B	C
45	2296	1863	1404
60	2446	1913	1788

CADT-HE 45 and 60 LH/RH

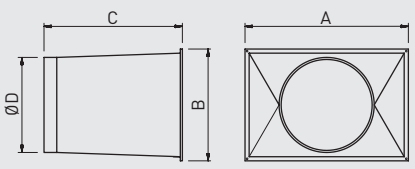


Model	A	B	C
45	2296	1483	1750
60	2446	1863	1834
100	2446	2413	1883

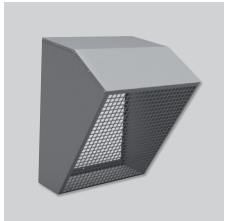
CADT-HE 45 to 100 LV/RV



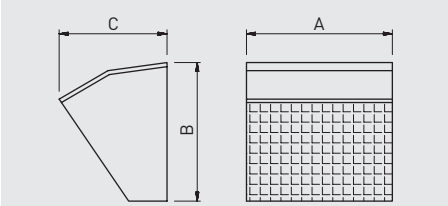
PRRE
From rectangular to circular adapter
Appropiate to apply circular accessories to inlet and outlet for the models CADT-HE 45 to 100.



Model	A	B	C	ØD
PRRE 600x400/500	666	466	460	500
PRRE 700x500/560	766	566	460	560
PRRE 1100x610/710	1140	650	460	710



APR
Rectangular protective peaks
Specific accessory for models CADT-HE 45 to 100.

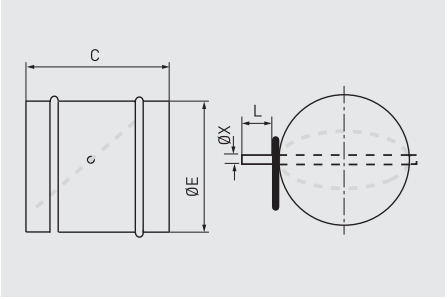


Model	A	B	C
APR CADT-HE 45/60 H	620	800	556
APR CADT-HE 45/60 V	800	620	556
APR CADT-HE 100	1176	710	552

3-WAY VALVES WITH PROPORTIONAL ACTUATOR
Three way motorised control valve.
Pressure 16 bar.
Rp" internal nut.
Nickel-plated forged brass casing.
Stainless steel valve cone.
Stainless steel shaft.

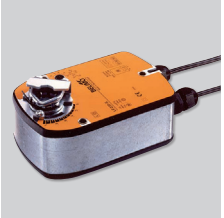
Average temperatures -10..+120.
5Nm mounted rotary actuator.
AC/DC 24V, proportional.
90 s/90° valve response time.
DC 2....10V working range.
IP 54.

REMV
Manual motorised dampers.
Allow duct-network balancing and tight closure of branches or air inlets.
Body and damper made from galvanised
steel, cadmium steel axis and bronze bearing. Tight joints in both sides.
Manual control or with support for electric actuator.



Model	ØE	C	X	L
REMV-200	200	200	8	60
REMV-250	250	200	8	60
REMV-315	315	300	12	100
REMV-355	355	300	12	100
REMV-400	400	400	12	100
REMV-450	450	400	12	100
REMV-500	500	400	12	100

Electric actuator (accessory):



LF-24S
On-Off with spring return. Power supply 24V.

ELECTRIC ACCESSORIES FOR CADB/T-HE PRO-REG SERIES

SCO$_2$-A 0/10V
Ambient CO_2 and temperature sensor without display.
Output: 0-10V
Power supply: 24VDC

SCO$_2$-G 0/10V
CO_2 sensor for the duct.
Enables control of the ventilation in sections of duct according to the CO_2 concentration of the air circulating through it.
Output: 0-10V
Power supply: 24VDC

TDP-S Probe
Pressure transmitters without display
They are used to control the pressure in constant pressure ventilation systems or constant flow. It enables to control the preassure at two points and transform it into an electrical signal suitable for the different types of control.

Accessories for the fan control depending on the control mode

Heat Recovery Model	Accessories for Variable Air Volume. VAV by CO_2 level		Accessories for constant air flow operation CAV	Accessories for constant pressure operation COP
	Ambience	Duct		
CADB/T-HE 04 to 100	SCO2-A 0/10V	SCO2-G 0/10V	Airflow transmitters included in the unit (Factory mounted)	TDP-S