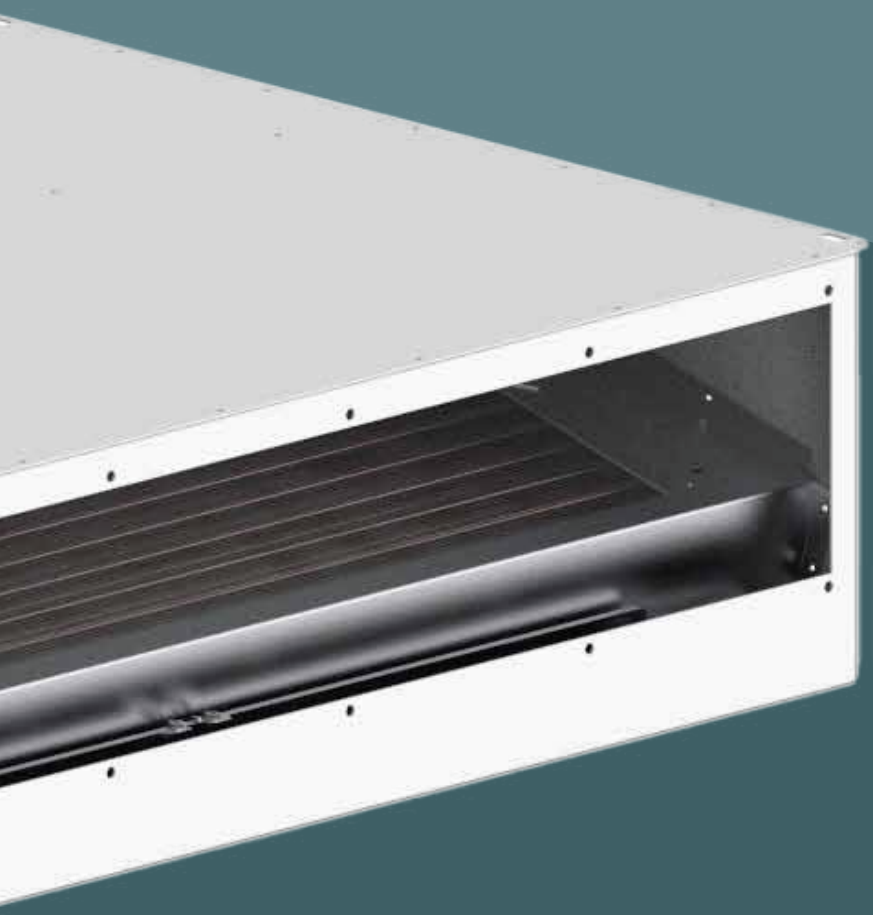
innova

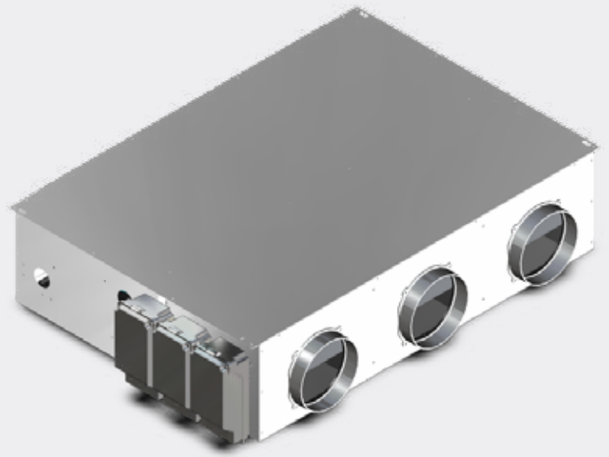
DUCTO
DUCTO MULTI

The ductable fancoils



Variable speed, constant air flow.

SLC



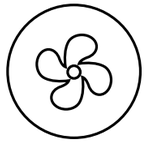
SLC+

DUCTO - DUCTO MULTI

Ductable fancoils for top comfort and advanced silence thanks to the intelligent flow that modulates speed depending on air resistance.

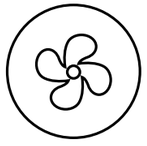
Ducto is the INNOVA ductable fancoil , intelligent and silent for horizontal and vertical built-in installation.

DUCTO MULTI is the new integrated multi-zone ductable fancoil. A highly efficient product which, thanks to the integrated multi-zone management and the use of BLDC BRUSHLESS multi-fans, guarantees a constant air flow and maximum comfort.



AUTOADAPTIVE FAN SPEED

For DUCTO: fans that are self-adaptive to the length of the ducts. “Intelligent” fans with a constant flow rate independently reduce or improve their speed according to the pressure drop in the ducts, guaranteeing the exact air flow rate.



BRUSHLESS FANS

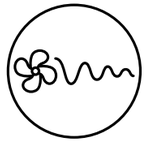
For DUCTO MULTI: double inlet centrifugal fans with high efficiency BLDC motor. The motor is controlled through punctual modulation according to the comfort requirements of the individual zone.

DC INVERTER

Thanks to this newest technology, DUCTO and DUCTO MULTI have extremely low electrical consumption and perfect stability of functioning.

CONTROLS

Smart Touch controls of the highest aesthetic and functional level. Possibility of management through the INNOVA App, also remotely, via WiFi.



MODULATED AIR FLOW

Whilst standard “on off” products alternate silly air flows to complete stops, with DUCTO and DUCTO MULTI the air flow is at the same time effective and imperceptible.

ETHERNET / DOMOTICS

DUCTO and DUCTO MULTI can be integrated with the most complex and modern systems of remote management, thanks to its electronic boards that can be easily integrated with the most diffused building management system.

TWO VERSIONS

There are two control versions of DUCTO and DUCTO MULTI: Pi logic and modulating speed with WiFI or Modbus thermostat, speed control 0-10 V.

NOISELESS

The continuous modulating fan is progressively reducing the speed whilst reaching the set point, so to guarantee the perfect silence of operation.

DUCTO

The ductable fancoil

SIMPLICITY OF INSTALLATION
Centrifugal fan with constant flow rate that automatically adapts to the pressure drops of the channels.

DC INVERTER
Maximum comfort with lower consumption.

MODULATED AIR FLOW

SILENT OPERATION
Centrifugal fan with single motor impeller

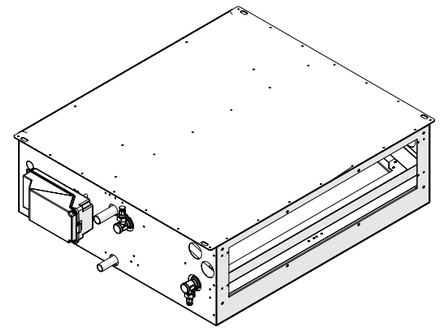
DUCTO, the smart fancoil

DUCTO (SLC) is the INNOVA high-efficiency ductable fancoil that automatically controls fan speed to guarantee a constant air flow and consequently constant comfort over time.

