Lamborghini CALORECLIMA



Energy-saving products and systems

Lamborghini CaloreClima

Product Catalogue

2023/2024

IMPORTANT

For installation of room sealed and forced flue boilers and water heaters, use Lamborghini CaloreClima original flue gas kits and accessories. Whenever original flue gas accessories are not used, Lamborghini CaloreClima will not be held liable in case of anomalies that could jeopardise the function and safety of the system.

This document includes international standard products and codes. Some products and accessories may differ or not be available in particular geographical areas. For product and code confirmation, commercial conditions, delivery time and eventual minimum lots etc, please refer to Lamborghini CaloreClima's commercial rapresentatives. Application of accessories to be checked on respective installation manuals.

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Lamborghini CALORECLIMA



Wall hung boilers

- Wall hung condensing boilers
- Wall hung traditional boilers





Control panel



1. User menu
2. Connection status
3. Pressure status
4. System pressure
5. ECO mode on/off
6. Date and time
7. Flame present in DHW mode
8. Flame present in Heating mode
9. DHW temperature
10. Heating temperature
11. Increase DHW temperature
12. Increase Heating temperature
13. Decrease DHW temperature
14. Decrease Heating temperature
15. Boiler on/off selection
16. Heating on/off selection
17. Help

Raggio

Wall hung condensing boilers instantaneous DHW production

- Aesthetics with exclusive lines (Patent) that radically remodel the aesthetic concept by using tempered crystal and having geometric shapes
- Wide range of optional **accessories** available: kit **remote control** Wi-Fi CONNECT controlled via App, **hydraulic connection kit** (5 pipes, 4 valves), **fitting cover** casing
- **Boiler** with extra thick **stainless steel** primary exchanger, with large passes guaranteeing duration and reduced maintenance
- **High head, enhanced modulating heating circulator** on all models also able to adapt to particularly resistant systems
- **Low consumption modulating pump (ErP Ready - Class A)**
- **Standard semi-automatic system electro-charging**
- **Enhanced DHW exchanger with high number of plates**, particularly immune to clogging and able to maintain constant DHW production capacity over time
- A+ SYSTEM : being combined with the **CONNECT** modulating remote control, and the outdoor temperature reading directly from the internet, it reaches the maximum **energy efficiency A+** (scale from G to A+++)
- It easily adapts to the load conditions thanks to the **broad modulating range** that can reach **1:12** (mod. 34C, 1:10 mod. 28C)
- **Ready to operate with natural gas mixtures enriched with hydrogen**
- **MC²:** Multi Combustion Control, new combustion system with gas-adaptive patented technology for better adaptability of use to the varying gas mains conditions
- **M.G.R:** Methane, LPG, Propane-air Ready with a simple configuration the boiler can run on natural gas, LPG without the use of any additional conversion kits
- **Exclusive exchanger-burner system with self-cooling door:** it simplifies maintenance and lowers the cost thanks to a lower number of parts that need replacing
- **7" colour touch-screen graphic display**
- Prompt display of the operation status thanks to the front **multicolour LED**
- **Designed to simplify and make normal maintenance and cleaning steps easier** thanks to easy access to the internal parts
- **EASY WIRING:** Simplified electric wiring that does not require removing the boiler's casing thanks to direct access to the external connection terminal board available on the lower part of the device.

Boiler code	Boiler model
0TSB4MWD	**RAGGIO 28 C (M/GPL)**
0TSB7MWD	**RAGGIO 34 C (M/GPL)**
Boiler + remote control CONNECT	
Boiler code	Boiler model
0TSB4CWD	**RAGGIO 28 C (M/GPL)+CONNECT**
0TSB7CWD	**RAGGIO 34 C (M/GPL)+CONNECT**

Raggio			28 C	34 C
ERP Class (*) boiler + CONNECT remote control		(Class G - A++)	A / A+ (*)	A / A+ (*)
		(Class G - A)	XL A	XXL A
Heating max / min heat input	kW		24.5 / 2.9	30.6 / 2.9
Heating max / min heat output (80/60°C)	kW		24 / 2.8	30 / 2.8
Heating max / min heat output (50/30°C)	kW		26 / 3.1	32.5 / 3.1
DHW max / min heat input (Hi)	kW		28.5 / 2.9	34.7 / 2.9
DHW max / min heat output	kW		28.0 / 2.8	34.0 / 2.8
Efficiency Pmax / Pmin (80-60°C) (Hi)	%		98.1 / 98	97.9 / 98
Efficiency Pmax / Pmin (50-30°C) (Hi)	%		106.1 / 107.5	106.1 / 107.5
Efficiency 30% (Hi)	%		109.7	109.5
Max / min heating operating pressure	bar		3 / 0.8	3 / 0.8
DHW max / min operating pressure	bar		9 / 0.3	9 / 0.3
DHW flow rate Δt 25°C	l/min		16.1	19.5
DHW flow rate Δt 30°C	l/min		13.4	16.2
Empty weight	kg		28	32

Hydraulic and control accessories

	Code	Description
	013011XD	CONNECT, wifi modulating remote control with programmable thermostat function
	046049X0	galvanised template
	012043W0	kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets

	Code	Description
	012049W0	kit for connection of 5 pipe fittings nb: the kit does not include taps and connection nipples
	046057X0	fitting cover kit
	013002X0	thermostatic mixer kit 1/2" connections

Coaxial accessories for flues 60/100

	Code	Description
	041095X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm
	041096X0	coupling for vertical coaxial pipe ø 100/60 mm
	041097X0	90° coaxial bend, ø 60/100 mm
	041098X0	45° coaxial bend, ø 60/100 mm
	041099X0	coaxial extension, L=1000 mm M-F, ø 60/100 mm
	041100X0	coaxial terminal pipe, L=1000 mm, ø 60/100 mm, includes wall gasket

Separate accessories for flues 80/80

	Code	Description
	041101X0	discharge kit twin pipes 80/80 complete with test point
	041102X0	90° bend, ø 80 mm, M-F
	041103X0	45° bend, ø 80 mm, M-F
	041104X0	terminal pipe, L=1000 mm, M-F, ø 80 mm
		accessories in white colour, see page FLUES CHIMNEY ACCESSORIES CONDENSING GAS BOILERS



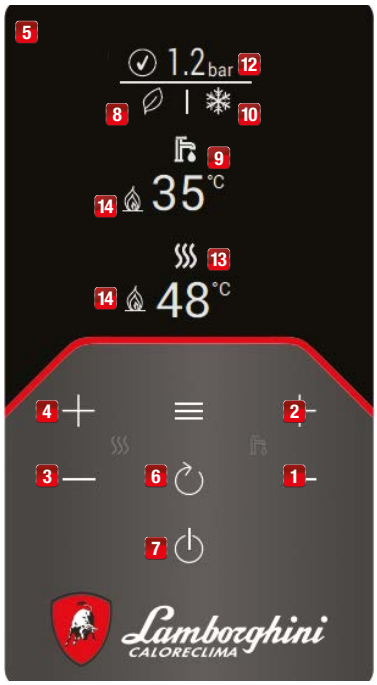


Alhena Tech

Wall hung condensing boilers with instantaneous domestic hot water production

- **Boiler** with high thickness stainless steel primary heat exchanger, with large passes (the largest in the category) guaranteeing duration and reduced maintenance, it maintains high efficiency even on old systems with oxidation and soiling
- A+ SYSTEM : being combined with the **CONNECT** modulating remote control, and the outdoor temperature reading directly from the internet, it reaches the **maximum energy efficiency** + (scale from G to A^{+++})
- **Class 6 NOx:** already in compliance with the requirements of the ErP regulation of 26.09.2018 (NOx emissions < 56mg/kWh)
- **MC²: M**ulti **C**ombustion **C**ontrol, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (e.g. pressure fluctuations or drops)
- **M.G.R: M**ethane **L**PG **R**eady, with a simple configuration the boiler can run on methane or LPG without using additional conversion kits
- Exclusive exchanger-**burner system with self-cooling door:** it simplifies maintenance and lowers the cost thanks to a lower number of consumable parts
- **Instantaneous production** of domestic hot water with a dedicated DHW plate exchanger (only for version C)
- **Hydraulic fittings** covered by the boiler casing
- Large **multi-purpose backlit** graphic display to set parameters easily and correctly
- **Bypass** as per standard
- It easily adapts to the load conditions thanks to the **broad modulating range** that can reach 1:10 (1:10 mod. 34 C, 1:9 mod. 28 C, 1:7 mod 24 C).
- **Particularly suitable for operation in flues requiring "heavy duty" pipes thanks to approval for operation with 50mm diameter flue outlets**
- **F.P.S: F**lue gas **P**rotection **S**ystem. The **flue gas check valve** provided as per standard offers easy connection to pressurised collective flue systems (e.g. in restructuring), in accordance with regulation UNI 7129
- Designed to **simplify and make normal** maintenance and cleaning **steps easier**
- **Solar system set-up:** set up for the production of domestic hot water combined with solar panel systems
- **ECO function** in DHW mode for more savings when hot water is not really used only for version C)
- **Digital flame control** with three ignition attempts if operation gets blocked due to failed flame detection (only in natural gas mode)
- **Place of installation:** also outdoors, in a partially protected place down to -5°C as per standard and even -15°C with the addition of the optional antifreeze heaters kit

Regulation and control panel



1. Decrease DHW temperature
2. Increase DHW temperature
3. Decrease Heating temperature
4. Increase Heating temperature
5. Display
6. Return key
7. "Winter", "Summer", "Appliance OFF", "ECO", "COMFORT" mode selection key
8. ECO mode on / off
9. DHW mode indication
10. "Summer" / "Winter" indication
11. Menu / Confirmation key
12. System pressure indication
13. Heating indication
14. Burner on indication

Boiler code	Boiler model
0T4B2AWD	**ALHENA TECH 24 C (M/GPL)**
0T4B4AWD	**ALHENA TECH 28 C (M/GPL)**
0T4B7AWD	**ALHENA TECH 34 C (M/GPL)**
0T4D4AWD	**ALHENA TECH 28 H (M/GPL)**
0T4D7AWD	**ALHENA TECH 34 H (M/GPL)**
0T4D9AWD	**ALHENA TECH 45 H (M/GPL)**

ALHENA TECH		24 C	28 C	34 C	28 H	34 H	45 H
ERP Class	(Class G - A++)	A	A	A	A	A	A
	(Class G - A)	XL A	XL A	XXL A	-	-	-
Heating max /min heat input	kW	20.4 / 3.5	24.5 / 3.5	30.6 / 3.5	28.5 / 3.5	34.7 / 3.5	43.9 / 6.4
Heating max /min heat output (80/60°C)	kW	20.0 / 3.4	24.0 / 3.4	30.0 / 3.4	27.9 / 3.4	34.0 / 3.4	42.9 / 6.3
Heating max /min heat output (50/30°C)	kW	21.6 / 3.8	26.0 / 3.8	32.5 / 3.8	30.2 / 3.8	36.8 / 3.8	46.5 / 6.9
DHW max heat input (Hi)	kW	25.0	28.5	34.7	-	-	-
DHW min heat input (Hi)	kW	3.5	3.5	3.5	-	-	-
DHW max / min heat output	kW	24.5 / 3.4	28.0 / 3.4	34.0 / 3.4	-	-	-
Pmax / Pmin efficiency (80-60°C) (Hi)	%	98.1 / 98.0	98.1 / 98.0	97.9 / 98.0	98.1 / 98.0	97.9 / 98.0	97.8 / 98.0
Pmax / Pmin efficiency (50-30°C) (Hi)	%	106.1 / 107.5	106.1 / 107.5	106.1 / 107.5	106.1 / 107.5	106.1 / 107.5	106.1 / 107.6
Efficiency 30%	%	109.7	109.7	109.5	109.5	109.5	109.5
Max / Min heating working pressure	bar	3 / 0.8	3 / 0.8	3 / 0.8	3 / 0.8	3 / 0.8	3 / 0.8
Max heating temperature	°C	95	95	95	95	95	95
DHW max / min working pressure	bar	9 / 0.3	9 / 0.3	9 / 0.3	-	-	-
DHW flow rate Δt 25°C / Δt 30°C	l/min	14 / 11.7	16.1 / 13.4	19.5 / 16.2	-	-	-
Empty weight	kg	28	28	32	28	32	35
No. of pieces/pallet	nr.	10	10	10	10	10	10

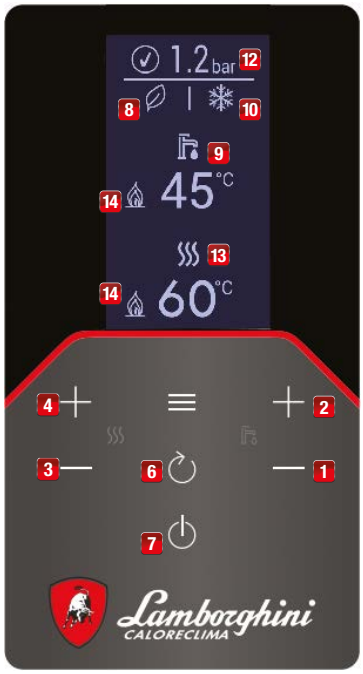
Accessories on demand

	Code	Description
	046049X0	galvanised template
	012043W0	kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets
	012048W0	kit for connection of fittings complete with gas valve with cone, DHW tap, pipes, nipple, gaskets
	012049W0	kit for connection of 5 pipe fittings nb: the kit does not include taps and connection nipples
	013002X0	thermostatic mixer kit 1/2" connections
	013018X0	Outdoor probe kit
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
	041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
	041082X0	Kit for 80/80 twin pipes discharge for condensing boilers complete with test point
	013022X0	Auxiliary antifrost kit down to -15°C

	Code	Description
	041086X0	Extension 1 m ø 50 twin pipes
	041085X0	Bend 90° ø 50 twin pipes
	041087X0	Reduction from ø 80 to ø 50 twin pipes (1 piece)



