

**QTS®****SELECTION TECHNICAL BOOKLET****Bi2 SYSTEM TERMINALS  
FAN RADIATORS AND FAN COILS**



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## Symbols

Below are the various symbols used in the technical booklet to draw attention to information of particular importance:



Failure to observe the information and warnings marked with this symbol could lead to damage to the machine or compromise the safety of the personnel.



Failure to observe the information and warnings of an electrical nature marked with this symbol could lead to damage to the machine or compromise the safety of the personnel.

# 1 RANGE OF SYSTEM TERMINALS

## 1.1 CABINET SYSTEM TERMINALS

### SMART CABINET SYSTEM TERMINALS

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**Bi2** smart



Bi2 SLR smart	Bi2 SL smart
TOTAL FLAT FAN RADIATOR	TOTAL FLAT FAN COIL
<ul style="list-style-type: none"> <li>● AC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> wall</li> <li> floor</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● AC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> ceiling*</li> <li> wall</li> <li> floor</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>
<p><b>Bi2 SLR smart inverter</b></p> <p><b>INVERTER TOTAL FLAT FAN RADIATOR</b></p> <ul style="list-style-type: none"> <li>● BRUSHLESS DC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> wall</li> <li> floor</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>	<p><b>Bi2 SL smart inverter</b></p> <p><b>INVERTER TOTAL FLAT FAN COIL</b></p> <ul style="list-style-type: none"> <li>● BRUSHLESS DC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> ceiling*</li> <li> wall</li> <li> floor</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>

\* Required: tray kit for ceiling installation and spacer foot kit.

## PLUS CABINET SYSTEM TERMINALS

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Bi2 SLR+ inverter	Bi2 SL+ inverter
INVERTER FAN RADIATOR	INVERTER FAN COIL
<ul style="list-style-type: none"> <li>● BRUSHLESS DC MOTOR</li> <li>● INSTALLATION:</li> </ul> <p> wall  floor</p>	<ul style="list-style-type: none"> <li>● BRUSHLESS DC MOTOR</li> <li>● INSTALLATION:</li> </ul> <p> ceiling*  wall  floor</p>
<ul style="list-style-type: none"> <li>● AVAILABLE COLOURS:</li> </ul> <p><input type="checkbox"/> white choice of colours**</p>  	<ul style="list-style-type: none"> <li>● AVAILABLE COLOURS:</li> </ul> <p><input type="checkbox"/> white choice of colours**</p>  

\* Required: tray kit for ceiling installation and spacer foot kit.

\*\*Options available on request. Terms of delivery and minimum lots to be arranged

NANO CABINET SYSTEM TERMINALS

page 38

**Bi2** nano



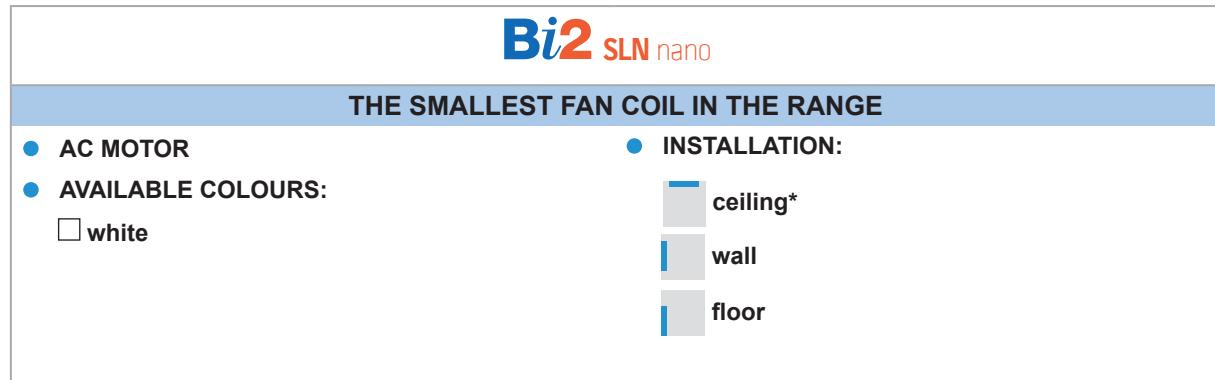
**Bi2 SLN nano**

THE SMALLEST FAN COIL IN THE RANGE

- AC MOTOR
- AVAILABLE COLOURS:
  - white

● INSTALLATION:

- ceiling\*
- wall
- floor



\* Required: tray kit for ceiling installation and spacer foot kit.

## 1.2 RECESSED SYSTEM TERMINALS

### NAKED RECESSED SYSTEM TERMINALS

page 46

**Bi2** naked



Bi2 SLIR naked	Bi2 SLI naked
RECESSED FAN RADIATOR	RECESSED FAN COIL
<ul style="list-style-type: none"> <li>● AC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> wall</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● AC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> ceiling</li> <li> wall</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>
Bi2 SLIR naked inverter	Bi2 SLI naked inverter
RECESSED INVERTER FAN RADIATOR	RECESSED INVERTER FAN COIL
<ul style="list-style-type: none"> <li>● BRUSHLESS DC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> wall</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● BRUSHLESS DC MOTOR</li> <li>● INSTALLATION:           <ul style="list-style-type: none"> <li> ceiling</li> <li> wall</li> </ul> </li> <li>● AVAILABLE COLOURS:           <ul style="list-style-type: none"> <li><input type="checkbox"/> white</li> </ul> </li> </ul>

## 1.3 4-PIPE SYSTEM TERMINALS

### 4-PIPE SYSTEM TERMINALS

**Bi2** 4 tubi



page 62

**Bi2 SLR 4 tubi**

#### FAN RADIATOR FOR 4-PIPE SYSTEMS

- AC MOTOR
- AVAILABLE COLOURS:
  - white

#### ● INSTALLATION:

- wall
- floor

**Bi2 SL 4 tubi**

#### FAN COIL FOR 4-PIPE SYSTEMS

- AC MOTOR
- AVAILABLE COLOURS:
  - white

#### ● INSTALLATION:

- ceiling\*
- wall
- floor

**Bi2 SLI 4 tubi**

#### RECESSED FAN COIL FOR 4-PIPE SYSTEMS

- AC MOTOR

#### ● INSTALLATION:

- ceiling
- wall

\* Required: front drip tray kit and spacer foot kit.

## 1.4 WALL SYSTEM TERMINALS

### WALL SYSTEM TERMINALS

page 76

**Bi2** wall



**Bi2 SLW wall**

#### WALL INVERTER FAN COIL

- BRUSHLESS DC MOTOR

- AVAILABLE COLOURS:

- white

- INSTALLATION:

high-wall

console

## 2 TECHNICAL BOOKLETS

### 2.1 Bi2 SMART MODEL TECHNICAL BOOKLET



#### 2.1.1 FUNDAMENTAL CHARACTERISTICS

- It air-conditioning, dehumidifies, heats and filters.
- Terminal with integrated radiant panel (SLR versions).
- Compact: min 12.9 cm, max 15 cm depth.
- Smart sides in ABS.
- Aesthetic Total Flat design with intake at the bottom.
- Removable filters.
- Five models (200, 400, 600, 800, 1000).
- Two versions: SLR Smart fan radiator and SL Smart fan coil.
- Two types of motor: AC (Bi2 Smart), Brushless DC (Bi2 Smart Inverter).

### 2.1.2 GENERAL CHARACTERISTICS

- The depth of the Bi2 Smart system terminals is a minimum of 12.9 cm at the top and a maximum of 15 cm at the bottom. Range available in five models. The Smart design has rounded sides in ABS. Front panel and air outlet grille in galvanised sheet metal painted RAL9010 white. Intake and access to the removable filters at the bottom of the terminal.
- Sturdy structure in galvanised steel.
- High efficiency resin pack brushless DC motor, motor also available in AC version. Tangential fan in synthetic material and with staggered fins for silent operation.
- Two-row heat exchange coils with copper pipes and lanced aluminium fins for optimal heat exchange, circuits designed for low pressure drops on the water side,  $\frac{3}{4}$  Eurocone hydraulic connections.
- Radiant+ technology involves the use of a front radiant panel, available in SLR SMART and SLR SMART INVERTER versions, that improves heating performance by acting as a traditional heating body in stationary conditions; forced ventilation occurs only in transitional periods to respond quickly to the demand for more heating power.
- The radiant panel has better static capacity due to:
  - A higher average surface temperature and, therefore, more irradiated power.
  - Greater uniformity in surface heating due to a larger radiant surface.
  - Better natural convection.
  - Less water content for quicker start-up of the system.
  - Silent operation in night mode.
  - Radiant heating without electric absorption of the fan.
  - The flow of water into the radiant panel is controlled by means of a special Kalorstat valve in the hydraulic unit sensitive to water temperature. If the water temperature drops below 30 °C, the flow is cut off automatically to prevent condensation from forming on the surface of the panel.
- Availability of a wide range of controls:
  - autonomous ones on the unit also with touch interface and remote control;
  - for remote control of a control panel to be installed on the wall;
  - with communication over MODBUS RS485 ASCII protocol for advanced BMS management;
  - with interface for 0-10V analogue signal.
- The various models have different operating modes and features like:
  - Stand-by.
  - Automatic (modulating ventilation).
  - Manual selection of fan speed.
  - Night, ventilation excluded in heating mode for radiant versions.
  - Presence contact for switching off or attenuation by voltage-free contact.
  - Contact for enabling the boiler and/or chiller.
- The sets of compact two or three-way valves designed for the slimline Bi2 range guarantee proper operation and management of the terminals.

### 2.1.3 TECHNICAL DATA

Below are tables summarising the technical data (Tab. 1, Tab. 2, Tab. 3 and Tab. 4).

Bi2 SLR SMART		200	400	600	800	1000
Total cooling capacity <b>(a)</b>	kW	0.81	1.73	2.53	3.27	3.77
Sensible cooling capacity	kW	0.63	1.24	1.93	2.52	2.97
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) <b>(b)</b>	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) <b>(c)</b>	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.80
Water content of the radiant panel	l	0.30	0.50	0.60	0.70	0.90
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate <b>(d)</b>	m³/h	100	170	180	370	420
Max air flow rate <b>(d)</b>	m³/h	160	320	460	575	650
Minimum absorbed power	W	6	9	9	17	19
Maximum absorbed power	W	17	28	35	38	43
Min sound power LW	dB(A)	38	39	41	39	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure <b>(e)</b>	dB(A)	34	36	37	35	38
Power supply	V/ph/ Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max static heating capacity (50 °C)	kW	0.37	0.42	0.50	0.62	0.77
Max static heating capacity (70 °C)	kW	0.59	0.71	0.84	1.04	1.28
Notes						
<b>(a)</b> Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
<b>(b)</b> Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
<b>(c)</b> Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
<b>(d)</b> Air flow rate measured with clean filters						
<b>(e)</b> Sound pressure measured at 1.5 m						
Bi2 SLR Smart technical data						
Tab. 1						

# Bi2 SMART TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** smart

Bi2 SLR SMART INVERTER		200	400	600	800	1000
Total cooling capacity <b>(a)</b>	kW	0.82	1.74	2.54	3.29	3.78
Sensible cooling capacity	kW	0.64	1.25	1.94	2.54	2.98
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) <b>(b)</b>	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) <b>(c)</b>	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.80
Water content of the radiant panel	l	0.30	0.50	0.60	0.70	0.90
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate <b>(d)</b>	m³/h	100	170	180	370	420
Max air flow rate <b>(d)</b>	m³/h	160	320	460	575	650
Minimum absorbed power	W	5	6	7	8	9
Maximum absorbed power	W	11	19	20	24	27
Min sound power LW	dB(A)	38	39	41	42	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure <b>(e)</b>	dB(A)	34	36	37	35	38
Power supply	V/ph/ Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max static heating capacity (50 °C)	kW	0.37	0.42	0.50	0.62	0.77
Max static heating capacity (70 °C)	kW	0.59	0.71	0.84	1.04	1.28
Notes						
<b>(a)</b> Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
<b>(b)</b> Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
<b>(c)</b> Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
<b>(d)</b> Air flow rate measured with clean filters						
<b>(e)</b> Sound pressure measured at 1.5 m						
Bi2 SLR Smart Inverter technical data						
Tab. 2						

Bi2 SL SMART		200	400	600	800	1000
Total cooling capacity (a)	kW	0.81	1.73	2.53	3.27	3.77
Sensible cooling capacity	kW	0.63	1.24	1.93	2.52	2.97
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) (b)	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) (c)	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.8
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate (d)	m³/h	100	170	180	370	420
Max air flow rate (d)	m³/h	160	320	460	575	650
Power absorbed at minimum speed	W	6	9	9	17	19
Maximum absorbed power	W	17	28	35	38	43
Min sound power LW	dB(A)	38	39	41	39	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure (e)	dB(A)	34	36	37	35	38
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SL Smart technical data					Tab. 3	

# Bi2 SMART TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** smart

Bi2 SL SMART INVERTER		200	400	600	800	1000
Total cooling capacity <b>(a)</b>	kW	0.82	1.74	2.54	3.29	3.78
Sensible cooling capacity	kW	0.64	1.25	1.94	2.54	2.98
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) <b>(b)</b>	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) <b>(c)</b>	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.80
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate <b>(d)</b>	m³/h	100	170	180	370	420
Max air flow rate <b>(d)</b>	m³/h	160	320	460	575	650
Power absorbed at minimum speed	W	5	6	7	8	9
Maximum absorbed power	W	11	19	20	24	27
Min sound power LW	dB(A)	38	39	41	42	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure <b>(e)</b>	dB(A)	34	36	37	35	38
Power supply	V/ph/ Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Notes						
<b>(a)</b> Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
<b>(b)</b> Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
<b>(c)</b> Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
<b>(d)</b> Air flow rate measured with clean filters						
<b>(e)</b> Sound pressure measured at 1.5 m						
Bi2 SL Smart Inverter technical data						
Tab. 4						

## 2.1.4 COMPONENTS

The system terminals comprise the following main components (see Fig. 1):

- A. Supporting structure:** in high-tensile electrogalvanised sheet steel.
- B. High efficiency water-cooled heat exchange coil** with copper pipes and corrugated fins in aluminium. 3/4 Eurocone threaded hydraulic connections compliant with the new requirements of Community standardisation. The coil has a sensor for detecting the water temperature.
- C. High efficiency radiant panel** hydraulically connected to the hot water coil (SLR versions). The circuit has a Kalorstat valve which prevents cold water from entering the panel.
- D. Fan unit** comprising a tangential fan made of synthetic material with staggered fins (very low noise) mounted on anti-vibration mounts in EPDM, statically and dynamically balanced, and fitted directly on the motor shaft.
- E. Resin pack electric motor** mounted on anti-vibration mounts in EPDM, available in two versions: AC and Brushless DC.
- F. Reversible air outlet grille** painted with oven-dried epoxy powders.
- G. Drip tray** for vertical installation, in ABS, easy to disassemble for cleaning operations. The horizontal drip tray kit is available as an accessory for horizontal installation of the SL versions.
- H. High-tensile anti-condensation structural back panel.**
- I. Front panel** in electro-galvanised sheet metal painted with oven-dried epoxy powders, removable side panels in ABS painted with coloured paste.
- J. Intake grille** in galvanised sheet metal, air filters that can be removed from the front.

# Bi2 SMART TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** smart

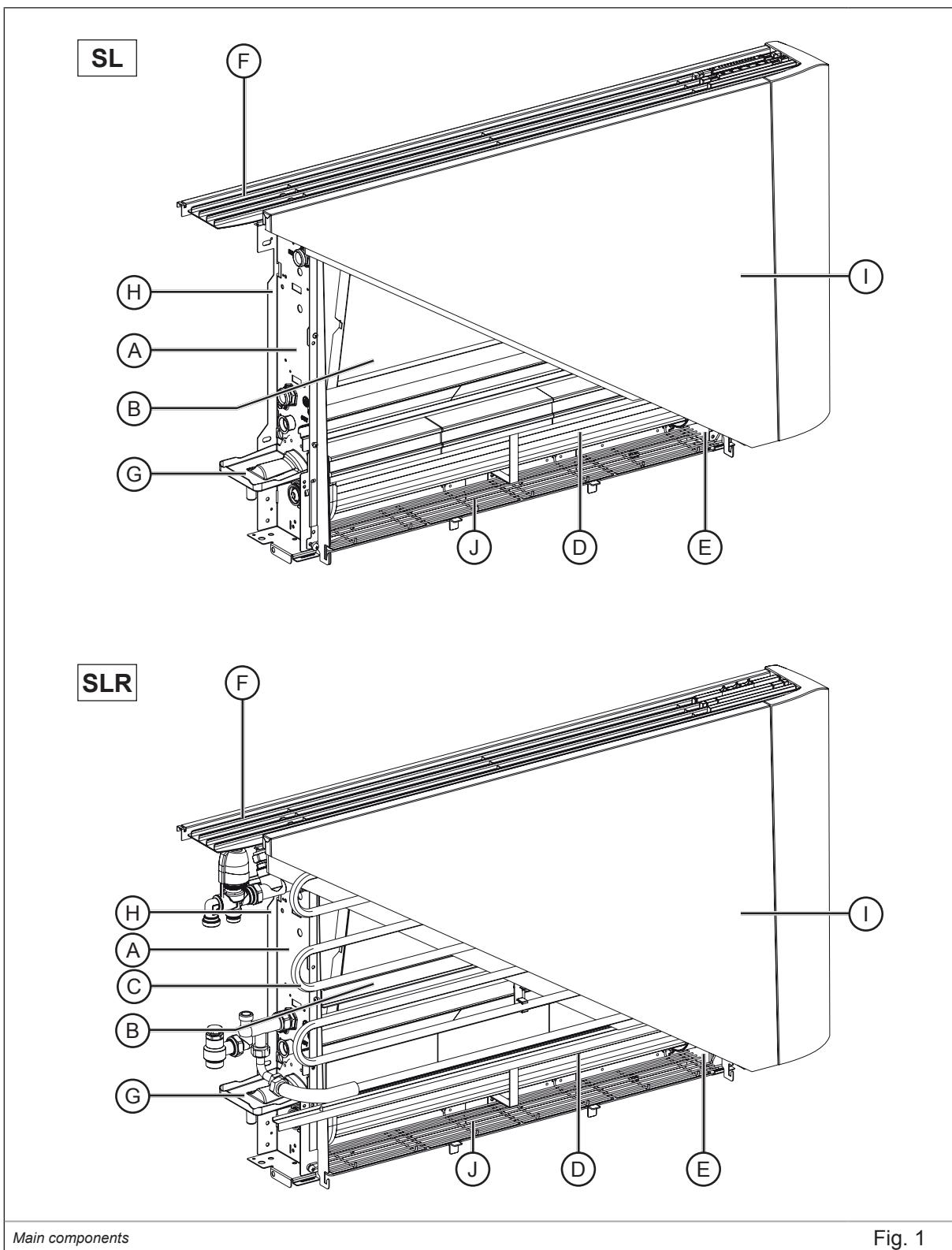


Fig. 1

Note: electrovalve kit available as an accessory for all models.

## 2.1.5 DIMENSIONS AND POSITIONING

### 2.1.5.1 DIMENSIONS OF THE SLR AND SL VERSIONS

Below is the layout of the fan radiator in the SLR and SL versions (Fig. 2) and a table summarising the dimensions and weight values (Tab. 5).

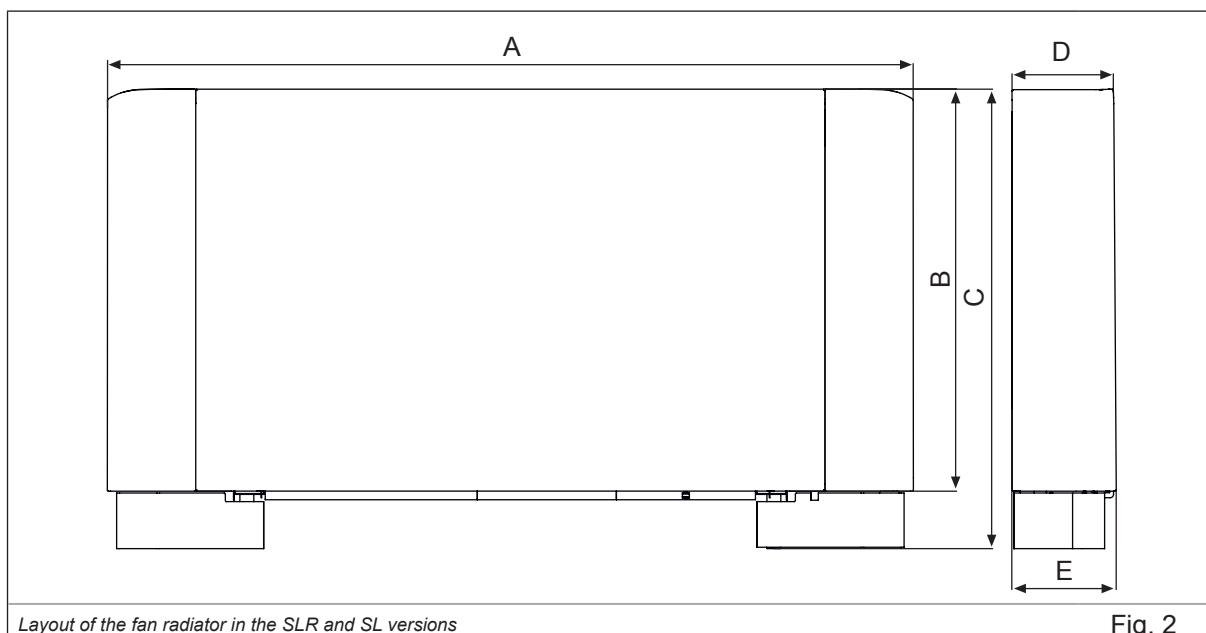


Fig. 2

Ref. Fig. 2		200	400	600	800	1000
A	mm	759	959	1159	1359	1559
B	mm	579	579	579	579	579
C	mm	659	659	659	659	659
D	mm	129	129	129	129	129
E	mm	150	150	150	150	150
Weight of the SLR	kg	13.5	15.5	19.5	22.5	25.5
Weight of the SL	kg	11.5	13.0	15.5	18.5	21.5

*Dimensions and weight values of the SLR and SL*

Tab. 5

### 2.1.5.2 POSITIONING OF THE SYSTEM TERMINALS

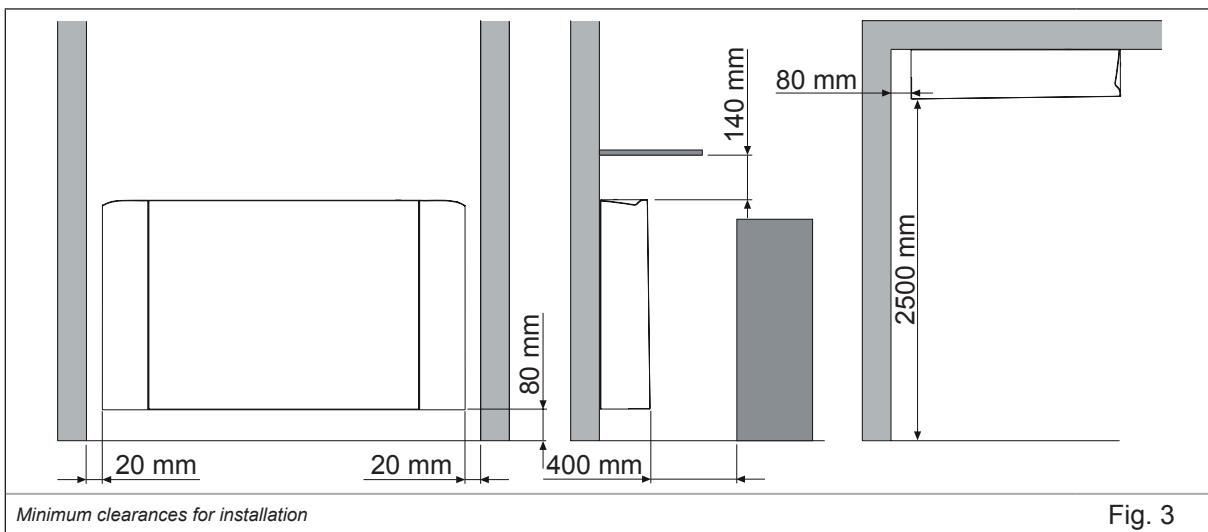
Before positioning the system terminals, make sure that:

- The wall on which the terminal is to be installed is suitable in terms of structure and capacity.
- There are no pipes or power lines in the area of the wall.
- The wall is perfectly level.
- The area is free from obstacles that could prevent the air from flowing freely in and out.
- In the case of installation on the ceiling, the flow of air is not aimed directly at people.

The terminal must be installed in such a way as to facilitate routine maintenance (cleaning the filter) and special maintenance, and ensure access to the air vent valves (coil and panel) from the upper grille, on the connections side.

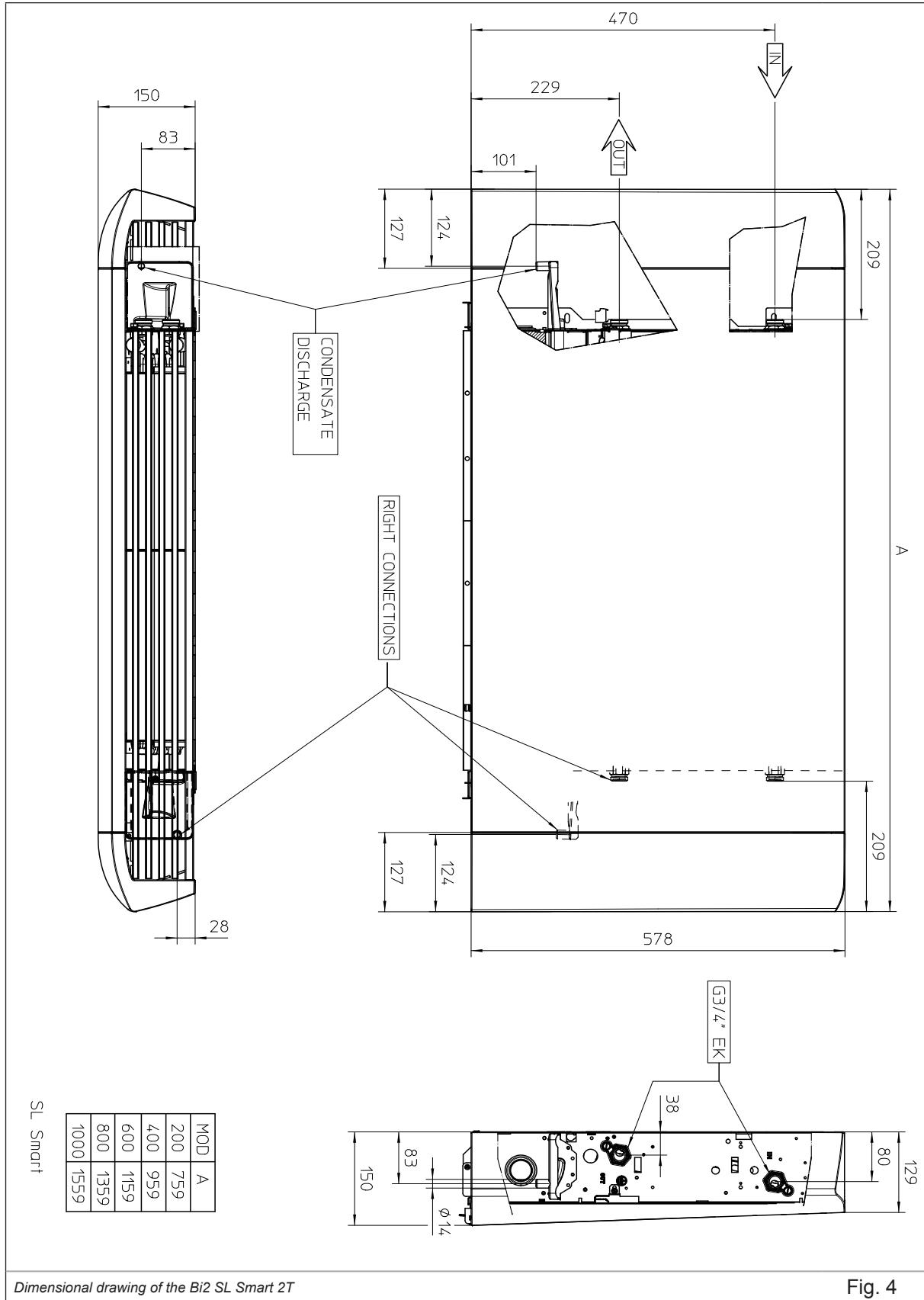
#### MINIMUM CLEARANCES FOR INSTALLATION

In Fig. 3 are the minimum clearances for installation from walls or obstacles in the vicinity.



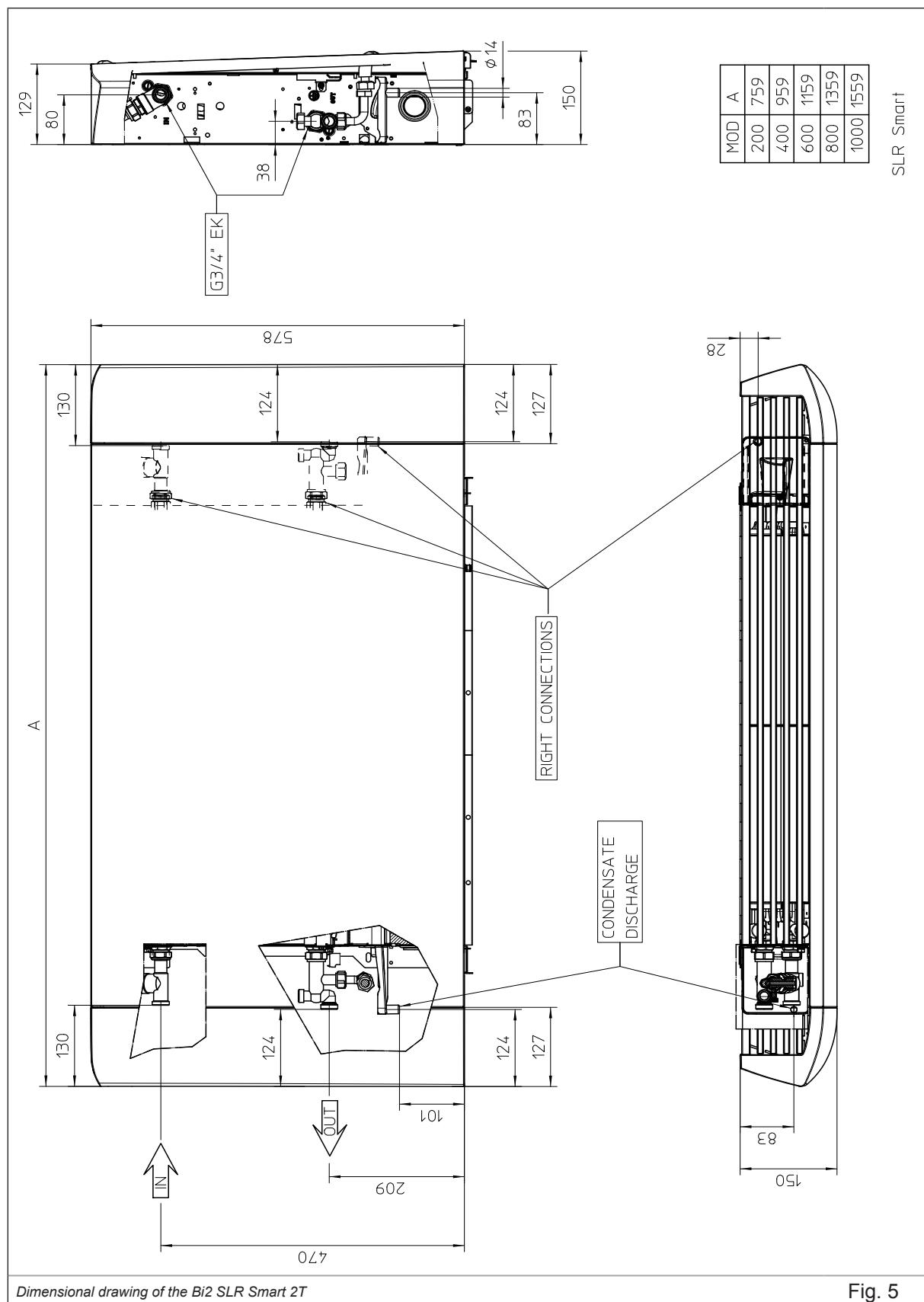
## DIMENSIONAL DRAWINGS OF THE Bi2 SL SMART 2T

Below are the dimensional drawings (Fig. 4) of the fan coil in the SL Smart 2T version.



**DIMENSIONAL DRAWINGS OF THE Bi2 SLR SMART 2T (radiant panel)**

Below are the dimensional drawings (Fig. 5) of the fan radiator in the SLR Smart 2T version (radiant panel).



## 2.1.6 CONFORMITY

The system terminals are compliant with the European directives:

- Low voltage 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU (EMCD)
- Registration of the use of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU (WEEE)
- Pressure receptacles 2014/68/EU (PED)
- Restriction of the use of certain hazardous substances in electrical and electronic equipment 1907/2006 (REACH)
- Environmentally friendly design 2009/125/EC, regulation 2016/2281 (ECODESIGN)

Standards harmonised with the aforementioned European directives:

- Electrical safety EN 60335-1, EN 60335-2-40, EN 62233
- Electromagnetic compatibility EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3

Certification:

- Eurovent of the thermal performance and noise level
  - Eurovent standard 6/3 thermal performance
  - Eurovent standard 8/2 acoustic tests

### 2.1.6.1 CE DECLARATION OF CONFORMITY

The CE declaration of conformity is available in the download area on the site [www.olimpiasplendid.it](http://www.olimpiasplendid.it) (Fig. 6).

The screenshot shows the Olimpia Splendid website's navigation bar with links for Home, Professionisti, Download Area, Contacts, OS World, and a language switcher (EN). Below the navigation is a breadcrumb trail: Home > Professionisti > Download Area. On the left, there is a sidebar titled "DOWNLOAD" containing dropdown menus for AIR CONDITIONING, HEATING, AIR TREATMENT, HYDRONIC SYSTEMS, and OTHER PRODUCTS. To the right, the main content area is titled "Download Area" and contains the text: "By opening DOWNLOAD you can find the information you need about our products." At the bottom of the page, it says "Download area".

Fig. 6

## 2.1.7 GENERAL INFORMATION

### 2.1.7.1 PACK

The following tables summarise the dimensions and weight values of the pack (Tab. 6 and Tab. 7).

<b>Bi2 SLR SMART</b>		<b>200</b>	<b>400</b>	<b>600</b>	<b>800</b>	<b>1000</b>
L x D x H	cm	84.5x20.3x67.5	104.5x20.3x67.5	124.5x20.3x67.5	144.5x20.3x67.5	164.5x20.3x67.5
Gross weight	kg	15.5	17.5	22.5	25.5	28.5
<i>Pack of the Bi2 SLR Smart</i>						Tab. 6

<b>Bi2 SL SMART</b>		<b>200</b>	<b>400</b>	<b>600</b>	<b>800</b>	<b>1000</b>
L x D x H	cm	84.5x20.3x67.5	104.5x20.3x67.5	124.5x20.3x67.5	144.5x20.3x67.5	164.5x20.3x67.5
Gross weight	kg	13.5	15.0	18.5	21.5	24.5
<i>Pack of the Bi2 SL Smart</i>						Tab. 7

## 2.2 Bi2 PLUS MODEL TECHNICAL BOOKLET



### 2.2.1 FUNDAMENTAL CHARACTERISTICS

- It air-conditioning, dehumidifies, heats and filters.
- Terminal with integrated radiant panel (SLR version).
- Compact: only 12.9 cm deep.
- Highly aesthetic, entirely in metal.
- Front panel for inspection of the filters, with safety microswitch.
- Five models (200, 400, 600, 800, 1000).
- Two versions: SLR+ fan radiator and SL+ fan coil.
- Brushless DC motor.

## 2.2.2 GENERAL CHARACTERISTICS

- The Bi2 PLUS system terminals are just 12.9 cm in depth. Range available in five models. The PLUS has a structure entirely in metal. Front panel, side panels and air outlet grille in galvanised sheet metal painted RAL9010 white. Bottom intake and mobile panel at front for access to the removable filters.
- Sturdy structure in galvanised steel.
- High efficiency resin pack brushless DC motor. Tangential fan in synthetic material and with staggered fins for silent operation.
- Two-row heat exchange coils with copper pipes and lanced aluminium fins for optimal heat exchange, circuits designed for low pressure drops on the water side,  $\frac{3}{4}$  Eurocone hydraulic connections.
- Radiant+ technology involves the use of a front radiant panel, available in SLR PLUS versions, that improves heating performance by acting as a traditional heating body in stationary conditions; forced ventilation occurs only in transitional periods to respond quickly to the demand for more heating power.
- The radiant panel has better static capacity due to:
  - A higher average surface temperature and, therefore, more irradiated power.
  - Greater uniformity in surface heating due to a larger radiant surface.
  - Better natural convection.
  - Less water content for quicker start-up of the system.
  - Silent operation in night mode.
  - Radiant heating without electric absorption of the fan.
  - The flow of water into the radiant panel is controlled by means of a special Kalorstat valve in the hydraulic unit sensitive to water temperature. If the water temperature drops below 30 °C, the flow is cut off automatically to prevent condensation from forming on the surface of the panel.
- Availability of a wide range of controls:
  - autonomous ones on the unit also with touch interface and remote control;
  - for remote control of a control panel to be installed on the wall;
  - with communication over MODBUS RS485 ASCII protocol for advanced BMS management;
  - with interface for 0-10V analogue signal.
- The various models have different operating modes and features like:
  - Stand-by.
  - Automatic (modulating ventilation).
  - Manual selection of fan speed.
  - Night, ventilation excluded in heating mode for radiant versions.
  - Presence contact for switching off or attenuation by voltage-free contact.
  - Contact for enabling the boiler and/or chiller.
- The sets of compact two or three-way valves designed for the slimline Bi2 range guarantee proper operation and management of the terminals.

### 2.2.3 TECHNICAL DATA

Below are tables summarising the technical data (Tab. 8 and Tab. 9).

Bi2 SLR+ INVERTER		200	400	600	800	1000
Total cooling capacity (a)	kW	0.82	1.74	2.54	3.29	3.78
Sensible cooling capacity	kW	0.64	1.25	1.94	2.54	2.98
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) (b)	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) (c)	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.8
Water content of the radiant panel	l	0.30	0.50	0.60	0.70	0.90
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate (d)	m³/h	100	170	180	370	420
Max air flow rate (d)	m³/h	160	320	460	575	650
Minimum absorbed power	W	5	6	7	8	9
Maximum absorbed power	W	11	19	20	24	27
Min sound power LW	dB(A)	38	39	41	42	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure (e)	dB(A)	34	36	37	35	38
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max static heating capacity (50 °C)	kW	0.37	0.42	0.50	0.62	0.77
Max static heating capacity (70 °C)	kW	0.59	0.71	0.84	1.04	1.28
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SLR+ Inverter technical data						
	Tab. 8					

Bi2 SL+ INVERTER		200	400	600	800	1000
Total cooling capacity <b>(a)</b>	kW	0.82	1.74	2.54	3.29	3.78
Sensible cooling capacity	kW	0.64	1.25	1.94	2.54	2.98
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) <b>(b)</b>	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) <b>(c)</b>	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.8
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate <b>(d)</b>	m³/h	100	170	180	370	420
Max air flow rate <b>(d)</b>	m³/h	160	320	460	575	650
Minimum absorbed power	W	5	6	7	8	9
Maximum absorbed power	W	11	19	20	24	27
Min sound power LW	dB(A)	38	39	41	42	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure <b>(e)</b>	dB(A)	34	36	37	35	38
Power supply	V/ph/ Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SL+ Inverter technical data						
Tab. 9						

## 2.2.4 COMPONENTS

The system terminals comprise the following main components (see Fig. 7):

- A. Supporting structure:** in high-tensile electrogalvanised sheet steel.
- B. High efficiency water-cooled heat exchange coil** with copper pipes and corrugated fins in aluminium. 3/4 Eurocone threaded hydraulic connections compliant with the new requirements of Community standardisation. The coil has a sensor for detecting the water temperature.
- C. Fan unit** comprising a tangential fan made of synthetic material with staggered fins (very low noise) mounted on anti-vibration mounts in EPDM, statically and dynamically balanced, and fitted directly on the motor shaft.
- D. Resin pack brushless DC electric motor** mounted on anti-vibration mounts in EPDM.
- E. Reversible air outlet grille** painted with oven-dried epoxy powders. The generous size of the motor adds to its high mechanical resistance.
- F. Drip tray** for vertical installation, in ABS, easy to disassemble for cleaning operations. The horizontal drip tray kit is available as an accessory for horizontal installation of the SL versions.
- G. High-tensile anti-condensation structural back panel.**
- H. Front panel** and removable side panels in electro-galvanised sheet metal painted with oven-dried epoxy powders.
- I. High efficiency radiant panel** hydraulically connected to the hot water coil (SLR versions). The circuit has a Kalorstat valve which prevents cold water from entering the panel.
- J. Aesthetic quick release front panel** in sheet metal for access to the filters, with safety microswitch.

# Bi2 PLUS TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2+**

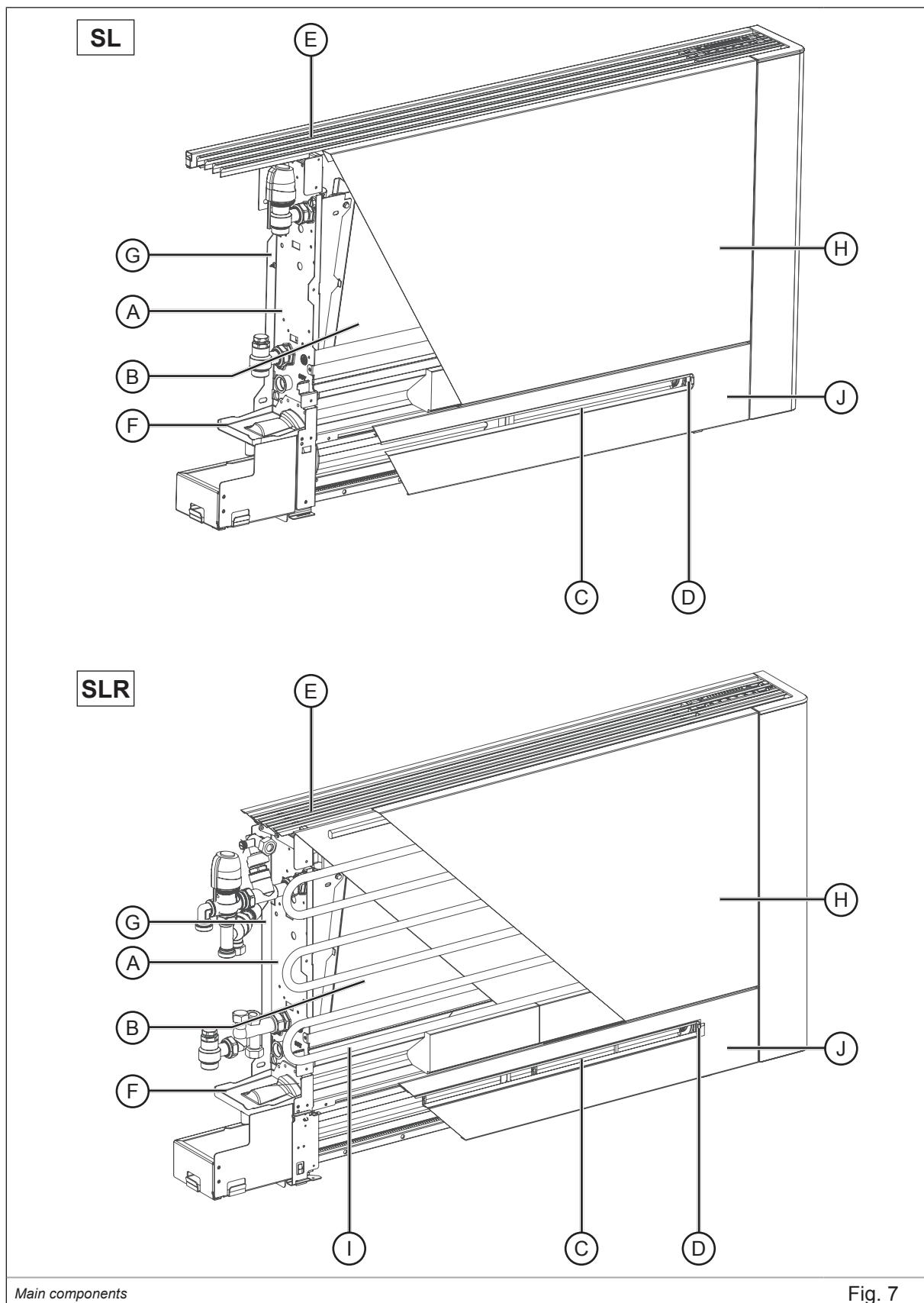


Fig. 7

Note: electrovalve kit available as an accessory for all models.