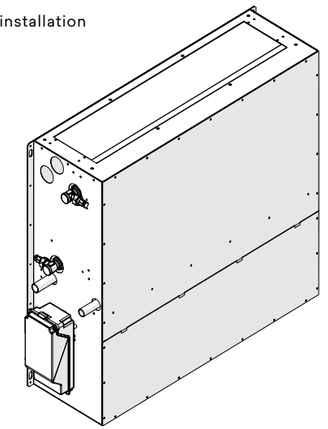
The fancoil perfectly fits into any wall or false ceiling with horizontal and vertical installation. The extremely quiet operation makes it the ideal model for any type of home.

A single product, two installations

Horizontal installation



Vertical installation



2

Configurations 0-10 V or modulating control

5

Sizes

1,9-6

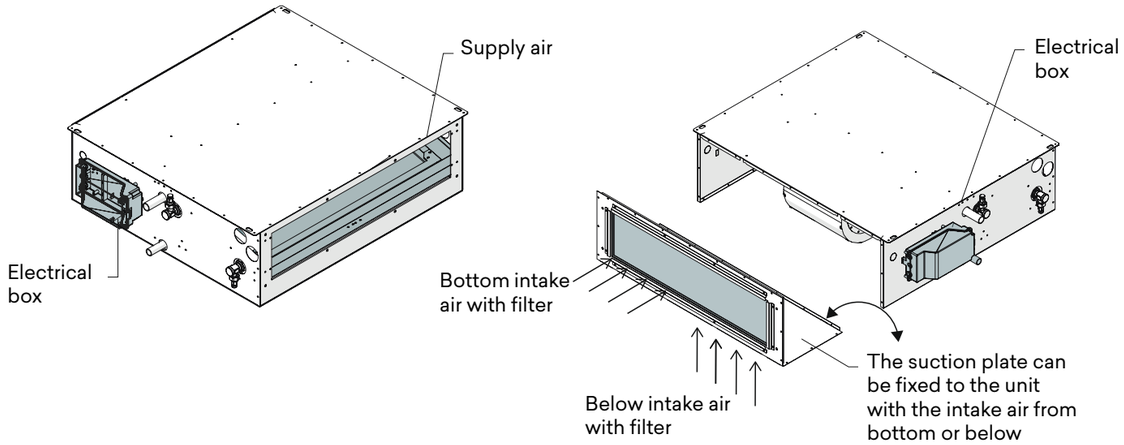
Cooling capacity (kW)

90-140

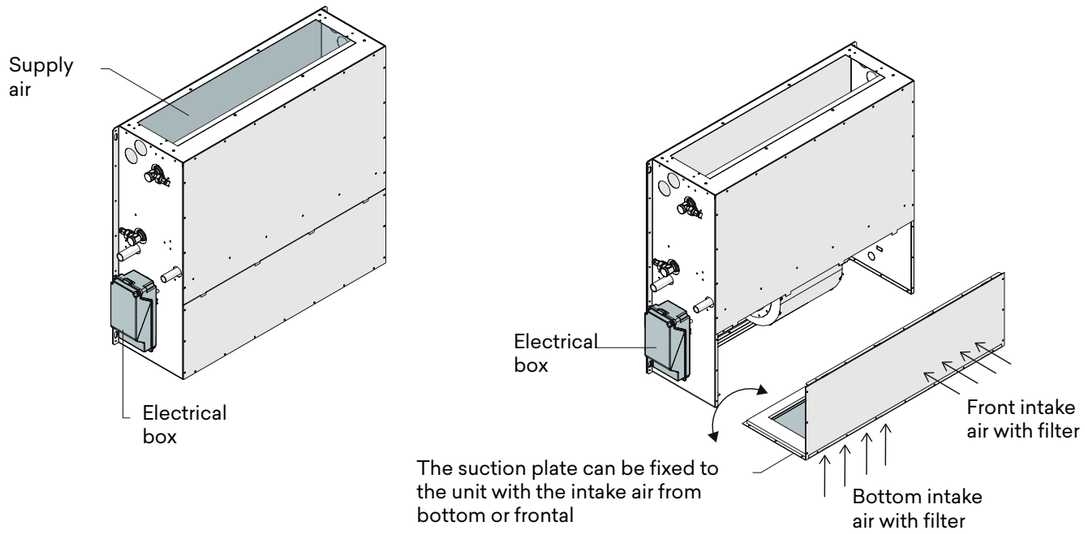
Useful pressure (Pa)

A single product suitable for any installation.

HORIZONTAL INSTALLATION



VERTICAL INSTALLATION



1

Fans

The unit is equipped with single motor centrifugal fans for each impeller. Low consumption DC inverter motor and integrated control that guarantees a constant flow rate.

2

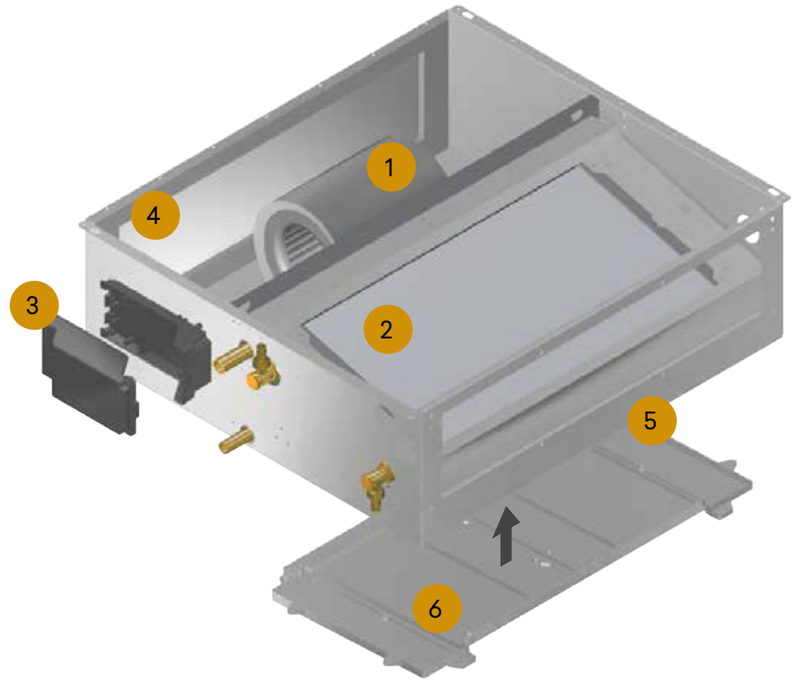
Heat exchanger

Copper aluminium Water to air heat exchanger with hydrophilic treatment fins.

3

Electrical box

Electrical box excluded from the air flow, with electronic main board control.



4

Reversibile suction plate with air filter

The suction plate can be fixed to the unit with the intake air from bottom or below. Filtration class ISO Coarse 80%.

