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.

Heat recovery

SUPPLY FILTER

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 (M0), made from 25 mm thick fiberglass, 25 mm thickness 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 suction of the outside air.

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

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

CADB/T-HE DC ECOWATT
Heat recovery units with built-in electric heater battery.

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

CADB/T-HE DI ECOWATT
Heat recovery units with built-in low pressure hot water coil.

Motors
Models 04 to 27: EC motors with integrated electronic protection, IP44, Class B. Models 33 to 100: three phase EC motors, IP 54 Class B.

Fans
Plug-fan with backward curved impeller.

Filters
- F7: Low pressure F7 filters for supply air.
- M5: M5 filters for extract air.
- Possibility of mounting a second filter (accessory).

Two pressure switches DPS 2.30 to control the filter pollution are provided with the unit.

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 high efficiency VOC's and particles filtration that guarantees the filtration and purification of the outdoor air.

Additional information
By-pass electrical supply (1/230V 50Hz) can be actuated by means of a 3 position switch. Electrical battery supply (1/230V 50Hz) for models 04 to 16, three fase (3/400V 50Hz) for sizes 21 to 100.

Nominal airflows from 450 to 10.000 m³/h. All versions and models include by-pass. Mounting flexibility provided by the interchangeable side panels.

CADB/T-HE 04 TO 33 ECOWATT HORIZONTAL MODELS

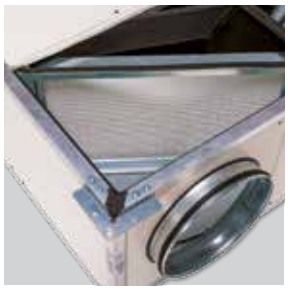
Low noise level and robust construction
Casing with double skinned 25 mm panels with thermoacoustic flameproof insulation M0, with high-quality finish and plastic corners.

Pressure Taps
Before and after the filters, to control the filter fouling.

High-efficiency motors
Incorporating Plug-fans with EC single-phase motor.
Three phase in model CADT-HE 33

By-pass
All versions include internal bypass (approximately 75% airflow).

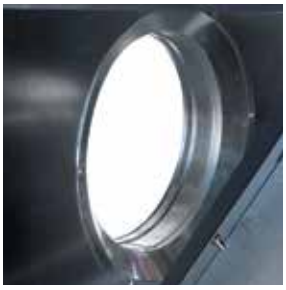
Counterflow heat exchanger
High-efficiency (up to 93%), EUROVENT certified.



High-efficiency filters:
-F7 Filters: Low pressure F7 filters for supply air.
-M5 Filters: M5 filters for extract air. Possibility of mounting a second filter (accessory).
Included pressure switch.

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

CADB/T-HE 04 TO 33 ECOWATT VERTICAL MODELS

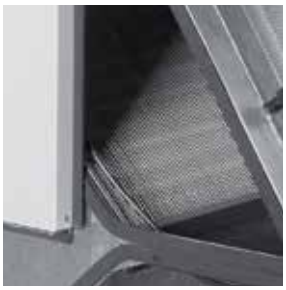


Ecodesign
Streamlined aerodynamic design, to reduce internal pressure drop.

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

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

High-efficiency filters:
- F7 Filters: Low pressure F7 filters for supply air.
- M5 Filters: M5 filters for extract air. Possibility of mounting a second filter (accessory).
Included pressure switch.



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

Condensate Tray
Double tray for summer and winter, with departures by the bottom.

High-efficiency motors
Incorporating Plug-fans with EC single-phase motor. Three phase in model CADT-HE 33

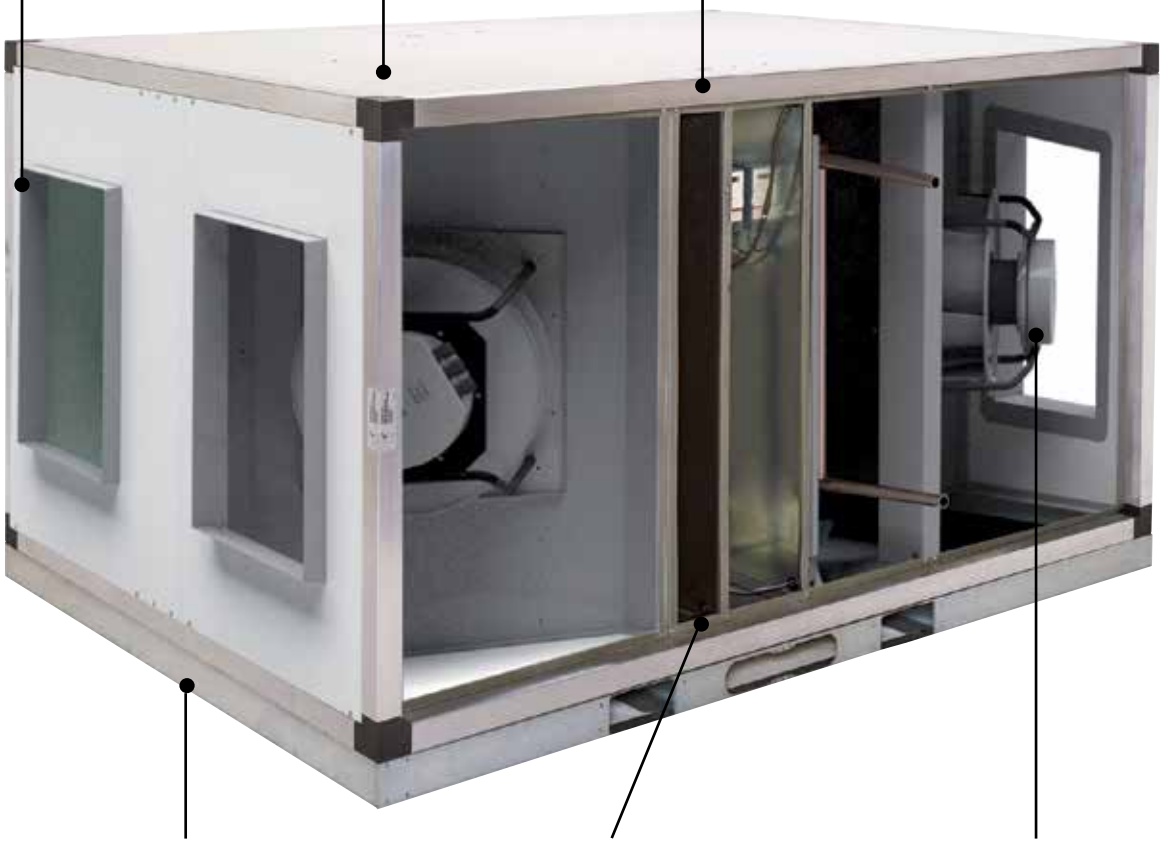
Pressure Taps
Before and after the filters, to control the filter fouling.

CADB/T-HE 45 TO 100 ECOWATT MODELS

High-efficiency filters:
-F7 Filters: Low pressure F7 filters for supply air.
-M5 Filters: M5 filters for extract air. Possibility of mounting a second filter (accessory).
Included pressure switch.

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

By-pass
All versions include internal bypass (approximately 75% airflow)



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

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

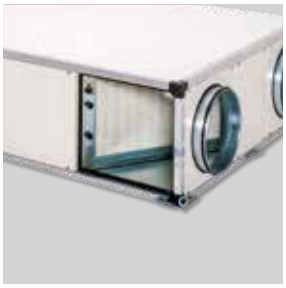
Motors
Plug-fans with three phase EC motors.

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.

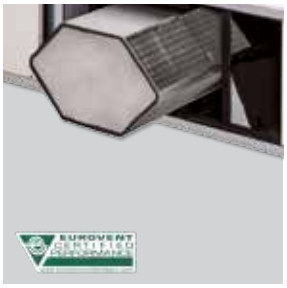
Multiple possibilities for exchanging the panels.




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	ECOWATT
1						2		3	4	5

1 - Series:

CADB-HE: Single-phase power supply. Both fans and electric battery (if available).
CADT-HE: Three-phase power supply for both fans and electric coil (if available).
Exception: Model CADT-DI 21 single-phase motors and three-phase electric coil.

2 - Heater options range:

D: Standard range (no heating)
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 - ECOWATT: High efficiency fans EC-Technology.

STANDARD VERSIONS CADB/T-HE ECOWATT

Horizontal versions

D Models: without heater battery

CADB-HE	-D	04	LH	ECOWATT
CADB-HE	-D	08	LH	ECOWATT
CADB-HE	-D	12	LH	ECOWATT
CADB-HE	-D	16	LH	ECOWATT
CADB-HE	-D	21	LH	ECOWATT
CADB-HE	-D	27	LH	ECOWATT
CADT-HE	-D	33	LH	ECOWATT
CADT-HE	-D	45	LH	ECOWATT
CADT-HE	-D	60	LH	ECOWATT

CADT-HE	-D	45	RH	ECOWATT
CADT-HE	-D	60	RH	ECOWATT

In 04 to 21 models without batteries, the RH configuration is obtained from LH version, by inverting the by-pass position.

DC Models: with built-in hot water coil

CADB-HE	-DC	04	LH	ECOWATT
CADB-HE	-DC	08	LH	ECOWATT
CADB-HE	-DC	12	LH	ECOWATT
CADB-HE	-DC	16	LH	ECOWATT
CADB-HE	-DC	21	LH	ECOWATT
CADB-HE	-DC	27	LH	ECOWATT
CADT-HE	-DC	33	LH	ECOWATT
CADT-HE	-DC	45	LH	ECOWATT
CADT-HE	-DC	60	LH	ECOWATT

CADB-HE	-DC	04	RH	ECOWATT
CADB-HE	-DC	08	RH	ECOWATT
CADB-HE	-DC	12	RH	ECOWATT
CADB-HE	-DC	16	RH	ECOWATT
CADB-HE	-DC	21	RH	ECOWATT
CADB-HE	-DC	27	RH	ECOWATT
CADT-HE	-DC	33	RH	ECOWATT
CADT-HE	-DC	45	RH	ECOWATT
CADT-HE	-DC	60	RH	ECOWATT

DI Models: with built-in electric heater battery

CADB-HE	-DI	04	LH	ECOWATT
CADB-HE	-DI	08	LH	ECOWATT
CADB-HE	-DI	12	LH	ECOWATT
CADB-HE	-DI	16	LH	ECOWATT
CADT-HE	-DI	21	LH	ECOWATT
CADT-HE	-DI	27	LH	ECOWATT
CADT-HE	-DI	33	LH	ECOWATT
CADT-HE	-DI	45	LH	ECOWATT
CADT-HE	-DI	60	LH	ECOWATT

CADB-HE	-DI	04	RH	ECOWATT
CADB-HE	-DI	08	RH	ECOWATT
CADB-HE	-DI	12	RH	ECOWATT
CADB-HE	-DI	16	RH	ECOWATT
CADT-HE	-DI	21	RH	ECOWATT
CADT-HE	-DI	27	RH	ECOWATT
CADT-HE	-DI	33	RH	ECOWATT
CADT-HE	-DI	45	RH	ECOWATT
CADT-HE	-DI	60	RH	ECOWATT

STANDARD VERSIONS CADB/T-HE ECOWATT

Vertical versions

D Models: without heater battery

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

DC Models: with built-in hot water coil

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

DI Models: with built-in electric heater battery

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

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**	Speed (r.p.m.)	Maximum current (A) each fan	
CADB-HE D 04 ECOWATT	200	450	87	1/230V, 50Hz	3700	1,0	137
CADB-HE D 08 ECOWATT	250	800	86,4	1/230V, 50Hz	2650	1,3	173
CADB-HE D 12 ECOWATT	315	1.200	85,3	1/230V, 50Hz	2550	1,6	180
CADB-HE D 16 ECOWATT	315	1.600	85,5	1/230V, 50Hz	2845	2,0	225
CADB-HE D 21 ECOWATT	400	2.100	86,5	1/230V, 50Hz	1580	2,2	323
CADB-HE D 27 ECOWATT	400	2.700	83,8	1/230V, 50Hz	2450	3,6	360
CADT-HE D 33 ECOWATT	400	3.300	88,4	3+N/400V, 50Hz	2600	2,0	410
CADT-HE D 45 ECOWATT	400x600	4.500	89	3+N/400V, 50Hz	2200	3,0	577
CADT-HE D 60 ECOWATT	600x700	6.100	88,9	3+N/400V, 50Hz	2200	3,0	710
CADT-HE D 100 ECOWATT	1100x650	10.000	87,9	3+N/400V, 50Hz	2160	5,8	842

*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**	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 ECOWATT	200	450	87	1/230V, 50Hz	3700	1,0	2,7	1,6	139
CADB-HE DC 08 ECOWATT	250	800	86,4	1/230V, 50Hz	2650	1,3	5,1	3,1	176
CADB-HE DC 12 ECOWATT	315	1.200	85,3	1/230V, 50Hz	2550	1,6	7,1	4,3	183
CADB-HE DC 16 ECOWATT	315	1.600	85,5	1/230V, 50Hz	2845	2,0	8,6	5,3	229
CADB-HE DC 21 ECOWATT	400	2.100	86,5	1/230V, 50Hz	1580	2,2	12,6	7,8	328
CADB-HE DC 27 ECOWATT	400	2.700	83,8	1/230V, 50Hz	2450	3,6	16,2	10,0	365
CADT-HE DC 33 ECOWATT	400	3.300	88,4	3+N/400V, 50Hz	2600	2,0	18,2	11,1	416
CADT-HE DC 45 ECOWATT	400x600	4.500	89	3+N/400V, 50Hz	2200	3,0	25,6	15,5	586
CADT-HE DC 60 ECOWATT	600x700	6.100	88,9	3+N/400V, 50Hz	2200	3,0	34,7	21,1	722
CADT-HE DC 100 ECOWATT	1100x650	10.000	87,9	3+N/400V, 50Hz	2160	5,8	58,9	35,4	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.

DI Models: with built-in electric heater battery

	Complete unit			Fan			Electric heater battery			Weight (kg)
	Air connections diameter (mm)	Nominal airflow at 150Pa*2 (m^3/h)	Efficiency*1 (%)	Electrical supply**	Speed (r.p.m.)	Maximum current (A) each fan	Electrical supply	Power (kW)	Maximum current (A)	
CADB-HE DI 04 ECOWATT	200	450	87	1/230V, 50Hz	3700	1,0	1/230V, 50Hz	1	4,5	138
CADB-HE DI 08 ECOWATT	250	800	86,4	1/230V, 50Hz	2650	1,3	1/230V, 50Hz	2	9,1	175
CADB-HE DI 12 ECOWATT	315	1.200	85,3	1/230V, 50Hz	2550	1,7	1/230V, 50Hz	3	11,4	182
CADB-HE DI 16 ECOWATT	315	1.600	85,5	1/230V, 50Hz	2845	2,0	1/230V, 50Hz	3,5	15,9	227
CADT-HE DI 21 ECOWATT	400	2.100	86,5	1/230V, 50Hz	1580	2,2	3/400V, 50Hz	6	9,1	326
CADT-HE DI 27 ECOWATT	400	2.700	83,8	1/230V, 50Hz	2450	3,6	3/400V, 50Hz	6	9,1	363
CADT-HE DI 33 ECOWATT	400	3.300	88,4	3+N/400V, 50Hz	2600	2,0	3/400V, 50Hz	7,5	11,4	414
CADT-HE DI 45 ECOWATT	400x600	4.500	89	3+N/400V, 50Hz	2200	3,0	3/400V, 50Hz	9	13,7	582
CADT-HE DI 60 ECOWATT	600x700	6.100	88,9	3+N/400V, 50Hz	2200	3,0	3/400V, 50Hz	12	18,2	717
CADT-HE DI 100 ECOWATT	1100x650	10.000	87,9	3+N/400V, 50Hz	2160	5,8	3/400V, 50Hz	24	36,4	854

*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.

