

**COMMERCIAL HEAT RECOVERY VENTILATORS**  
(thermal efficiency from 50% up to 70%)

**UTEK**<sup>®</sup>



**FAI DP**





## FAI 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
  - ◆ Versions available with water or electric post-heating integrable into the unit:
    - Without regulation
    - **Plug-n-play solutions** with electrical panel pre-wired and microprocessor control mounted on board.
- Optional microprocessor control (see the [Accessories](#) booklet):
- CTR08
  - CTR07
  - **EVO PH**
  - **EVO D PH**



### 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

### AC BLOWERS

- ◆ 230V-1-50Hz, double inlet with forward facing blades, direct driven motors:
  - 4 speed for FAI1 and FAI2 models
  - 3 speed for FAI3 e FAI4 models
- ◆ 400V-3-50Hz, double inlet with forward facing blades, direct driven motors:
  - 1 speed for FAI5 and FAI6 models

### HEAT EXCHANGER

- ◆ Cross-flow aluminium heat exchanger, removable from beneath (for [horizontal configuration](#))
- ◆ cross-flow aluminium heat exchanger, removable from the side (for [vertical configuration](#))

### FILTERS

- ◆ G4 for exhaust air
- ◆ F7 [low pressure loss](#) for fresh air

### RANGE

- ◆ Nr. 6 models from 400 m<sup>3</sup>/h up to 5.600 m<sup>3</sup>/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)

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>◆ <b>Accessories control (for <a href="#">standard version</a> only):</b> <ul style="list-style-type: none"> <li>- CV4 4 speed switch commutator for 230V-1-50Hz motors</li> <li>- CV3 3 speed switch commutator for 230V-1-50Hz motors</li> <li>- RVT6A and RVT 9A speed regulator for 400V-3-50Hz motors</li> </ul> </li> <li>◆ <b>Accessories of deicing for duct mounting:</b> <ul style="list-style-type: none"> <li>- RCF-SC electric heater</li> <li>- RCFE-SCT electric heater with electronic regulation</li> <li>- RCF-SCTTC electric heater with thermostatic regulation</li> </ul> </li> <li>◆ <b>Accessories of cooling for duct mounting:</b> <ul style="list-style-type: none"> <li>- BA-AF cooling water coil with insulated plenum - <i>Contact the technical office</i></li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>◆ <b>Optional sensors:</b> <ul style="list-style-type: none"> <li>- EE80 CO<sub>2</sub> sensor</li> <li>- QPA 2002 CO<sub>2</sub>/VOC air quality sensor</li> <li>- EE16 Humidity sensor</li> </ul> </li> <li>◆ <b>Accessories for air filtration:</b> <ul style="list-style-type: none"> <li>- F9 optional filter <a href="#">low pressure loss</a></li> </ul> </li> <li>◆ <b>Protective accessories:</b> <ul style="list-style-type: none"> <li>- SKMF-R weather protection cowl</li> <li>- T weather protective roof</li> </ul> </li> </ul> |
|---|---|