Regulation and control panel



1. Decrease DHW temperature
2. Increase DHW temperature
3. Decrease Heating temperature
4. Increase Heating temperature
5. Display
6. Return key
7. “Winter”, “Summer”, “Appliance OFF”, “ECO”, “COMFORT” mode selection key
8. ECO mode on / off
9. DHW mode indication
10. “Summer” / ”Winter” indication
11. Menu / Confirmation key
12. System pressure indication
13. Heating indication
14. Burner on indication

Boiler code	Boiler model
0T4T4AWD	**ALHENA TECH 28 K 50 (M)**
0T4T7AWD	**ALHENA TECH 34 K 50 (M)**

Alhena Tech K 50

Wall hung condensing boilers with instantaneous domestic hot water production

- Boiler with high thickness stainless steel primary heat exchanger, with large passes (the largest in the category) guaranteeing duration and reduced maintenance, it maintains high efficiency even on old systems with oxidation and soiling
- A+ SYSTEM: combined with the modulating remote control and the external probe (optional) it reaches the top efficiency class A+ (scale from G to A+++)
- It easily adaptsto the load conditions thanks to the broad modulating range that can reach 1:10 (mod. 34)
- MC²: Multi Combustion Control, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (e.g. pressure fluctuations or drops)
- M.G.R: Methane, LPG, Propane-Air Ready with a simple configuration the boiler can run on methane, LPG and propane-air without the use of any additional conversion kits
- Exclusive exchanger-burner system with self-cooling door: it simplifies maintenance and lowers the cost thanks to a lower number of parts that need replacing.
- DHW production with 50-litre stainless steel storage tank
- Set-up for recirculation fittings (provided with the accessory: fitting connection kit)
- Hydraulic fittings covered by the boiler shell
- Large multi-purpose backlit graphic display to set parameters easily and correctly
- Bypass as per standard
- Particularly suitable for operation in flues requiring “heavy duty” pipes thanks to approval for operation with 50mm diameter flue outlets
- F.P.S: Flue gas Protection System. The flue gas check valve provided as per standard offers easy connection to pressurised collective flue systems (e.g. in restructuring), in accordance with regulation UNI 7129
- Designed to simplify and make normal maintenance and cleaning steps easier
- Antilegionella function with programmable timing
- Timed block protection for circulator and three-way valve
- Sliding temperature operating mode through external probe (optional)
- Low consumption modulating heat pump (ErP Ready - Class A)

Accessories on demand

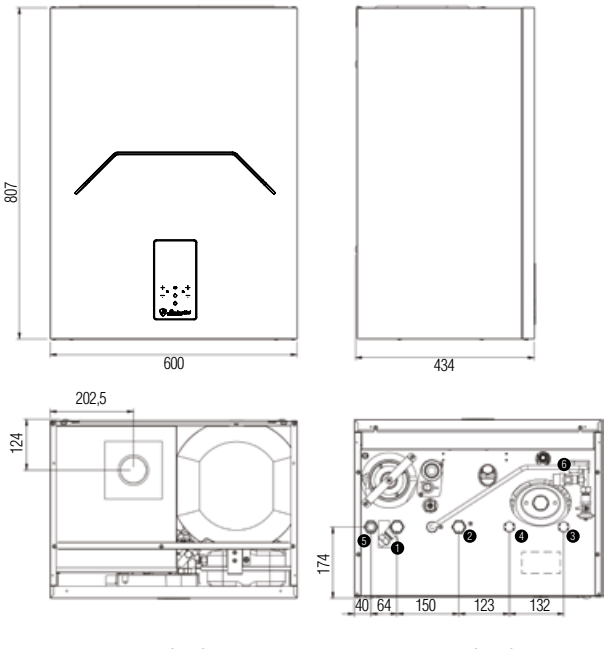
	Code	Description
	012045W0	kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets, recirculation fitting
	013018X0	Outdoor probe kit
	013002X0	Thermostatic mixer kit 1/2” connections
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
	041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
	041082X0	discharge kit twin pipes 80/80 for condensing boilers complete with test point

MODEL			28 K 50	34 K 50
ERP Class		(Class G - A++)	A	A
		(Class G - A)	XL A	XXL A
Heat input (LCV)	Heating Min / Max DHW Max	kW kW	3.5 / 24.5 28.5	3.5 / 30.6 34.7
Heat output 80°C-60°C Heat output 50°C-30°C	Heating Min / Max DHW Max Heating Min / Max	kW kW kW	3.4 / 24.0 28.0 3.8 / 26.0	3.4 / 30.0 34.0 3.8 / 32.5
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.1 / 98.0 106.1 / 107.5 109.7	97.9 / 98.0 106.1 / 107.5 109.6
NOx emissions class (EN 15502-1)		class	6	6
Storage tank capacity		litres	50	50
Domestic hot water production	ΔT 30°C ΔT 30°C	l/10 min l/h	161 831	195 1005
Heating operating pressure	Max	bar	3	3
DHW operating pressure	Max	bar	9	9
Empty weight		kg	62	65
No. of pieces/pallets		no.	6	6

Accessories for flues diameter ø 50 mm

	DESCRIPTION	CODE
	Extension 1 m ø 50 twin pipes	041086X0
	Bend 90° ø 50 twin pipes	041085X0
	Reduction from ø 80 to Ø 50 twin pipes (1 piece)	041087X0

Dimensions (in mm)



1	Heating system flow	3/4”
2	Heating system return	3/4”
3	DHW outlet	1/2”
4	DHW inlet	1/2”
5	Gas inlet	3/4”
6	Heating safety valve discharge	-





Alhena

Wall hung condensing boilers with instantaneous DHW production

- Boiler with single-circuit stainless steel primary exchanger without joints and/or welding, it maintains high efficiency even in old systems
- MC²: Multi Combustion Control, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (e.g. pressure fluctuations or drops)
- M.L.R: Methane, Lpg, Propane-Air Ready, with a simple configuration the boiler can run on methane, LPG and propane-air without the use of any additional conversion kits
- Instantaneous production of domestic hot water with a dedicated DHW plate exchanger
- User interface with display and multi-purpose keys to adjust and set the parameters
- Bypass as per standard
- Solar system set-up: set-up for the production of domestic hot water combined with solar panel systems
- Flue ducting: particularly suitable for operation in flues requiring “heavy duty” pipes thanks to approval for operation with 50mm diameter flue outlets
- Minimum polluting emissions (class 6 according to EN 15502-1)
- Sliding temperature operating mode through outdoor probe (optional)
- Low consumption modulating circulator (ErP Ready - Class A)
- A+ SYSTEM : (for mod. 28C and 34C) combined with the modulating remote control CONNECT, it reaches the top efficiency class A⁺ (scale from G to A⁺⁺⁺)
- User interface with display and multi-purpose keys to adjust and set the parameters
- Digital flame control with three ignition attempts if operation gets blocked due to failed flame detection (methane mod.)
- Place of installation: also outdoors, in a partially protected place down to -5°C as per standard and even -15°C with the addition of the optional antifreeze heaters kit
- Removable casing into three pieces for easier maintenance or inspection.
- F.P.S.: Flue gas Protection System. The optional flue gas accessory (041106X0 - Exhaust gas check valve kit), which can be installed outside the boiler, allows an easy connection to pressurised collective flue systems (e.g. in restructuring), in accordance with the UNI 7129 standard
- NOTE: the kit cannot be used in recessed installations.

Regulation and control panel

1. Key to increase/decrease domestic hot water storage tank temperature (opt.)
2. Key to increase/decrease central heating temperature
3. Display
4. Reset - “Sliding Temperature” Menu Key
5. “Winter”, “Summer”, “Appliance OFF”, “ECO”, “COMFORT” mode selection key
6. Service Tool connection



Boiler code	Boiler model
0TPF2AWD	**ALHENA 24 C (M/GPL)**
0TPF4AWD	**ALHENA 28 C (M/GPL)**
0TPF7AWD	**ALHENA 34 C (M/GPL)**

Accessories on demand

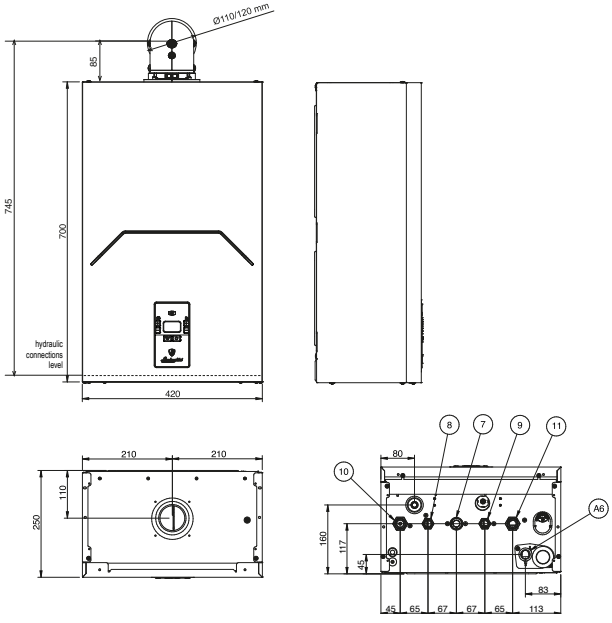
	Code	Description
	012043W0	kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets
	012048W0	kit for connection of fittings complete with gas valve with cone, DHW tap, pipes, nipple, gaskets
	012049W0	kit for connection of 5 pipe fittings NB: the kit does not include taps and connection nipples
	013018X0	Outdoor probe kit
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
	041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
	041082X0	Kit for 80/80 twin pipes discharge for condensing boilers complete with test point
	013022X0	Auxiliary antifrost kit down to -15°C

	Code	Description
	041106X0	Kit backflow preventer valve
	041086X0	Extension 1 m ø 50 twin pipes
	041085X0	Bend 90° ø 50 twin pipes
	041087X0	Reduction from ø 80 to ø 50 twin pipes (1 piece)

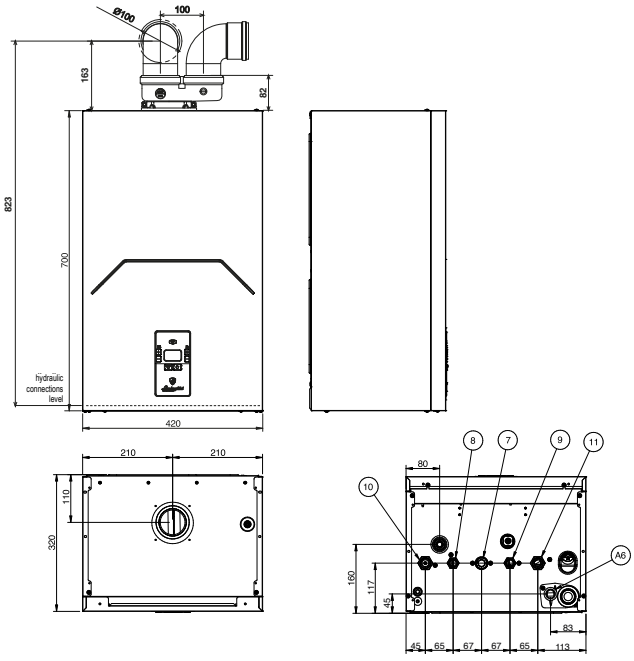
ALHENA			24 C	28 C	34 C
ERP Class		(Class G - A++)	A	A+	A+
		(Class G - A)	XL A	XL A	XL A
Heating max / min heat input	kW		20,6 / 4,2	24,5 / 4,8	30,7 / 5,0
Heating max / min heat output (80/60°C)	kW		20,0 / 4,1	24,0 / 4,7	30,0 / 4,8
Heating max / min heat output (50/30°C)	kW		21,8 / 4,5	26,0 / 5,0	31,9 / 5,4
DHW max / min heat input (Hi)	kW		25,0 / 4,2	28,5 / 4,8	34,8 / 5,0
DHW max / min heat output	kW		24,3 / 4,1	28,0 / 4,8	34,0 / 4,8
Pmax efficiency (80-60°C) (Hi)	%		97.1	97.8	97.7
Pmin efficiency (80-60°C) (Hi)	%		97.0	97.6	97.2
Pmax efficiency (50-30°C) (Hi)	%		105.8	106.1	106.2
Pmin efficiency (50-30°C) (Hi)	%		106.9	107.3	107.1
Efficiency 30%	%		108.8	109.7	109.7
Max / Min heating working pressure	bar		3 / 0.8	3 / 0.8	3 / 0.8
Max heating temperature	°C		95	95	95
Heating water content	litres		2.9	2.9	4.3
Heating expansion vessel capacity	litres		8	8	10
Heating expansion vessel preload pressure	bar		0.8	0.8	0.8
DHW max / min working pressure	bar		9 / 0.3	9 / 0.3	9 / 0.3
DHW flow rate Δt 25°C	l/min		14	16.1	19.5
DHW flow rate Δt 30°C	l/min		11.7	13.4	16.2
Empty weight	kg		27	27	31
No. of pieces/pallet	nr.		12	12	10

Dimensions (in mm)

ALHENA 24 C - 28 C



ALHENA 34 C



7	Gas inlet	Ø 3/4”
8	DHW water outlet	Ø 1/2”
9	DHW inlet	Ø 1/2”
10	System flow	Ø 3/4”
11	System return	Ø 3/4”
A6	Condensate discharge connection	-



FL D Condens LN

Atmospheric wall hung condensing boilers, with instantaneous domestic hot water production - LOW NOx

- Condensing boiler to heat high temperature systems and for domestic hot water production. It is not suitable to be directly connected to underfloor systems, use of mixng valves
- Primary heat exchanger with a compact shape
- Instantaneous production of domestic hot water with a dedicated plate exchanger
- Flue recovery facility of the latent condensation heat. Pre-heats system return before primary exchanger
- Boiler with a watertight chamber and forced draught, with low NOx emissions atmospheric burner, stainless steel
- Standard hydraulic by-pass
- High efficiency and low consumption circulator (ErP - Class A) with block protection system by being activated for a few seconds every 24 hours of inactivity
- Can be combined with the modulating remote control
- Simple and complete control panel, user interface with display and setting keys
- Robust post-condenser supplied by the closed circuit of the primary, namely with no external mains water inlet. The heat exchange with the flue gas takes place inside large diameter water passages.
- Generator of simple and rational operation
- Condensate collection device that protects the air pressure switch, for regular combustion even in very harsh outdoor temperatures
- ECO function in domestic mode for more savings when hot water is not really used
- Solar system set up: set up for the production of domestic hot water combined with solar panel systems
- Place of installation: also for outdoor use in a partially protected place that is up to -5°C, as standard

Regulation and control panel

1. Key to increase/decrease parameters and domestic hot water temp. setting
2. Key to increase/decrease the central heating temp. setting.
3. Display.
4. Reset, Summer/Winter mode selection, “Sliding Temp.” Menu key.
5. Economy/Comfort mode selection, Device on/off key.
6. Hydrometer.



