

UTEK[®]



DUO DP



DUO DP



- ◆ Heat recovery ventilator configurable on site with cross-flow aluminium heat exchanger
- ◆ Suitable solution for ventilation of commercial buildings
- ◆ Double skin steel panels, thickness 25mm
- ◆ Centrifugal fans direct driven motors
- ◆ Versions available:
 - with water or electric post-heating integrable into the unit:
 - Without regulation or
 - Plug-n-play versions with electrical panel pre-wired and microprocessor control mounted on board.
 - Optional microprocessor controllers:
 - EVO PH
 - EVO D PH (with Modbus communication protocol)

DESCRIPTION

- ◆ Extruded aluminium profile structure with rounded corners
- ◆ double skin steel panels, plasticized white, sandwiched on injected polyurethane foam insulation, thickness 25mm
- ◆ side/beneath access for inspection and maintenance
- ◆ pressure sockets to measure the filters loss of pressure
- ◆ condensation drainage system

VENTILATORS

- ◆ 3 or 4 speed direct driven AC blowers 230V-1-50Hz (up to size 4)
- ◆ 1 speed direct driven AC blowers 400V-3-50Hz (for size 5 and 6)

HEAT EXCHANGER

- ◆ High efficiency cross-flow aluminium heat exchanger, removable from beneath (for horizontal configuration) or from the side (for vertical configuration)

FILTERS

- ◆ G4 for exhaust air
- ◆ F7 low pressure loss for fresh air

RANGE

- ◆ Nr. 6 models from 400 m³/h up to 5.600 m³/h
- ◆ high values of pressure available to the ducting

CONFIGURATIONS AVAILABLE

- ◆ Horizontal with or without motorized by-pass
- ◆ vertical with or without motorized by-pass

ACCESSORIES AVAILABLE ON REQUEST (see the Accessories booklet)

- ◆ **Speed control (only for coupling to the unit without regulation):**
 - CV4 4 speed switch commutator for 230V-1-50Hz motors
 - CV3 3 speed switch commutator for 230V-1-50Hz motors
 - RVT6A and RVT 9A speed regulator for 400V-3-50Hz motors
- ◆ **Accessories of deicing or post-heating for duct mounting:**
 - RCFE-SCT electric heater with electronic regulation
 - RCF-SCTTC electric heater with thermostatic regulation
 - BA-AC post-heating hot water coil 80°/70°C
 - BA-AT post-heating temperature water coil 45°/35°C
- ◆ **Accessories of cooling for duct mounting:**
 - BA-AF cooling water coil with insulated plenum - *Contact the technical office*
- ◆ **Optional sensors:**
 - EE80 CO₂ sensor
 - QPA 2002 CO₂/VOC air quality sensor
 - EE16 Humidity sensor
- ◆ **Accessories for air filtration:**
 - F9 optional filter low pressure loss
- ◆ **Protective accessories:**
 - SKMF-R weather protection cowl
 - T weather protective roof
- ◆ **Cleaning and sanitation:**
 - AIRCO-GEL
 - AIRCO-SPRAY
 - AIRCO CLEAN

