

ferroli

UT-REC DP

HEAT RECOVERY UNITS
WITH DOUBLE LAYER PANEL



TECHNICAL MANUAL

INTRODUCTION

UT-REC DP heat-recovery units combine maximum ambient comfort with guaranteed energy savings. Existing air handling and conditioning systems require forced ventilation which results in the treated air being expelled, involving high energy consumption and increased costs.

The **UT-REC DP** series is designed to solve these problems by using a static heat-recovery unit that saves over 50% of the energy which would otherwise be wasted. These units, which can easily be incorporated into conventional systems made up of fan coil, radiators and conditioning units, operate in both winter and summer mode.

The **UT-REC DP** series includes five models which offer flow rates ranging from 500 m³/h to 4000 m³/h. The high static pressures generated enable ducting to be installed which allows air to be extracted from or admitted into several rooms.

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1. CONSTRUCTION FEATURES OF THE UT-REC DP

STRUCTURE: made of sturdy extruded aluminium sections and double panelling comprising galvanised sheet steel on the inside and pre-painted galvanised sheet steel on the outside with 23 mm-thick hot-injected expanded polyurethane sound- and heat-proofing.

HEAT-RECOVERY UNIT: static aluminium unit recovering the expelled heat which would otherwise be dispersed. High-quality insulation guarantees optimum efficiency.

AIR FILTER: made of corrugated filtering cells, the filtering medium comprising Class G4 polyester fibres (weighted eff. 90.1%), with a metal frame and electro-welded mesh container that can be easily extracted from the side.

FAN MOTOR: this direct drive unit has a three-speed fan/motor unit with built-in thermal protection and a permanently-connected condenser, having an impeller that is both statically and dynamically balanced to cut vibration and noise to a minimum.

2. TECHNICAL DATA

2.1 FAN TECHNICAL DATA

UT-REC DP		005	01	02	03	04
Air flow	m ³ /h	500	1000	2000	3000	4000
Available static pressure*	Pa	144	172	168	225	140
Weight	kg	102	136	145	208	300
Available shaft power	W	45x2	184x2	350x2	550x2	736x2
Poles	No.	4	4	4	4	6
Maximum current input	A	0,74x2	1,9x2	3,1x2	5,9x2	6,8x2
Fan speeds	No.	3	3	3	3	3
International protection		IP 32	IP 55	IP 44	IP 20	IP 20
Insulation class		B	F	F	F	F
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Noise level	dB(A)	56,2	59,6	63,0	64,8	66,3

* Referred to the nominal air flow after filter and heat exchanger

2.2 CAPACITY PERFORMANCES

UT-REC DP		005	01	02	03	04
Efficiency	%	55	58,3	54	58,9	59,7
Capacity **	kW	2,6	5,4	10,0	16,3	22,0
Return air outlet temp.	°C	9,9	10,7	9,6	10,9	11,1

** Thermal recovery values based on the following normal conditions: outside air T = -5°C, ambient air T = 22°C; nominal air flow

2.3 ELECTRIC COIL "BE"

UT-REC DP		005	01	02	03	04
Heating capacity	kW	2,5	5	10	15	20
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Step	No.	1	1	1	1	1
Air outlet T**	°C	25	25	24	25	25
Weight	kg	3	3	3	4	4

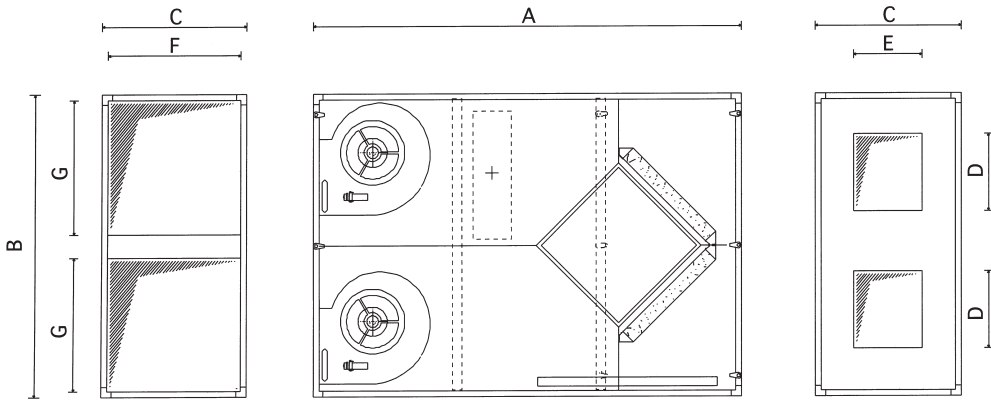
** Air outlet temp. with BE accessory at an IN air T = 10°C; nominal air flow rate