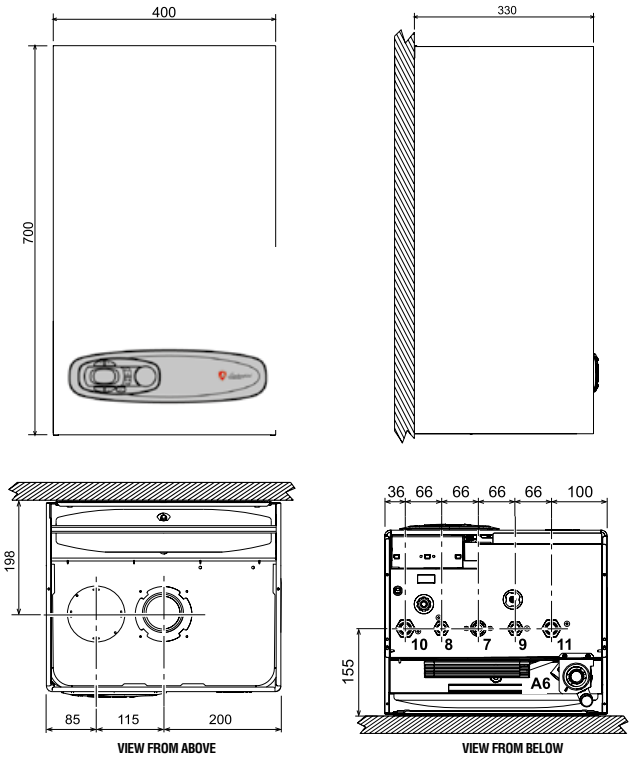
Accessories on demand

	Code	Description
	012048W0	kit for connection of fittings complete with gas valve with cone, DHW tap, pipes, nipple, gaskets
	012049W0	kit for connection of 5 pipe fittings NB: the kit does not include taps and connection nipples
	013002X0	Thermostatic mixer kit 1/2” connections
	013018X0	Outdoor probe kit
	041039X0	Flanged separate split discharge kit Ø 80 with flue gas inspection
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
	041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers

Boiler code	Boiler model
0CCR4ZWD	**FL D 24 Condens LN**
014037X0	**Conversion kit to LPG**

FL D CONDENS LN			24
ERP Class		(Class G - A++)	B
	XL	(Class G - A)	A
Heat input (LCV)	Heating Min / Max	kW	7.5 / 25.0
Heat output 80°C-60°C 50°C-30°C	Heating Min / Max DHW Max Heating Min / Max	kW kW kW	7.2 / 24.2 24.2 7.7 / 26.0
Useful thermal efficiency	80°C-60°C 50°C-30°C 30% partial load	Pmax % / Pmin % Pmax % / Pmin % Pmax %	96.8 / 96.0 104.0 / 102.4 105.3
NOx Emissions			6
Domestic hot water production	Δt 30°C Δt 25°C	l/min l/min	11.6 13.9
Heating operating pressure	Max / Min	bar	3 / 0.8
Empty weight		kg	35
No. of pieces/pallets		no.	10

Dimensions (in mm)



Specification notes

Thermal generator compliant with directives ErP (2009/125/EC) for ecodesign and Labelling (2010/30/EC) (Heating energy efficiency Class B, DHW energy efficiency profile XL Class A) with instantaneous DHW production for domestic hot water use (priority) and for heating. Can also be installed outdoors in a partially protected place as low as -5°C. Sealed combustion chamber and TOROd flue gas ejection with downstream fan, suitable for operation with gaseous fuel. Outer casing painted white by anaphoresis epoxy powders. Combustion chamber in aluminised sheet metal with anti-corrosion treatment, internal insulation with ecological fibre. Primary gas/water heat exchanger, compact shape with anti-corrosion protection on outside surface by means of a lacquer bath in non-toxic aluminium. The boiler is fitted with a heat recovery unit on the flue gas, in aluminium on PPS casing. Secondary heat exchanger for domestic hot water production in steel plates. Fitted with circulator for low consumption high efficiency modulating heating. Low NOx emissions atmospheric burner, in AISI 304 stainless steel with electric ignition device without pilot light and a single detection and ignition electrode. Modulating heat input from 10.0 kW to 25.0 kW both in DHW production and in heating. DHW effective output 24.1 kW with production at Δt 25°C of 14.0 l/min. Standard set-up for domestic hot water production combined with thermal solar panels. COMFORT mode to maintain the temperature of the water in the boiler for the immediate production of domestic hot water. Electronic antifrost protection on heating. Circulator anti-seize safety system with power supply pulse every 24 hours of inactivity. High efficiency circulator. Adjustable post-circulation after the heating phase. Set up for use of modulating remote control (on demand). Heating operating pressure: 3 bar (max) - 0.8 bar (min), heating expansion vessel capacity 8 litres. Safety valve on return of heating circuit, calibrated at 3 bar. Double sensitive element delivery sensor with regulation and safety function. Temperature sensor and flow switch (calibrated at 0.8 bar) to manage domestic hot water production. Domestic hot water operating pressure: Pmin= 0.25 bar Pmax= 9 bar. Flue gas temperature sensor to protect flue gas outlets in PPS. Adjustable hydraulic bypass. Electrical protection rating IPX5D. Possibility of connecting a remote control to acquire room temperature and automatic compensation curve correction. Sliding temperature operating mode through outdoor temperature probe (optional).

1	Heating system flow	Ø 3/4”
2	Hot water outlet	Ø 1/2”
3	Gas inlet	Ø 3/4”
4	Cold water inlet	Ø 1/2”
5	Heating system return	Ø 3/4”
6	Condensate discharge	-



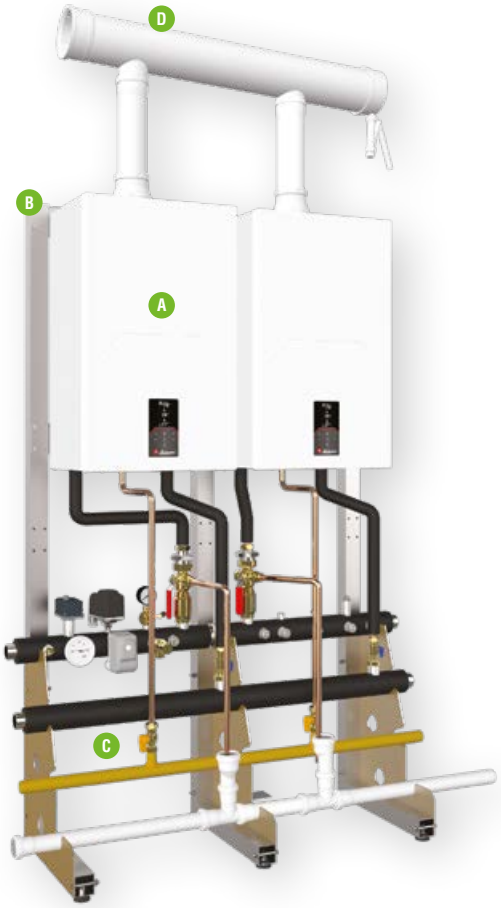
Modulo Tech H

Thermal modules in battery for medium power stations

Thermal unit composed by a cascade of two boiler of the series ALHENA TECH H. MODULO RRT H is composed by:

- 2 condensing wall hung boilers, ALHENA TECH H, for heating only model, equipped as standard with a diverter valve for possible connection to an external boiler for domestic hot water
- Reversable (dx/sx) hydraulic, gas and condensate manifold
- Safety accessories kit
- Frame for supporting the hydraulic and gas manifold kit
- Reversible flue gas manifold for left and right outlets complete with connection pipes to the boilers without the need for further adapter kits
- Thermoregulation system and cascade manager unit THETA+ series

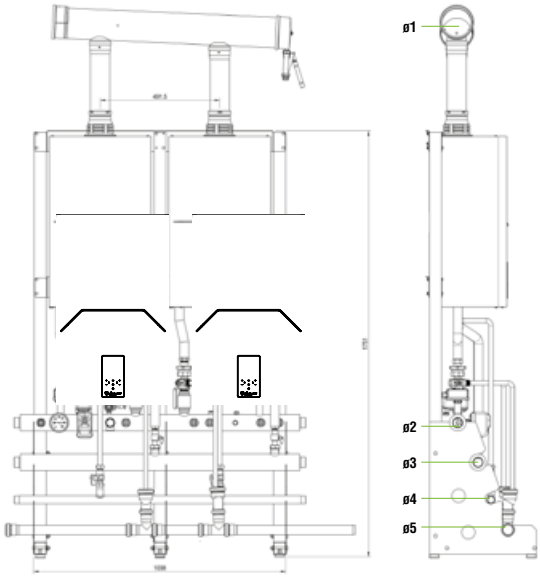
ALHENA TECH		28 H + 28 H	34 H + 34 H	45 H + 45 H
ERP Class	(Class G - A++)	A	A	A
Heat input max / min	kW	57,0 / 7,0	69,4 / 7,0	87,8 / 12,8
Heat output max / min 80°C-60°C	kW	55,8 / 6,8	64,0 / 6,8	85,8 / 12,6
Heat output max / min 50°C-30°C	kW	60,4 / 7,6	73,6 / 7,6	93,0 / 13,8
Efficency Pmax / Pmin 80-60°C	%	97,8 / 98,0	97,8 / 98,0	97,8 / 98,0
Efficiency Pmax / Pmin 50-30°C	%	106,1 / 107,6	106,1 / 107,6	106,1 / 107,6
Efficency carico ridotto 30%	%	109,5	109,5	109,5
NOx Class	-	6	6	6
Operating pressure	bar	3 / 0,8	3 / 0,8	3 / 0,8



INSTALLATION INSTRUCTIONS

- For the correct operating of the system it's strongly recommended to install a separated element between the generator and the system.
- In case of installations with the direct flue gas outlet, the manifold kits must be replaced with other kits and relative start accessories (coaxial or split type)
- The hydraulic kit is supplied complete of the safety accessories: Pressure switch / Minimum pressure switch / Safety thermostat / Thermometer / Manometer

ø1	Flue gas monifold exit	Ø 125 mm
ø2	Heating system flow	Ø 1" ¼
ø3	heating system return	Ø 1" ¼
ø4	Gas supply	Ø 1"
ø5	Condensate manifold	-



ACCESSORIES REQUIRED FOR INSTALLATION IN A BATTERY (as shown in the figure)

BATTERY	A			B	C	D
	ALHENA TECH 28 H	ALHENA TECH 34 H	ALHENA TECH 45 H	Frame kit MODULO TECH H	Hydraulic and gas manifold kit MODULO TECH H	Flue gas manifold MODULO TECH H
						
	0T4D4AWD	0T4D7AWD	0T4D9AWD	042092X0	042087X0	041113X0
	nr.	nr.	nr.	nr.	nr.	nr.
28 H + 28 H	2			1	1	1
34 H + 34 H		2		1	1	1
45 H + 45 H			2	1	1	1

ACCESSORIES on request for configuration according to the specifications of the project

	Code	Description
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
	041006X0	coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers

	Code	Description
	041083X0	coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
	041082X0	discharge kit - twin pipes 80/80 for condensing boilers complete with test point
	013022X0	auxiliary antifrost kit down to -15°C



Toro W

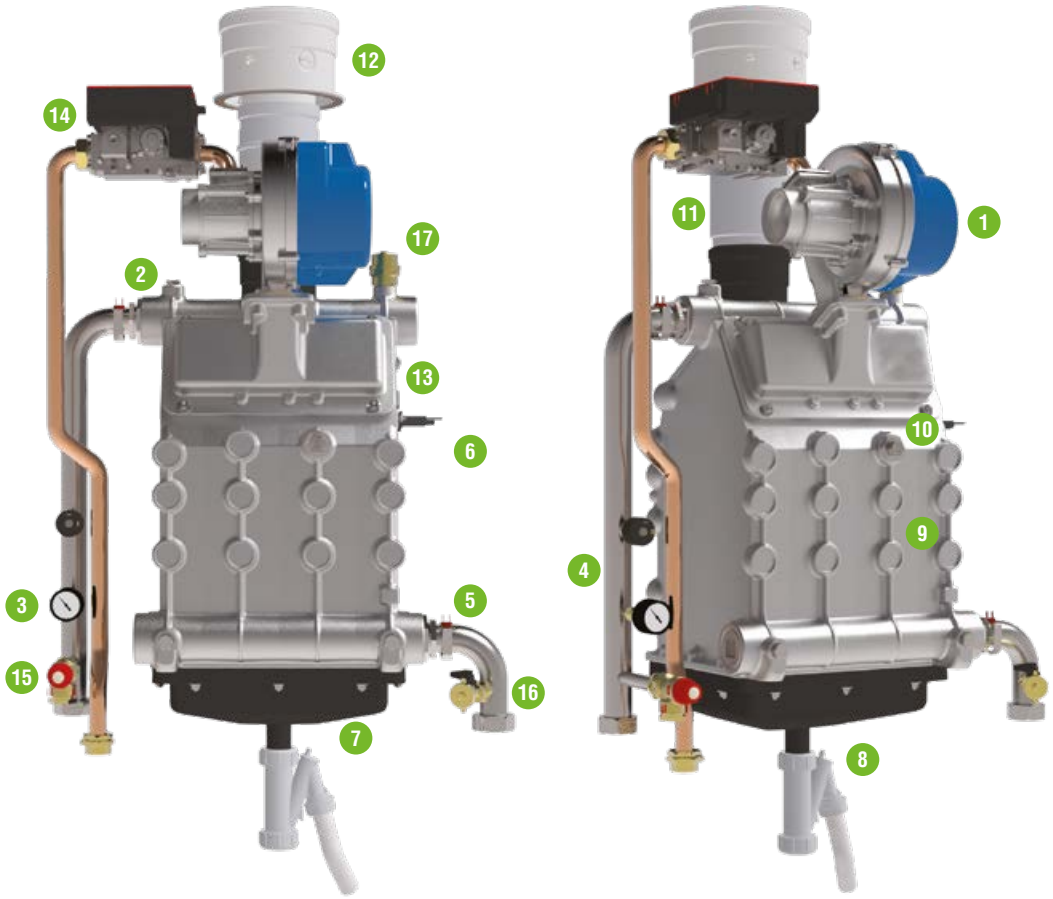
High power condensing modules for cascade installation