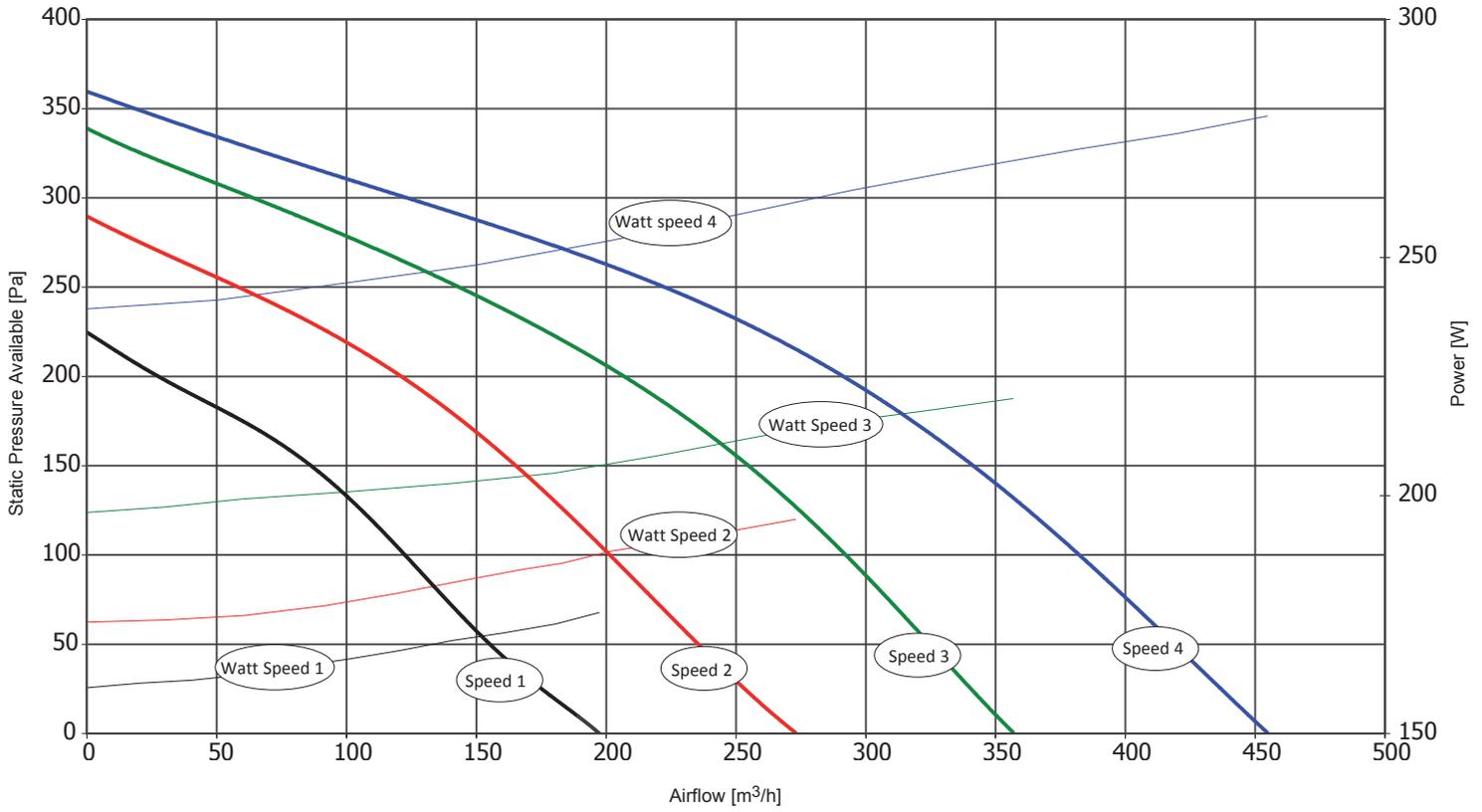
PRICE LIST

See the Price list booklet

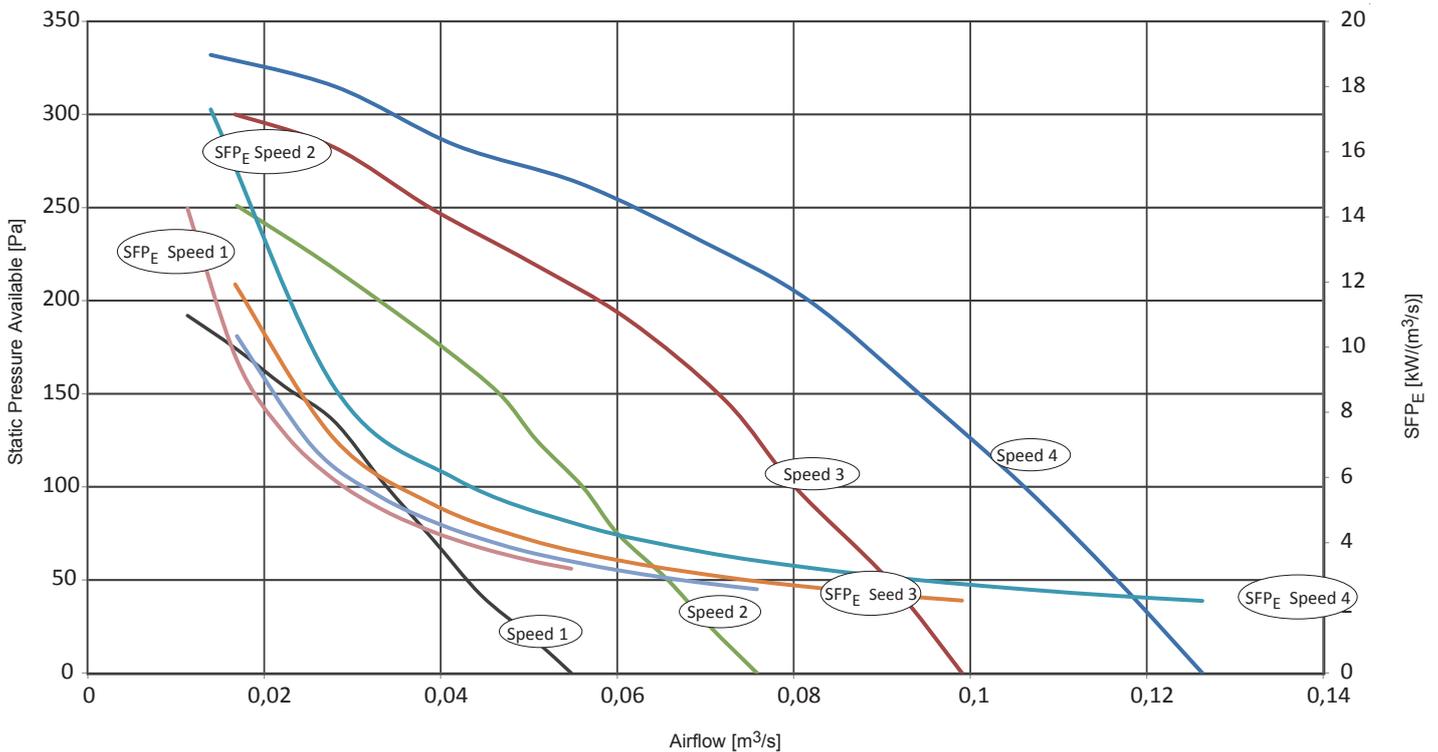


PERFORMANCES

DUO 1 DP | 4 speed



The unit must be ducted properly: UTEK authorizes the use only according to its performance diagram shown into this catalogue.
 The claimed performances are guaranteed only by UTEK original filter low pressure loss.

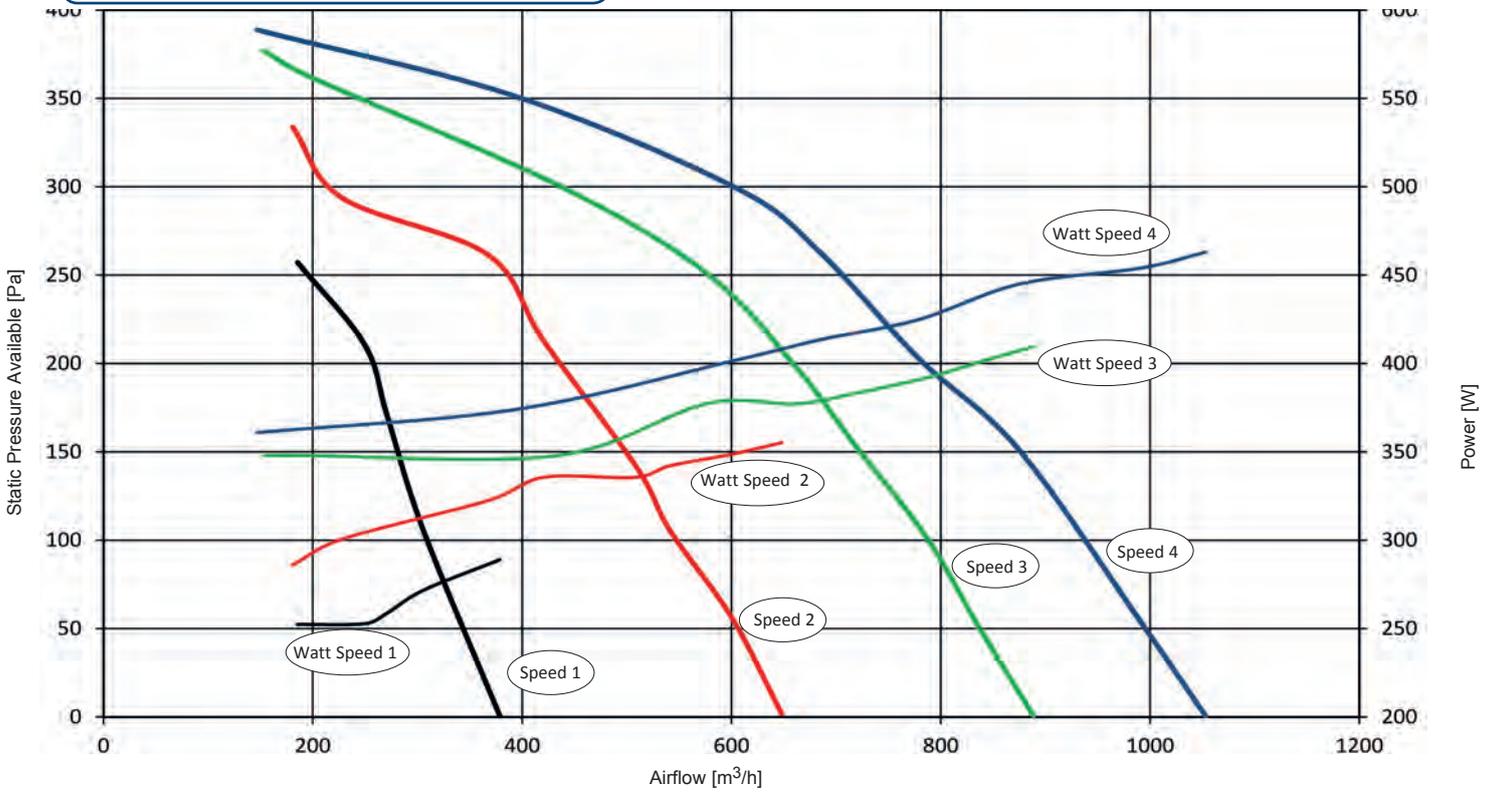


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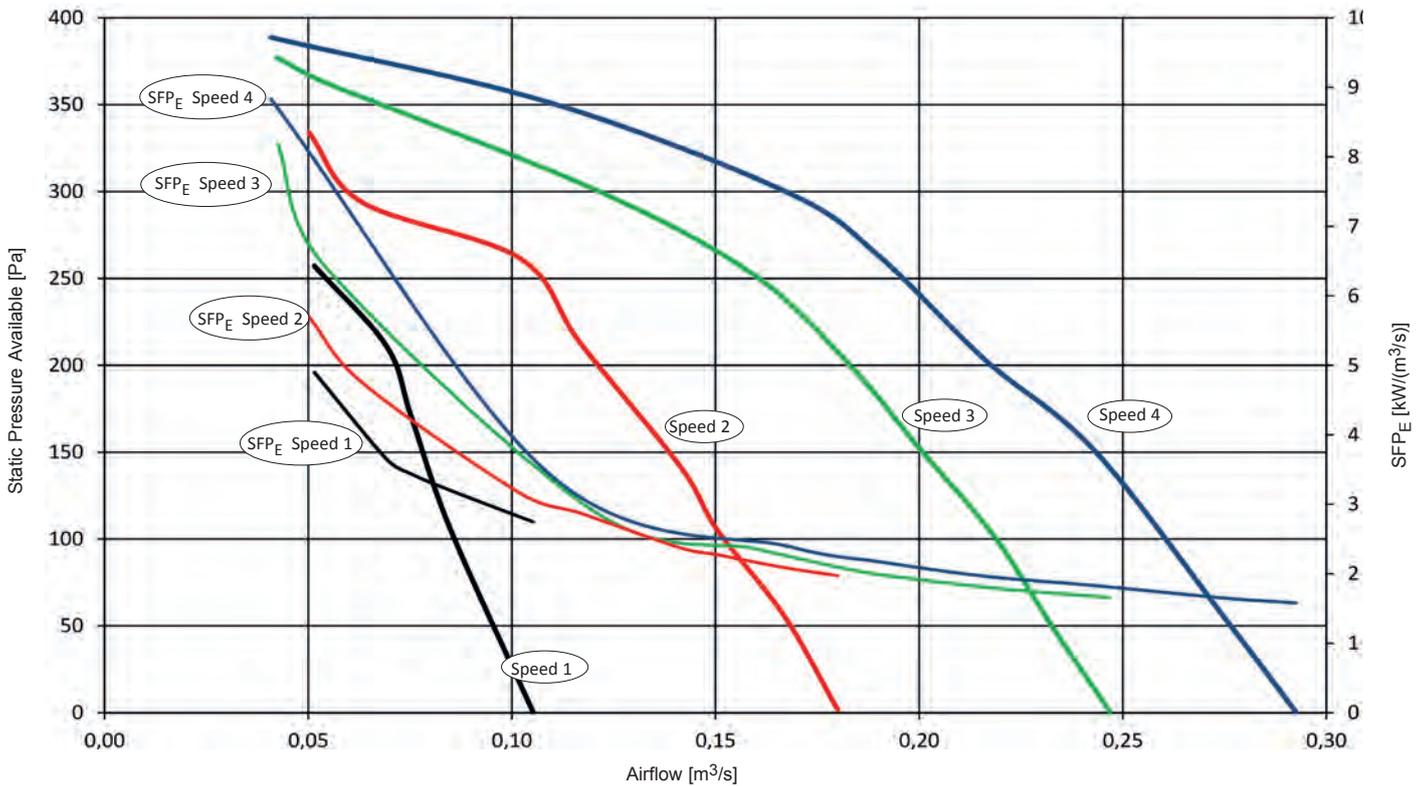