5

Vertical Condensate tray

Allows the collection of condensate if the unit is installed vertically.

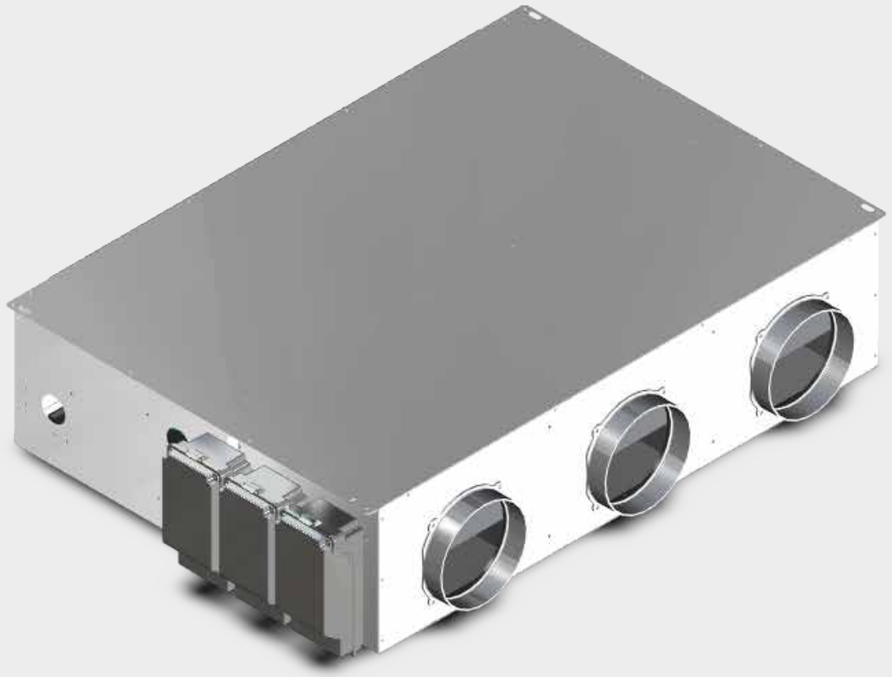
6

Horizontal Condensate tray

Allows the collection of condensate if the unit is installed horizontally.

DUCTO MULTI

The integrated multi-zone ductable fancoil



SIMPLICITY OF INSTALLATION
Centrifugal fans with a constant flow rate that automatically adapts to the pressure drop in the channels.

DC INVERTER
Maximum comfort with minimum consumption.

MULTI-ZONE CONTROL

QUIET OPERATION
Centrifugal fan with motor integrated in the impeller

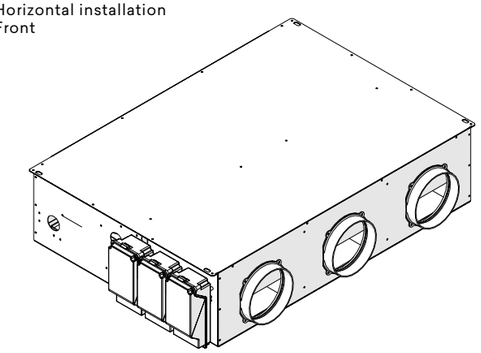
DUCTO MULTI, the intelligent fancoil with integrated multi-zone management.

DUCTO MULTI (SLC+) is the new high-efficiency ductable fancoil which, through integrated multi-zone management and the use of specific BLDC Brushless multi-fans for each zone, allows the independent management of the different thermal zones.

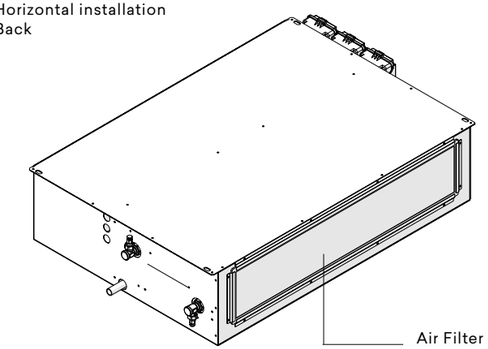
Differently from traditional zoning systems, DUCTO MULTI works with direct control over the air flow rate of individual rooms, which translates into advantages in terms of efficiency, comfort and noisiness.

A single product, for the management of multi-zone comfort

Horizontal installation
Front



Horizontal installation
Back



2
Configurations 0-10 V or modulating control

4
Sizes

3-8
Cooling capacity (kW))

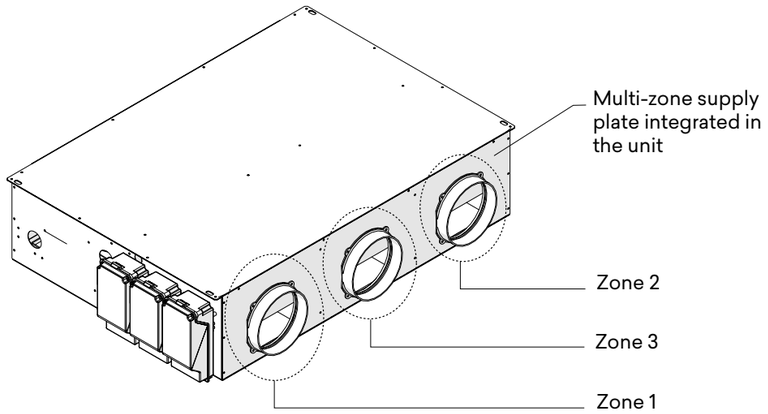
100
Useful pressure (Pa)

2-5
Number of zones

DUCTO MULTI a single product for multi-zone comfort management.

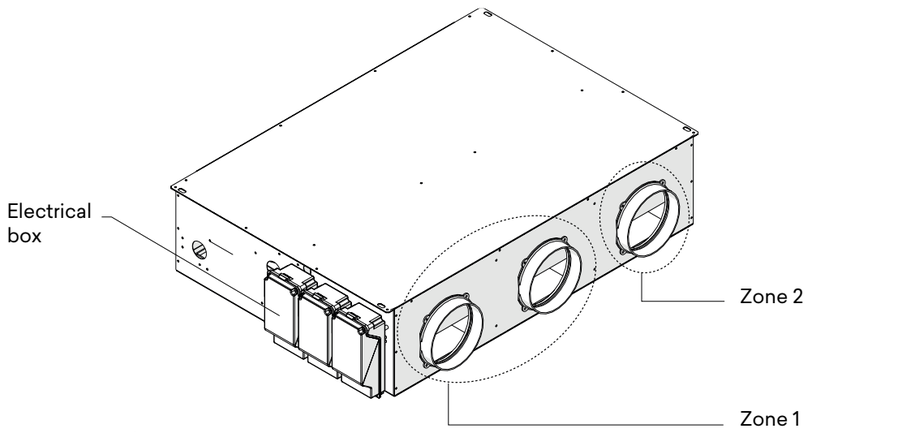
DUCTO MULTI works with direct control over the air flow in individual rooms, which results in advantages in terms of efficiency, comfort and silence.
Less vibration, more silence.

