

# MPW

## WALL TERMINAL UNIT



	Cooling	Heating
<b>MPW 1</b>	<b>1.24 kW</b>	<b>1.72 kW</b>
<b>MPW 2</b>	<b>1.67 kW</b>	<b>2.38 kW</b>
<b>MPW 3</b>	<b>3.17 kW</b>	<b>4.50 kW</b>
<b>MPW 4</b>	<b>3.67 kW</b>	<b>5.50 kW</b>

## CE MARKING

This product marked **CE** conforms to the essential requirements of the Directives :

- Low voltage no. 2006/95/EC,
- Electromagnetic Compatibility no. 89/336 EEC, modified 92/31 and 93/68 EEC.



## SUMMARY

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## 1 - PRESENTATION

### 1.1 - UTILISATION

- Units intended for climate control in buildings and the comfort of people.
- Do not place the device in rooms with high humidity or exposed to projections of water.

### 1.2 - FUNCTIONS

- Cooling or heating by means of a 2-pipe water coil.
- Ventilation with filtration (built-in filter).
- Heating by electric element (model BE).

### 1.3 - APPLICATIONS

- These units, derived directly from direct expansion models, are characterized by:
  - attractiveness,
  - compactness (using unused spaces),
  - a low sound level.

### 1.4 - MODELS

- "2-pipe" for all sizes, with wire or infrared remote control: MPW B 5B and MPW B 5X.
- "2-pipe + electric heating" (with electric heating element) for MPW 1 with wire remote control only: MPW 1 BE 5B.

## 2 - TECHNICAL CHARACTERISTICS

### 2.1 - NOMINAL CONDITIONS

Model				MPW 1 B	MPW 1 BE	MPW 2 B	MPW 3 B	MPW 4 B
Total cooling capacity	(1)	HS	kW	1.24	1.24	1.67	3.17	3.67
		MS	kW	---	---	---	2.53	3.14
		LS	kW	0.8	0.8	0.96	1.91	2.62
Sensible cooling capacity	(1)	HS	kW	0.94	0.94	1.3	2.56	3.01
		MS	kW	---	---	---	1.89	2.50
		LS	kW	0.58	0.58	0.74	1.53	2.12
Heating capacity	(2)	HS	kW	1.72	1.72	2.38	4.50	5.50
		MS	kW	---	---	---	3.50	4.50
		LS	kW	1.11	1.11	1.49	2.70	3.70
Electric heating capacity			kW	---	0.5	---	---	---
Air flow rate		HS	m <sup>3</sup> /h	220	220	270	510	710
			m <sup>3</sup> /s	0.061	0.061	0.075	0.142	0.197
		MS	m <sup>3</sup> /h	---	---	---	400	580
			m <sup>3</sup> /s	---	---	---	0.111	0.161
		LS	m <sup>3</sup> /h	150	150	180	320	470
			m <sup>3</sup> /s	0.042	0.042	0.05	0.089	0.131
Water flow rate in cooling		HS	l/h	215	215	290	545	630
		MS	l/h	---	---	---	435	540
		LS	l/h	135	135	165	330	450
Pressure drop on water in cooling in the appliance (10 kPa = 1 m WG)	(1)	HS	kPa	16.1	16.1	27.2	29.4	35.1
		MS	kPa	---	---	---	19.1	26
		LS	kPa	5.8	5.8	9.7	10.3	18.2
Pressure drop on water in heating	(2)	HS	kPa	15.3	15.3	26.2	27.5	31.8
Power supply			V/f/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max. power consumption			kW	0.025	0.525	0.025	0.075	0.080
Max. current consumption			A	0.11	2.3	0.11	0.33	0.36
Hydraulic connection				1/2" Gaz female	1/2" Gaz female	1/2" Gaz female	1/2" Gaz female	1/2" Gaz female
Sound power level		HS	dB(A)	41	41	45	58	59
		MS	dB(A)	---	---	---	52	53
		LS	dB(A)	32	32	35	46	48
Calculated sound pressure (at 2 m indoors)		HS	dB(A)	32	32	36	49	50
		MS	dB(A)	---	---	---	43	44
		LS	dB(A)	23	23	26	37	39

(1) Air inlet: 27°C (DB) / 19°C (WB); water: inlet at 7°C, outlet at 12°C.

(2) Air inlet: 20°C; water inlet: 50°C (same flow-rate as under other conditions (1)).

### 2.2 - OTHER CONDITIONS

• Consult us.