PERFORMANCES

DUO 2 DP | 4 speed



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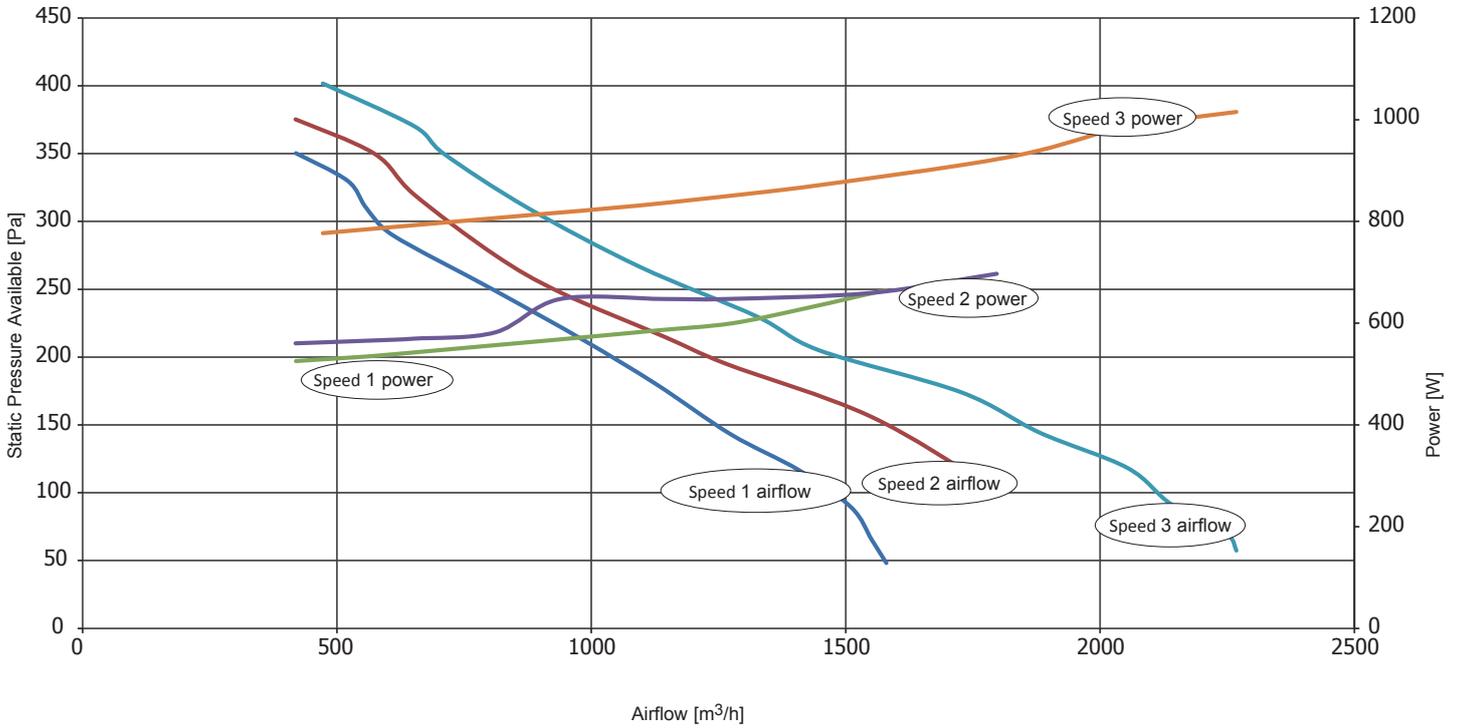


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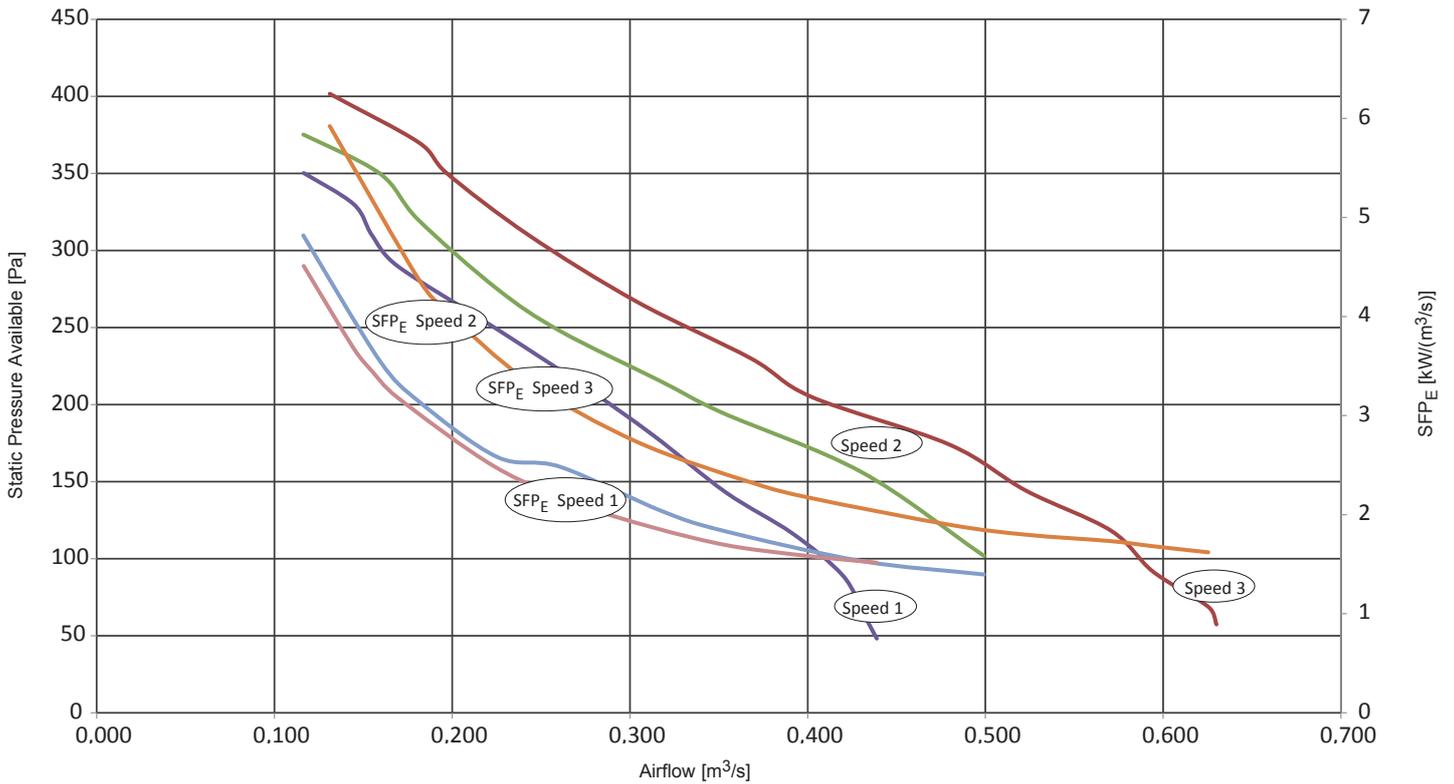