## 2.2.5 DIMENSIONS AND POSITIONING

### 2.2.5.1 DIMENSIONS OF THE SLR<sup>+</sup> AND SL<sup>+</sup> VERSIONS

Below is the layout of the fan radiator in the SLR<sup>+</sup> and SL<sup>+</sup> versions (Fig. 8) and a table summarising the dimensions and weight values (Tab. 10).

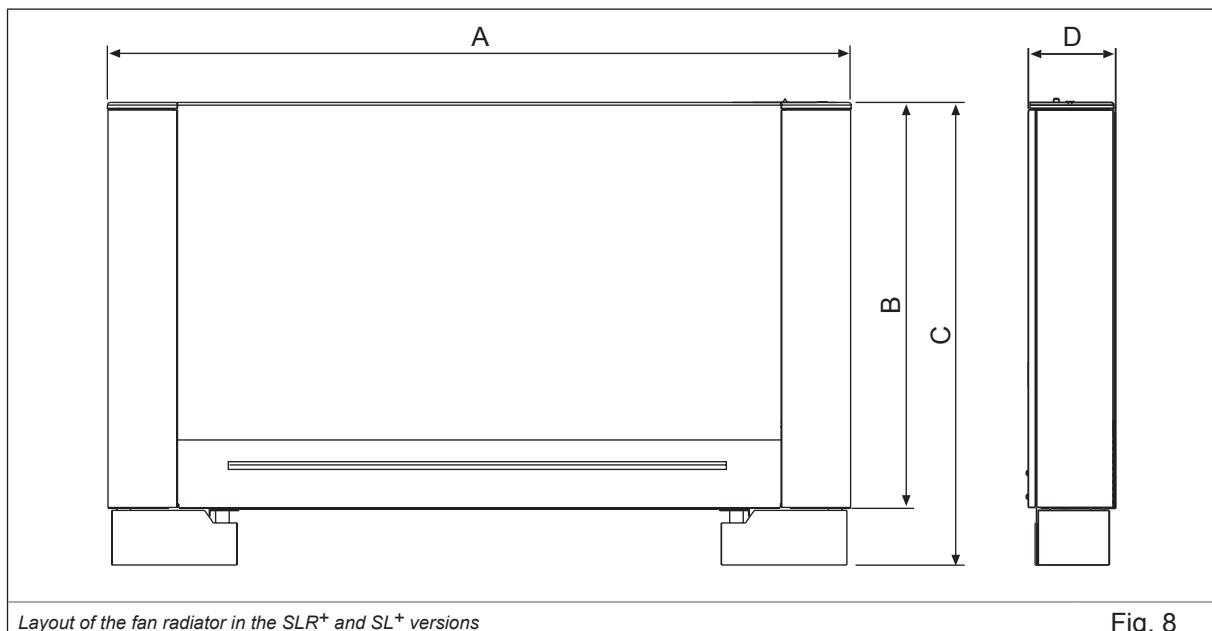


Fig. 8

Ref. Fig. 8		200	400	600	800	1000
A	mm	697	897	1097	1297	1497
B	mm	579	579	579	579	579
C	mm	659	659	659	659	659
D	mm	129	129	129	129	129
Weight of the SLR <sup>+</sup>	kg	15	17	21	24	27
Weight of the SL <sup>+</sup>	kg	13	14.5	17	20	23

*Dimensions and weight values of the SLR<sup>+</sup> and SL<sup>+</sup>*

Tab. 10

### 2.2.5.2 POSITIONING OF THE SYSTEM TERMINALS

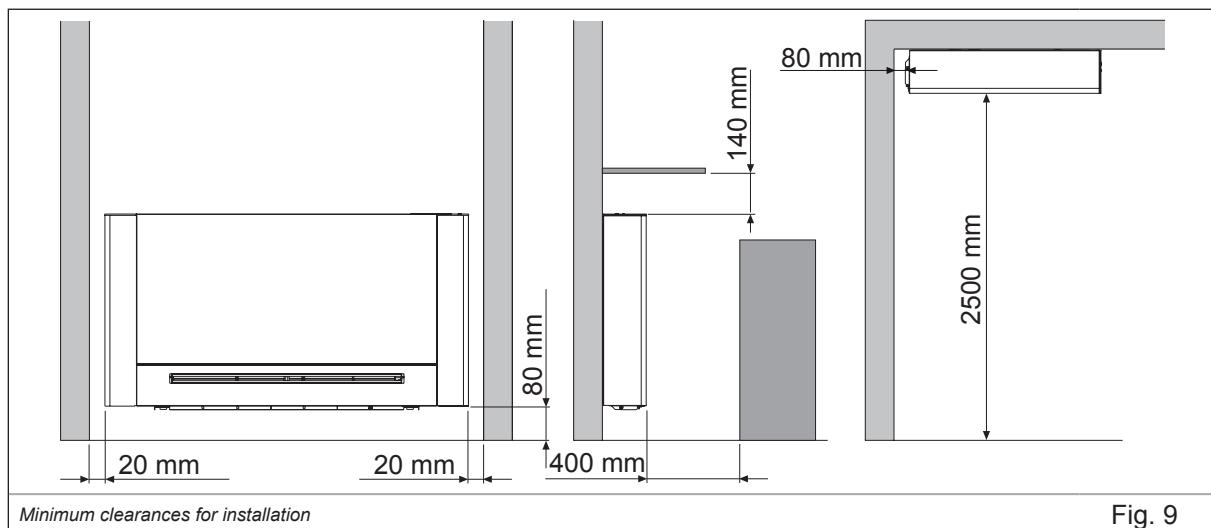
Before positioning the system terminals, make sure that:

- The wall on which the terminal is to be installed is suitable in terms of structure and capacity.
- There are no pipes or power lines in the area of the wall.
- The wall is perfectly level.
- The area is free from obstacles that could prevent the air from flowing freely in and out.
- In the case of installation on the ceiling, the flow of air is not aimed directly at people.

The terminal must be installed in such a way as to facilitate routine maintenance (cleaning the filter) and special maintenance, and ensure access to the air vent valves (coil and panel) from the upper grille, on the connections side.

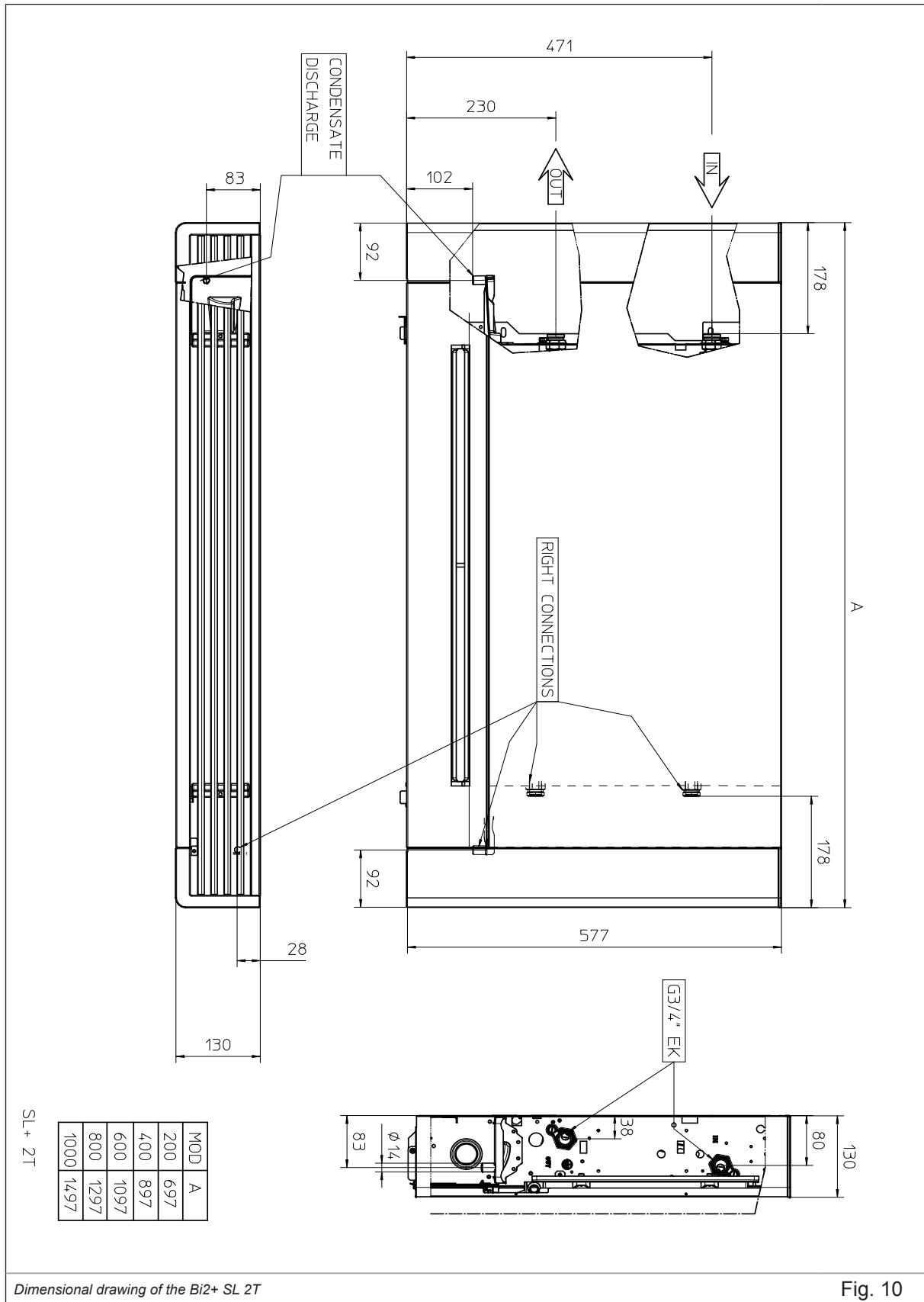
#### MINIMUM CLEARANCES FOR INSTALLATION

In Fig. 9 are the minimum clearances for installation from walls or obstacles in the vicinity.



### DIMENSIONAL DRAWINGS OF THE Bi2+ SL 2T

Below are the dimensional drawings (Fig. 10) of the fan coil in the SL 2T version.



**DIMENSIONAL DRAWINGS OF THE Bi2+ SLR 2T (radiant panel)**

Below are the dimensional drawings (Fig. 11) of the fan radiator in the SLR 2T version (radiant panel).

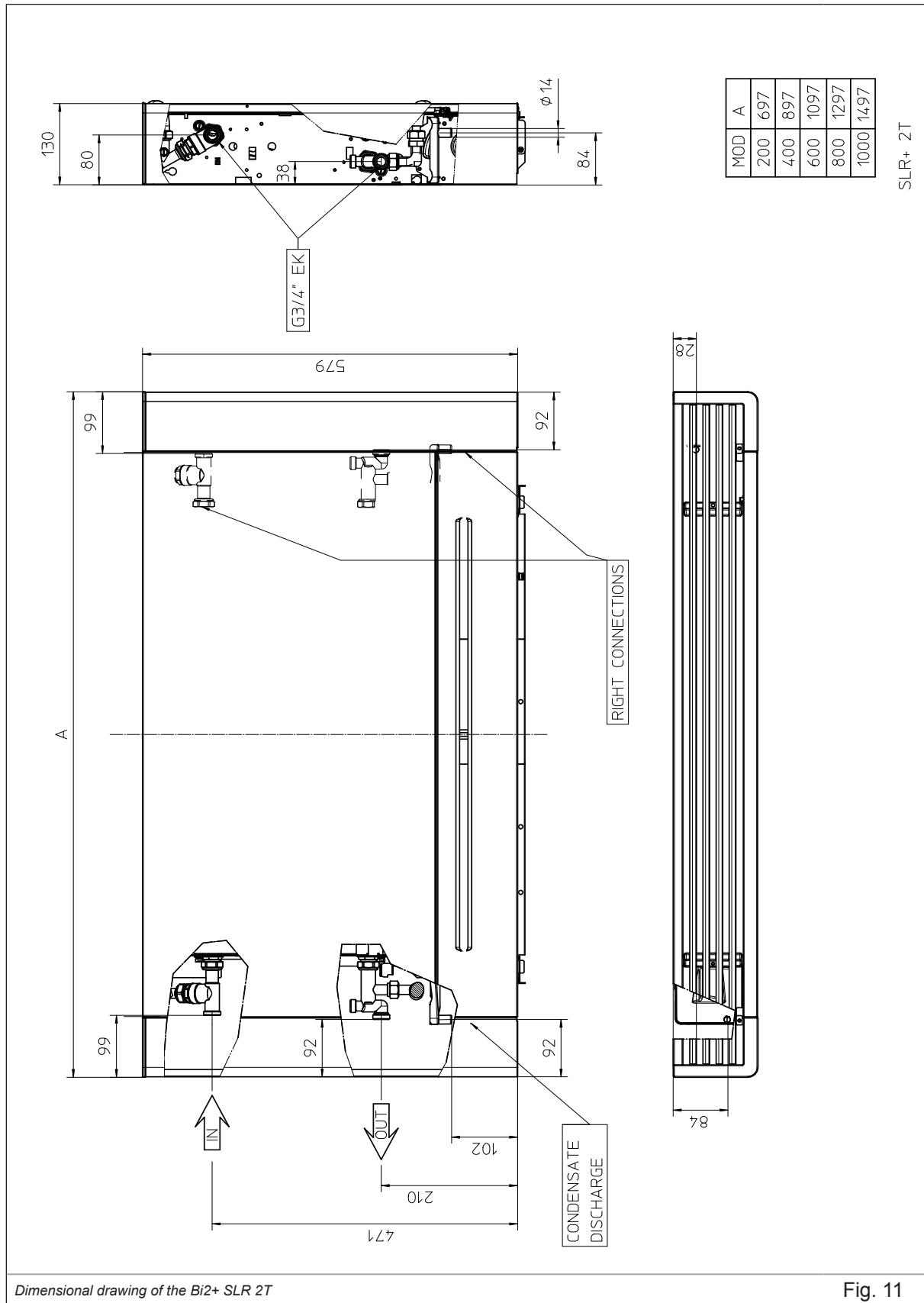


Fig. 11

## 2.2.6 CONFORMITY

The system terminals are compliant with the European directives:

- Low voltage 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU (EMCD)
- Registration of the use of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU (WEEE)
- Pressure receptacles 2014/68/EU (PED)
- Restriction of the use of certain hazardous substances in electrical and electronic equipment 1907/2006 (REACH)
- Environmentally friendly design 2009/125/EC, regulation 2016/2281 (ECODESIGN)

Standards harmonised with the aforementioned European directives:

- Electrical safety EN 60335-1, EN 60335-2-40, EN 62233
- Electromagnetic compatibility EN 55014-1, EN55014-2, EN 61000-3-2, EN 61000-3-3

Certification:

- Eurovent of the thermal performance and noise level
  - Eurovent standard 6/3 thermal performance
  - Eurovent standard 8/2 acoustic tests

### 2.2.6.1 CE DECLARATION OF CONFORMITY

The CE declaration of conformity is available in the download area on the site [www.olimpiasplendid.it](http://www.olimpiasplendid.it) (Fig. 12).

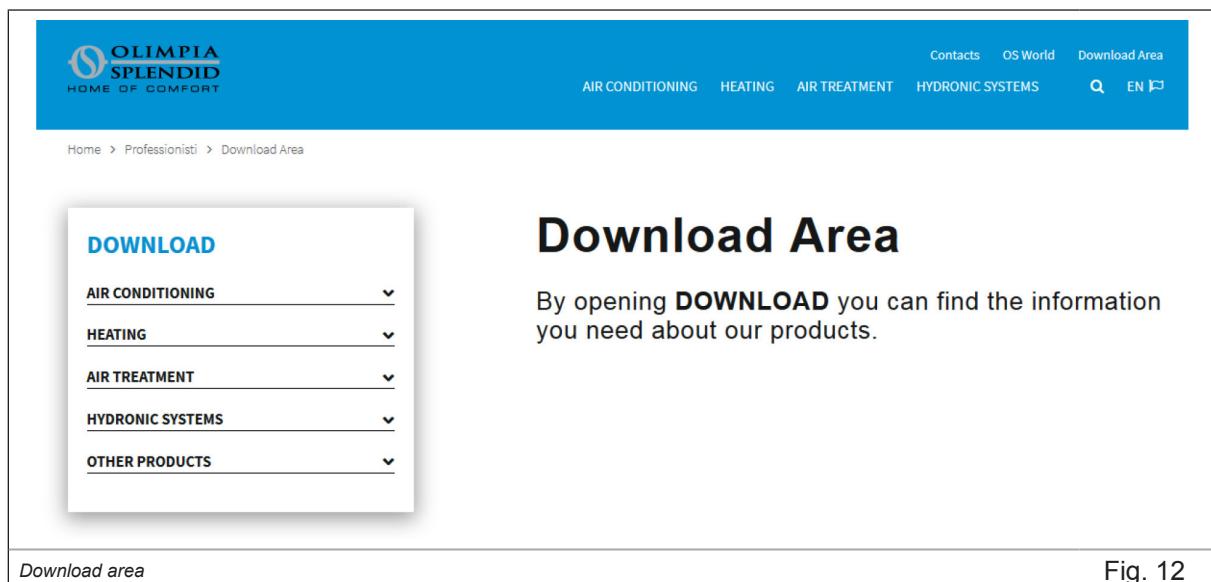


Fig. 12

### 2.2.7 GENERAL INFORMATION

#### 2.2.7.1 PACK

The following tables summarise the dimensions and weight values of the pack (Tab. 11 and Tab. 12).

Bi2 SLR+		200	400	600	800	1000
L x D x H	cm	77x20x71	97x20x71	117x20x71	137x20x71	157x20x71
Gross weight	kg	17	20	24	27	31
<i>Pack of the Bi2 SLR+</i>						Tab. 11

Bi2 SL+		200	400	600	800	1000
L x D x H	cm	77x20x71	97x20x71	117x20x71	137x20x71	157x20x71
Gross weight	kg	15	17	20	23	27
<i>Pack of the Bi2 SL+</i>						Tab. 12

## 2.3 Bi2 NANO MODEL TECHNICAL BOOKLET



### 2.3.1 FUNDAMENTAL CHARACTERISTICS

- It air-conditions, dehumidifies, heats and filters.
- Compact: only 12.9 cm deep and 35 cm high.
- Lowered version: total height from ground 43 cm.
- Metal side panels.
- Front grille in metal for inspection of the filters, with safety microswitch.
- Five models (200, 400, 600, 800, 1000).
- One version: SLN fan coil.
- AC motor.

### 2.3.2 GENERAL CHARACTERISTICS

- The Bi2 NANO system terminals are just 12.9 cm in depth and 35 cm high. Range available in five models. The Nano has a structure entirely in metal. Front panel, side panels and air outlet grille in galvanised sheet metal painted RAL9010 white.
- Bottom intake and mobile grille at front for access to the removable filters.
- Sturdy structure in galvanised steel.
- Resin pack AC motor.
- Tangential fan in synthetic material and with staggered fins for silent operation.
- Two-row heat exchange coils with copper pipes and lanced aluminium fins for optimal heat exchange, circuits designed for low pressure drops on the water side,  $\frac{3}{4}$  Eurocone hydraulic connections.
- Available controls:
  - autonomous on the unit;
  - for remote control of a control panel to be installed on the wall;
  - with communication over MODBUS RS485 ASCII protocol for advanced BMS management.
- The various models have different operating modes and features like:
  - Stand-by.
  - Automatic (modulating ventilation).
  - Manual selection of fan speed.
  - Presence contact for switching off or attenuation by voltage-free contact.
  - Contact for enabling the boiler and/or chiller.
- The sets of compact two or three-way valves designed for the slimline Bi2 range guarantee proper operation and management of the terminals.

### 2.3.3 TECHNICAL DATA

Below is a table of the technical data (Tab. 13).

Bi2 SLN		200	400	600	800	1000
Total cooling capacity (a)	kW	0.49	0.98	1.19	1.78	2.37
Sensible cooling capacity	kW	0.40	0.88	1.14	1.43	2.02
Water flow	l/h	87	174	214	313	421
Water pressure drops	kPa	1.9	8.5	2.9	10.5	16.4
Heating capacity (water 50 °C) (b)	kW	0.86	1.55	2.16	2.85	3.74
Heating capacity (water 70 °C) (c)	kW	1.51	2.70	3.79	4.93	5.94
Water flow rate (70 °C)	l/h	130	232	326	424	511
Water pressure drops (70 °C)	kPa	2.7	10.4	4.8	13.7	17.2
Water content of the coil	l	0.20	0.30	0.40	0.50	0.60
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate (d)	m³/h	70	155	250	255	310
Max air flow rate (d)	m³/h	150	290	400	530	650
Minimum absorbed power	W	6	12	14	16	17
Maximum absorbed power	W	17	28	36	40	42
Min sound power LW	dB(A)	38	39	41	38	39
Max sound power LW	dB(A)	53	53	54	54	55
Sound pressure (e)	dB(A)	34	36	37	35	38
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SLN technical data						
Tab. 13						

### 2.3.4 COMPONENTS

The system terminals comprise the following main components (see Fig. 13):

- A. Supporting structure:** in high-tensile electrogalvanised sheet steel.
- B. High efficiency water-cooled heat exchange coil** with copper pipes and corrugated fins in aluminium. 3/4 Eurocone threaded hydraulic connections. The coil has a sensor for detecting the water temperature.
- C. Fan unit** comprising a tangential fan made of synthetic material with staggered fins (very low noise) mounted on anti-vibration mounts in EPDM, statically and dynamically balanced, and fitted directly on the motor shaft.
- D. Resin pack single-phase electric motor** mounted on anti-vibration mounts in EPDM.
- E. Reversible air outlet grille** in aluminium painted with oven-dried epoxy powders. The generous size of the motor adds to its high resistance.
- F. Front air grille** in electro-galvanised sheet metal painted with oven-dried epoxy powders, with quick release device for cleaning the filters and a safety microswitch.
- G. Drip tray** for vertical installation, easy to disassemble for cleaning operations. The horizontal drip tray kit is available as an accessory for horizontal installation.
- H. High-tensile anti-condensation structural back panel.**
- I. Front panel** and removable side panels in electro-galvanised sheet metal painted with oven-dried epoxy powders.

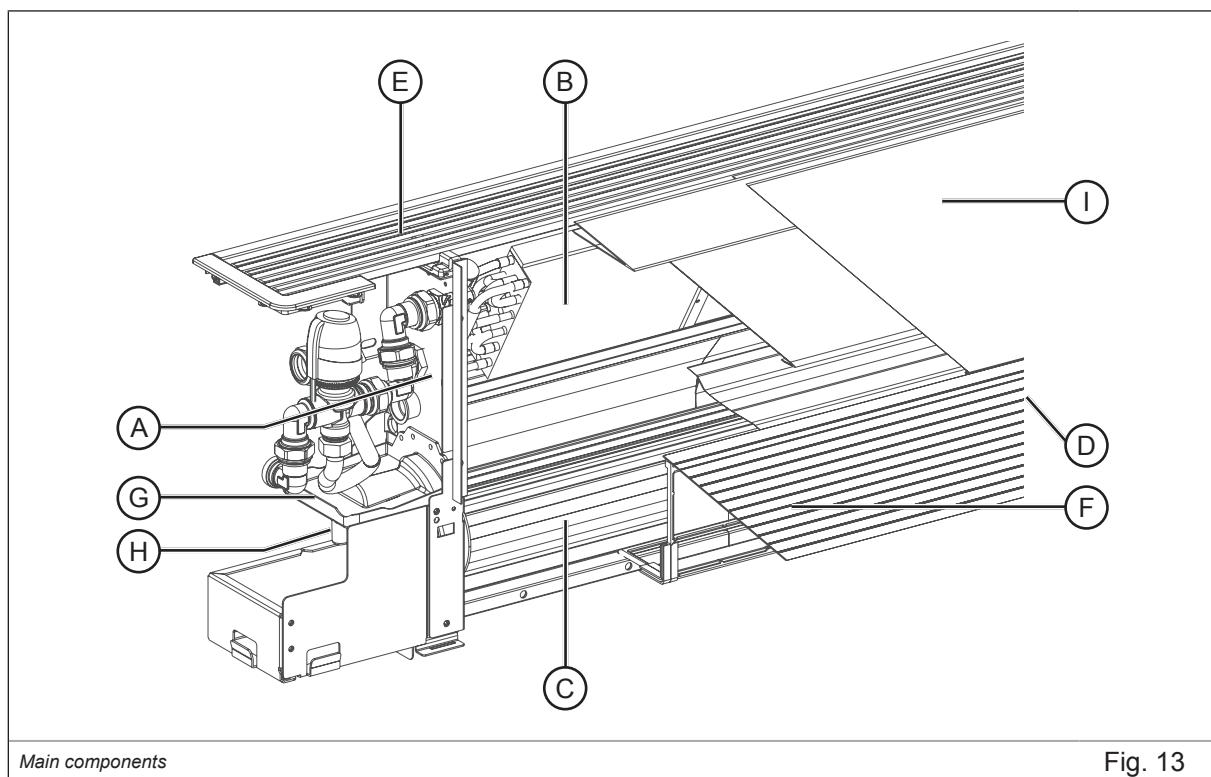


Fig. 13

Note: electrovalve kits are available as accessories.

## 2.3.5 DIMENSIONS AND POSITIONING

### 2.3.5.1 DIMENSIONS OF THE SLN VERSION

Below is the layout of the fan coil in the SLN version (Fig. 14) and a table summarising the dimensions and weight values (Tab. 14).

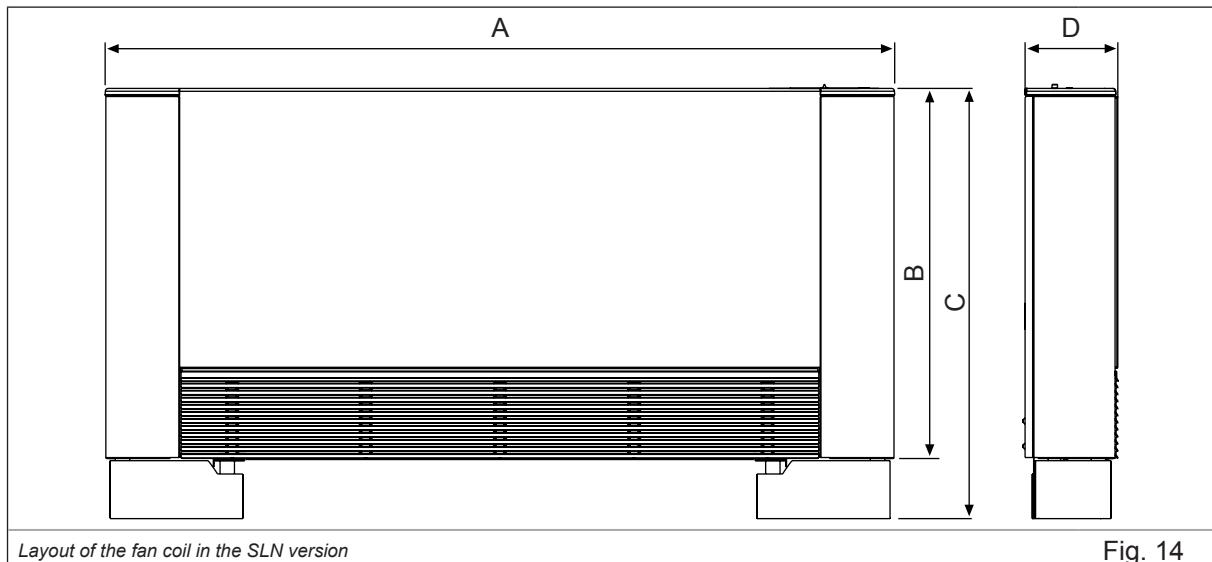


Fig. 14

Ref. Fig. 14		200	400	600	800	1000
A	mm	697	897	1097	1297	1497
B	mm	348	348	348	348	348
C	mm	421	421	421	421	421
D	mm	129	129	129	129	129
Weight	kg	10	11.5	13.5	15	17

*Dimensions and weight values of the SLN version*

Tab. 14

### 2.3.5.2 POSITIONING OF THE SYSTEM TERMINALS

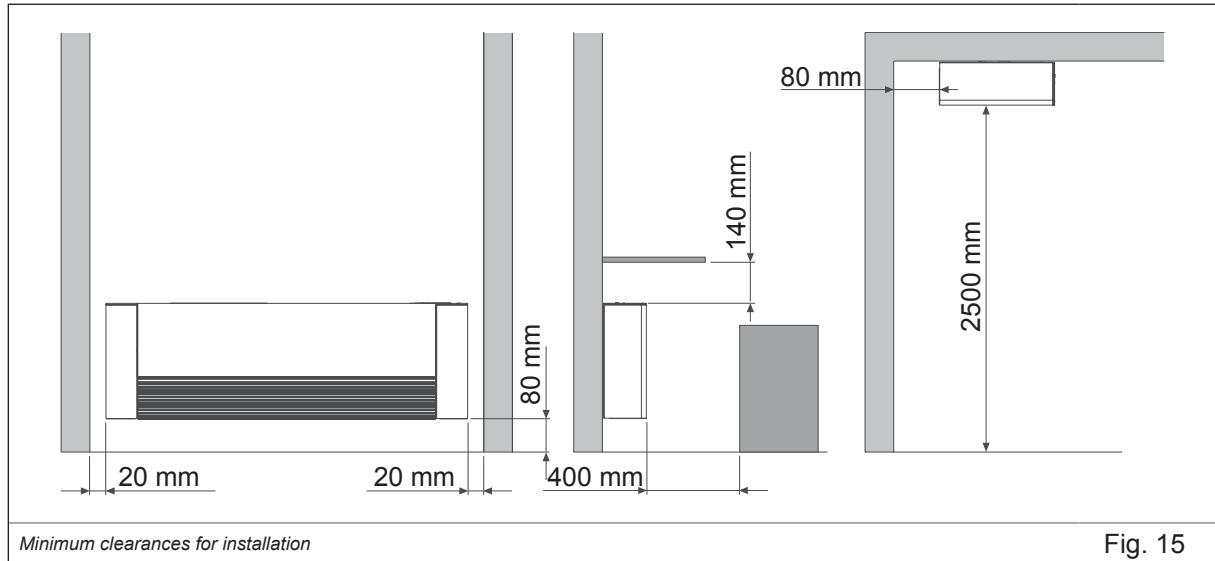
Before positioning the system terminals, make sure that:

- The wall on which the terminal is to be installed is suitable in terms of structure and capacity.
- There are no pipes or power lines in the area of the wall.
- The wall is perfectly level.
- The area is free from obstacles that could prevent the air from flowing freely in and out.
- In the case of installation on the ceiling, the flow of air is not aimed directly at people.

The terminal must be installed in such a way as to facilitate routine maintenance (cleaning the filter) and special maintenance, and ensure access to the air vent valves (coil and panel) from the upper grille, on the connections side.

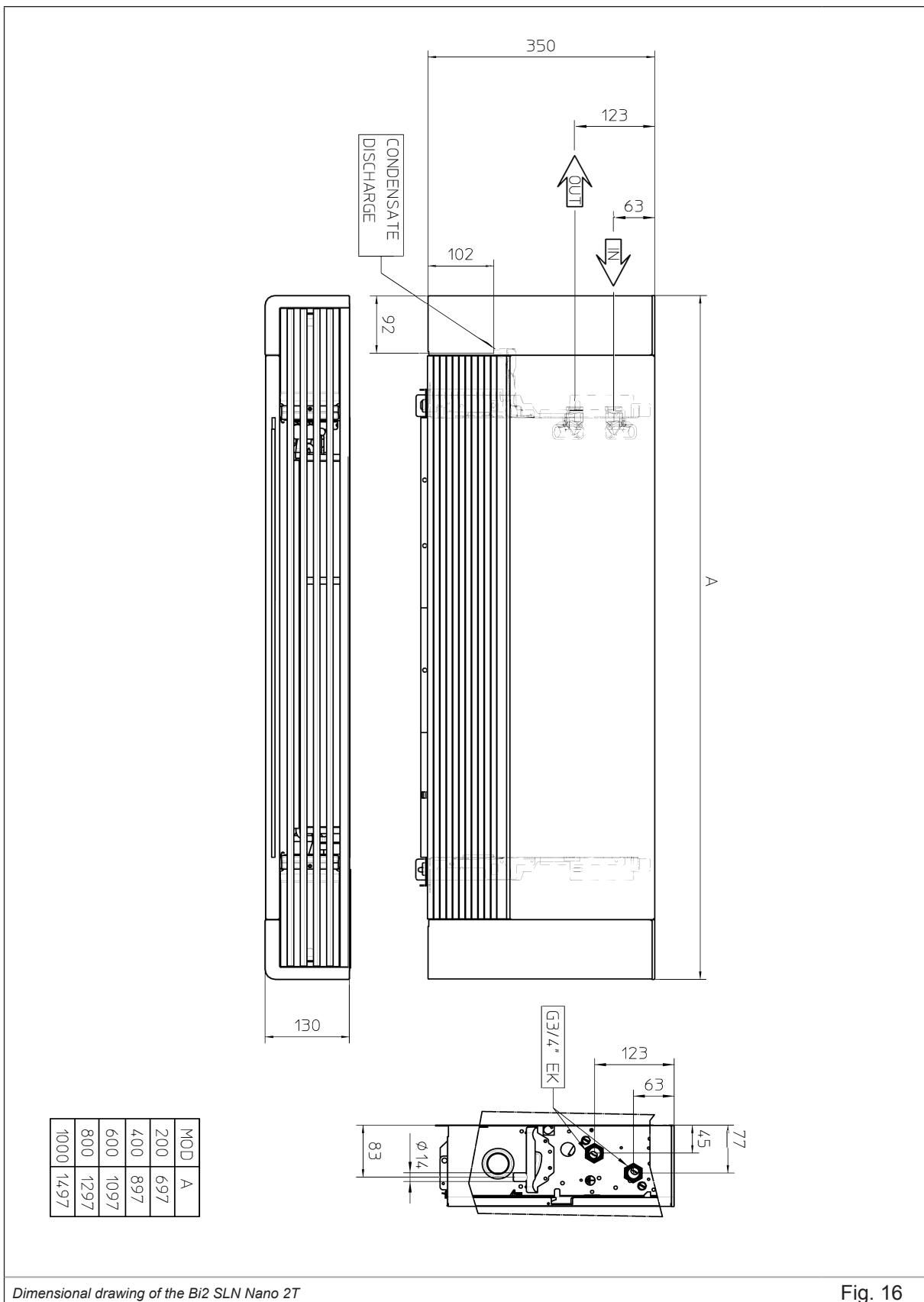
#### MINIMUM CLEARANCES FOR INSTALLATION

In Fig. 15 are the minimum clearances for installation from walls or obstacles in the vicinity.



## DIMENSIONAL DRAWINGS OF THE Bi2 SLN Nano 2T

Below are the dimensional drawings (Fig. 16) of the fan coil in the SLN Nano 2T version.



### 2.3.6 CONFORMITY

The system terminals are compliant with the European directives:

- Low voltage 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU (EMCD)
- Registration of the use of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU (WEEE)
- Pressure receptacles 2014/68/EU (PED)
- Restriction of the use of certain hazardous substances in electrical and electronic equipment 1907/2006 (REACH)
- Environmentally friendly design 2009/125/EC, regulation 2016/2281 (ECODESIGN)

Standards harmonised with the aforementioned European directives:

- Electrical safety EN 60335-1, EN 60335-2-40, EN 62233
- Electromagnetic compatibility EN 55014-1, EN55014-2, EN 61000-3-2, EN 61000-3-3

Certification:

- Eurovent of the thermal performance and noise level
  - Eurovent standard 6/3 thermal performance
  - Eurovent standard 8/2 acoustic tests

#### 2.3.6.1 CE DECLARATION OF CONFORMITY

The CE declaration of conformity is available in the download area on the site [www.olimpiasplendid.it](http://www.olimpiasplendid.it) (Fig. 17).

The screenshot shows the Olimpia Splendid website's navigation bar with links for AIR CONDITIONING, HEATING, AIR TREATMENT, HYDRONIC SYSTEMS, and OTHER PRODUCTS. Below the navigation bar is a search bar and language selection (EN). The main content area is titled "Download Area" and features a sub-section titled "DOWNLOAD" with dropdown menus for AIR CONDITIONING, HEATING, AIR TREATMENT, HYDRONIC SYSTEMS, and OTHER PRODUCTS. A descriptive text states: "By opening DOWNLOAD you can find the information you need about our products." At the bottom of the page, there is a footer section labeled "Download area".

Fig. 17

### 2.3.7 GENERAL INFORMATION

#### 2.3.7.1 PACK

The following table summarises the dimensions and weight values of the pack (Tab. 15).

Bi2 SLN		200	400	600	800	1000
L x D x H	cm	77x20x46	97x20x46	117x20x46	137x20x46	157x20x46
Gross weight	kg	11.5	13.4	15.5	17.4	19.7
Pack of the Bi2 SLN						

Tab. 15

## 2.4 Bi2 NAKED MODEL TECHNICAL BOOKLET



### 2.4.1 FUNDAMENTAL CHARACTERISTICS

- It air-conditions, dehumidifies, heats and filters.
- Recessed version with integrated SLIR radiant panel (hydraulic connections only to the left).
- Compact: 12.6 cm deep.
- Recessed with formwork only 14.2 cm in the wall.
- Ultra-thin aesthetic panel in metal 0.9 cm thick.
- Front grille in metal for inspection of the filters.
- Five models (200, 400, 600, 800, 1000).
- Two versions: SLIR recessed fan radiator and SLI recessed fan coil.
- Two types of motor: AC (Bi2 Smart), Brushless DC (Bi2 Naked Inverter).

### 2.4.2 GENERAL CHARACTERISTICS

- The Bi2 NAKED system terminals are just 12.6 cm in depth. Range available in five models. Removable filters at the bottom of the terminal.
- Sturdy structure in galvanised steel. Equipped as standard with drip tray for horizontal installation on the ceiling.
- High efficiency resin pack brushless DC motor, motor also available in AC version. Tangential fan in synthetic material and with staggered fins for silent operation.
- Two-row heat exchange coils with copper pipes and lanced aluminium fins for optimal heat exchange, circuits designed for low pressure drops on the water side,  $\frac{3}{4}$  Eurocone hydraulic connections.
- Radiant+ technology involves the use of a front radiant panel, available in SLIR and SLIR INVERT-ER versions, that improves heating performance by acting as a traditional heating body in stationary conditions; forced ventilation occurs only in transitional periods to respond quickly to the demand for more heating power.
- The radiant panel has better static capacity due to:
  - A higher average surface temperature and, therefore, more irradiated power.
  - Greater uniformity in surface heating due to a larger radiant surface.
  - Better natural convection.
  - Less water content for quicker start-up of the system.
  - Silent operation in night mode.
  - Radiant heating without electric absorption of the fan.
  - The flow of water into the radiant panel is controlled by means of a special Kalorstat valve in the hydraulic unit sensitive to water temperature. If the water temperature drops below 30 °C, the flow is cut off automatically to prevent condensation from forming on the surface of the panel.
- Availability of a wide range of controls:
  - for remote control of a control panel to be installed on the wall;
  - with communication over MODBUS RS485 ASCII protocol for advanced BMS management;
  - with interface for 0-10V analogue signal.
- The various models have different operating modes and features like:
  - Stand-by.
  - Automatic (modulating ventilation).
  - Manual selection of fan speed.
  - Night, ventilation excluded in heating mode for radiant versions.
  - Presence contact for switching off or attenuation by voltage-free contact.
  - Contact for enabling the boiler and/or chiller.
- The sets of compact two or three-way valves designed for the slimline Bi2 range guarantee proper operation and management of the terminals.

### 2.4.3 TECHNICAL DATA

Below are tables summarising the technical data (Tab. 16, Tab. 17, Tab. 18 and Tab. 19).

Bi2 SLIR		200	400	600	800	1000
Total cooling capacity (a)	kW	0.81	1.73	2.53	3.27	3.77
Sensible cooling capacity	kW	0.63	1.24	1.93	2.52	2.97
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) (b)	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) (c)	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.8
Water content of the radiant panel	l	0.50	0.60	0.70	0.90	1
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate (d)	m³/h	100	170	180	370	420
Max air flow rate (d)	m³/h	160	320	460	575	650
Minimum absorbed power	W	6	9	9	17	19
Maximum absorbed power	W	17	28	35	38	43
Min sound power LW	dB(A)	38	39	41	39	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure (e)	dB(A)	34	36	37	35	38
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max static heating capacity (50 °C)	kW	0.37	0.42	0.50	0.62	0.77
Max static heating capacity (70 °C)	kW	0.59	0.71	0.84	1.04	1.28
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SLIR technical data						
Tab. 16						

# Bi2 NAKED TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** naked

Bi2 SLIR INVERTER		200	400	600	800	1000
Total cooling capacity (a)	kW	0.82	1.74	2.54	3.29	3.78
Sensible cooling capacity	kW	0.64	1.25	1.94	2.54	2.98
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.10	8.2	19.0	18.70	18.20
Heating capacity (water 50 °C) (b)	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) (c)	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.80
Water content of the radiant panel	l	0.50	0.60	0.70	0.90	1
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate (d)	m³/h	100	170	180	370	420
Max air flow rate (d)	m³/h	160	320	460	575	650
Minimum absorbed power	W	5	6	7	8	9
Maximum absorbed power	W	11	19	20	24	27
Min sound power LW	dB(A)	38	39	41	42	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure (e)	dB(A)	34	36	37	35	38
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max static heating capacity (50 °C)	kW	0.37	0.42	0.50	0.62	0.77
Max static heating capacity (70 °C)	kW	0.59	0.71	0.84	1.04	1.28
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SLIR Inverter technical data						
Tab. 17						

Bi2 SLI		200	400	600	800	1000
Total cooling capacity (a)	kW	0.81	1.73	2.53	3.27	3.77
Sensible cooling capacity	kW	0.63	1.24	1.93	2.52	2.97
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) (b)	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) (c)	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.8
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate (d)	m³/h	100	170	180	370	420
Max air flow rate (d)	m³/h	160	320	460	575	650
Minimum absorbed power	W	6	9	9	17	19
Maximum absorbed power	W	17	28	35	38	43
Min sound power LW	dB(A)	38	39	41	39	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure (e)	dB(A)	34	36	37	35	38
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SLI technical data						
Tab. 18						

# Bi2 NAKED TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** naked

Bi2 SLI INVERTER		200	400	600	800	1000
Total cooling capacity <b>(a)</b>	kW	0.82	1.74	2.54	3.29	3.78
Sensible cooling capacity	kW	0.64	1.25	1.94	2.54	2.98
Water flow	l/h	142	302	446	573	655
Water pressure drops	kPa	13.1	8.2	19.0	18.7	18.2
Heating capacity (water 50 °C) <b>(b)</b>	kW	1.05	2.31	3.12	4.10	4.67
Heating capacity (water 70 °C) <b>(c)</b>	kW	1.77	3.88	5.21	6.88	7.83
Water flow rate (70 °C)	l/h	152	334	448	592	673
Water pressure drops (70 °C)	kPa	10.9	7.0	14.3	12.7	12.5
Water content of the coil	l	0.47	0.80	1.13	1.46	1.80
Hydraulic connections	"	3/4 Eurocone				
Min air flow rate <b>(d)</b>	m³/h	100	170	180	370	420
Max air flow rate <b>(d)</b>	m³/h	160	320	460	575	650
Minimum absorbed power	W	5	6	7	8	9
Maximum absorbed power	W	11	19	20	24	27
Min sound power LW	dB(A)	38	39	41	42	42
Max sound power LW	dB(A)	52	53	53	54	54
Sound pressure <b>(e)</b>	dB(A)	34	36	37	35	38
Power supply	V/ph/ Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Notes						
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.						
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C						
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C						
Note: the capacities are at maximum speed						
(d) Air flow rate measured with clean filters						
(e) Sound pressure measured at 1.5 m						
Bi2 SLI Inverter technical data						
Tab. 19						

#### 2.4.4 MAIN COMPONENTS

The system terminals comprise the following main components (see Fig. 18):

- A. Supporting structure:** in high-tensile electrogalvanised sheet steel.
- B. High efficiency water-cooled heat exchange coil** with copper pipes and corrugated fins in aluminium. 3/4 Eurocone threaded hydraulic connections compliant with the new requirements of Community standardisation. The coil has a sensor for detecting the water temperature.
- C. Drip tray** for horizontal installation on the ceiling (only SLI model).
- D. Fan unit** comprising a tangential fan made of synthetic material with staggered fins (very low noise) mounted on anti-vibration mounts in EPDM, statically and dynamically balanced, and fitted directly on the motor shaft.
- E. Resin pack electric motor** mounted on anti-vibration mounts in EPDM, available in two versions: AC and Brushless DC.
- F. High-tensile anti-condensation structural back panel.**
- G. Drip tray** for vertical installation (front for horizontal installation).
- H. Hydraulic connections** to the radiant panel (only SLIR model).