- High power condensing thermal module, designed for single installations or in sequence up to 600 kW
- Hydraulic, gas and flue gas accessories for cascade installation, with 2, 3 and 4 modules
- Pre-assembled heat exchanger with elements in aluminum-silicon alloy engineered for the maximum efficiency and minimum pressure drops on the water circuit
- Total pre-mixing unit, for a micro-flame combustion with very low polluting emissions (Class 6 according to EN 15502-1). The metal micro-fiber burner can run on Natural gas or LPG
- Generator protection systems:
  * Double sensor (delivery and return) system to operate at constant ΔT
  * Exchanger overtemperature protection sensor calibrated to 95°C
  * Flue gas safety sensor
  * Water pressure switch with minimum limit of 0,8 bar
- Hydraulic unit (supplied as accessory) with three-way valve for discharge into the atmosphere and a no-return valve. It's possible choosing between two circulators, standard and high head
- Sealed room air/flue gas circuit and check valve on the flue gas ejection duct to design the pressurised manifold
- Master / Slave cascade management with self-configuration system and possibility of setting the on/off sequence of the single generator.
- The electronic control on board is design to manage a double system zone and one DHW storage. In combination with the regulator FZ4 B the boiler can manage different temperature zone (direct and mixed)
- Range Rated certified generator to adjust the generated power to the system's needs by increasing the efficiency of the system and preserving the mechanics of the machine.
- The modules can be controlled and conducted remotely:
  * Power or temperature adjustment with 0 - 10V signal
  * Blocking alarm signal for safety and to restart operation
  * Opentherm (OT) and Modbus communication protocols with settable parameters

Boiler code	Boiler model
0MDSAAWD	**TORO W 60**
0MDSCAWD	**TORO W 80**
0MDSDAWD	**TORO W 99**
0MDSEAWD	**TORO W 120**
0MDSFAWD	**TORO W 150**

Model			**W 60**	**W 80**	**W 99**	**W 120**	**W 150**
ERP Class		(Class G - A++)	A	-	-	-	-
Heating heat input	Max / Min	kW	58.0 / 15.0	74.4 / 15.0	96.6 / 19.0	113.0 / 19.0	159.0 / 24.0
Heating heat output 80°C-60°C Effective heating output 50°C-30°C	Max / Min Max / Min	kW kW	57.0 / 14.7 60.8 / 16.3	72.9 / 14.7 77.0 / 16.3	94.7 / 18.7 100.0 / 20.5	110.5 / 18.7 117.0 / 20.5	140.0 / 23.6 148.0 / 25.9
Efficiency	80°C-60°C 50°C-30°C 30% partial load	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.3 / 98.3 104.8 / 108.5 108.6	98.0 / 98.3 103.5 / 108.5 108.6	98.0 / 98.3 103.5 / 108.5 108.1	97.8 / 98.3 103.5 / 108.0 108.1	97.8 / 98.3 103.5 / 108.0 108.1
NOx emissions class			6	6	6	6	6
NOx (O_2=0%) weighted		mg/kWh	50	54	39	38	40
CO (O_2=0%) weighted		mg/kWh	75	85	49	50	50
Heating operating pressure	Max / Min	bar	6 / 0.8	6 / 0.8	6 / 0.8	6 / 0.8	6 / 0.8
Water volume		l	4.2	4.2	5.6	5.6	6.7
Empty weight		kg	67	67	76	76	86

Components description



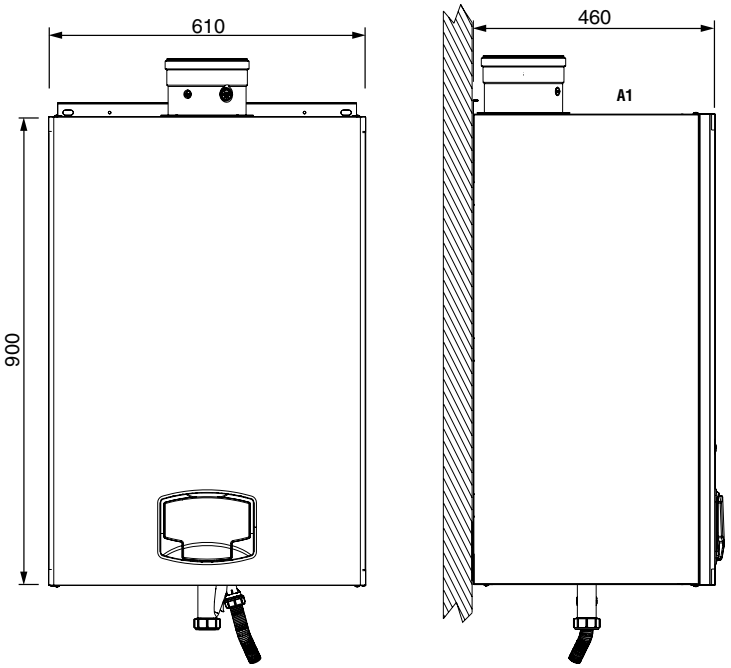
1. Fan
2. C.H. flow temperature sensor
3. Manometer
4. Water pressure switch
5. C.H. return temperature sensor
6. Ignition/Ionisation electrode
7. Gas flue temperature thermostat
8. Condensate drain
9. Aluminium heat exchanger
10. Safety sensors
11. Anti return flue gas valves
12. Gas flue analisys
13. Low NOx burners
14. Flame electronic control - gas
15. Hydraulic safety valve - 6 bar
16. Boiler drain
17. Automatic air vent

Accessories on demand

042070X0	low-consumption modulating circulator Head 8 m
042071X0	low-consumption modulating circulator Head 10 m
042072X0	**system hydraulic kit:** 1 x MF 1"1/2 cock, 1 x 3-way T 1" 1/2 cock, 1 x 1" 1/2 check valve, 1 x MM
013017X0	kit for management with thermostat (not supplied) of a dhw storage tank (for heating only boilers)
1KWMA11W	additional sensor for storage tank and/or system flow for cascade - cable 2 mt
043005X0	additional sensor for storage tank and/or system flow for cascade - cable 5 mt
013018X0	outdoor probe
1KWMA29K	ø 100 flue gas terminal
-	**Temperature controls** in chapter on **SYSTEM COMPONENTS**

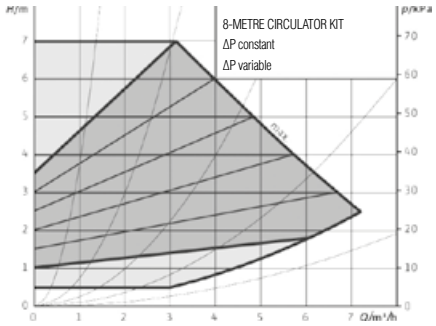
041107X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/150 mm
041108X0	1 mt concentric extension Ø 100/150 mm
041109X0	0,5 mt concentric extension Ø 100/150 mm
041110X0	1 mt concentric horizontal terminal pipe, Ø 100/150 mm Included wall gasket Ø 150 mm
041111X0	1 mt concentric vertical terminal pipe, Ø 100/150 mm
041112X0	wall gasket Ø 150 mm
041077X0	90° bend kit in pps ø 100 mm
041073X0	1 m pps ø 100 mm MF flue gas duct kit
-	neutralisers (see chapter on condensation neutralisers for condensing boilers)

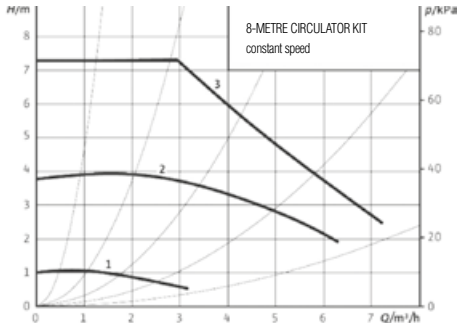
Dimensions and connections / Head flow rate curves



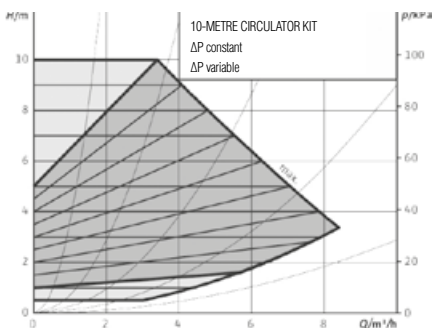
7	Gas inlet - male	Ø 3/4
10	Heating system flow - male	Ø 1" 1/2
11	Heating system return - male	Ø 1" 1/2
A6	Condensate discharge	-
A1	Flue gas outlet	Ø 100/150 mm

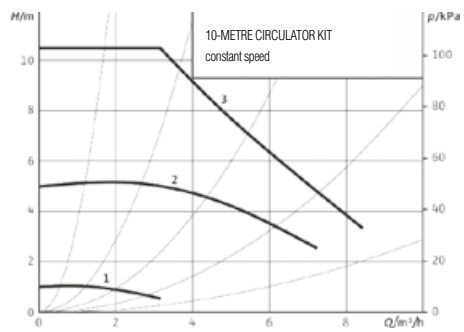
CIRCULATOR KIT 8 m





CIRCULATOR KIT 10 m





Cascade installation



ACCESSORIES
NECESSARY TO CORRECTLY INSTALL TORO W GENERATORS IN A BANK

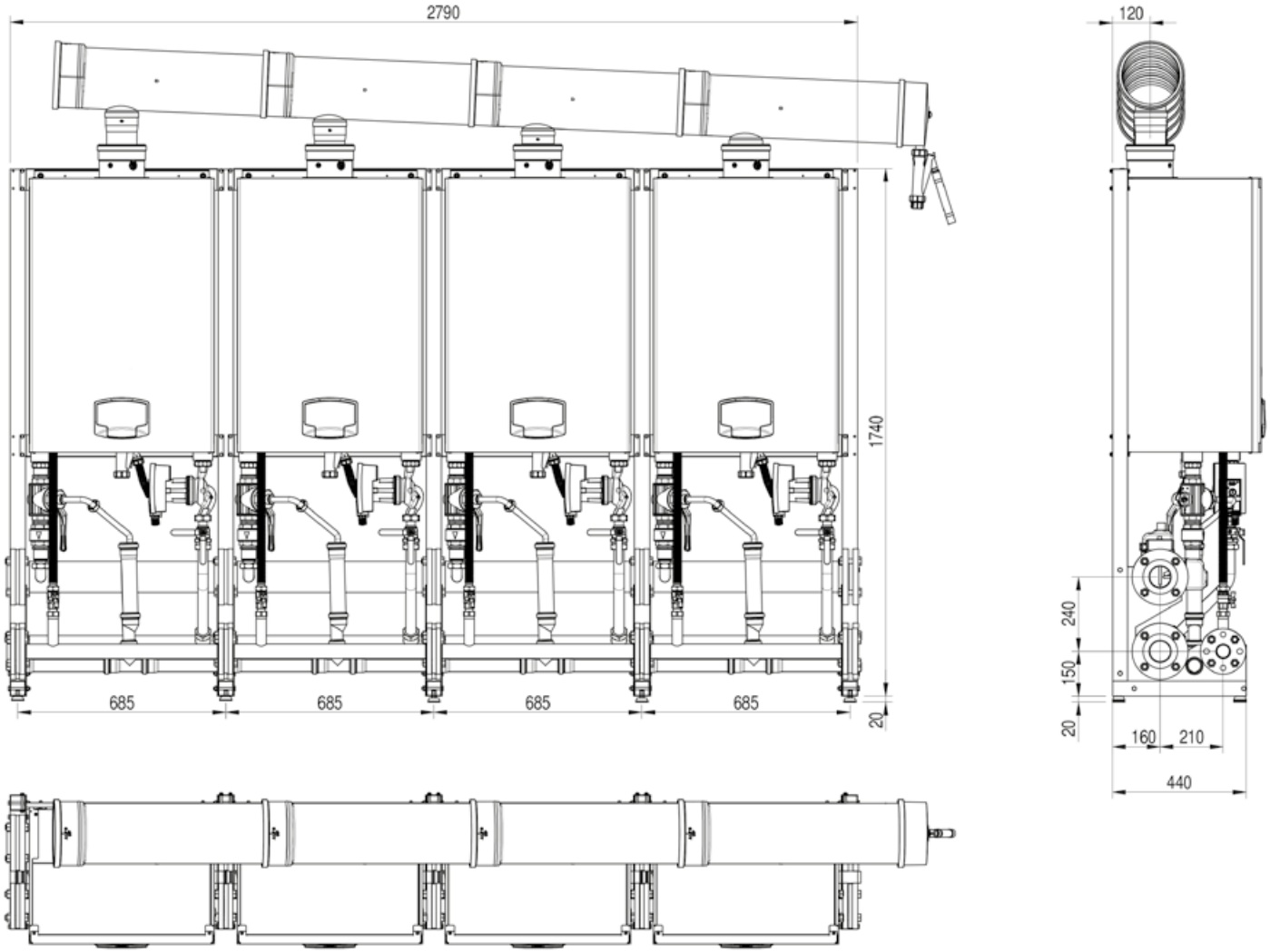
							6	7	1		2	3	4	8	9
							Self-standing frame (start) *	Self-standing frame (extension)	8-m modulating circulator	10-m modulating circulator	hydraulic kit: 1 x MF 1"1/2 cock, 1 x 3-way T 1" 1/2 cock, 1 x 1" 1/2 check valve, 1 x MM	hydraulic (DN65 delivery and return), gas (DN40) manifolds kit for bank installation	Blind flange kit DN65	Flue gas manifold starter kit (Ø 200 mm) *	Flue gas manifold extension kit (Ø 200 mm) *
P_{out} (50/30°C)	MODULES TORO W					Tot. modules									
	60	80	99	120	150		042076X0	042077X0	042070X0	042071X0	042072X0	042074X0	042073X0	041091X0	041092X0
62	1					1	1	-	1	1	1	1	1	-	-
77		1				1	1	-	1	1	1	1	1	-	-
98			1			1	1	-	1	1	1	1	1	-	-
117				1		1	1	-	1	1	1	1	1	-	-
148					1	1	1	-	1	1	1	1	1	-	-
124	2					2	1	1	2	2	2	2	1	1	2
139	1	1				2	1	1	2	2	2	2	1	1	2
154		2				2	1	1	2	2	2	2	1	1	2
179	1			1		2	1	1	2	2	2	2	1	1	2
194		1		1		2	1	1	2	2	2	2	1	1	2
215			1	1		2	1	1	2	2	2	2	1	1	2
234				2		2	1	1	2	2	2	2	1	1	2
265				1	1	2	1	1	2	2	2	2	1	1	2
296					2	2	1	1	2	2	2	2	1	1	2
332			1	2		3	1	2	3	3	3	3	1	1	3
351				3		3	1	2	3	3	3	3	1	1	3
373		1			2	3	1	2	3	3	3	3	1	1	3
394			1		2	3	1	2	3	3	3	3	1	1	3
413				1	2	3	1	2	3	3	3	3	1	1	3
444					3	3	1	2	3	3	3	3	1	1	3
468				4		4	1	3	4	4	4	4	1	1	4
530				2	2	4	1	3	4	4	4	4	1	1	4
561				1	3	4	1	3	4	4	4	4	1	1	4
592					4	4	1	3	4	4	4	4	1	1	4