PERFORMANCES

DUO 3 DP | 3 speed



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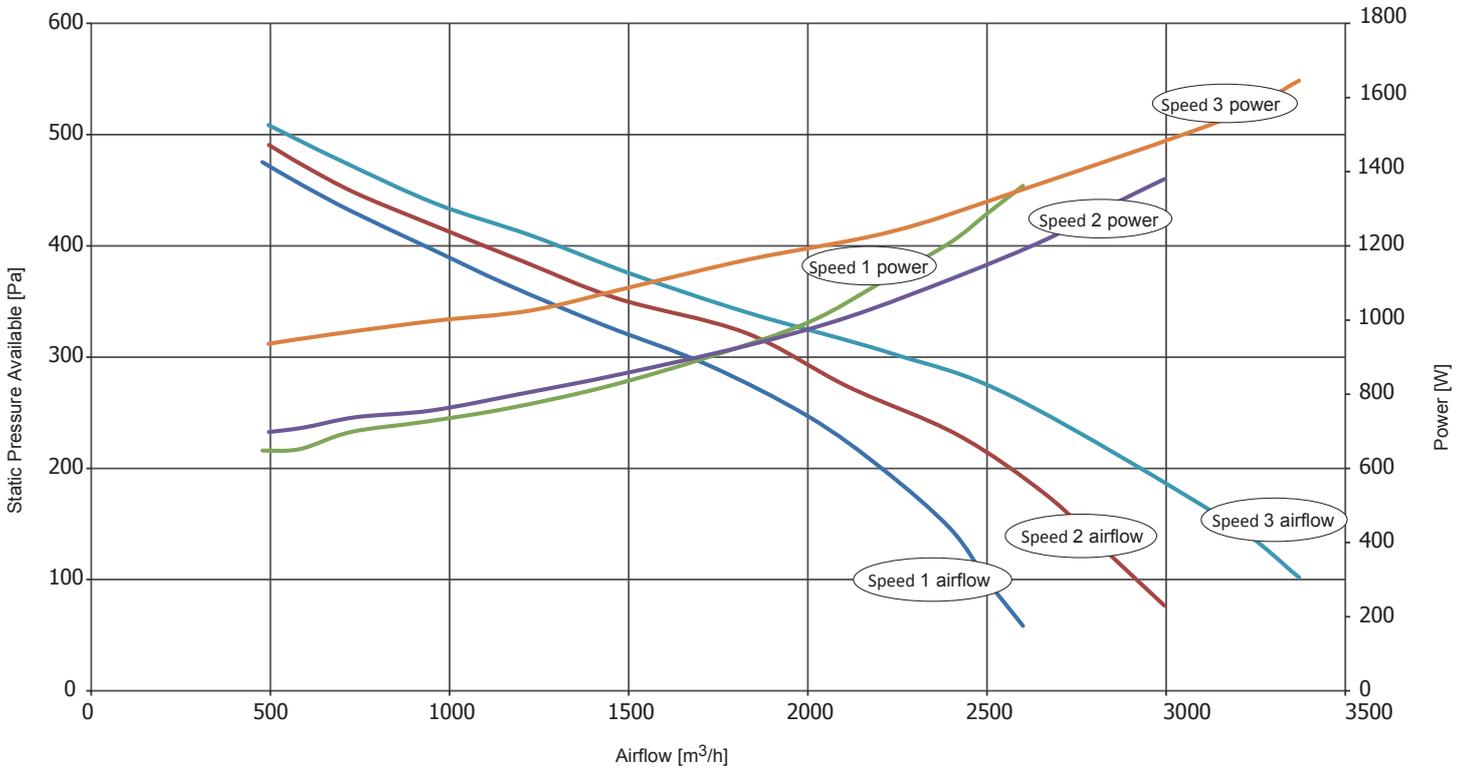


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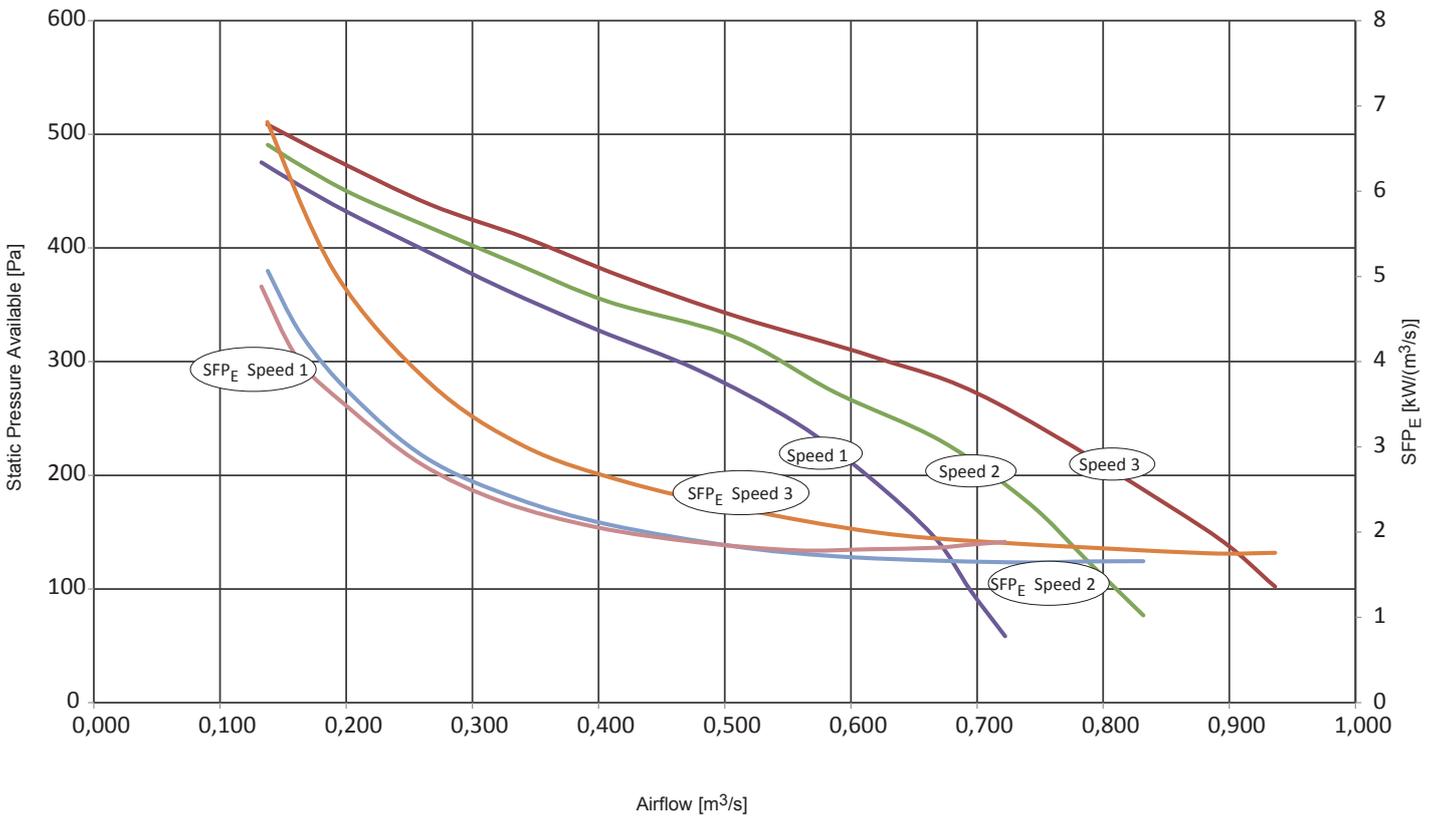


PERFORMANCES

DUO 4 DP | 3 speed



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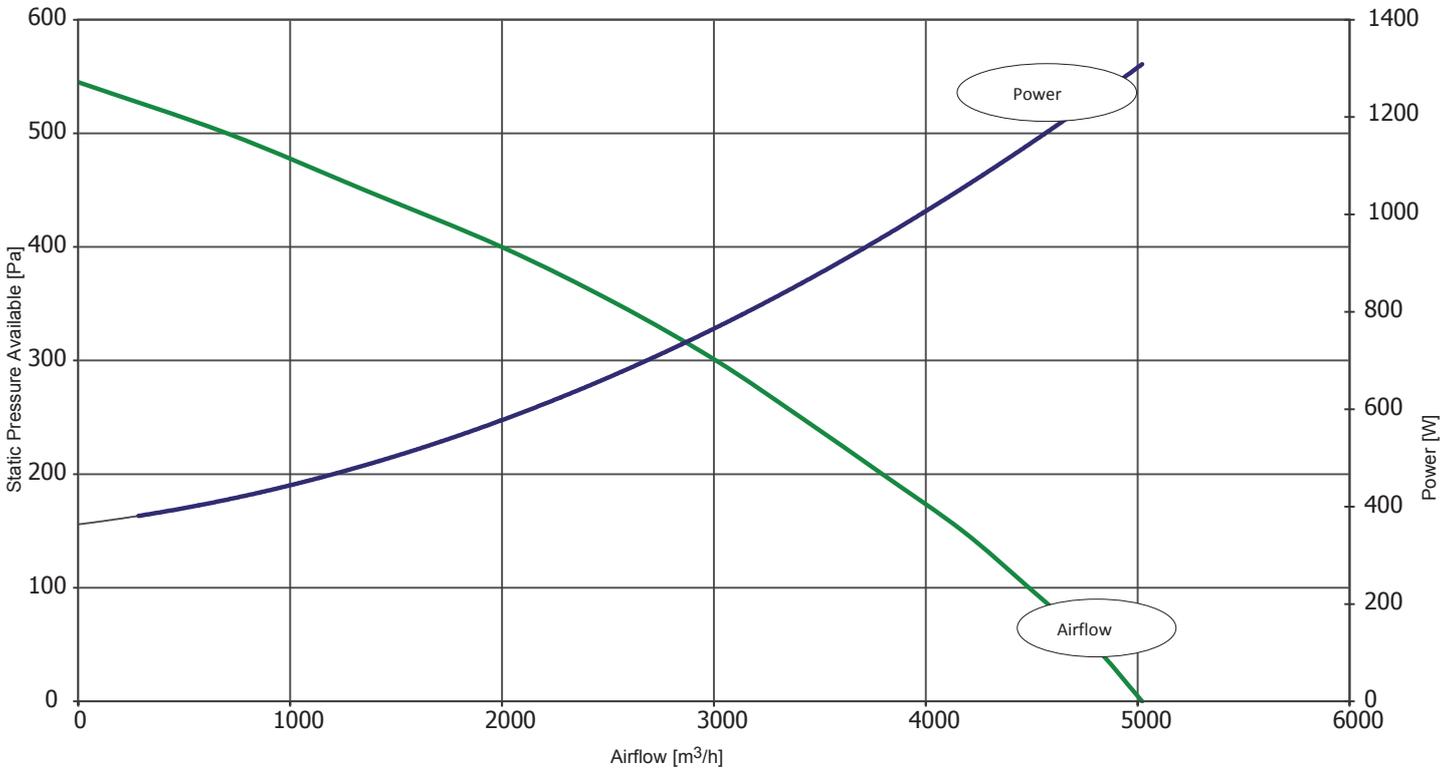