Note: the high efficiency **Radiant panel** connected to the hot water coil is integrated in the front infill panel (SLIR version). The circuit of two-pipe versions has a Kalorstat valve which prevents cold water from entering the panel.

# Bi2 NAKED TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** naked

TABLE OF CONTENTS

SELECTION OF THE  
SYSTEM TERMINALS

QTS FOR CABINET SYSTEM  
TERMINALS

QTS FOR RECESSED  
SYSTEM TERMINALS

QTS FOR 4-PIPE  
SYSTEM TERMINALS

QTS FOR WALL  
SYSTEM TERMINALS

PERFORMANCE  
TABLES

OPERATING  
CHARACTERISTICS

RANGE  
ACCESSORIES

INSTALLATION  
SPECIFICATIONS

SPECIFICATIONS

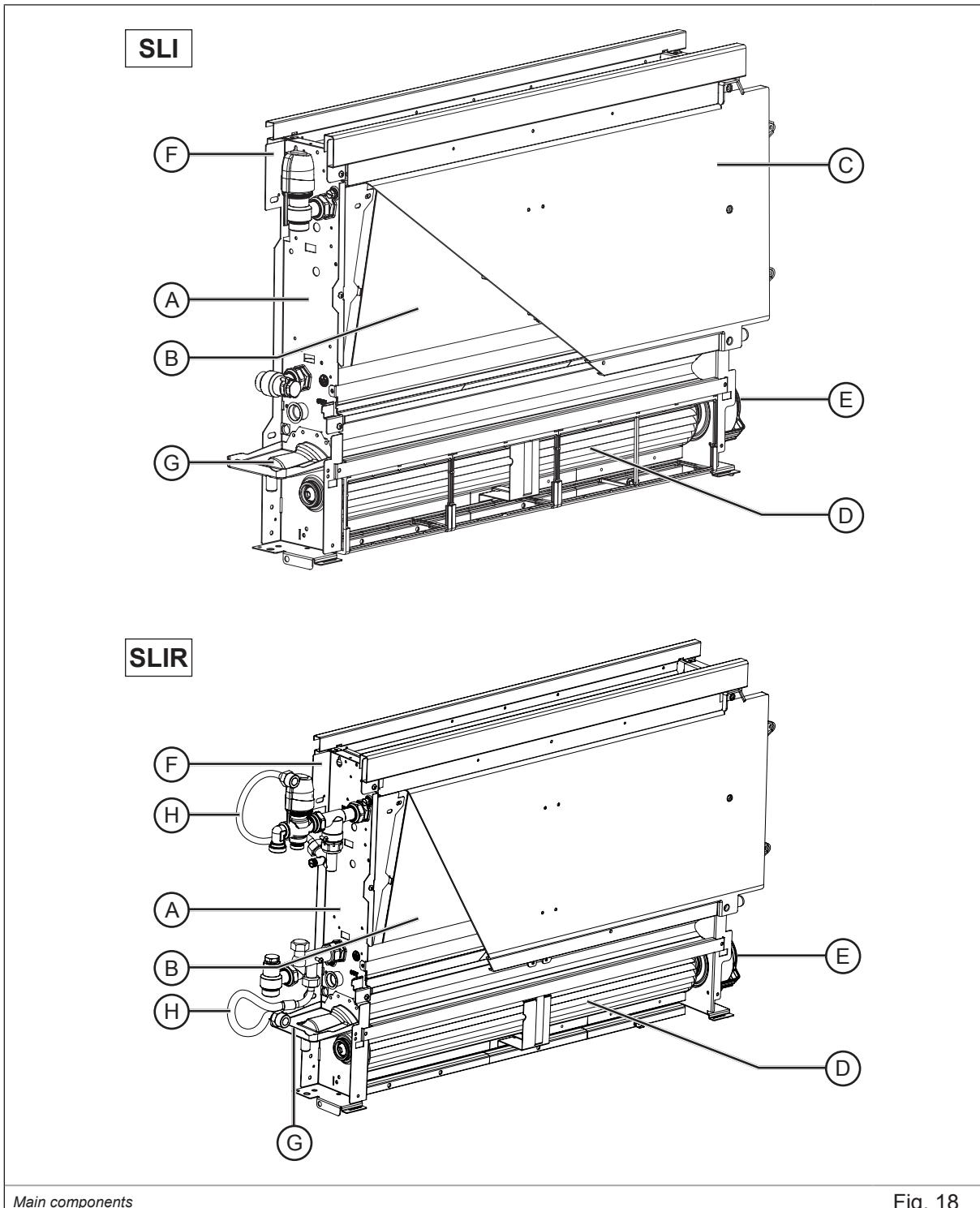


Fig. 18

Note: electrovalve kit available as an accessory for all models.

## 2.4.5 DIMENSIONS AND POSITIONING

### 2.4.5.1 DIMENSIONS OF THE SLI AND SLIR VERSIONS

Below is the layout of the system terminals in the SLI and SLIR versions (Fig. 19) and a table summarising the dimensions and weight values (Tab. 20).

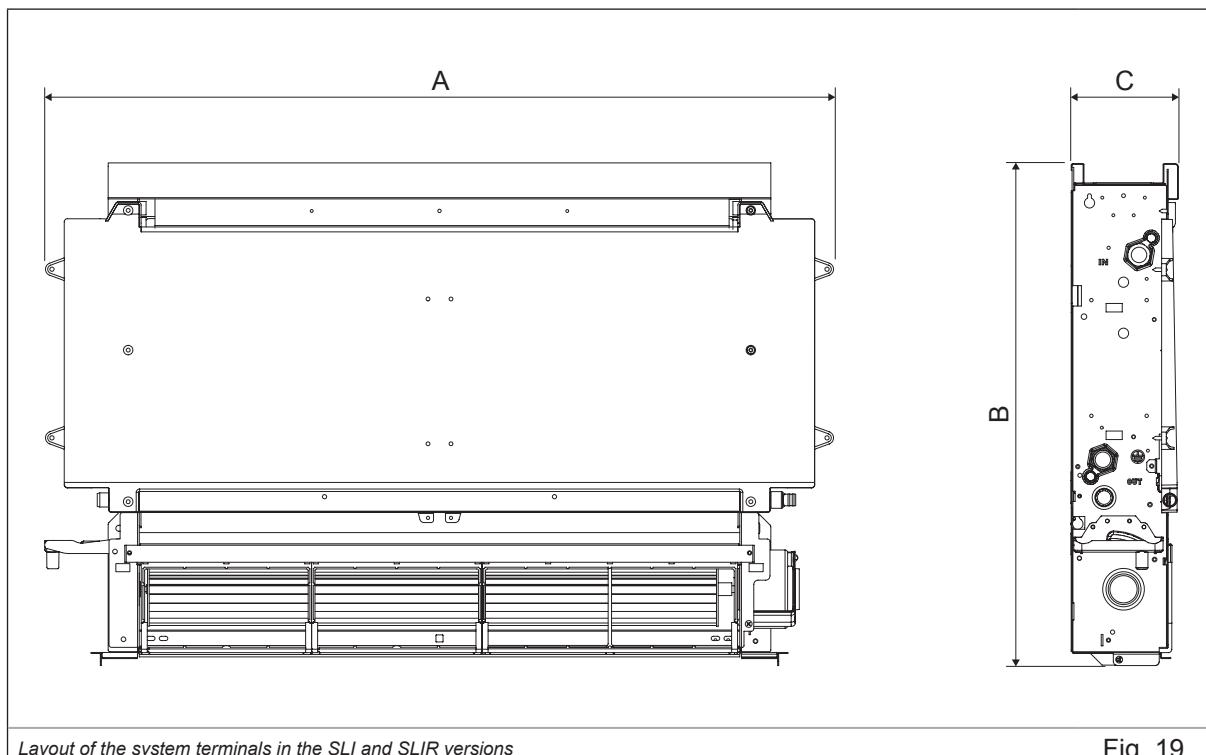


Fig. 19

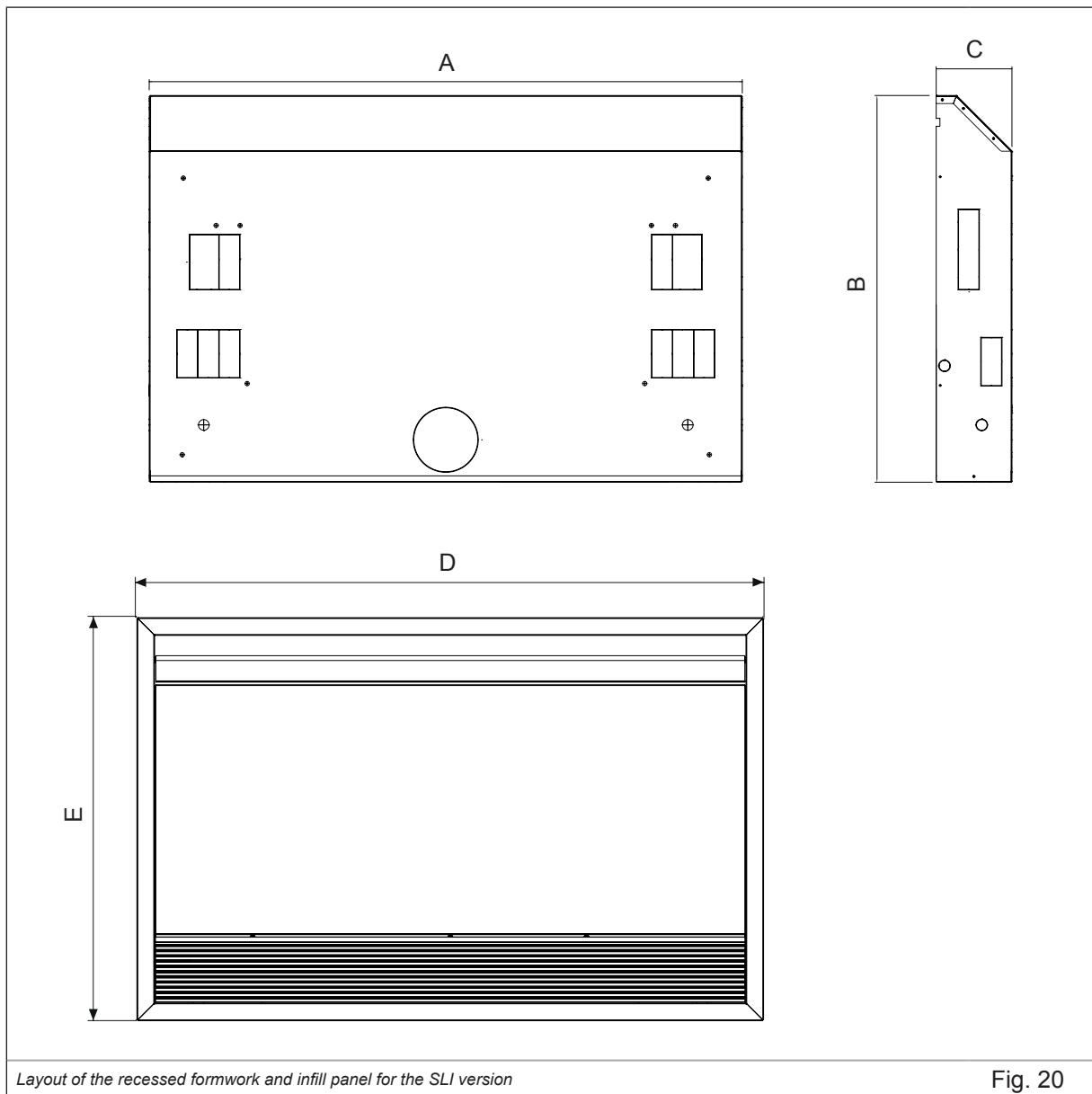
Ref. Fig. 19		200	400	600	800	1000
A	mm	525	725	925	1125	1325
B	mm	576	576	576	576	576
C	mm	126	126	126	126	126
Weight of the SLI	kg	7	9.5	11	14	17
Weight of the SLIR	kg	9	12	15	18	21

*Dimensions and weight values of the system terminals in the SLI and SLIR versions*

Tab. 20

#### 2.4.5.2 DIMENSIONS OF THE RECESSED FORMWORK AND INFILL PANEL FOR THE SLI AND SLIR VERSIONS

Below are the layouts of the recessed formwork and infill panel of the SLI version (Fig. 20) and a table summarising the dimensions (Fig. 21).



Layout of the recessed formwork and infill panel for the SLI version

Fig. 20

Ref. Fig. 20		200	400	600	800	1000
A	mm	713	913	1113	1313	1513
B	mm	725	725	725	725	725
C	mm	142	142	142	142	142
D	mm	772.5	972.5	1172.5	1372.5	1572.5
E	mm	754	754	754	754	754

Dimensions of the recessed formwork and infill panel for the SLI version

Tab. 21

Below are the layouts of the recessed formwork and infill panel of the SLIR version (Fig. 21) and a table summarising the dimensions (Tab. 22).

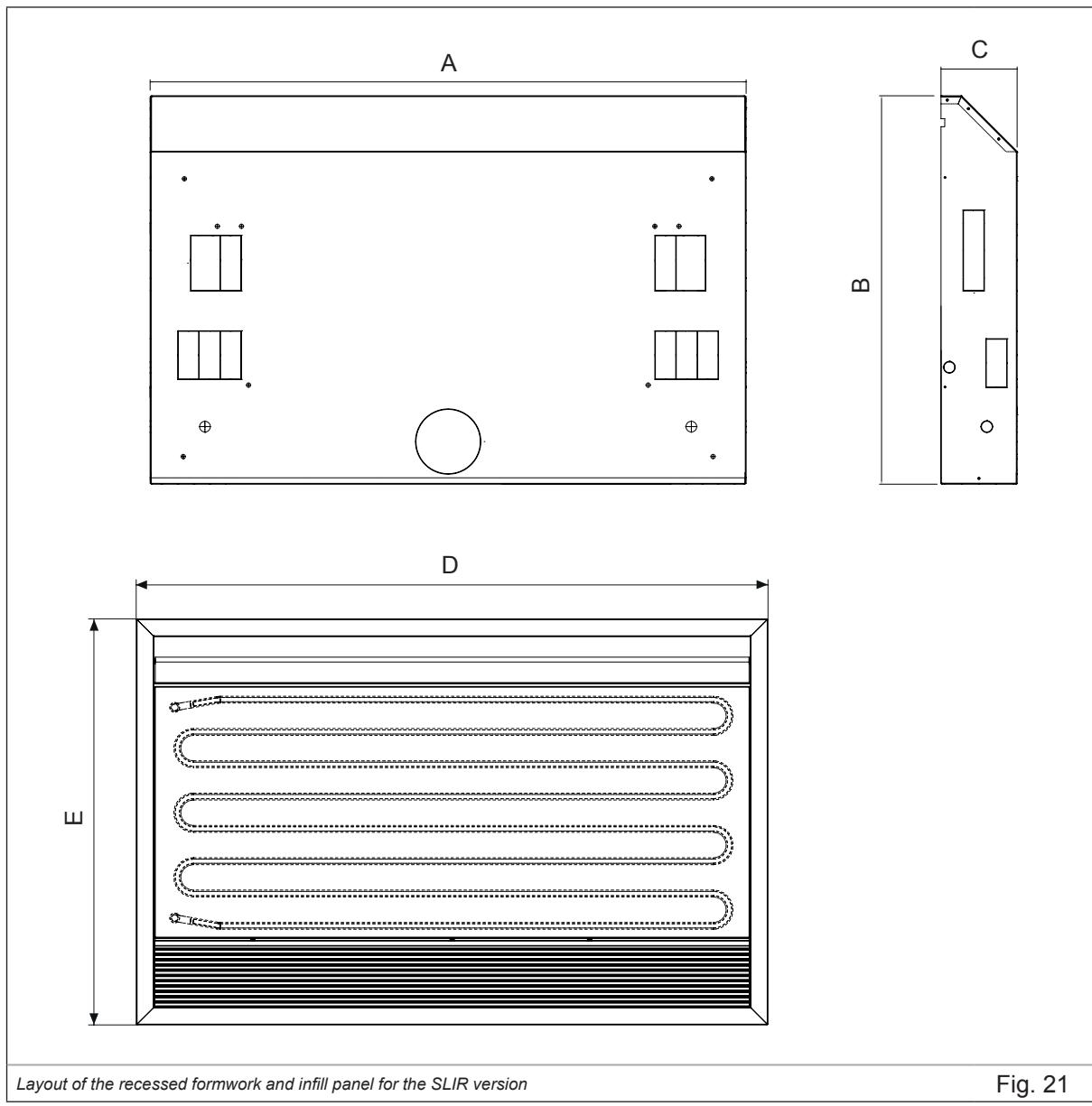


Fig. 21

Ref. Fig. 21		200	400	600	800	1000
A	mm	713	913	1113	1313	1513
B	mm	725	725	725	725	725
C	mm	142	142	142	142	142
D	mm	772.5	972.5	1172.5	1372.5	1572.5
E	mm	754	754	754	754	754

*Dimensions of the recessed formwork and infill panel for the SLIR version*

Tab. 22



Obligatory combination for the SLIR version:

- Structure (formwork) kit.
- Metal radiant panel kit.
- Only connections on the left.

### 2.4.5.3 POSITIONING OF THE SYSTEM TERMINALS

Before positioning the system terminals, make sure that:

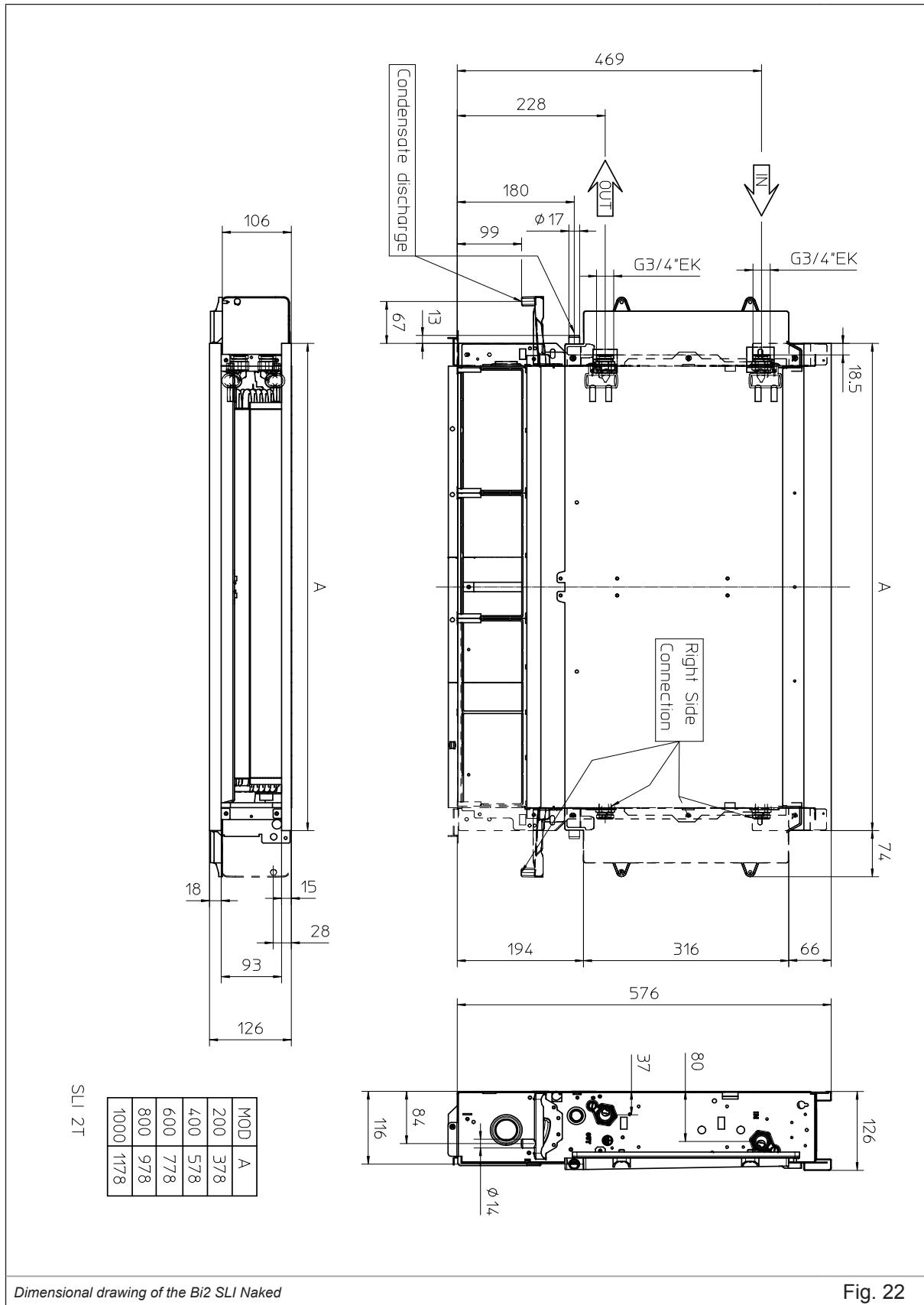
- The wall on which the terminal and formwork are to be installed is suitable in terms of structure, capacity and size.
- There are no pipes or power lines in the area of the wall.
- The wall is perfectly level.
- The area is free from obstacles that could prevent the air from flowing freely in and out.
- In the case of installation on the ceiling, the flow of air is not aimed directly at people.

The terminal must be installed in such a way as to facilitate routine maintenance (cleaning the filter) and special maintenance, and ensure access to the air vent valves (coil and panel) from the upper grille, on the connections side.

SPECIFICATIONS	INSTALLATION SPECIFICATIONS	RANGE ACCESSORIES	OPERATING CHARACTERISTICS	PERFORMANCE TABLES	QTS FOR WALL SYSTEM TERMINALS	QTS FOR 4-PIPE SYSTEM TERMINALS	QTS FOR RECESSED SYSTEM TERMINALS	QTS FOR CABINET SYSTEM TERMINALS	SELECTION OF THE SYSTEM TERMINALS	TABLE OF CONTENTS
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### DIMENSIONAL DRAWINGS OF THE Bi2 SLI NAKED

Below are the dimensional drawings (Fig. 22) of the fan coil in the SLI Naked version.



**DIMENSIONAL DRAWINGS OF THE Bi2 SLIR NAKED (radiant panel)**

Below are the dimensional drawings (Fig. 23) of the fan radiator in the SLIR Naked version (radiant panel).

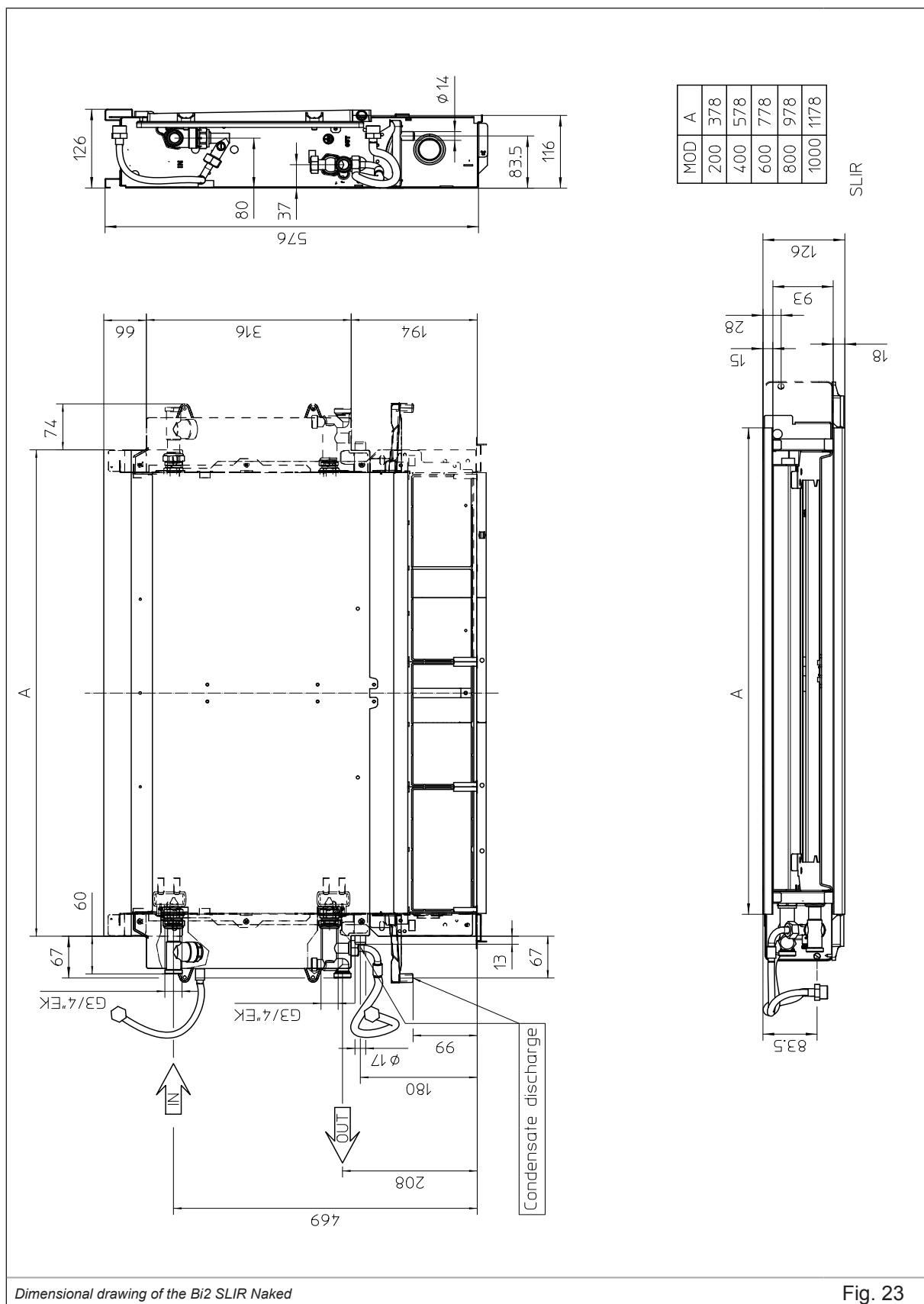


Fig. 23

## 2.4.6 CONFORMITY

The system terminals are compliant with the European directives:

- Low voltage 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU (EMCD)
- Registration of the use of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU (WEEE)
- Pressure receptacles 2014/68/EU (PED)
- Restriction of the use of certain hazardous substances in electrical and electronic equipment 1907/2006 (REACH)
- Environmentally friendly design 2009/125/EC, regulation 2016/2281 (ECODESIGN)

Standards harmonised with the aforementioned European directives:

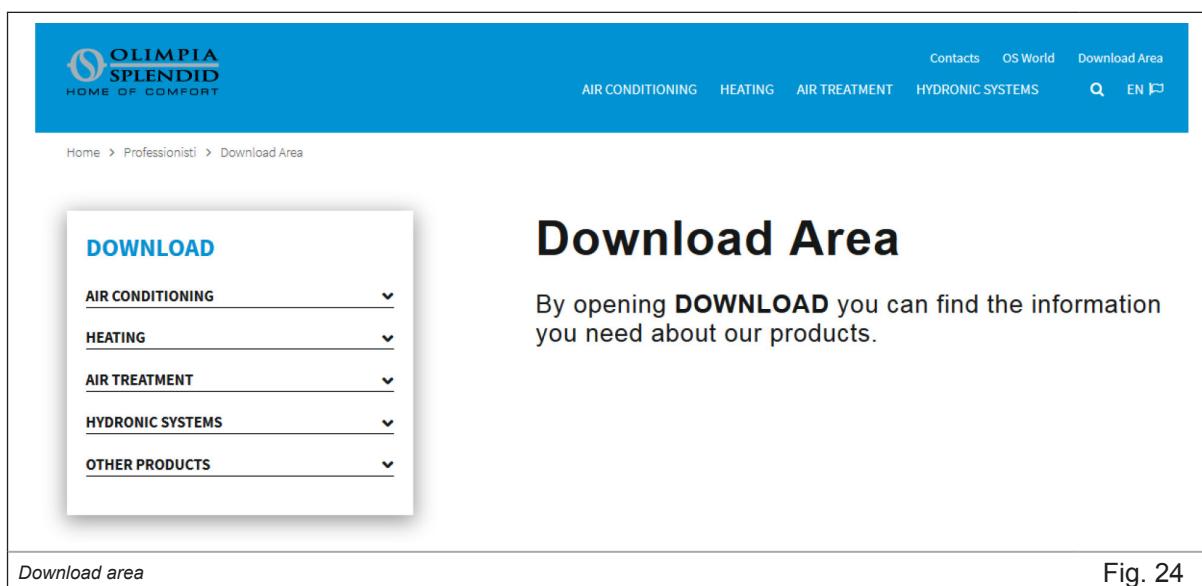
- Electrical safety EN 60335-1, EN 60335-2-40, EN 62233
- Electromagnetic compatibility EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3

Certification:

- Eurovent of the thermal performance and noise level
  - Eurovent standard 6/3 thermal performance
  - Eurovent standard 8/2 acoustic tests

### 2.4.6.1 CE DECLARATION OF CONFORMITY

The CE declaration of conformity is available in the download area on the site [www.olimpiasplendid.it](http://www.olimpiasplendid.it) (Fig. 24).



## 2.4.7 GENERAL INFORMATION

### 2.4.7.1 PACK

The following tables summarise the dimensions and weight values of the pack (Tab. 23 and Tab. 24).

Bi2 SLI		200	400	600	800	1000
L x D x H	cm	84.5x20.3x67.5	104.5x20.3x67.5	124.5x20.3x67.5	144.5x20.3x67.5	164.5x20.3x67.5
Gross weight	kg	10	12	14	17	20
<i>Pack of the Bi2 SLI</i>						Tab. 23

Bi2 SLIR		200	400	600	800	1000
L x D x H	cm	84.5x20.3x67.5	104.5x20.3x67.5	124.5x20.3x67.5	144.5x20.3x67.5	164.5x20.3x67.5
Gross weight	kg	11	13	15	17	20
<i>Pack of the Bi2 SLIR</i>						Tab. 24

## 2.5 4-PIPE Bi2 MODEL TECHNICAL BOOKLET



### 2.5.1 FUNDAMENTAL CHARACTERISTICS

- It air-conditioning, dehumidifies, heats and filters.
- Cooling and heating.
- Two high efficiency coils, one for heating and one for cooling, for installation in 4-pipe systems.
- Terminal with integrated radiant panel (SLR 4T version).
- Compact: only 12.9 cm deep.
- Five models (150, 250, 350, 500, 650).
- Three versions: SLR 4T fan radiator, SL 4T fan coil and SLI 4T recessed fan coil.
- Type of motor: AC.

## 2.5.2 GENERAL CHARACTERISTICS

- The 4-pipe Bi2 system terminals are available in the SL SLR cabinet version at only 12.9 cm in depth, or for recessed installation in the SLI version at only 12.6 cm in depth. Range available in five models. Cabinet with front panel, side panels and air outlet grille in galvanised sheet metal painted RAL9010 white. Bottom intake and mobile grille at front for access to the removable filters.
- Sturdy structure in galvanised steel.
- Resin pack AC motor. Tangential fan in synthetic material and with staggered fins for silent operation.
- Two heat exchange coils, one for heating and one for cooling. Each one is a two-row heat exchange coil with copper pipes and lanced aluminium fins for optimal heat exchange, circuits designed for low pressure drops on the water side,  $\frac{3}{4}$  Eurocone hydraulic connections.
- Radiant+ technology involves the use of a front radiant panel, available in SLR versions, that improves heating performance by acting as a traditional heating body in stationary conditions; forced ventilation occurs only in transitional periods to respond quickly to the demand for more heating power.
- The radiant panel has better static capacity due to:
  - A higher average surface temperature and, therefore, more irradiated power.
  - Greater uniformity in surface heating due to a larger radiant surface.
  - Better natural convection.
  - Less water content for quicker start-up of the system.
  - Silent operation in night mode.
  - Radiant heating without electric absorption of the fan.
  - The flow of water into the radiant panel is controlled by means of a special Kalorstat valve in the hydraulic unit sensitive to water temperature. If the water temperature drops below 30 °C, the flow is cut off automatically to prevent condensation from forming on the surface of the panel.
- Availability of a wide range of controls:
  - autonomous on the unit;
  - for remote control of a control panel to be installed on the wall;
  - with communication over MODBUS RS485 ASCII protocol for advanced BMS management.
- The various models have different operating modes and features like:
  - Stand-by.
  - Automatic (modulating ventilation).
  - Manual selection of fan speed.
  - Night, ventilation excluded in heating mode for radiant versions.
  - Presence contact for switching off or attenuation by voltage-free contact.
  - Contact for enabling the boiler and/or chiller.
- The sets of compact two or three-way valves designed for the slimline Bi2 range guarantee proper operation and management of the terminals.

### 2.5.3 TECHNICAL DATA

Below is a table of the technical data (Tab. 25).

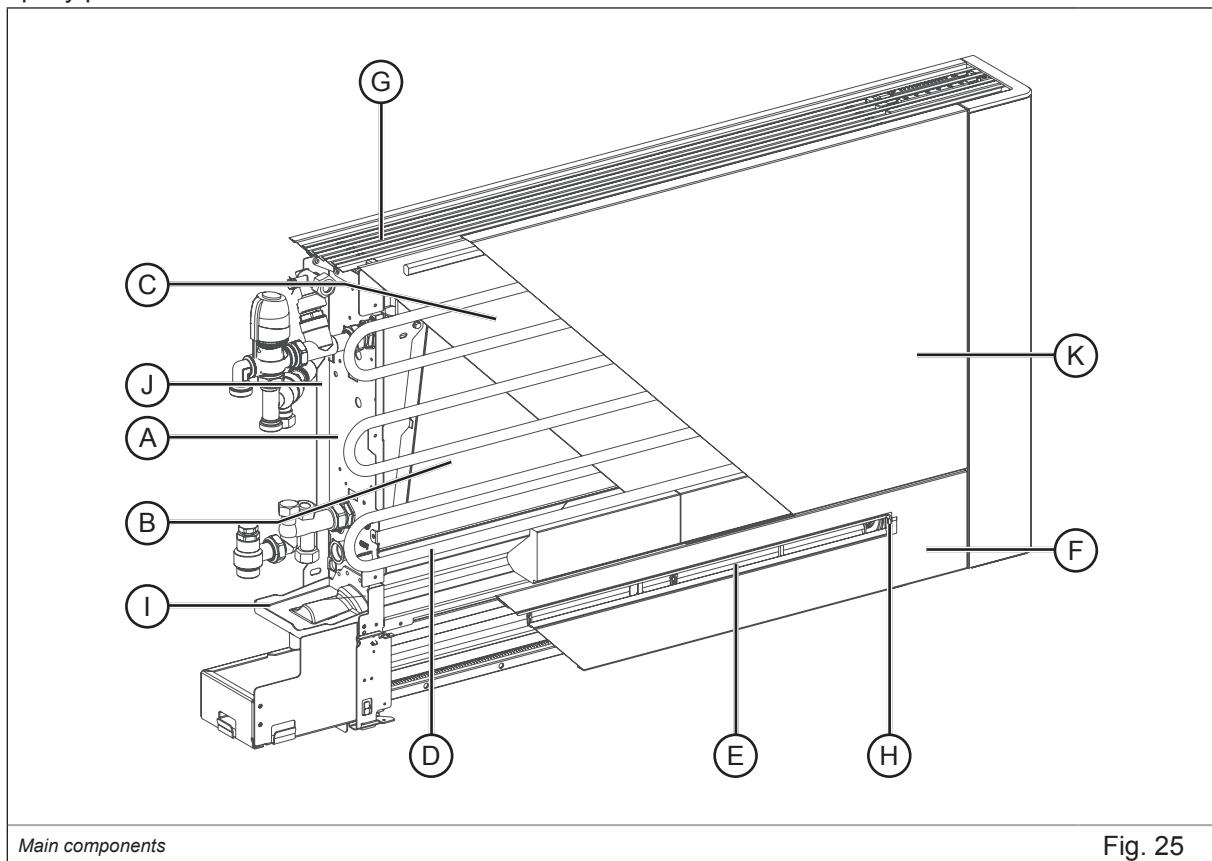
4-PIPE Bi2		SL 150			SL 250			SL 350			SL 500			SL 650		
Speed		MIN	MED	MAX												
Total cooling capacity	kW	0.30	0.51	0.57	0.73	0.94	1.19	1.04	1.42	1.72	1.14	1.74	2.22	1.34	2.11	2.56
Sensible cooling capacity	kW	0.21	0.36	0.48	0.55	0.72	0.93	0.80	1.07	1.43	0.95	1.41	1.76	1.05	1.64	2.08
Heating	kW	0.47	0.56	0.60	0.93	1.09	1.29	1.30	1.66	1.75	1.61	1.95	2.26	2.23	2.38	2.57
Cooling Dp	kPa	2.6	6.2	7.3	1.8	2.7	3.9	3.8	6.6	9.2	2.6	5.8	8.8	2.3	5.7	8.6
Heating Dp	kPa	0.1	0.1	0.1	0.5	0.6	0.7	0.2	0.4	0.4	0.5	0.7	0.9	0.8	0.9	1.1
Motor absorption	W	8	10	16	10	13	19	13	16	25	16	19	30	17	25	35
Sound power LW	dB(A)	40	47	54	40	47	54	40	47	54	43	50	57	44	51	57
Notes The performance data refer to the following operating conditions: COOLING: air temperature 27 °C d.b., 19 °C w.b., inlet water temperature 7 °C, outlet water temperature 12 °C HEATING: air temperature 20 °C, inlet water temperature 70 °C, outlet water temperature 60 °C																
4-pipe Bi2 technical data																

Tab. 25

## 2.5.4 MAIN COMPONENTS

The system terminals comprise the following main components (see Fig. 25):

- A. Supporting structure:** in high-tensile electrogalvanised sheet steel.
- B. High efficiency cold water heat exchange coil** with copper pipes and corrugated fins in aluminium. 3/4 Eurocone threaded hydraulic connections. The coil has a sensor for detecting the water temperature.
- C. Hot water heat exchange coil** with copper pipes and corrugated fins in aluminium. 3/4 Eurocone threaded hydraulic connections. The coil has a dedicated sensor for detecting the water temperature.
- D. High efficiency radiant panel** hydraulically connected to the hot water coil (SLR versions). The circuit has a Kalorstat valve which prevents cold water from entering the plate.
- E. Fan unit** comprising a tangential fan made of synthetic material with staggered fins (very low noise) mounted on anti-vibration mounts in EPDM, statically and dynamically balanced, and fitted directly on the motor shaft.
- F. Resin pack single-phase electric motor** mounted on anti-vibration mounts in EPDM (only AC version).
- G. Reversible air outlet grille** in aluminium painted with oven-dried epoxy powders.
- H. Aesthetic quick release front panel** in sheet metal for access to the filters, with safety microswitch.
- I. Drip tray** for vertical installation, in ABS, easy to disassemble for cleaning operations. The horizontal drip tray kit is available as an accessory for horizontal installation of the SL versions (provided as standard for SLI versions).
- J. High-tensile anti-condensation structural back panel.**
- K. Front panel** and removable side panels in electro-galvanised sheet metal painted with oven-dried epoxy powders.



Note: electrovalve kit available as an accessory for all models.

## 2.5.5 DIMENSIONS AND POSITIONING

### 2.5.5.1 DIMENSIONS OF THE 4-PIPE SLR AND SL VERSIONS

Below is the layout of the fan radiator in the SLR and SL versions (Fig. 26) and a table summarising the dimensions and weight values (Tab. 26).

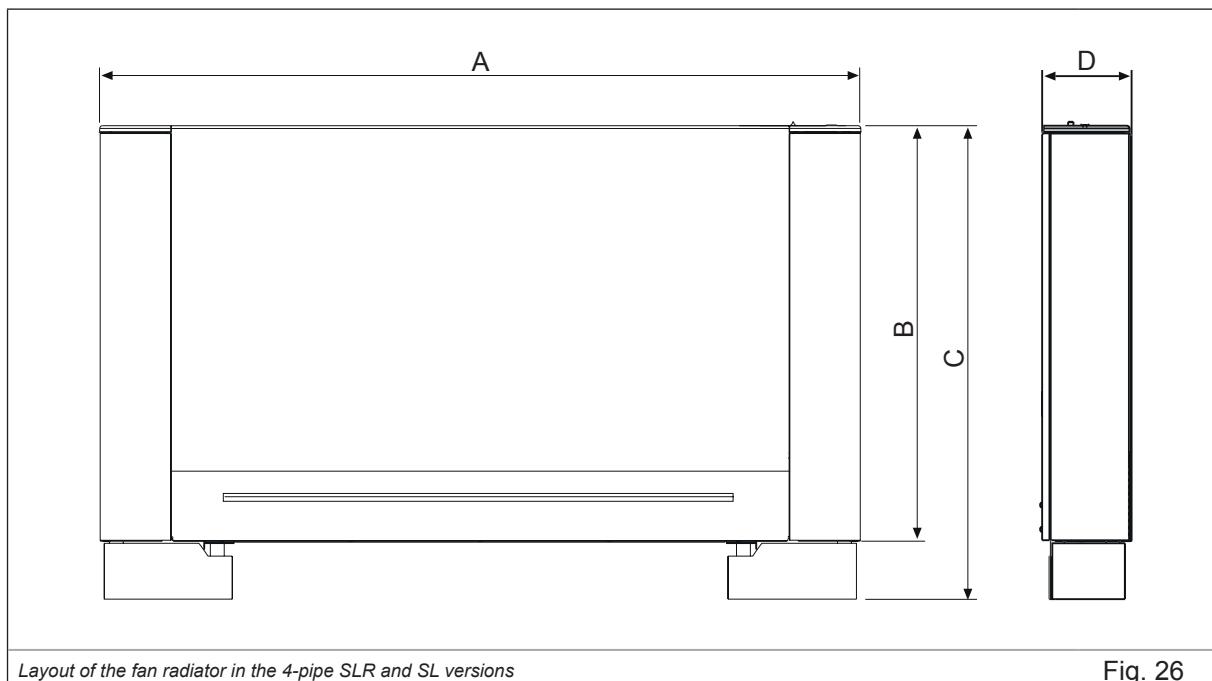


Fig. 26

Ref. Fig. 26		150	250	350	500	650
A	mm	697	897	1097	1297	1497
B	mm	639	639	639	639	639
C	mm	719	719	719	719	719
D	mm	129	129	129	129	129
Weight of the SLR	kg	22	27	32	36	41
Weight of the SL	kg	15	17	20	22	26

*Layout of the fan radiator in the 4-pipe SLR and SL versions*

Tab. 26

### 2.5.5.2 DIMENSIONS OF THE 4-PIPE SLI VERSION

Below is the layout of the fan coil in the SLI version (Fig. 27) and a table summarising the dimensions and weight values (Tab. 27).