* * Flue gas accessories certified for installation in a utility room or in a protected place

ACCESSORIES
UPON REQUEST FOR CONFIGURATION ACCORDING TO PROJECT SPECIFICATIONS

1KWMA11W	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 2 mt
043005X0	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 5 mt
013018X0	outdoor probe
042086X0	hydraulic separator DN 32. For installation until 150 kW. The installer is responsible for the connection with the generator
042078X0	hydraulic separator DN 65. For installation from 151 kW to 300 kW
042079X0	installation kit for hydraulic separator. For installation from 151 kW to 300 kW
042080X0	hydraulic separator DN 100. For installation from 301 kW to 600 kW
042081X0	installation kit for hydraulic separator. For installation from 301 kW to 600 kW
-	Temperature controls
-	neutralisers (see chapter on condensation neutralisers for condensing boilers)

Dimensions and connections



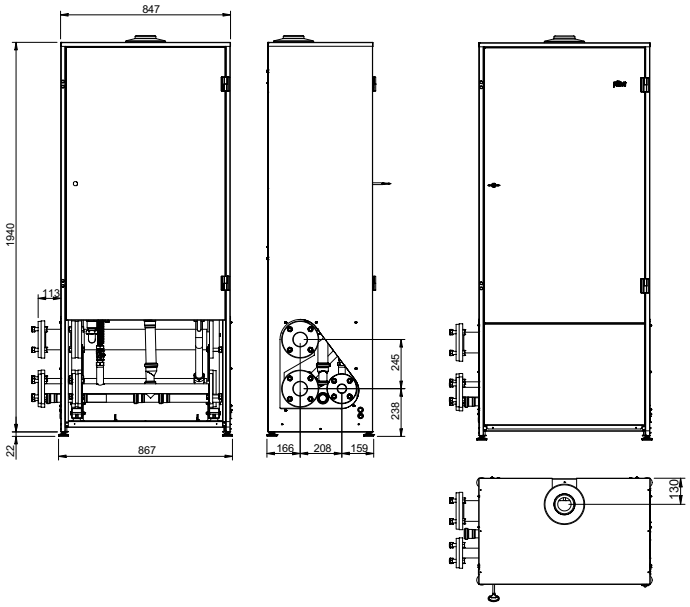
CASCADE KIT FITTINGS

- Delivery/return manifolds DN65 PN16
- Gas manifold DN40 PN16
- Condensation discharge manifold Ø 40 mm
- Flue gas manifold Ø 200 mm



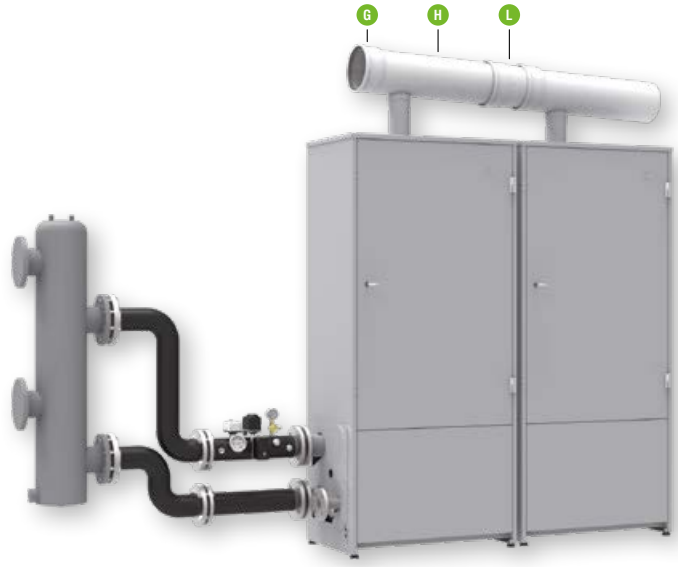
Outdoor installation kit

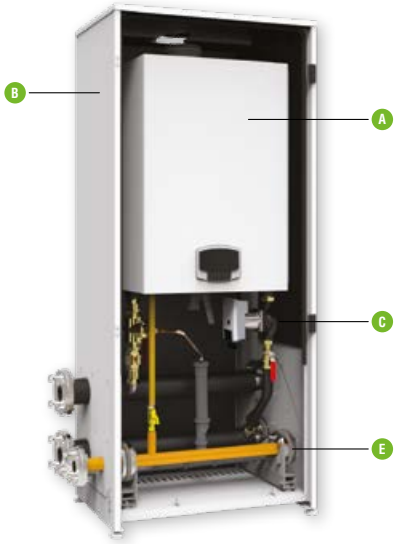
- Cabinet equipped for installing of the TORO W boilers outdoors in a single or bank configuration up to 600 kW
- The cabinet can be combined with one of five models from the TORO W range and one of the two circulators (8 m and 10 m head)
- Standard equipment includes:
  * Support frame for the TORO W thermal generator
  * DN 65 system delivery and return manifolds
  * DN 40 gas manifold
  * Flanged system fittings kit
  * Condensate collection and drain manifold
  * Three-way shut-off valve with discharge into the atmosphere
  * Two-way shut-off valve
  * Check valve
  * Gas connection pipe between boilers and manifold with shut-off valve
- All optional kits are available for single or bank installation up to four modules in line.
- The generator combined with the cabinet kit can be installed without any protection against bad weather (IPX5D) and down to temperatures of -5°C



MODEL			W60		W80		W99		W120		W150	
ERP class		(Class G - A+)	A		-		-		-		-	
Nominal power input	Max/Min	kW	58.0 / 15.0		74.4 / 15.0		96.6 / 19.0		113.0 / 19.0		143.0 / 24.0	
Nominal power output 80°C-60°C Nominal power output 50°C-30°C	Max/Min Max/Min	kW kW	57 / 14.7 60.8 / 16.3		72.9 / 14.7 77.0 / 16.3		94.7 / 18.7 100.0 / 20.5		110.5 / 18.7 117.0 / 20.5		140.0 / 23.6 148.0 / 25.9	
Thermal module TORO W			0MDSAAWD		0MDSCAWD		0MDSDAWD		0MDSEAWD		0MDSFAWD	
Technical external cabinet			046058X0		046058X0		046058X0		046058X0		046058X0	
High performance modulating pump (8 mt)			042070X0	-	042070X0	-	042070X0	-	042070X0	-	042070X0	-
High performance modulating pump (10 mt)			-	042071X0	-	042071X0	-	042071X0	-	042071X0	-	042071X0

Cascade installation for outdoors





ACCESSORIES
NECESSARY TO CORRECTLY INSTALL TORO W GENERATORS IN A BANK

	A						B	C		E	G	H	L	
							Technical cabinet equipped for outdoors	8-m modulating circulator	10-m modulating circulator	Blind flange kit DN65	Flue gas manifold starter kit (Ø 200 mm) *	Flue gas manifold extension kit (Ø 200 mm) *	Flue manifold adapter F 200 mm	Smoke chimney F 100 mm (for unprotected roof installations)
P_{opt} (50/30°C)	MODULES TORO W					Tot. modules								
	60	80	99	120	150		046058X0	042070X0	042071X0	042073X0	041091X0	041092X0	041093X0	041094X0
62	1					1	1	1	1	1	-	-	-	1
77		1				1	1	1	1	1	-	-	-	1
98			1			1	1	1	1	1	-	-	-	1
117				1		1	1	1	1	1	-	-	-	1
148					1	1	1	1	1	1	-	-	-	1
124	2					2	2	2	2	1	1	2	1	2
139	1	1				2	2	2	2	1	1	2	1	2
154		2				2	2	2	2	1	1	2	1	2
179	1			1		2	2	2	2	1	1	2	1	2
194		1		1		2	2	2	2	1	1	2	1	2
215			1	1		2	2	2	2	1	1	2	1	2
234				2		2	2	2	2	1	1	2	1	2
265				1	1	2	2	2	2	1	1	2	1	2
296					2	2	2	2	2	1	1	2	1	2
332			1	2		3	3	3	3	1	1	3	2	3
351				3		3	3	3	3	1	1	3	2	3
373		1			2	3	3	3	3	1	1	3	2	3
394			1		2	3	3	3	3	1	1	3	2	3
413				1	2	3	3	3	3	1	1	3	2	3
444					3	3	3	3	3	1	1	3	2	3
468				4		4	4	4	4	1	1	4	3	4
530				2	2	4	4	4	4	1	1	4	3	4
561				1	3	4	4	4	4	1	1	4	3	4
592					4	4	4	4	4	1	1	4	3	4

* Flue gas accessories certified for installation in a utility room or in a protected place

ACCESSORIES
UPON REQUEST FOR CONFIGURATION ACCORDING TO PROJECT SPECIFICATIONS

1KWMA11W	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 2 mt
043005X0	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 5 mt
013018X0	outdoor probe
046060X0	single empty cabinet for outdoors
046061X0	double empty cabinet for outdoors
042086X0	hydraulic separator DN 32. For installation until 150 kW. The installer is responsible for the connection with the generator
042078X0	hydraulic separator DN 65 For installation from 151 kW to 300 kW
042079X0	installation kit for hydraulic separator. For installation from 151 kW to 300 kW
042080X0	hydraulic separator DN 100 For installation from 301 kW to 600 kW
042081X0	installation kit for hydraulic separator. For installation from 301 kW to 600 kW
-	see chapter on accessories
-	neutralisers (see chapter on condensation neutralisers for condensing boilers)

Hydraulic separator choice

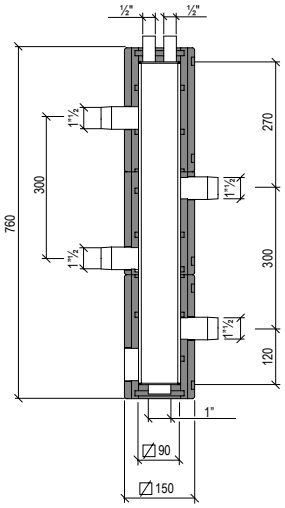
The hydraulic separator guarantees independence between the primary circuit (generator) and the secondary circuit (system) without any disturbance or interference between them.
The separator is proposed complete with deaerator, sludge separator and is fully insulated.

CHARACTERISTICS:
Max operating pressure: 6 bar
Temperature range: 0 - 100°C
Fittings: DN 32 / DN 65 / DN 100

Hydraulic separator

(for installations up to 150 kW)

	DESCRIPTION	CODE
	Hydraulic separator DN 32 The installer is responsible for the connection with the generator	042086X0



Hydraulic separator

(for installations from 151 kW to 300 kW)

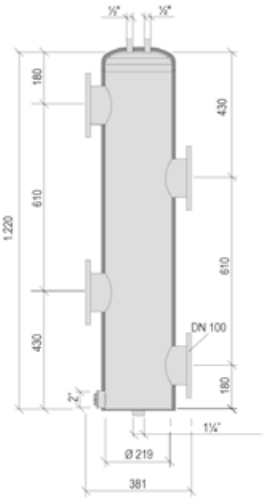
	DESCRIPTION	CODE
	Hydraulic separator DN 65	042078X0
	Hydraulic separator installation kit	042079X0



Hydraulic separator

(for installations from 301 kW to 600 kW)

	DESCRIPTION	CODE
	Hydraulic separator DN 100	042080X0
	Hydraulic separator installation kit	042081X0



MODEL		DN 32	DN 65	DN 100
Flow rate	m³/h	6.5	18	30
Water content	lt	4.8	21	46
Max temperature	°C	100	100	100
Max pressure	bar	6	6	6
Material	-	ST37.1 stainless	ST37.1 stainless	ST37.1 stainless
Insulation	-	Black EPP - 40 g/l	Black EPP - 40 g/l	Black EPP - 40 g/l





Theta+

Thermo-control for heating system and cascade manager

- Climatic thermo-unit control for heating systems, active management of heating generators cascade and direct control of one stage, two stage and modulating burners.

- Every single unit control THETA+ can manage a heating system with:
- 2 Low temperature mixed zones
- 1 High temperature direct zone
- 1 Hot domestic water tank
- Thermal solar system or biomass generator or multy-energy puffer, via two variable output
- Cascade of heating generators up to 8 units.