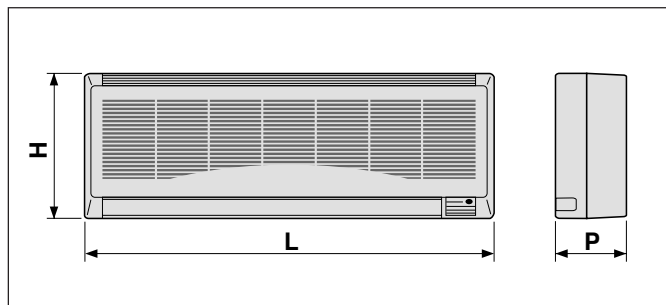
• **Operating limits:**

- Minimum water inlet temperature : 4°C.
- Maximum water inlet temperature : 60°C.
- Maximum operating pressure of the hydraulic circuit: 16 bar.
- Minimum air recirculation temperature : 5°C.
- Maximum air recirculation temperature : 32°C.

### 3 - PHYSICAL CHARACTERISTICS

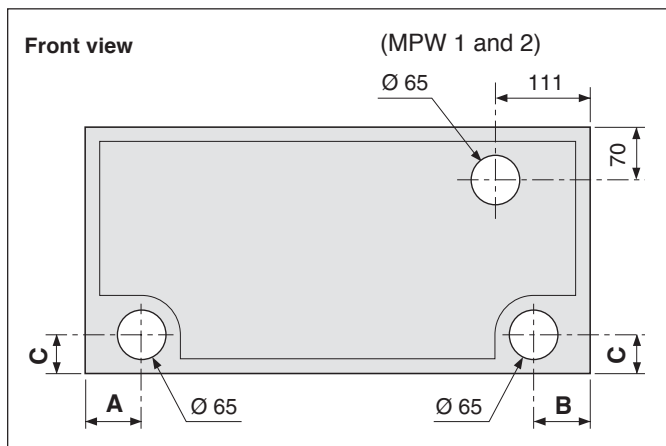
• **Materials:**

- Wall metal support.
- Plastic body.
- Copper/aluminium exchanger.
- Copper piping.



			MPW 1 MPW 2	MPW 3 MPW 4
Overall dimensions	L	mm	805	995
	H	mm	270	285
	P	mm	177	237
	Weight	kg	8	12
Overall packed dimensions	L	mm	850	1070
	H	mm	330	360
	P	mm	245	290
	Weight	kg	10	15

- Tubes may be configured for output at the rear of the unit.



	MPW 1 MPW 2	MPW 3 MPW 4
A	50	135
B	90	135
C	41	45

### 4 - DESCRIPTION

Model	MPW 1 B	MPW 1 BE	MPW 2 B	MPW 3 B	MPW 4 B
<b>Copper/aluminium thermal exchanger</b>	●	●	●	●	●
Number of rows	2	2	2	2	2
Frontal surface area	m <sup>2</sup> 0.095	0.095	0.115	0.156	0.156
Water capacity	litres 0.3	0.3	0.39	0.8	0.8
<b>Hydraulic connection</b>	1/2" Gaz female	1/2" Gaz female	1/2" Gaz female	1/2" Gaz female	1/2" Gaz female
<b>Electrical motor</b> with internal thermal protection	●	●	●	●	●
Power supply	230 V / 1 + Earth / 50 Hz	●	●	●	●
Number of speeds	2	2	2	3	3
Capacitor	µf 0.6	0.6	1	0.8	1.5
<b>Tangential fan</b>	●	●	●	●	●
<b>Air filter</b>	●	●	●	●	●
in class HB polypropylene (UL94) - Washable	●	●	●	●	●
<b>Flexible connection tubes</b>	●	●	●	●	●
<b>Condensate drain pan</b>	●	●	●	●	●
expanded polystyrene, supplied with drainage hose	●	●	●	●	●
End fitting OD	mm 18	18	18	18	18
<b>Power supply cable</b> , length: 2.50 m	●	---	●	---	---
<b>Wire remote control version</b>	●	●	●	●	●
<b>Infrared remote control version</b>	●	---	●	●	●

## 5 - ACCESSORIES

### 5.1 - ACTIVE CARBON FILTER

- Code **397021909** for MPW 1 and 2.
- Code **397021910** for MPW 3 and 4.

### 5.2 - 3-WAY VALVE + BY-PASS

- Code **70600071**
    - 1/2" Gaz male.
    - KVS 1.6.
    - "On/Off" motor 230 VAC.
    - To be assembled outside the unit.
- Note:** The valve is supplied without connection or tube.
- This valve kit can be mounted on all models **and is obligatory for cold water use**.
  - If this valve is not installed, there is a risk of condensation forming on the machine when it is switched off by the thermostat.