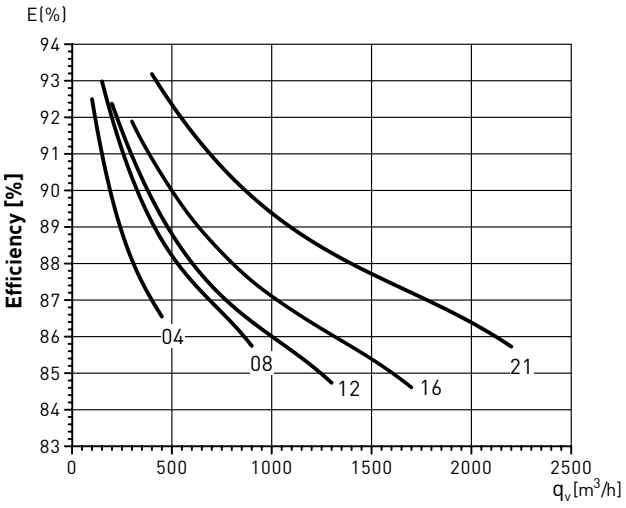
ACOUSTIC CHARACTERISTICS

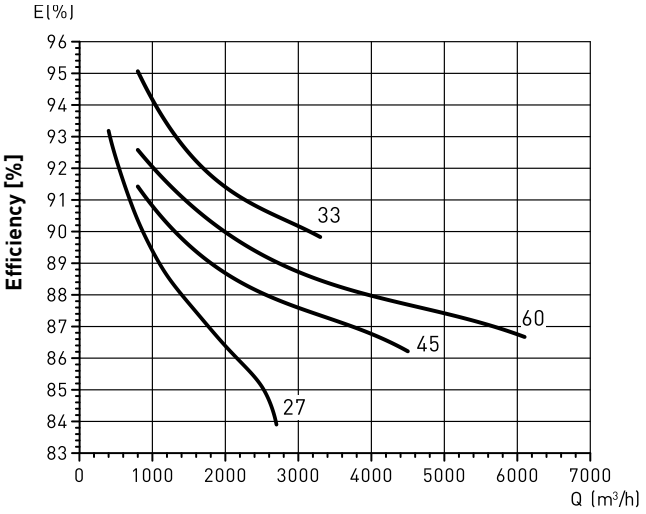
Model	Sound Pressure (LpA)*			Sound Power (LwA)		
	Inlet	Outlet	Radiated	Inlet	Outlet	Radiated
CADB-HE 04 ECOWATT	34	55	43	54	75	63
CADB-HE 08 ECOWATT	37	54	38	57	74	58
CADB-HE 12 ECOWATT	46	61	44	66	81	64
CADB-HE 16 ECOWATT	45	60	45	65	80	65
CADB/T-HE 21 ECOWATT	42	58	42	62	78	62
CADT-HE 33 ECOWATT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

* 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.

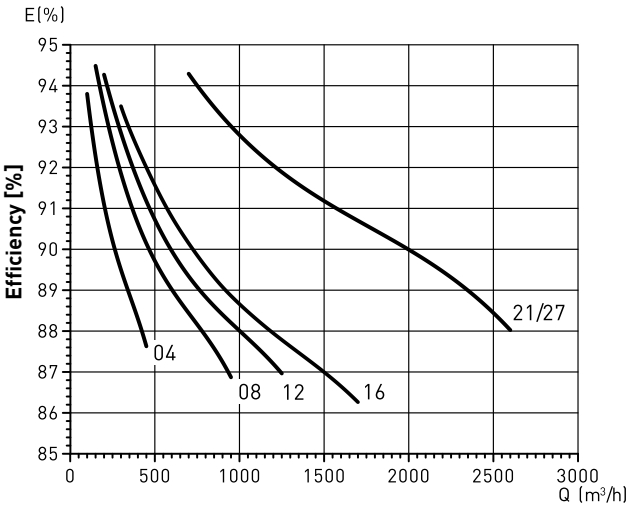
RECOVERY EFFICIENCY ACCORDING TO THE AIRFLOW

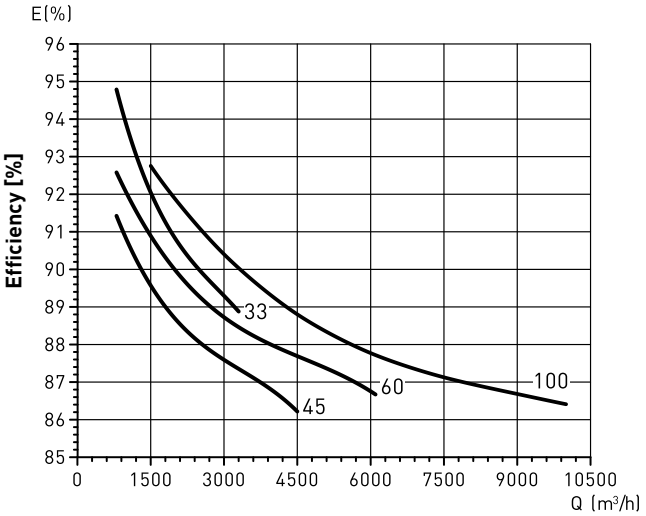
Values referring to the following conditions:
Outdoor temperature: -5ºC, RH=80%
Indoor temperature: 20ºC, RH-=50%.





Vertical version





RECOVERY EFFICIENCY RELATIVE TO OUTDOOR TEMPERATURE

Horizontal Versions

		OUTDOOR AIR		INDOOR 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-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-HE 27	2.700	-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
CADT-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	4.000	-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	5.400	-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		INDOOR AIR*		PERFORMANCE*	
Model	**Airflow (m³/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-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-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
CADT-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	18,4
		5	70	17,3	30,9	82	13,5
CADT-HE 45	4.000	-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	5.400	-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)*

Vertical Versions

			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
CADT-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

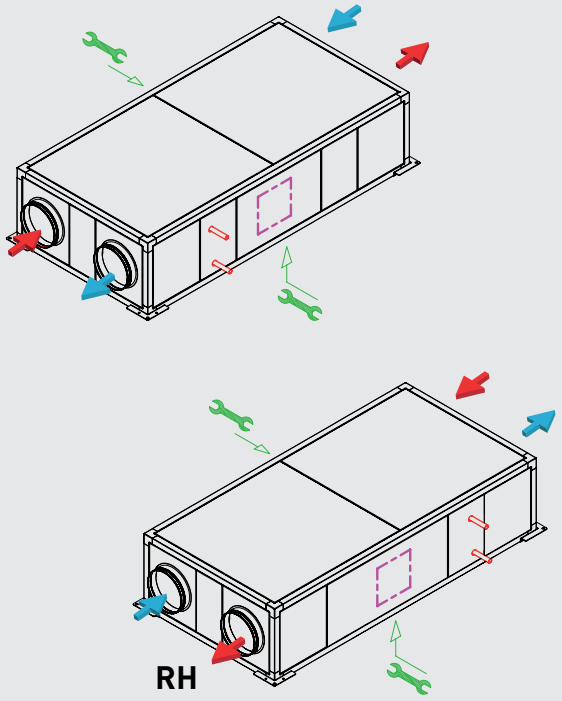
* Air inlet conditions to the battery (output from the heat recovery unit) = 17ºC 25% RH

STANDARD CONFIGURATIONS CADB/T-HE D/DC/DI ECOWATT

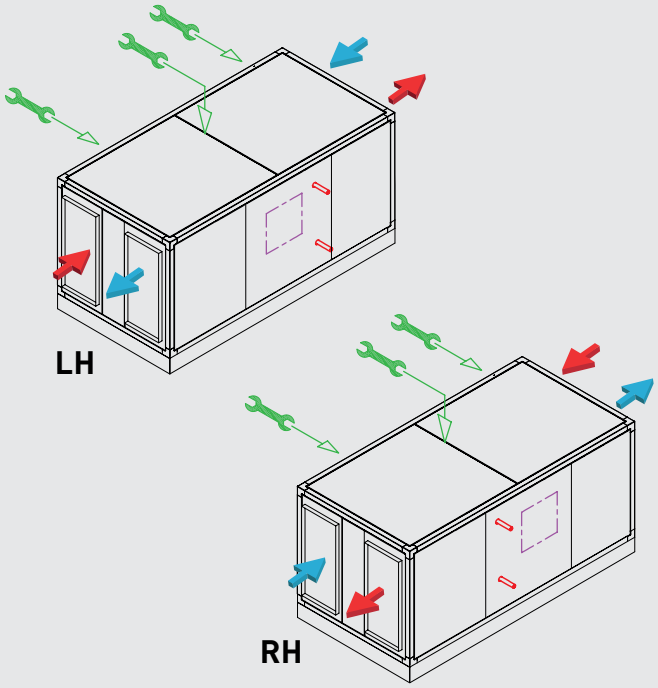
Based on these standard configurations other configurations can be quickly adapted by the installer.

EXTRACT AIR
INLET AIR
WATER CONNECTIONS
MAINTENANCE
TERMINAL BOX POSITION / FREQUENCY CONVERTER

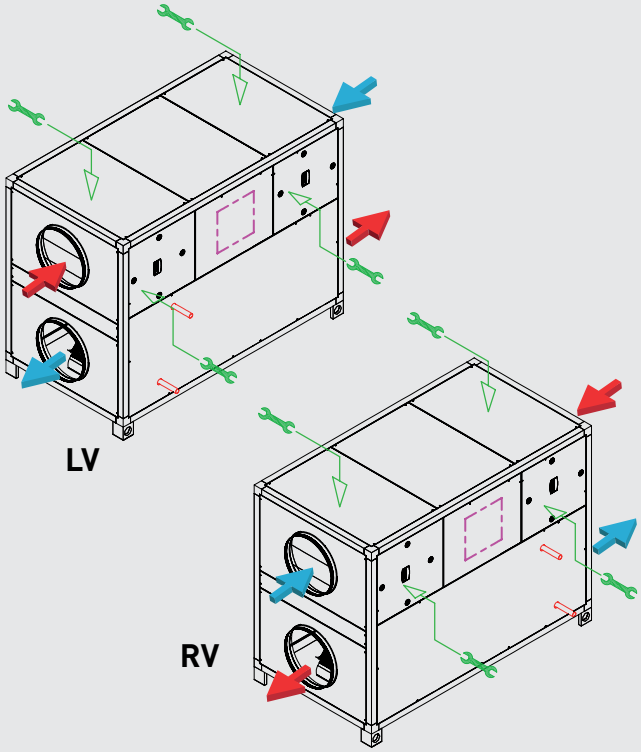
CADB/T-HE 04 to 33
Horizontal versions (false-ceiling)



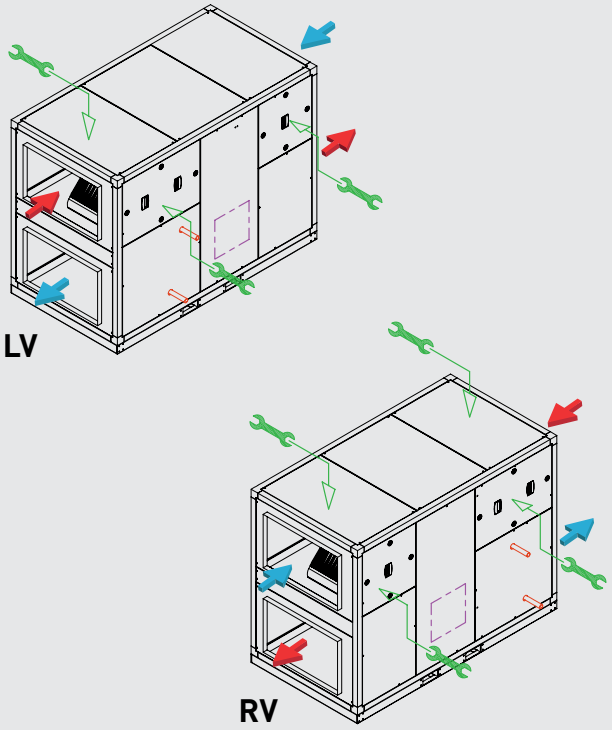
CADT-HE 45 and 60
Horizontal versions



CADB/T-HE 04 to 33
Vertical versions



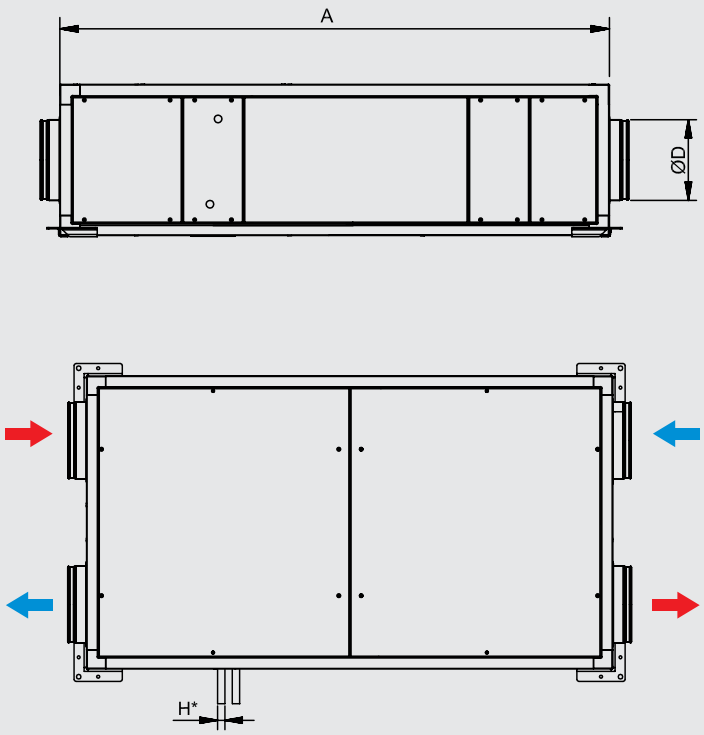
CADT-HE 45 to 100
Vertical versions



DIMENSIONS (mm)