INSTALLATION WITH SINGLE OUTPUT ZONE COMBINATION

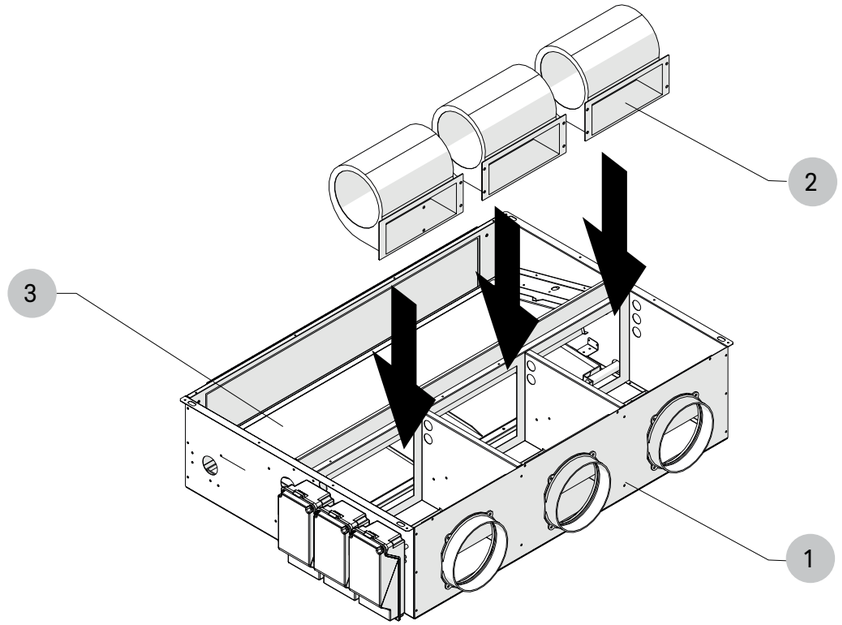


Example:
3 sends for 3 separate zones

INSTALLATION WITH MULTIPLE OUTLET ZONE COMBINATION



Example:
3 sends for 2 separate zones.
Zone 1 with dual channel
Zone 2 with single channel



1

Delivery plate

Delivery plate connected to the standard unit, no. of inlets depending on size.

No. of inlets depending on size:

SLC+ 600: 2 connections DN 160 mm
SLC+ 800: 3 connections DN 160 mm
SLC+ 1000: 4 connections DN 160 mm
SLC+ 1200: 5 connections DN 160 mm

2

Fans

Integrated multi-fans for independent management of the different zones.

3

Horizontal Condensate tray

Allows the collection of condensate if the unit is installed horizontally.

DUCTO MULTI

1

Fans

The unit is equipped with single motor centrifugal fans for each impeller. Low consumption DC inverter motor and integrated control that guarantees a constant flow rate.

2

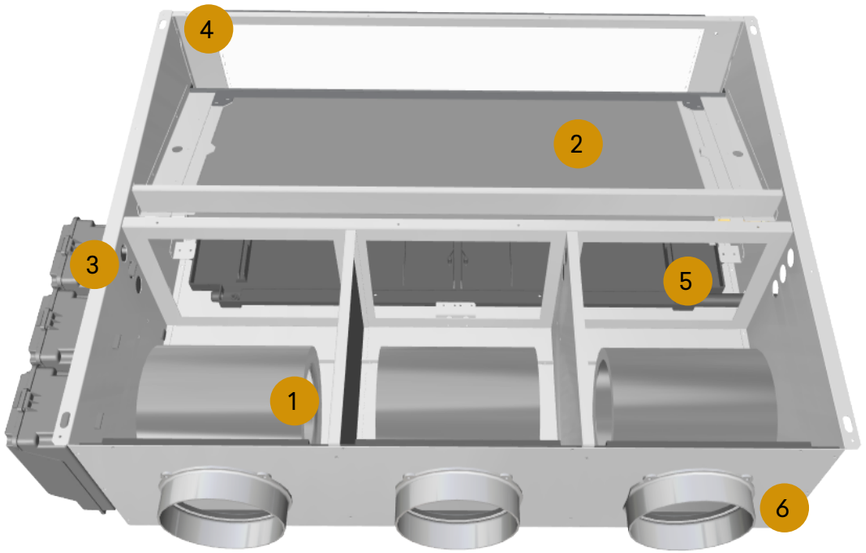
Heat exchanger

Copper aluminium Water to air heat exchanger with hydrophilic treatment fins.

3

Electrical box

Electrical box excluded from the air flow, with electronic main board control.



4

Suction plate whit ai filter

The suction plate can be fixed to the unit with the intake air from bottom or below. Filtration class ISO Coarse 80%.
(Accessory to be ordered separately).

5

Condensate tray

Allows the collection of condensate through the plastic tray.

6

Integrated supply plenum with circular outlets

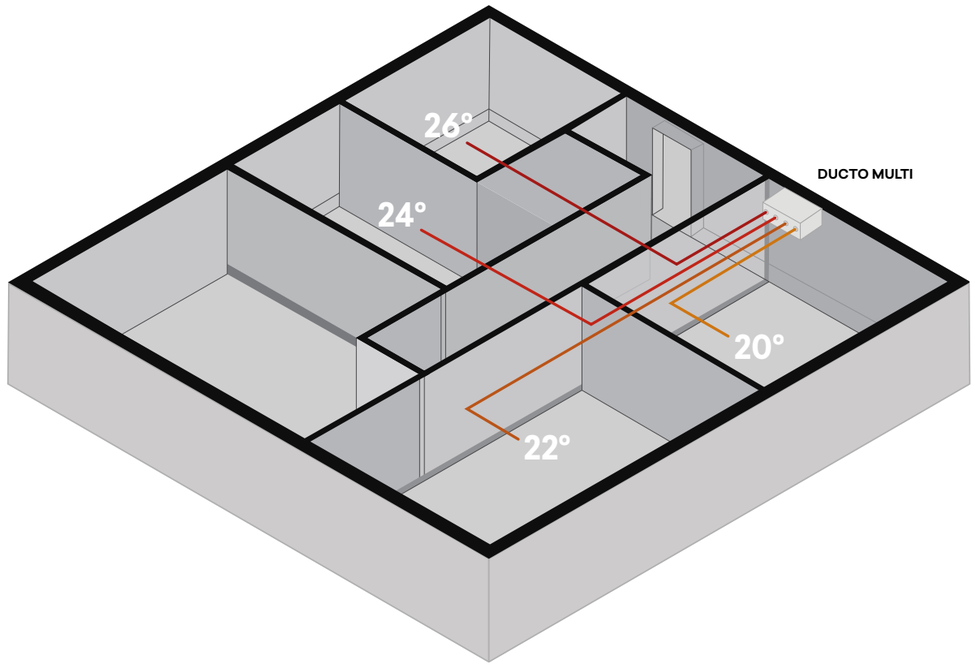
Circular discharge outlets DN 160, facilitate installation and simplify air connections.