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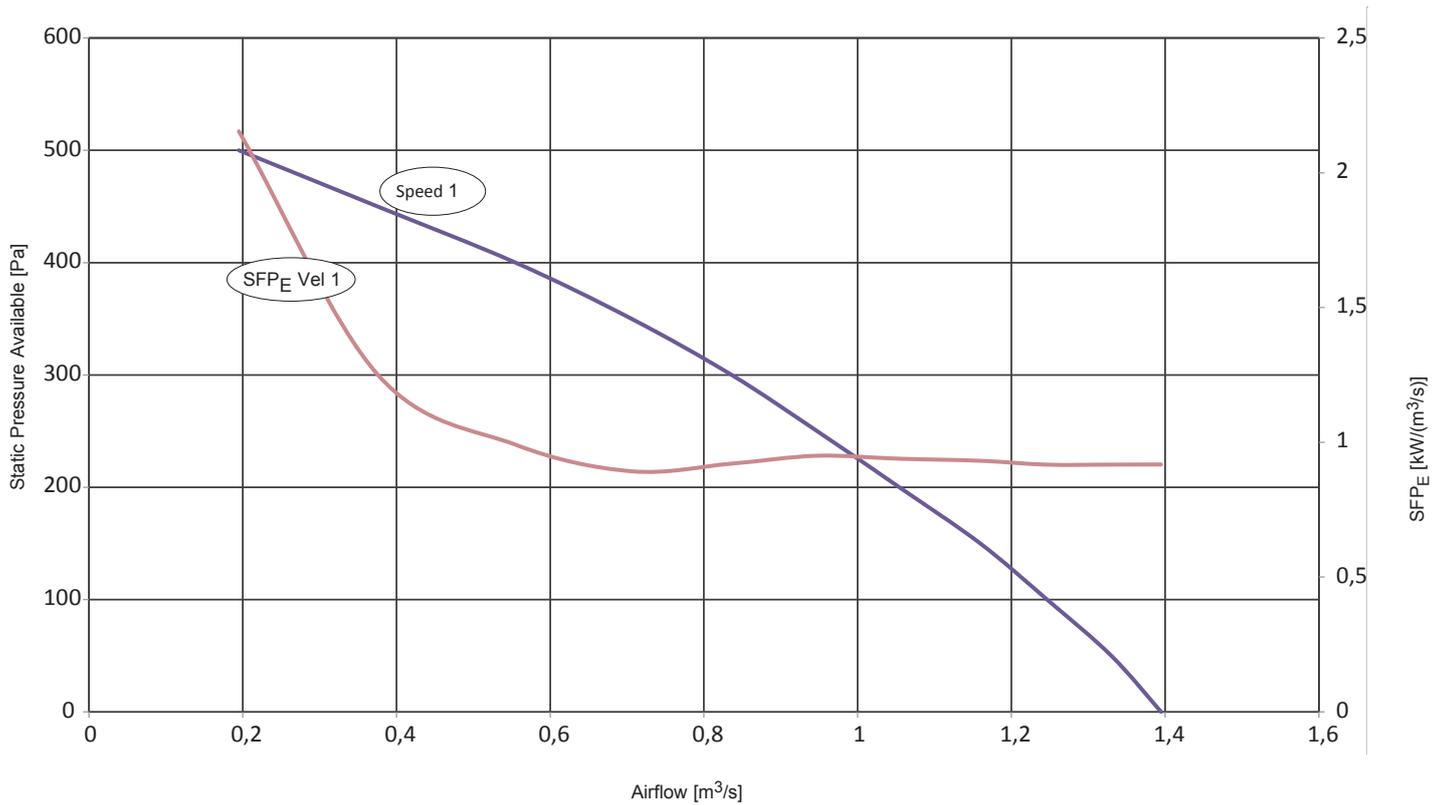


PERFORMANCES

DUO 5 DP | 1 speed



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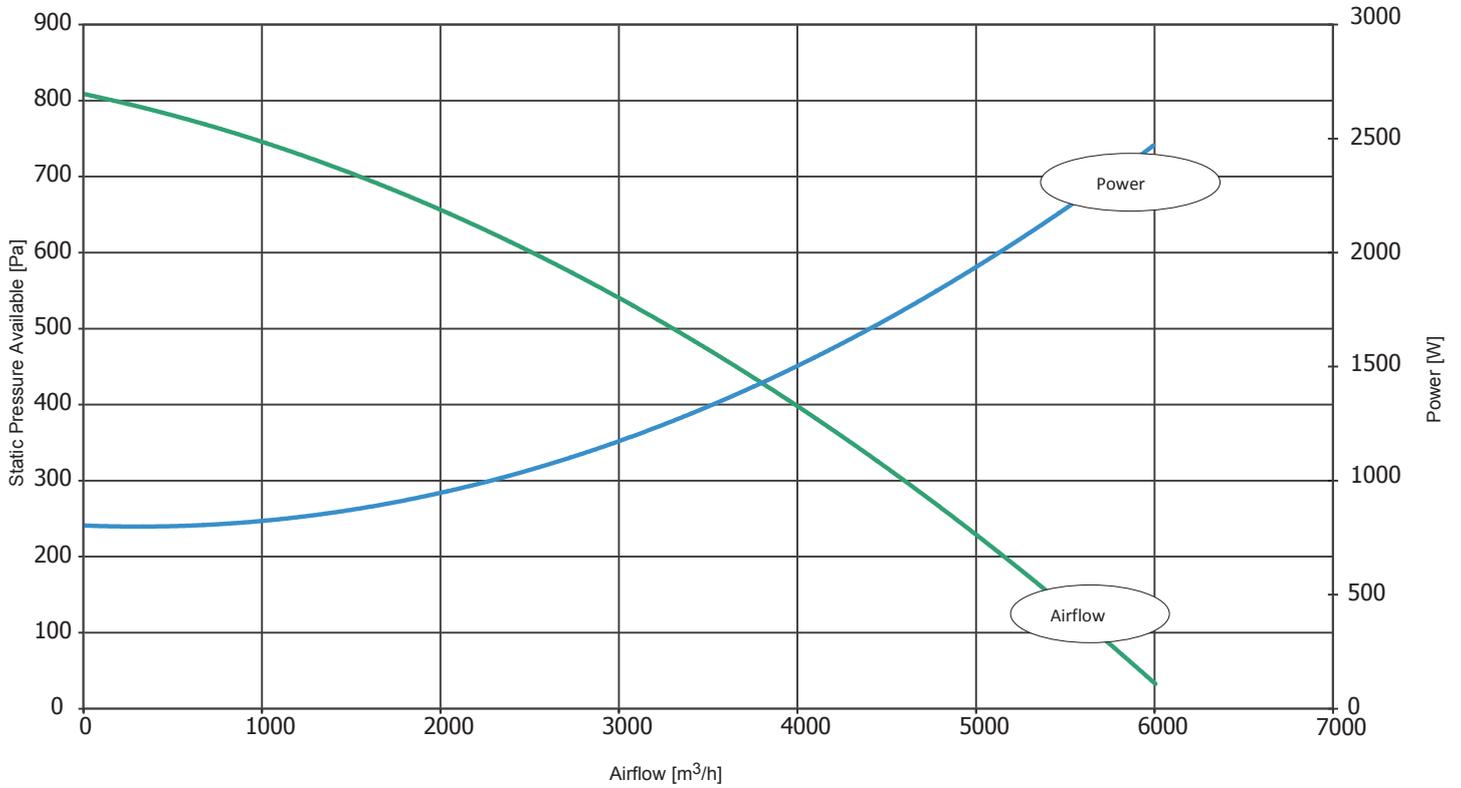