CADB/T-HE 04 to 33 LH

EXHAUST AIR FRESH AIR

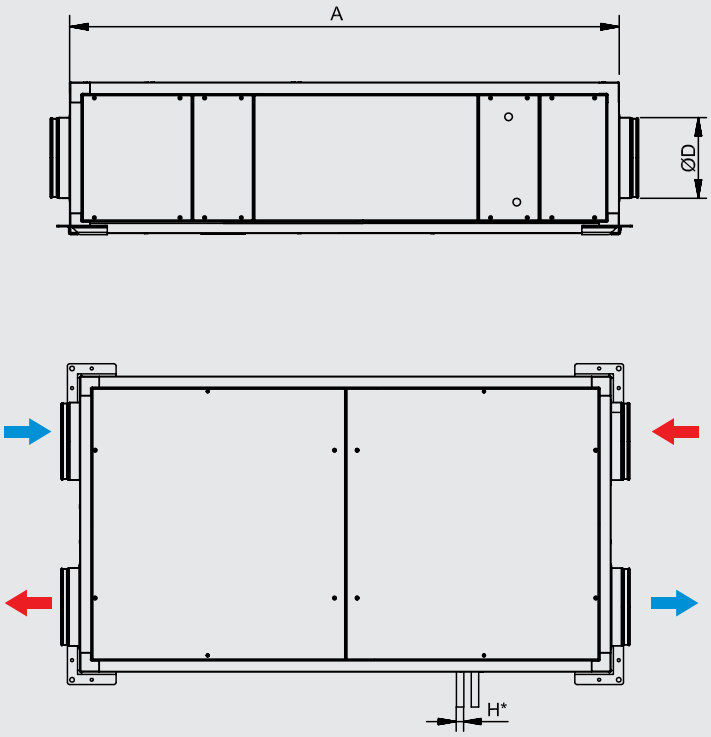


Model	A	B	C	D	F	G	H*
04	1520	760	375	200	187	167	1/2" GM
08	1750	910	425	250	212	198	1/2" GM
12	1700	1050	425	315	212	225	1/2" GM
16	1950	1240	450	315	225	245	1/2" GM
21	2300	1640	550	400	275	300	1/2" GM
27	2300	1640	550	400	275	300	1/2" GM
33	2300	1640	650	400	325	300	1/2" GM

H*: Only in DC versions

CADB/T-HE 04 to 33 RH

EXHAUST AIR FRESH AIR



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

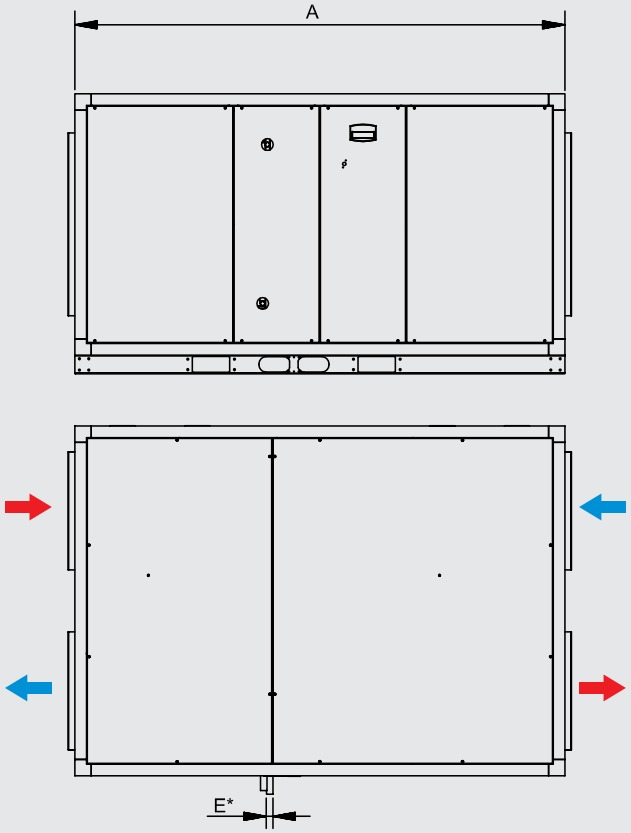
H*: Only in DC versions

DIMENSIONS (mm)

CADT-HE 45 and 60 LH

EXHAUST AIR

FRESH AIR



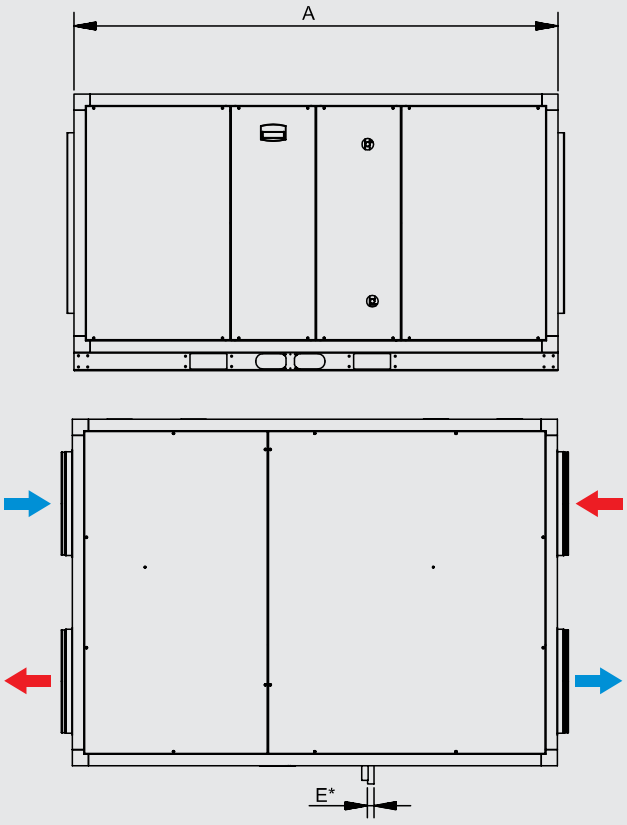
Model	A	B	C	E*	F	G	H	I
45	2100	1500	1200	3/4" GM	339	164	400	600
60	2250	1550	1580	3/4" GM	479	74	600	700

E*: Only in DC versions

CADT-HE 45 and 60 RH

EXHAUST AIR

FRESH AIR



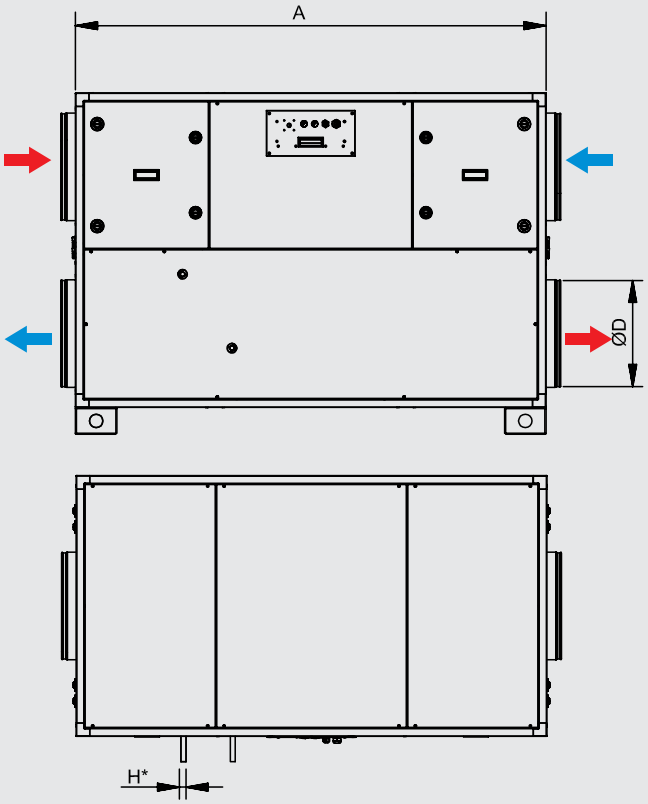
Model	A	B	C	E*	F	G	H	I
45	2100	1500	1200	3/4" GM	339	164	400	600
60	2250	1550	1580	3/4" GM	479	74	600	700

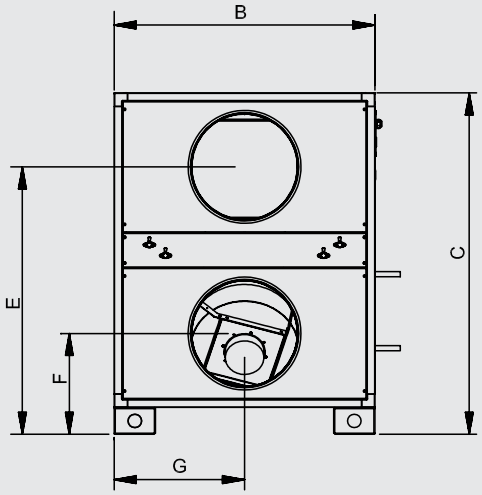
E*: Only in DC versions

DIMENSIONS (mm)

CADB/T-HE 04 to 33 LV

EXHAUST AIR FRESH AIR



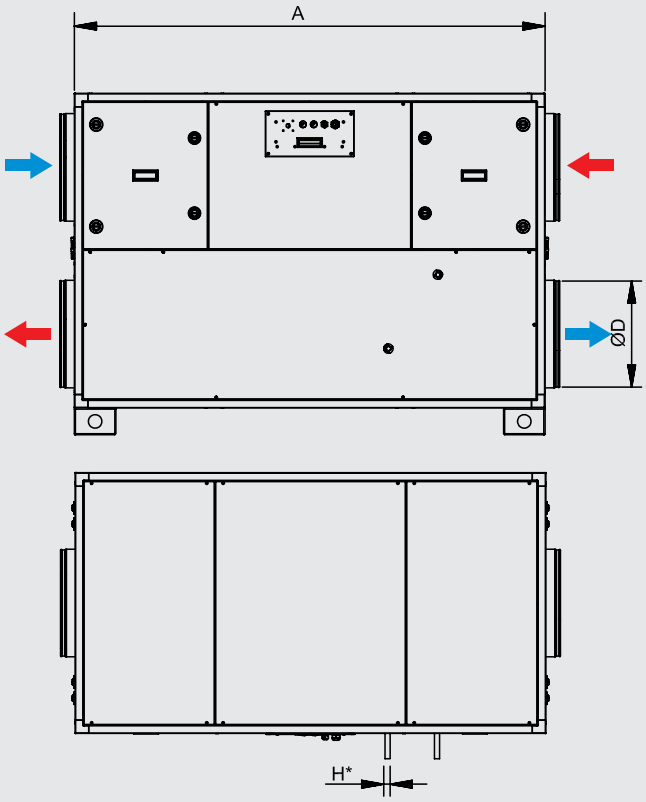


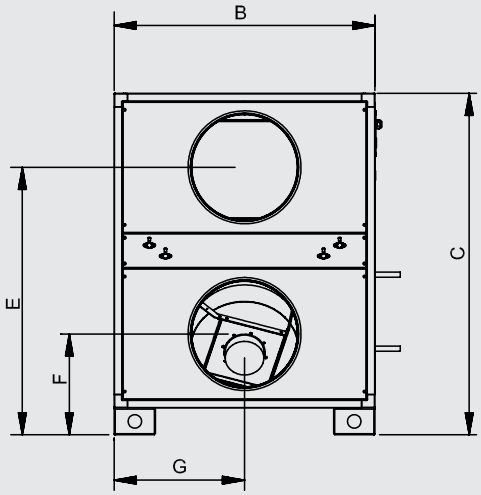
Model	A	B	C	D	E	F	G	H*
04	1125	540	920	200	732	287	270	1/2" GM
08	1275	610	1020	250	808	312	305	1/2" GM
12	1325	770	1020	315	808	312	385	1/2" GM
16	1475	770	1070	315	845	325	385	1/2" GM
21	1750	970	1270	400	995	375	485	1/2" GM
27	1750	970	1270	400	995	375	485	1/2" GM
33	1750	1170	1270	400	995	375	585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

H*: Only in DC versions

CADB/T-HE 04 to 33 RV

EXHAUST AIR FRESH AIR



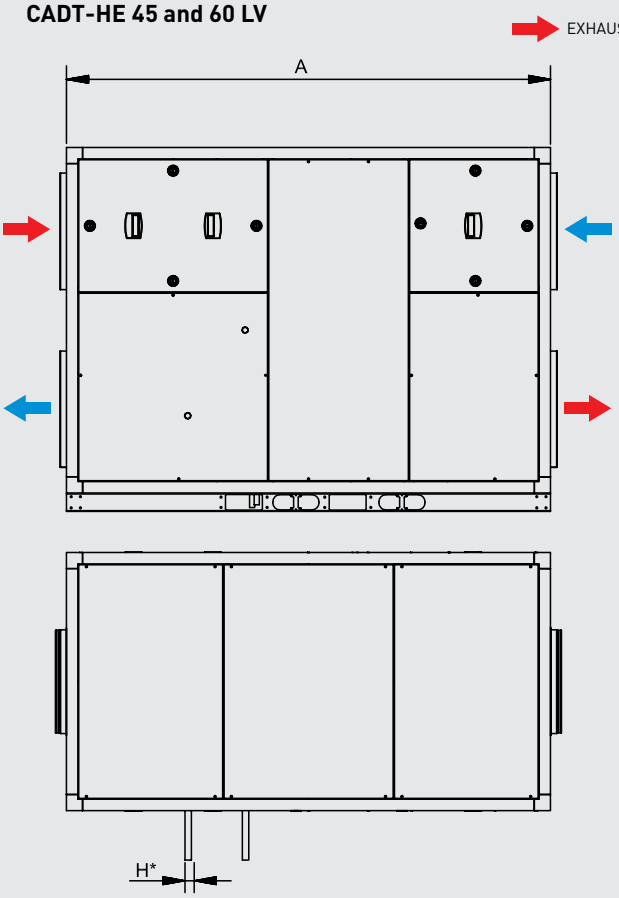


Model	A	B	C	D	E	F	G	H*
04	1125	540	920	200	732	287	270	1/2" GM
08	1275	610	1020	250	808	312	305	1/2" GM
12	1325	770	1020	315	808	312	385	1/2" GM
16	1475	770	1070	315	845	325	385	1/2" GM
21	1750	970	1270	400	995	375	485	1/2" GM
27	1750	970	1270	400	995	375	485	1/2" GM
33	1750	1170	1270	400	995	375	585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

H*: Only in DC versions

DIMENSIONS (mm)

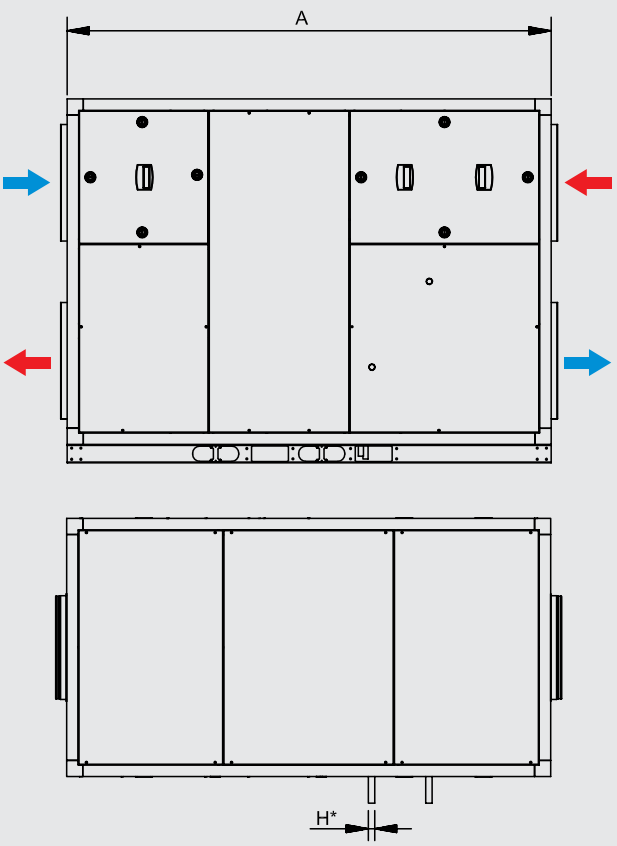
CADT-HE 45 and 60 LV



Model	A	B	C	E*	F	G	H	I	J
45	2100	1120	1580	3/4" GM	244	259	600	400	1015
60	2250	1500	1630	3/4" GM	154	399	700	600	955
100	2250	2050	1630	3/4" GM	220	315	1100	650	930

