

## TECHNICAL SHEET



Ducted isothermal dehumidification module designed for horizontal installation in false ceilings to be combined with a controlled mechanical ventilation unit with adequate air flow. It consists of a complete refrigeration unit and pre- and post-treatment coils to be supplied with chilled water (15 °C). The unit has no fan. A siphon on condensate drain (SF-P) must be provided.

- Electric power max 500 W
- Power supply 230 Vac - 50 Hz
- Minimum air flow rate: 150 m<sup>3</sup>/h
- Refrigerant: R134a (284 g)
- Pre-treatment water flow rate 15 °C 300 l/h
- Post-treatment water flow rate 15 °C 100 l/h

### Component description

- **Compressor:** Hermetically sealed with a bipolar single-phase asynchronous motor coupled with an alternative single cylinder compressor
- **Coolant pressure transducer:** this is installed on the compressor delivery pipe and is designed to control the high pressure value of the chiller circuit and as an approximate pressure switch
- **Water temperature probe:** NTC sensor which measures the temperature of the water
- **Evaporator temperature probe:** NTC sensor which measures the temperature of the air after the condenser
- **Circuit board fuse:** 250V- 8 A

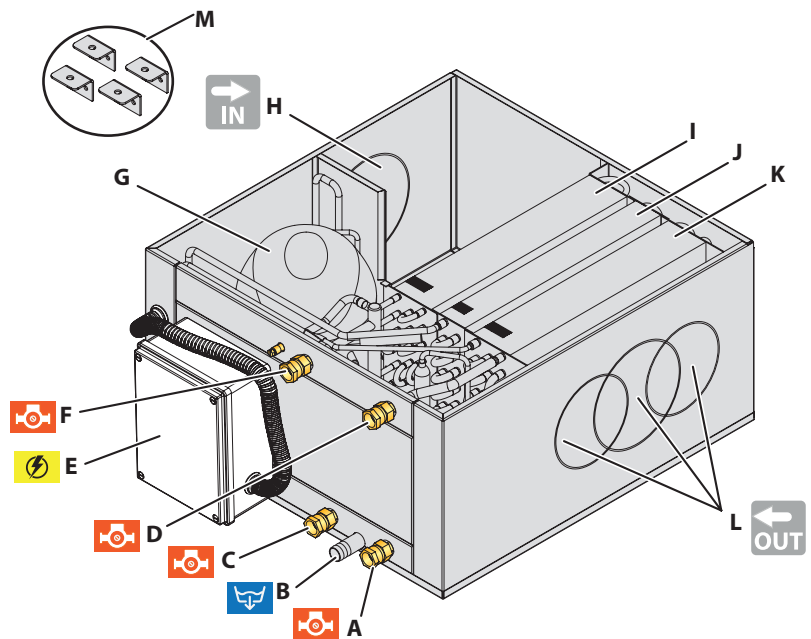
### Package content

- DWF 200
- Installation / Technical Manual

Description	Dimensions	Weight	Code
DWF 200	552x270x635 mm	31,5 kg	7044008

### COMPONENTS

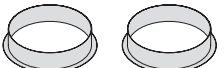
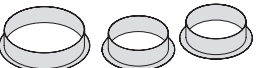
- Air Inlet from MVHR unit
- Air Outlet for supply to room
- Wiring Box
- Ø 20 mm Condensation Drain
- 1/2" F Hydraulic connection





Rif.	Descriptions
A	Water inlet for post-treatment coil
B	Condensation drain
C	Water inlet for pre-treatment coil
D	Water outlet for post-treatment coil
E	Wiring box
F	Water outlet for pre-treatment coil
G	Compressor
H	Air inlet
I	Pre-treatment coil
J	Evaporating coil
K	Condensing/post-treatment coil
L	Room air outlets
M	Fixing brackets

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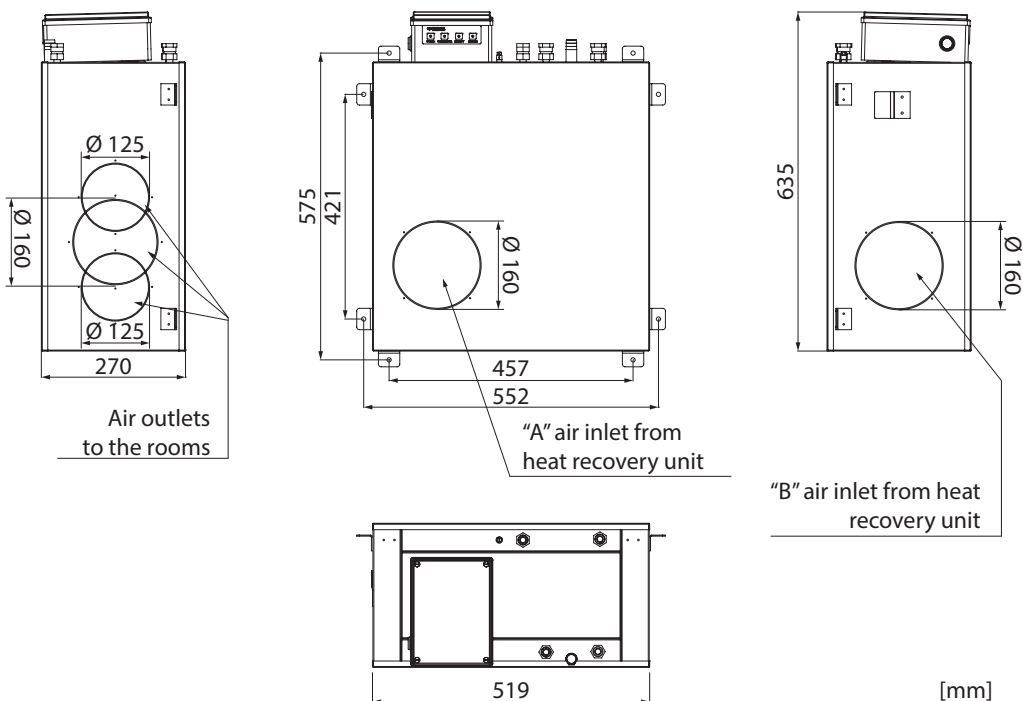
## MANDATORY COMPLEMENTS