Multi-fans for multi-zone management.

THERMALLY INDEPENDENT ZONES

DUCTO MULTI thanks to its multi-fans allows constant and precise regulation of the room temperature in several rooms/areas.

- Each zone/fan can be controlled by a wall control (with WiFi management via App) or by an external 0-10 V signal from thermostats or domotic systems.
- It is possible to control several fans by a single wall control or a single signal in the case of the need to provide ample zone coverage or higher heating/refrigeration requirements.



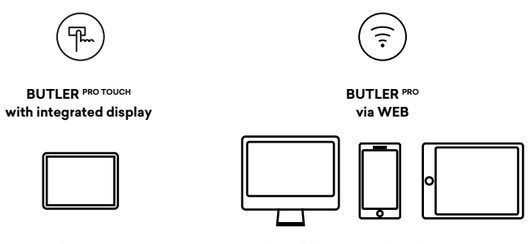
BUTLER PRO,
il controllo evoluto dell'impianto.

The BUTLER PRO web server is the system that INNOVA has developed to control an entire winter and summer air conditioning system from a local and remote network.
BUTLER PRO allows you to connect the heat pump, controlled mechanical ventilation system, fan coils and all the other system elements via a serial connection.
BUTLER PRO is complete, simple and intuitive at the same time: you can configure a weekly calendar with time zones, create specific zones and change the settings so your home is at the right comfort level for your needs.

TWO VERSIONS

BUTLER PRO
settings and display via smartphone / tablet / computer only with internet connection. Installation on a 35 mm DIN rail in the electrical cabinet of the heat pump or in the electrical cabinet of the house.

BUTLER PRO TOUCH
settings and display via the integrated 10" touch screen. Can be connected to the internet remotely via smartphone / tablet / computer. Recessed wall installation. The pre-installation box is supplied separately.

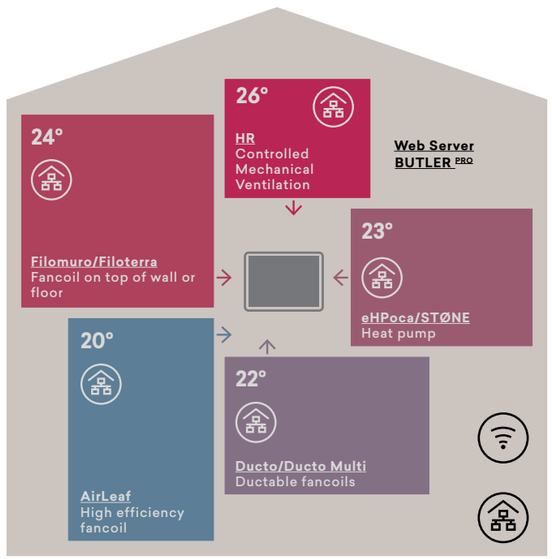


ROOM-BASED CONTROL

You can control each room with BUTLER by configuring a weekly calendar with time zones, creating settings for each room or area, modifying the settings so your home is at just the right comfort level for your needs.

TOTAL CONTROL

The advantage of choosing a complete INNOVA system is that, for any need, we are the only reference both for routine maintenance and for assistance purposes. A complete and high quality service.

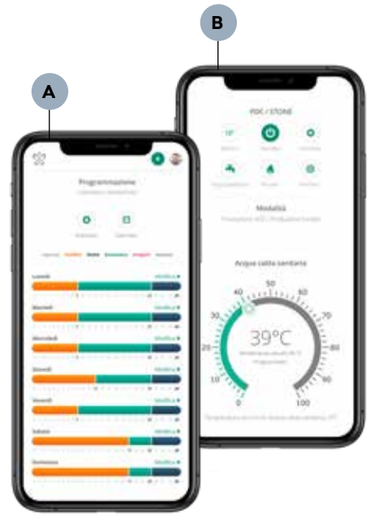


PRINCIPALI FUNZIONI

- **Supervision and control through local network or remotely**
  The system can be managed through a smartphone, tablet or computer
- **Summer and winter personalised programming**
  Different programmes can be set for each season
- **Setting of three temperature levels on the INNOVA fan coil network**
  For each room or zone it is possible to select 3 different work temperatures, which can be modified at any time
- **Weekly time programming**
  In each room it is possible to set different operating times
- **Etwork interface like the one on PCs**
  Once the bus network between the heat pump and the fan coils has been made, the connection with the Web server is the same as that of a normal computer
- **Remote assistance**
  With the user's consent, BUTLER can automatically access the INNOVA cloud for diagnostics and assistance in case of need

REMOTE ASSISTANCE

With the user's consent, BUTLER can automatically access the INNOVA cloud for diagnostics and assistance in case of need.
Thanks to the Internet connection, it is possible to verify remotely the correct operation of INNOVA products connected to the BUTLER. Any operating anomalies can be transmitted automatically from the BUTLER to the assistance centre which can in-tervene by modifying the functional parameters or decide to physically intervene by providing a quick and timely service.



A **WEEKLY SCHEDULING**

B **DOMESTIC HOT WATER SETTINGS**

Electronic controls.

DUCTO

Electronic board with continuous modulation for Smart Touch wall control connection

(Control installed and tested at the factory)

PI logic
Touch interface
Modulating speed
Controls up to 30 units
RS485 modbus port for BUTLER or BMS connection

cod:
EEA649II

cod:
EEB649II

cod:
EFA649II

cod:
EFB649II

<u>To be ordered separately</u>

There is a programmable digital input for window contact or remote summer/ winter switching

For connection of 0-10V remote inputs

(Control installed and tested at the factory)

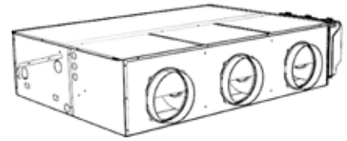
thermoregulation and control are managed by an external device (not supplied)

the fan speed is managed proportionally through the 0-10V signal

Analog input 0-10V

DUCTO MULTI

MULTI-ZONE MANAGEMENT



Electronic board with continuous modulation for Smart Touch wall control connection

(Control installed and tested at the factory)

PI logic
Touch interface
Modulating speed
Controls up to 30 units
RS485 modbus port for BUTLER or BMS connection

Order as many remote controls as zones (maximum 5 zones)

cod:
EEA649II

cod:
EEB649II

cod:
EFA649II

cod:
EFB649II

<u>To be ordered separately</u>

There is a programmable digital input for window contact or remote summer/winter switching