E*: Only in DC versions

CADT-HE 45 and 60 RV



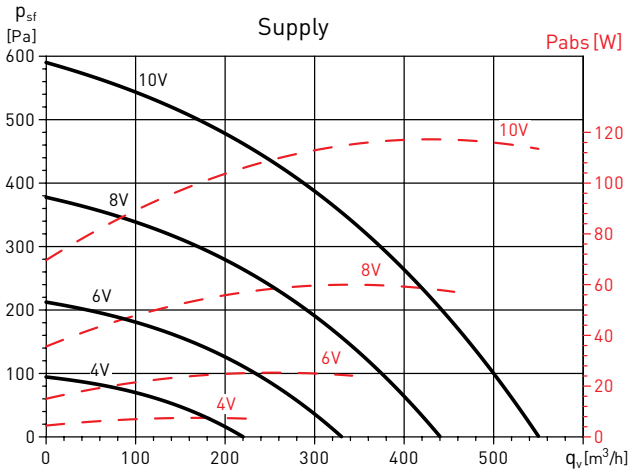
Model	A	B	C	E*	F	G	H	I	J
45	2100	1120	1580	3/4" GM	244	259	600	400	1015
60	2250	1500	1630	3/4" GM	154	399	700	600	955
100	2250	2050	1630	3/4" GM	220	315	1100	650	930

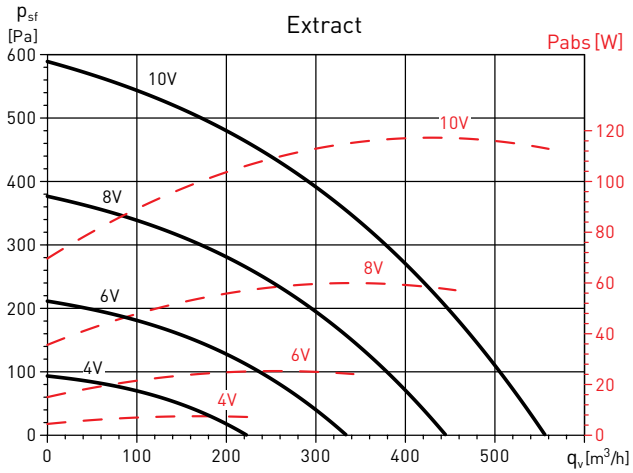
E*: Only in DC versions

PERFORMANCE CURVES

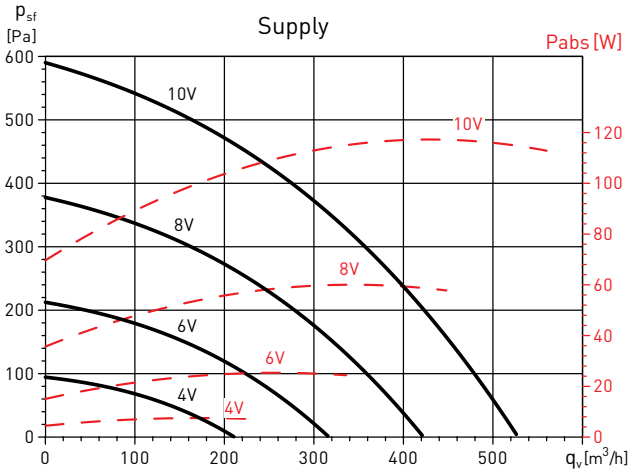
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

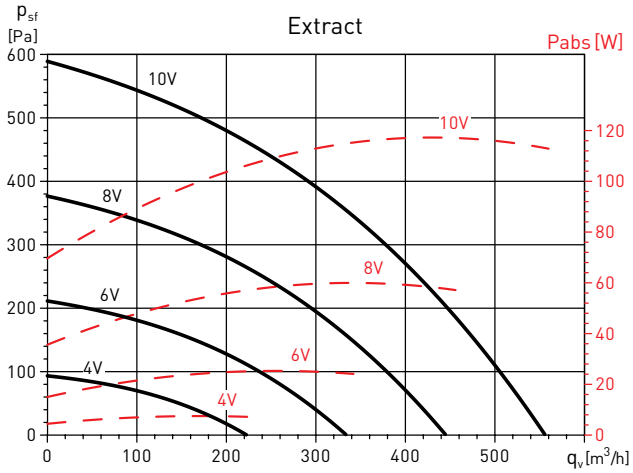
CADB-HE-D 04



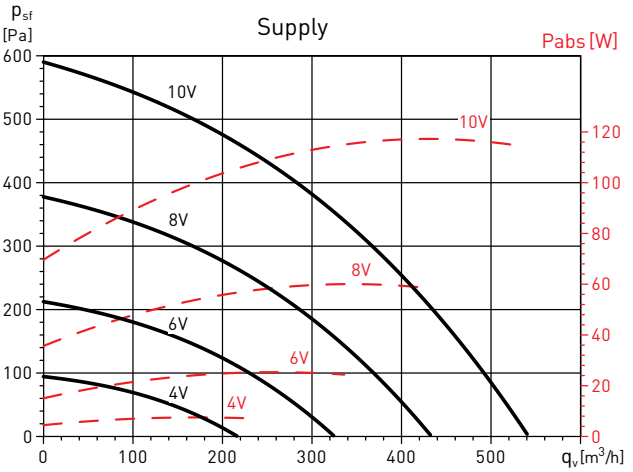


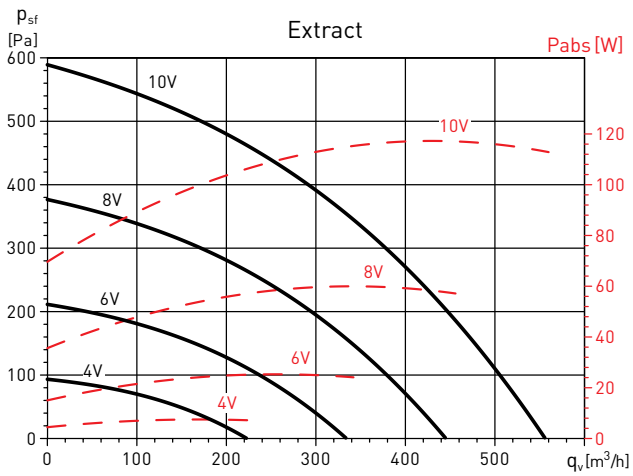
CADB-HE-DC 04





CADB-HE-DI 04

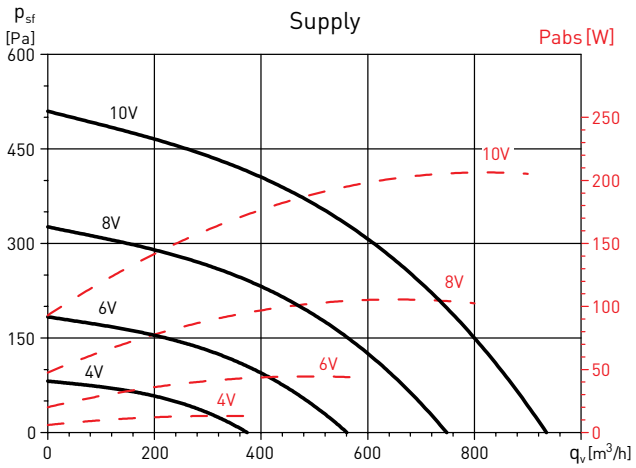


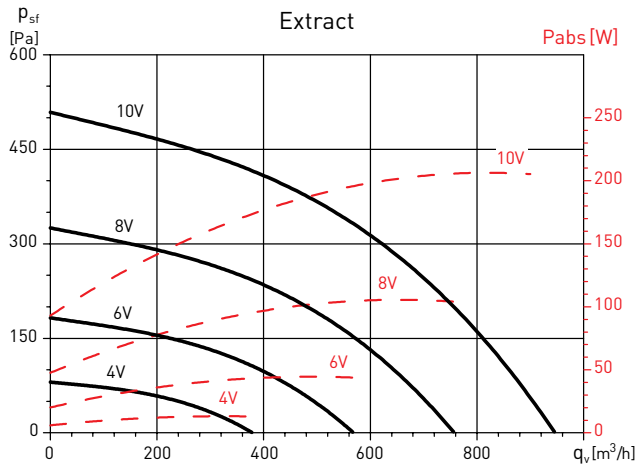


PERFORMANCE CURVES

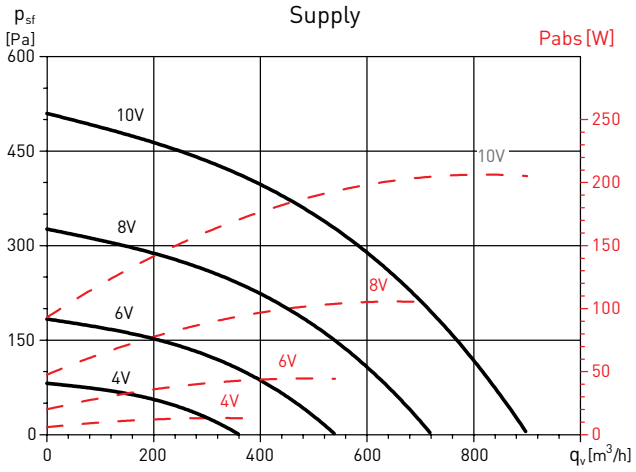
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

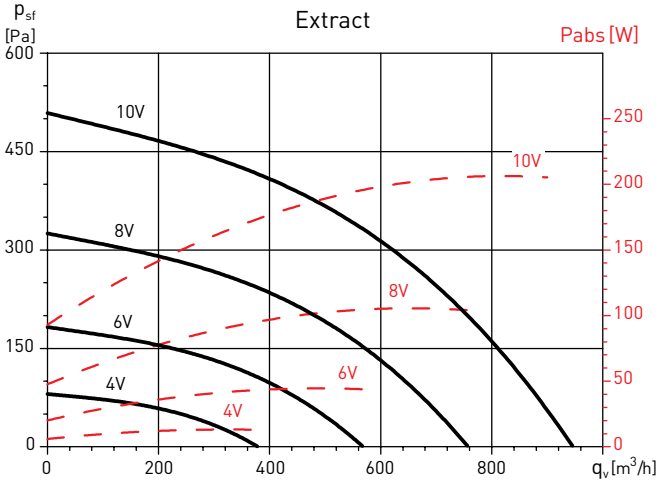
CADB-HE-D 08



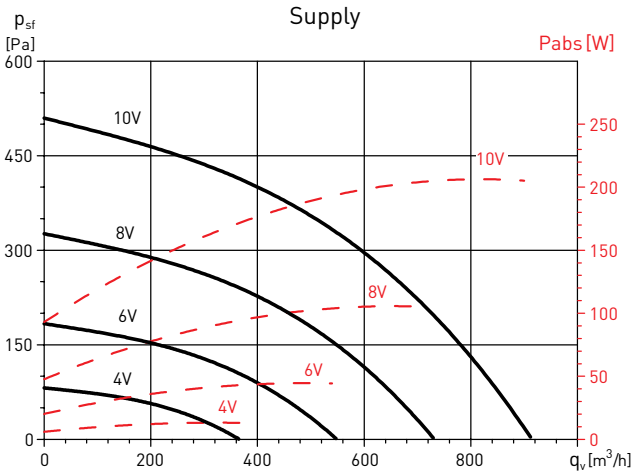


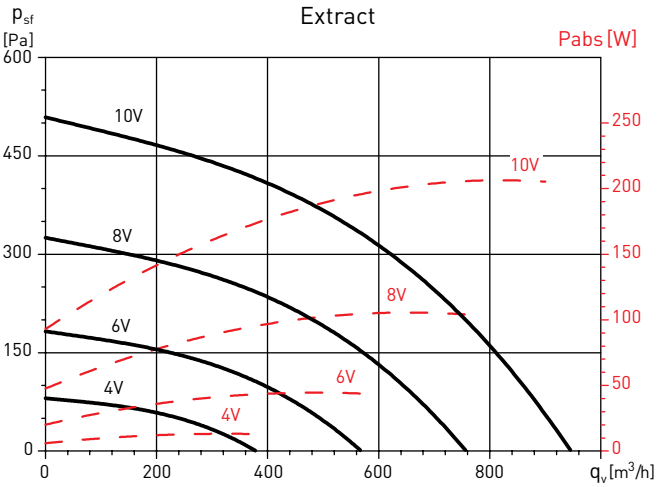
CADB-HE-DC 08





CADB-HE-DI 08

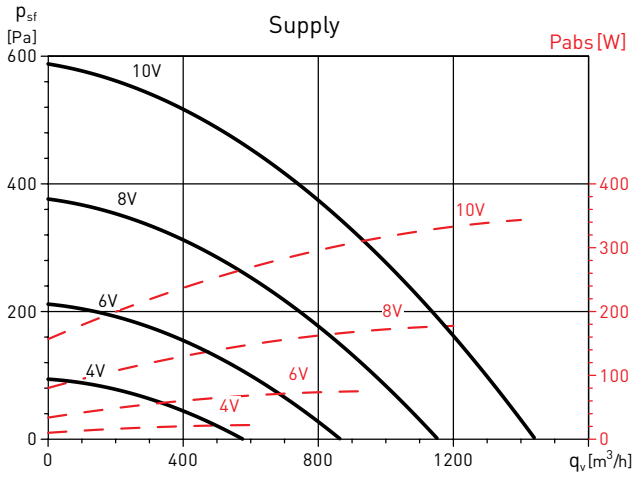


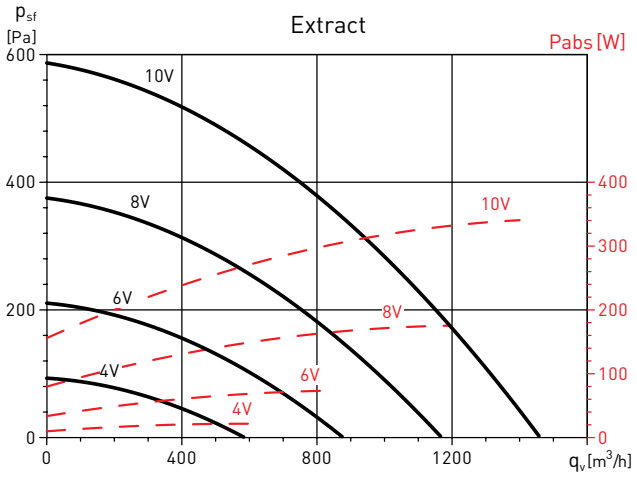


PERFORMANCE CURVES

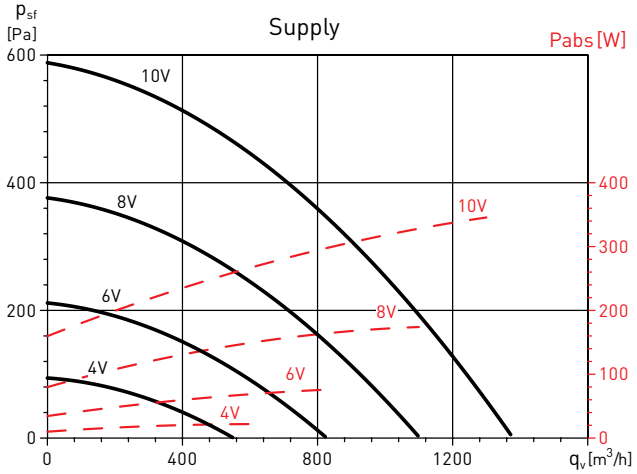
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