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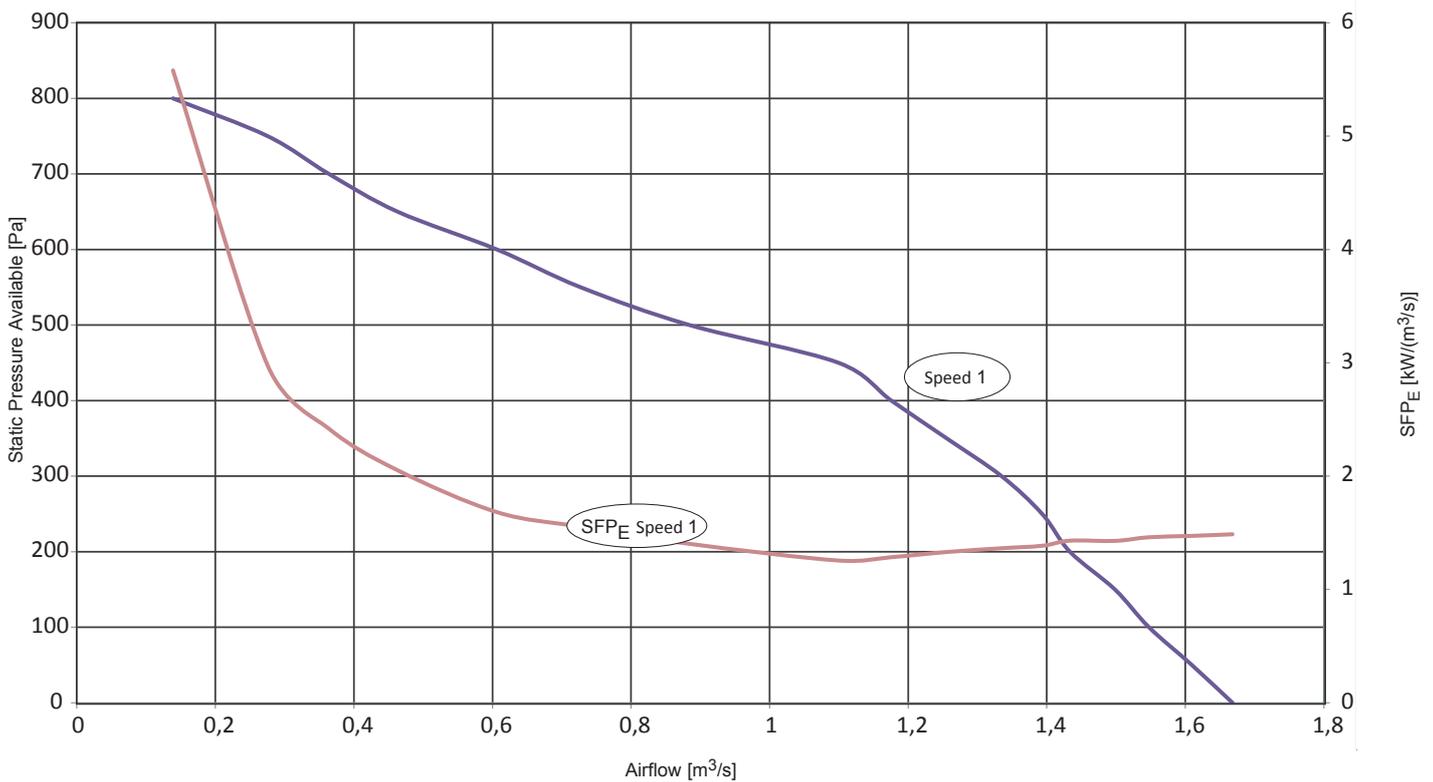


PERFORMANCES

DUO 6 DP | 1 speed



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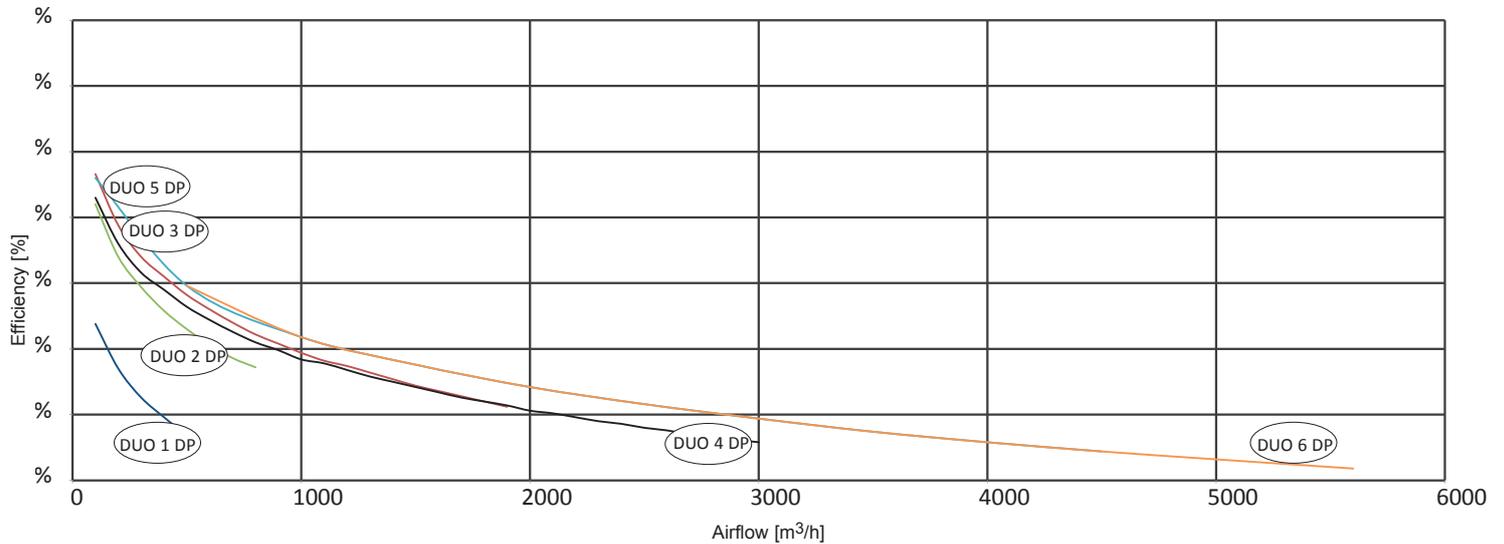


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HEAT RECOVERY PERFORMANCE (sensible efficiency)

Values referred to the following conditions: T_{bs} external air - 5°C; U.R. external 80%; T_{bs} environment 20°C; U.R. environment 50%; nominal airflow



TECHNICAL DATA

	DUO 1 DP	DUO 2 DP	DUO 3 DP	DUO 4 DP	DUO 5 DP	DUO 6 DP
Nominal airflow (m³/h)	400	800	1900	3000	4500	5600
Available static pressure (Pa)*	85	190	140	180	100	120
Max. current absorption (A)	1,32	2,1	5,5	8	6,2	11,20
VENTILATORS						
Installed power (W)	150x2	290x2	373x2	550x2	750x2	1500x2
Poles (nr.)	2	4	4	4	4	4
Max. current absorption (A)	0,66x2	1,28x2	2,75x2	4x2	3,1x2	5,6x2
Fan speed	4	4	3	3	1	1
Protection level (IP)	20	20	20	20	55	55
Insulation class	F	F	F	F	F	F
Electrical power supply (V/ph/Hz)	230V-1-50Hz	230V-1-50Hz	230V-1-50Hz	230V-1-50Hz	400V-3-50Hz	400V-3-50Hz
FILTERS						
Filtration class for exhaust air	G4	G4	G4	G4	G4	G4
Filtration class for fresh air	F7	F7	F7	F7	F7	F7

* Values referring to the nominal airflow having overcome the loss of pressure of the recovery unit and filters

** Values referring to the following conditions: T_{bs} ext. air.=-5°C; T_{bs} environment=20°C; U.R. environment= 50%; Nominal airflow



TECHNICAL DATA

RCF.. ELECTRICAL HEATER OF DEICING

	DUO 1 DP	DUO 2 DP	DUO 3 DP	DUO 4 DP		DUO 5 DP	DUO 6 DP
Nominal power (kW)	2	4	6	8	8	12	12
Voltage (V)	230	230	230	230	400	400	400
Phases (nr.)	1	1	1	1	3	3	3
Stages (nr.)	1	2	2	2	2	2	2
Current absorption (A)	8,5	17,5	26	34,78	12,17	31,6	31,6
Intake air temp. on exchanger (°C)	-3	-3	0	-5	-5	-5	-5

Measured with external air temp. = -15°C nominal airflow

RCF.. ELECTRICAL HEATER OF POST-HEATING

	DUO 1 DP	DUO 2 DP	DUO 3 DP	DUO 4 DP		DUO 5 DP	DUO 6 DP
Nominal power (kW)	2	4	6	8	8	12	12
Voltage (V)	230	230	230	230	400	400	400
Phases (nr.)	1	1	1	1	3	3	3
Stages (nr.)	1	2	2	2	2	2	2
Current absorption (A)	8,5	17,5	26	34,78	11,55	17,32	17,32
Intake air temp. on exchanger (°C)	20	20	21	20	20	22	20

Measured with intake air temp. = 8°C and nominal airflow

Loss of pressure between 2 and 10 Pa, on the air side of the RCF section

BA-AC POST-HEATING HOT WATER COIL 80°/70° C

	DUO 1 DP	DUO 2 DP	DUO 3 DP	DUO 4 DP	DUO 5 DP	DUO 6 DP
Rows (nr.)	2	2	2	2	2	2
Thermal yield (kW)	2,62	5,75	10,67	14,29	30	34,5
Replacement air outlet temp. (°C)	23,3	29,2	24,4	21,9	29	25,4
Air side pressure loss (Pa)	16	32	31	27	60	100
Water side pressure loss (kPa)	1	2,5	4,1	2,1	10	10
Water side connection size (Ø)	1/2"	1/2"	1/2"	1	1	1