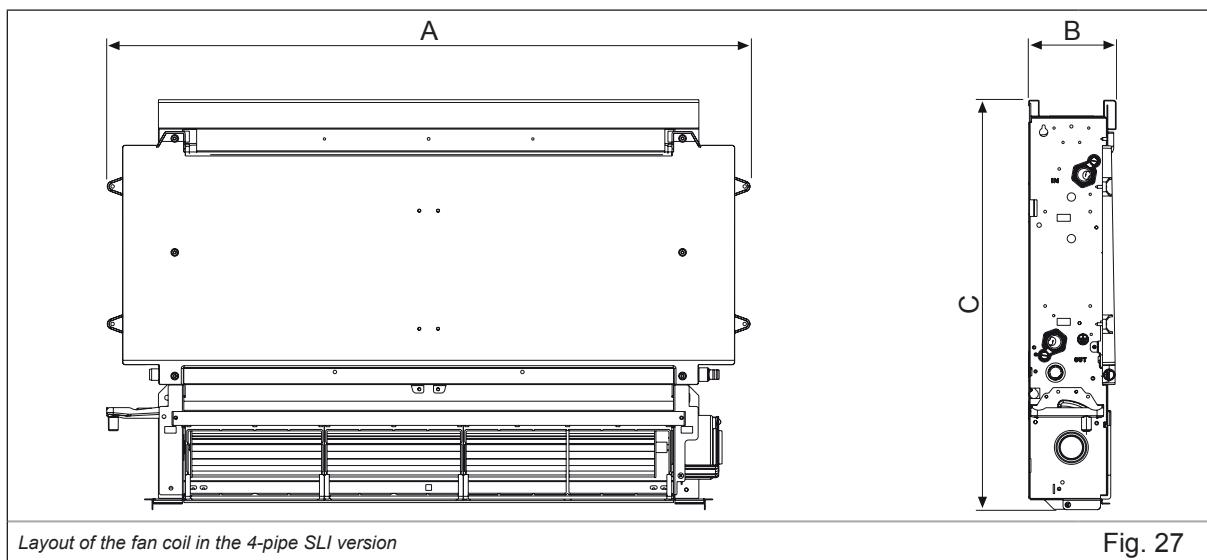


Fig. 27

Ref. Fig. 27		150	250	350	500	650
A	mm	525	725	925	1125	1325
B	mm	126	126	126	126	126
C	mm	636	636	636	636	636
Weight of the SLI	kg	9	12	15	18	21

*Dimensions and weight values of the 4-pipe SLI version*

Tab. 27

### 2.5.5.3 POSITIONING OF THE SYSTEM TERMINALS

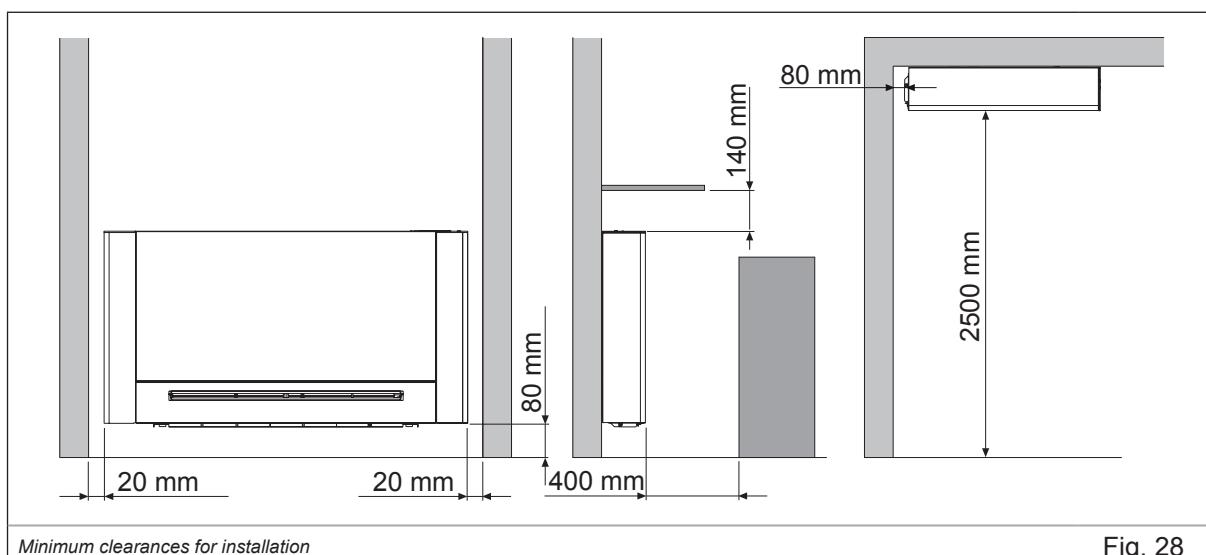
Before positioning the system terminals, make sure that:

- The wall on which the terminal is to be installed is suitable in terms of structure and capacity.
- There are no pipes or power lines in the area of the wall.
- The wall is perfectly level.
- The area is free from obstacles that could prevent the air from flowing freely in and out.
- In the case of installation on the ceiling, the flow of air is not aimed directly at people.

The terminal must be installed in such a way as to facilitate routine maintenance (cleaning the filter) and special maintenance, and ensure access to the air vent valves (coil and panel) from the upper grille, on the connections side.

#### MINIMUM CLEARANCES FOR INSTALLATION

In Fig. 28 are the minimum clearances for installation of the system terminal from walls or obstacles in the vicinity.



## DIMENSIONAL DRAWINGS OF THE 4-PIPE Bi2 SL

Below are the dimensional drawings (Fig. 29) of the fan coil in the 4-pipe SL version.

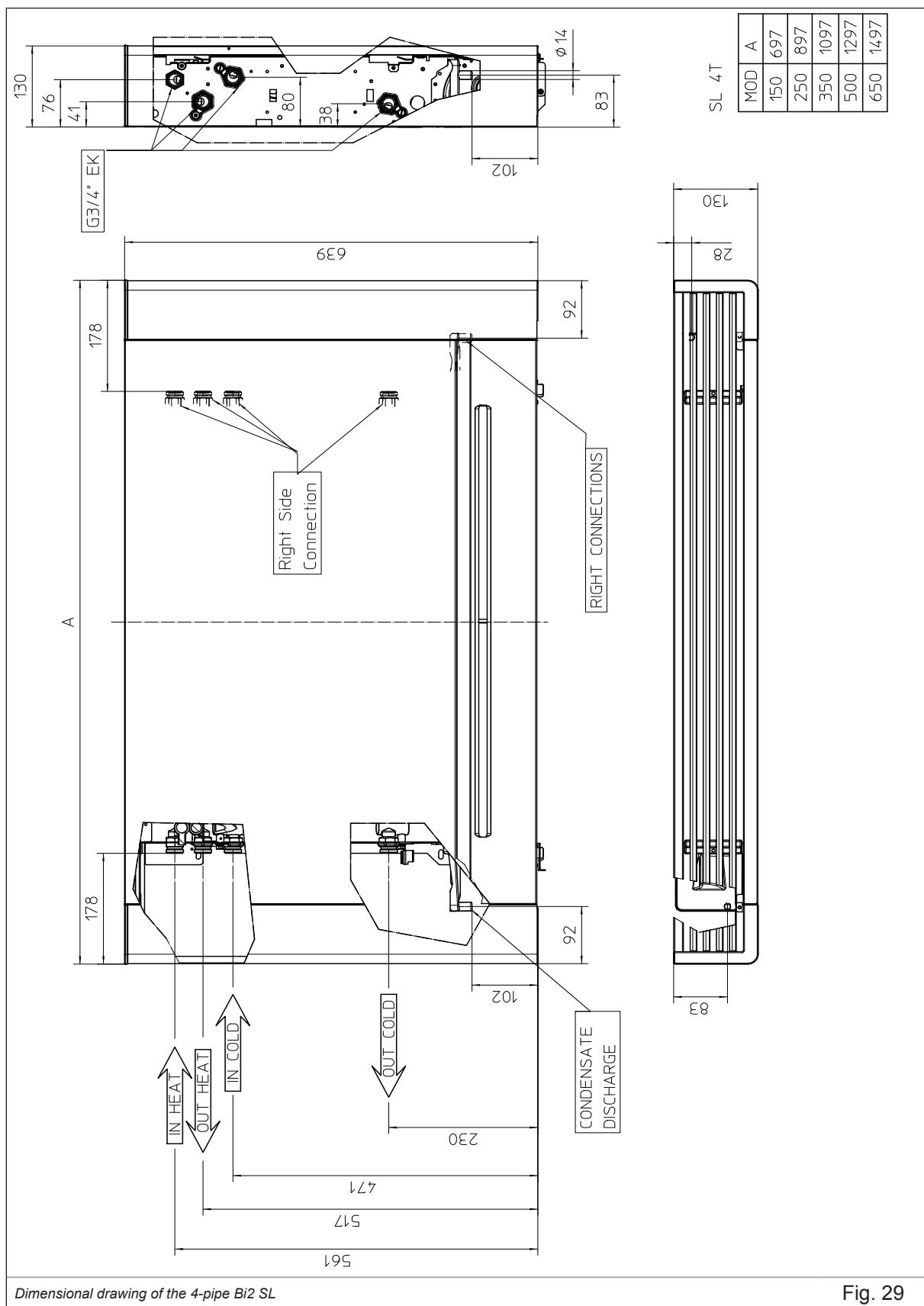
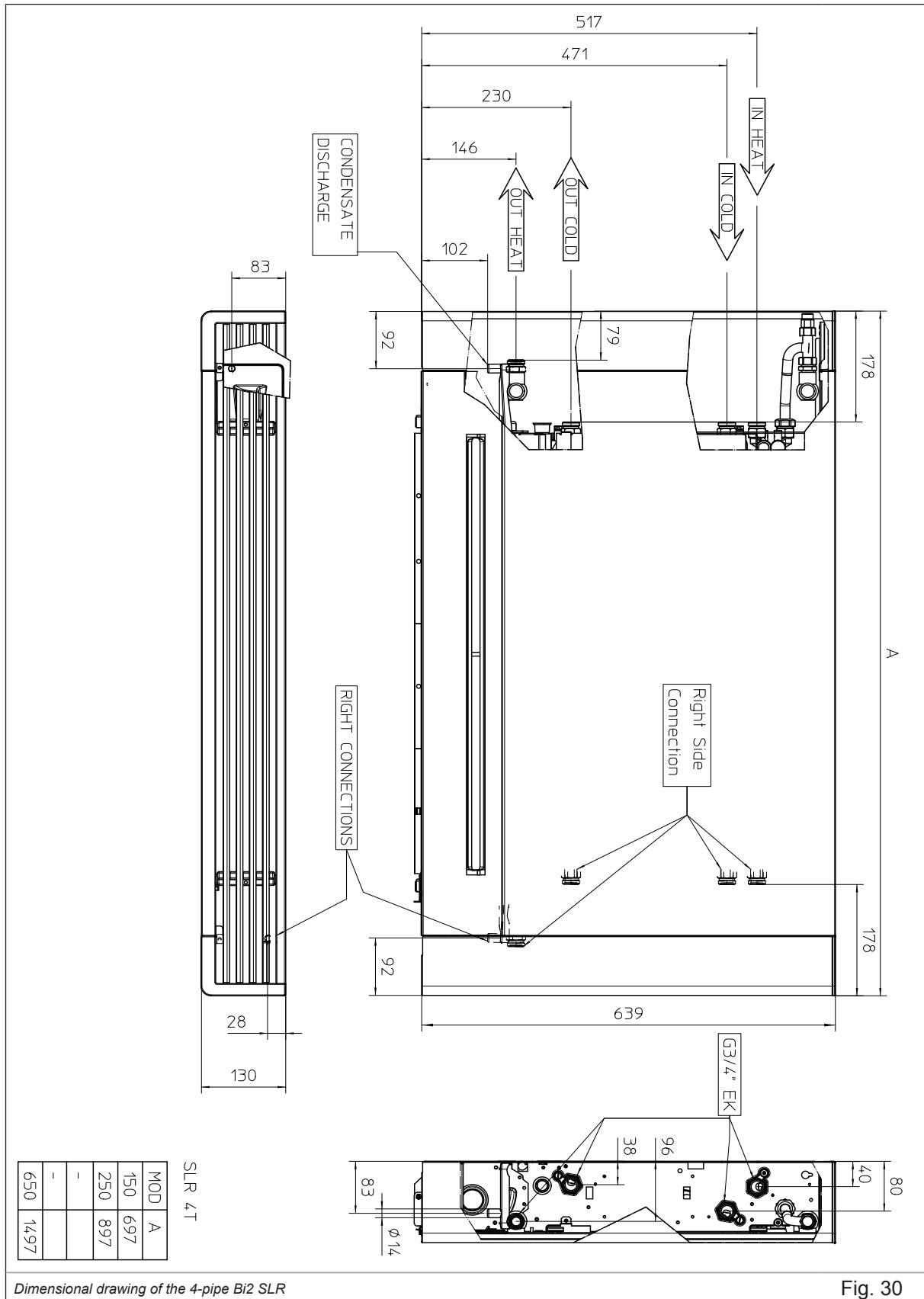


Fig. 29

### DIMENSIONAL DRAWINGS OF THE 4-PIPE Bi2 SLR

Below are the dimensional drawings (Fig. 30 and Fig. 31) of the fan radiator in the 4-pipe SLR version.



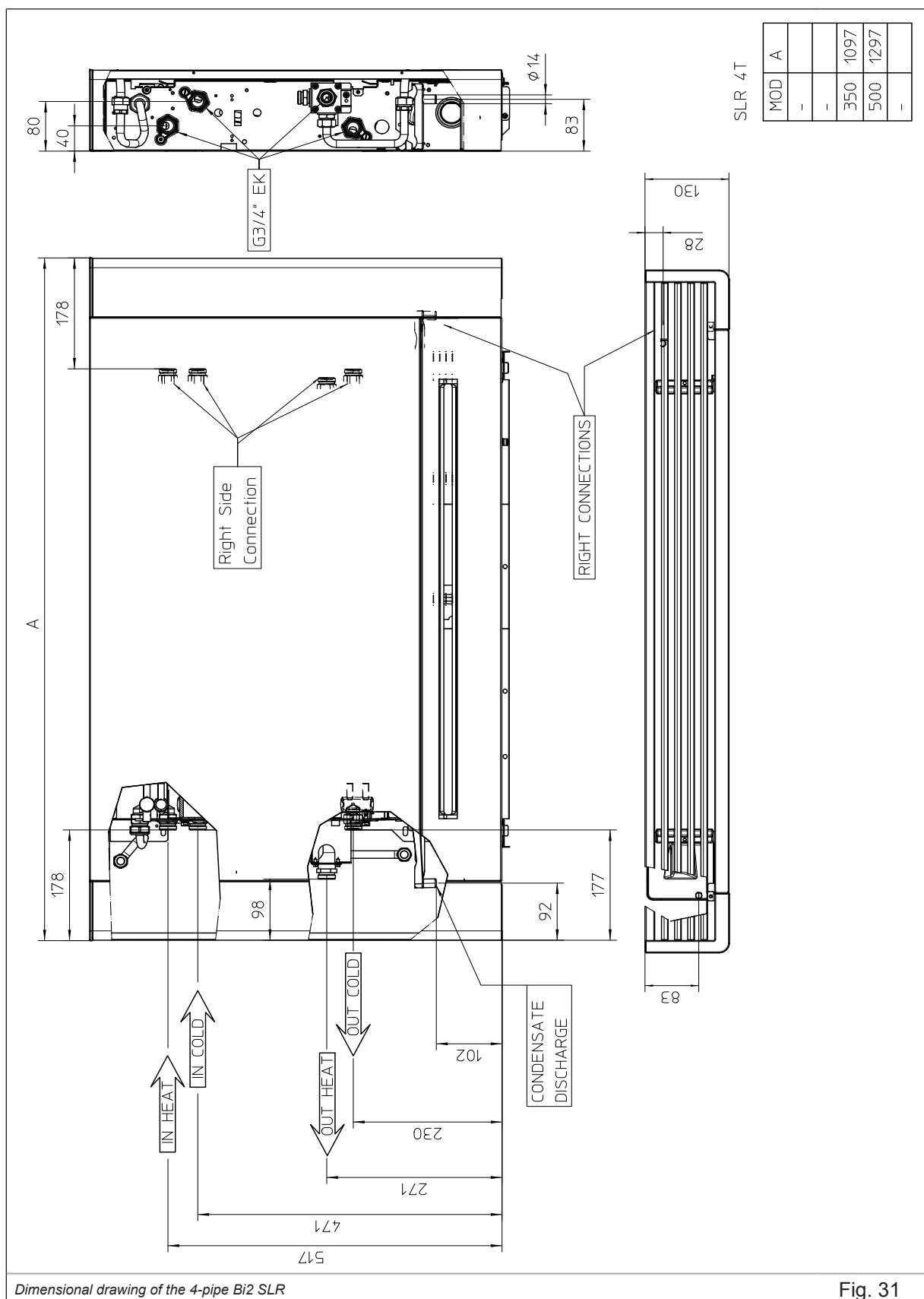
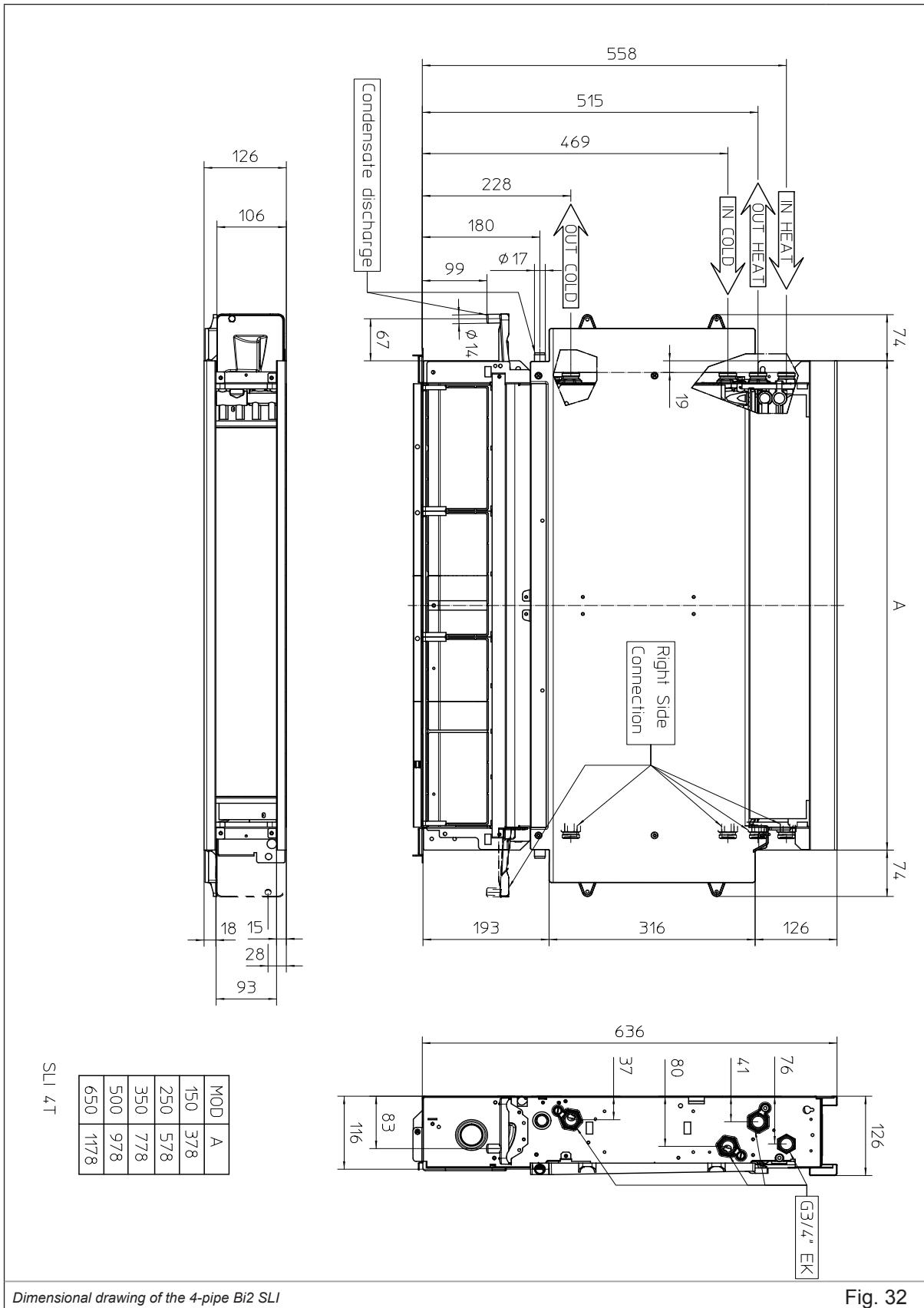


Fig. 31

## DIMENSIONAL DRAWINGS OF THE 4-PIPE Bi2 SLI

Below are the dimensional drawings (Fig. 32) of the fan coil in the 4-pipe SLI version.



## 2.5.6 CONFORMITY

The system terminals are compliant with the European directives:

- Low voltage 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU (EMCD)
- Registration of the use of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU (WEEE)
- Pressure receptacles 2014/68/EU (PED)
- Restriction of the use of certain hazardous substances in electrical and electronic equipment 1907/2006 (REACH)
- Environmentally friendly design 2009/125/EC, regulation 2016/2281 (ECODESIGN)

Standards harmonised with the aforementioned European directives:

- Electrical safety EN 60335-1, EN 60335-2-40, EN 62233
- Electromagnetic compatibility EN 55014-1, EN55014-2, EN 61000-3-2, EN 61000-3-3

Certification:

- Eurovent of the thermal performance and noise level
  - Eurovent standard 6/3 thermal performance
  - Eurovent standard 8/2 acoustic tests

### 2.5.6.1 CE DECLARATION OF CONFORMITY

The CE declaration of conformity is available in the download area on the site [www.olimpiasplendid.it](http://www.olimpiasplendid.it) (Fig. 33).

## 2.5.7 GENERAL INFORMATION

### 2.5.7.1 PACK

The following tables summarise the dimensions and weight values of the pack (Tab. 28, Tab. 29 and Tab. 30).

Bi2 SLR 4T		150	250	350	500	650
L x D x H	cm	77x20x71	97x20x71	117x20x71	137x20x71	157x20x71
Gross weight	kg	23.5	29.5	34.5	39.5	44.5
<i>Pack of the Bi2 SLR 4T</i>						Tab. 28

Bi2 SL 4T		150	250	350	500	650
L x D x H	cm	77x20x71	97x20x71	117x20x71	137x20x71	157x20x71
Gross weight	kg	17.5	19.5	22.5	25.5	29.5
<i>Pack of the Bi2 SL 4T</i>						Tab. 29

Bi2 SLI 4T		150	250	350	500	650
L x D x H	cm	59x20x71	77x20x71	97x20x71	117x20x71	137x20x71
Gross weight	kg	10	12	16	17	22.5
<i>Pack of the Bi2 SLI 4T</i>						Tab. 30

# 4-PIPE Bi2 TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** 4 tubi

TABLE OF CONTENTS  
SELECTION OF THE  
SYSTEM TERMINALS

QTS FOR RECESSED  
SYSTEM TERMINALS

QTS FOR 4-PIPE  
SYSTEM TERMINALS

QTS FOR WALL  
SYSTEM TERMINALS

OPERATING  
CHARACTERISTICS

PERFORMANCE  
TABLES

INSTALLATION  
SPECIFICATIONS

SPECIFICATIONS

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## 2.6 Bi2 WALL MODEL TECHNICAL BOOKLET



### 2.6.1 FUNDAMENTAL CHARACTERISTICS

- It air-conditions, dehumidifies, heats and filters.
- Backlit display (set point and alarms).
- Aesthetic Total Flat design, no unsightly front grille. Full integration with the building.
- Selection of operating mode (cooling, heating, ventilation only, automatic, dehumidification).
- Selection of ventilation program (min, med and max).
- Timer.
- Remote control provided.
- Sturdy metal casing.
- Motorised air outlet flap.
- 4-wire electrovalve kit, two-way (2v) or three-way (3v) valves supplied as standard.
- Three models (400, 600, 800).
- One version: SLW fan coil.
- Reversible: it can be installed as a split or as a console unit, simply by rotating the display during installation.
- Brushless DC motor.
- Non-reversible hydraulic connections.

## 2.6.2 GENERAL CHARACTERISTICS

- The Bi2 WALL system terminals have a minimum depth of only 12.9 cm and a maximum depth of 15 cm and can be installed on a high wall or console. Range available in three models. The Wall system terminals are in galvanised sheet metal painted RAL9010 white. The air outlet has a large motorised flap. Intake and access to the removable filters at the top for wall installation, and at the bottom for console installation.
- Sturdy structure in galvanised steel.
- High efficiency resin pack brushless DC motor. Tangential fan in synthetic material and with staggered fins for silent operation.
- Two-row heat exchange coils with copper pipes and lanced aluminium fins for optimal heat exchange, circuits designed for low pressure drops on the water side,  $\frac{3}{4}$  Eurocone hydraulic connections.
- Operating modes available with the remote control provided:
  - Stand-by.
  - Automatic (modulating ventilation).
  - Heating, cooling.
  - Manual selection of fan speed.
  - Flap or swing position.
  - Set of two-way (2v) or three-way (3v) valves with holder and thermoelectric actuator with end stroke enable microswitch (4-wire).
- The sets of two-way (2v) or three-way (3v) valves supplied as standard ensure correct operation and management of the terminals.

### 2.6.3 TECHNICAL DATA

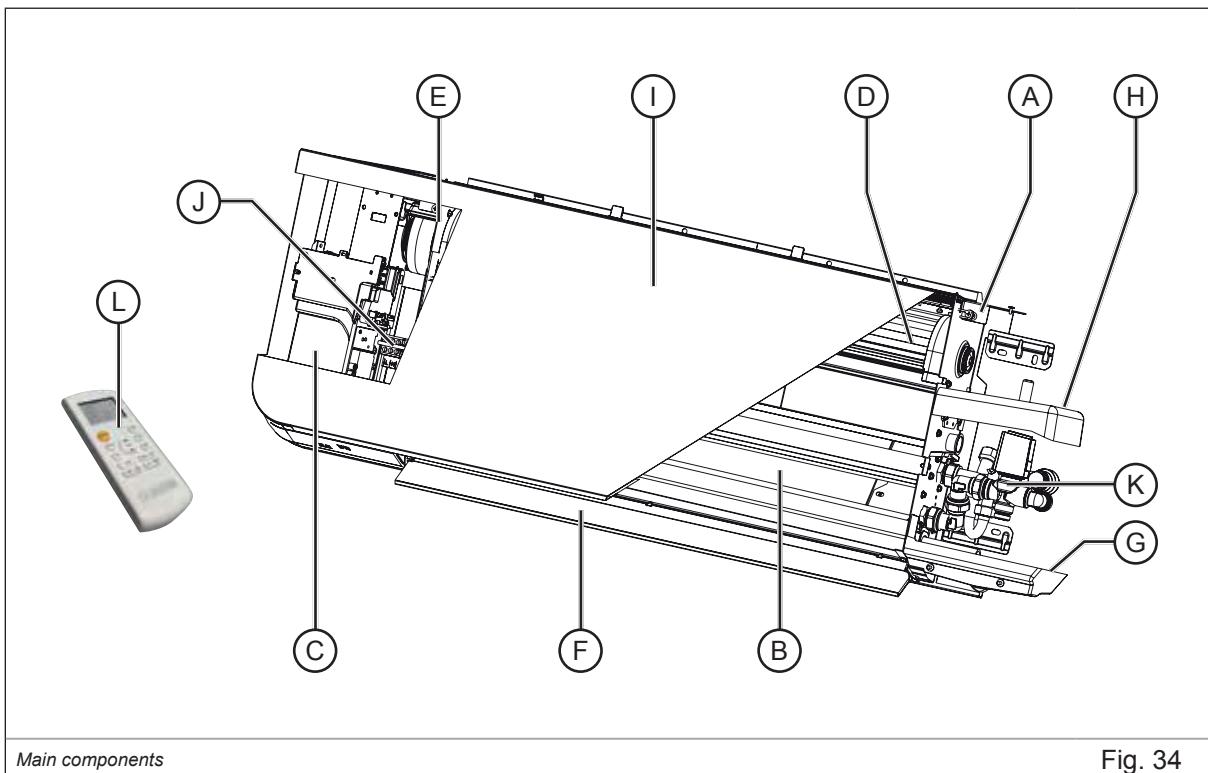
Below are tables summarising the technical data (Tab. 31).

Bi2 SLW		400	600	800
Total cooling capacity (a)	kW	1.01	1.23	1.82
Sensible cooling capacity	kW	0.91	1.15	1.47
Water flow	l/h	174	214	313
Water pressure drops	kPa	8.9	7.9	11.0
Heating capacity (water 50 °C) (b)	kW	1.55	2.16	2.85
Heating capacity (water 70 °C) (c)	kW	2.70	3.79	4.93
Water flow rate (70 °C)	l/h	232	326	424
Water pressure drops (70 °C)	kPa	10.4	4.8	13.7
Water content of the coil	l	0.30	0.40	0.50
Hydraulic connections	"	3/4 Eurocone	3/4 Eurocone	3/4 Eurocone
Min air flow rate (d)	m³/h	155	250	255
Max air flow rate (d)	m³/h	290	400	430
Minimum absorbed power	W	7	8	9
Maximum absorbed power	W	19	23	27
Min sound power LW	dB(A)	43	43	43
Max sound power LW	dB(A)	57	58	58
Sound pressure (e)	dB(A)	39	40	40
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50
Notes				
(a) Coil inlet water temperature 7 °C, coil outlet water temperature 12 °C, room air temperature 27 °C d.b. and 19 °C w.b.				
(b) Coil inlet water temperature 50 °C, water flow rate same as in cooling mode, inlet room air temperature 20 °C				
(c) Coil inlet water temperature 70 °C, coil outlet water temperature 60 °C, room air temperature 20 °C				
Note: the capacities are at maximum speed				
(d) Air flow rate measured with clean filters				
(e) Sound pressure measured at 1.5 m				
Bi2 SLW technical data				Tab. 31

## 2.6.4 MAIN COMPONENTS

The system terminals comprise the following main components (see Fig. 34):

- A. Supporting structure:** in high-tensile electrogalvanised sheet steel.
- B. High efficiency heat exchange coil** with copper pipes and corrugated fins in aluminium. The coil has a sensor for detecting the water temperature.
- C. Electronic control panel.**
- D. Fan unit** comprising a tangential fan made of synthetic material with staggered fins (very low noise) mounted on anti-vibration mounts in EPDM, statically and dynamically balanced, and fitted directly on the motor shaft.
- E. Resin pack brushless DC electric motor** mounted on anti-vibration mounts in EPDM.
- F. Motorised air outlet diversion flap.**
- G. Drip tray** in ABS for "HIGH-WALL" installation.
- H. Drip tray** in ABS for "CONSOLE" installation.
- I. Removable front panel** in electro-galvanised sheet metal painted with oven-dried epoxy powders.
- J. Electrical terminal board.**
- K. Electrovalve kit** (4 wires) with two-way (2v) or three-way (3v) valves and holder as standard.
- L. Infrared remote control** as standard.



## 2.6.5 DIMENSIONS AND POSITIONING

Below is the layout of the system terminal coil (Fig. 35) and a table summarising the dimensions and weight values (Tab. 32).

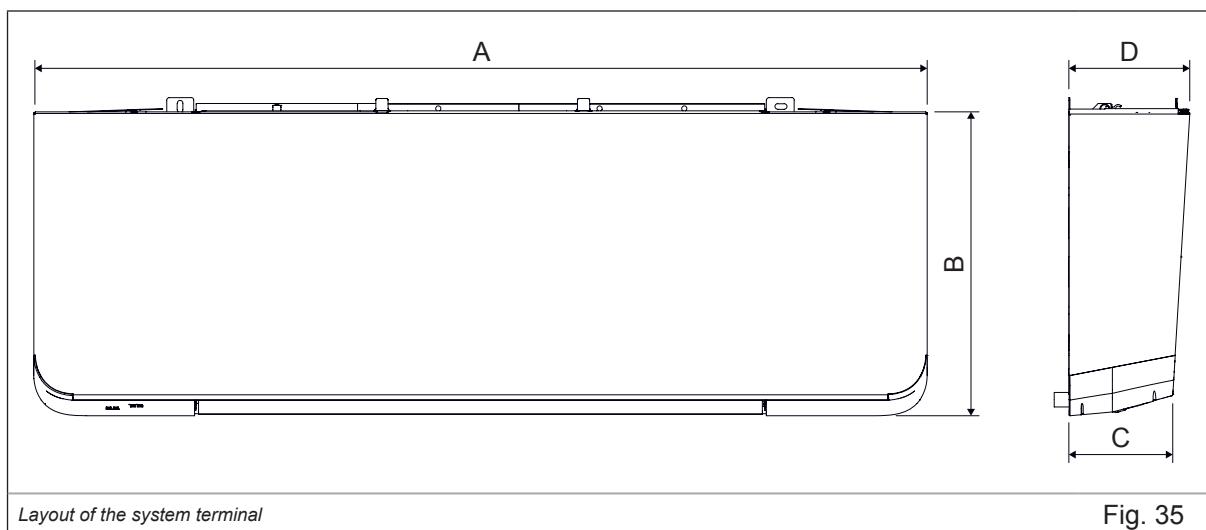


Fig. 35

Ref. Fig. 35		SLW 400	SLW 600	SLW 800
A	mm	906	1106	1306
B	mm	380	380	380
C	mm	129	129	129
D	mm	150	150	150
Weight	kg	13	14.5	16

*Dimensions and weight values of the SLW model*

Tab. 32

### 2.6.5.1 POSITIONING OF THE SYSTEM TERMINALS

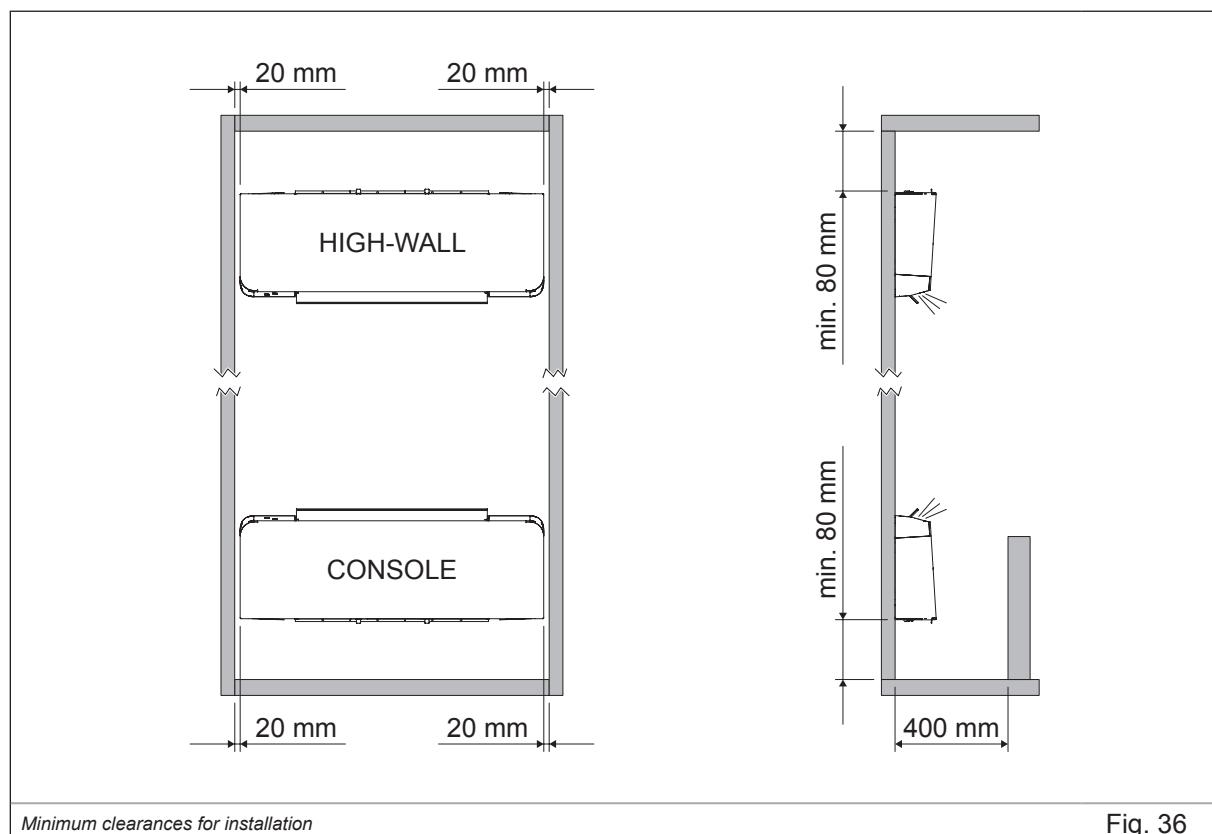
The system terminal is suitable for high-wall installation with the air outlet facing downwards, or installation on a low wall (console) with the air outlet facing upwards: it has two drip trays and drain that must be connected according to the type of installation.

In the case of "console" installation, the display must be rotated (refer to the installation and maintenance manual) into the best position for viewing the operating data.

The system terminal must be installed in such a way as to facilitate routine maintenance (cleaning the filter) and special maintenance, and ensure access to the air vent valves (coil and panel) from the upper grille, on the connections side.

#### MINIMUM CLEARANCES FOR INSTALLATION

In Fig. 36 are the minimum clearances for installation of the system terminal from walls or obstacles in the vicinity.



### DIMENSIONAL DRAWINGS OF THE Bi2 SLW WALL 2V

Below are the dimensional drawings (Fig. 37) of the fan coil in the SLW Wall 2V version.

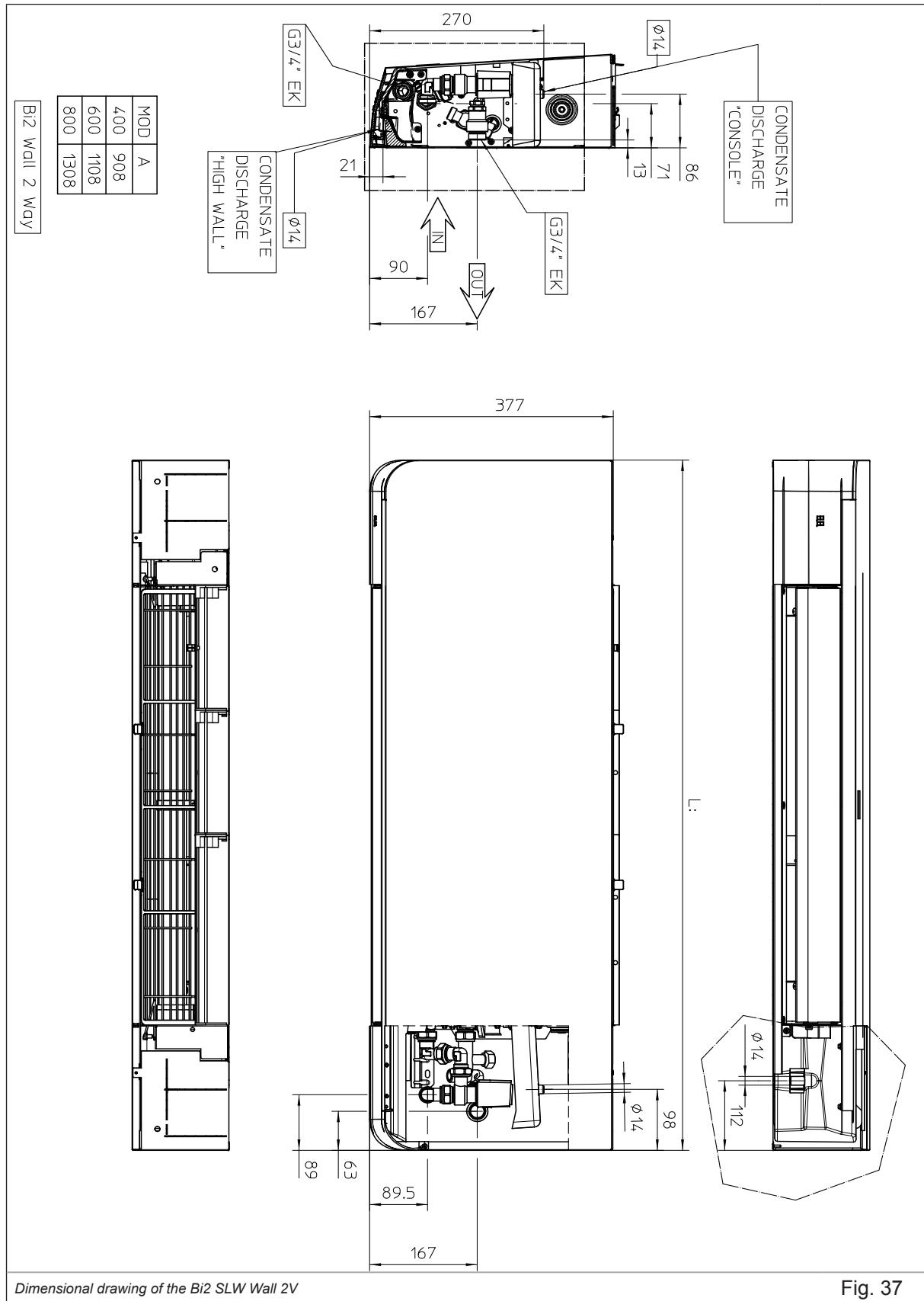


Fig. 37

# Bi2 WALL TECHNICAL BOOKLET

## SYSTEM TERMINALS

**Bi2** wall

### DIMENSIONAL DRAWINGS OF THE Bi2 SLW WALL 3V

Below are the dimensional drawings (Fig. 38) of the fan coil in the SLW Wall 3V version.