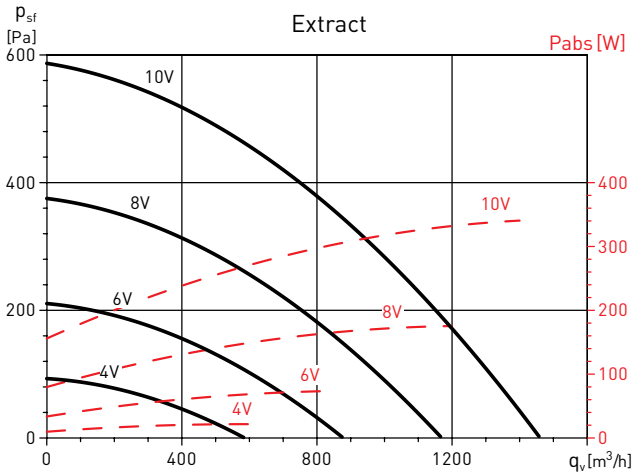
CADB-HE-D 12



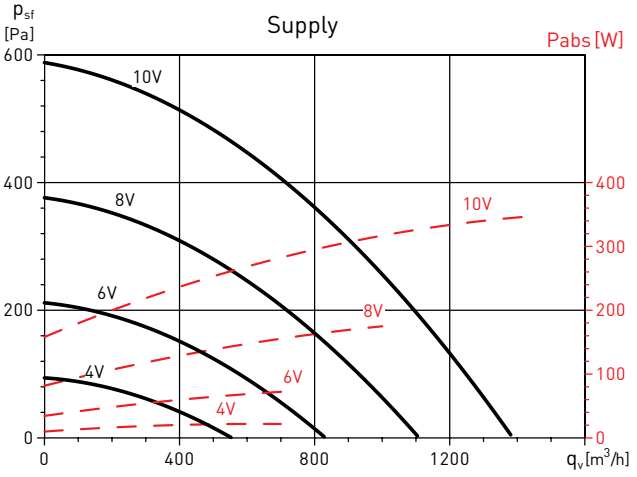


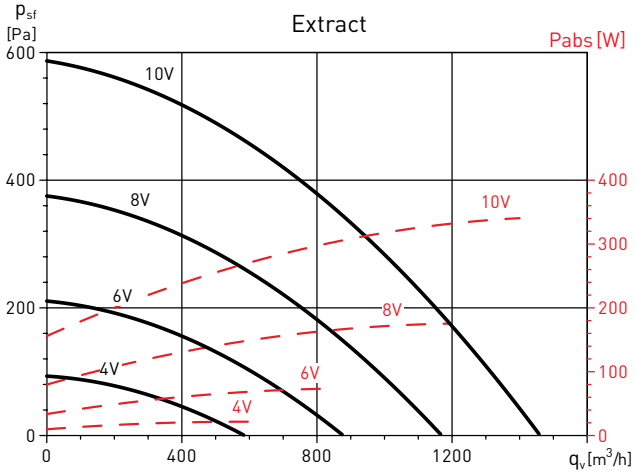
CADB-HE-DC 12





CADB-HE-DI 12

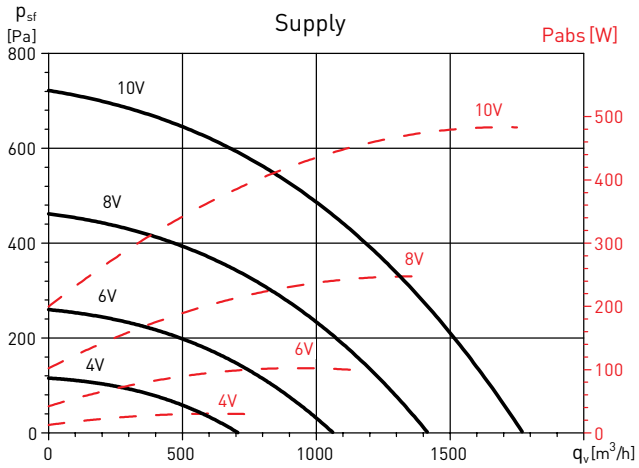


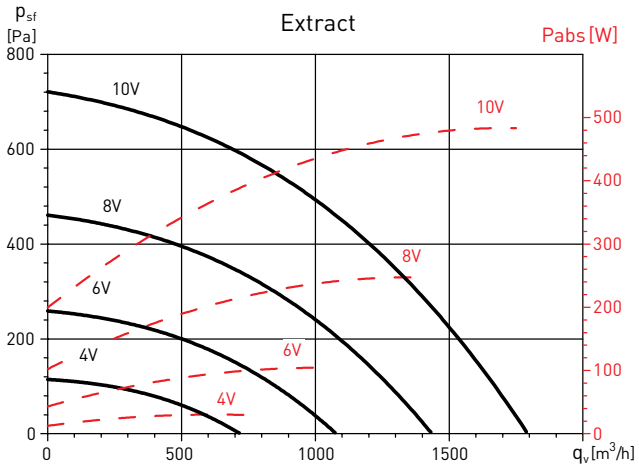


PERFORMANCE CURVES

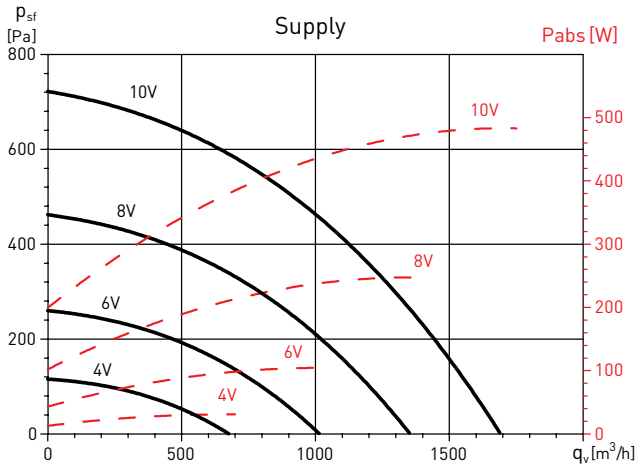
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

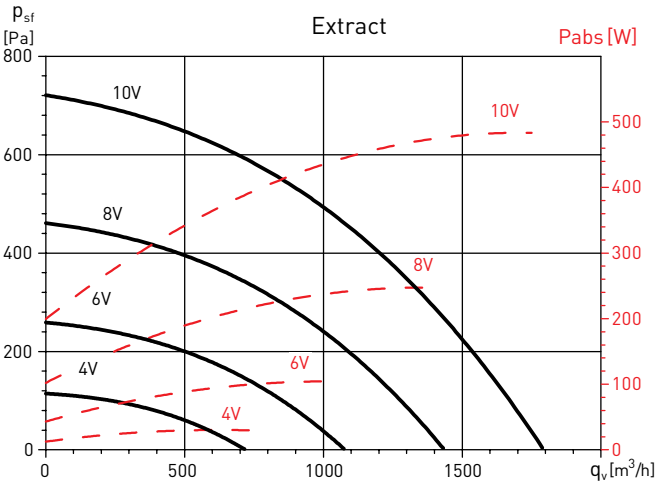
CADB-HE-D 16



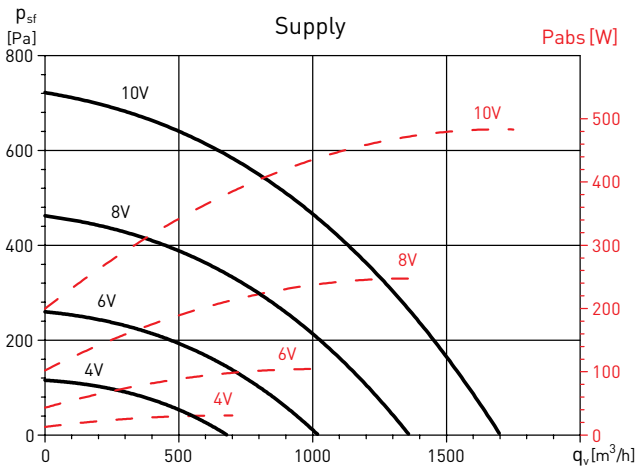


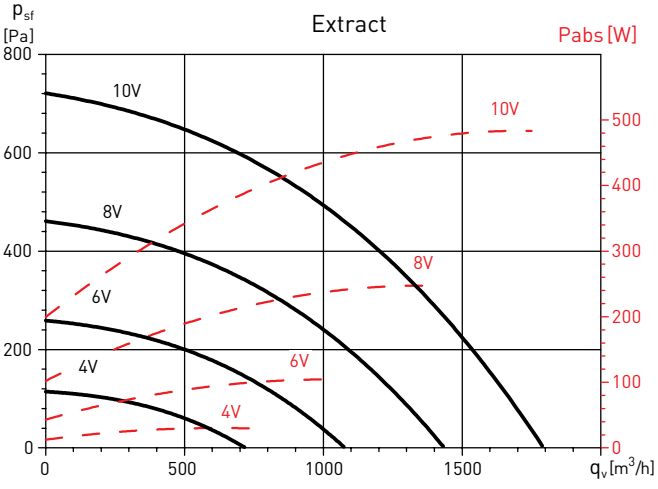
CADB-HE-DC 16





CADB-HE-DI 16

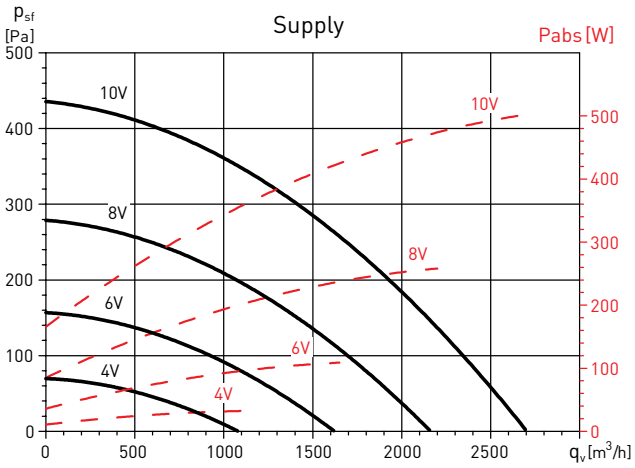


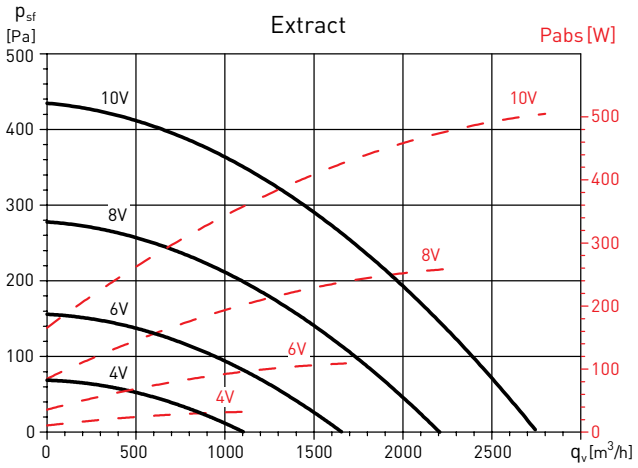


PERFORMANCE CURVES

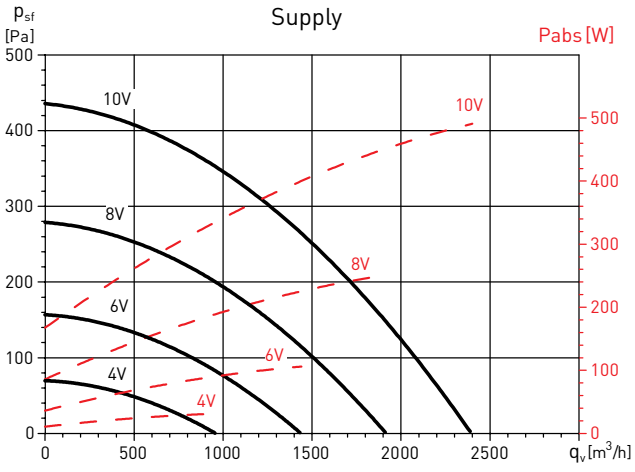
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