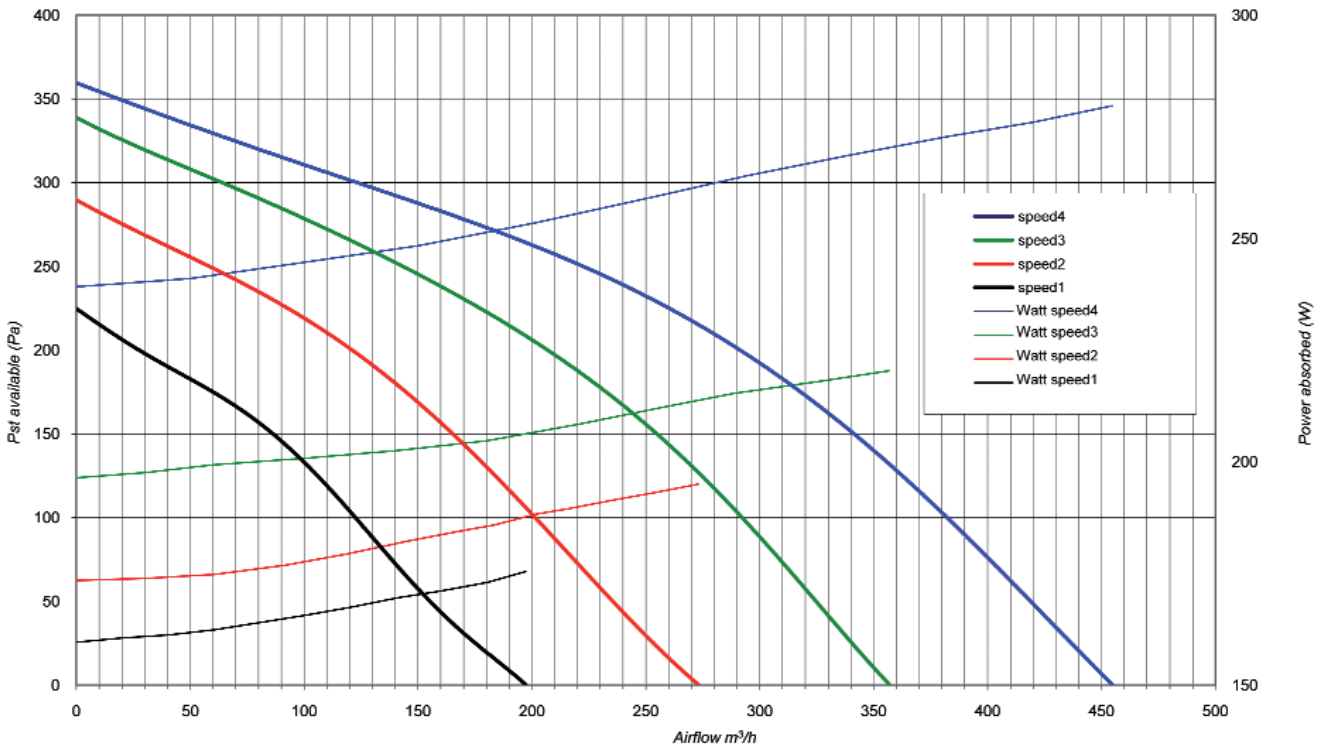
### PRICE LIST

See the [Price list](#) booklet



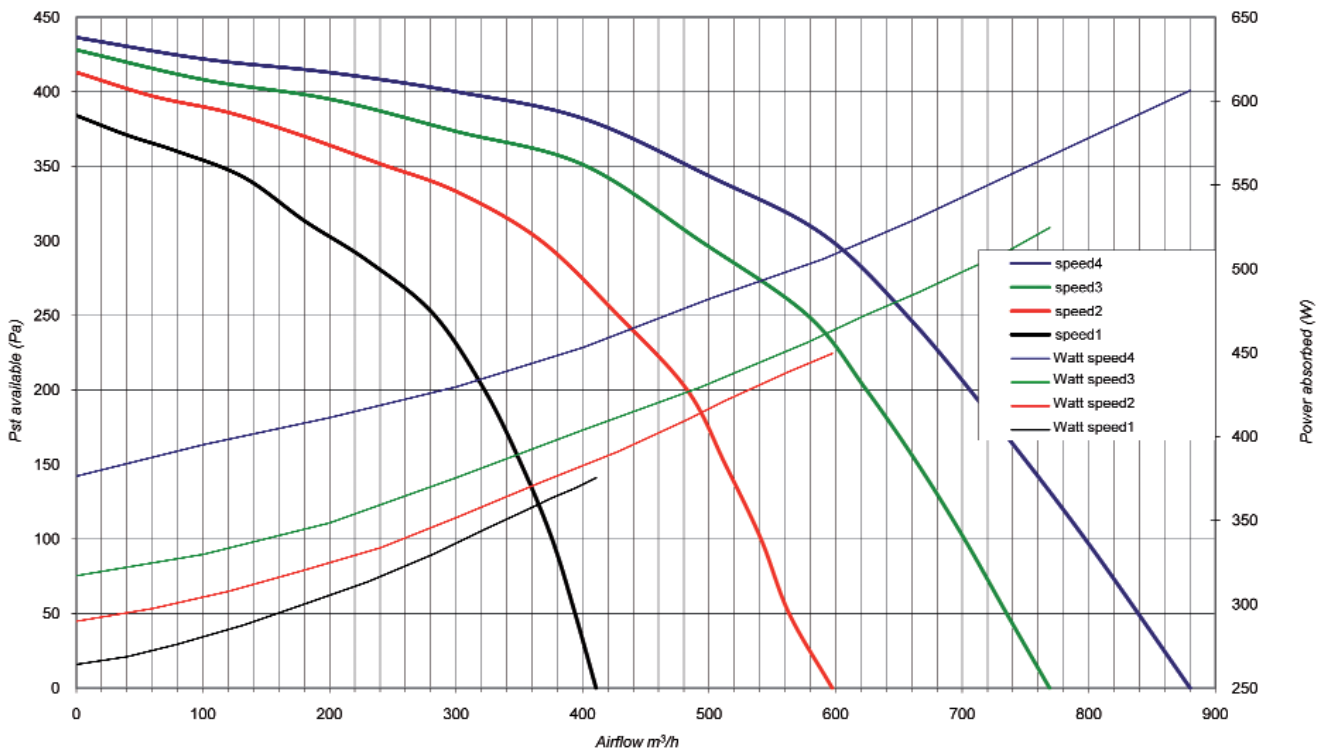
PERFORMANCES

FAI 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.