- The unit control THETA+ is supplied complete as standard with:
- Connection terminal block
- 1 External probe
- 1 Immersion probe (2 meters)
- 1 Immersion probe (5 meters)
- 2 Contact probes (4 meters)

- The thermoregulation system, in addition to the unit control THETA+, is accompanied with other accessories to complete the heating system control:

- **Room unit RS-L**
- Manages temperature of dedicated zone
- It can manage from remote system setting
- Two-wire bus

- **Room sensor RFF**
- Manages room temperature
- Two-wire bus

- **Installation wall kit WG 500**
- On/Off switch
- Totally wired
- 6,3 A safety fuse

- **Kit cascade management ZM KM-OT**
- Install one kit ZM KM-OT in each boiler of the cascade
- Up to 8 boiler in cascade

- For the heating system with more three zones, is possible to make a cascade of THETA+ unit control (max 5 units). THETA+ system can manages directly a one-stage, two stage or modulating burner.

THETA+ system components

	Code	Description
	013060X0	**THETA+ Set** Central unit control for the thermoregolation of the heating system and cascade manager. Supplied as standard complete of: - Connection terminal block - 1 External probe - 1 Immersion probe (2 meters) - 1 Immersion probe (5 meters) - 2 Contact probes (4 meters)
	013061X0	**THETA+ RS-L** Room unit per temperature control and parameters setting, from remote, of the heating system
	013062X0	**THETA RFF** Room sensor
	013064X0	**WG 500** Kit for wall installation
	013063X0	**THETA ZM KM-OT** Kit for boiler cascade management via Opentherm
	013065X0	**TF A20-50-03** Immersion probe (DHW tank) 5 meters
	013066X0	**VF 204 B** Contact probe (Mixed zone) 4 meters
	043007X0	**PT 1000** Immersion probe (Solar thermal) 2,5 meters
	013068X0	**AF 200** External probe

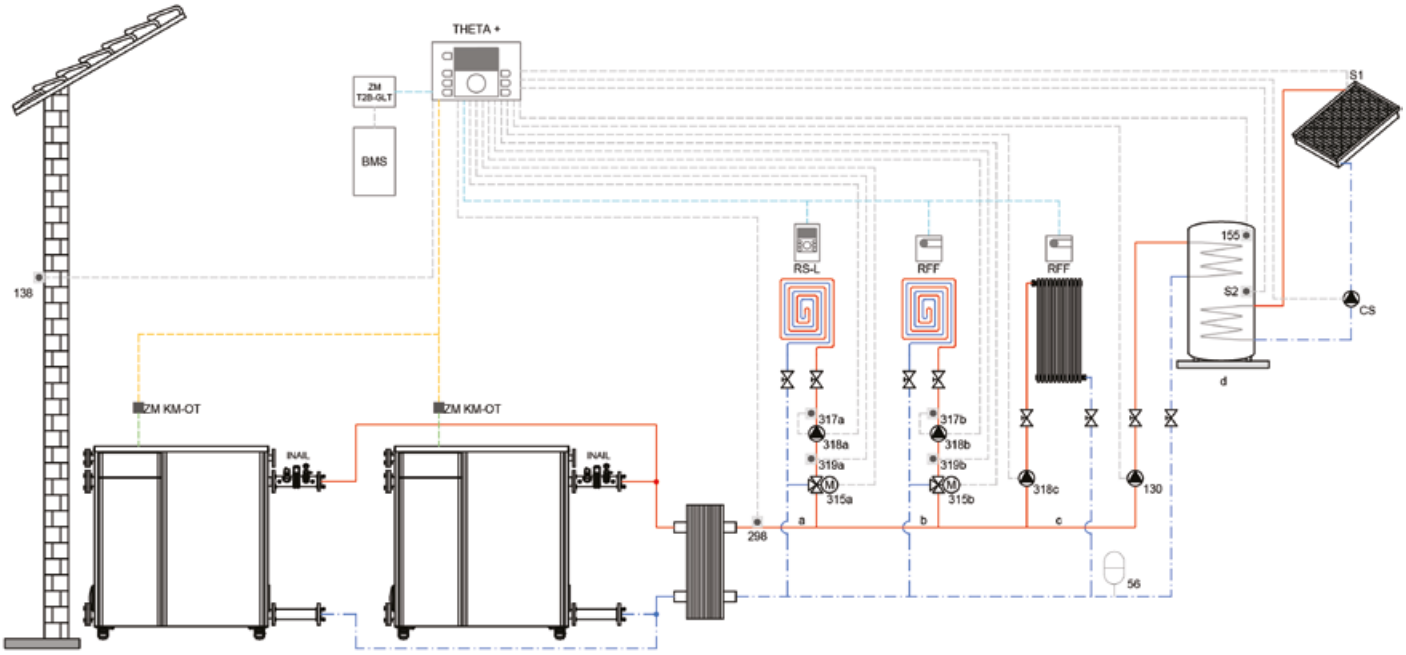
THETA⁺ system application example of diagram

- The first ring was designed with a cascade of two MACH controlled by a central unit THETA+ via Open Therm (1 ZM KM-OT for each boiler of cascade). The central unit can manage up to 8 boilers in cascade. For installation with more of 8 boilers will have to install two or more THETA⁺ (max 5).

- The second ring consist in three heating circuits (two mixed at low temperature and one direct at high temperature), a storage with double exchanger for the DHW and a thermal solar system.

- The central unit THETA⁺ in combination with room units/sensors can manage each component of the heating system included the thermal solar system. In case of heating system with several zones and systems is possible manage all with a cascade of THETA⁺ (max 5), up to 10 mixed zones and 5 direct zones.

- The heating zone can be managed by three remote room unit (RS-L) or by three room sensors (RFF) or a mix of the two.



THETA⁺ Central unit control for the thermoregulation and cascade manager **ZM KM-OT** Accessories for the cascade management via Open-Therm **RS-L** Remote room unit **RFF** Room sensor **ZM T2B-GLT** Interface for Building Management System **(BMS)** BMS Building Management System **S1** Flow probe for solar system (PT 1000) **S2** Temperature probe for DHW tank (supplied as standard with THETA⁺) **155** Temperature probe for DHW tank (supplied as standard with THETA⁺) **130** DHW circulator **CS** Solar system circulator **a** Low temperature mixed zone **b** Low temperature mixed zone **c** High temperature direct zone **d** DHW circuit with tank, double exchanger type **315 a/b** Motorized mixing valve **318 a/b/c** Heating system circulator **317 a/b** Safety thermostat **319 a/b** Flow probe for mixed zone (supplied as standard with THETA⁺) **298** Probe for flow heating system collector (supplied as standard with THETA⁺) **138** External sensor (supplied as standard with THETA⁺) *- - - Modbus: ZM KM-OT *- - - Modbus: RS-L/RFF/ZM T2B-GLT *- - - Opentherm





FL D LN

Instant combi double exchanger wall-hung boilers
open flue natural draught - LOW NOx

- Primary heat exchanger entirely compact shape
- Instantaneous production of domestic hot water with a dedicated DHW plate exchanger
- Bypass as per standard
- Boiler with a open chamber and natural draught, with low NOx emissions atmospheric burner, AISI 304 stainless steel
- High efficiency and low consumption circulator (ErP - Class A) with anti-seize function by being switched on for a few seconds every 24 hours of inactivity
- Can be combined with the modulating remote control
- Outer casing painted white by anaphoresis epoxy powders
- Simple and complete control panel, user interface with display and setting keys
- Compact size and reduced weight
- Modulating heat input during both heating and production of DHW, managed by a microprocessor circuit board
- ECO/COMFORT system for fast production of DHW
- Adjustable post-circulation after the heating phase
- Solar system set up: set up for the production of domestic hot water combined with solar panel systems

Regulation and control panel

1. Key to increase/decrease parameters and domestic hot water temp. setting
2. Key to increase/decrease the central heating temp. setting.
3. Display.
4. Reset,
5. Summer/Winter mode selection, “Sliding Temp.” Menu key.
6. Economy/Comfort mode selection, Device on/off key.
7. Hydrometer.



Boiler code	Boiler model
0DCC4ZWD	**FL D LN C 24**
0DCC6ZWD	**FL D LN C 30**
014037X0	**Conversion kit to LPG mod. C 24**
014038X0	**Conversion kit to LPG mod. C 30**

Accessories on demand

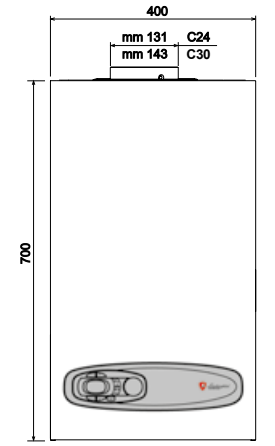
Code	Description
012040W0	kit for connection of fittings complete with gas valve with cone, DHW tap, 2 system taps, pipes, nipple, gaskets
012049W0	kit for connection of 5 pipe fittings NB: the kit does not include taps and connection nipples
013002X0	Thermostatic mixer kit - 1/2” connections
013018X0	Outdoor probe kit

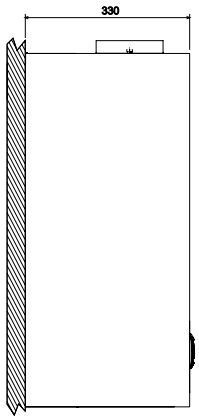
REPLACEMENT OF BOILERS INSTALLED IN COLLECTIVE CHIMNEYS

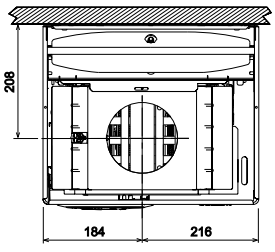
In the EU the **new** (redesigned) **FL D LN 24/30 "ErP Compliant"** can ONLY be installed as replacement for open flues boilers evacuating through collective chimneys, **provided that such installation is also permitted by local laws.** In that sense the **new** FL D LN 24/30 is deemed to be compliant with ErP, which explicitely allows only for that exception.

FL D LN			C 24	C 30
ERP Class		(Class G - A++)	C	C
	XL	(Class G - A)	A	A
Heating rated heat output (Pn)	Min / Max	kW	7,3 / 22,8	11,1 / 30,0
Heat input	Min / Max	kW	8,3 / 25,0	12,6 / 33,0
Effective DHW heat output		kW	22,8	30,0
Efficiency (Pn)		%	91,2	91,0
Maximum DHW production	Δt 30°C Δt 25°C	l/min l/min	10,9 13,1	14,3 17,2
Empty weight		kg	27	30
No. of pieces/pallets		no.	10	10

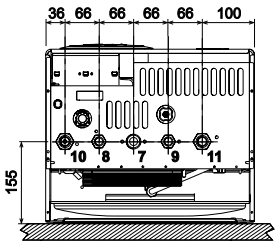
Dimensions (in mm)



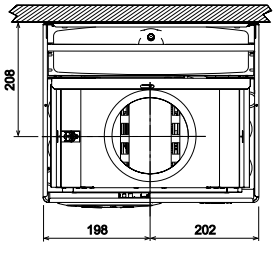




C 24 - VIEW FROM ABOVE



C24 / C 30 - VIEW FROM BELOW



C 30 - VIEW FROM ABOVE

7	Gas inlet	Ø 3/4”
8	Hot water outlet	Ø 1/2”
9	Cold water inlet	Ø 1/2”
10	Heating system flow	Ø 3/4”
11	Heating system return	Ø 3/4”



Easy Tech D

Instantaneous wall-mounted boilers with double exchanger and preset for system solar

- Primary heat exchanger with compact geometry made entirely of copper
- Instantaneous production of domestic hot water with dedicated plates exchanger
- Simple and complete revamped control panel, user interface with display and setting keys
- Circulator with 3 levels di flow rate/head pressure with anti-blocking system that is activated for a few seconds every 24 hours of inactivity
- New hydraulic group specifically designed to allow quick and easy maintenance by the installer
- The domestic water inlet filter can be easily extracted from the inside without having to remove the hydraulic connections of the boiler
- Compact size and contained weight
- Sliding temperature operating mode through external probe (optional)
- Can be combined with the modulating remote control timer (optional)
- Modulating heat input during both heating and production of DHW, managed by a microprocessor electronic card
- ECO/COMFORT system for fast production of DHW
- Solar system set up: set up for the production of domestic hot water combined with solar panel systems (SUN EASY)

Boiler code	Boiler model
0DAF4AYD	**EASY TECH D F 24**
0DAF7AYD	**EASY TECH D F 32**
0DAF8AYD	**EASY TECH D F 37**

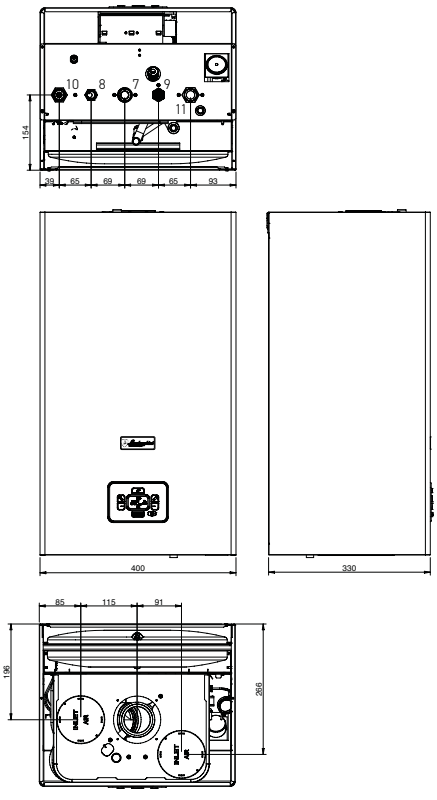
Accessories on demand

	Code	Description
	012048W0	kit for connection of fittings complete with gas tap with cone, DHW tap, pipes, nipple, gaskets
	012049W0	kit for connection of 5 pipe fittings NB: the kit does not include taps and connection nipples
	013002X0	Thermostatic mixer kit - 1/2” connections
	013018X0	Outdoor probe kit