Values referring to the following conditions: water 80°/70°C; Intake air temp. 8°C; nominal airflow
The tables of thermal yield are available on [Accessories](#) booklet

BA-AT POST-HEATING TEMPERATE WATER COIL 45°/35° C

	DUO 1 DP	DUO 2 DP	DUO 3 DP	DUO 4 DP	DUO 5 DP	DUO 6 DP
Rows (nr.)	2	2	2	2	3	3
Thermal yield (kW)	2,2	3,7	7,9	13,3	20,6	23,4
Replacement air outlet temp. (°C)	21,0	22,2	20,3	21,2	22,1	20,5
Air side pressure loss (Pa)	90	65	95	80	90	125
Water side pressure loss (kPa)	0,9	2,1	4,9	5,7	6,1	7,0
Water side connection size (Ø)	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"

Values referring to the following conditions: water 45°/35°C; Intake air temp. 8°C; nominal airflow
The tables of thermal yield are available on [Accessories](#) booklet



NOISE LEVEL

*L_w Sound level taken in accordance to UNI EN ISO 3741
(UNI EN ISO 3747 FOR DUO 5 and 6 DP models; $\Delta L_f \geq 7$ dB for each measurement position, class accuracy 2)*

DUO 1 DP	NOISE LEVEL GENERATED IN THE DUCTING (TRANSMITTED) Hz							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	37	26	18	27	15	6	5	29
L _w V ₂	44	32	24	36	24	13	8	37
L _w V ₃	49	38	30	42	32	22	16	43
L _w V ₄	54	44	35	46	39	30	25	48

	NOISE LEVEL GENERATED FROM THE CASING IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	31	22	15	23	12	5	5	25
L _w V ₂	37	27	20	31	21	11	6	32
L _w V ₃	42	32	25	36	27	19	13	37
L _w V ₄	46	37	30	39	33	26	21	41

DUO 2 DP	NOISE LEVEL GENERATED IN THE DUCTING (TRANSMITTED) Hz							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	50	48	37	45	24	25	18	47
L _w V ₂	57	56	45	51	35	35	29	53
L _w V ₃	61	60	51	54	43	42	37	58
L _w V ₄	65	63	56	56	47	45	41	60

	NOISE LEVEL GENERATED FROM THE CASING IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	53	49	35	38	19	12	8	43
L _w V ₂	57	55	42	43	26	20	13	48
L _w V ₃	61	58	46	45	33	24	15	52
L _w V ₄	63	61	47	47	36	28	17	55

DUO 3 DP	NOISE LEVEL GENERATED IN THE DUCTING (TRANSMITTED) Hz							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	65	57	60	62	58	52	44	65
L _w V ₂	68	60	62	64	60	55	48	67
L _w V ₃	67	62	64	65	62	58	51	69

	NOISE LEVEL GENERATED FROM THE CASING IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	55	48	51	53	49	44	37	56
L _w V ₂	58	51	53	54	51	47	41	58
L _w V ₃	57	53	54	55	53	49	43	59

DUO 4 DP	NOISE LEVEL GENERATED IN THE DUCTING (TRANSMITTED) Hz							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	56	50	50	48	41	31	28	52
L _w V ₂	69	59	63	64	61	57	48	68
L _w V ₃	71	71	72	75	73	70	64	79

	NOISE LEVEL GENERATED FROM THE CASING IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V ₁	48	42	43	40	35	27	23	44
L _w V ₂	58	50	54	54	52	48	41	59
L _w V ₃	60	60	61	64	62	60	55	68

DUO 5 DP	NOISE LEVEL GENERATED IN THE DUCTING (TRANSMITTED) Hz							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V _{max}	82	76	70	69	63	64	55	75

	NOISE LEVEL GENERATED FROM THE CASING IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V _{max}	78	70	64	63	57	56	42	69

DUO 6 DP	NOISE LEVEL GENERATED IN THE DUCTING (TRANSMITTED) Hz							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V _{max}	84	78	73	70	65	68	57	77

	NOISE LEVEL GENERATED FROM THE CASING IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L _w V _{max}	80	71	65	63	57	58	43	70

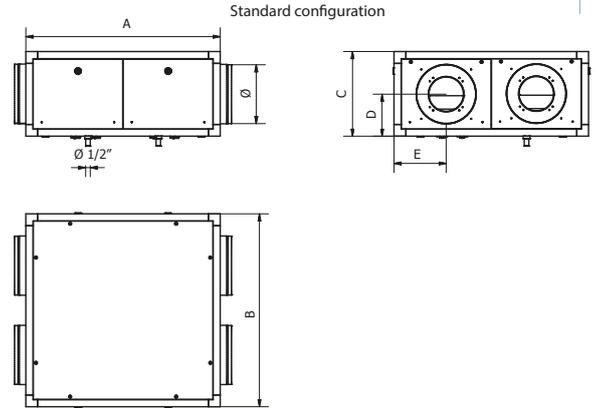


**DIMENSIONS AND WEIGHT
HORIZONTAL CONFIGURATION (H)**

DIMENSIONS (mm) and WEIGHT (Kg) WITHOUT BY-PASS

MODEL	A	B	C	D	E	Ø	Weight
DUO 1 DP	640	640	345	172,5	175	200	32
DUO 2 DP	820	820	360	180	220	250	44
DUO 3 DP	1040	1040	535	315	275	315	91
DUO 4 DP	1270	1270	630	360	332,5	355	125
DUO 5 DP	1300	1200	855*	427,5	305	450	171
DUO 6 DP	1300	1200	855*	427,5	305	450	176

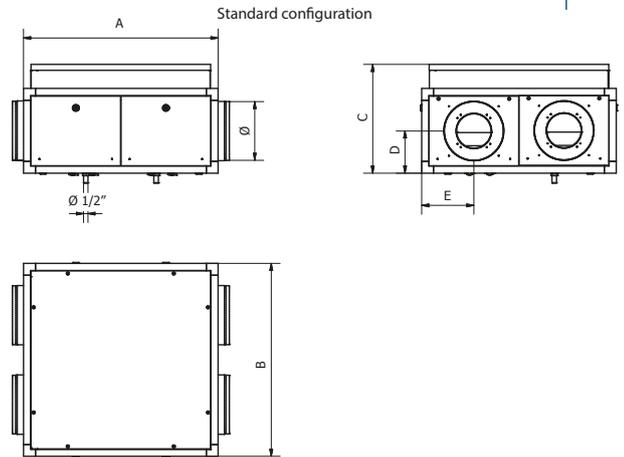
*+ feet 100mm



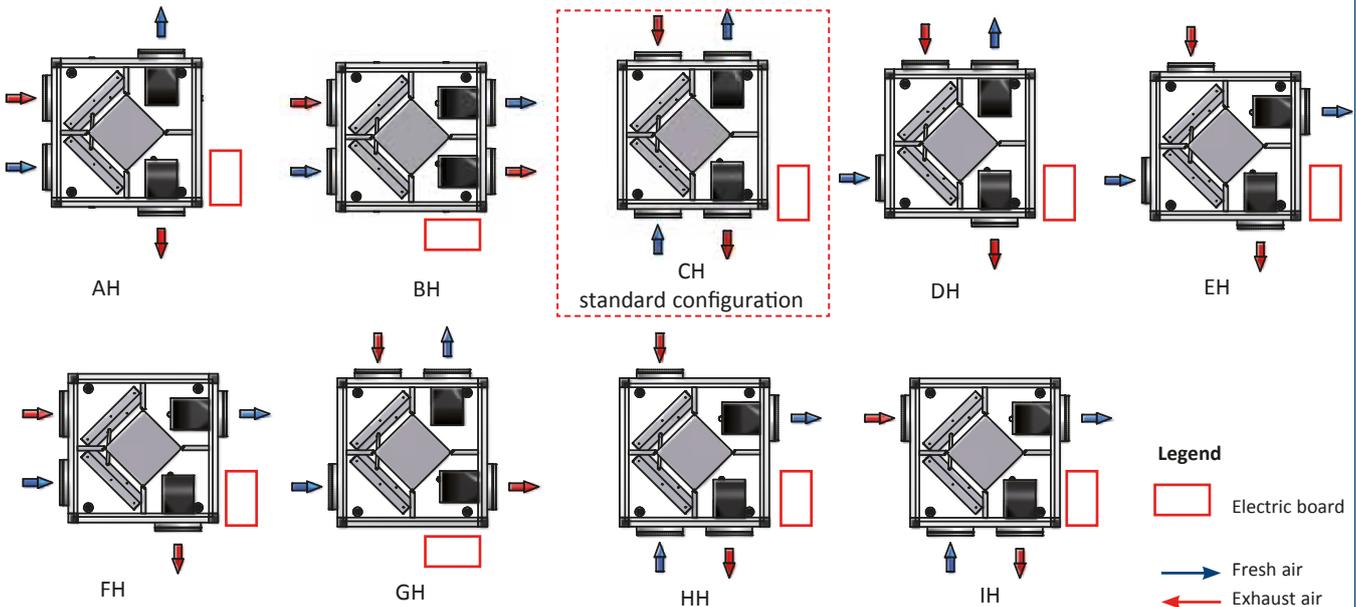
DIMENSIONS (mm) and WEIGHT (Kg) WITH BY-PASS (BP)