FAI 2 DP | 4 SPEED

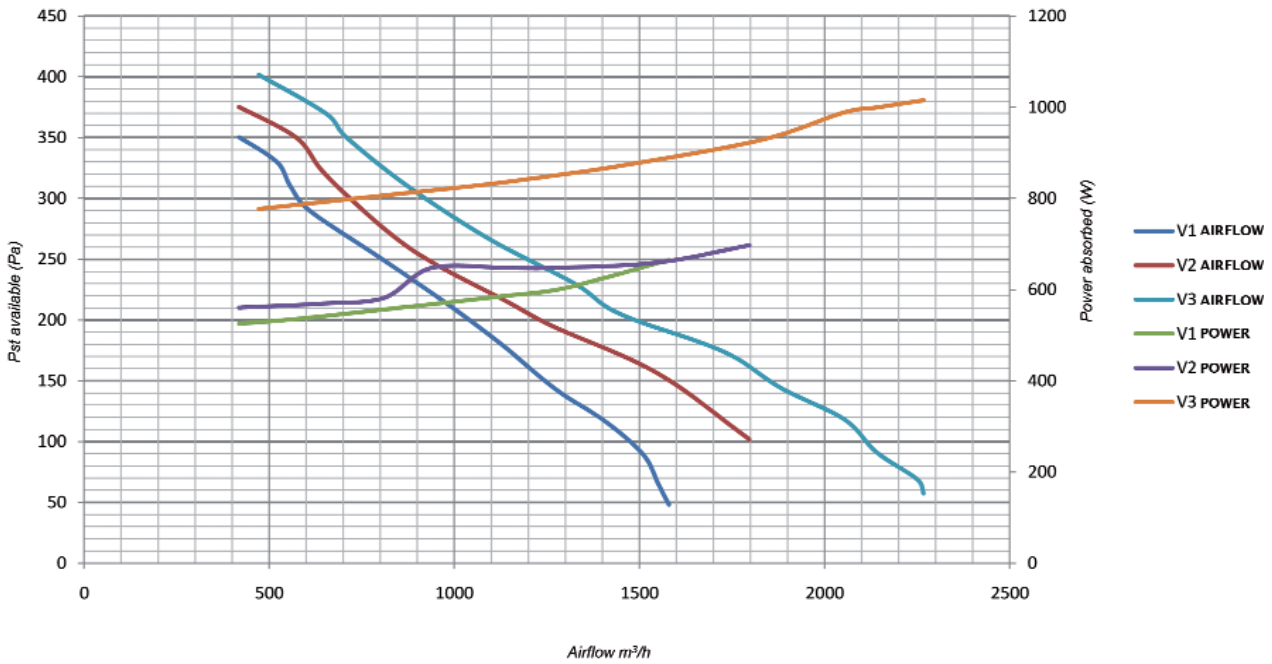


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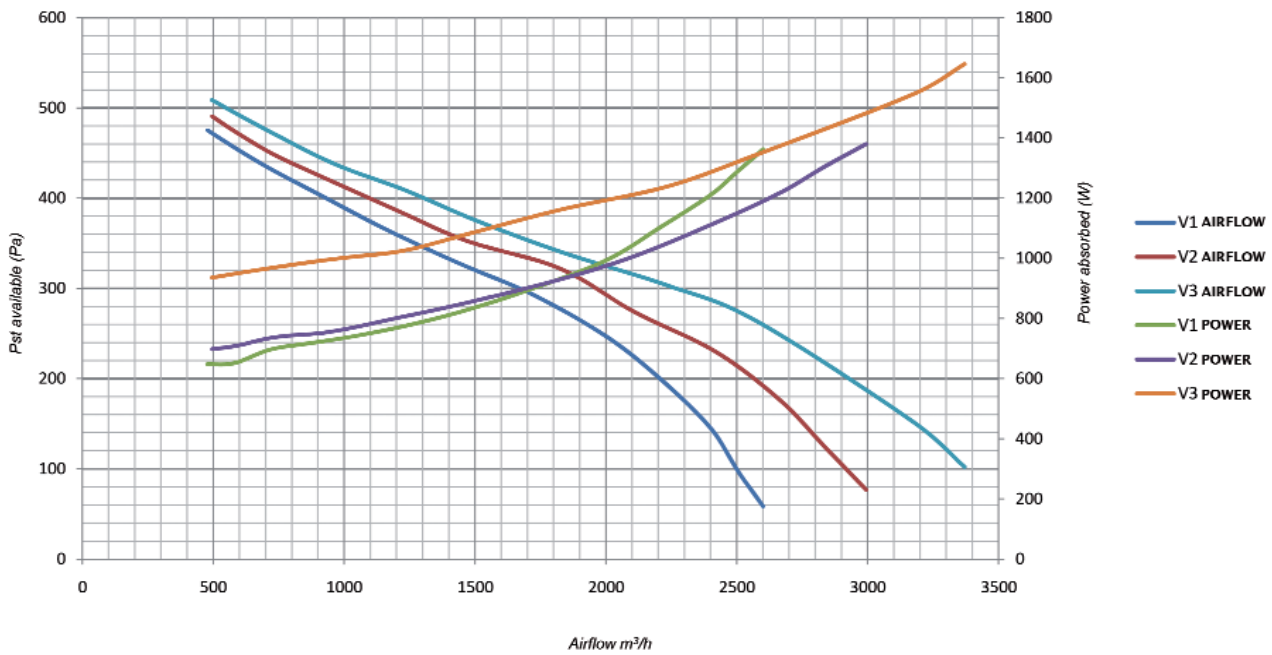
PERFORMANCES