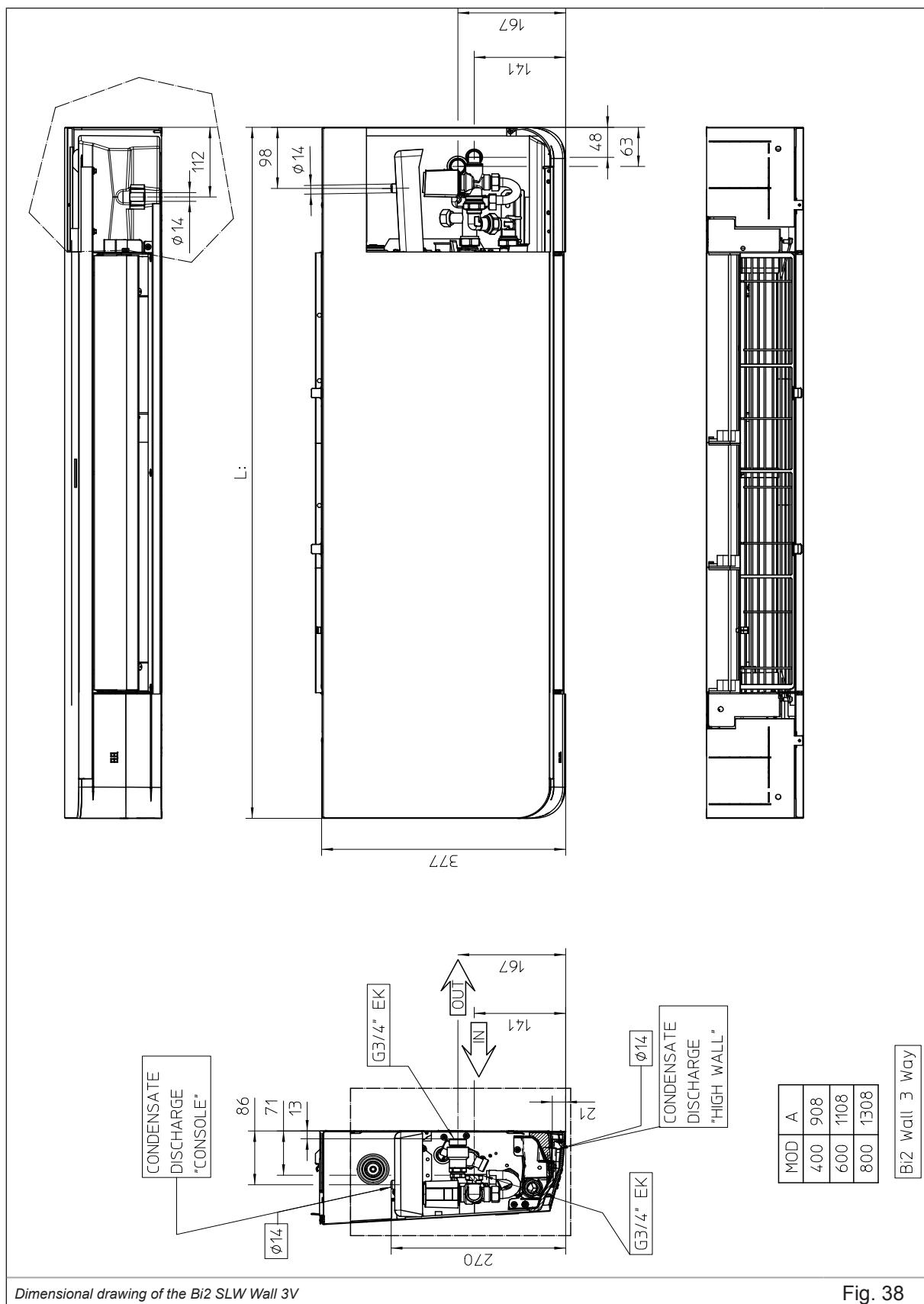


Fig. 38

## 2.6.6 CONFORMITY

The system terminals are compliant with the European directives:

- Low voltage 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU (EMCD)
- Registration of the use of hazardous substances in electrical and electronic equipment 2011/65/EC (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU (WEEE)
- Pressure receptacles 2014/68/EU (PED)
- Restriction of the use of certain hazardous substances in electrical and electronic equipment 1907/2006 (REACH)
- Environmentally friendly design 2009/125/EC, regulation 2016/2281 (ECODESIGN)

Standards harmonised with the aforementioned European directives:

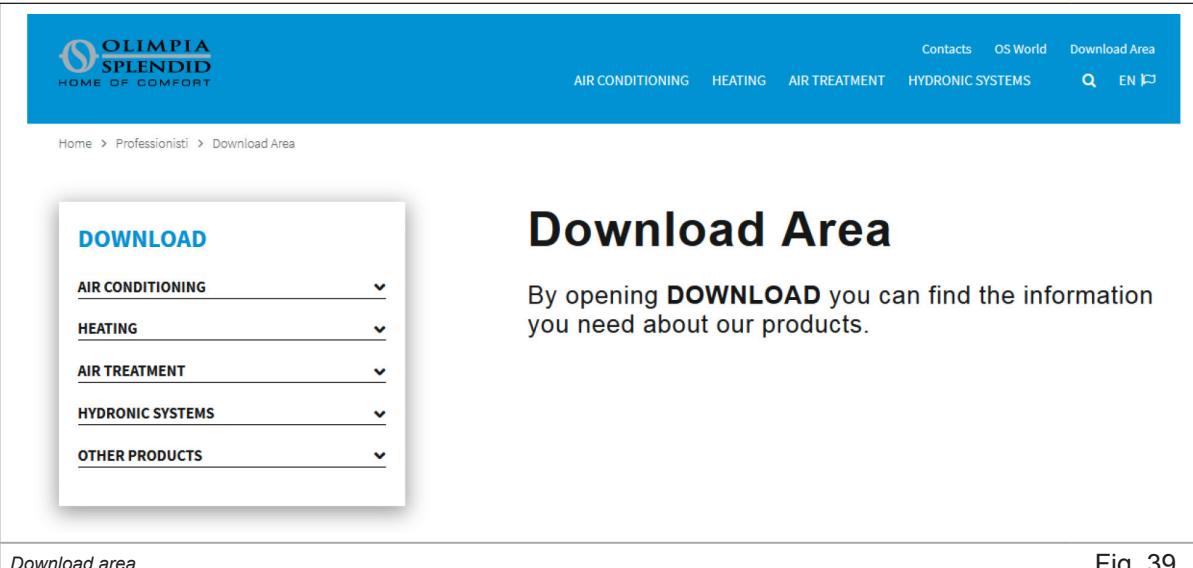
- Electrical safety EN 60335-1, EN 60335-2-40, EN 62233
- Electromagnetic compatibility EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3

Certification:

- Eurovent of the thermal performance and noise level
  - Eurovent standard 6/3 thermal performance
  - Eurovent standard 8/2 acoustic tests

### 2.6.6.1 CE DECLARATION OF CONFORMITY

The CE declaration of conformity is available in the download area on the site [www.olimpiasplendid.it](http://www.olimpiasplendid.it) (Fig. 39).



The screenshot shows the Olimpia Splendid website's navigation bar with links for AIR CONDITIONING, HEATING, AIR TREATMENT, HYDRONIC SYSTEMS, and DOWNLOAD. Below the navigation bar, a breadcrumb trail indicates the user is in the 'Download Area'. On the left, there is a sidebar titled 'DOWNLOAD' containing dropdown menus for AIR CONDITIONING, HEATING, AIR TREATMENT, HYDRONIC SYSTEMS, and OTHER PRODUCTS. To the right, the main content area is titled 'Download Area' and contains the text: 'By opening DOWNLOAD you can find the information you need about our products.' At the bottom of the page, a footer bar includes the text 'Download area' on the left and 'Fig. 39' on the right.

## 2.6.7 GENERAL INFORMATION

### 2.6.7.1 PACK

The following table summarises the dimensions and weight values of the pack (Tab. 33).

<b>Bi2 SLW</b>		<b>400</b>	<b>600</b>	<b>1000</b>
L x D x H	cm	97x20x46	117x20x46	137x20x46
Gross weight	kg	15	16.5	18
<i>Pack of the Bi2 SLW</i>				Tab. 33

### 3 PERFORMANCE TABLES

#### 3.1 PERFORMANCE OF THE SL AC MODELS



MODELS			SLR 200 SL smart 200 SLR smart 200 SLI 200 - SLIR 200			SLR 400 SL smart 400 SLR smart 400 SLI 400 - SLIR 400		
Ref.	Fan speed		Low	Medium	High	Low	Medium	High
(1)	Total power capacity in cooling mode	kW	0.37	0.71	0.81	0.91	1.34	1.73
(1)	Sensible power capacity in cooling mode	kW	0.25	0.50	0.63	0.65	1.02	1.24
(1)	Pressure drop on water side	kPa	3.8	10.6	13.1	2.4	5.5	8.2
(2)	Total power capacity in cooling mode	kW	0.27	0.51	0.59	0.67	0.99	1.26
(2)	Sensible power capacity in cooling mode	kW	0.17	0.40	0.43	0.44	0.69	0.83
(2)	Pressure drop on water side	kPa	0.8	6.1	8.0	0.8	2.9	4.8
(3)	Total power capacity in cooling mode	kW	0.33	0.57	0.65	0.66	1.05	1.40
(3)	Sensible power capacity in cooling mode	kW	0.23	0.42	0.58	0.51	0.85	1.15
(3)	Pressure drop on water side	kPa	2.2	7.5	9.5	0.8	3.4	5.8
(4)	Total power capacity in cooling mode	kW	0.16	0.31	0.35	0.40	0.59	0.76
(4)	Sensible power capacity in cooling mode	kW	0.15	0.29	0.33	0.38	0.56	0.72
(4)	Pressure drop on water side	kPa	0.3	1.7	2.8	0.2	0.5	1.5
(5)	Total power capacity in cooling mode	kW	0.23	0.44	0.51	0.58	0.85	1.08
(5)	Sensible power capacity in cooling mode	kW	0.20	0.37	0.43	0.49	0.72	0.92
(5)	Pressure drop on water side	kPa	0.4	1.8	2.4	0.4	0.9	1.3
(6)	Total power capacity in cooling mode	kW	0.18	0.33	0.38	0.44	0.64	0.82
(6)	Sensible power capacity in cooling mode	kW	0.17	0.33	0.38	0.43	0.64	0.81
(6)	Pressure drop on water side	kPa	0.2	1.0	1.4	0.3	0.5	0.8
(7)	Total power capacity in heating mode	kW	0.64	0.84	1.05	1.25	1.65	2.31
(7)	Pressure drop on water side	kPa	3.6	9.8	12.2	2.0	4.6	6.8
(8)	Total power capacity in heating mode	kW	0.54	0.70	0.88	1.06	1.39	1.94
(8)	Pressure drop on water side	kPa	5.7	8.8	12.2	2.9	4.8	7.9
	Absorbed power	W	6	10	17	9	18	28
	Sound power LW	dB(A)	38	45	52	39	46	53

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

Performance of the SL AC models

Tab. 34

## SL AC MODELS



MODELS			SLR 600 SL smart 600 SLR smart 600 SLI 600 - SLIR 600			SLR 800 SL smart 800 SLR smart 800 SLI 800 - SLIR 800			SLR 1000 SL smart 1000 SLR smart 1000 SLI 1000 SLIR 1000		
Ref.	Fan speed		Low	Med	High	Low	Med	High	Low	Med	High
(1)	Total power capacity in cooling mode	kW	0.91	2.09	2.53	1.97	2.67	3.27	2.16	3.24	3.77
(1)	Sensible power capacity in cooling mode	kW	0.65	1.55	1.93	1.53	2.07	2.52	1.70	2.41	2.97
(1)	Pressure drop on water side	kPa	2.4	14.2	19.0	7.3	13.8	18.7	5.7	13.1	18.2
(2)	Total power capacity in cooling mode	kW	1.12	1.57	1.89	1.31	1.80	2.18	1.45	2.17	2.53
(2)	Sensible power capacity in cooling mode	kW	0.76	1.07	1.33	1.01	1.52	1.73	1.14	1.64	1.99
(2)	Pressure drop on water side	kPa	3.2	7.9	11.3	1.0	4.6	7.4	0.4	5.1	7.4
(3)	Total power capacity in cooling mode	kW	1.24	1.71	2.09	1.45	1.98	2.44	1.54	2.44	2.84
(3)	Sensible power capacity in cooling mode	kW	0.94	1.32	1.67	1.32	1.94	2.16	1.43	2.12	2.58
(3)	Pressure drop on water side	kPa	4.5	9.5	13.5	2.0	5.7	9.4	1.0	6.9	9.4
(4)	Total power capacity in cooling mode	kW	0.65	0.90	1.09	0.74	0.98	1.21	0.80	1.19	1.39
(4)	Sensible power capacity in cooling mode	kW	0.62	0.85	1.04	0.70	0.93	1.15	0.76	1.14	1.32
(4)	Pressure drop on water side	kPa	0.2	1.0	3.1	0.3	0.3	0.4	0.2	0.4	1.2
(5)	Total power capacity in cooling mode	kW	0.96	1.35	1.63	1.15	1.58	1.91	1.27	1.90	2.21
(5)	Sensible power capacity in cooling mode	kW	0.82	1.15	1.38	1.04	1.43	1.74	1.15	1.73	2.01
(5)	Pressure drop on water side	kPa	1.6	2.7	3.4	1.3	1.8	2.3	1.1	2.1	2.6
(6)	Total power capacity in cooling mode	kW	0.73	1.02	1.23	0.92	1.27	1.54	1.02	1.52	1.77
(6)	Sensible power capacity in cooling mode	kW	0.72	1.02	1.22	0.91	1.26	1.52	1.00	1.50	1.75
(6)	Pressure drop on water side	kPa	1.0	1.7	2.3	1.0	1.4	1.7	0.9	1.5	1.8
(7)	Total power capacity in heating mode	kW	1.75	2.56	3.12	2.21	3.10	4.10	3.05	3.77	4.67
(7)	Pressure drop on water side	kPa	6.2	11.8	15.8	6.1	11.5	15.5	4.7	10.9	15.1
(8)	Total power capacity in heating mode	kW	1.46	2.14	2.60	1.85	2.60	3.44	2.56	3.16	3.91
(8)	Pressure drop on water side	kPa	5.8	11.8	16.0	4.1	8.9	14.2	6.4	9.8	13.9
	Absorbed power	W	9	21	35	17	27	38	19	30	43
	Sound power LW	dB(A)	41	47	53	39	45	53	42	48	54

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

Performance of the SL AC models

Tab. 35

**SLAC MODELS**

COOLING MODE Air temperature: 27 °C R.H. 50%				WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)		
		kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa		
SL 200, SLR 200, SL smart 200, SLR smart 200, SLI 200, SLIR 200	High	0.90	0.67	155	14.5	0.78	0.58	134	11.8	0.61	0.45	105	8.0	0.46	0.34	79	4.8		
	Medium	0.77	0.51	132	11.6	0.67	0.44	115	9.4	0.52	0.35	90	6.1	0.39	0.26	68	3.3		
	Low	0.41	0.27	71	3.8	0.36	0.23	61	2.5	0.28	0.18	48	0.8	0.21	0.14	36	0.4		
SL 400, SLR 400, SL smart 400, SLR smart 400, SLI 400, SLIR 400	High	1.91	1.28	328	8.9	1.66	1.11	286	7.2	1.29	0.86	222	4.8	0.97	0.65	167	2.7		
	Medium	1.49	1.05	256	6.1	1.29	0.91	223	4.8	1.01	0.71	173	2.9	0.76	0.53	130	1.3		
	Low	1.01	0.67	173	3.0	0.88	0.48	151	2.1	0.68	0.45	117	0.8	0.51	0.34	88	0.3		
SL 600, SLR 600, SL smart 600, SLR smart 600, SLI 600, SLIR 600	High	2.76	1.96	474	20.1	2.42	1.72	416	16.5	1.92	1.36	330	11.3	1.38	0.98	237	5.7		
	Medium	2.28	1.56	392	15.2	2.00	1.37	344	12.2	1.59	1.09	273	7.9	1.14	0.78	196	3.3		
	Low	1.63	1.11	280	8.4	1.43	0.77	246	6.3	1.13	0.77	195	3.2	0.82	0.56	140	0.3		
SL 800, SLR 800, SL smart 800, SLR smart 800, SLI 800, SLIR 800	High	3.33	2.65	572	15.6	2.88	2.29	495	12.3	2.22	1.77	382	7.4	1.56	1.24	268	2.6		
	Medium	2.7	2.33	531	13.8	2.37	2.02	408	8.6	1.83	1.55	314	4.6	1.28	1.09	221	0.7		
	Low	1.99	1.55	342	5.8	1.72	1.17	296	3.8	1.33	1.03	228	1.0	0.93	0.73	160	0.4		
SL 1000, SLR 1000, SL smart 1000, SLR smart 1000, SLI 1000, SLIR 1000	High	3.81	3.01	655	15.5	3.32	2.62	571	12.3	2.57	2.03	442	7.4	1.78	1.41	306	2.4		
	Medium	3.28	2.48	564	12.1	2.86	2.16	492	9.3	2.21	1.67	381	5.1	1.53	1.16	264	0.8		
	Low	2.18	1.72	375	5.0	1.90	1.23	327	3.2	1.47	1.16	253	0.4	1.02	0.80	175	0.2		

Legend  
 Pc Total power capacity  
 Ps Sensible power capacity  
 Qw Water flow rate  
 Dp (c) Pressure drops on water side

Performance of the SL AC models in cooling mode

Tab. 36

## SL AC MODELS



Bi2

SYSTEM TERMINALS

COOLING MODE		WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
Air temperature: 26 °C R.H. 50%		Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)
MODELS	Speed fan	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa
SL 200, SLR 200, SL smart 200, SLR smart 200, SLI 200, SLIR 200	High	0.79	0.63	136	12.1	0.67	0.53	115	9.4	0.50	0.44	86	5.7	0.41	0.29	71	3.7
	Medium	0.68	0.47	117	9.7	0.58	0.40	99	7.4	0.43	0.33	74	4.2	0.35	0.22	61	2.5
	Low	0.36	0.25	62	2.7	0.31	0.21	53	1.5	0.23	0.17	39	0.2	0.19	0.12	32	0.3
SL 400, SLR 400, SL smart 400, SLR smart 400, SLI 400, SLIR 400	High	1.67	1.18	287	7.3	1.41	1.11	243	5.6	1.06	0.76	182	3.3	0.88	0.56	151	2.1
	Medium	1.28	0.96	220	4.8	1.08	0.91	186	3.4	0.81	0.62	140	1.7	0.67	0.46	116	0.8
	Low	0.86	0.61	148	2.0	0.73	0.58	125	1.1	0.55	0.40	94	0.0	0.45	0.29	78	0.2
SL 600, SLR 600, SL smart 600, SLR smart 600, SLI 600, SLIR 600	High	2.45	1.83	421	16.9	2.09	1.59	359	13.1	1.58	1.20	272	7.8	1.25	0.85	215	4.4
	Medium	2.00	1.45	344	12.3	1.71	1.26	293	9.2	1.29	0.95	222	4.8	1.02	0.67	176	2.1
	Low	1.44	1.03	248	6.5	1.23	0.89	211	4.2	0.93	0.68	160	1.1	0.73	0.48	126	0.2
SL 800, SLR 800, SL smart 800, SLR smart 800, SLI 800, SLIR 800	High	2.91	2.48	501	12.5	2.45	2.11	421	9.1	1.76	1.61	303	4.1	1.39	1.07	239	1.4
	Medium	2.36	2.18	406	8.5	1.99	1.86	342	5.8	1.43	1.41	246	1.7	1.13	0.94	194	0.2
	Low	1.74	1.45	299	4.0	1.46	1.23	252	2.0	1.05	0.94	181	0.5	0.83	0.63	143	0.3
SL 1000, SLR 1000, SL smart 1000, SLR smart 1000, SLI 1000, SLIR 1000	High	3.34	2.82	574	12.4	2.83	2.41	487	9.1	2.05	1.85	353	4.1	1.59	1.22	273	1.2
	Medium	2.88	2.32	495	9.5	2.44	1.99	420	6.6	1.77	1.52	304	2.3	1.37	1.00	236	0.4
	Low	1.89	1.59	325	3.1	1.60	1.36	275	1.3	1.16	1.04	200	0.2	0.90	0.69	155	0.2

Legend

Pc Total power capacity  
Ps Sensible power capacity  
Qw Water flow rate  
Dp (c) Pressure drops on water side

Performance of the SL AC models in cooling mode

Tab. 37

## SLAC MODELS

COOLING MODE Air temperature: 25 °C R.H. 50%				WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)		
		kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa		
SL 200, SLR 200, SL smart 200, SLR smart 200, SLI 200, SLIR 200	High	0.67	0.60	115	9.5	0.54	0.48	93	6.6	0.45	0.41	77	4.6	0.36	0.24	62	2.6		
	Medium	0.58	0.43	100	7.5	0.47	0.34	80	5.0	0.39	0.29	67	3.3	0.31	0.17	54	1.6		
	Low	0.34	0.24	58	2.2	0.27	0.19	47	0.8	0.23	0.16	39	0.2	0.18	0.10	31	0.2		
SL 400, SLR 400, SL smart 400, SLR smart 400, SLI 400, SLIR 400	High	1.43	1.18	246	5.8	1.14	0.99	196	3.8	0.96	0.87	165	2.6	0.77	0.45	132	1.4		
	Medium	1.07	0.87	184	3.4	0.85	0.73	147	2.0	0.72	0.64	124	1.1	0.58	0.33	99	0.3		
	Low	0.67	0.52	115	0.8	0.53	0.44	92	0.5	0.45	0.38	77	0.3	0.36	0.20	62	0.2		
SL 600, SLR 600, SL smart 600, SLR smart 600, SLI 600, SLIR 600	High	2.12	1.70	365	13.5	1.76	1.58	303	9.7	1.37	1.28	236	5.6	1.12	0.72	193	3.1		
	Medium	1.73	1.34	298	9.5	1.44	1.24	247	6.4	1.12	1.00	192	3.1	0.91	0.57	157	0.4		
	Low	1.25	0.95	215	4.5	1.04	0.88	178	2.3	0.81	0.72	139	0.3	0.66	0.40	114	0.2		
SL 800, SLR 800, SL smart 800, SLR smart 800, SLI 800, SLIR 800	High	2.48	2.30	427	9.4	2.00	1.80	344	5.9	1.55	1.40	267	2.6	1.22	1.08	210	1.0		
	Medium	1.97	1.80	339	5.7	1.59	1.39	273	2.9	1.23	1.08	212	0.3	0.97	0.83	167	0.8		
	Low	1.47	1.34	253	2.0	1.19	1.03	204	0.9	0.92	0.79	158	0.4	0.72	0.61	124	0.2		
SL 1000, SLR 1000, SL smart 1000, SLR smart 1000, SLI 1000, SLIR 1000	High	2.86	2.62	492	9.4	2.31	2.05	397	5.8	1.77	1.63	304	2.3	1.39	1.02	239	0.4		
	Medium	2.47	2.15	425	6.9	2.00	1.68	343	3.8	1.53	1.34	263	0.8	1.20	0.83	206	0.3		
	Low	1.56	1.45	268	1.0	1.26	1.14	217	0.3	0.97	0.90	166	0.2	0.76	0.46	130	0.2		

Legend

Pc

Total power capacity

Ps

Sensible power capacity

Qw

Water flow rate

Dp (c)

Pressure drops on water side

Performance of the SL AC models in cooling mode

Tab. 38

## SL AC MODELS

Bi2

SYSTEM TERMINALS

HEATING MODE		WT: 70/60				WT: 60/50				WT: 50/40				WT: 50/45				WT: 45/40							
Air temperature: 20 °C		Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)
MODELS	Speed fan	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa
SL 200, SLR 200, SL smart 200, SLR smart 200, SLI 200, SLIR 200	High	1.77	152	10.9	1.37	118	8.01	0.98	84	4.72	1.08	186	15.58	0.88	152	12.23									
	Medium	1.41	121	7.9	1.09	94	5.51	0.78	67	2.85	0.86	148	11.52	0.70	121	8.83									
	Low	1.08	93	5.1	0.84	72	3.23	0.60	52	1.14	0.66	113	7.79	0.54	93	5.70									
SL 400, SLR 400, SL smart 400, SLR smart 400, SLI 400, SLIR 400	High	3.88	334	7.0	3.02	259	5.10	2.15	185	2.94	2.37	408	10.06	1.94	334	7.86									
	Medium	2.79	240	4.3	2.17	186	2.83	1.55	133	1.24	1.70	293	6.37	1.39	240	4.77									
	Low	2.13	183	2.6	1.65	142	1.46	1.18	102	0.21	1.30	224	4.14	1.06	183	2.90									
SL 600, SLR 600, SL smart 600, SLR smart 600, SLI 600, SLIR 600	High	5.21	448	14.3	4.05	348	10.20	2.89	249	5.57	3.18	548	20.72	2.60	448	16.03									
	Medium	4.27	368	10.6	3.32	286	7.13	2.37	204	3.27	2.61	449	15.72	2.14	368	11.83									
	Low	2.93	252	5.2	2.28	196	2.70	1.63	140	0.40	1.79	308	8.50	1.46	252	5.79									
SL 800, SLR 800, SL smart 800, SLR smart 800, SLI 800, SLIR 800	High	6.88	592	12.7	5.35	460	8.82	3.82	329	4.49	4.21	724	18.59	3.44	592	14.21									
	Medium	5.20	447	7.9	4.04	348	4.92	2.89	248	1.57	3.18	546	12.22	2.60	447	8.87									
	Low	3.70	318	3.7	2.88	247	1.46	2.05	177	0.40	2.26	389	6.58	1.85	318	4.14									
SL 1000, SLR 1000, SL smart 1000, SLR smart 1000, SLI 1000, SLIR 1000	High	7.83	673	12.5	6.09	524	8.57	4.35	374	4.23	4.78	823	18.33	3.91	673	13.94									
	Medium	6.32	543	8.7	4.91	423	5.51	3.51	302	1.93	3.86	664	13.33	3.16	543	9.75									
	Low	5.11	440	5.7	3.98	342	3.06	2.84	244	0.09	3.12	537	9.33	2.56	440	6.40									

Legend

Ph Power capacity  
Qw Water flow rate  
Dp (h) Pressure drops on water side

Performance of the SL AC models in heating mode

Tab. 39

### 3.2 PERFORMANCE OF THE SL DC MODELS



MODELS			SL+ 200 SLR+ 200 SL smart inverter 200 SLR smart inverter 200 SLI inverter 200 SLIR inverter 200			SL+ 400 SLR+ 400 SL smart inverter 400 SLR smart inverter 400 SLI inverter 400 SLIR inverter 400		
Ref.	Fan speed		Low	Medium	High	Low	Medium	High
(1)	Total power capacity in cooling mode	kW	0.38	0.71	0.82	0.91	1.34	1.74
(1)	Sensible power capacity in cooling mode	kW	0.26	0.50	0.64	0.65	1.02	1.25
(1)	Pressure drop on water side	kPa	3.8	10.6	13.1	2.4	5.5	8.2
(2)	Total power capacity in cooling mode	kW	0.28	0.51	0.60	0.67	1.00	1.27
(2)	Sensible power capacity in cooling mode	kW	0.18	0.40	0.44	0.44	0.7	0.84
(2)	Pressure drop on water side	kPa	0.8	6.1	8.0	0.8	2.9	4.8
(3)	Total power capacity in cooling mode	kW	0.34	0.57	0.66	0.66	1.06	1.41
(3)	Sensible power capacity in cooling mode	kW	0.24	0.42	0.59	0.51	0.86	1.16
(3)	Pressure drop on water side	kPa	2.2	7.5	9.5	0.8	3.4	5.8
(4)	Total power capacity in cooling mode	kW	0.16	0.31	0.36	0.39	0.60	0.77
(4)	Sensible power capacity in cooling mode	kW	0.15	0.29	0.34	0.37	0.57	0.73
(4)	Pressure drop on water side	kPa	0.3	1.7	2.8	0.2	0.5	1.5
(5)	Total power capacity in cooling mode	kW	0.24	0.44	0.52	0.58	0.86	1.09
(5)	Sensible power capacity in cooling mode	kW	0.20	0.37	0.44	0.49	0.73	0.93
(5)	Pressure drop on water side	kPa	0.4	1.8	2.4	0.4	0.9	1.3
(6)	Total power capacity in cooling mode	kW	0.18	0.33	0.39	0.44	0.65	0.83
(6)	Sensible power capacity in cooling mode	kW	0.18	0.33	0.39	0.43	0.65	0.82
(6)	Pressure drop on water side	kPa	0.2	1.0	1.4	0.3	0.5	0.8
(7)	Total power capacity in heating mode	kW	0.64	0.84	1.05	1.25	1.65	2.31
(7)	Pressure drop on water side	kPa	3.2	8.8	10.9	2.0	4.6	6.8
(8)	Total power capacity in heating mode	kW	0.54	0.70	0.88	1.06	1.39	1.94
(8)	Pressure drop on water side	kPa	5.7	8.8	12.2	2.9	4.8	7.9
	Absorbed power	W	5	7	11	6	9	19
	Sound power LW	dB(A)	38	45	52	39	46	53

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

## SL DC MODELS



MODELS			SL+ 600 SLR+ 600 SL smart inverter 600 SLR smart inverter 600 SLI inverter 600 SLIR inverter 600			SL+ 800 SLR+ 800 SL smart inverter 800 SLR smart inverter 800 SLI inverter 800 SLIR inverter 800			SL+ 1000 SLR+ 1000 SL smart inverter 1000 SLR smart inverter 1000 SLI inverter 1000 SLIR inverter 1000		
Ref.	Fan speed		Low	Med	High	Low	Med	High	Low	Med	High
(1)	Total power capacity in cooling mode	kW	1.50	2.10	2.54	1.98	2.69	3.29	2.17	3.25	3.78
(1)	Sensible power capacity in cooling mode	kW	1.10	1.56	1.94	1.54	2.09	2.54	1.71	2.42	2.98
(1)	Pressure drop on water side	kPa	7.5	14.2	19	7.3	13.8	18.7	5.7	13.1	18.2
(2)	Total power capacity in cooling mode	kW	1.12	1.58	1.90	1.32	1.81	2.19	1.46	2.19	2.54
(2)	Sensible power capacity in cooling mode	kW	0.76	1.08	1.34	1.02	1.53	1.74	1.15	1.65	2.50
(2)	Pressure drop on water side	kPa	3.2	7.9	11.3	1.0	4.6	7.4	0.4	5.1	7.4
(3)	Total power capacity in cooling mode	kW	1.24	1.72	2.10	1.46	1.96	2.46	1.55	2.45	2.83
(3)	Sensible power capacity in cooling mode	kW	0.94	1.33	1.68	1.33	1.79	2.28	1.44	2.13	2.59
(3)	Pressure drop on water side	kPa	4.5	9.5	13.5	2.0	5.7	9.4	1.0	6.9	9.4
(4)	Total power capacity in cooling mode	kW	0.64	0.91	1.11	0.74	0.99	1.22	0.80	1.21	1.40
(4)	Sensible power capacity in cooling mode	kW	0.61	0.86	1.05	0.70	0.94	1.16	0.76	1.15	1.33
(4)	Pressure drop on water side	kPa	0.2	1.0	3.1	0.3	0.3	0.4	0.2	0.4	1.2
(5)	Total power capacity in cooling mode	kW	0.96	1.36	1.63	1.16	1.58	1.92	1.28	1.92	2.22
(5)	Sensible power capacity in cooling mode	kW	0.82	1.15	1.39	1.05	1.44	1.74	1.16	1.74	2.02
(5)	Pressure drop on water side	kPa	1.6	2.7	3.4	1.3	1.8	2.3	1.1	2.1	2.6
(6)	Total power capacity in cooling mode	kW	0.73	1.03	1.24	0.93	1.28	1.54	1.02	1.53	1.78
(6)	Sensible power capacity in cooling mode	kW	0.72	1.02	1.23	0.92	1.26	1.53	1.01	1.52	1.76
(6)	Pressure drop on water side	kPa	1.0	1.7	2.3	1.0	1.4	1.7	0.9	1.5	1.8
(7)	Total power capacity in heating mode	kW	1.75	2.56	3.12	2.21	3.10	4.10	3.05	3.77	4.67
(7)	Pressure drop on water side	kPa	6.2	11.8	15.8	6.1	11.5	15.5	4.7	10.9	15.1
(8)	Total power capacity in heating mode	kW	1.46	2.14	2.60	1.85	2.60	3.44	2.56	3.16	3.91
(8)	Pressure drop on water side	kPa	5.8	11.8	16.0	4.1	8.9	14.2	6.4	9.8	13.9
	Absorbed power	W	7	11	20	8	12	24	9	14	27
	Sound power LW	dB(A)	41	47	53	42	48	54	42	48	54

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

Performance of the SL DC models

Tab. 41

## SL DC MODELS

COOLING MODE Air temperature: 27 °C R.H. 50%				WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)		
		kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa		
SL+ 200, SLR+ 200, SL smart inverter 200, SLR smart inverter 200, SLI inverter 200, SLIR inverter 200	High	0.90	0.67	155	14.5	0.78	0.53	134	11.8	0.61	0.45	105	8.0	0.46	0.34	79	4.8		
SL+ 400, SLR+ 400, SL smart inverter 400, SLR smart inverter 400, SLI inverter 400, SLIR inverter 400	Medium	1.49	1.05	256	6.1	1.29	0.91	223	4.8	1.01	0.71	173	2.9	0.76	0.53	130	1.3		
SL+ 600, SLR+ 600, SL smart inverter 600, SLR smart inverter 600, SLI inverter 600, SLIR inverter 600	Low	1.01	0.67	173	3.0	0.88	0.48	151	2.1	0.68	0.45	117	0.8	0.51	0.34	88	0.3		
SL+ 800, SLR+ 800, SL smart inverter 800, SLR smart inverter 800, SLI inverter 800, SLIR inverter 8000	High	2.76	1.96	474	20.1	2.42	1.72	416	16.5	1.92	1.36	330	11.3	1.38	0.98	237	5.7		
SL+ 1000, SLR+ 1000, SL smart inverter 1000, SLR smart inverter 1000, SLI inverter 1000, SLIR inverter 1000	Medium	2.28	1.56	392	15.2	2.00	1.37	344	12.2	1.59	1.09	273	7.9	1.14	0.78	196	3.3		
SL+ 1000, SLR+ 1000, SL smart inverter 1000, SLR smart inverter 1000, SLI inverter 1000, SLIR inverter 1000	Low	1.63	1.11	280	8.4	1.43	0.77	246	6.3	1.13	0.77	195	3.2	0.82	0.56	140	0.3		
Legend Pc Total power capacity Ps Sensible power capacity Qw Water flow rate Dp (c) Pressure drops on water side				Performance of the SL DC models in cooling mode												Tab. 42			

## SL DC MODELS



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SYSTEM TERMINALS

COOLING MODE		WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17							
Air temperature: 26 °C R.H. 50%		Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)				
MODELS	Speed fan	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa				
SL+ 200, SLR+ 200, SL smart inverter 200, SLR smart inverter 200, SLI inverter 200, SLIR inverter 200	High	0.79	0.63	136	12.1	0.67	0.53	115	9.4	0.50	0.44	86	5.7	0.41	0.29	71	3.7				
SL+ 400, SLR+ 400, SL smart inverter 400, SLR smart inverter 400, SLI inverter 400, SLIR inverter 400	Medium	0.68	0.47	117	9.7	0.58	0.40	99	7.4	0.43	0.33	74	4.2	0.35	0.22	61	2.5				
SL+ 600, SLR+ 600, SL smart inverter 600, SLR smart inverter 600, SLI inverter 600, SLIR inverter 600	Low	0.36	0.25	62	2.7	0.31	0.21	53	1.5	0.23	0.17	39	0.2	0.19	0.12	32	0.3				
SL+ 800, SLR+ 800, SL smart inverter 800, SLR smart inverter 800, SLI inverter 800, SLIR inverter 800	High	1.67	1.18	287	7.3	1.41	1.11	243	5.6	1.06	0.76	182	3.3	0.88	0.56	151	2.1				
SL+ 1000, SLR+ 1000, SL smart inverter 1000, SLR smart inverter 1000, SLI inverter 1000, SLIR inverter 1000	Medium	1.28	0.96	220	4.8	1.08	0.91	186	3.4	0.81	0.62	140	1.7	0.67	0.46	116	0.8				
<i>Performance of the SL DC models in cooling mode</i>																					
Legend		Pc	Total power capacity	Ps	Sensible power capacity	Qw	Water flow rate	Dp (c)	Pressure drops on water side												
		High	3.34	2.82	574	12.4	2.83	2.41	487	9.1	2.05	1.85	353	4.1	1.59	1.22	273	1.2			
		Medium	2.88	2.32	495	9.5	2.44	1.99	420	6.6	1.77	1.52	304	2.3	1.37	1.00	236	0.4			
		Low	1.89	1.59	325	3.1	1.60	1.36	275	1.3	1.16	1.04	200	0.2	0.90	0.69	155	0.2			

Tab. 43

## SL DC MODELS

COOLING MODE Air temperature: 25 °C R.H. 50%				WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)		
		kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa		
SL+ 200, SLR+ 200, SL smart inverter 200, SLR smart inverter 200, SLI inverter 200, SLIR inverter 200	High	0.67	0.60	115	9.5	0.54	0.48	93	6.6	0.45	0.41	77	4.6	0.36	0.24	62	2.6		
SL+ 400, SLR+ 400, SL smart inverter 400, SLR smart inverter 400, SLI inverter 400, SLIR inverter 400	Medium	0.58	0.43	100	7.5	0.47	0.34	80	5.0	0.39	0.29	67	3.3	0.31	0.17	54	1.6		
SL+ 600, SLR+ 600, SL smart inverter 600, SLR smart inverter 600, SLI inverter 600, SLIR inverter 600	Low	0.34	0.24	58	2.2	0.27	0.19	47	0.8	0.23	0.16	39	0.2	0.18	0.10	31	0.2		
SL+ 800, SLR+ 800, SL smart inverter 800, SLR smart inverter 800, SLI inverter 800, SLIR inverter 8000	High	1.43	1.18	246	5.8	1.14	0.99	196	3.8	0.96	0.87	165	2.6	0.77	0.45	132	1.4		
SL+ 1000, SLR+ 1000, SL smart inverter 1000, SLR smart inverter 1000, SLI inverter 1000, SLIR inverter 1000	Medium	1.07	0.87	184	3.4	0.85	0.73	147	2.0	0.72	0.64	124	1.1	0.58	0.33	99	0.3		
SL+ 1200, SLR+ 1200, SL smart inverter 1200, SLR smart inverter 1200, SLI inverter 1200, SLIR inverter 1200	Low	0.67	0.52	115	0.8	0.53	0.44	92	0.5	0.45	0.38	77	0.3	0.36	0.20	62	0.2		
SL+ 1400, SLR+ 1400, SL smart inverter 1400, SLR smart inverter 1400, SLI inverter 1400, SLIR inverter 1400	High	2.12	1.70	365	13.5	1.76	1.58	303	9.7	1.37	1.28	236	5.6	1.12	0.72	193	3.1		
SL+ 1600, SLR+ 1600, SL smart inverter 1600, SLR smart inverter 1600, SLI inverter 1600, SLIR inverter 1600	Medium	1.73	1.34	298	9.5	1.44	1.24	247	6.4	1.12	1.00	192	3.1	0.91	0.57	157	0.4		
SL+ 1800, SLR+ 1800, SL smart inverter 1800, SLR smart inverter 1800, SLI inverter 1800, SLIR inverter 1800	Low	1.25	0.95	215	4.5	1.04	0.88	178	2.3	0.81	0.72	139	0.3	0.66	0.40	114	0.2		
SL+ 2000, SLR+ 2000, SL smart inverter 2000, SLR smart inverter 2000, SLI inverter 2000, SLIR inverter 2000	High	2.48	2.30	427	9.4	2.00	1.80	344	5.9	1.55	1.40	267	2.6	1.22	1.08	210	1.0		
SL+ 2200, SLR+ 2200, SL smart inverter 2200, SLR smart inverter 2200, SLI inverter 2200, SLIR inverter 2200	Medium	1.97	1.80	339	5.7	1.59	1.39	273	2.9	1.23	1.08	212	0.3	0.97	0.83	167	0.8		
SL+ 2400, SLR+ 2400, SL smart inverter 2400, SLR smart inverter 2400, SLI inverter 2400, SLIR inverter 2400	Low	1.47	1.34	253	2.0	1.19	1.03	204	0.9	0.92	0.79	158	0.4	0.72	0.61	124	0.2		
SL+ 2600, SLR+ 2600, SL smart inverter 2600, SLR smart inverter 2600, SLI inverter 2600, SLIR inverter 2600	High	2.86	2.62	492	9.4	2.31	2.05	397	5.8	1.77	1.63	304	2.3	1.39	1.02	239	0.4		
SL+ 2800, SLR+ 2800, SL smart inverter 2800, SLR smart inverter 2800, SLI inverter 2800, SLIR inverter 2800	Medium	2.47	2.15	425	6.9	2.00	1.68	343	3.8	1.53	1.34	263	0.8	1.80	0.83	206	0.3		
SL+ 3000, SLR+ 3000, SL smart inverter 3000, SLR smart inverter 3000, SLI inverter 3000, SLIR inverter 3000	Low	1.56	1.45	268	1.0	1.26	1.14	217	0.3	0.97	0.90	166	0.2	0.76	0.46	130	0.2		

Legend

Pc Total power capacity  
Ps Sensible power capacity  
Qw Water flow rate  
Dp (c) Pressure drops on water side

Performance of the SL DC models in cooling mode

Tab. 44

## SL DC MODELS

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SYSTEM TERMINALS

HEATING MODE		WT: 70/60				WT: 60/50				WT: 50/40				WT: 50/45				WT: 45/40			
Air temperature: 20 °C		Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)		
MODELS	Speed fan	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa		
SL+ 200, SLR+ 200, SL smart inverter 200, SLR smart inverter 200, SLI inverter 200, SLIR inverter 200	High	1.77	152	10.9	1.37	118	8.01	0.98	84	4.72	1.08	186	15.58	0.88	152	12.23					
SL+ 400, SLR+ 400, SL smart inverter 400, SLR smart inverter 400, SLI inverter 400, SLIR inverter 400	Medium	1.41	121	7.9	1.09	94	5.51	0.78	67	2.85	0.86	148	11.52	0.70	121	8.83					
SL+ 600, SLR+ 600, SL smart inverter 600, SLR smart inverter 600, SLI inverter 600, SLIR inverter 600	Low	1.08	93	5.1	0.84	72	3.23	0.60	52	1.14	0.66	113	7.79	0.54	93	5.70					
SL+ 800, SLR+ 800, SL smart inverter 800, SLR smart inverter 800, SLI inverter 800, SLIR inverter 800	High	3.88	334	7.0	3.02	259	5.10	2.15	185	2.94	2.37	408	10.06	1.94	334	7.86					
SL+ 1000, SLR+ 1000, SL smart inverter 1000, SLR smart inverter 1000, SLI inverter 1000, SLIR inverter 1000	Medium	2.79	240	4.3	2.17	186	2.83	1.55	133	1.24	1.70	293	6.37	1.39	240	4.77					
Legend																					
Ph		Power capacity				Qw				Water flow rate				Dp (h)				Pressure drops on water side			
Performance of the SL DC models in heating mode																					

### 3.3 PERFORMANCE OF THE SLN MODELS



MODELS			SLN 200			SLN 400		
Ref.	Fan speed		Low	Medium	High	Low	Medium	High
(1)	Total power capacity in cooling mode	kW	0.31	0.36	0.49	0.65	0.74	0.98
(1)	Sensible power capacity in cooling mode	kW	0.27	0.31	0.40	0.56	0.69	0.88
(1)	Pressure drop on water side	kPa	0.9	1.1	1.9	4.5	5.1	8.5
(2)	Total power capacity in cooling mode	kW	0.23	0.25	0.34	0.48	0.52	0.67
(2)	Sensible power capacity in cooling mode	kW	0.19	0.21	0.27	0.41	0.48	0.6
(2)	Pressure drop on water side	kPa	0.5	0.6	1.0	2.3	2.6	4.3
(3)	Total power capacity in cooling mode	kW	0.23	0.24	0.37	0.37	0.47	0.68
(3)	Sensible power capacity in cooling mode	kW	0.20	0.22	0.32	0.29	0.38	0.65
(3)	Pressure drop on water side	kPa	0.5	0.5	1.1	1.5	2.2	4.1
(4)	Total power capacity in cooling mode	kW	0.14	0.16	0.19	0.25	0.29	0.39
(4)	Sensible power capacity in cooling mode	kW	0.13	0.14	0.18	0.24	0.27	0.36
(4)	Pressure drop on water side	kPa	0.3	0.4	0.5	0.9	1.1	2.1
(5)	Total power capacity in cooling mode	kW	0.30	0.33	0.50	0.47	0.62	0.88
(5)	Sensible power capacity in cooling mode	kW	0.27	0.28	0.46	0.38	0.49	0.82
(5)	Pressure drop on water side	kPa	0.3	0.4	0.7	0.9	1.4	2.6
(6)	Total power capacity in cooling mode	kW	0.12	0.15	0.18	0.17	0.21	0.31
(6)	Sensible power capacity in cooling mode	kW	0.08	0.10	0.13	0.10	0.14	0.22
(6)	Pressure drop on water side	kPa	0.6	0.7	0.8	0.4	0.5	0.7
(7)	Total power capacity in heating mode	kW	0.55	0.69	0.86	1.01	1.25	1.55
(7)	Pressure drop on water side	kPa	0.7	0.9	1.6	3.7	4.2	7.1
(8)	Total power capacity in heating mode	kW	0.48	0.6	0.75	0.87	1.09	1.35
(8)	Pressure drop on water side	kPa	1.4	2.1	3.0	5.5	8.0	11.6
	Absorbed power	W	6	10	17	12	13	28
	Sound power LW	dB(A)	38	45	53	39	46	53

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

## SLN MODELS



MODELS			SLN 600			SLN 800			SLN 1000		
Ref.	Fan speed		Low	Med	High	Low	Med	High	Low	Med	High
(1)	Total power capacity in cooling mode	kW	0.82	1.01	1.19	1.01	1.44	1.78	1.26	2.11	2.37
(1)	Sensible power capacity in cooling mode	kW	0.60	0.94	1.14	0.93	1.26	1.43	1.03	1.71	2.02
(1)	Pressure drop on water side	kPa	1.6	2.1	2.9	3.8	7.0	10.5	4.9	14.1	16.4
(2)	Total power capacity in cooling mode	kW	0.58	0.72	0.85	0.71	1.04	1.26	0.86	1.50	1.77
(2)	Sensible power capacity in cooling mode	kW	0.43	0.67	0.79	0.65	0.89	1.01	0.70	1.21	1.44
(2)	Pressure drop on water side	kPa	0.6	1.0	1.4	1.9	3.8	5.5	2.4	6.7	9.0
(3)	Total power capacity in cooling mode	kW	0.57	0.69	0.82	0.67	0.92	1.15	0.80	1.41	1.67
(3)	Sensible power capacity in cooling mode	kW	0.49	0.59	0.71	0.57	0.79	1.02	0.67	1.22	1.45
(3)	Pressure drop on water side	kPa	0.6	0.9	1.3	1.7	3.0	4.9	2.2	6.1	8.3
(4)	Total power capacity in cooling mode	kW	0.32	0.40	0.46	0.38	0.57	0.71	0.46	0.82	1.00
(4)	Sensible power capacity in cooling mode	kW	0.30	0.38	0.45	0.36	0.54	0.67	0.43	0.78	0.94
(4)	Pressure drop on water side	kPa	0.2	0.4	0.6	0.8	1.6	2.5	1.0	2.8	4.0
(5)	Total power capacity in cooling mode	kW	0.71	0.92	1.11	0.84	1.22	1.57	1.01	1.87	2.21
(5)	Sensible power capacity in cooling mode	kW	0.62	0.75	0.97	0.75	0.84	1.38	0.87	1.55	1.94
(5)	Pressure drop on water side	kPa	0.4	0.6	0.8	1.0	1.8	2.9	1.2	3.4	4.8
(6)	Total power capacity in cooling mode	kW	0.25	0.32	0.40	0.30	0.42	0.56	0.34	0.64	0.78
(6)	Sensible power capacity in cooling mode	kW	0.17	0.21	0.27	0.20	0.28	0.38	0.22	0.43	0.53
(6)	Pressure drop on water side	kPa	0.2	0.3	0.4	0.3	0.4	0.5	0.4	0.7	1.0
(7)	Total power capacity in heating mode	kW	1.46	1.79	2.16	1.76	2.30	2.85	2.02	3.0	3.74
(7)	Pressure drop on water side	kPa	1.4	1.8	2.5	3.1	5.9	8.8	4.2	11.8	13.7
(8)	Total power capacity in heating mode	kW	1.27	1.56	1.89	1.53	1.99	2.47	1.75	2.49	2.97
(8)	Pressure drop on water side	kPa	2.47	3.70	5.39	6.4	10.4	15.3	7.4	14.1	19.3
	Absorbed power	W	14	20	36	16	24	40	17	26	42
	Sound power LW	dB(A)	41	48	54	38	48	54	39	49	55