MODEL	A	B	C	D	E	Ø	Weight
DUO 1 DP	640	640	450	172,5	175	200	41
DUO 2 DP	820	820	465	180	220	250	56
DUO 3 DP	1040	1040	640	315	275	315	107
DUO 4 DP	1270	1270	735	360	332,5	355	146
DUO 5 DP	1300	1200	855*	427,5	305	450	176
DUO 6 DP	1300	1200	855*	427,5	305	450	182

*+ feet 100mm



**HORIZONTAL CONFIGURATION
- top view -**



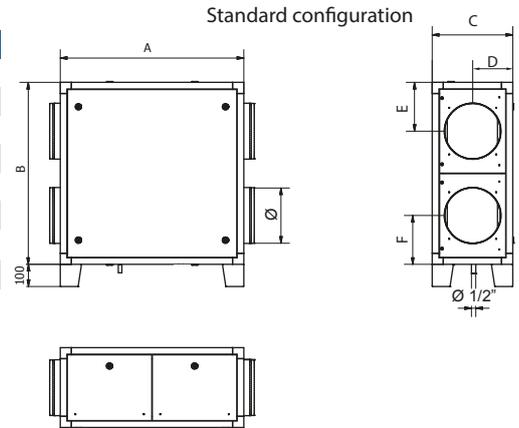


**DIMENSIONS AND WEIGHT
VERTICAL CONFIGURATION (V)**

DIMENSIONS (mm) and WEIGHT (Kg) WITHOUT BY-PASS

MODEL	A	B	C	D	E	F	Ø	Weight
DUO 1 DP	640	640	345	172,5	175	175	200	32
DUO 2 DP	820	820	360	180	220	220	250	44
DUO 3 DP	1040	1040	535	267,5	225	325	315	91
DUO 4 DP	1270	1270	630	315	240	425	355	125
DUO 5 DP*	1200	1300	855	427,5	305	305	450	171
DUO 5 DP**	1300	1200	855	427,5	305	305	450	171
DUO 6 DP*	1200	1300	855	427,5	305	305	450	176
DUO 6 DP**	1300	1200	855	427,5	305	305	450	176

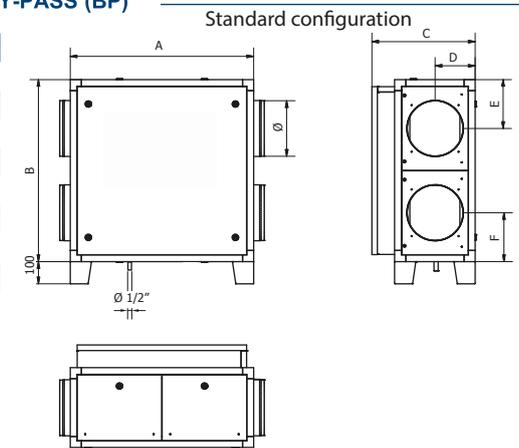
* BV/HV configuration
** AV/CV configuration



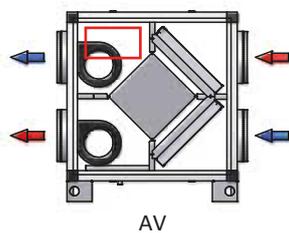
DIMENSIONS (mm) and WEIGHT (Kg) WITH BY-PASS (BP)

MODEL	A	B	C	D	E	F	Ø	Weight
DUO 1 DP	640	640	450	172,5	175	175	200	41
DUO 2 DP	820	820	465	180	220	220	250	56
DUO 3 DP	1040	1040	640	267,5	225	325	315	107
DUO 4 DP	1270	1270	735	315	240	425	355	146
DUO 5 DP*	1200	1300	855	427,5	305	305	450	176
DUO 5 DP**	1300	1200	855	427,5	305	305	450	176
DUO 6 DP*	1200	1300	855	427,5	305	305	450	182
DUO 6 DP**	1300	1200	855	427,5	305	305	450	182

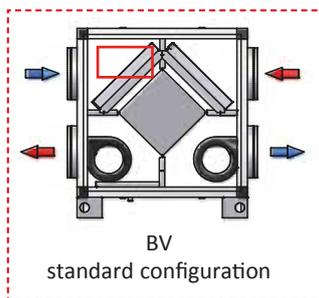
* configuration BV/HV
** configuration AV/CV



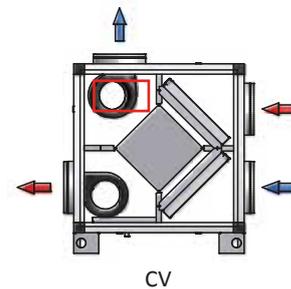
**VERTICAL CONFIGURATION
- front view side inspection -**



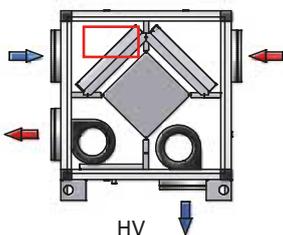
AV



BV
standard configuration



CV



HV

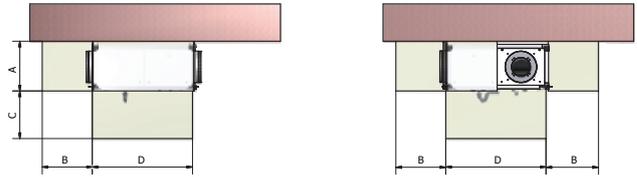
Legend

- Electric board
- Fresh air
- Exhaust air



CEILING MOUNTED

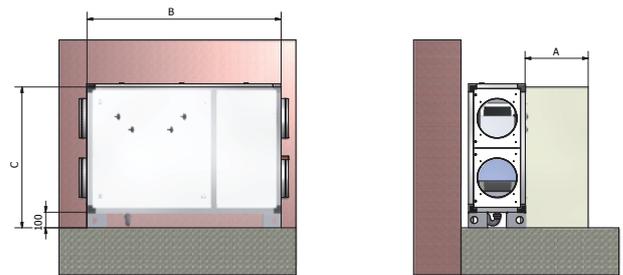
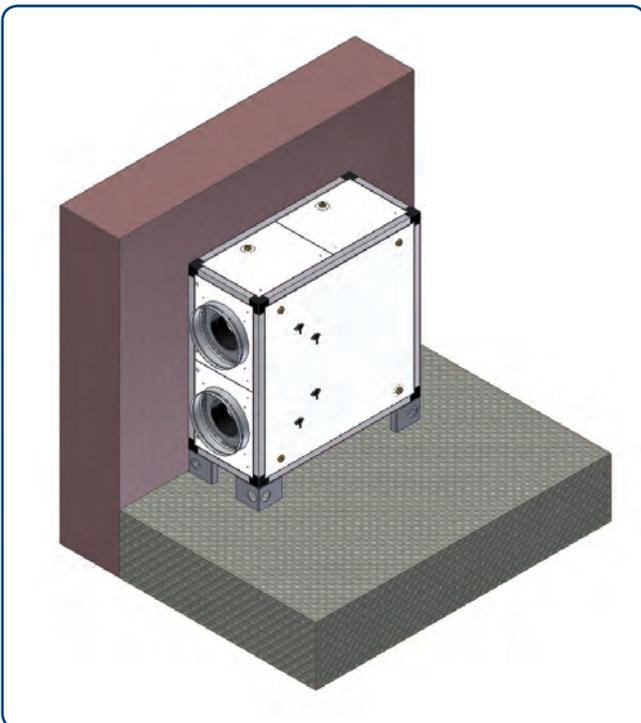
MINIMUM REQUIRED SPACE FOR MAINTENANCE (mm)



MODEL	A	B	C	D
DUO 1 DP HE	345	400	400	640
DUO 2 DP HE	360	400	400	820
DUO 3 DP HE	535	400	600	1040
DUO 4 DP HE	630	500	700	1270
DUO 5 DP HE	855	500	900	1300
DUO 6 DP HE	855	500	900	1300

FLOOR MOUNTED

MINIMUM REQUIRED SPACE FOR MAINTENANCE (mm)



	A	B	C
DUO 1 DP	400	960	740
DUO 2 DP	400	1230	920
DUO 3 DP	600	1560	1140
DUO 4 DP	700	1900	1370
DUO 5 DP	900	1550	1300
DUO 6 DP	900	1550	1300

*UTEK s.r.l. reserves the right to make modifications
to their products without giving prior notice to third parties.*

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