2.4 WATER-HEATING COIL "BW"

UT-REC DP		005	01	02	03	04
Rows	No.	2	2	2	2	2
Heating capacity	kW	5,9	9,5	13,5	18,8	22
Air outlet T***	°C	27,5	37,5	28,4	28,2	27,1
Air side pressure drop	Pa	25	35	115	147	108
Water side pressure drop	kPa	0,8	3,3	6,0	12,8	7,0
Weight	kg	10	14	14	16	18

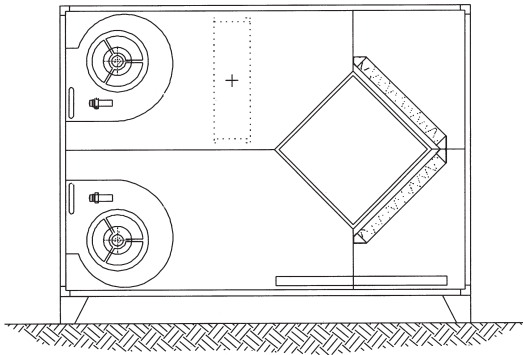
*** Air outlet temp. with BW accessory at an IN air T = 10°C; nominal air flow rate
Heating capacity of BW coil measured with water at 80-70°C

3. DIMENSIONS

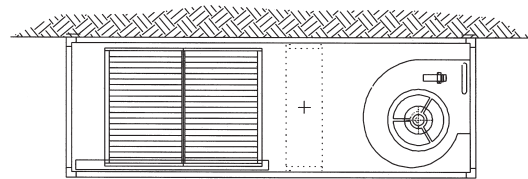


UT-REC DP			005	01	02	03	04
Dimensions	A	mm	1290	1310	1310	1660	1840
	B	mm	1040	1040	1040	1250	1400
	C	mm	400	500	500	600	650
	D	mm	135	205	265	295	395
	E	mm	225	235	235	265	341
	F	mm	320	460	460	560	570
	G	mm	380	380	380	470	555