### 5.3 - REMOTE CONTROLS (for the wire remote control version)

Model	MPW B	MPW BE	
		2-pipe Cooling + electric heating	2-pipe Heating/Cooling + electric heating
<b>70250076</b> Manual remote control	●	● (*)	---
<b>70250051</b> RCC 10 automatic remote control for 2-pipe units	●	---	---
<b>70250052</b> RCC 20 automatic remote control for 2-pipe units + electrical resistance	---	● (*)	●
<b>70250053</b> Change/over sensor with bracket for RCC	●	●	●
<b>70250054</b> Air temperature sensor in box for RCC	●	●	●

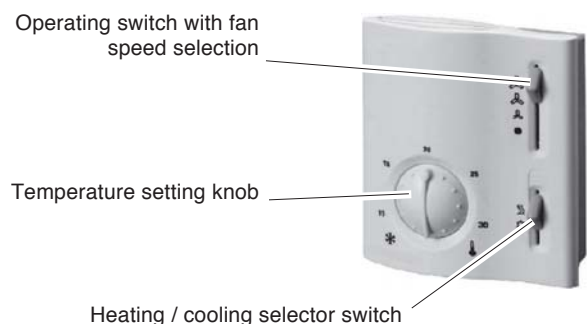
**Note:** "On-Off" action on valve, 230 VAC (accessory) or action on ventilation.

(\*) **Caution:** The configuration "2-pipe Cooling + Electric heating" requires a valve.

### A - MANUAL REMOTE CONTROL

- Code **70250076**.
- The operating mode is selected **manually** by a switch on the front of the control unit.

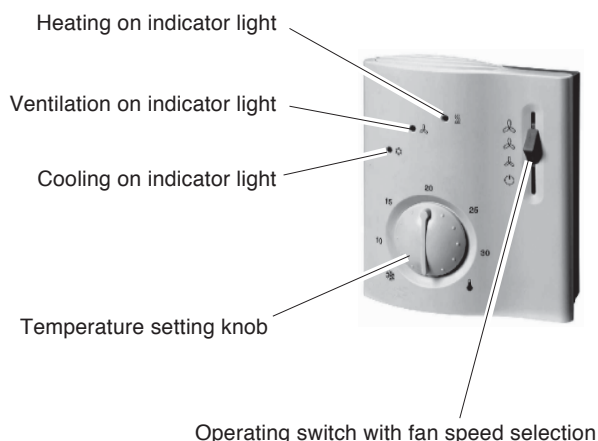
- Technology : electromechanic.
- Power supply : 230 Vac
- Set-point adjustment range: 8 / 30°C (possibility of mechanical limitation by jumpers on the knob)
- "On-Off" action
- Control differential :  $\leq 1^{\circ}\text{K}$
- Operating temperature : 0 / 50°C
- Relative humidity : < 95%
- Protection class : cl. II
- IP : 30
- Colour : White RAL 9003



## B - AUTOMATIC REMOTE CONTROLS

- **Type RCC 10 - code 70250051 and type RCC 20 - code 70250052.**
- Selection of the operating mode is done **automatically**.
- **For the 2-pipe units** capable of heating and cooling operation, a change-over sensor must be connected (accessory, code 70250053) to the installation on the water piping.  
This change-over sensor can be replaced by a potential-free contact (not supplied), the closing of which causes changeover to cooling mode.
- There is a possibility to connect a remote air temperature sensor, bare (accessory, code 70250053) or box mounted (accessory, code 70250054).
- Permanent or slaved ventilation.
- Mode change is possible (Eco or Stand-by) by an external potential-free contact (not supplied).

- |  |   |
|--|---|
| • Technology                           | : electronic.   |
| • Power supply                         | : 230 Vac   |
| • Set-point adjustment range: 8 / 30°C | (possibility of mechanical limitation by jumpers on the knob) |
| • "On-Off" action                      |   |
| • Heating differential                 | : adjustable 1 or 4 <sup>K</sup>                              |
| • Cooling differential                 | : adjustable 0.5 or 2 <sup>K</sup>                            |
| • Neutral zone (on RCC 20)             | : adjustable 2 or 5 <sup>K</sup>                              |
| • Setpoint in "Eco" mode               | : 16°C in heating mode<br>28°C in cooling mode                |
| • Setpoint in "Standby"                | : 8°C in heating mode   |
| • Operating temperature                | : 0 / 50°C  |
| • Relative humidity                    | : < 95%   |
| • Protection class                     | : cl. II  |
| • IP                                   | : 30  |
| • Colour                               | : White RAL 9003  |



## C - TEMPERATURE SENSOR (BARE)

- Code **70250053**.
- For RCC type remote control.
- Use:
  - change over sensor (equipped with a tube retaining clip) for "2-tube" appliances may operate in heating and cooling mode.
- Thermistance type CTN 3 k $\Omega$  at 25°C.
- IP 65 - protection class: cl. II.

## D - BOX-MOUNTED AIR TEMPERATURE SENSOR

- Code **70250054**.
- For RCC remote controls.
- Enables the control unit to be placed outside the room to be air conditioned.
- Thermistance type CTN 3 k $\Omega$  at 25°C.
- The unit is mounted in a box similar to the remote control (IP 30 - protection class: cl. II - colour: white RAL 9003).



Due to our policy of continuous development, our products are liable to modification without notice.

# Technibel

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