FAI 3 DP | 3 SPEED



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FAI 4 DP | 3 SPEED

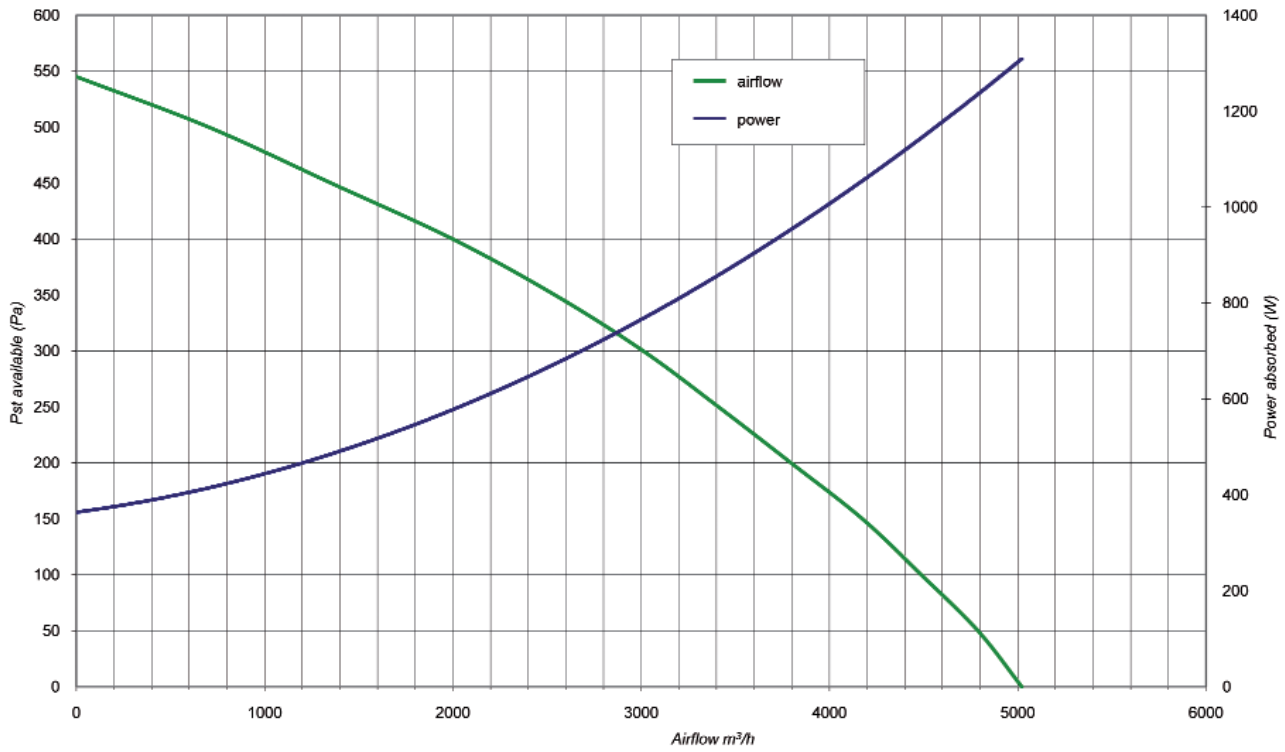


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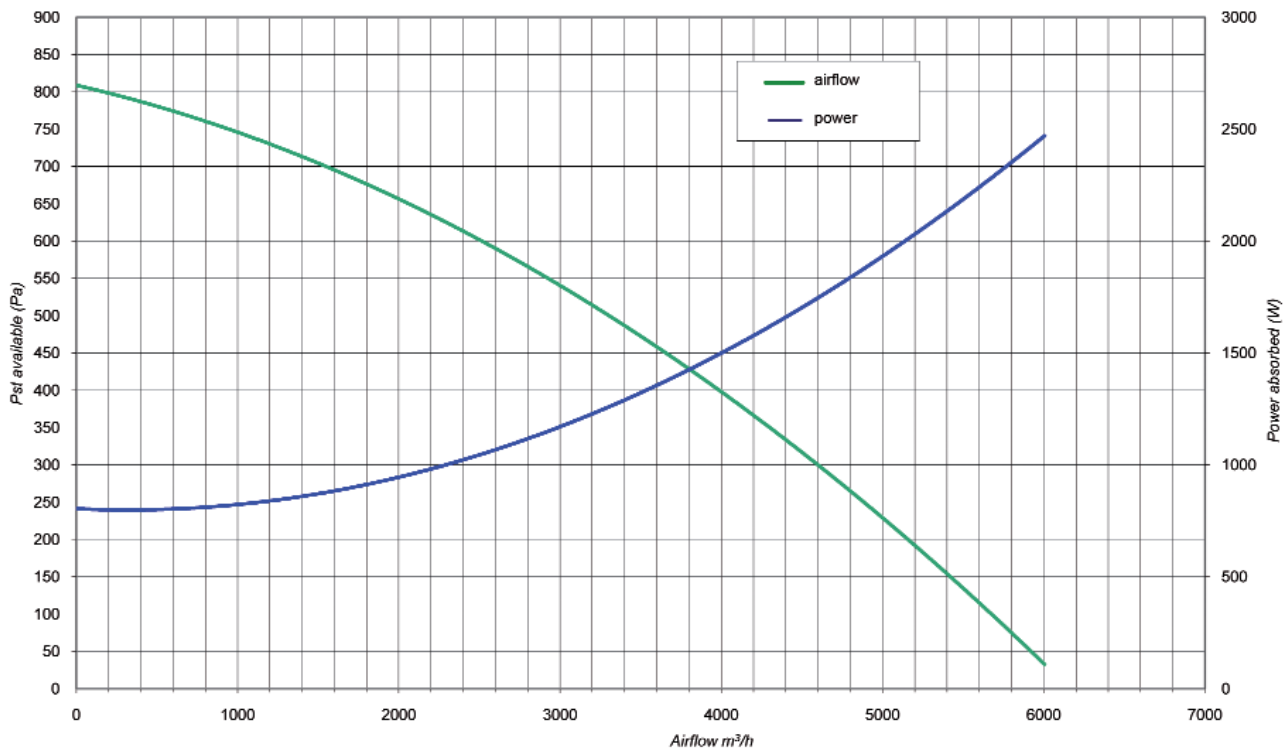
PERFORMANCES

FAI 5 DP | 1 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.