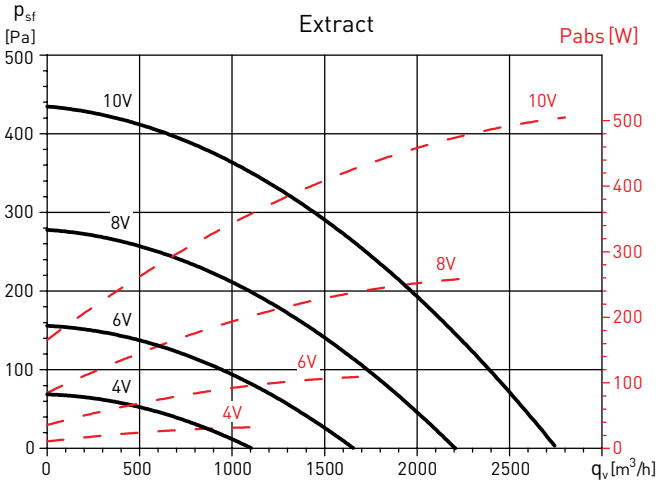
CADB-HE-D 21



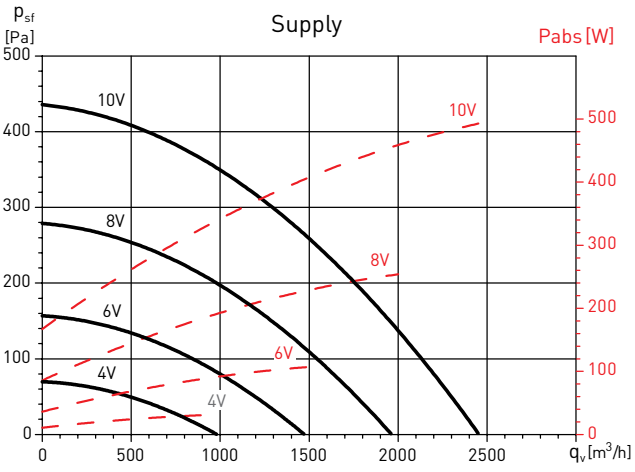


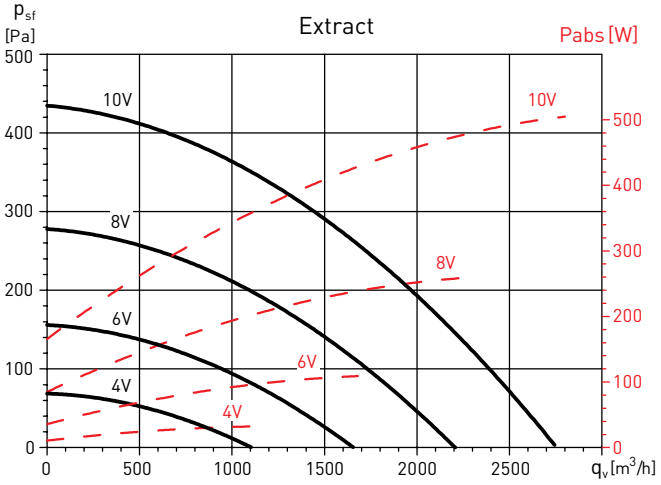
CADB-HE-DC 21





CADT-HE-DI 21

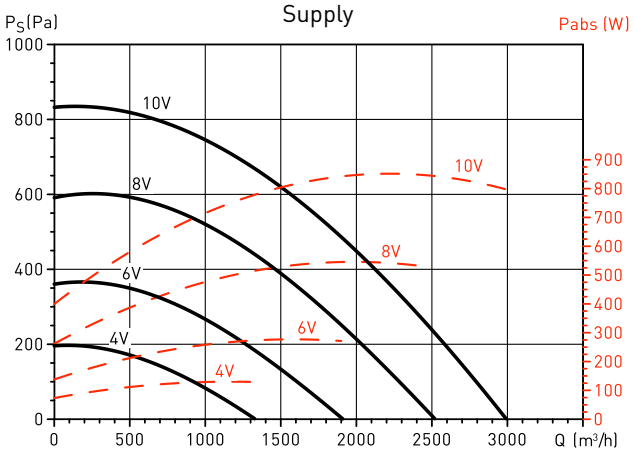


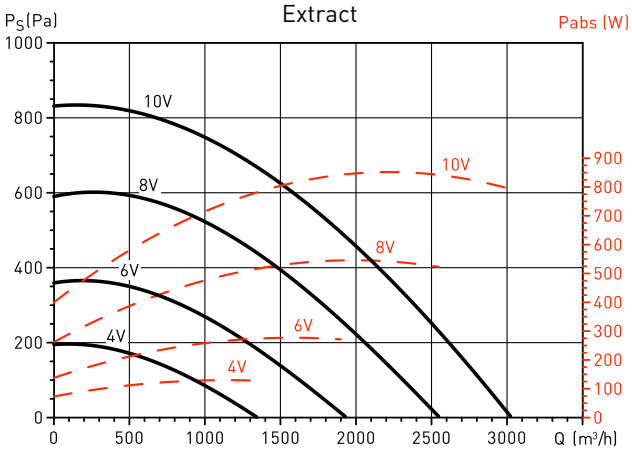


PERFORMANCE CURVES

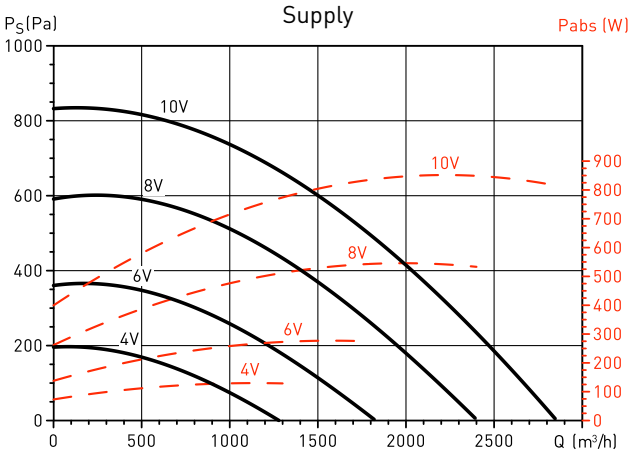
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

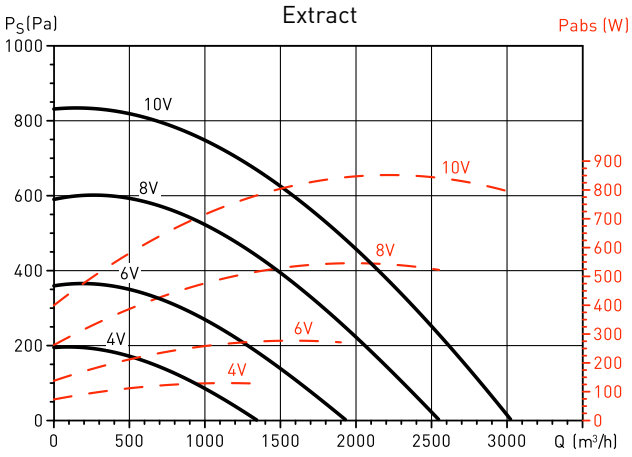
CADB-HE-D 27



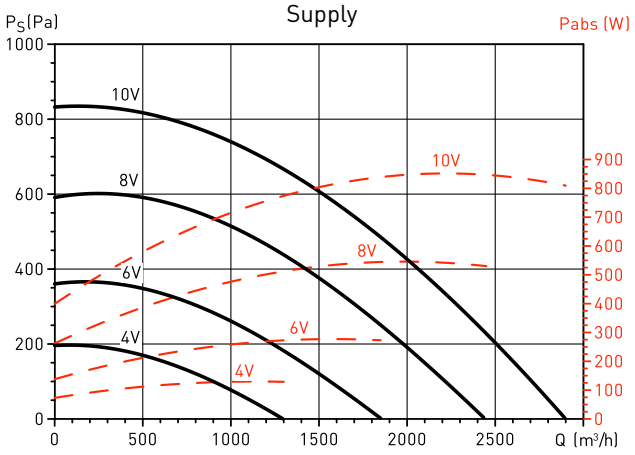


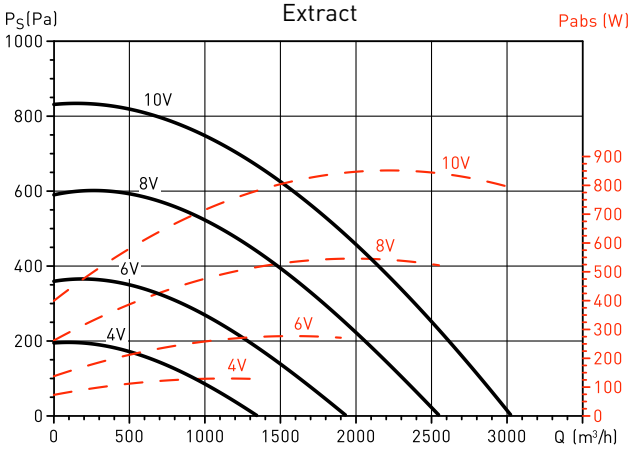
CADB-HE-DC 27





CADT-HE-DI 27

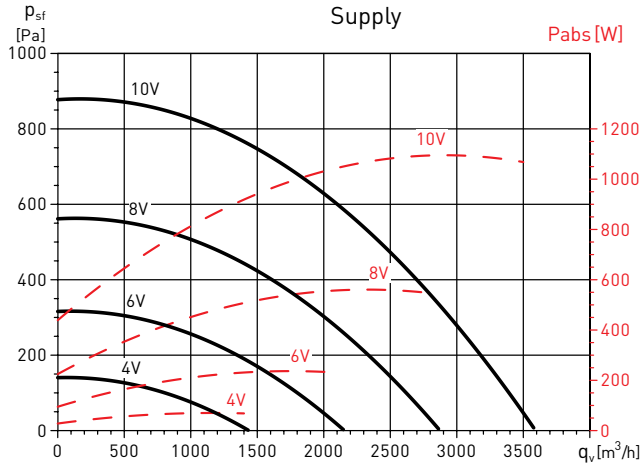


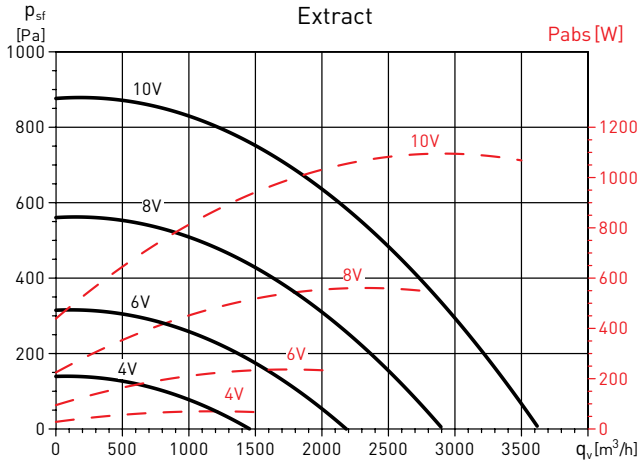


PERFORMANCE CURVES

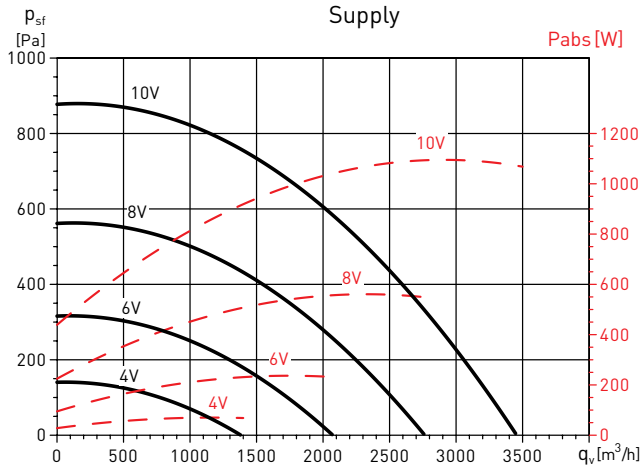
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

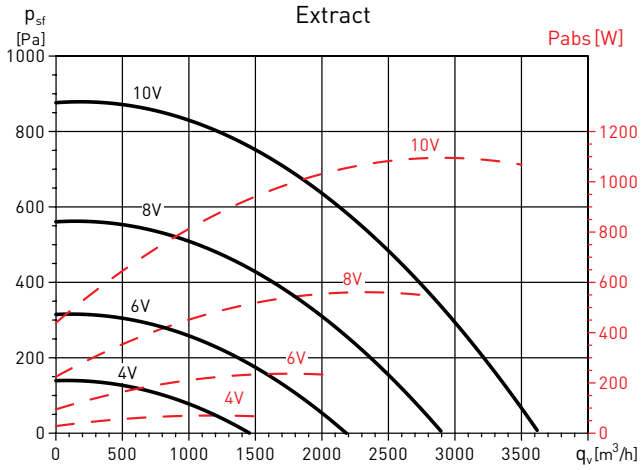
CADT-HE-D 33



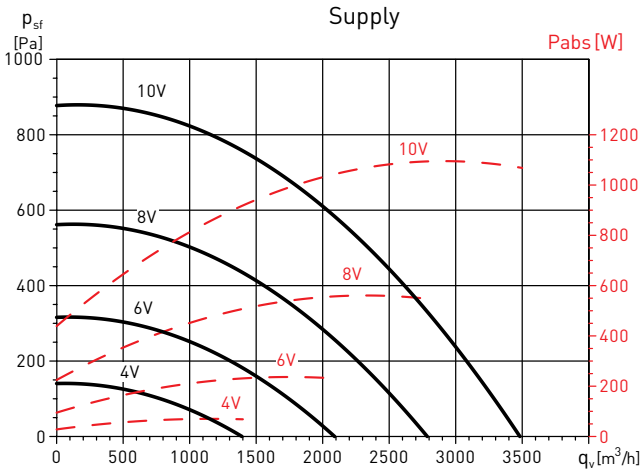


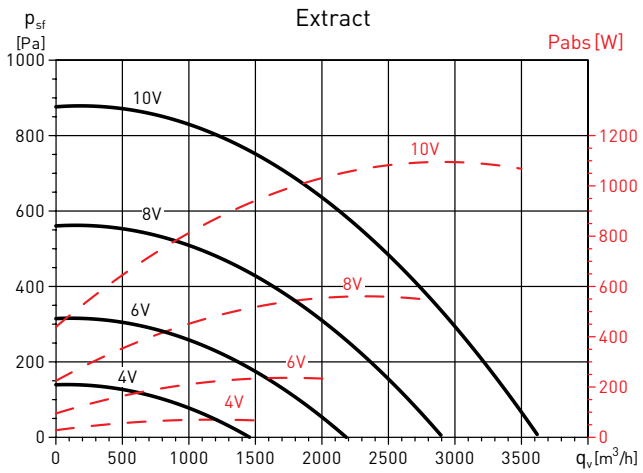
CADT-HE-DC 33





CADT-HE-DI 33

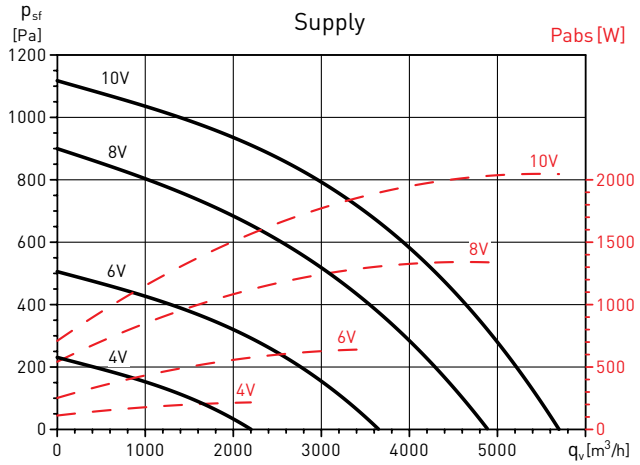


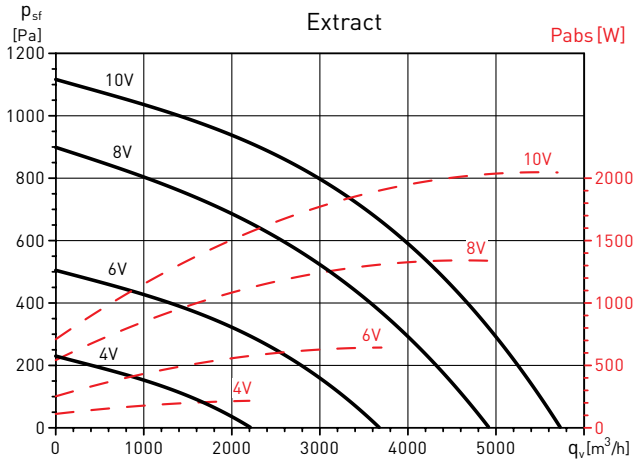


PERFORMANCE CURVES

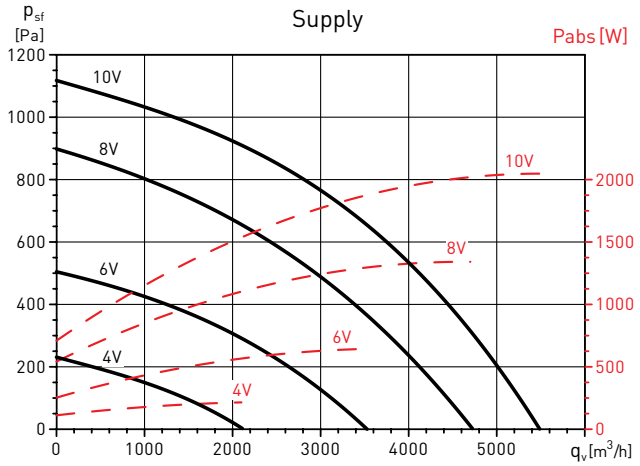
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