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

Performance of the SLN models

Tab. 47

SPECIFICATIONS	OPERATING CHARACTERISTICS	PERFORMANCE TABLES
RANGE ACCESSORIES	INSTALLATION SPECIFICATIONS	QTS FOR 4-PIPE SYSTEM TERMINALS
ACCESSORIES	INSTALLATION SPECIFICATIONS	QTS FOR RECESSED SYSTEM TERMINALS
		QTS FOR WALL SYSTEM TERMINALS
		QTS FOR CABINET SYSTEM TERMINALS
		SELECTION OF THE SYSTEM TERMINALS
		TABLE OF CONTENTS

## SLN MODELS

COOLING MODE Air temperature: 27 °C R.H. 50%				WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	
		kW	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	
SLN 200	High	0.53	0.43	87	1.8	0.46	0.37	78	1.5	0.36	0.29	61	1.0	0.27	0.22	46	0.6		
	Medium	0.38	0.33	64	1.0	0.34	0.28	58	0.9	0.26	0.22	45	0.6	0.20	0.17	35	0.4		
	Low	0.33	0.28	55	0.8	0.29	0.24	50	0.7	0.24	0.20	41	0.5	0.18	0.16	32	0.3		
SLN 400	High	1.04	0.94	174	8.2	0.90	0.81	156	6.7	0.70	0.63	121	4.3	0.53	0.48	91	2.6		
	Medium	0.77	0.72	129	4.9	0.67	0.62	115	4.0	0.53	0.49	91	2.6	0.38	0.36	66	1.5		
	Low	0.68	0.59	120	4.3	0.59	0.51	101	3.2	0.49	0.42	84	2.3	0.34	0.29	58	1.2		
SLN 600	High	1.27	1.18	214	2.7	1.11	1.04	192	2.2	0.89	0.83	153	1.4	0.65	0.61	112	0.8		
	Medium	1.06	0.99	179	1.9	0.93	0.87	160	1.6	0.74	0.69	128	1.0	0.53	0.50	92	0.5		
	Low	0.85	0.63	154	1.4	0.75	0.55	129	1.0	0.59	0.44	102	0.6	0.41	0.30	71	0.3		
SLN 800	High	1.87	1.51	313	10.2	1.64	1.32	282	8.4	1.30	1.05	223	5.5	0.95	0.77	164	3.1		
	Medium	1.51	1.30	282	8.4	1.33	1.14	229	5.8	1.06	0.91	182	3.8	0.76	0.65	130	2.1		
	Low	1.06	0.98	177	3.6	0.93	0.86	160	3.0	0.73	0.67	125	1.9	0.51	0.47	87	1.0		
SLN 1000	High	2.60	2.12	423	15.9	2.29	1.87	394	13.9	1.81	1.48	312	9.0	1.31	1.07	226	5.0		
	Medium	2.18	1.77	390	13.7	1.93	1.56	331	10.2	1.53	1.24	263	6.7	1.07	0.87	185	3.5		
	Low	1.32	1.08	217	4.8	1.15	0.94	197	4.0	0.88	0.72	151	2.4	0.61	0.50	105	1.3		

Legend

Pc Total power capacity  
Ps Sensible power capacity  
Qw Water flow rate  
Dp (c) Pressure drops on water side

Performance of the SLN models in cooling mode

Tab. 48

## SLN MODELS



Bi2

SYSTEM TERMINALS

COOLING MODE		WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
Air temperature: 26 °C R.H. 50%		Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)
MODELS	Speed fan	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa
SLN 200	High	0.46	0.43	79	1.5	0.40	0.38	69	1.2	0.31	0.29	54	0.8	0.24	0.22	41	0.5
	Medium	0.34	0.31	58	0.9	0.30	0.27	51	0.7	0.23	0.21	40	0.5	0.17	0.15	29	0.3
	Low	0.29	0.27	50	0.7	0.25	0.24	44	0.5	0.21	0.20	36	0.4	0.16	0.15	28	0.2
SLN 400	High	0.91	0.84	156	6.8	0.79	0.73	136	5.3	0.61	0.57	106	3.4	0.46	0.43	79	2.1
	Medium	0.66	0.61	114	3.9	0.58	0.53	99	3.1	0.45	0.41	77	2.0	0.33	0.30	57	1.1
	Low	0.58	0.53	100	3.1	0.50	0.46	86	2.4	0.39	0.36	67	1.6	0.29	0.26	50	0.9
SLN 600	High	1.12	1.05	193	2.3	0.99	0.92	170	1.7	0.79	0.74	136	1.1	0.58	0.54	99	0.6
	Medium	0.93	0.86	160	1.6	0.82	0.76	140	1.2	0.65	0.61	112	0.8	0.47	0.43	80	0.4
	Low	0.76	0.70	130	1.0	0.66	0.61	114	0.8	0.52	0.49	90	0.5	0.37	0.34	63	0.2
SLN 800	High	1.64	1.53	282	8.4	1.43	1.34	247	6.6	1.13	1.06	195	4.3	0.83	0.78	143	2.5
	Medium	1.30	1.22	224	5.5	1.14	1.07	197	4.4	0.91	0.85	157	2.9	0.65	0.61	112	1.6
	Low	0.93	0.87	160	3.0	0.81	0.76	140	2.3	0.63	0.59	109	1.5	0.44	0.42	76	0.8
SLN 1000	High	2.28	2.14	392	13.8	2.01	1.88	345	10.9	1.59	1.49	273	7.1	1.15	1.08	198	4.0
	Medium	1.91	1.79	329	10.1	1.69	1.58	291	8.0	1.34	1.26	231	5.3	0.94	0.88	162	2.8
	Low	1.14	1.06	197	4.0	0.99	0.92	171	3.1	0.76	0.70	131	1.9	0.53	0.49	91	1.0

Legend

Pc Total power capacity  
Ps Sensible power capacity  
Qw Water flow rate  
Dp (c) Pressure drops on water side

Performance of the SLN models in cooling mode

Tab. 49

## SLN MODELS

COOLING MODE Air temperature: 25 °C R.H. 50%				WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)		
		kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa		
SLN 200	High	0.39	0.35	67	1.1	0.34	0.30	58	0.9	0.27	0.24	46	0.6	0.20	0.18	34	0.4		
	Medium	0.25	0.23	44	0.5	0.25	0.23	44	0.5	0.21	0.19	36	0.4	0.17	0.15	29	0.3		
	Low	0.24	0.21	41	0.5	0.21	0.19	36	0.4	0.18	0.16	30	0.3	0.13	0.12	23	0.2		
SLN 400	High	0.68	0.63	117	4.1	0.59	0.55	102	3.2	0.46	0.42	79	2.1	0.35	0.32	59	1.2		
	Medium	0.48	0.39	82	2.2	0.41	0.34	71	1.7	0.37	0.30	63	1.4	0.24	0.20	41	0.6		
	Low	0.38	0.30	66	1.5	0.33	0.26	57	1.2	0.30	0.23	51	1.0	0.19	0.15	33	0.5		
SLN 600	High	0.86	0.75	149	1.3	0.76	0.66	131	1.0	0.61	0.53	104	0.7	0.44	0.38	76	0.4		
	Medium	0.71	0.61	121	0.9	0.62	0.53	107	0.7	0.50	0.43	85	0.5	0.35	0.30	61	0.2		
	Low	0.58	0.50	100	0.6	0.51	0.43	87	0.5	0.40	0.34	69	0.3	0.28	0.24	48	0.1		
SLN 800	High	1.22	1.06	210	4.9	1.07	0.93	184	3.9	0.84	0.73	145	2.5	0.62	0.54	107	1.4		
	Medium	0.94	0.81	161	3.0	0.82	0.71	142	2.4	0.65	0.56	113	1.6	0.47	0.40	81	0.9		
	Low	0.69	0.59	118	1.7	0.60	0.52	103	1.4	0.47	0.41	81	0.9	0.33	0.28	56	0.5		
SLN 1000	High	1.71	1.49	294	8.3	1.51	1.31	259	6.5	1.19	1.04	205	4.3	0.86	0.75	149	2.4		
	Medium	1.44	1.25	248	6.1	1.27	1.10	219	4.8	1.01	0.88	174	3.2	0.71	0.62	122	1.7		
	Low	0.82	0.69	141	2.2	0.71	0.60	122	1.7	0.54	0.46	94	1.0	0.38	0.32	65	0.5		

Legend

Pc

Total power capacity

Ps

Sensible power capacity

Qw

Water flow rate

Dp (c)

Pressure drops on water side

Performance of the SLN models in cooling mode

Tab. 50

## SLN MODELS



Bi2

SYSTEM TERMINALS

HEATING MODE		WT: 70/60				WT: 60/50				WT: 50/40				WT: 50/45				WT: 45/40																			
Air temperature: 20 °C		Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)												
MODELS	Speed fan	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa	kW	l/h	kPa												
SLN 200	High	1.51	130	2.7	1.17	101	1.83	0.84	72	1.09	0.92	159	4.10	0.75	130	2.99	0.60	104	2.05	0.48	82	1.38	2.81	1.04	2.05												
	Medium	1.21	104	1.8	0.94	81	1.26	0.67	58	0.75	0.74	127	2.81	0.60	104	2.05	0.59	101	1.89	0.48	82	1.38	2.81	1.04	2.05												
	Low	0.96	82	1.2	0.74	64	0.85	0.53	46	0.50	0.59	101	2.81	0.60	104	2.05	0.59	101	1.89	0.48	82	1.38	2.81	1.04	2.05												
SLN 400	High	2.70	232	10.4	2.10	180	7.08	1.50	129	4.15	1.65	284	16.05	1.35	232	11.61	0.97	184	7.57	0.87	150	5.48	2.32	11.61	0.97	184	7.57	0.87	150	5.48							
	Medium	2.18	187	7.2	1.69	146	4.88	1.21	104	2.86	1.33	229	11.06	1.09	187	8.00	0.97	184	7.57	0.87	150	5.48	2.32	11.61	0.97	184	7.57	0.87	150	5.48							
	Low	1.75	150	4.9	1.36	117	3.34	0.97	84	1.96	1.07	184	7.57	0.87	150	5.48	0.97	184	7.57	0.87	150	5.48	2.32	11.61	0.97	184	7.57	0.87	150	5.48							
SLN 600	High	3.79	326	4.8	2.95	253	3.11	2.11	181	1.69	2.32	398	7.78	1.89	326	5.39	1.16	329	5.35	1.56	269	3.70	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			
	Medium	3.13	269	3.3	2.43	209	2.13	1.74	149	1.16	1.91	329	5.35	1.56	269	3.70	1.16	329	5.35	1.56	269	3.70	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			
	Low	2.54	219	2.2	1.98	170	1.43	1.41	121	0.78	1.55	267	3.57	1.27	219	2.47	0.78	267	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			
SLN 800	High	4.93	424	13.7	3.84	330	9.13	2.74	236	5.20	3.01	518	21.54	2.47	424	15.32	3.01	518	21.54	2.47	424	15.32	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			
	Medium	3.98	342	9.3	3.10	266	6.18	2.21	190	3.52	2.43	418	14.59	1.99	342	10.37	2.21	190	3.52	2.43	418	14.59	1.99	342	10.37	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47
	Low	3.06	263	5.8	2.38	205	3.84	1.70	146	2.19	1.87	322	9.06	1.53	263	6.44	2.19	146	2.19	1.87	322	9.06	1.53	263	6.44	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47
SLN 1000	High	5.94	511	17.2	4.62	397	11.53	3.30	284	6.60	3.63	624	27.01	2.97	511	19.27	3.63	624	27.01	2.97	511	19.27	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			
	Medium	4.99	429	12.6	3.88	334	8.42	2.77	238	4.82	3.05	524	19.73	2.49	429	14.07	3.05	524	19.73	2.49	429	14.07	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			
	Low	3.50	301	6.6	2.72	234	4.44	1.94	167	2.54	2.14	367	10.39	1.75	301	7.41	2.14	367	10.39	1.75	301	7.41	3.57	1.27	219	2.47	3.57	1.27	219	2.47	3.57	1.27	219	2.47			

Legend

Ph Power capacity

Qw Water flow rate

Dp (h) Pressure drops on water side

Performance of the SLN models in heating mode

Tab. 51

### 3.4 PERFORMANCE OF THE SLW MODELS



MODELS			SLW 400			SLW 600			SLW 800		
Ref.	Fan speed		Low	Med	High	Low	Med	High	Low	Med	High
(1)	Total power capacity in cooling mode	kW	0.52	0.71	1.01	0.69	0.89	1.23	0.77	1.09	1.82
(1)	Sensible power capacity in cooling mode	kW	0.42	0.59	0.91	0.58	0.80	1.15	0.65	0.95	1.47
(1)	Pressure drop on water side	kPa	2.80	5.19	8.91	4.86	5.97	7.89	2.11	4.81	11
(2)	Total power capacity in cooling mode	kW	0.36	0.49	0.70	0.50	0.64	0.90	0.60	0.87	1.30
(2)	Sensible power capacity in cooling mode	kW	0.29	0.41	0.63	0.42	0.58	0.83	0.55	0.78	1.05
(2)	Pressure drop on water side	kPa	1.5	2.6	4.3	0.6	1.0	1.4	1.3	2.4	5.5
(3)	Total power capacity in cooling mode	kW	0.35	0.48	0.68	0.48	0.63	0.86	0.60	0.88	1.22
(3)	Sensible power capacity in cooling mode	kW	0.29	0.41	0.63	0.38	0.52	0.75	0.52	0.73	1.06
(3)	Pressure drop on water side	kPa	1.4	2.5	4.1	0.6	0.9	1.3	1.2	2.2	4.9
(4)	Total power capacity in cooling mode	kW	0.14	0.27	0.39	0.19	0.33	0.46	0.32	0.56	0.71
(4)	Sensible power capacity in cooling mode	kW	0.11	0.23	0.36	0.16	0.31	0.45	0.18	0.43	0.67
(4)	Pressure drop on water side	kPa	0.5	1.4	2.5	0.2	0.5	0.8	0.3	1.2	3.1
(5)	Total power capacity in cooling mode	kW	0.47	0.62	0.88	0.71	0.92	1.11	0.84	1.22	1.57
(5)	Sensible power capacity in cooling mode	kW	0.38	0.49	0.82	0.62	0.75	0.97	0.75	0.84	1.38
(5)	Pressure drop on water side	kPa	0.9	1.4	2.6	0.4	0.6	0.8	1.0	1.8	2.9
(6)	Total power capacity in cooling mode	kW	0.17	0.21	0.31	0.25	0.32	0.40	0.30	0.42	0.56
(6)	Sensible power capacity in cooling mode	kW	0.10	0.14	0.22	0.17	0.21	0.27	0.20	0.28	0.38
(6)	Pressure drop on water side	kPa	0.4	0.5	0.7	0.2	0.3	0.4	0.3	0.4	0.5
(7)	Total power capacity in heating mode	kW	0.67	0.99	1.55	0.98	1.37	2.16	1.14	1.68	2.85
(7)	Pressure drop on water side	kPa	2.4	4.5	7.1	1.9	2.9	2.5	2.0	4.6	8.8
(8)	Total power capacity in heating mode	kW	0.58	0.86	1.40	0.86	1.20	1.90	0.99	1.45	2.50
(8)	Pressure drop on water side	kPa	3.4	6.7	11.6	6.7	11.9	5.4	8.5	16.4	15.3
	Absorbed power	W	7	11	19	8	12	23	9	13	27
	Sound power LW	dB(A)	43	49	57	43	50	58	43	50	58

The performance data above refer to the following operating conditions:

- (1) Cooling mode under standard conditions: air temperature 27 °C to 19 °C, water temperature 7 °C, water outlet temperature 12 °C
- (2) Cooling mode under conditions of use 1: air temperature 27 °C to 19 °C to room temperature, 10 °C, water outlet temperature 15 °C
- (3) Cooling mode under conditions of use 2: air temperature 25 °C d.b. to 17.9 °C with water temperature 7 °C, water outlet temperature 12 °C
- (4) Cooling mode under conditions of use 3: air temperature 26 °C, 18 °C with water temperature 14 °C, water outlet temperature 18 °C
- (5) Cooling mode under standard conditions of use for district cooling: air temperature 24 °C to 18 °C, water temperature 5.5 °C, water outlet temperature 14.5 °C
- (6) Cooling mode under conditions of use for district cooling 1: air temperature 26 °C, 18.6 °C with water temperature 9 °C, water outlet temperature 18 °C
- (7) Heating mode under standard conditions: air temperature 20 °C d.b., 15 °C w.b. max, water inlet temperature 50 °C, water flow rate same as standard rating condition cooling mode
- (8) Heating mode under conditions of use 1: air temperature 20 °C d.b., 15 °C w.b. Max water inlet temperature 45 °C, water outlet temperature 40 °C

**SLW MODELS**

COOLING MODE Air temperature: 27 °C R.H. 50%		WT: 7/12				WT: 8/13				WT: 10/15 NS1				WT: 12/17			
		Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)
MODELS	Speed fan	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa
SLW 400	High	1.04	0.94	174	8.2	0.90	0.81	156	6.7	0.70	0.63	124	4.3	0.53	0.48	91	2.6
	Medium	0.73	0.61	126	5.1	0.64	0.53	109	4.0	0.49	0.41	85	2.6	0.37	0.31	64	1.6
	Low	0.54	0.43	92	3.0	0.47	0.38	80	2.3	0.36	0.29	62	1.5	0.27	0.22	47	0.9
SLW 600	High	1.27	1.18	214	2.7	1.11	1.04	192	2.2	0.90	0.83	153	1.4	0.65	0.61	112	0.8
	Medium	0.92	0.82	158	1.9	0.81	0.73	139	1.5	0.64	0.58	111	1.0	0.47	0.42	81	0.6
	Low	0.71	0.60	122	1.2	0.63	0.53	108	0.9	0.50	0.42	86	0.6	0.36	0.31	63	0.4
SLW 800	High	1.87	1.51	313	10.2	1.64	1.32	282	8.4	1.30	1.05	223	5.5	0.95	0.77	164	3.1
	Medium	1.26	1.12	193	4.7	1.10	0.98	169	3.7	0.87	0.78	134	2.4	0.64	0.57	98	1.4
	Low	0.86	0.79	136	2.5	0.76	0.69	119	2.0	0.60	0.55	94	1.3	0.44	0.40	69	0.8

## Legend

Pc Total power capacity

Ps Sensible power capacity

Qw Water flow rate

Dp (c) Pressure drops on water side

Performance of the SLW models in cooling mode

Tab. 53

## SLW MODELS

COOLING MODE Air temperature: 26 °C R.H. 50%		WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
MODELS	Fan speed	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)
SLW 400	High	0.91	0.84	156	6.8	0.79	0.73	136	5.3	0.61	0.57	106	3.4	0.46	0.43	79	2.1
	Medium	0.64	0.54	110	4.0	0.56	0.47	96	3.2	0.43	0.37	74	2.1	0.32	0.28	56	1.3
	Low	0.47	0.39	81	2.4	0.41	0.34	70	1.9	0.32	0.26	54	1.2	0.24	0.20	41	0.7
SLW 600	High	1.12	1.05	193	2.3	0.99	0.92	170	1.7	0.79	0.74	136	1.1	0.58	0.54	99	0.6
	Medium	0.81	0.73	140	1.5	0.72	0.64	123	1.2	0.57	0.51	98	0.8	0.42	0.37	72	0.5
	Low	0.63	0.53	109	1.0	0.56	0.47	95	0.8	0.44	0.37	76	0.5	0.32	0.27	56	0.3
SLW 800	High	1.64	1.53	282	8.4	1.43	1.34	247	6.6	1.13	1.06	195	4.3	0.83	0.78	143	2.5
	Medium	1.28	0.98	169	3.7	1.12	0.86	148	2.9	0.88	0.68	117	1.9	0.65	0.50	86	1.1
	Low	0.87	0.69	119	2.0	0.76	0.61	104	1.6	0.60	0.48	82	1.0	0.44	0.35	61	0.6

Legend

Pc

Total power capacity

Ps

Sensible power capacity

Qw

Water flow rate

Dp (c)

Pressure drops on water side

Performance of the SLW models in cooling mode

Tab. 54

**SLW MODELS**

COOLING MODE		WT: 7/12				WT: 8/13				WT: 10/15				WT: 12/17			
Air temperature: 25 °C R.H. 50%		Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)	Pc	Ps	Qw	Dp (c)
MODELS	Speed fan	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa	kW	kW	l/h	kPa
SLW 400	High	0.68	0.63	117	4.1	0.59	0.55	102	3.2	0.46	0.42	79	2.1	0.35	0.32	59	1.2
	Medium	0.48	0.41	82	2.5	0.42	0.35	72	1.9	0.32	0.27	56	1.3	0.24	0.21	42	0.8
	Low	0.35	0.29	60	1.4	0.30	0.25	52	1.1	0.24	0.20	41	0.7	0.18	0.15	31	0.5
SLW 600	High	0.86	0.75	149	1.3	0.76	0.66	131	1.0	0.61	0.53	104	0.7	0.44	0.38	76	0.4
	Medium	0.63	0.52	108	0.9	0.55	0.46	95	0.7	0.44	0.37	76	0.5	0.32	0.27	55	0.3
	Low	0.48	0.38	83	0.6	0.43	0.33	73	0.5	0.34	0.27	59	0.3	0.25	0.19	43	0.2
SLW 800	High	1.22	1.06	210	4.9	1.07	0.93	184	3.9	0.84	0.73	145	2.5	0.62	0.54	107	1.4
	Medium	0.88	0.73	126	2.2	0.77	0.64	110	1.7	0.61	0.51	87	1.1	0.45	0.37	64	0.7
	Low	0.60	0.52	89	1.2	0.53	0.45	78	0.9	0.42	0.36	61	0.6	0.31	0.26	45	0.4

## Legend

Pc Total power capacity  
Ps Sensible power capacity  
Qw Water flow rate  
Dp (c) Pressure drops on water side

Performance of the SLW models in cooling mode

Tab. 55

## SLW MODELS

HEATING MODE Air temperature: 20 °C			WT: 70/60			WT: 60/50			WT: 50/40			WT: 50/45			WT: 45/40 NS1		
MODELS	Fan speed	Ph	Qw	Dp (h)	Ph	Qw	Dp (h)										
		kW	l/h	kPa	kW	l/h	kPa										
SLW 400	High	2.70	232	10.4	2.10	180	7.1	1.50	129	4.15	1.65	284	16.1	1.35	232	11.6	
	Medium	1.72	148	6.7	1.34	115	4.4	0.96	82	2.46	1.05	181	9.5	0.86	148	6.7	
	Low	1.17	100	3.4	0.91	78	2.2	0.65	56	1.26	0.71	123	4.9	0.58	100	3.4	
SLW 600	High	3.79	326	4.8	2.95	253	3.1	2.11	181	1.69	2.32	398	7.8	1.89	326	5.4	
	Medium	2.40	207	3.5	1.87	161	2.5	1.34	115	1.10	1.47	253	4.0	1.20	207	3.5	
	Low	1.72	148	2.5	1.34	115	1.8	0.96	82	0.80	1.05	181	3.0	0.86	148	2.0	
SLW 800	High	4.93	424	13.7	3.84	330	9.1	2.74	236	5.20	3.01	518	21.5	2.47	424	15.3	
	Medium	2.91	250	6.1	2.26	194	4.5	1.62	139	6.01	1.78	306	10.1	1.45	250	7.5	
	Low	1.97	170	3.5	1.53	132	3.0	1.10	94	3.10	1.21	207	5.0	0.99	170	4.0	

Legend

P<sub>h</sub>

Power capacity

Q<sub>w</sub>

Water flow rate

Dp (h) Pressure drops on water side

Performance of the SLW models in heating mode

Tab. 56

# Bi2

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## SYSTEM TERMINALS

## TABLE OF CONTENTS

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**QTS FOR 4-PIPE  
SYSTEM TERMINALS**

## RANGE ACCESSORIES OPERATING CHARACTERISTICS PERFORMANCE TABLES



## 4 OPERATING CHARACTERISTICS

### 4.1 OPERATING LIMITS

The system terminal must remain within the temperature ranges in Tab. 57 for correct use. Running of the unit outside the ranges indicated below could cause faults, water losses or the forming of condensation on the aesthetic parts.

Operating mode	Ambient air temperature range		Inlet water temperature		Maximum operating pressure	Voltage supply	
Cooling/ Heating	min	max	min	max	10 bar**	230V±10%	
	5 °C	32 °C-60% R.H.	4 °C*	80 °C			
* SLW 6 °C ** SLW 8 bar						Operating limits	
						Tab. 57	

### 4.2 PERFORMANCE WITH WATER-GLYCOL MIXTURE

A mixture of water and ethylene glycol should be used if the hydraulic circuit is to be protected against the risk of freezing. The physical characteristics of the water-ethylene glycol mixture are different from those of water and cause a variation in the performance of the units.

The following table (Tab. 58) gives the percentage of glycol to be added for lowering the freezing temperature to the expected value.

% ethylene glycol by weight	10	15	20	25	30	35	40
Freezing temperature of the mixture °C	-5	-7	-10	-13	-16	-20	-25
Performance with water-glycol mixture							Tab. 58

Note: the values shown are to be considered indicative, and the data may also vary significantly according to the manufacturer of the ethylene glycol.

The following table (Tab. 59) shows the multiplicative coefficients for cooling mode to determine, at nominal water flow rates, the variations in the performance of the units in relation to the percentage of ethylene glycol used and the average temperature of the mixture.

## COOLING

% ethylene glycol by weight		10	15	20	25	30	35	40
Average temperature of the mixture	Corrective factors							
5 °C	Pressure drops	1.10	1.19	1.26	1.25	1.12	1.07	1.01
	Capacity	1.00	1.00	1.00	0.92	0.86	0.80	0.74
6 °C	Pressure drops	1.06	1.12	1.15	1.15	1.05	0.98	0.92
	Capacity	0.98	0.96	0.95	0.87	0.80	0.74	0.70
7 °C	Pressure drops	1.03	1.06	1.08	1.08	0.99	0.94	0.88
	Capacity	0.97	0.94	0.91	0.83	0.76	0.72	0.67
8 °C	Pressure drops	1.01	1.02	1.02	1.01	0.95	0.93	0.88
	Capacity	0.95	0.92	0.88	0.80	0.74	0.71	0.67
9 °C	Pressure drops	0.99	0.98	0.98	0.96	0.94	0.93	0.89
	Capacity	0.95	0.90	0.86	0.78	0.74	0.71	0.68
10 °C	Pressure drops	0.98	0.96	0.95	0.93	0.94	0.94	0.92
	Capacity	0.94	0.89	0.85	0.78	0.75	0.72	0.69
11 °C	Pressure drops	0.97	0.95	0.93	0.94	0.95	0.98	0.98
	Capacity	0.93	0.88	0.84	0.80	0.77	0.74	0.71
12 °C	Pressure drops	0.96	0.95	0.93	0.96	0.99	1.04	1.06
	Capacity	0.93	0.87	0.84	0.82	0.79	0.76	0.74
13 °C	Pressure drops	0.96	0.95	0.94	1.00	1.03	1.12	1.16
	Capacity	0.93	0.88	0.85	0.84	0.82	0.80	0.78
14 °C	Pressure drops	0.97	0.96	0.96	1.06	1.10	1.21	1.28
	Capacity	0.93	0.90	0.86	0.86	0.85	0.85	0.84
15 °C	Pressure drops	0.98	0.99	1.00	1.14	1.20	1.32	1.45
	Capacity	0.94	0.91	0.88	0.89	0.89	0.90	0.90
16 °C	Pressure drops	0.99	0.94	1.05	1.23	1.33	1.46	1.65
	Capacity	0.94	0.93	0.91	0.93	0.95	0.96	0.96
17 °C	Pressure drops	1.00	1.04	1.12	1.35	1.50	1.63	1.88
	Capacity	0.95	0.95	0.94	0.97	0.99	1.01	1.05

Performance with water-glycol mixture in cooling mode

Tab. 59

THE CORRECTION FACTORS IN THE TABLE PERMIT ACCEPTABLE APPROXIMATION FOR NORMAL SIZING OF THE SYSTEM.

The following table (Tab. 60) shows the multiplicative coefficients for heating mode to determine, at nominal water flow rates, the variations in the performance of the units in relation to the percentage of ethylene glycol used and the average temperature of the mixture.

### HEATING

% ethylene glycol by weight		10	15	20	25	30	35	40
Average temperature of the mixture	Corrective factors							
35 °C	Pressure drops	0.96	0.95	0.93	0.98	1.02	1.07	1.12
	Capacity	0.94	0.90	0.86	0.85	0.84	0.83	0.82
40 °C	Pressure drops	1.00	1.02	1.05	1.05	1.05	1.14	1.02
	Capacity	0.96	0.93	0.90	0.89	0.88	0.87	0.86
50 °C	Pressure drops	1.06	1.10	1.14	1.14	1.14	1.28	1.10
	Capacity	0.99	0.98	0.97	0.96	0.95	0.94	0.93
60 °C	Pressure drops	1.08	1.12	1.16	1.16	1.16	1.33	1.12
	Capacity	1.00	0.99	0.99	0.98	0.98	0.97	0.97
70 °C	Pressure drops	1.08	1.11	1.15	1.15	1.15	1.32	1.11
	Capacity	1.00	0.99	0.99	0.98	0.98	0.98	0.98
80 °C	Pressure drops	1.08	1.11	1.15	1.15	1.15	1.27	1.11
	Capacity	1.00	0.99	0.99	0.98	0.98	0.97	0.96

*Performance with water-glycol mixture in heating mode*

Tab. 60

THE CORRECTION FACTORS IN THE TABLE PERMIT ACCEPTABLE APPROXIMATION FOR NORMAL SIZING OF THE SYSTEM.

#### Example 1

Calculation of the performance of the unit in cooling mode with a mixture of 85% water and 15% glycol.

Inlet water T. = 6 °C

Outlet water T. = 12 °C

The average temperature of the mixture is, therefore, 9 °C.

Multiply the declared capacity under the water temperature conditions given above by the correction coefficient 0.9.

Multiply the declared pressure drops under the water temperature conditions given above by the correction coefficient 0.98.

#### Example 2

Calculation of the performance of the unit in heating mode with a mixture of 70% water and 30% glycol.

Inlet water T. = 55 °C

Outlet water T. = 45 °C

The average temperature of the mixture is, therefore, 50 °C.

Multiply the declared capacity under the water temperature conditions given above by the correction coefficient 0.95.

Multiply the declared pressure drops under the water temperature conditions given above by the correction coefficient 1.14.

### 4.3 PRESSURE DROPS ON WATER SIDE

The graphs (Fig. 40) represent the pressure drops of the heat exchange coils on the water side with an average water temperature of 10 °C.

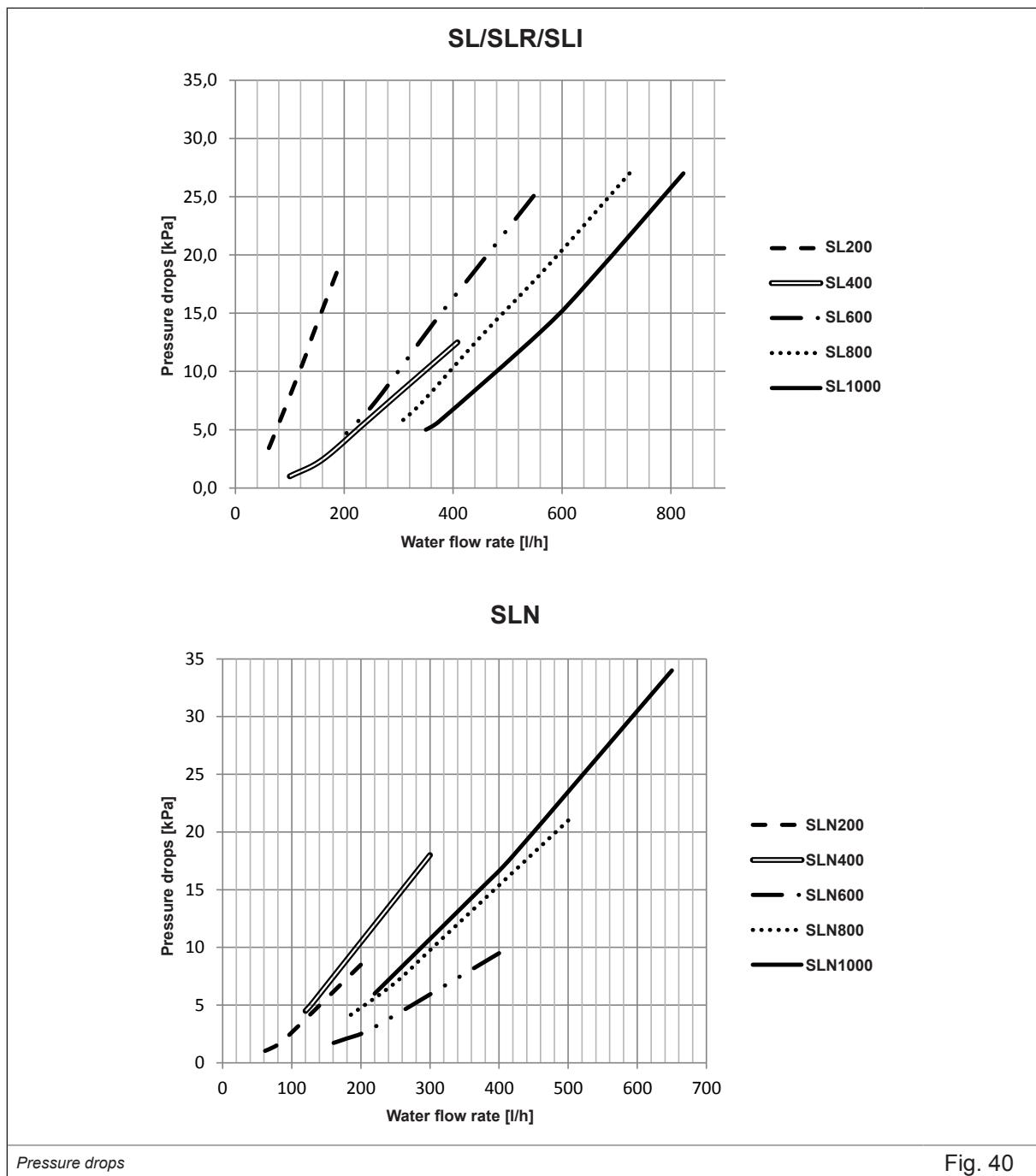


Fig. 40

For average water temperatures other than 10 °C, apply the corrective factors to the values of the graphs (Tab. 61).

CORRECTIVE FACTORS										
Average water temperature	5	10	15	20	30	40	50	60	70	80
Multiplication coefficient	1.03	1.00	0.96	0.91	0.87	0.83	0.78	0.75	0.72	0.69
Corrective factors	Tab. 61									

## 5 RANGE ACCESSORIES

### 5.1 COMPATIBILITY OF THE ACCESSORIES

Below are the tables summarising the compatibility of accessories for models with AC motor (Tab. 62 and Tab. 63).

	AC motor							
	Kit code	SLR SMART	SL SMART	SLI R	SLI	SLN	SL 4T SLR 4T SLI 4T	Compatible with AQUADUE Control
CONTROL PANELS	Basic control on unit without thermostat	B0658		x			x	
	Smart electronic control on unit	B0659	x	x			x	SL/SLR 4T
	Electronic control on unit	B0371	x	x				x
	Electronic control on unit	B0374						SL/SLR 4T
	Electronic BUS remote control kit	B0372	x	x	x	x		x
	Electronic BUS remote control kit	B0375						SL/SLR/ SLI 4T
	Electronic remote control kit	B0707		x		x		SL/SLI 4T
	Electronic BUS remote control kit	B0643					x	x
	Autonomous touch design control on unit	B0772	x	x				x
	Broadcast LCD wall chrono-thermostat	B0736	B0372	B0372	B0372	B0372	B0643	B0375
EXTENSION KIT	Wall control	B0151		B0707		B0707		SLI 4T
	Wall control	B0152		B0707		B0707		
	Control connection extension kit	B0459	x	x		x	x	x
Notes								
* If using a Bi2 with radiant panel, the O-10V management system must be able to support the radiant version (OS radiant+ logic).								
Compatibility of the accessories								Tab. 62



addressing of the BUS remote control kits in the factory is mandatory.

AC motor							
Description	Kit code	SLR SMART	SL SMART	SLI R	SLI	SLN	SL 4T SLR 4T SLI 4T
Manual two-way valve kit*	B0205	x	x	x	x		2x4T
Manual valve isolation kit	B0204	B0205	B0205	B0205	B0205	B0656	2xB0204
Manual two-way valve kit	B0656					x	
Manual two-way valve kit with thermoelectric actuator	B0139	x	x	x	x		
Two-way valve kit with thermoelectric actuator with 4 wires and end stroke microswitch	B0832	x	x	x	x		
Manual two-way valve kit with thermoelectric actuator	B0825						SLR 4T
Manual two-way valve kit with thermoelectric actuator	B0219						SL/SLI 4T
Manual two-way valve kit with thermoelectric actuator	B0655					x	
Two-way valve kit with thermoelectric actuator and by-pass branch with overpressure valve	B0641	x	x		x		
Two-way valve kit with thermoelectric actuator with 4 wires and end stroke microswitch, and by-pass branch with overpressure valve	B0833	x	x		x		
Three-way valve kit with thermoelectric actuator	B0826						SLR 4T
Three-way valve kit with thermoelectric actuator	B0221						SL/SLI 4T
Three-way valve kit with thermoelectric actuator	B0635	x	x	x	x		
Three-way valve kit with thermoelectric actuator with 4 wires and end stroke microswitch	B0834	x	x	x	x		
Three-way valve kit with thermoelectric actuator	B0654					x	
Kit of pair of 3/4 Eurocone - 1/2" adaptors	B0200	x	x	x	x	x	x
Kit of pair of 3/4 Eurocone - 3/4" adaptors	B0201	x	x	x	x	x	x
90° Eurocone curve kit	B0203	x	x	x	x		
Spacer kit	B0501	x	x		x		

Notes

\* If using a Bi2 with radiant panel, the electrovalves on the manifold controlled by the control kit of the Bi2 terminal can substitute those on the unit.

Compatibility of the accessories

Tab. 63

Below is the table summarising the compatibility of accessories for models with Brushless DC motor (Tab. 64 and Tab. 65).

		DC motor							
Description		Kit code	SLR+	SL+	SLR SMART	SL SMART	SLI R	SLI	Compatible with AQUADUE Control
CONTROL PANELS	Autonomous electronic control on unit	B0686	x	x	x	x			x
	Electronic BUS remote control kit	B0685	x	x	x	x	x	x	x
	Smart electronic control on unit	B0673			x	x			
	Autonomous touch design control on unit	B0774			x	x			x
	Autonomous touch flat control on unit	B0828	x	x					x
	0-10 Volt electronic remote control kit*	B0756	x	x	x	x	x	x	
	Broadcast LCD wall chrono-thermostat	B0736	B0685	B0685	B0685	B0685	B0685	B0685	x
	Wall control	B0151		B0756		B0756		B0756	
	Wall control	B0152		B0756		B0756		B0756	
EXTENSION KIT	Control connection extension kit	B0632	x	x	x	x			x
	Control connection extension kit	B0633	x	x	x	x		x	
Notes									
* If using a Bi2 with radiant panel, the 0-10V management system must be able to support the radiant version (OS radiant+ logic).									
Compatibility of the accessories					Tab. 64				



addressing of the BUS remote control kits in the factory is mandatory.

		DC motor						
Description		Kit code	SLR+	SL+	SLR SMART	SL SMART	SLI R	SLI
HYDRAULIC KITS	Manual two-way valve kit*	B0205	x	x	x	x	x	x
	Manual valve isolation kit	B0204	B0205	B0205	B0205	B0205	B0205	B0205
	Manual two-way valve kit with thermoelectric actuator	B0139	x	x	x	x	x	x
	Two-way valve kit with thermoelectric actuator with 4 wires and end stroke microswitch	B0832	x	x	x	x	x	x
	Two-way valve kit with thermoelectric actuator and by-pass branch with overpressure valve	B0641	x	x	x	x		x
	Two-way valve kit with thermoelectric actuator with 4 wires and end stroke microswitch, and by-pass branch with overpressure valve	B0833	x	x	x	x		x
	Three-way valve kit with thermoelectric actuator	B0635	x	x	x	x	x	x
	Three-way valve kit with thermoelectric actuator with 4 wires and end stroke microswitch	B0834	x	x	x	x	x	x
	Kit of pair of 3/4 Eurocone - 1/2" adaptors	B0200	x	x	x	x	x	x
	Kit of pair of 3/4 Eurocone - 3/4" adaptors	B0201	x	x	x	x	x	x
90° Eurocone curve kit		B0203	x	x	x	x	x	x
Spacer kit		B0501	x	x	x	x		x

## Notes

\* If there are electrovalve kits on the manifold, these will be controlled by the control kit of the Bi2 terminal and will replace those on the unit.

Compatibility of the accessories

Tab. 65

## 5.2 DESCRIPTION OF THE ACCESSORIES

### CODE B0686



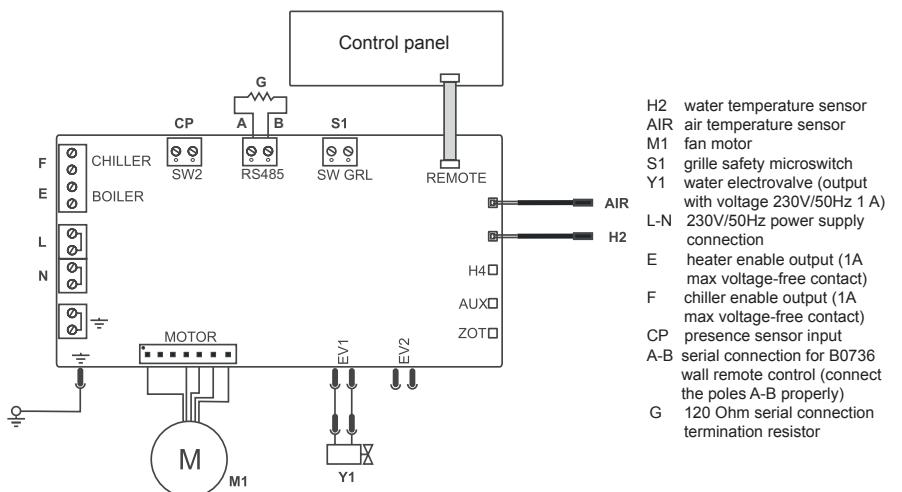
### AUTONOMOUS CONTROL

#### AUTONOMOUS ELECTRONIC CONTROL ON UNIT

- Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night, modulated), minimum water sensor function.
- It has an input for connection of the presence sensor contact, a 230VAC output for electrovalve control, and contacts for enabling the boiler or chiller.