FAI 6 DP | 1 SPEED

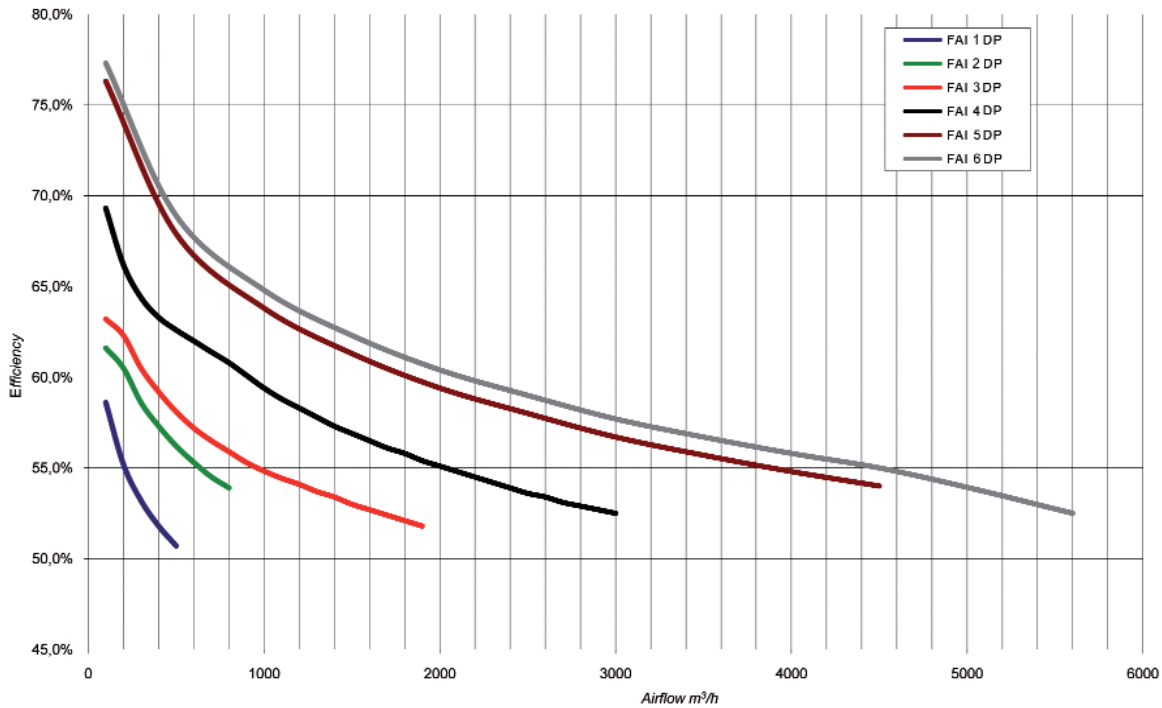


The unit must be ducted properly: UTEK authorizes the use only according to its performance diagram shown into this catalogue. The claimed performances are guaranteed only by UTEK original filter low pressure loss.



**HEAT RECOVERY PERFORMANCE (sensible efficiency)**

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



**TECHNICAL DATA**

	FAI 1 DP	FAI 2 DP	FAI 3 DP	FAI 4 DP	FAI 5 DP	FAI 6 DP
Nominal airflow (m³/h)	400	800	1900	3000	4500	5600
Available static pressure (Pa)*	85	100	140	180	100	120
Max. current absorption (A)	1,32	3,1	5,5	8	6,2	11,20
<b>VENTILATORS</b>						
Installed power (W)	150x2	355x2	373x2	550x2	750x2	1500x2
Poles (nr.)	2	2	4	4	4	4
Max. current absorption (A)	0,66x2	1,55x2	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
<b>THERMAL RECOVERY UNIT**</b>						
Efficiency (%)	50,7	53,9	51,6	52,5	54	52,5
Recovered thermal power (kW)	2,2	3,7	8,4	13,4	20,3	24,6
Renewal air outlet temp (°C)	7,7	8,5	7,9	8,1	8,5	8,1
<b>FILTERS</b>						
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: Tbs ext. air:=-5°C; Tbs environment=20°C; U.R. environment= 50%; Nominal airflow



TECHNICAL DATA

**RCF..**  
ELECTRICAL HEATER OF DEICING

	FAI 1 DP	FAI 2 DP	FAI 3 DP	FAI 4 DP		FAI 5 DP	FAI 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)	-3	-3	0	-5	-5	-5	-5

Dimensionate con temperatura aria esterna = -15°C e portata aria nominale.

**REL..**  
ELECTRICAL HEATER OF POST-HEATING

	FAI 1 DP	FAI 2 DP	FAI 3 DP	FAI 4 DP		FAI 5 DP	FAI 6 DP
	REL-M1	REL-M1	REL-M1	REL-M2	REL-T2	REL-T2	REL-T2
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 REL section

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

	FAI 1 DP	FAI 2 DP	FAI 3 DP	FAI 4 DP	FAI 5 DP	FAI 6 DP
Rows (nr.)	2	2	2	2	2	2
Thermal yield (kW)	2,62	3,67	10,67	14,29	30	34,5
Replacement air outlet temp. (°C)	23,3	21,4	24,4	21,9	29	25,4
Air side pressure loss (Pa)	16	13	31	27	60	100
Water side pressure loss (kPa)	1	4	41	21	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