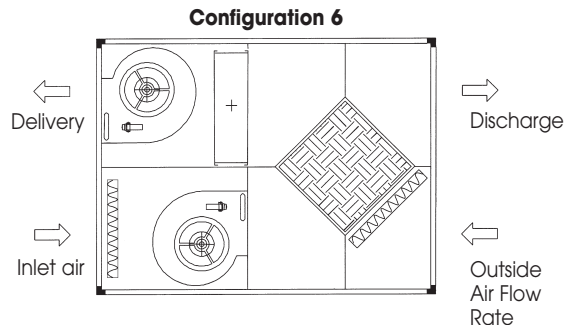
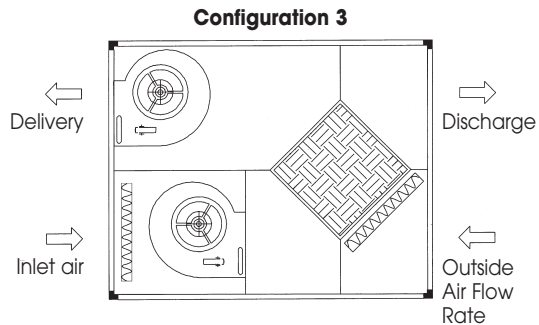
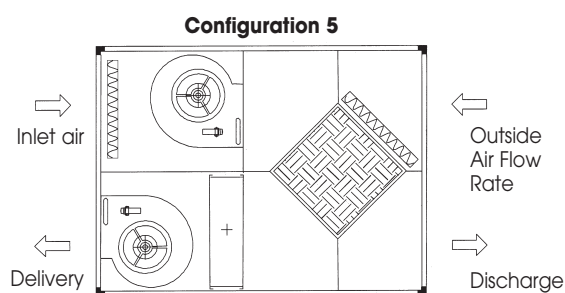
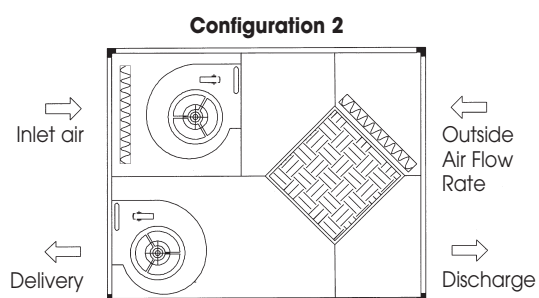
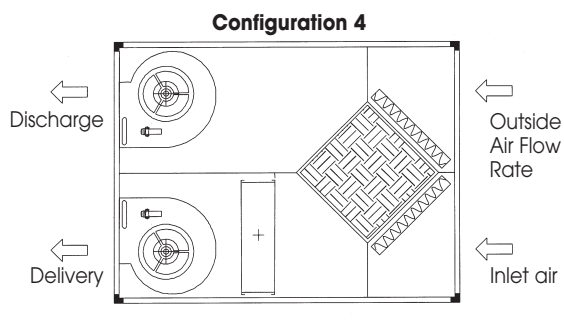
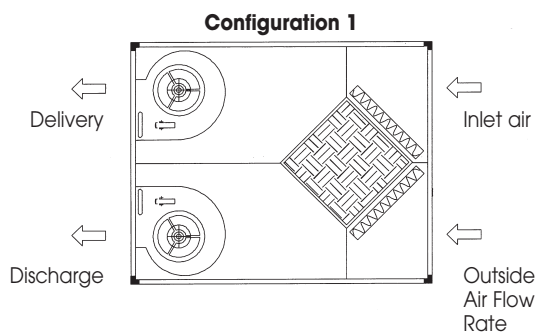
CONFIGURATION (V)



CONFIGURATION (H)



4. POSSIBLE CONFIGURATIONS

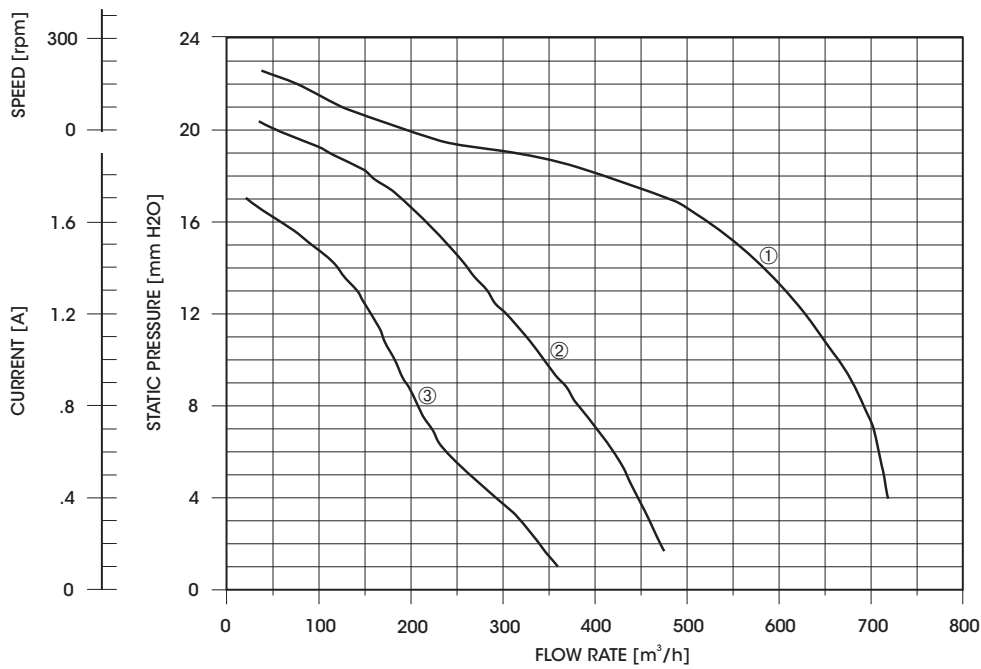


5. ACCESSORIES AVAILABLE

- 2 row water coil for post-heating only (**BW**)
- Electric heating coil, 3-phases, single-stage (**BE**)
- Safety micro-switch on inspection door (**MS**)
- Three speed switch (**CP**)