Collars kit	Code
 <b>COLLARS KIT</b> 2x Ø 160 mm	<b>7044026</b>
 <b>COLLARS KIT</b> 1x Ø 160 mm + 2x Ø 125 mm	<b>7044031</b>

## ACCESSORIES

Condensate drain	Code
 <b>MP 2-12</b> Ø 3/4" Flow Meter - Kv 3,0	<b>7045557</b>
 <b>SF-P</b> Condensate drain kit with casing, designed for wall installation. It can be used in combination with RDZ air handling units, and it is suitable for Ø 20-32 mm piping. The external shell can be adjusted considering the thickness of the wall. Washable internal cartridge.	<b>7045502</b>

## DIMENSIONS AND TECHNICAL DATA



Overall unit dimension	
Height	270 mm
Width	635 mm
Length	519 mm
Weight	30 kg

## Technical characteristics

### Technical specifications

Maximum current consumption		2,5	A
Max absorbed electrical power		500	W
Standard air flow		200	m <sup>3</sup> /h
Chilled water flow (15 °C):	Pre-treatment coil	300	l/h
	Post-treatment coil	100	l/h
Dehumidification power:	Outdoor air at 35 °C 50% RH 150 m <sup>3</sup> /h	1,35	kW
	Outdoor air 35 °C 50% RH 200 m <sup>3</sup> /h	1,52	kW
Dehumidification capacity:	Outdoor air at 35 °C 50% RH 150 m <sup>3</sup> /h	46,5	l/day
	Outdoor air 35 °C 50% RH 200 m <sup>3</sup> /h	52,6	l/day
Air pressure drop in the unit:	150 m <sup>3</sup> /h	35	Pa
	200 m <sup>3</sup> /h	48	Pa
Hydraulic pressure drop (15 °C):	Pre-treatment	1498	DaPa
	Post-treatment	334	DaPa
Refrigerant (R134A)		284	g

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## ACOUSTIC CHARACTERISTICS

The detected acoustic value can be further improved thanks to the noise reduction offered by the presence of the plasterboard ceiling where the machine is installed.

Sound power detected	
DWF 200	Lw = 40 dBA



Sound power value measured on the DWF with the compressor switched on without taking into account the noise of the coupled fan unit.

## OPERATING LIMITS

### SUMMER OPERATION

Maximum permissible 'water temperature in operation 18 °C.  
Above 30 °C, the compressor is excluded.

### WINTER OPERATION

Permissible water temperature in operation <55 °C.  
At higher temperatures, the appliance may be damaged.

## SUMMER PERFORMANCE

Dehumidification performance according to the outdoor conditions. Inlet values to DWF 200 are based on the performance of HRX recovery unit, installed before the air circuit (temperature after the heat recovery unit ~27 °C).

Pre-treatment water flow: 300 l/h

Performance with water at 15 °C								
External air		Outlet air (POST 100 l/h)		Neutral air 25 °C		Latent cooling power		Cooling power to be supplied to the unit
				POST flow rate	R.H.			
°C	% UR	°C	% UR	l/h	%	W	l/g	W
<b>150 m<sup>3</sup>/h</b>								
30	50	23,0	38	62	34	866	29,9	1439
33	50	23,4	39	70	36	1136	39,2	1714
35	50	24,0	40	77	38	1346	46,5	1907
<b>200 m<sup>3</sup>/h</b>								
30	50	23,2	45	61	40	938	32,4	1581
33	50	23,9	49	75	43	1273	44,0	1792
35	50	24,5	47	87	46	1523	52,6	2137

Performance with water at 18 °C						
External air		Outlet air (POST 150 l/h)		Latent cooling power		Cooling power to be supplied to the unit
°C	% UR	°C	% UR	W	l/g	W
<b>150 m<sup>3</sup>/h</b>						
30	50	24,8	39	730	25,2	1246
33	50	25,2	41	1010	34,9	1523
35	50	25,5	42	1208	41,7	1727
<b>200 m<sup>3</sup>/h</b>						
30	50	24,78	45	775	26,8	1332
33	50	25,43	47	1091	37,7	1646
35	50	25,89	48	1347	46,5	1887