	FAI 1 DP	FAI 2 DP	FAI 3 DP	FAI 4 DP	FAI 5 DP	FAI 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<sub>w</sub> Sound level taken in accordance to UNI EN ISO 3741  
(UNI EN ISO 3747 FOR FAI 5 and 6 DP models;  $\Delta L_{fA} \geq 7$  dB for each measurement position, class accuracy 2)*

FAI 1 DP	NOISE TRANSMITTED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	37	26	18	27	15	6	5	29
L <sub>w</sub> V <sub>2</sub>	44	32	24	36	24	13	8	37
L <sub>w</sub> V <sub>3</sub>	49	38	30	42	32	22	16	43
L <sub>w</sub> V <sub>4</sub>	54	44	35	46	39	30	25	48
	NOISE IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	31	22	15	23	12	5	5	25
L <sub>w</sub> V <sub>2</sub>	37	27	20	31	21	11	6	32
L <sub>w</sub> V <sub>3</sub>	42	32	25	36	27	19	13	37
L <sub>w</sub> V <sub>4</sub>	46	37	30	39	33	26	21	41
FAI 2 DP	NOISE TRANSMITTED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	46	34	26	41	25	23	18	42
L <sub>w</sub> V <sub>2</sub>	52	42	34	47	35	33	30	48
L <sub>w</sub> V <sub>3</sub>	56	47	39	51	42	40	39	53
L <sub>w</sub> V <sub>4</sub>	59	50	43	53	46	44	42	55
	NOISE IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	39	29	22	35	22	19	15	36
L <sub>w</sub> V <sub>2</sub>	44	36	29	40	30	28	26	41
L <sub>w</sub> V <sub>3</sub>	48	40	33	43	36	34	33	45
L <sub>w</sub> V <sub>4</sub>	50	42	36	45	39	37	36	48
FAI 3 DP	NOISE TRANSMITTED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	65	57	60	62	58	52	44	65
L <sub>w</sub> V <sub>2</sub>	68	60	62	64	60	55	48	67
L <sub>w</sub> V <sub>3</sub>	67	62	64	65	62	58	51	69
	NOISE IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	55	48	51	53	49	44	37	56
L <sub>w</sub> V <sub>2</sub>	58	51	53	54	51	47	41	58
L <sub>w</sub> V <sub>3</sub>	57	53	54	55	53	49	43	59
FAI 4 DP	NOISE TRANSMITTED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	56	50	50	48	41	31	28	52
L <sub>w</sub> V <sub>2</sub>	69	59	63	64	61	57	48	68
L <sub>w</sub> V <sub>3</sub>	71	71	72	75	73	70	64	79
	NOISE IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>1</sub>	48	42	43	40	35	27	23	44
L <sub>w</sub> V <sub>2</sub>	58	50	54	54	52	48	41	59
L <sub>w</sub> V <sub>3</sub>	60	60	61	64	62	60	55	68
FAI 5 DP	NOISE TRANSMITTED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>max</sub>	82	76	70	69	63	64	55	75
	NOISE IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>max</sub>	78	70	64	63	57	56	42	69
FAI 6 DP	NOISE TRANSMITTED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>max</sub>	84	78	73	70	65	68	57	77
	NOISE IRRADIATED (Hz)							dB(A)
	125	250	500	1000	2000	4000	8000	
L <sub>w</sub> V <sub>max</sub>	80	71	65	63	57	58	43	70

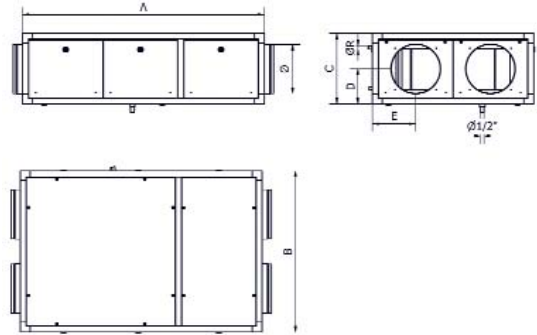




### DIMENSIONS AND WEIGHT HORIZONTAL CONFIGURATION (H)

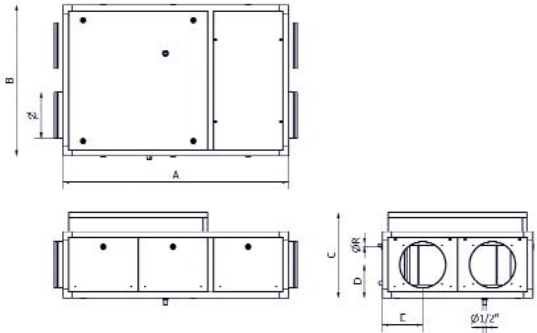
**DIMENSIONS (mm) and WEIGHT (Kg)**

MODEL	A	B	C	D	E	Ø	ØR	Weight
FAI 1 DP	960	640	345	172,5	175	200	1/2"	40
FAI 2 DP	1230	820	360	180	220	250	1/2"	56
FAI 3 DP	1560	1040	535	315	275	315	1/2"	110
FAI 4 DP	1905	1270	630	360	332,5	355	1"	155
FAI 5 DP	1550	1200	855	427,5	315	450	1"	195
FAI 6 DP	1550	1200	855	427,5	315	450	1"	200