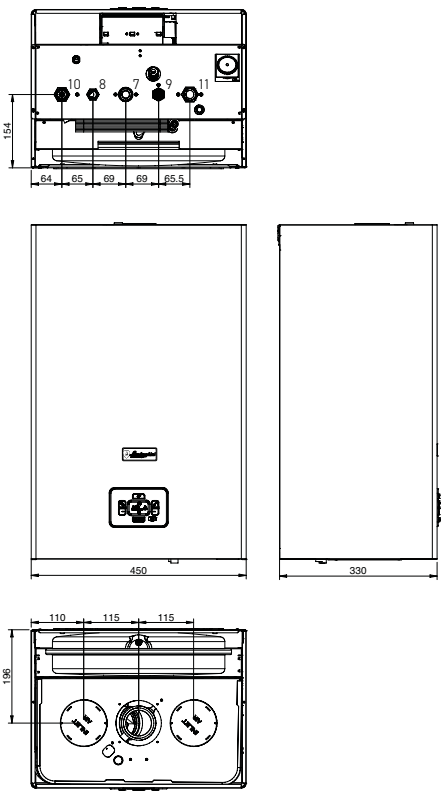
EASY TECH D			F 24	F 32	F 37
Heating capacity	Max Min	kW kW	25.8 8.3	34.4 11.5	39.7 14.0
Heat output in heating	Max Min	kW kW	24.0 7.2	32.0 9.9	37.0 12.9
Heat output in hot water production	Max Min	kW kW	24.0 7.2	32.0 9.9	37.0 12.9
Efficiency Pmax (80-60°C)		%	92.9	93.1	93.2
Efficiency 30%		%	90.5	91.0	91.0
NOx emission class		-	3	3	3
Working pressure in heating	Max Min	bar bar	3 0.8	3 0.8	3 0.8
Max heating temperature		°C	90	90	90
Heating water content		litres	1.0	1.2	1.5
Heating expansion tank capacity		litres	8	10	10
Heating expansion tank prefilling pressure		bar	1	1	1
Working pressure in hot water production	Max Min	bar bar	9 0.3	9 0.3	9 0.3
DHW flow rate	Δt 25°C Δt 30°C	l/min l/min	13.8 11.5	18.3 15.3	21.1 17.6
Protection rating		IP	X4D	X4D	X4D
Electrical power input		W	110	135	135
Electrical power input in hot water production		W	110	135	135
Empty weight		Kg	32	35	37
No. of pieces/pallet		no.	12	12	12

Dimensions (in mm)

Mod. 24



Mod. 32 / 37



7	Gas inlet	Ø 3/4"
8	Hot water outlet	Ø 1/2"
9	DHW water inlet	Ø 1/2"
10	Heating system flow	Ø 3/4"
11	Heating system return	Ø 3/4"



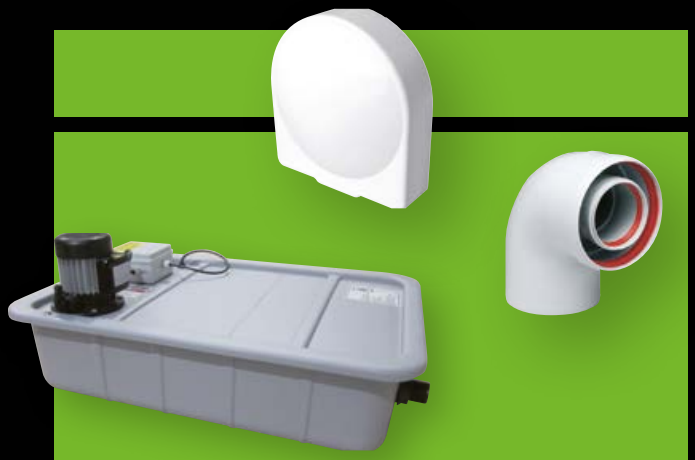
SB

Instant combi wall-hung gas boiler

- Traditional wall-hung boiler, Instant combi via double exchanger
- Electronic display with buttons and front pressure gauge
- Forced flue. Open flue available
- Large availability of models, themal capacities from 10 to 40 kW
- Main functions:
- Anti-seize routine for pump
- 2 levels frost protection
- Power ignition regulation
- Protection heating slope
- IP protection IPX5D

MODEL		10 kW		13 kW		16 kW		18 kW		20 kW		24 kW		30 kW		32 kW		35 kW		40 kW	
Power		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
Rated heat input	kW	12.3	9.2	15.3	9.2	18.4	9.2	20.0	9.2	22.3	9.2	26.3	9.2	32.6	12.8	34.7	12.8	38.1	13.3	44.1	14.3
Rated heat output 80°C-60°C	kW	10.0	8.3	13.0	8.3	16.0	8.3	18.0	8.3	20.0	8.3	24.0	8.3	30.0	11.9	32.0	11.9	35.0	12.2	40.0	13.0
Rated heat input of sanitary hot water	kW	26.3	9.2	26.3	9.2	26.3	9.2	26.3	9.2	26.3	9.2	26.3	9.2	32.6	12.8	34.7	12.8	38.1	13.3	44.1	14.3
Rated heat output of sanitary hot water	kW	24.0	8.3	24.0	8.3	24.0	8.3	24.0	8.3	24.0	8.3	24.0	8.3	30.0	11.9	32.0	11.9	35.0	12.2	40.0	13.0
Efficiency Pmax (80–60°C)	%	89		89		89		89		89		89		89		89		89		89	
Efficiency Pmin (30%Pmax)	%	85		85		85		85		85		85		85		85		85		85	
Natural gas nozzle (G20)	mm	12x1.28		12x1.28		12x1.28		12x1.28		12x1.28		12x1.28		15x1.30		15x1.30		18x1.30		21x1.30	
Natural gas supply pressure (G20)	Pa	2000		2000		2000		2000		2000		2000		2000		2000		2000		2000	
Pressure at the burner (gas G20)	mbar	3.1	1.5	4.3	1.5	6.0	1.5	7.0	1.5	9.0	1.5	12.0	1.5	12.5	1.0	13.5	1.0	12.0	1.0	11.0	1.0
LPG nozzle (G30)	mm	12x0.79		12x0.79		12x0.79		12x0.79		12x0.79		12x0.79		15x0.82		15x0.82		18x0.82		21x0.82	
LPG supply pressure (G30)	Pa	2800		2800		2800		2800		2800		2800		2800		2800		2800		2800	
Pressure at the burner (gas G30)	mbar	4.5	2.5	8.0	2.5	11.0	2.5	13.5	2.5	16.0	2.5	21.0	2.5	20.0	2.5	21.0	2.5	20.0	2.5	20.0	2.5
Max working temperature	°C	90		90		90		90		90		90		90		90		90		90	
Max working pressure	MPa	0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3	
Safety valve release pressure	MPa	0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3	
Min heating pressure	MPa	0.08		0.08		0.08		0.08		0.08		0.08		0.08		0.08		0.08		0.08	
Volume of expansion water tank	l	6		6		6		6		6		6		8		8		8		10	
Initial pressure of expansion water tank	MPa	0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1	
Volume of wall-hung boiler	l	1.0		1.0		1.0		1.0		1.0		1.0		1.2		1.2		1.2		1.5	
Max. hot water production rate Δt=25k)	kg/min	13.6		13.6		13.6		13.6		13.6		13.6		16.2		17.2		18.4		20.6	
Max hot water production rate (Δt=30k)	kg/min	11.3		11.3		11.3		11.3		11.3		11.3		12.3		14.3		15.5		17.6	
Max working pressure of hot water	MPa	0.8		0.8		0.8		0.8		0.8		0.8		0.8		0.8		0.8		0.8	
Min working pressure of hot water	MPa	0.025		0.025		0.025		0.025		0.025		0.025		0.025		0.025		0.025		0.025	
Sanitary hot water volume	l	0.40		0.40		0.40		0.40		0.40		0.40		0.50		0.50		0.60		0.80	
Max system performance DHW	l/min	12		12		12		12		12		12		14		14		16		18	
Height / Width	mm	740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 500	
Depth	mm	235		235		235		235		235		235		340		340		340		340	
Net weight	kg	28.8		28.8		28.8		28.8		28.8		28.8		36.7		36.7		37.5		40.3	
Gas supply joint	inches	1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"	
Heating pipe joint	inches	3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"	
Sanitary hot water joint	inches	1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"	
Max electric power	W	110		110		110		110		110		110		110		110		110		110	
Voltage/frequency	V/Hz	230/50		230/50		230/50		230/50		230/50		230/50		230/50		230/50		230/50		230/50	
Protection class	IP	X5D		X5D		X5D		X5D		X5D		X5D		X5D		X5D		X5D		X5D	

Lamborghini CALORECLIMA



Accessories

- Suction and flue gas discharge accessories
- Hydraulic and electric accessories
- Temperature controls

Flues chimney accessories condensing gas boilers

1KWMA56W



1 mt Concentric terminal pipe, Ø 60/100 mm, external PVC, internal PPs.
Includes wall gasket.

1KWMA58W



1 mt Concentric terminal pipe, Ø 80/125 mm, external PVC, internal PPs.
Includes wall gasket.

1KWMA57W



1 mt M-F concentric extension, Ø 60/100 mm, external PVC, internal PPs

1KWMA59W



1 mt M-F concentric extension, Ø 80/125 mm, external PVC, internal PPs

041051X0



90° M-F concentric bend, Ø 60/100 mm, PPs

1KWMA73W



90° M-F concentric bend, Ø 80/125 mm, external aluminium, internal PPs

1KWMA83W



1 mt M-F pipe, Ø 80 mm, PPs

1KWMA01W



90° M-F bend, Ø 80 mm, PPs

1KWMA64W



45° M-F concentric bend, Ø 60/100 mm, external PVC, internal PPs

1KWMA72W



45° M-F concentric bend, Ø 80/125 mm, external PVC, internal PPs

1KWMA88W



90° M-F bend, Ø 60 mm, PPs

1KWMA65W



45° M-F bend, Ø 80 mm, PPs

1KWMA70W



Flue or air test point Ø 80 mm (M-F) PPs

041000X0



90° M-F bend, Ø 80 mm, PPs, with test point

041049X0



Concentric roof terminal, Ø 60/100 mm, external PVC, internal PPs (⋆)

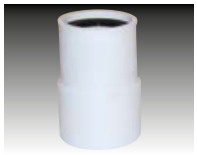
010036X0



Concentric roof terminal, Ø 80/125 mm, external PVC, internal PPs (⋆)

Flues chimney accessories condensing gas boilers

041050X0



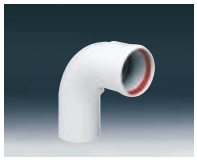
M-F reduction,
ø 80/60 mm

1KWMA89W



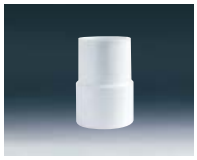
1m M-F pipe,
ø 60 mm

041085X0



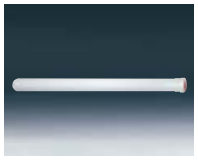
90° M-F bend,
ø 50 mm

041087X0



Reduction,
ø 80/50 mm

041086X0



1m extension,
ø 50 mm

1KWMA81U



Roof tile for flat roofs, PVC Ø 132 mm

1KWMA86U



Roof reduction from Ø 125 mm to Ø 80 mm, PVC
(For adaption of code 010026X to evacuation chimney only thus closing air inlet)

1KWMA82U



Roof tile for sloping roofs, PVC and lead moldable support Ø 132 mm

* INCLUDES Ø 132 MM COLLAR (ADJUSTABLE IN HEIGHT) FOR CONNECTION TO LAMBORGHINI CALORECLIMA'S ROOF TILES. ACCESSORIES VALID FOR ROOM SEALED MODELS ONLY





Flues chimney accessories traditional gas boilers and water heaters

010012X0



Concentric kit 01007X0 + 1KWMA56A
(made by: 90°bend, 1mt terminal pipe, Ø 60/100 mm)

1KWMA56A



1 mt concentric terminal pipe, Ø 60/100 mm, external PVC, internal aluminium.
Includes wall gasket.

1KWMA66A



1 mt concentric terminal pipe, Ø 60/100 mm, aluminium. Includes wall gasket.