For connection of 0-10V remote inputs

(Control installed and tested at the factory)

thermoregulation and control are managed by an external device (not supplied)

the fan speed is managed proportionally through the 0-10V signal

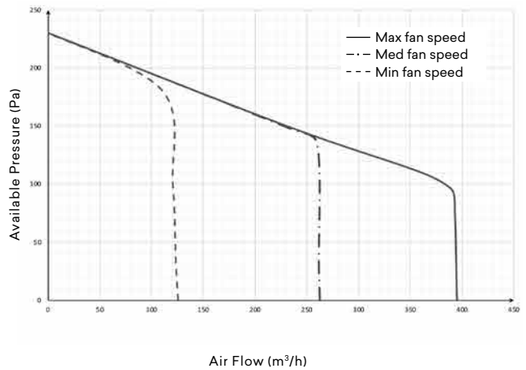
Provide as many 0-10 V inputs as zones (maximum 5 zones)

Analog input 0-10V

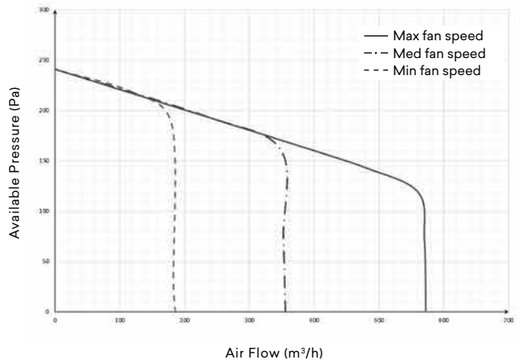
Fan performances.

DUCTO

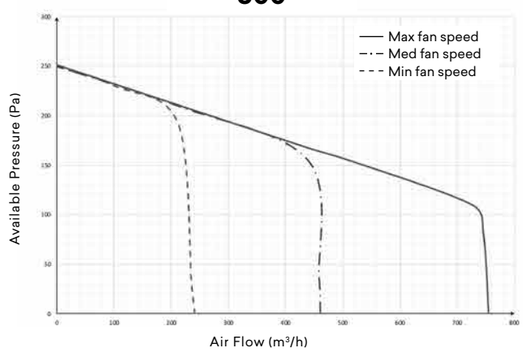
400



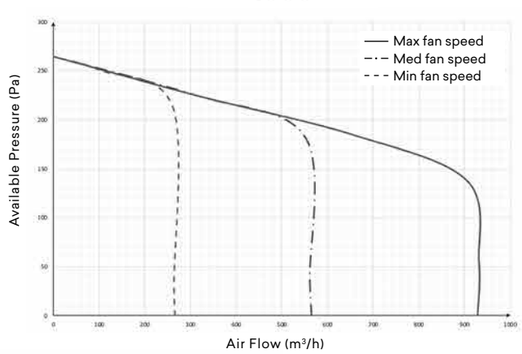
600



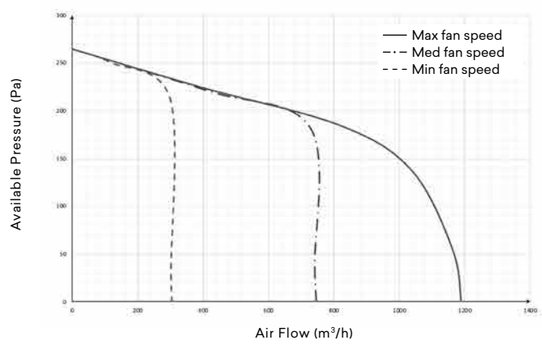
800



1000



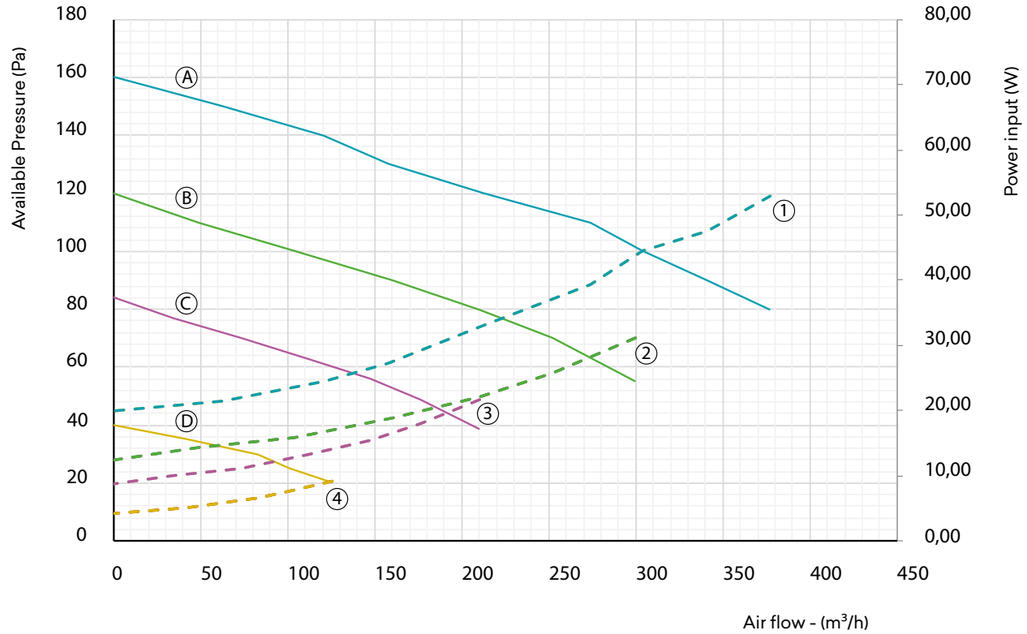
1200



Note: Usable static pressure net of internal pressure drop

DUCTO MULTI

Single fan curve



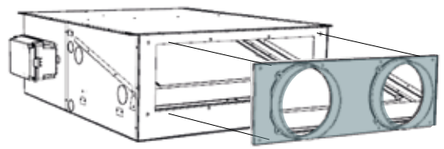
① Single fan consumption curve at maximum speed	Ⓐ Single fan flow rate-static pressure characteristic curve at maximum speed
② Single fan consumption curve at medium speed	Ⓑ Single fan flow rate-static pressure characteristic curve at medium speed
③ Single fan consumption curve at automatic speed	Ⓒ Single fan flow rate-static pressure characteristic curve at automatic speed
④ Single fan consumption curve at minimum speed	Ⓓ Single fan flow rate-static pressure characteristic curve at minimum speed

Installation accessories.

Air supply plate for DUCTO (for DUCTO MULTI it is already integrated in the unit)

Description

Air supply plate, for DUCTO (SLC) model, with circular inlets DN 160 mm. The inlets depend on the size of the unit, from 2 inlets for size 400 to 7 for size 1200.