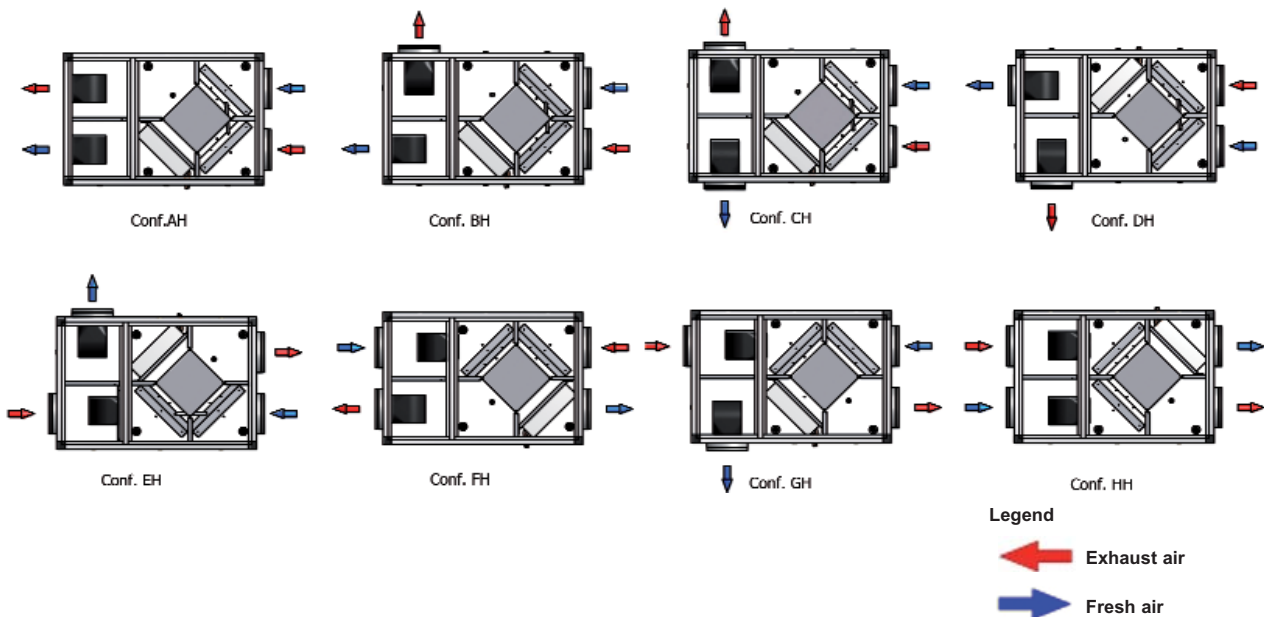


**DIMENSIONS (mm) and WEIGHT (Kg) WITH BY-PASS (BP)**

MODEL	A	B	C	D	E	Ø	ØR	Weight
FAI 1 DP	960	640	450	172,5	175	200	1/2"	49
FAI 2 DP	1230	820	465	180	220	250	1/2"	68
FAI 3 DP	1560	1040	640	315	275	315	1/2"	126
FAI 4 DP	1905	1270	735	360	332,5	355	1"	176
FAI 5 DP	1550	1200	855	427,5	315	450	1"	195
FAI 6 DP	1550	1200	855	427,5	315	450	1"	200



#### TOP VIEW (standard configuration: FH)

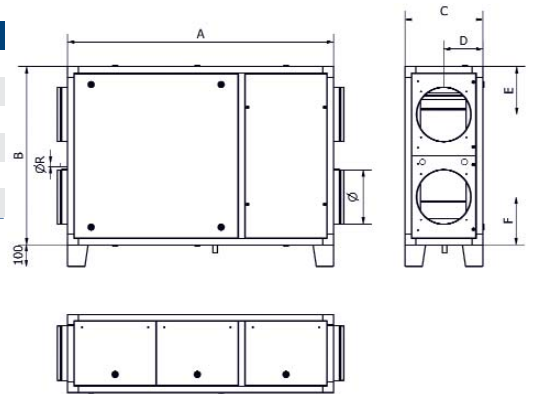




**DIMENSIONS AND WEIGHT  
VERTICAL CONFIGURATION (V)**

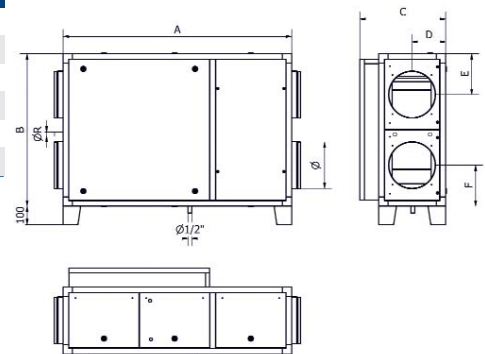
**DIMENSIONS (mm) and WEIGHT (Kg)**

MODEL	A	B	C	D	E	F	Ø	ØR	Weight
FAI 1 DP	960	640	345	172,5	175	175	200	1/2"	40
FAI 2 DP	1230	820	360	180	220	220	250	1/2"	56
FAI 3 DP	1560	1040	535	315	325	225	315	1/2"	110
FAI 4 DP	1905	1270	630	360	425	240	355	1"	155
FAI 5 DP	1550	1200	855	427,5	305	305	450	1"	195
FAI 6 DP	1550	1200	855	427,5	305	305	450	1"	200