### Combinations

**AQUADUE<sup>®</sup>**  
CONTROL



### CODE B0685



### REMOTE CONTROL

#### ELECTRONIC BUS REMOTE CONTROL KIT

- The remote control B0736 transmits the main operating parameters, the set point and the room temperature to all the fan coils connected to the network, allowing for uniform operation.
- It has a 230VAC output for controlling an electrovalve, two voltage-free contacts for boiler or chiller control and a presence input.
- Operation with MODBUS, RS485 protocol.

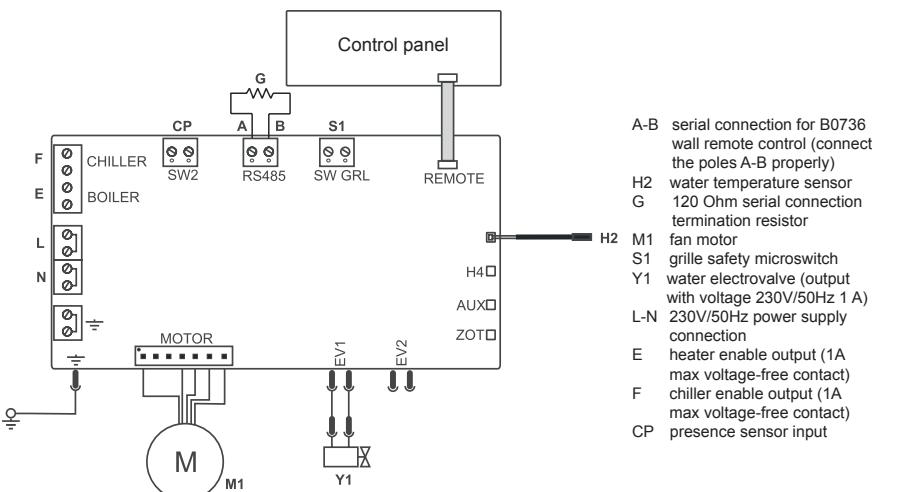
### Combinations

B0736

**AQUADUE<sup>®</sup>**  
CONTROL

with B0736

My Home by  
**bticino**  
without B0736



CODE B0658		AUTONOMOUS CONTROL
	<b>BASIC CONTROL ON UNIT WITHOUT THERMOSTAT</b>	
	<ul style="list-style-type: none"> <li>○ Control on unit with selection of fan speed.</li> <li>○ It has a 230VAC output for controlling an electrovalve.</li> <li>○ An enable contact or external room thermostat can be connected (minimum capacity of contact: 2A-250Vac).</li> </ul>	
<b>Combinations</b>	B0336	
	<p>M1 = MOTOR Y1 = WATER ELECTROVALVE S1 = GRILLE SAFETY MICROSWITCH S2 = ENABLE CONTACT OR EXTERNAL ROOM THERMOSTAT (IF CONNECTED, REMOVE JUMPER X1)</p>	
CODE B0659		AUTONOMOUS CONTROL
	<b>SMART ELECTRONIC CONTROL ON UNIT</b>	
	<ul style="list-style-type: none"> <li>○ Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night and modulated), minimum water sensor function.</li> <li>○ It has an input for connecting a presence sensor and two 230VAC outputs for control of 2 electrovalves.</li> </ul> <p>M1 = MOTOR Y1 = HOT WATER ELECTROVALVE Y2 = COLD WATER ELECTROVALVE OR FULL FLAT ACTUATORS S1 = GRILLE SAFETY MICROSWITCH (ONLY SL/SLR) S2 = PRESENCE CONTACT (OPTIONAL)</p>	

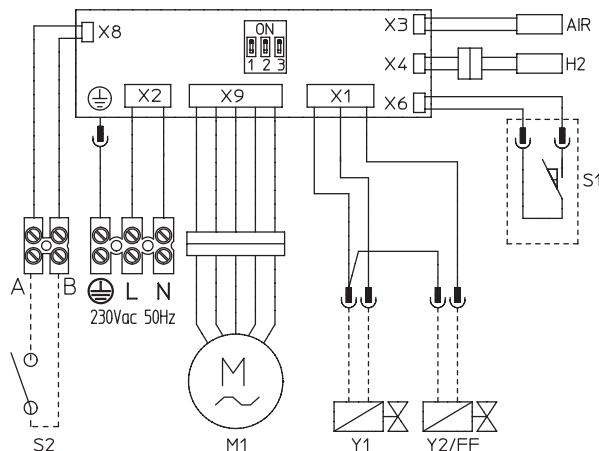
CODE B0673



AUTONOMOUS CONTROL

SMART ELECTRONIC CONTROL ON UNIT

- Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night and modulated), minimum water sensor function.
- It has an input for connecting a presence sensor and two 230VAC outputs for control of 2 electrovalves.



H2 water temperature sensor  
 AIR air temperature sensor  
 M1 fan motor  
 S1 intake grille safety microswitch (only for certain models)  
 Y1 hot water electrovalve (230V-50Hz, max 10W)  
 Y2 cold water electrovalve (230V-50Hz, max 10W)\*  
 FF mobile intake panel servomotors (only for certain models)  
 S2 presence sensor contact (not supplied)  
 \* Only on appliances for 4-pipe systems

CODE B0371



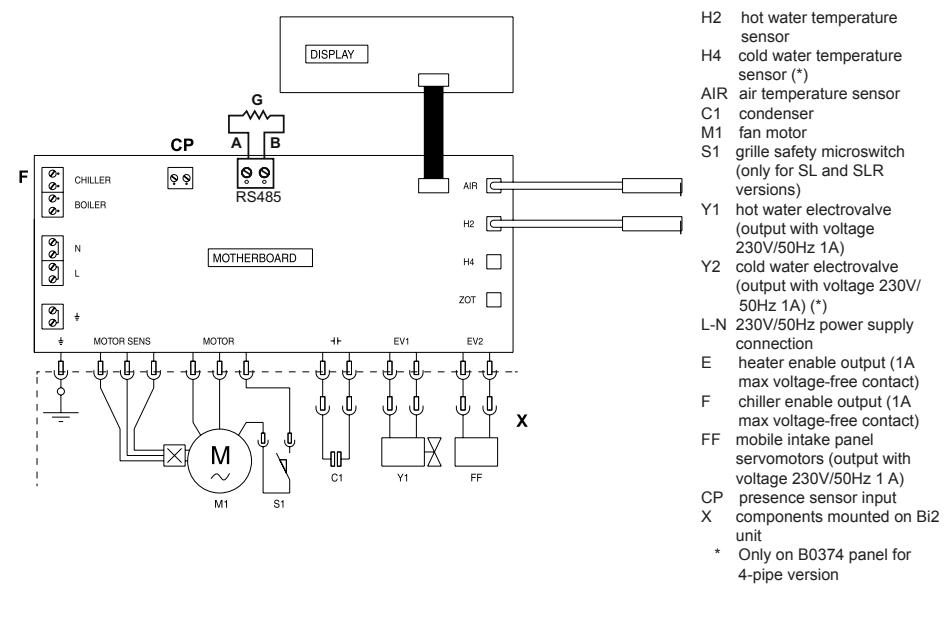
AUTONOMOUS CONTROL

ELECTRONIC CONTROL ON UNIT

- Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night, modulated), minimum water sensor function.
- It has an input for connection of the presence sensor contact, a 230VAC output for electrovalve control, and contacts for enabling the boiler or chiller.

Combinations

AQUA DUE<sup>®</sup>  
CONTROL



H2 hot water temperature sensor  
 H4 cold water temperature sensor (\*)  
 AIR air temperature sensor  
 C1 condenser  
 M1 fan motor  
 S1 grille safety microswitch (only for SL and SLR versions)  
 Y1 hot water electrovalve (output with voltage 230V/50Hz 1A)  
 Y2 cold water electrovalve (output with voltage 230V/50Hz 1A) (\*)  
 L-N 230V/50Hz power supply connection  
 E heater enable output (1A max voltage-free contact)  
 F chiller enable output (1A max voltage-free contact)  
 FF mobile intake panel servomotors (output with voltage 230V/50Hz 1 A)  
 CP presence sensor input  
 X components mounted on Bi2 unit  
 \* Only on B0374 panel for 4-pipe version

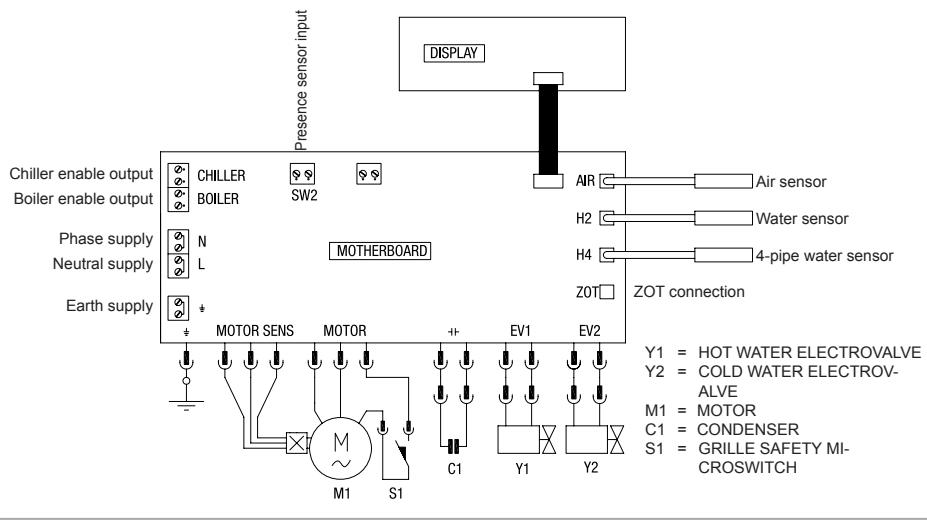
## CODE B0374

## AUTONOMOUS CONTROL



## ELECTRONIC CONTROL ON UNIT

- Electronic control kit on the unit.
- Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, modulated) and ventilation program (minimum, maximum, night and automatic), minimum water sensor function.
- It has an input for connecting a presence sensor and two 230VAC outputs for control of 2 electrovalves, and two voltage-free contacts for control of a chiller or boiler.



CODE B0372

REMOTE CONTROL



ELECTRONIC BUS REMOTE CONTROL KIT

- Electronic kit for remote control.
- The remote control B0736 transmits the main operating parameters, the set point and the room temperature to all the fan coils connected to the network, allowing for uniform operation.
- It has a 230 V output for control of an electrovalve, two voltage-free contacts for control of a chiller or heater, and a presence input.
- Operation with MODBUS, RS485 protocol.

Combinations

B0736

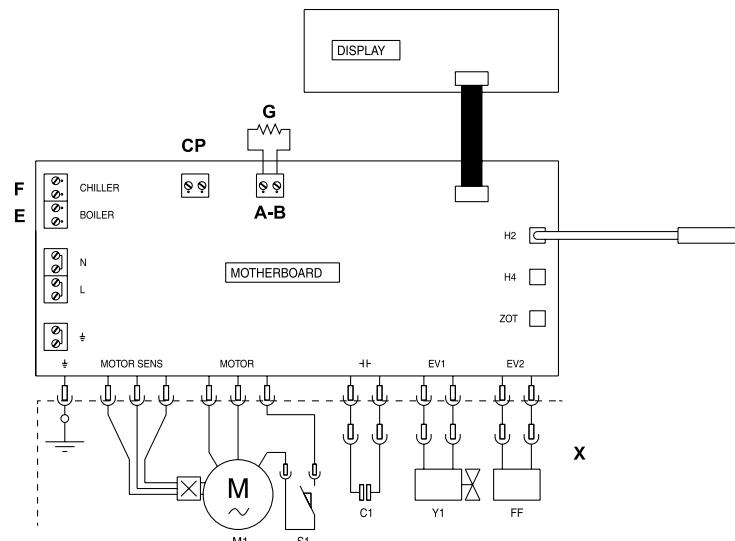


with B0736

My Home by



without B0736



A-B serial connection for B0736 wall  
remote control (connect the  
poles A-B properly)

H2 hot water temperature sensor  
H4 cold water temperature sensor  
(\*)

G 120 Ohm serial connection  
termination resistor

C1 condenser

M1 fan motor

S1 grille safety microswitch (only for  
SL and SLR versions)

Y1 hot water electrovalve (output  
with voltage 230V/50Hz 1A)

Y1 cold water electrovalve (output  
with voltage 230V/50Hz 1A) (\*)

L-N 230V/50Hz power supply  
connection

E heater enable output (1A max  
voltage-free contact)

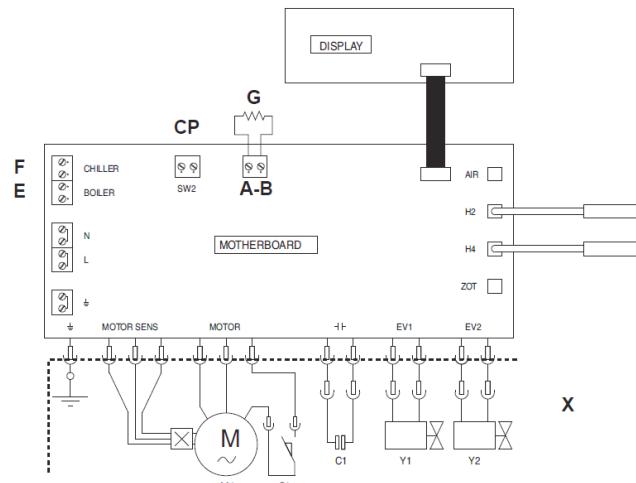
F chiller enable output (1A max  
voltage-free contact)

FF mobile intake panel servomotors  
(output with voltage 230V/50Hz  
1 A)

CP presence sensor input

X components mounted on Bi2  
unit

\* Only on B0375 panel for 4-pipe  
version

CODE B0375	REMOTE CONTROL
	<p><b>ELECTRONIC BUS REMOTE CONTROL KIT</b></p> <ul style="list-style-type: none"> <li>○ Electronic kit for remote control.</li> <li>○ The remote control B0736 transmits the main operating parameters, the set point and the room temperature to all the fan coils connected to the network, allowing for uniform operation.</li> <li>○ It has two 230VAC outputs for control of two electrovalves, and two voltage-free contacts for control of a presence input.</li> <li>○ Operation with MODBUS, RS485 protocol.</li> </ul>
<b>Combinations</b> B0736 	 <p>A-B serial connection for B0736 wall remote control (connect the poles A-B properly)  H2 hot water temperature sensor  H4 cold water temperature sensor (*)  G 120 Ohm serial connection termination resistor  C1 condenser  M1 fan motor  S1 grille safety microswitch (only for SL and SLR versions)  Y1 hot water electrovalve (output with voltage 230V/50Hz 1A)</p> <p>Y1 cold water electrovalve (output with voltage 230V/50Hz 1A) (*)  L-N 230V/50Hz power supply connection  E heater enable output (1A max voltage-free contact)  F chiller enable output (1A max voltage-free contact)  FF mobile intake panel servomotors (output with voltage 230V/50Hz 1 A)  CP presence sensor input  X components mounted on Bi2 unit</p> <p>* Only on B0375 panel for 4-pipe version</p>

CODE B0707

REMOTE CONTROL

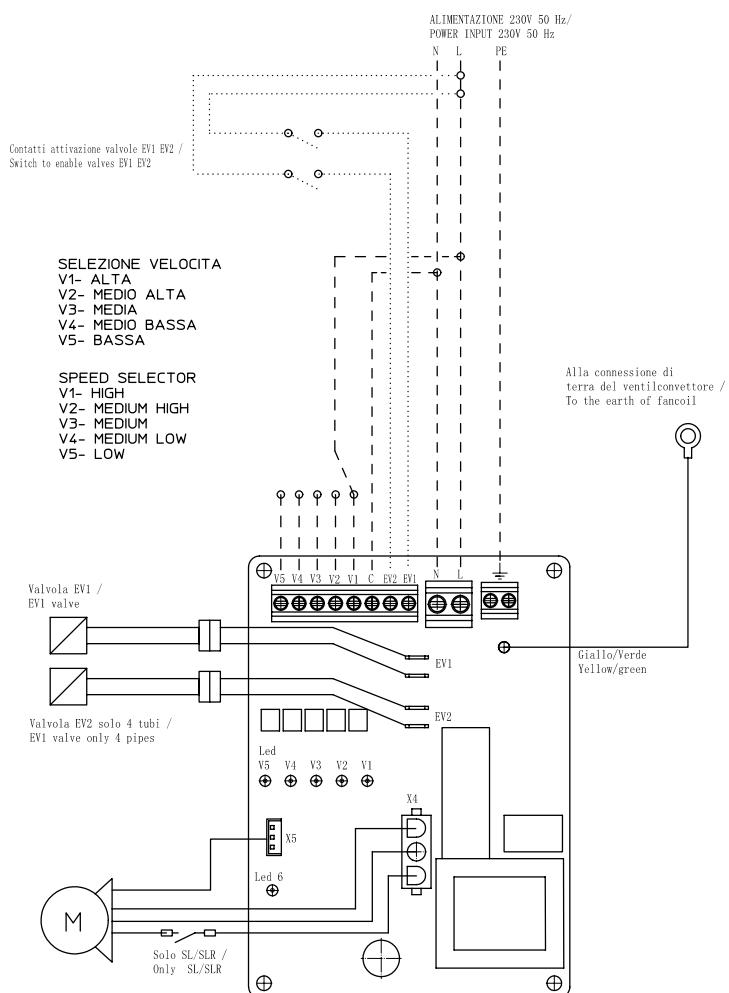


ELECTRONIC REMOTE CONTROL KIT

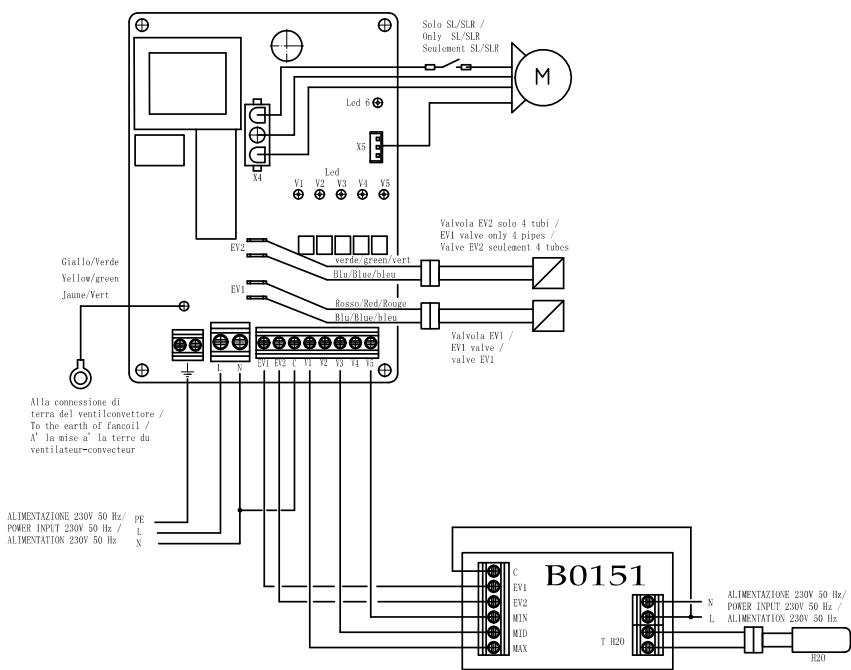
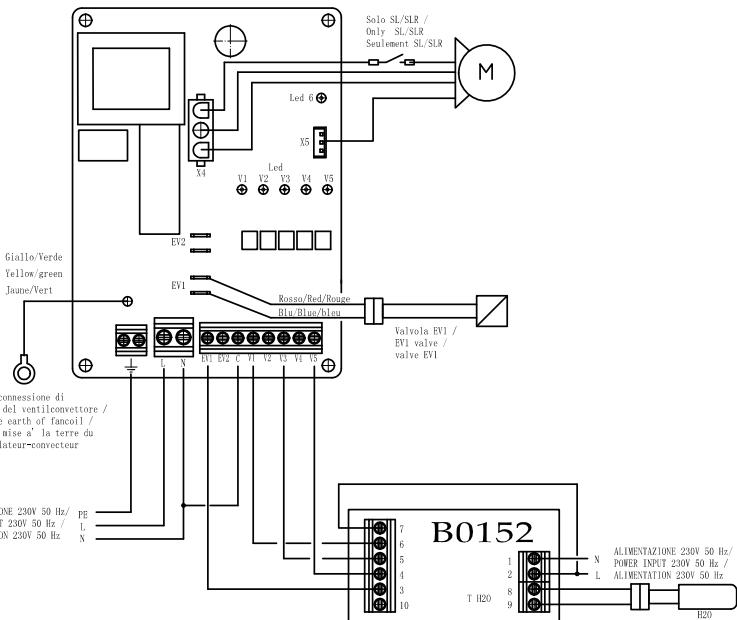
- For 3 fan speeds (of which there is a choice of 5) and 2 electrovalves.
- Fan control kit with motor feedback with tachometer. The controls do not need to be configured according to the model of the fan coil.
- Electronic remote control board with contacts for enabling the electrovalves.
- The same B0151 or B0152 can be used to control up to 10 Bi2 terminals equipped with B0707.

Combinations

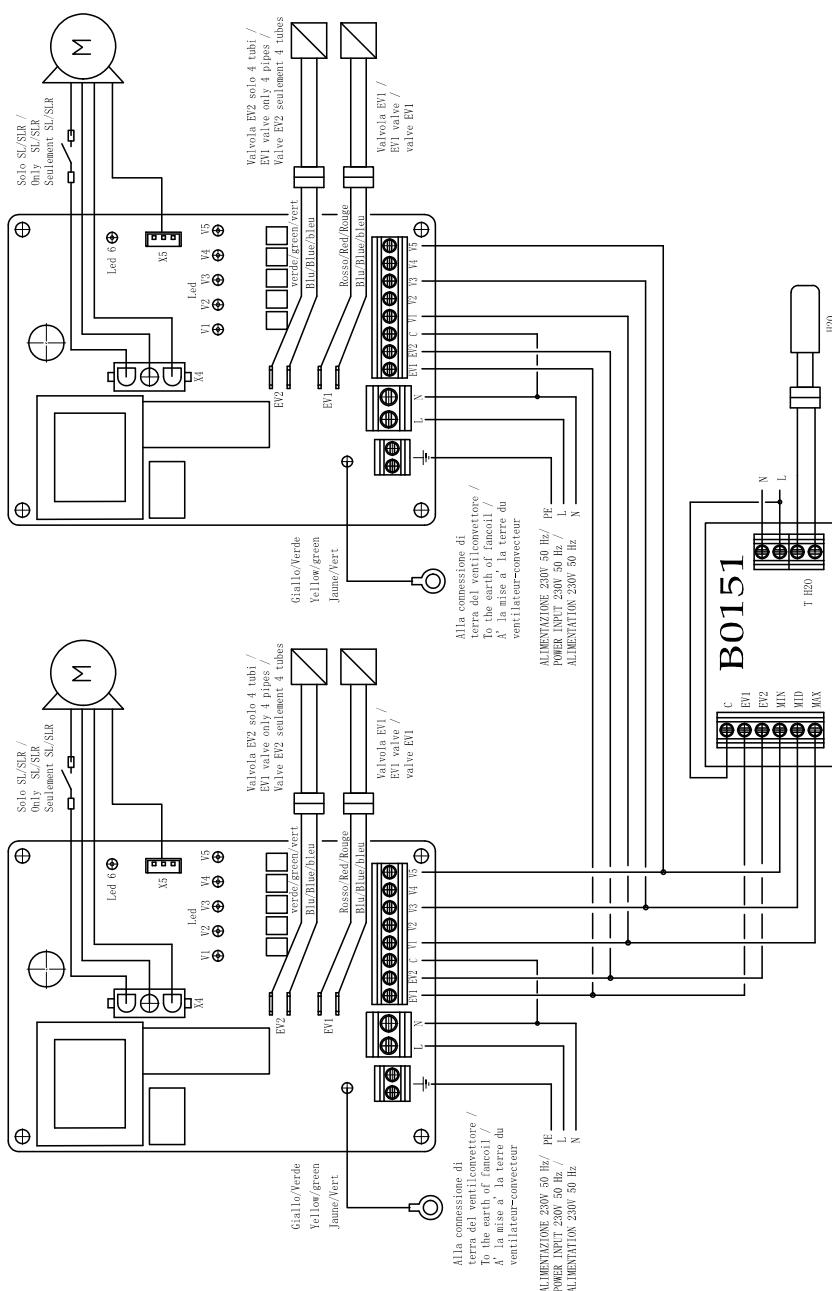
B0151  
B0152



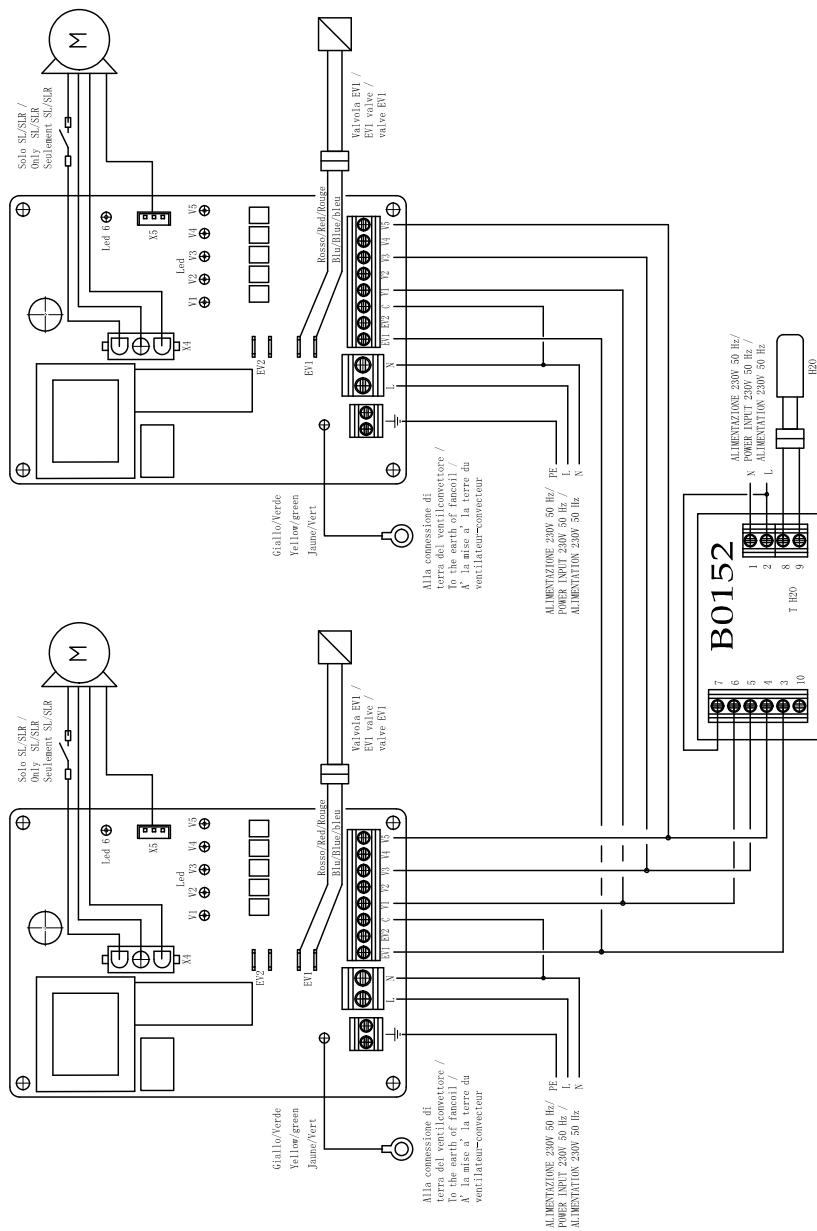
## CODE B0707



CODE B0707



## CODE B0707



CODE B0643

REMOTE CONTROL



ELECTRONIC BUS REMOTE CONTROL KIT

- The remote control B0736 transmits the main operating parameters, the set point and the room temperature to all the fan coils connected to the network, allowing for uniform operation.
- It has a 230 V output for control of an electrovalve, two voltage-free contacts for control of a chiller or heater, and a presence input.
- Operation with MODBUS, RS485 protocol.

Combinations

B0736

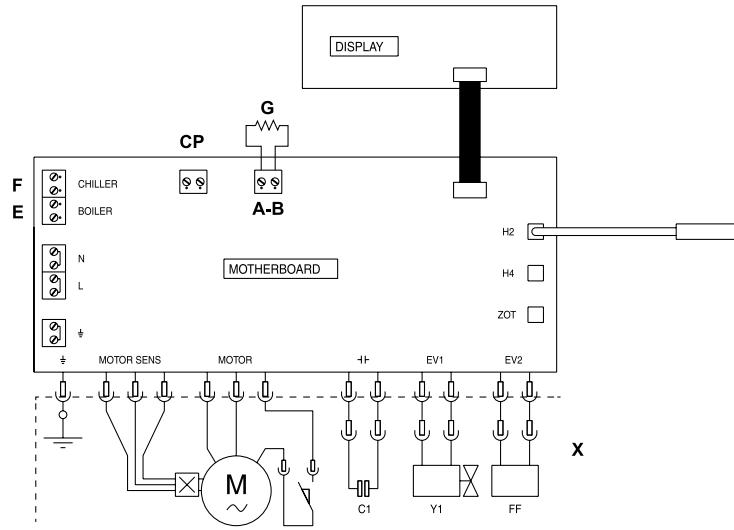


with B0736

My Home by

**bticino**

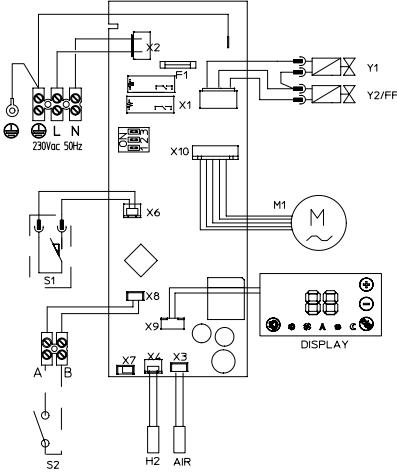
without B0736

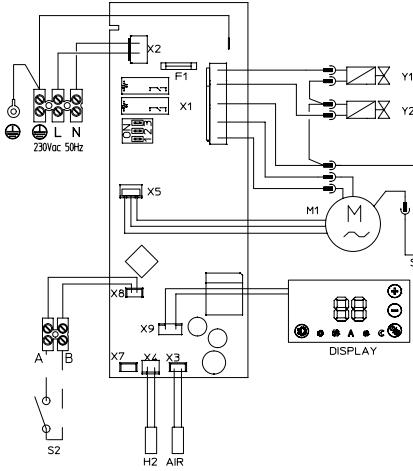


A-B serial connection for B0737 wall remote control (connect the poles A-B properly)  
 H2 hot water temperature sensor  
 H4 cold water temperature sensor  
 G 120 Ohm serial connection termination resistor  
 C1 condenser  
 M1 fan motor  
 S1 grille safety microswitch  
 Y1 hot water electrovalve (output with voltage 230V/50Hz 1A)

L-N 230V/50Hz power supply connection  
 E heater enable output (1A max voltage-free contact)  
 F chiller enable output (1A max voltage-free contact)  
 FF mobile intake panel servomotors (output with voltage 230V/50Hz 1 A)  
 CP presence sensor input (if closed, the set point is decreased or increased by 2.5 °C in relation to

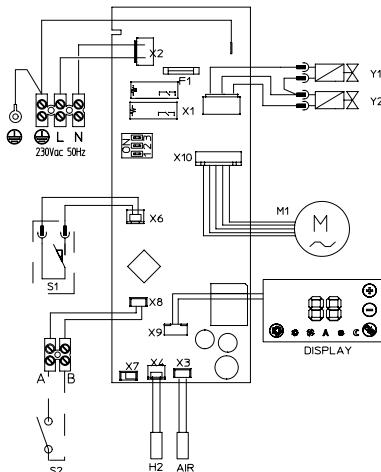
X the operating mode) components mounted on Bi2 unit

CODE B0774		AUTONOMOUS CONTROL
	<b>AUTONOMOUS TOUCH DESIGN CONTROL ON UNIT</b> <ul style="list-style-type: none"> <li>Backlit display with indication of the required temperature, real touch buttons, selection of operating mode and ventilation speed.</li> <li>Control with adjustable room thermostat and selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night and modulated).</li> <li>Minimum water sensor function.</li> <li>It has an input for connecting a presence sensor contact and two 230VAC outputs for control of electrovalves.</li> <li>Remote control provided.</li> </ul>	 <p>H2 water temperature sensor  AIR air temperature sensor  M1 fan motor  S1 intake grille safety microswitch (only for certain models)  Y1 hot water electrovalve (230V-50Hz, max 10W)  Y2 cold water electrovalve (230V-50Hz, max 10W)*  FF mobile intake panel servomotors (only for certain models)  S2 presence sensor contact (not supplied)  * Only on appliances for 4-pipe systems</p>
<b>Combinations</b> 		

CODE B0772		AUTONOMOUS CONTROL
	<b>AUTONOMOUS TOUCH DESIGN CONTROL ON UNIT</b> <ul style="list-style-type: none"> <li>Backlit display with indication of the required temperature, real touch buttons, selection of operating mode and ventilation speed.</li> <li>Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night and modulated), minimum water sensor function.</li> <li>It has an input for connecting a presence sensor contact and two 230VAC outputs for control of electrovalves.</li> <li>Remote control provided.</li> </ul>	 <p>H2 water temperature sensor  AIR air temperature sensor  M1 fan motor  S1 intake grille safety microswitch (only for certain models)  Y1 hot water electrovalve (230V-50Hz, max 10W)  Y2 cold water electrovalve (230V-50Hz, max 10W)*  FF mobile intake panel servomotors (only for certain models)  S2 presence sensor contact (not supplied)  * Only on appliances for 4-pipe systems</p>
<b>Combinations</b> 		

CODE B0828

AUTONOMOUS CONTROL

 <p><b>Combinations</b></p> <p>Touch flat control: not available for sale separately, but already installed on the unit (for Bi2+).</p> <p><b>AQUADUE®</b> CONTROL</p>	<p><b>AUTONOMOUS TOUCH FLAT CONTROL ON UNIT</b></p> <ul style="list-style-type: none"> <li>Backlit display with indication of the required temperature, real touch buttons, selection of operating mode and ventilation speed.</li> <li>Control with adjustable room thermostat, selection of operating mode (ventilation, summer, winter, automatic) and ventilation program (minimum, maximum, night and modulated), minimum water sensor function.</li> <li>It has an input for connecting a presence sensor contact and two 230VAC outputs for control of electrovalves.</li> <li>Remote control provided.</li> </ul>
	 <p>H2 water temperature sensor AIR air temperature sensor M1 fan motor S1 intake grille safety microswitch (only for certain models) Y1 hot water electrovalve (230V-50Hz, max 10W) Y2 cold water electrovalve (230V-50Hz, max 10W)* FF mobile intake panel servomotors (only for certain models) S2 presence sensor contact (not supplied) * Only on appliances for 4-pipe systems</p>

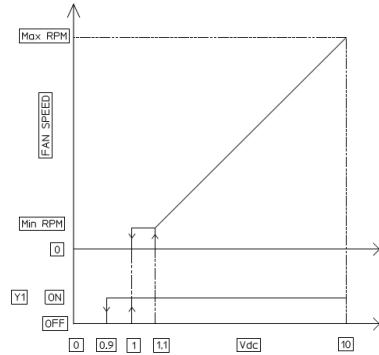
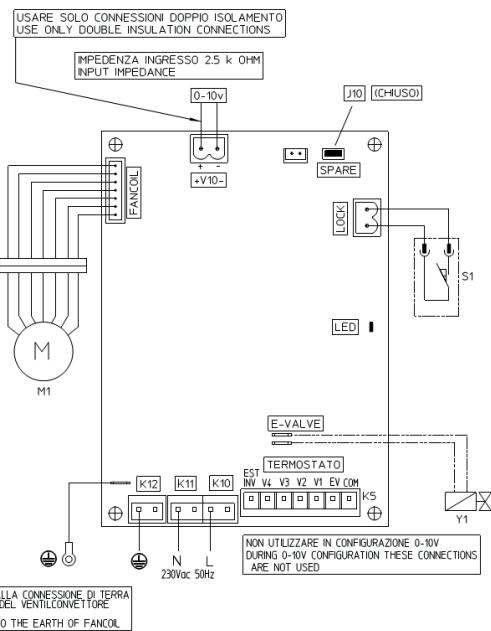
## CODE B0756

## REMOTE CONTROL



## 0-10 VOLT ELECTRONIC REMOTE CONTROL KIT

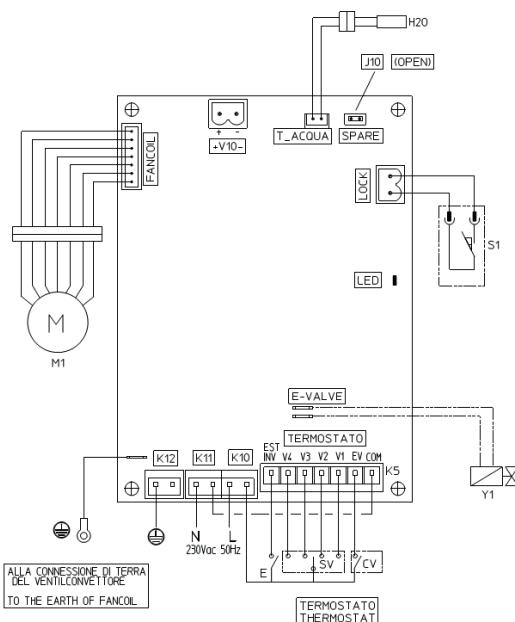
- For management and control via 0-10V analogue input or contacts.
- It has a 230VAC output for control of an electrovalve and a water sensor input with minimum water sensor function (in the case of contacts).



Connections	Terminal block
0 - 10V thermostat	0 - 10 V
DC motor	M1
Jumper closed for selecting '0 - 10V' mode	J1
Intake grille safety microswitch (to be connected only for certain models by removing the jumper)	S1
230V-50Hz board power supply	N-F
230V-50Hz 1A electrovalve	Y1

Attention: use a shielded cable (minimum cross-section of the wires 0.5 mm, maximum length 20 metres) for connection of the control signals; the shielding must be securely connected to the frame of the fan coil.

CODE B0756

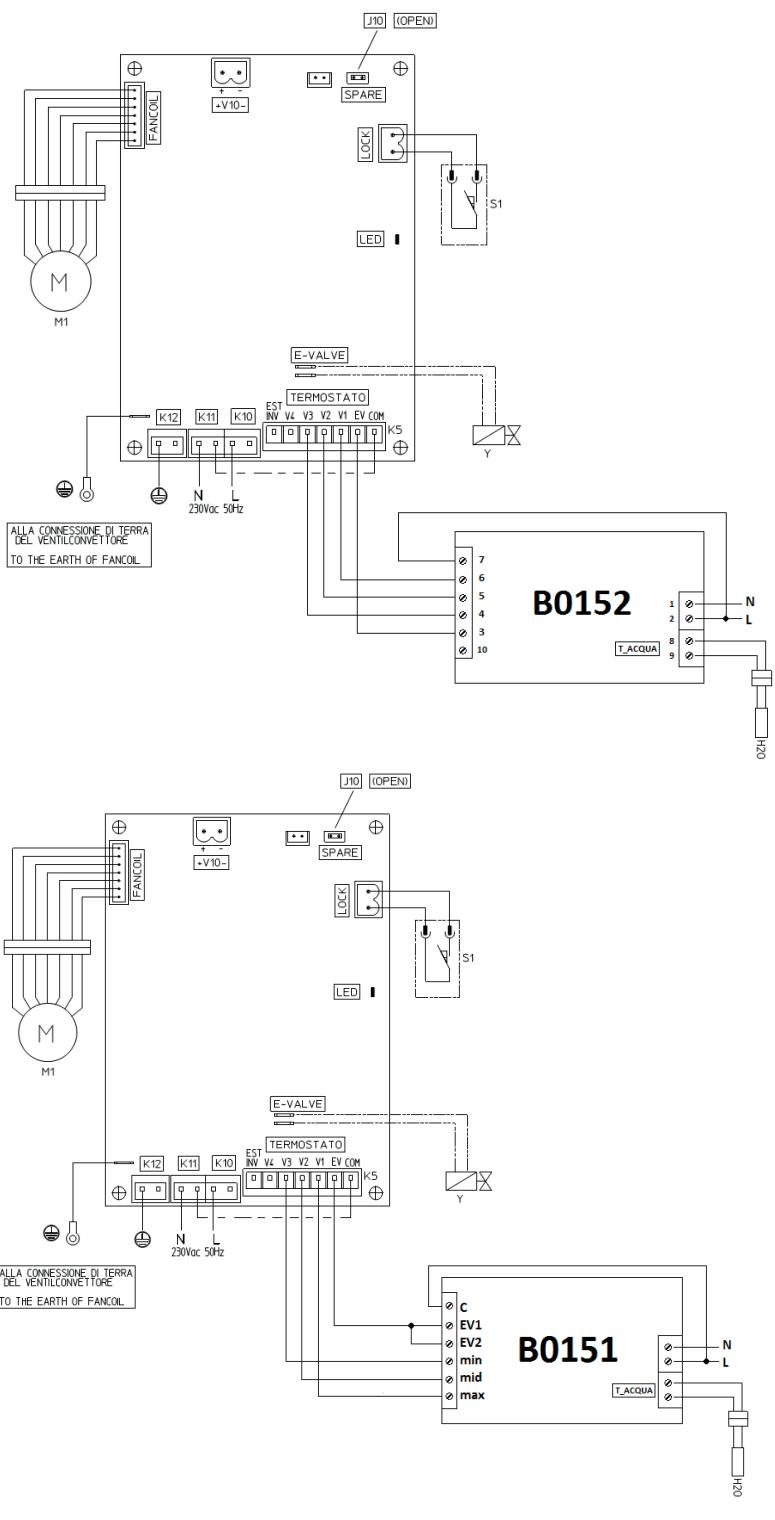


Connections	Terminal block
Water temperature sensor (optional)*	H2O
DC motor	M1
Intake grille safety microswitch (to be connected only for certain models by removing the jumper)	S1
230V-50Hz board power supply	F-N
230V-50Hz 1A electrovalve	Y1
Jumper open for selecting 'contacts' mode	CFG
Common	COM
Management of electrovalve/Enable fan**	EV
High speed	MAX
Medium speed	MED
Minimum speed	MIN
Super-minimum speed	SIL
Selection of Summer/Winter mode	E/I

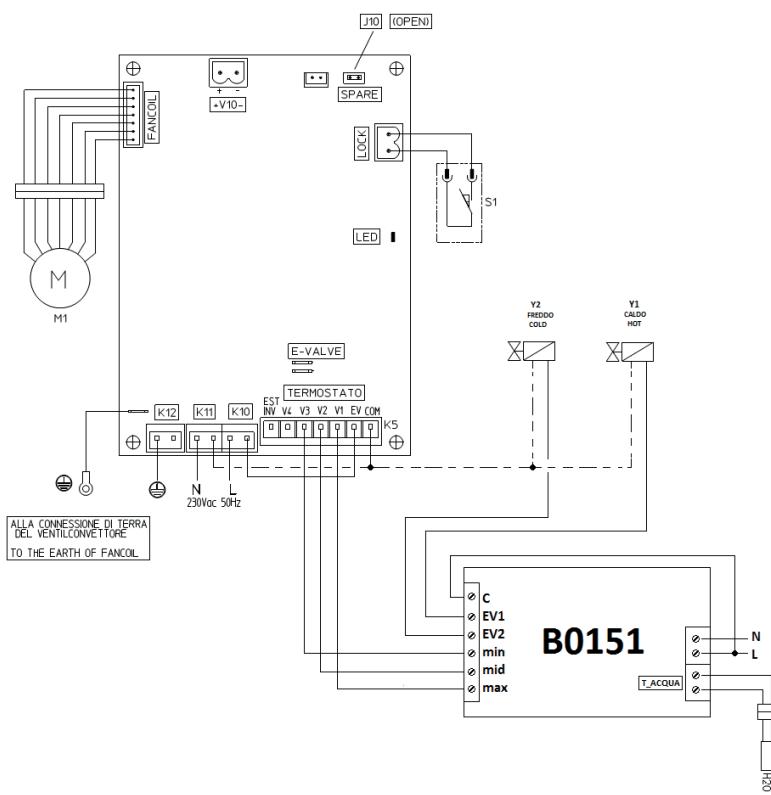
\* The water sensor is optional: if connected, the board permits operation of the fan only when the water temperature is suited to the operating mode in use (above 30 °C in winter mode and below 20 °C in summer mode). If it is not connected, the board will not control the water temperature at all.