Codes

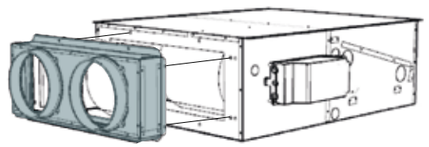
GR1100II - plate with 2 inlets for SLC 400
GR1101II - plate with 3 inlets for SLC 600
GR1102II - plate with 4 inlets for SLC 800
GR1103II - plate with 6 inlets for SLC 1000
GR1201II - plate with 7 inlets for SLC 1200

Air intake plate

Description

Air intake plate, for DUCTO (SLC) model, with circular inlets DN 160 mm. The inlets depend on the size of the unit, from 2 inlets for size 400 to 7 for size 1200.

Air intake plate, for DUCTO MULTI (SLC+) model with circular inlets DN 160 mm. The inlets depend on the size of the appliance, from 2 inlets for size 600 to 5 for size 1200.



Codes

GR1104II - plate with 2 inlets for SLC 400
GR1105II - plate with 3 inlets for SLC 600
GR1106II - plate with 4 inlets for SLC 800
GR1107II - plate with 6 inlets for SLC 1000
GR1200II - plate with 7 inlets for SLC 1200

GR1233II - plate with 2 inlets for SLC+ 600
GR1234II - plate with 3 inlets for SLC+ 800
GR1235II - plate with 4 inlets for SLC+ 1000
GR1236II - plate with 5 inlets for SLC+ 1200

Aspiration grid

Description

Aluminium suction grid with removable filter, colour white. Dimensions 450x225 mm

Codes

GR1120II - for SLC and SLC+

Delivery grille

Description

Aluminium delivery grille with double row of orientable fins, colour white.
Dimensions: 450x225 mm

Codes
GR1119II - for SLC and SLC+

Replacement filters

Description

Replacement filters

Codes

GR1226II - for SLC 400
GR1227II - for SLC and SLC+ 600
GR1228II - for SLC and SLC+ 800
GR1229II - for SLC and SLC+ 1000
GR1230II - for SLC and SLC+ 1200

Alufonic insulated hose

Description

Alufonic insulated hose DN 160 mm. Microperforated to reduce air passage noise. Polyester fibre heat insulating coating. External protection in aluminised film.

Codes

GR0945II - for SLC and SLC+

Universal insulated steel plenum for one box system

Description

Insulated plenum for supply/return with 2 inlets DN 160 mm, 1 plug DN 160 mm and grid connection.
Dimensions: 450x175x175 mm

Codes

GR1118II - for SLC and SLC+

Motor connection cable for moving hydraulic connections

Description

Hydraulic connection reversal kit

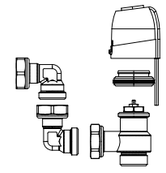
Codes

BB0646II - for SLC and SLC+

Hydraulic units and fittings

Description

2-way valve unit (inlet valve and lockshield) with thermoelectric motor.



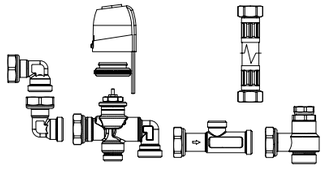
Codes

V20139II - for SLC and SLC+

Hydraulic units and fittings

Description

3-way deviator valve unit with thermoelectric motor (complete with 3-way inlet valve and lockshield).



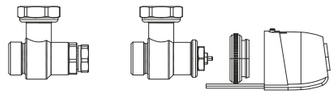
Codes

V30361II - for SLC and SLC+

Hydraulic units and fittings

Description

Manual 2-way valve unit



Codes

I20205II - for SLC and SLC+

Technical data sheets

Models		u.m.	DUCTO 400	DUCTO 600	DUCTO 800	DUCTO 1000	DUCTO 1200
COOLING PERFORMANCES (W 7/12 °C; A 27 °C)							
Total cooling capacity	(1)	kW	1,91	3,01	3,49	4,40	5,90
Sensible cooling capacity	(1)	kW	1,42	2,20	2,83	3,60	4,20
Water flow	(1)	L/h	330	520	605	760	1000
Pressure drop	(1)	kPa	4,0	11,0	21,0	14,0	16,0
HEATING PERFORMANCES (W 45/40 °C; A 20 °C)							
Heating capacity	(2)	kW	2,30	3,20	3,90	5,30	6,20
Water flow	(2)	L/h	392	555	673	910	1100
Pressure drop	(2)	kPa	7,5	11,4	22,3	16,0	19,0
HEATING PERFORMANCES (A 20 °C; W 35 °C)							
Heating capacity		kW	0,96	1,89	2,61	3,21	3,60
Water flow		L/h	166	328	453	556	620
Pressure drop		kPa	2,7	4,5	10,0	7,0	9,0
HYDRAULIC DATA							
Battery water content		L	0,80	1,13	1,46	1,80	2,14
Maximum operating pressure		bar	10	10	10	10	10
Hydraulic connections		“ EK	3/4	3/4	3/4	3/4	3/4
AERAULIC DATA							
Air flow at maximum speed	(3)	m³/h	390	560	730	905	1150
Air flow at medium speed		m³/h	260	350	440	550	750
Air flow at minimum speed		m³/h	120	180	240	260	280
Maximum available static pressure		Pa	90	130	110	140	140
ELECTRICAL DATA							
Power supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Power input at minimum speed		W	22	38	42	45	50
Power input at maximum speed		W	75	95	170	230	260
Maximum current consumption		A	0,70	1,30	1,30	1,50	1,90
SOUND DATA							
Maximum sound power		dB(A)	55	59	61	63	65
Sound pressure level at maximum air flow	(4)	dB(A)	43	46	48	49	50
Sound pressure at medium air flow	(4)	dB(A)	37	39	41	43	45
Sound pressure at minimum air flow	(4)	dB(A)	30	31	34	37	38
PRODUCT DIMENSIONS AND WEIGHTS							
Total width		mm	590	790	990	1190	1440
Total height		mm	240	240	240	240	240
Total depth		mm	690	690	690	690	690
Net weight		kg	32,0	42,0	46,0	54,0	65,0