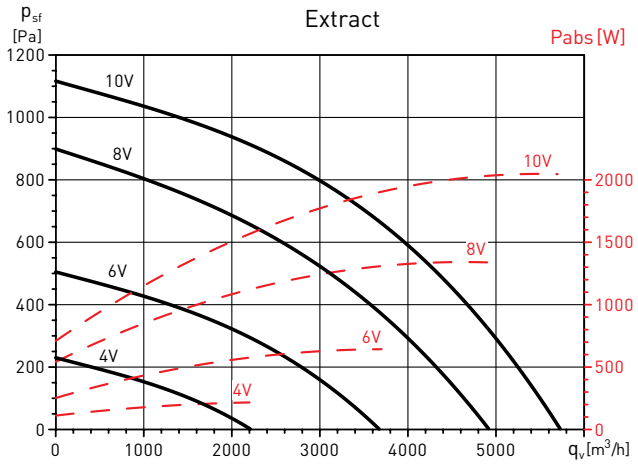
CADT-HE-D 45



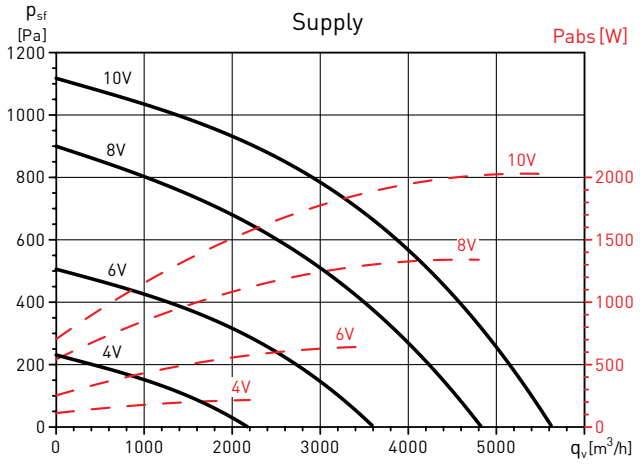


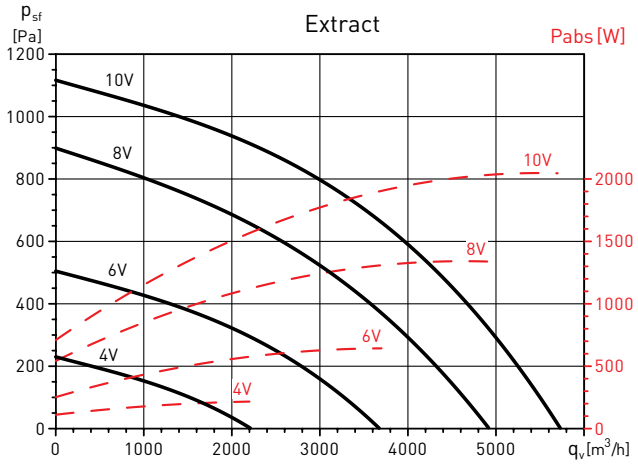
CADT-HE-DC 45





CADT-HE-DI 45

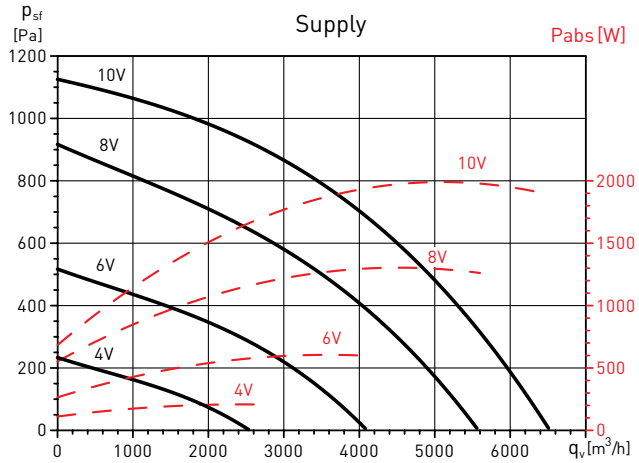


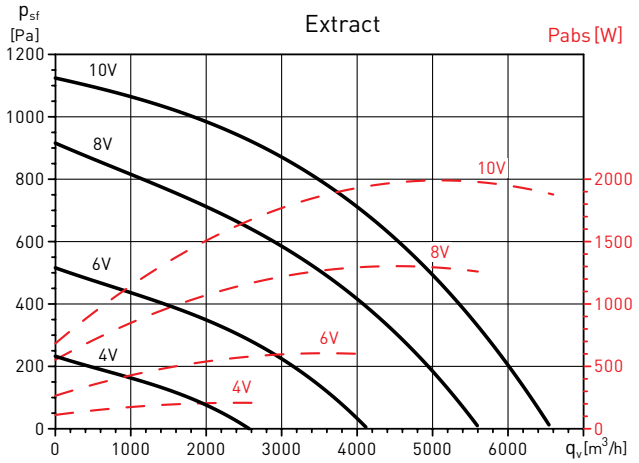


PERFORMANCE CURVES

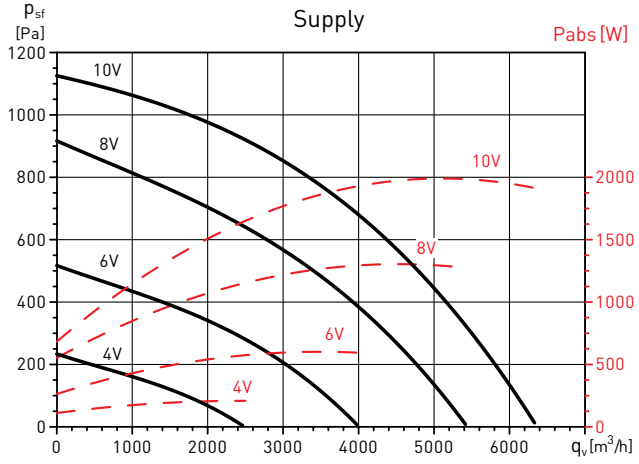
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

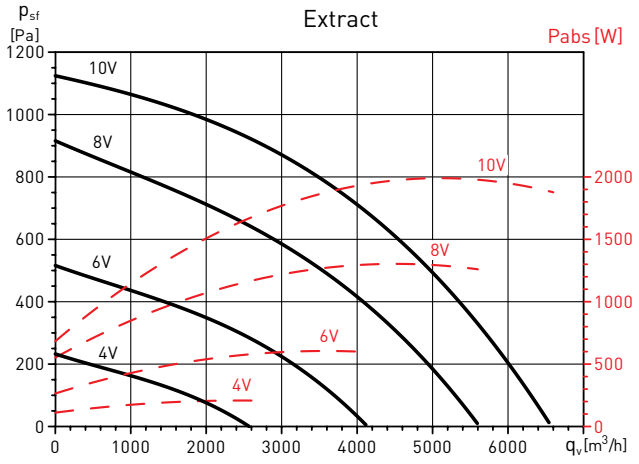
CADT-HE-D 60



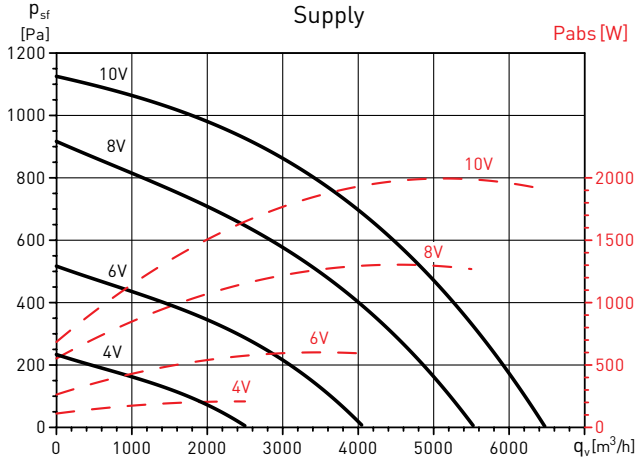


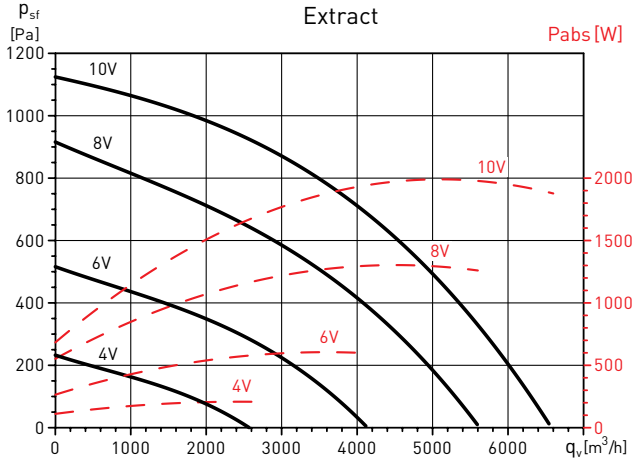
CADT-HE-DC 60





CADT-HE-DI 60



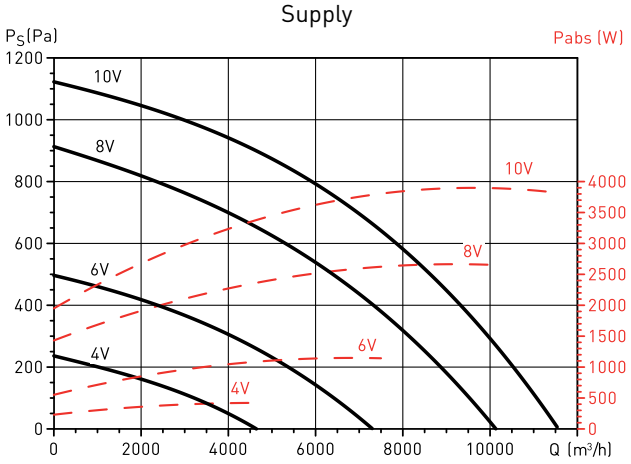


PERFORMANCE CURVES

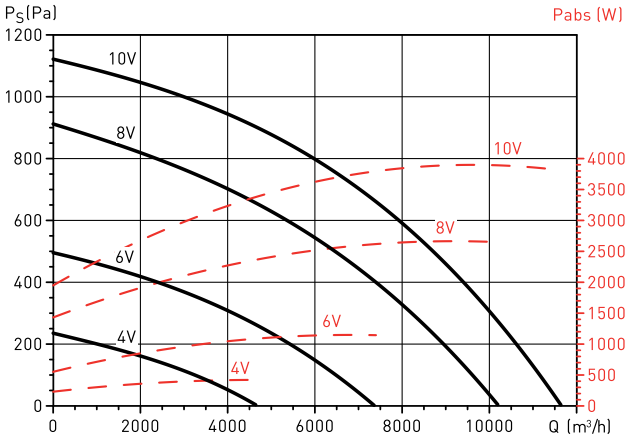
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

CADT-HE-D 100

Supply

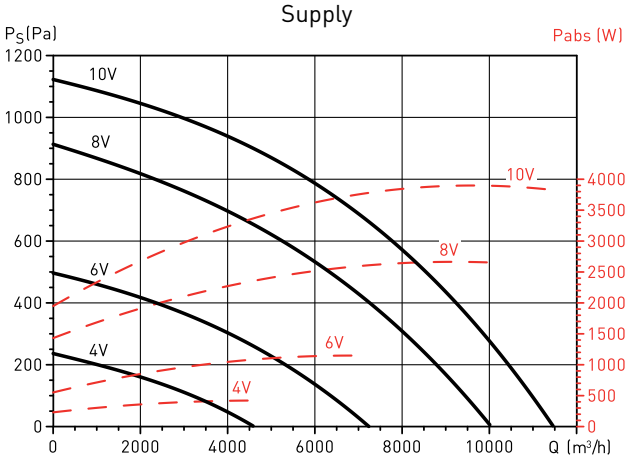


Extract

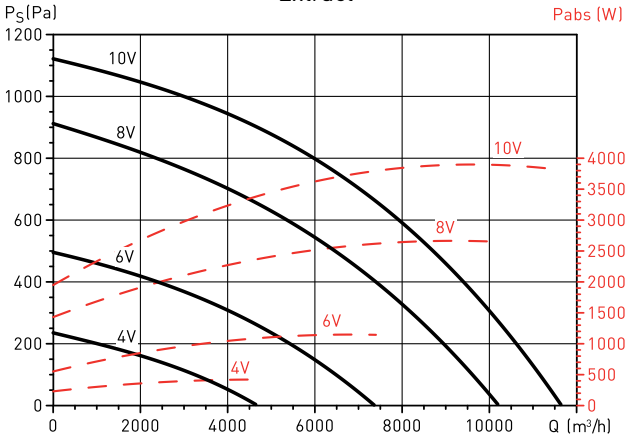


CADT-HE-DC 100

Supply

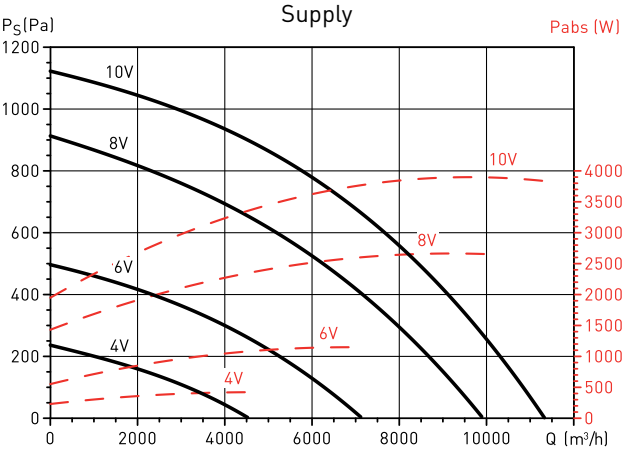


Extract

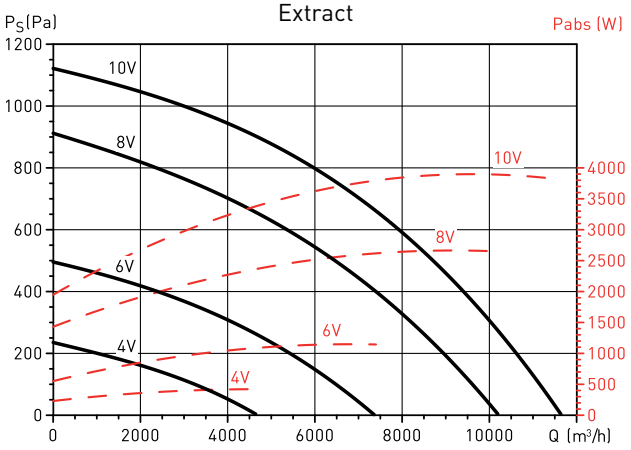


CADT-HE-DI 100

Supply



Extract



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-CA HE
IAQ modul wich result in a high efficiency in the elimination of VOC's and particles. Especially suitable for integration in ventilation installations of buildings with high environmental pollution.