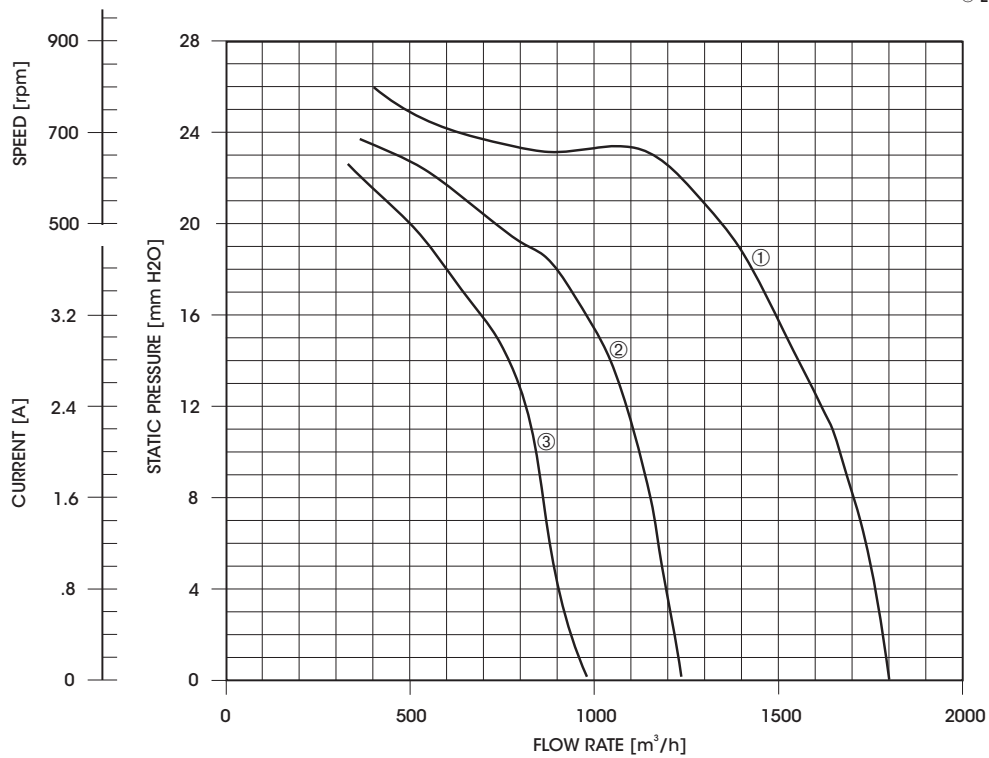
6. AIR FLOW CHARTS

UT-REC DP 005

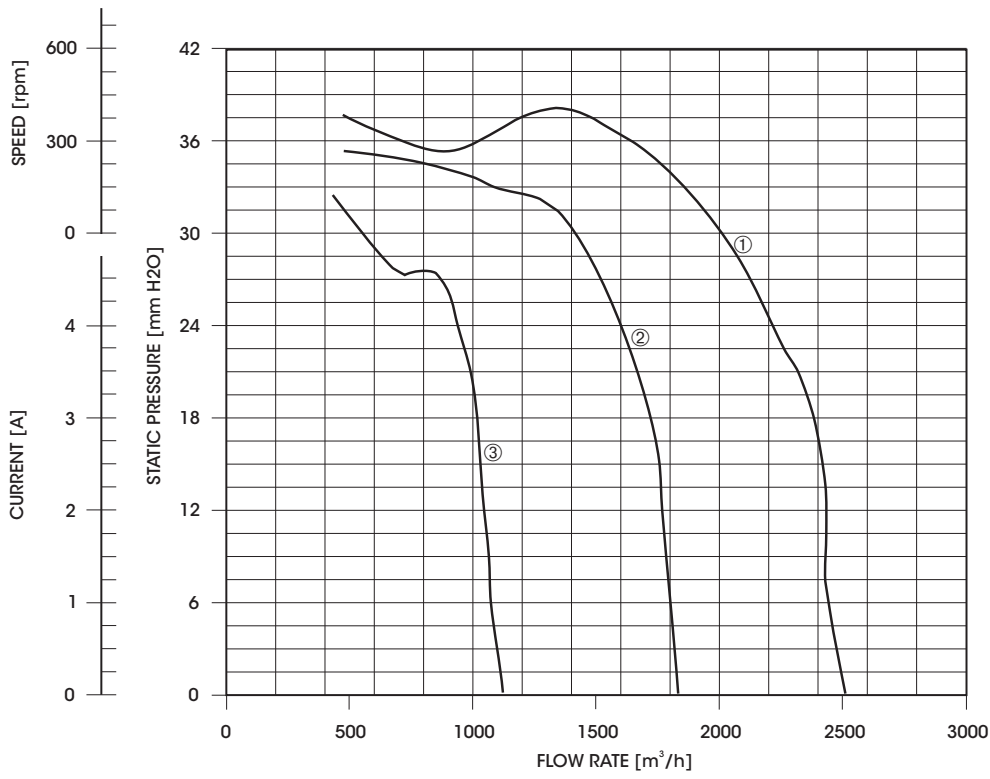


UT-REC DP 01

- ① HIGH SPEED
- ② MEDIUM SPEED
- ③ LOW SPEED

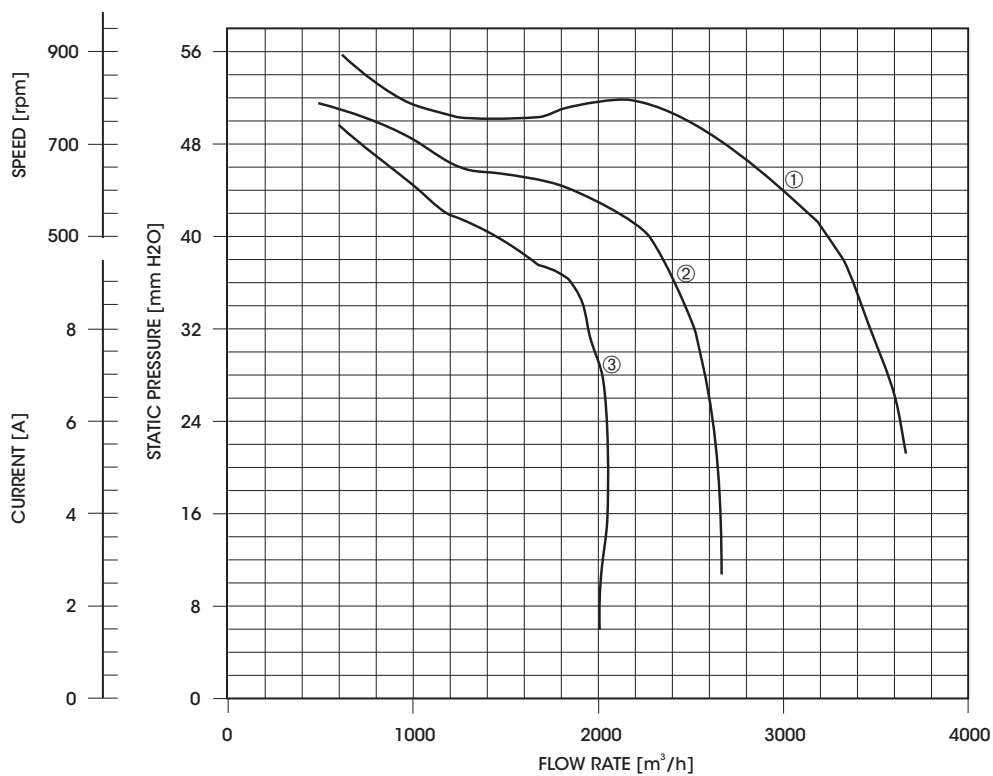


UT-REC DP 02

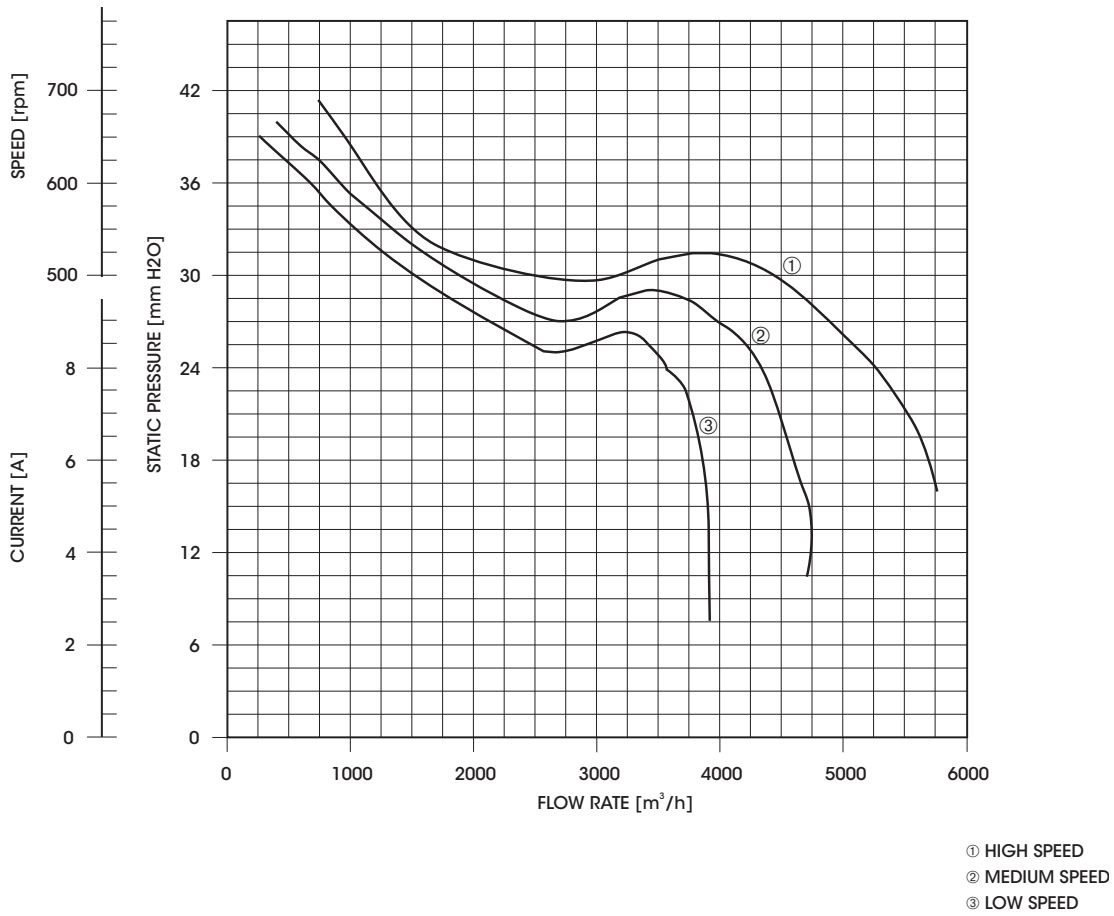


- ① HIGH SPEED
- ② MEDIUM SPEED
- ③ LOW SPEED

UT-REC DP 03



UT-REC DP 04





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NOTE TO SALES REPRESENTATIVES

In an effort to constantly improve our range of products, with the aim of increasing the level of customer satisfaction, we would like to inform you that the appearance, dimensions, technical data, and accessories of our products may be subject to change.

Therefore, the utmost care must be taken to ensure that all technical and/or sales documents (price lists, catalogues, brochures, etc.) provided to the end client are completely up to date.

cod. 69NG60500 - 10.2006



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