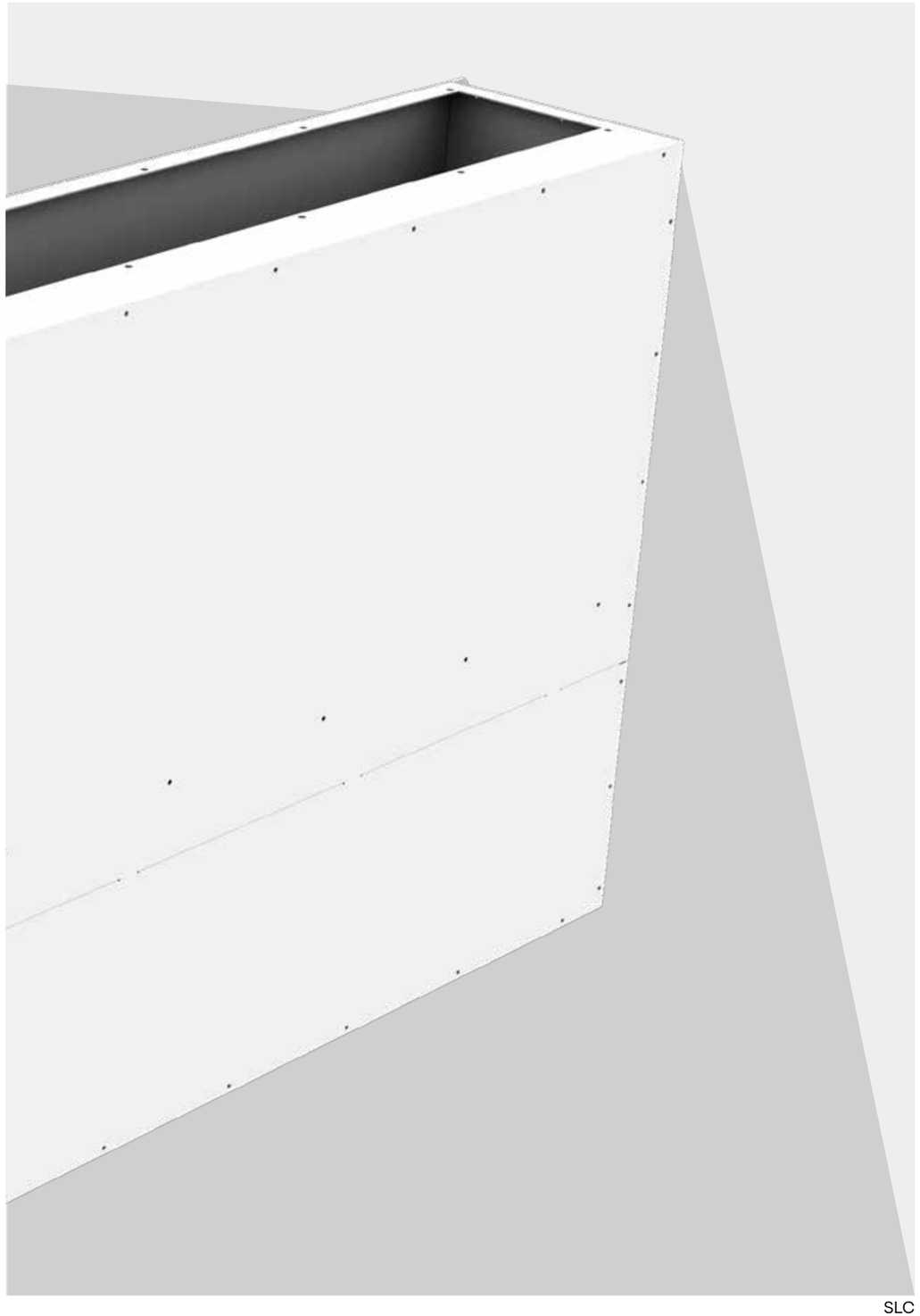
(1) Water temperature at battery inlet 7 °C, Water temperature at battery outlet 12 °C, Ambient air temperature 27 °C b.s. and 19 °C b.u. (according to EN 1397)
(2) Water temperature at battery inlet 45 °C, Water temperature at battery outlet 40 °C, Ambient air temperature 20 °C b.s. and 15 °C b.u. (according to EN 1397)
(3) Air flow measured with clean filters
(4) Sound pressure measured at a distance of 1 metre according to ISO7779

Technical data sheets

Models		u.m.	DUCTO MULTI 600	DUCTO MULTI 800	DUCTO MULTI 1000	DUCTO MULTI 1200
COOLING PERFORMANCES (W 7/12 °C; A 27 °C)						
Total cooling capacity	(1)	kW	3,80	5,50	7,20	8,10
Sensible cooling capacity	(1)	kW	2,70	3,90	5,10	6,10
Water flow	(1)	L/h	600 (2)	950 (2)	1200 (2)	1400 (2)
Pressure drop	(1)	kPa	29,0	21,0	19,0	11,0
HEATING PERFORMANCES (W 45/40 °C; A 20 °C)						
Heating capacity	(3)	kW	3,90	5,70	7,40	9,00
Water flow	(3)	L/h	610	980	1300	1570
Pressure drop	(3)	kPa	29,0	22,0	21,0	12,0
SINGLE ZONE PERFORMANCE (4)						
Total cooling capacity	(1)	kW	2,10	2,10	2,10	2,10
Sensible cooling capacity	(1)	kW	1,50	1,50	1,50	1,50
Heating capacity		kW	2,20	2,20	2,20	2,20
HYDRAULIC DATA						
Battery water content		L	1,13	1,46	1,80	2,14
Maximum operating pressure		bar	10	10	10	10
Hydraulic connections		“ EK	3/4	3/4	3/4	3/4
AERAULIC DATA						
Maximum air flow rate	(5)	m³/h	600	900	1200	1500
Useful pressure		Pa	100	100	100	100
Air flow at maximum speed	(6)	m³/h	300	300	300	300
Air flow at medium speed	(6)	m³/h	205	205	205	205
Air flow at minimum speed	(6)	m³/h	60	60	60	60
ELECTRICAL DATA						
Power supply	(7)	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50
Power input at minimum speed	(7)	W	13	13	13	13
Power input at maximum speed	(7)	W	190	280	370	460
Maximum current consumption	(7)	A	0,70	1,40	2,10	2,80
SOUND DATA						
Maximum sound power		dB(A)	60	61	62	64
Sound pressure level at maximum air flow	(8)	dB(A)	46	48	49	51
Sound pressure at medium air flow	(8)	dB(A)	37	39	41	43
Sound pressure at minimum air flow	(8)	dB(A)	28	30	32	34
PRODUCT DIMENSIONS AND WEIGHTS						
Total width		mm	790	990	1190	1440
Total height		mm	240	240	240	240
Total depth		mm	690	690	690	690
Net weight		kg	43,0	47,0	56,0	67,0

(1) Water temp. at battery inlet 7 °C, Water temp. at battery outlet 12 °C, Ambient air temp. 27 °C b.s. and 19 °C b.u. (according to EN 1397)
(2) Consider the measures required to supply the terminal with the specified capacity.
(3) Water temp. at battery inlet 45 °C, Water temp. at battery outlet 40 °C, Ambient air temp. 20 °C b.s. and 15 °C b.u. (according to EN 1397)
(4) The performance of a single zone refers to a single working fan.
(5) Air flow measured with clean filters.
(6) Referring to individual zone.
(7) Data for all fans in operation.
(8) Sound pressure measured at a distance of 1 metre according to ISO7779.

SLC



SLC

SLC+

SLC

CREDITS

Graphic
INNOVA
Photography
Ottavio Tomasini
Special thanks to:
Akira Nishikawa

Ideas that become reality.

innova

INNOVA s.r.l.
Via 1° Maggio, 8
38089 Storo (Tn)
Tel. +39 0465 670104
Fax: +39 0465 674965
info@innovaenergie.com

www.innovaenergie.com

Edition 2022/1