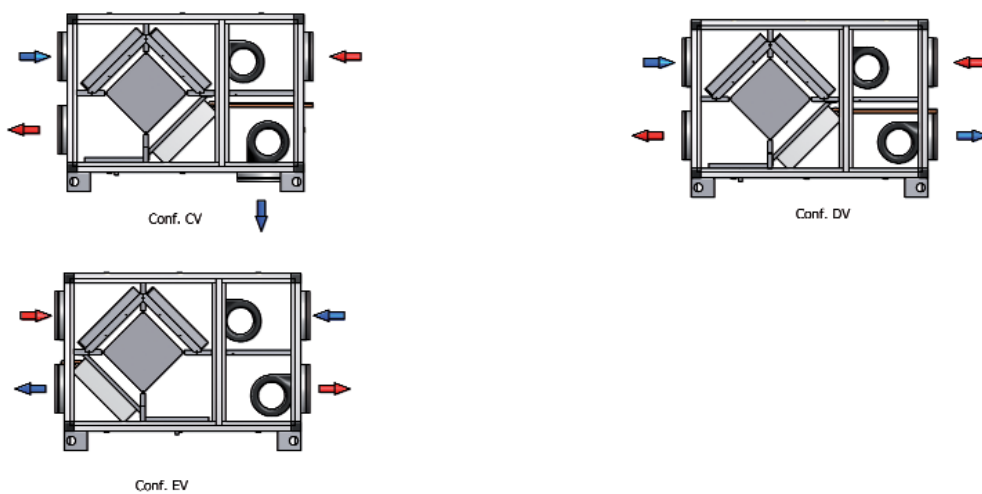


**DIMENSIONS (mm) and WEIGHT (Kg) WITH BY-PASS (BP)**

MODEL	A	B	C	D	E	F	Ø	ØR	Weight
FAI 1 DP	960	640	450	172,5	175	175	200	1/2"	49
FAI 2 DP	1230	820	465	180	220	220	250	1/2"	68
FAI 3 DP	1560	1040	640	315	325	225	315	1/2"	126
FAI 4 DP	1905	1270	735	360	425	240	355	1"	176
FAI 5 DP	1550	1200	855	427,5	305	305	450	1"	195
FAI 6 DP	1550	1200	855	427,5	305	305	450	1"	200



**FRONT VIEW SIDE INSPECTION  
(standard configuration: EV)**



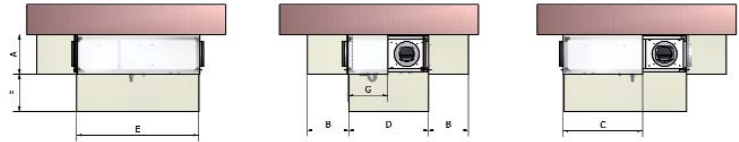
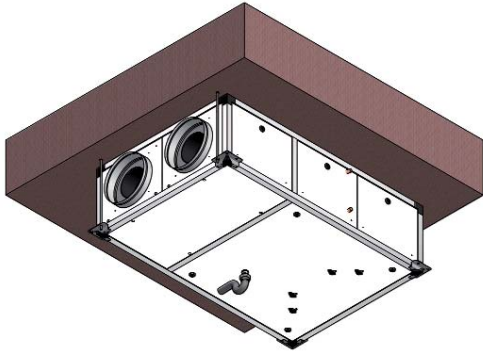
**Legend**

- Exhaust air
- Fresh air



**CEILING MOUNTED**

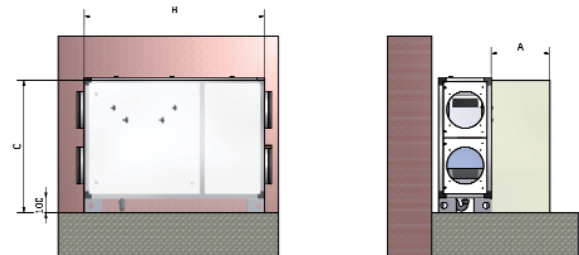
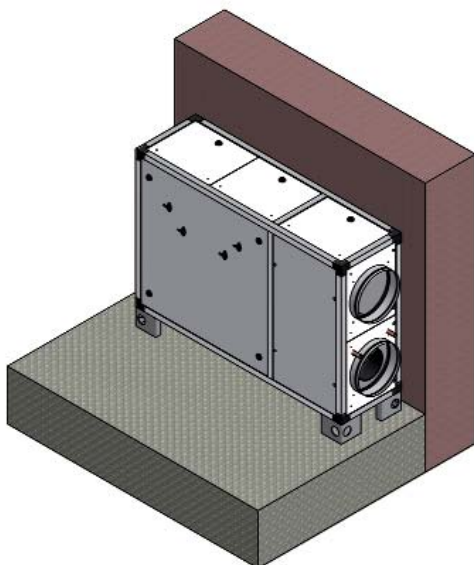
**MINIMUM REQUIRED SPACE FOR MAINTENANCE (mm)**



	A	B	C	D	E	F	G
FAI 1 DP	345	400	640	640	960	400	320
FAI 2 DP	360	400	820	820	1230	400	410
FAI 3 DP	535	400	1040	1040	1560	600	520
FAI 4 DP	630	500	1270	1270	1905	700	640
FAI 5 DP	855	500	970	1300	1550	900	600
FAI 6 DP	855	500	970	1300	1550	900	600

**FLOOR MOUNTED**

**MINIMUM REQUIRED SPACE FOR MAINTENANCE (mm)**



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

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

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