Outdoor filter module

FBL-HE
Filter modules, supplied without filter, to mount filters AFR-HE

Cold water coil module

BA-AF HE
External cold water coil module, can also be used for hot water in 2 tube-systems.

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

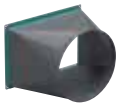
BA-DX HE
External module that includes a direct expansion coil for R-410A, this allows the integration of the unit in air conditioning systems of the main existing manufacfturers.

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

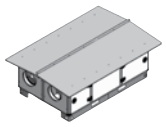
MOUNTING ACCESSORIES TABLE

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
CADT-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 450/45-60 G4	AFR-HE 450/45-60 M5	AFR-HE 450/45-60 F7	AFR-HE 450/45-60 F9
CADT-HE D/DI/DC 60	700x600	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	1100x650	AFR-HE-710/100 G4	AFR-HE-710/100 M5	AFR-HE-710/100 F7	AFR-HE-710/100 F9







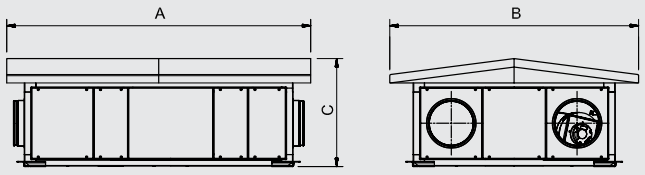
Heat recovery unit model	PRRE From rectangular to circular adapter	SIL Circular sound attenuators	ACOPEL F400 Circular flexible connector	APC - APR Inlet/outlet protection guards	TPP-HE Rain protection cowl model	
					Horizontal	Vertical
CADB-HE D/DI/DC 04	-	SIL-200	ACOPEL F400-200/160N	APC-200	TPP-HE-H-04	TPP-HE-V-04
CADB-HE D/DI/DC 08	-	SIL-250	ACOPEL F400-250/160N	APC-250	TPP-HE-H-08	TPP-HE-V-08
CADB-HE D/DI/DC 12	-	SIL-315	ACOPEL F400-315/160N	APC-315	TPP-HE-H-12	TPP-HE-V-12
CADB-HE D/DI/DC 16	-	SIL-315	ACOPEL F400-315/160N	APC-315	TPP-HE-H-16	TPP-HE-V-16
CADB/T-HE D/DI/DC 21	-	SIL-400	ACOPEL F400-400/160N	APC-400	TPP-HE-H-21-27-33	TPP-HE-V-21-27
CADB/T-HE D/DI/DC 27	-	SIL-400	ACOPEL F400-400/160N	APC-400	TPP-HE-H-21-27-33	TPP-HE-V-21-27
CADT-HE D/DI/DC 33	-	SIL-400	ACOPEL F400-400/160N	APC-400	TPP-HE-H-21-27-33	TPP-HE-V-33
CADT-HE D/DI/DC 45	PRRE 600x400/500	SIL-500*	ACOPEL F400-500/160N*	APR CADT-HE 45/60	TPP-HE-H-45	TPP-HE-V-45
CADT-HE D/DI/DC 60	PRRE 700x600/560	SIL-560*	ACOPEL F400-560/160N*	APR CADT-HE 45/60	TPP-HE-H-60	TPP-HE-V-60
CADT-HE D/DI/DC 100	PRRE 1100x650/710	SIL-710*	ACOPEL F400-710/180N	APR CADT-HE 100	–	TPP-HE-V-100

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

MOUNTING ACCESSORIES

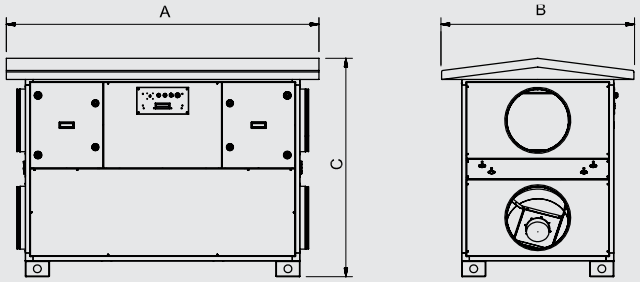
TPP-HE

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



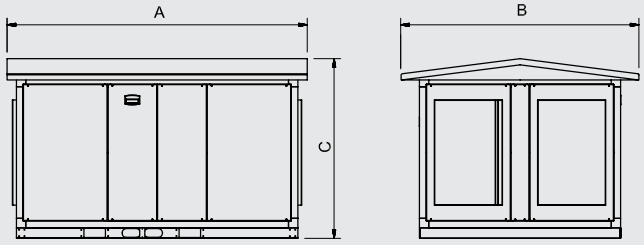
Model	A	B	C
04	1717	1123	514
08	1947	1273	577
12	1896	1413	589
16	2146	1603	631
21	2496	2003	766
27	2496	2003	766
33	2496	2003	866

CADB/T-HE 04 to 33 LH/RH



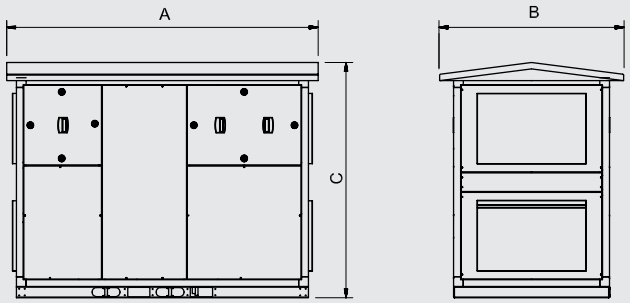
Model	A	B	C
04	1322	903	1039
08	1478	973	1145
12	1522	1133	1160
16	1672	1133	1210
21	1947	1333	1427
27	1947	1333	1427
33	1947	1533	1445

CADB/T-HE 04 to 33 LV/RV



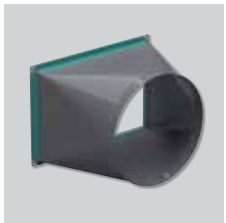
Model	A	B	C
45	2296	1863	1404
60	2446	1913	1788

CADT-HE 45 and 60 LH/RH

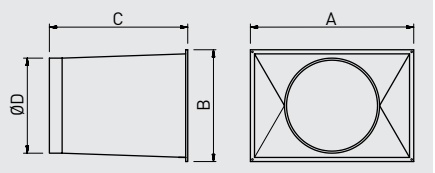


Model	A	B	C
45	2296	1483	1750
60	2446	1863	1834
100	2446	2413	1883

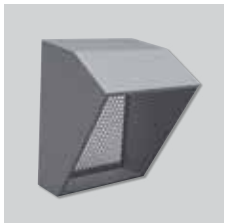
CADT-HE 45 and 60 LV/RV



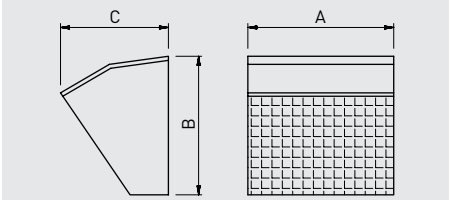
PRRE
From rectangular to circular adapter
Appropiate to apply circular accessories to inlet and outlet for the models CADT-HE 45 and 60.



Model	A	B	C	ØD
PRRE 600x400/500	666	466	460	500
PRRE 700x600/560	766	566	460	560



APR
Rectangular protective peaks
Specific accessory for models CADT-HE 45 and 60.



Model	A	B	C
APR CADT-HE 45/60	620	799	556
APR CADT-HE 100	1176	710	552

ELECTRICAL ACCESSORIES TABLE

Control elements needed to regulate the fan-speed (for -D, -DC, -DI versions)

Heat recovery unit model	Accessories for VAV via CO2		Accessories for COP		Accessories for CAV
	Inverter	Probe	Inverter	Probe	Electronic speed control
CADB-HE D/DI/DC 04	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADB-HE D/DI/DC 08	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADB-HE D/DI/DC 12	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADB-HE D/DI/DC 16	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADB/T-HE D/DI/DC 21	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADB/T-HE D/DI/DC 27	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADT-HE D/DI/DC 33***	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADT-HE D/DI/DC 45***	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADT-HE D/DI/DC 60***	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**
CADT-HE-D/DI/DC 100	CONTROL AERO-REG	AIRSENS CO2 / SC02-AD 0-10V / SC02-G 0-10/V	CONTROL AERO-REG**	TDP-D*	REB-ECOWATT**

* To independently control the workpoint of each circuit, the supply and extract fans should be controlled via inverter and pressure probe. In case of frequency converters, these could have half the power than the ones shown in the table.

** To independently control the workpoint of each circuit, the supply and extract fans should be controlled via corresponding electronic regulator.

***In models with three-phase motor, it will be necessary to add two auxiliary contactors (not supplied by S&P) that allow the cutting of the motors power supply.

Specific control elements for DC versions

Model	Accessories for battery control		
	Valve	Thermostat	Inverter 230V/24V
CADB-HE-DC 04	3WV DN 15 KVS1 PROP 24V	WCT	TRAFO 15-D
CADB-HE-DC 08	3WV DN 15 KVS1,6 PROP 24V	WCT	TRAFO 15-D
CADB-HE-DC 12	3WV DN 15 KVS2,5 PROP 24V	WCT	TRAFO 15-D
CADB-HE-DC 16	3WV DN 15 KVS2,5 PROP 24V	WCT	TRAFO 15-D
CADB-HE-DC 21	3WV DN 20 KVS4 PROP 24V	WCT	TRAFO 15-D
CADB-HE-DC 27	3WV DN20 KVS4 PROP 24V	WCT	TRAFO 15-D
CADT-HE-DC 33	3WV DN 25 KVS6,3 PROP 24V	WCT	TRAFO 15-D
CADT-HE-DC 45	3WV DN 25 KVS6,3 PROP 24V	WCT	TRAFO 15-D
CADT-HE-DC 60	3WV DN 25 KVS10 PROP 24V	WCT	TRAFO 15-D
CADT-HE-DC 100	3WV DN32 KVS16 PROP 24V	WCT	TRAFO 15-D

Specific control elements for DI versions

Model	Supply power	Power (kW)	Stages	Current (A)	Inverter	Temperature probe		External potentiometer	Pressure switch	Timer
						Inline	Ambient			
CADB-HE-DI 04	Mono 230V	1	2	4,5	Pulser M	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADB-HE-DI 08	Mono 230V	2	2	9,1	Pulser M	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADB-HE-DI 12	Mono 230V	3	2	11,4	Pulser M	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADB-HE-DI 16	Mono 230V	3,5	2	15,9	Pulser M	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADT-HE-DI 21	Tri 400V	6	2	9,1	TTC-25	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADT-HE-DI 27	Tri 400V	6	2	9,1	TTC-25	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADT-HE-DI 33	Tri 400V	7,5	2	11,5	TTC-25	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADT-HE-DI 45	Tri 400V	9	2	13,7	TTC-25	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADT-HE-DI 60	Tri 400V	12	2	18,2	TTC-25	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1
CADT-HE-DI 100	Tri 400V	24	2	36,4	TTC-40F	TG-K330	TG-R530	TBI-30	DPS 2.30	MCR-1

ELECTRIC ACCESSORIES FOR CADB/T-HE ECOWATT SERIES

Control VAV and COP don't include By-pass control

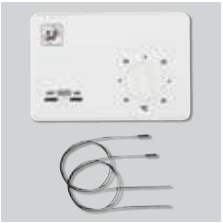
CONTROL AERO-REG
Specific accessory to control the heat recovery units without additional incorporated heater equipped with (models CADB/T-HE 04 to 60).
Not suitable for controlling the heat recovery units with built-in electric heater or heat recovery units with built-in hot water coil. Supplied as an accessory (wiring and installation not included).

Functions:
- On-Off
- Regulation manual / automatic fan speed.
- Detection of fouling of filters (it is necessary to install two switches DPS 2.30, not included with the supply of control).
- Detection of damage to the fans (it is necessary to install two switches DPS 2.30, not included with the supply of control).
- ModBus communication

Operation:
- Manual potentiometer: fan speed manual control using the potentiometer located at the top.
- Proportional with entry analog. Fan speed control using an external probe CO_2 (accessory) humidity and temperature (0-10V / 4-20mA).
- Proportional Integral PI: pressure control or constant airflow through a differential pressure transmitter TDP-D (accessory).

Model	Supply	Current (A)	Motors output voltage	IP Protection	Ambient temperature	Dimensions LxWxH (mm)
CONTROL AERO-REG	230 VAC	11	0-10VDC / 110-230VAC	IP55	-10ºC a +50ºC	175x250x120

Independent



FC-REG
Comparative thermostat that allows the management of the by-pass of a heat recovery unit in free-cooling mode.
(Applicable to the CADB/T-N range without integrated control and equipped with by-pass.)
It allows opening/closing of the bypass valve of the heat recovery unit on the basis of the temperatures measured by the indoor and outdoors temperature probes.
Limitation of the minimum inlet air temperature adjustable to 8ºC or 12ºC.
Outlet via potential free-contact.
It includes two temperature probes, each one with a cable of 4m length.

Model	Supply		IP Protection	Power (VA)	Current (A)	Setpoint range (ºC)	Maximum ambient temperature (ºC)	Dimensions LxWxH (mm)
	Frequency (Hz)	Voltage (V)						
FC-REG	50	220-240	IP20	6	2	15-30	50	110x74x26

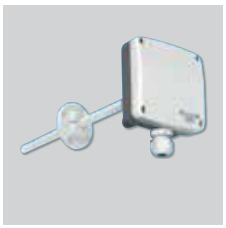
ELECTRIC ACCESSORIES FOR CADB/T- HE SERIES

AIRSENS CO2
Intelligent IAQ device available in three different versions: CO2 or VOC or RH.
Specially designed to create DCV systems directly linked with AC or ECOWATT fans depending on relay or analog controlled output selected.

Main features:
- 4 working modes:
  - Relay output and Modbus (reading)
  - 0-10V output and Modbus (reading)
  - 2-10V output and Modbus (reading)
  - Full Modbus control
- Adjustable set point
- IAQ level indicator (3-LED light diffuser).
- Adjustable 3-LED light diffuser intensity.

Model	Electrical Supply	Power (W)	Relay	Analog output	Lecture range	IP Protection	Dimensions LxWxH (mm)
AIRSENS-CO2	100-240 VAC 50/60Hz	0,7W	3A 250 VAC	0-10 V 2-10 V	450-2000 ppm	IP30	122x23x89

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-D
Pressure sensor.
Enables you to control the pressure in the fan inlet.

REB-ECOWATT
Speed controller for fans fitted with EC motor.

WCT
Thermostat to control the thermal power of hot water coils included in CADB-HE heat recovery units.
It allows to mantain constant supply air temperature. Compatible with proportional actuators (0-10V). It includes temperature probe to install in the duct (4 m. length). It can work in heat or chilling mode, in combination with external.

	Voltage (V)	Frequency (Hz)	IP Protection	IP Probe Power	Power (VA)	Output signal	Setpoint range (ºC)	Maximum ambient temperature (ºC)	Dimensions LxWxH (mm)
WCT	24	50	IP-20	IP-68	6	0-10VDC	15-30	50	110x74x26

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.