\*\* Operation of the fan is enabled only when the EV input is closed. Refer to the EV input connection diagram even when use of this valve is not required.

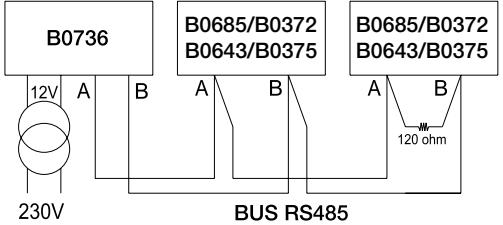
## CODE B0756



CODE B0756



Note: Connection diagram with B0151 wall thermostat with direct remote control of the 2 electrovalves: hot and cold.

CODE B0736	REMOTE CONTROL
Combinations	<p><b>BROADCAST LCD WALL CHRONO-THERMOSTAT</b></p> <ul style="list-style-type: none"> <li>○ Wall LCD chrono-thermostat control for MODBUS, RS485 connection.</li> <li>○ Control of up to 30 units.</li> <li>○ Selection of required temperature, operating mode, ventilation speed, manual/chrono-thermostat mode.</li> <li>○ Room sensor in the control.</li> <li>○ Backlit LCD display:</li> <li>○ Presence contact input.</li> <li>○ The control has a 230V/12 VAC power transformer with double insulation and buffer battery.</li> <li>○ Wall installation with spacing between holes compatible with standard 503 recessed box.</li> </ul>  <p>The fan radiators/fan coils are connected to the B0736 remote control on the AB lines of a broadcast network; there is no need, therefore, to configure the addresses. The A and B communication lines are reserved for communication by the supervisor.</p>

CODE B0151	WALL CONTROL	REMOTE CONTROL
	<p><b>WALL CONTROL</b></p> <ul style="list-style-type: none"> <li>○ Wall thermostat with room sensor, On-Off selector switch, fan three-speed selector switch and summer/winter selector switch.</li> <li>○ Temperature adjustment range from 5 °C to 30 °C.</li> <li>○ 230 VAC power supply.</li> <li>○ It has two 230VAC outputs for the hot water electrovalve and cold water electrovalve, and an input for the water temperature sensor.</li> </ul>	
<b>Combinations</b>		
B0707/B0756		
CODE B0152	WALL CONTROL	REMOTE CONTROL
	<p><b>WALL CONTROL</b></p> <ul style="list-style-type: none"> <li>○ Recessed electronic thermostat with LCD display, room sensor, On-Off selector switch, fan speed selector switch (min, med, max and auto).</li> <li>○ Minimum water sensor function.</li> <li>○ Temperature adjustment range from 5 °C to 35 °C.</li> <li>○ 230 VAC power supply.</li> </ul>	
<b>Combinations</b>		
B0707/B0756		
CODE B0336	MINIMUM THERMOSTAT KIT	
	<p>Kit compatible with B0658. To be used only with three-way valve. The thermostat must be fitted on the inlet pipe.</p>	
CODE B0205/B0656	MANUAL TWO-WAY VALVE KIT	
	<p>The kit consists of a manual valve and holder that are compact and minimise pressure drops.  The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.  ¾ Eurocone connections are used.  Pressure drops: holder in graph A (Fig. 41), open valve in graph B (Fig. 42).  Use two B0205 kits for 4-pipe versions.</p>	
CODE B0204	MANUAL VALVE ISOLATION KIT	
	<p>Kit compatible with B0656/B0205 (use two kits for 4-pipe versions).  This kit must be used when the hydraulic circuit also needs to be supplied with cold water. It prevents condensation from forming during operation in cooling mode (and is already included in the thermoelectric hydraulic kits).</p>	

**CODE B0139/B0655****TWO-WAY VALVE KIT WITH THERMOELECTRIC ACTUATOR**

The kit consists of an ON-OFF valve with thermoelectric actuator and holder that are compact and minimise pressure drops.

The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water).

Pressure drops: holder in graph A (Fig. 41), open valve in graph B (Fig. 42).  $\frac{3}{4}$  Eurocone connections are used.

**CODE B0832****TWO-WAY VALVE KIT WITH FOUR-WIRE THERMOELECTRIC ACTUATOR**

The kit consists of an ON-OFF valve with thermoelectric actuator and holder that are compact and minimise pressure drops.

The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water). There is a voltage-free contact that is closed at the end of the stroke, for enabling operation of a heat pump, heater or circulator.

Pressure drops: holder in graph A (Fig. 41), open valve in graph B (Fig. 42).  $\frac{3}{4}$  Eurocone connections are used.

**CODE B0219/B0825****TWO-WAY VALVE KIT WITH THERMOELECTRIC ACTUATOR (for 4-pipe model).**

The kit consists of two ON-OFF valves with thermoelectric actuators and holders that are compact and minimise pressure drops.

The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water). Pressure drops: holder in graph A (Fig. 41), open valve in graph B (Fig. 42).

$\frac{3}{4}$  Eurocone connections are used.

**CODE B0221/B0826****Three-way valve kit with thermoelectric actuator (for 4-pipe model).**

The kit consists of two diverter valves with articulated inlet connection, thermoelectric actuators and holder that are compact and minimise pressure drops.

The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water). Pressure drops: holder in graph A (Fig. 41), open valve in graph C (Fig. 43), diverter valve in graph D (Fig. 44).

$\frac{3}{4}$  Eurocone connections are used.

**CODE B0641**



**TWO-WAY VALVE KIT WITH THERMOELECTRIC ACTUATOR AND BY-PASS BRANCH WITH OVERPRESSURE VALVE**

The kit consists of an ON-OFF valve with thermoelectric actuator, by-pass valve and holder that are compact and minimise pressure drops.

When the two-way valve is closed, the water flows through the by-pass valve that prevents fluctuation of the pressure drops of the cabinet.

The ON-OFF valve excludes the cabinet from the system, the by-pass valve minimises the pressure drops with the ON-OFF valve closed, and the holder minimises the pressure drops of the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water).

Pressure drops: holder in graph A (Fig. 41), open valve in graph B (Fig. 42), valve closed for control of the by-pass valve.

¾ Eurocone connections are used.

**CODE B0833**



**TWO-WAY VALVE KIT WITH FOUR-WIRE THERMOELECTRIC ACTUATOR AND BY-PASS BRANCH WITH OVERPRESSURE VALVE**

The kit consists of an ON-OFF valve with thermoelectric actuator, by-pass valve and holder that are compact and minimise pressure drops.

When the two-way valve is closed, the water flows through the by-pass valve that prevents fluctuation of the pressure drops of the cabinet.

The ON-OFF valve excludes the cabinet from the system, the by-pass valve minimises the pressure drops with the ON-OFF valve closed, and the holder minimises the pressure drops of the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water). There is a voltage-free contact that is closed at the end of the stroke, for enabling operation of a heat pump, heater or circulator.

Pressure drops: holder in graph A (Fig. 41), open valve in graph B (Fig. 42), valve closed for control of the by-pass valve.

¾ Eurocone connections are used.

**CODE B0635/B0654**



**THREE-WAY VALVE KIT WITH THERMOELECTRIC ACTUATOR**

The kit consists of a diverter valve with articulated inlet connection, thermoelectric actuator and holder that are compact and minimise pressure drops.

The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water).

Pressure drops: holder in graph A (Fig. 41), open valve in graph C (Fig. 43), diverter valve in graph D (Fig. 44).

¾ Eurocone connections are used.

**CODE B0834**



**THREE-WIRE VALVE KIT WITH FOUR-WIRE THERMOELECTRIC ACTUATOR**

The kit consists of a diverter valve with articulated inlet connection, thermoelectric actuator and holder that are compact and minimise pressure drops.

The valve is for manually excluding the cabinet from the system, while the holder minimises pressure drops in the system.

The thermoelectric actuator allows the system to control the flow of water in the heat exchange coil (valve open during supply of water). There is a voltage-free contact that is closed at the end of the stroke, for enabling operation of a heat pump, heater or circulator.

Pressure drops: holder in graph A (Fig. 41), open valve in graph C (Fig. 43), diverter valve in graph D (Fig. 44).

¾ Eurocone connections are used.

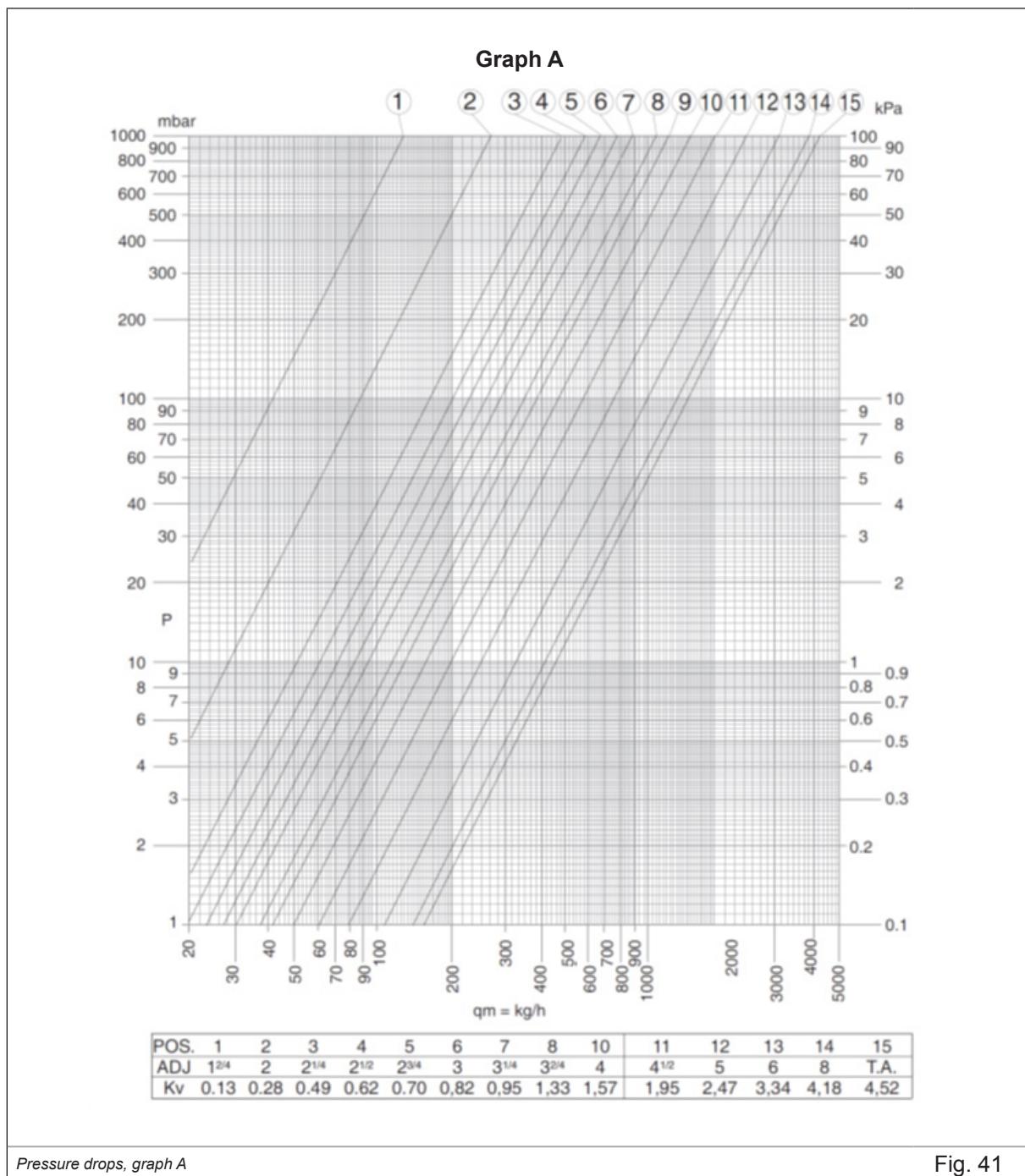
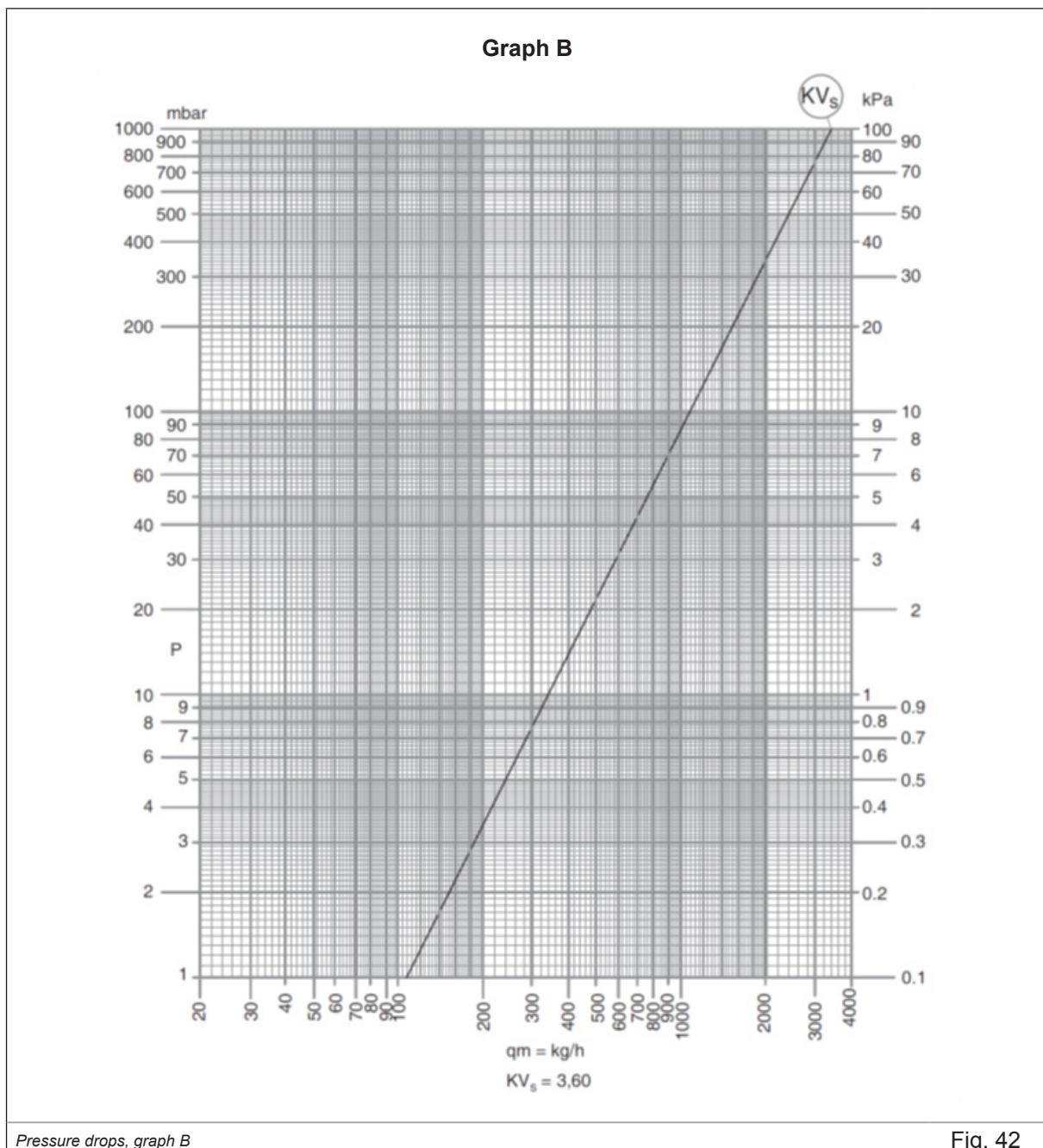
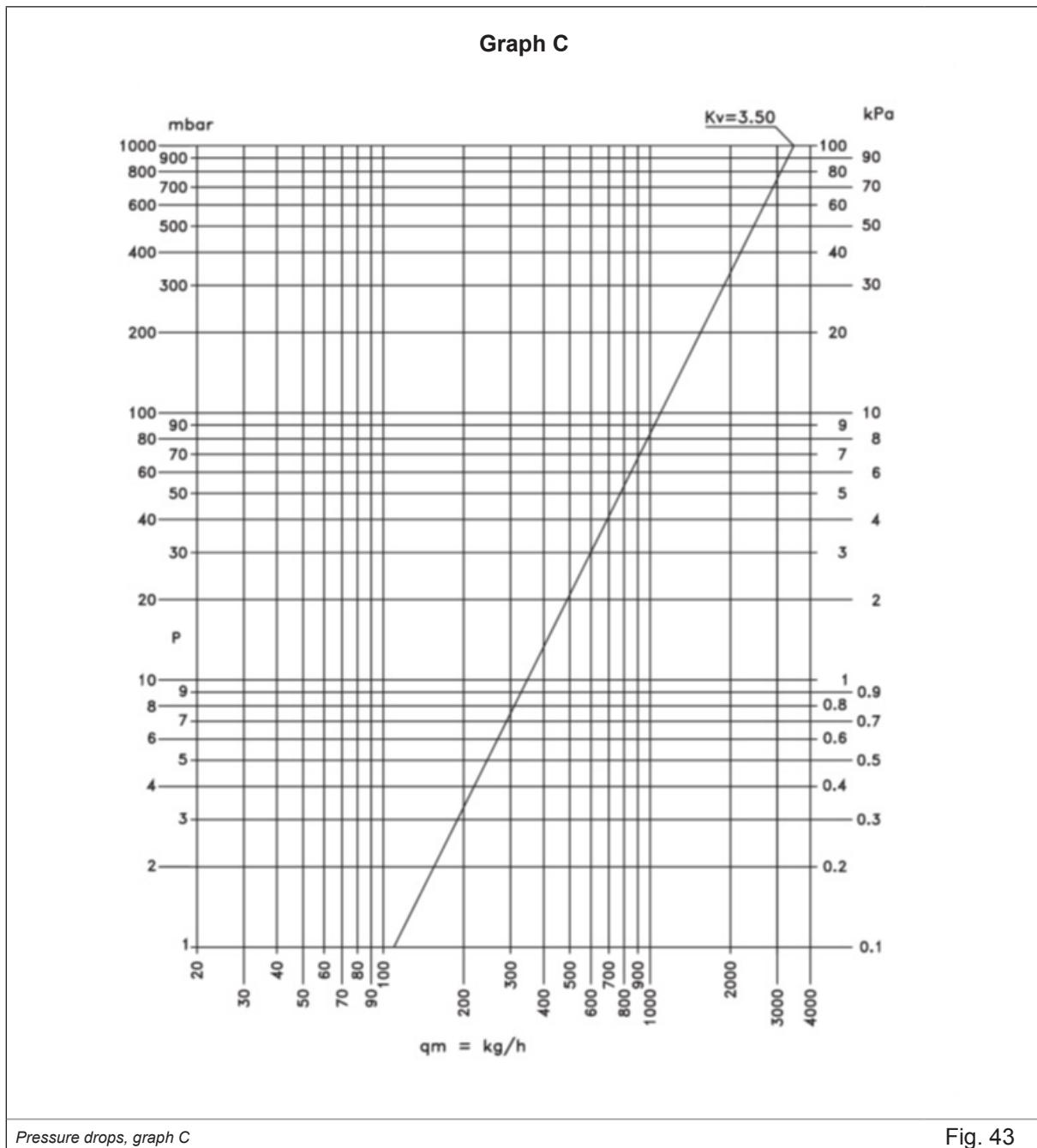
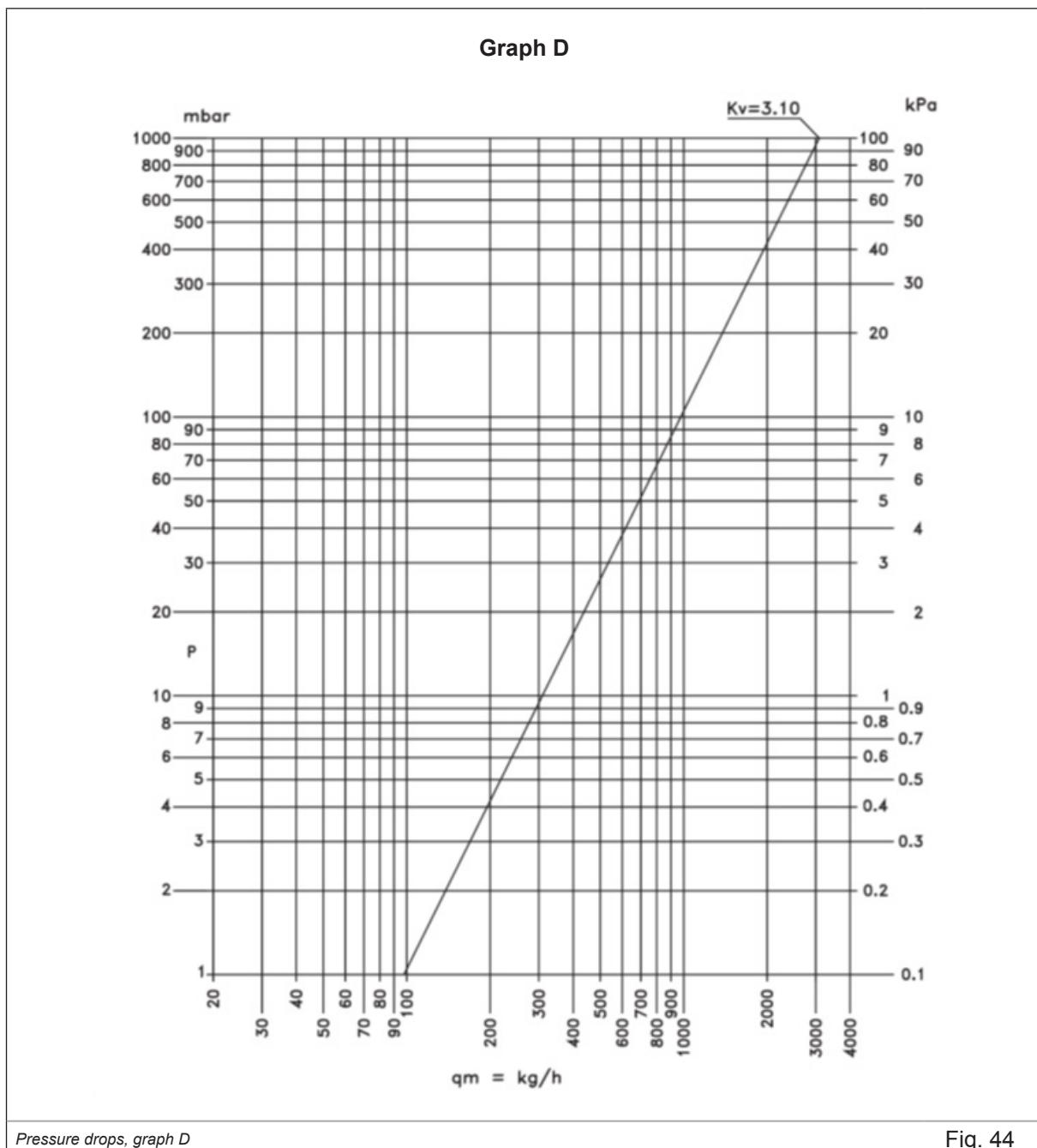


Fig. 41







<b>CODE B0200</b>	<b>KIT OF PAIR OF 3/4 EUROCONE - 1/2" ADAPTORS</b>
	These can be used to convert the 3/4" Eurocone connection of the Bi2 terminals into a standard 1/2" threaded gas connection.
<b>CODE B0201</b>	<b>KIT OF PAIR OF 3/4 EUROCONE - 3/4" ADAPTORS</b>
	These can be used to convert the 3/4" Eurocone connection of the Bi2 terminals into a standard 3/4" threaded gas connection.
<b>CODE B0203</b>	<b>90° EUROCONE CURVE KIT</b>
	Facilitates connection in the case of hydraulic connections with pipes in the wall. excluding the SLN and 4-pipe versions
<b>CODE B0501</b>	<b>3/4 EUROCONE SPACER KIT</b>
	Available for multilayer pipes d. 20 mm. (which do not allow for adequate bending radii), 1 or 2 kits for the unit depending on the type of installation.
<b>CODE B0459 Bi2 AC motor</b>	<b>CONTROL CONNECTION EXTENSION KIT</b>
	Cable for connecting the sensor of the motor to the power supply, in the case of installations where the position of the hydraulic connections is rotated from left to right.
<b>CODE B0632 Bi2 DC motor models 200-400-600</b>	<b>CONTROL CONNECTION EXTENSION KIT</b>
	Cable for connecting the sensor of the motor to the power supply, in the case of installations where the position of the hydraulic connections is rotated from left to right.
<b>CODE B0633 Bi2 DC motor models 800-1000</b>	<b>CONTROL CONNECTION EXTENSION KIT</b>
	Cable for connecting the sensor of the motor to the power supply, in the case of installations where the position of the hydraulic connections is rotated from left to right.
<b>CODE B0682</b>	<b>FOOT KIT FOR BI2 SMART</b>
	Kit with two aesthetic feet for covering any pipes leading out of the floor. Available in white.

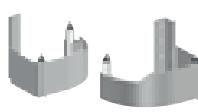
**CODE B0683**



**KIT OF FLOOR-ANCHORING BRACKETS FOR BI2 SMART**

Kit of brackets for supporting the terminal and anchoring it to the floor (for applications in front of windows or on non-load-bearing walls). It also acts as an aesthetic kit (white).

**CODE B0157**



**FOOT KIT**

Kit with two aesthetic feet for covering any pipes leading out of the floor. Available in white.

Compatible with Bi2 SL+/SLR+/SL 4-pipe/SLR 4-pipe/SLN.

**CODE B0193**



**KIT OF FLOOR-ANCHORING BRACKETS.**

Kit of brackets for supporting the terminal and anchoring it to the floor (for applications in front of windows or on non-load-bearing walls). To be used in combination with the B0157 kit.

**CODE B0520 (200) - B0521 (400) - B0522 (600) - B0523 (800) - B0524 (1000)**



**CEILING INSTALLATION KIT FOR BI2  
(EXCLUDING SLR AND SLI VERSIONS)**

Drip tray accessory.

**CODE B0644 (200) - B0645 (400) - B0646 (600) - B0647 (800) - B0648 (1000)**



**CEILING INSTALLATION KIT FOR BI2 SLN**

Drip tray accessory.

**CODE B0649 (200) - B0650 (400) - B0651 (600) - B0652 (800) - B0653 (1000)**



**BACK PANEL IN PAINTED SHEET METAL  
(FOR APPLICATIONS IN FRONT OF WINDOWS)**

Compatible with Bi2 SLN.

**CODE B0677 (200) - B0678 (400) - B0679 (600) - B0680 (800) - B0681 (1000)**



**BACK PANEL IN PAINTED SHEET METAL  
(FOR APPLICATIONS IN FRONT OF WINDOWS)**

Compatible with Bi2 SL Smart and Bi2 SLR Smart.

**CODE B0171 (200) - B0173 (400) - B0175 (600) - B0177 (800) - B0179 (1000)**



**BACK PANEL IN WHITE PAINTED SHEET METAL  
(FOR APPLICATIONS IN FRONT OF WINDOWS)**

Compatible with Bi2 SL+ and Bi2 SLR+.

**CODE B0181 (150) - B0183 (250) - B0185 (350) - B0187 (500) - B0189 (650)**

**BACK PANEL IN WHITE PAINTED SHEET METAL  
(FOR APPLICATIONS IN FRONT OF WINDOWS)**

Compatible with Bi2 SL 4-pipe and Bi2 SLR 4-pipe.

**CODE B0568 (200) - B0569 (400) - B0570 (600) - B0571 (800) - B0572 (1000)**

**RECESSED KIT WITH INFILL PANEL: STRUCTURE FOR RECESSED INSTALLATION**

For vertical installation of the SLI and SLIR versions (only 2-pipe). Obligatory for SLIR (to be combined with the infill panel). Dimensions in para. 2.4.5.2.

**CODE B0578 (200) - B0579 (400) - B0580 (600) - B0581 (800) - B0582 (1000)**

**INFILL PANEL FOR RECESSED STRUCTURE, SLI VERSION**

For vertical installation (to be combined with the recessed structure kit). Dimensions in para. 2.4.5.2.

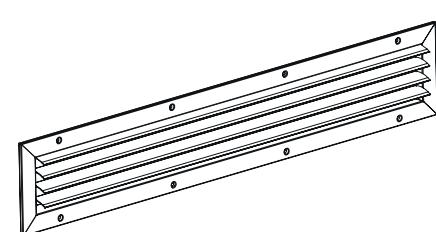
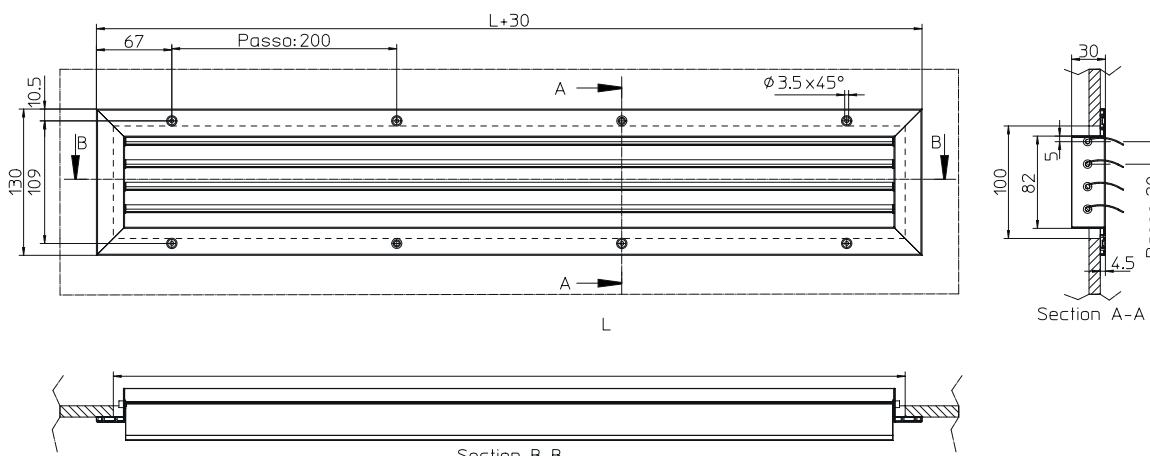
**CODE B0731 (200) - B0732 (400) - B0733 (600) - B0734 (800) - B0735 (1000)**

**RADIANT RECESSED INFILL PANEL FOR RECESSED STRUCTURE, SLIR VERSION**

Obligatory accessory kit for vertical installation (to be combined with the recessed structure kit). Dimensions in para. 2.4.5.2.

**CODE B0815 (200) - B0816 (400) - B0817 (600) - B0818 (800) - B0819 (1000)**

**RECESSED KIT FOR FALSE CEILING: WING-SHAPED AIR OUTLET GRILLE**

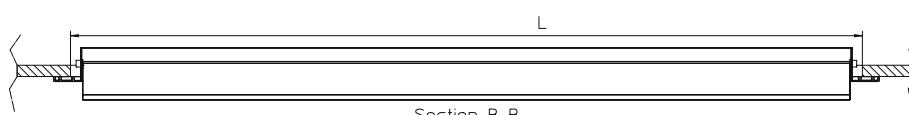
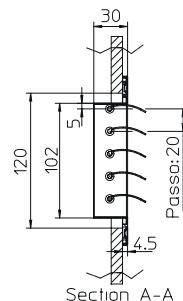
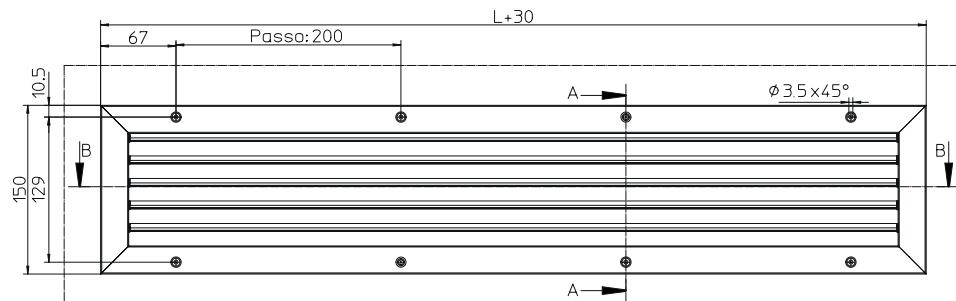


B0819	1000	L=1104
B0818	800	L=904
B0817	600	L=704
B0816	400	L=504
B0815	200	L=304

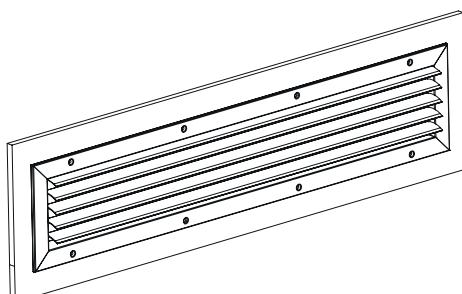
**CODE B0820 (200) - B0821 (400) - B0822 (600) - B0823 (800) - B0824 (1000)**



**RECESSED KIT FOR FALSE CEILING: WING-SHAPED AIR INTAKE GRILLE**



Section B-B



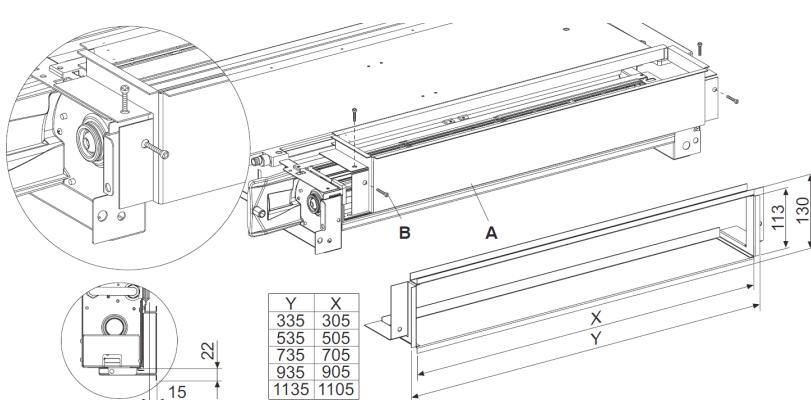
B0824	1000	L=1104
B0823	800	L=904
B0822	600	L=704
B0821	400	L=504
B0820	200	L=304

**CODE B0194 (200) - B0195 (400) - B0196 (600) - B0197 (800) - B0198 (1000)**



**INTAKE KIT FOR FALSE CEILING OR HATCH IN PLASTERBOARD**

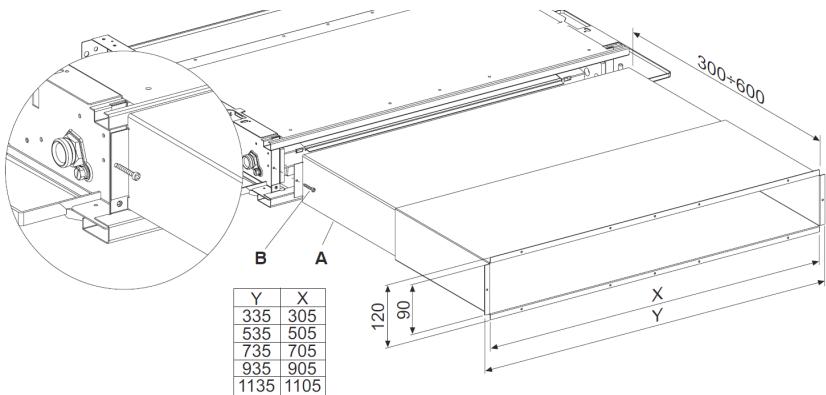
It ducts the intake of air from the grille to the cabinet.



CODE B0160 (200) - B0161 (400) - B0162 (600) - B0163 (800) - B0164 (1000)

**TELESCOPIC UPPER DISCHARGE PLENUM**

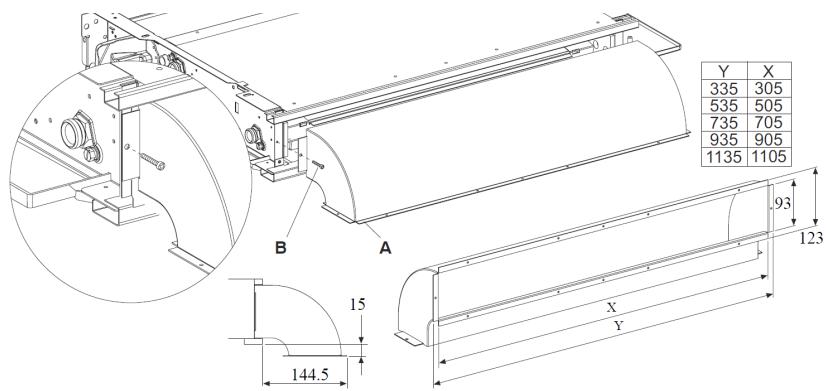
It ducts air from the cabinet to the air outlet grille.



CODE B0165 (200) - B0166 (400) - B0167 (600) - B0168 (800) - B0169 (1000)

**90° UPPER DISCHARGE PLENUM**

It ducts the air from the cabinet to the air outlet grille (not compatible with the recessed structure).



## 6 INSTALLATION SPECIFICATIONS

### 6.1 INSTALLATION

#### 6.1.1 HYDRAULIC CONNECTION

The position of the hydraulic connections can be rotated from left to right during installation.

The selection and sizing of the hydraulic lines must be entrusted to the designer, who must observe the standards of good practice and the legislation in force.

Use new gaskets in the case of disassembly and new installation. Check the tightness of the connections after installation.

#### Ø OF THE PIPES ( $\Delta p$ BETWEEN 150 AND 300 Pa/m)

MODEL		200	400	600	800	1000
Flow of H <sub>2</sub> O	l/h	215	390	525	700	890
Ø Steel	"	1/2	1/2	1/2	3/4	3/4
Ø Copper	mm	14	16	18	18	22
Ø Multilayer	mm	16	18	20	20	26
Minimum Ø	mm	12	14	16	18	20
<i>Diameter of the pipes</i>						Tab. 66

MODEL SLR 4T/SL 4T/SLI 4T		150	250	350	500	650
Flow of H <sub>2</sub> O	l/h	215	390	525	700	890
Ø Steel	"	1/2	1/2	1/2	3/4	3/4
Ø Copper	mm	14	16	18	18	22
Ø Multilayer	mm	16	18	20	20	26
Minimum Ø	mm	12	14	16	18	20
<i>Diameter of the pipes for 4-pipe model</i>						Tab. 67

SLW MODEL		400	600	800
Flow of H <sub>2</sub> O	l/h	390	525	700
Ø Steel	"	1/2"	1/2"	3/4"
Ø Copper	mm	16	18	18
Ø Multilayer	mm	16	18	20
Minimum Ø	mm	12	14	16
<i>Diameter of the pipes for SLW model</i>				Tab. 68

Note: the data above are purely indicative.

### 6.1.2 DRAINING OF CONDENSATION

The condensation drainage system must be duly sized (minimum internal pipe diameter 16 mm) and the pipes must be laid all at the same gradient, which should never be less than 1%. In the case of vertical installation, the drain pipe is connected directly to the drip tray located low down on the side panel under the hydraulic connections.

In the case of horizontal installation, the drain pipe is connected to the one already on the unit.

Horizontal drip tray kits are available as accessories for installation of all the versions except the recessed ones.

### 6.1.3 WIRING



For the power supply, there must be a dedicated master switch with time delay fuses or an automatic circuit breaker switch with a current of 2A.



The master switch should, for safety reasons, be located near the appliance it is connected to and in a conspicuous position.

The power cables must have copper conductors with the following standard cross-sections (the values refer to a maximum length of the lines of 15 m).

The cables must also be of the type H07-V-K.

MODEL	200	400	600	800	1000
Cross-section of the conductor in mm <sup>2</sup> - Power supply and Earth (phase and neutral)	1.5	1.5	1.5	1.5	1.5
Earth	1.5	1.5	1.5	1.5	1.5
<i>Electrical connection data</i>					Tab. 69

MODEL	150	250	350	500	650
Cross-section of the conductor in mm <sup>2</sup> - Power supply and Earth (phase and neutral)	1.5	1.5	1.5	1.5	1.5
Earth	1.5	1.5	1.5	1.5	1.5
<i>Electrical connection data for 4-pipe model</i>					Tab. 70

The unit must be connected directly to a power socket or independent circuit.



It is obligatory to connect the Phase (L) and Neutral (N) to the correct terminals. Do not invert the connections, and observe the wiring diagram.

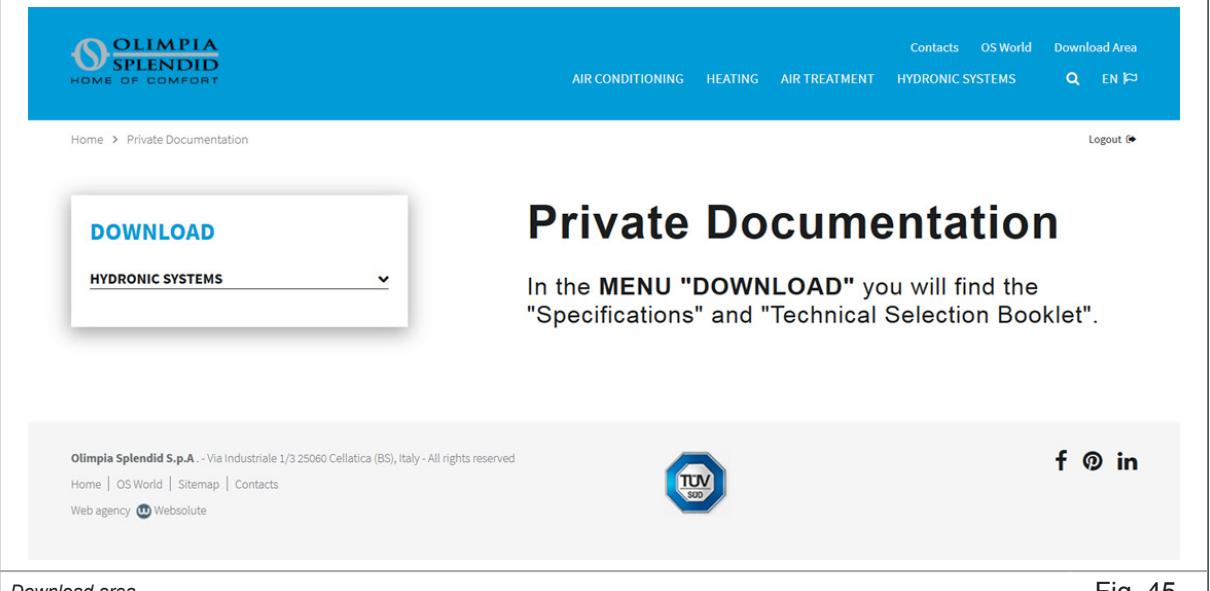
Install a device, master switch or plug that can permit complete disconnection of the terminal from the power supply.

For the purpose of short-circuit protection, fit a 2A 250V (IG) multipole thermal-magnetic circuit breaker with a minimum opening of 3 mm between the contacts.

Read the instructions with care before installing the control panel, and configure the panel if necessary. Connect the valve and sensor to the points of the terminal board indicated in the wiring diagram.

## 7 SPECIFICATIONS

The specifications of each model are available in the download area on the site  
<http://www.olimpiasplendid.com/private-documentation>



The screenshot shows the Olimpia Splendid website's "Private Documentation" page. At the top, there is a blue header bar with the company logo "OLIMPIA SPLENDID HOME OF COMFORT", navigation links for AIR CONDITIONING, HEATING, AIR TREATMENT, HYDRONIC SYSTEMS, and a language selector (EN), and a "Logout" link. Below the header, the page title "Private Documentation" is displayed in large bold letters. A sub-instruction below it reads: "In the MENU \"DOWNLOAD\" you will find the \"Specifications\" and \"Technical Selection Booklet\"." On the left side, there is a sidebar titled "DOWNLOAD" with a dropdown menu currently set to "HYDRONIC SYSTEMS". At the bottom of the page, there is footer information including the company address ("Olimpia Splendid S.p.A. - Via Industriale 1/3 25060 Cellatica (BS), Italy - All rights reserved"), links to "Home", "OS World", "Sitemap", and "Contacts", and a note about the web agency ("Web agency Websolute"). Social media icons for Facebook, Pinterest, and LinkedIn are also present.

Fig. 45

# Bi2

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## SYSTEM TERMINALS

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Pars, France

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