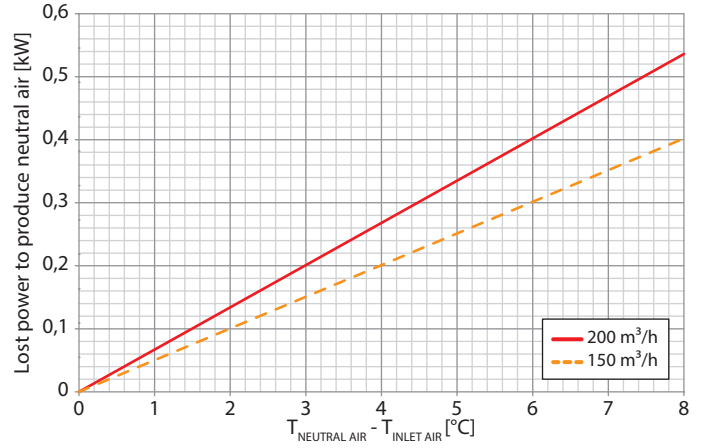
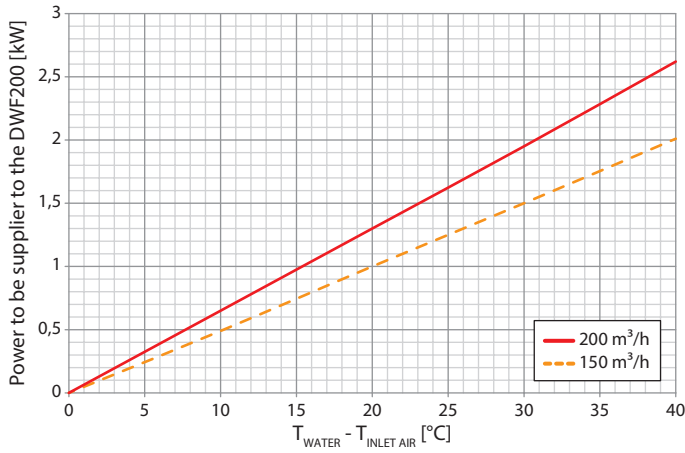
Pre-treatment water flow: 100 l/h

Performance with water at 10 °C								
External air		Outlet air (POST 75 l/h)		Neutral air 25 °C		Latent cooling power		Cooling power to be supplied to the unit
				POST flow rate	H.R.			
°C	% UR	°C	% UR	l/h	%	W	l/g	W
<b>150 m<sup>3</sup>/h</b>								
30	50	21,3	41	34	33	887	30,6	1538
33	50	22,3	43	47	37	1105	38,2	1756
35	50	23,2	45	59	40	1368	47,2	1897
<b>200 m<sup>3</sup>/h</b>								
30	50	22,1	48	37	40	915	31,6	1637
33	50	23,4	50	58	45	1184	40,9	1862
35	50	24,1	52	67	49	1387	47,9	2057

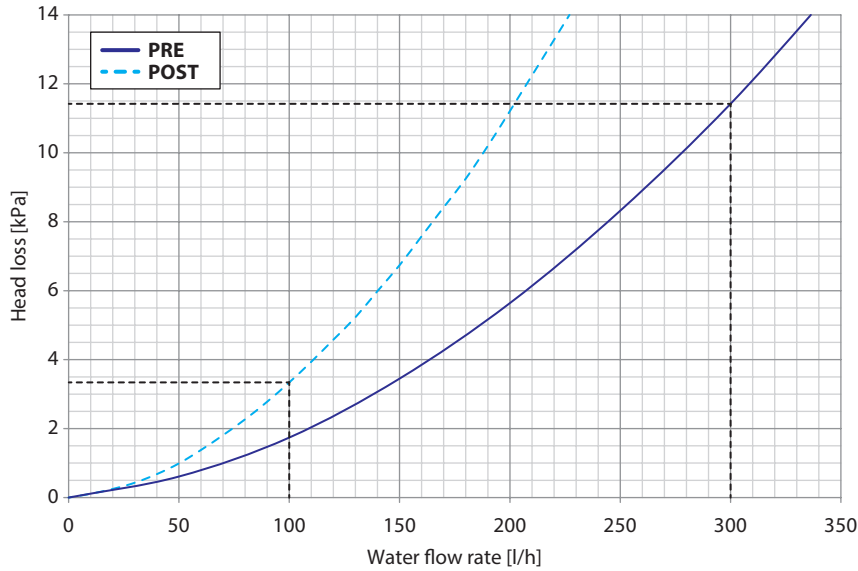
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## WINTER PERFORMANCE

If hot water circulation and fresh air ventilation are ON during winter running, the unit can supply addition sensible heat into the room.



## PRESSURE LOSS OF THE HYDRAULIC CIRCUIT



## HEAD LOSS IN THE AIR CIRCUIT