1KWMR56A



1 MT concentric terminal pipe, Ø 80/125 mm, aluminium

1KWMA56U



1 mt M-F concentric extension, Ø 60/100 mm, external PVC, internal aluminium

1KWMR56U



1 mt M-F concentric extension, Ø 80/125 mm, external PVC, internal aluminium

1KWMA81W



90° M-F concentric bend, Ø 60/100 mm, external PVC, internal aluminium

010002X0



90° M-F concentric bend, Ø 80/125 mm, external PVC, internal aluminium

1KWMA31W



45° M-F concentric bend, Ø 60/100 mm, external PVC, internal aluminium

1KWMA72K



45° M-F concentric bend, Ø 80/125 mm, aluminium

1KWMA08K



1 mt M-F pipe, Ø 100 mm, aluminium

1KWMA38A



0,5 mt M-F pipe, Ø 80 mm, aluminium

1KWMA70U



90° M-F bend, Ø 80 mm, aluminium, with test point

1KWMA82A



90° M-F bend, Ø 80 mm, aluminium

1KWMA04K



90° M-F bend, Ø 100 mm, aluminium

Flues chimney accessories traditional gas boilers and water heaters

1KWMA65A



45° M-F bend, Ø 80 mm, aluminium

1KWMA03K



45° M-F bend, Ø 100 mm, aluminium

1KWMA02K



90° F-F bend, Ø 80 mm, aluminium

1KWMA01K



45° F-F bend, Ø 80 mm, aluminium

1KWMA19K



Reduction nipple for flexible pipe, Ø 72/79 mm, stainless steel AISI 316 L

1KWMA16U



Vertical connection, Ø 80 mm, aluminium, with test point

1KWMA03U



M-F reduction, Ø 80-100 mm, aluminium

ZB90160540



Flue kit (90° bend and 1 mt pipe) for BORUI series

Flues chimney accessories universal use - Accessories valid for room sealed models only

1KWMA84A



Wall gasket, Ø 80 mm, silicon

1KWMR11A



Wall gasket, Ø 100 mm, silicon

1KWMA91A



Wall gasket, Ø 60 mm, silicon

1KWMR09A



Wall gasket, Ø 125 mm, silicon

1KWMA85A



Air terminal, Ø 80mm, stainless steel

1KWMA14K



Air terminal Ø 100 mm, stainless steel

1KWMA86A



Flue terminal, Ø 80 mm, stainless steel

1KWMA29K



Flue terminal Ø 100 mm, stainless steel

1KWMA90A



Flue terminal, Ø 60 mm, stainless steel

1KWMA07U



Connection joint, Ø 80 mm, steel

1KWMA08U



Connection joint, Ø 100 mm, steel

Lamborghini CALORECLIMA



Floor standing Boilers and Generators

- Premixed gas condensing boilers
- Premixed gas condensing thermal modules
- Steel high-efficiency boilers
- Cast-iron high-efficiency boilers
- Steel thermal units
- Combinations



iXinox B

Floor standing condensing boiler, for heating only

- It reaches one of the highest seasonal space heating efficiencies in its category: η_s 94%
- A+ SYSTEM: combined with modulating remote control and outdoor probe
- Stainless steel primary heat exchanger
- Stainless steel full pre-mixing burner with broad modulating range
- Low consumption modulating heat circulator (ErP Ready - Class A)
- Digital controls with user interface display, multi-purpose for easily and correctly entering parameters
- Can be combined with the modulating remote control
- Easily accessible hydraulic and gas fittings to facilitate replacing old generators
- Flue gas discharge with spilt or coaxial pipes; possibility of right, left or rear outlet
- Minimum polluting emissions (class 6 according to EN 15502-1)
- Sliding temperature operating mode in combination with the optional outdoor probe
- Exchanger protection function with Δt control
- Timed circulator anti-seize system
- Digital flame control with three ignition attempts if operation gets blocked due to failed flame detection (only in natural gas mod.)
- Antifrost function with protection as per standard down to -5°C

Regulation and control panel

1. Key to increase/decrease parameters and domestic hot water temp. setting
2. Key to increase/decrease the central heating temp. setting.
3. Display.
4. Reset,
5. Summer/Winter mode selection, "Sliding Temp." Menu key.
6. Economy/Comfort mode selection, Device on/off key.
7. Hydrometer.

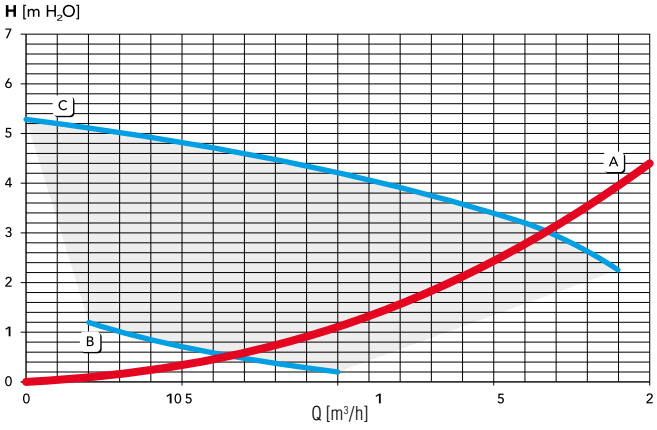


Boiler code	Boiler model
0TA03AWD	**IXINOX B 35 (M)**
054024X0	**Conversion kit to LPG**

Accessories on demand

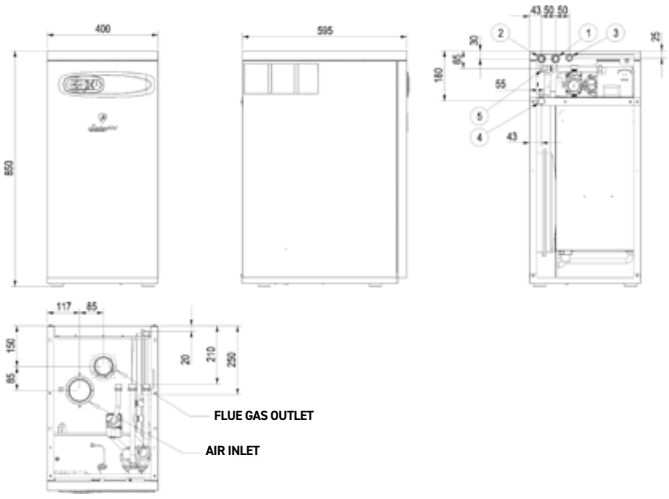
Code	Description
013018X0	Outdoor probe kit
1KWMA11W	Additional sensor for DHW storage tank 2 m cable
043005X0	Additional sensor for DHW storage tank 5 m cable
041001X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
041065X0	80/80 twin pipes discharge kit complete with test point
013017X0	Kit for management with thermostat (not supplied) of a DHW storage tank
Hydraulic - control accessories - / Flue gas accessories / Temperature controls see specific section ACCESSORIES	

PWM variable speed circulator residual head



MODEL			B 35
ERP Class			A
Heat input (LCV)	Heating Min / Max	kW	6.7 / 32.0
Heat output 80°C-60°C Heat output 50°C-30°C	Heating Min / Max Heating Min / Max	kW kW	6.6 / 31.4 7.2 / 34.0
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.0 / 97.8 106.1 / 107.5 108.8
NOx emissions class (EN 15502-1)		class	6
Heating operating pressure	Max	bar	3
Empty weight		kg	50

Dimensions (in mm)



1	Heating system flow	3/4”
2	Heating system return	3/4”
3	Gas inlet	1/2”
4	System filling	1/2”
5	Safety valve discharge	-

Specification notes

Thermal generator compliant with directives ErP (2009/125/EC) for ecodesign and ELD (2010/30/EC) on labelling (Seasonal energy efficiency of space heating Class A). It reaches one of the highest seasonal space heating efficiencies in its category: η_s 94%. Together with the modulating climatic regulation of the remote control and of the outdoor probe, designed in combination, it allows the system to exceed “Class A” ERP, classifying as CLASS A+ System, with a seasonal efficiency of the system at the TOP: 98%. Floor standing for heating only. Very high efficiency forced draught sealed chamber condensing premixed and very low pollution emissions (DHW comfort certificate 3 stars according to EN 13203, pollution Class 6 according to standard 15502-1, running with gaseous fuel with effective output in heating mode equal to 31.4 kW (at ΔT 80-60°C). Modulating heat output with continuity in the entire operating range (from 6.6 kW to 31.4 kW at ΔT=80-60°C and from 7.2 kW to 34.0 kW at ΔT=50-30°C). Useful thermal efficiency at ΔT = 80-60°C equal to 98.0% at Pmax and to 97.8% at Pmin, at ΔT = 50-30°C equal to 106.1% at Pmax and to 107.5% at Pmin; at reduced load (30% Pmax) equal to 108.8%. Close coupled combustion system including fan with silencer, air/gas mixing unit and radial burner in steel metal mesh. Primary exchanger consisting of a single steel coil. Circulator with modulating flow rate and anti-seize function. Microprocessor digital boiler control and regulation system, adjustment keys and user interface display. Control box fixed on hinges with possible leaf opening. Operation with climatic control at sliding temperature by using an outdoor probe (optional) and set up to use a modulating remote-control timer (optional). Heating operating pressure: 3 bar (max) - 0.8 bar (min). Heating expansion vessel capacity 10 litres. Heating safety valve calibrated to 3 bar. Double sensitive element delivery sensor with regulation and safety function. Control of delivery-return ΔT also thanks to the presence of the heating return temperature sensor. Flue gas temperature sensor to protect flue gas outlets in PPS. Water pressure switch calibrated at 0.8 bar. Hydraulic bypass. Electrical protection rating IPX5D.



iXinox B 32 K 50

Floor standing condensing boiler with stainless steel DHW storage tank

- It reaches one of the highest seasonal space heating efficiencies in its category: η_s 94%
- A+ SYSTEM: combined with modulating remote control and outdoor probe
- Stainless steel primary heat exchanger
- Production of domestic hot water with 50-litre stainless steel storage with fitting for recirculation
- Stainless steel full pre-mixing burner with broad modulating range
- Low consumption modulating heat circulator (ErP Ready - Class A)
- Digital controls with user interface display, multi-purpose for easily and correctly entering parameters
- Can be combined with the modulating remote control
- Easily accessible hydraulic and gas fittings to facilitate replacing old generators
- Flue gas discharge with spilt or coaxial pipes; possibility of rh, lh or rear outlet
- Minimum polluting emissions (class 6 according to EN 15502-1)
- Sliding temperature operating mode in combination with the optional outdoor probe
- Certified 3-star comfort in DHW production mode in accordance with EN 13203, amended by Reg. 812/2013
- Exchanger protection function with Δt control
- Timed anti-seize system for circulator and three-way valve
- Digital flame control with three ignition attempts if operation gets blocked due to failed flame detection (only in natural gas mod.)
- Antifrost function with protection as per standard down to -5°C

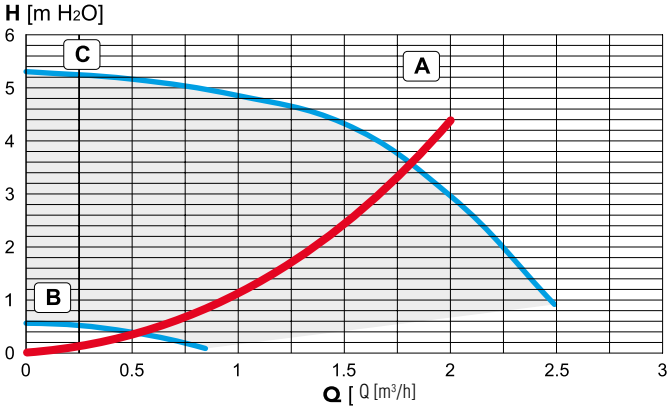
Regulation and control panel

1. Key to increase/decrease parameters and domestic hot water temp. setting
2. Key to increase/decrease the central heating temp. setting.
3. Display.
4. Reset,
5. Summer/Winter mode selection, “Sliding Temp.” Menu key.
6. Economy/Comfort mode selection, Device on/off key.
7. Hydrometer.



Boiler code	Boiler model
0TAS3AWD	**IXINOX B 32 K 50 (M)**
054024X0	**Conversion kit to LPG**

PWM variable speed circulator residual head

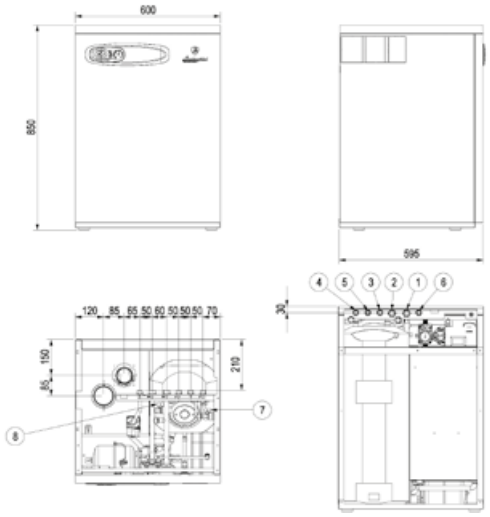


Accessories on demand

Code	Description
013018X0	Outdoor probe kit
041001X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
041065X0	80/80 twin pipes discharge kit complete with test point
Hydraulic - control accessories - / Flue gas accessories / Temperature controls see specific section ACCESSORIES	

MODEL			B 32 K 50
ErP Class			A
	XXL		A
Heat input (LCV)	Heating Min / Max Max DHW	kW kW	6.7 / 29.5 32.0
Heat output 80°C-60°C 50°C-30°C	Heating Min / Max Max DHW Heating Min / Max	kW kW kW	6.6 / 28.9 31.4 7.2 / 31.3
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.0 / 97.8 106.1 / 107.5 108.8
NOx emissions class (EN 15502-1)		class	6
Storage tank capacity		litres	50
Domestic hot water production	ΔT 30°C ΔT 30°C	l/10 min l/h	195 945
Heating operating pressure	Max	bar	3
DHW operating pressure	Max	bar	9
Empty weight		kg	58

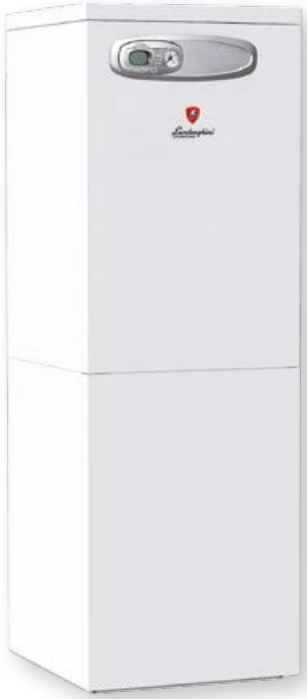
Dimensions (in mm)



1	Heating system flow	3/4”
2	Heating system return	3/4”
3	DHW outlet	1/2”
4	DHW inlet	1/2”
5	Recirculation	1/2”
6	Gas inlet	1/2”
7	Heating Safety Valve Discharge	-
8	DHW Safety Valve Discharge	-

Specification notes

Thermal generator compliant with directives ErP (2009/125/EC) for ecodesign and ELD (2010/30/EC) on labelling (Seasonal energy efficiency of heating Class A, DHW energy efficiency profile XXL Class A). It reaches one of the highest seasonal space heating efficiencies in its category: η_s 94%. Together with the modulating climatic regulation of the remote control and of the outdoor probe, designed in combination, it allows the system to exceed “Class A” ErP, classifying as CLASS A+ System, with a seasonal efficiency of the system at the TOP: 98%. Suitable for indoor installations. Steel casing painted white by anaphoresis epoxy powders. Appliance for heating and for production of stored domestic hot water. Very high efficiency forced draught sealed chamber condensing premixed and very low pollution emissions (DHW comfort certificate 3 stars according to EN 13203, pollution Class 6 according to standard EN 15502-1, running with gaseous fuel with effective output in heating mode (LCV) equal to 28.9 kW (at ΔT 80-60°C) and in DHW mode of 31.4 kW. Modulating heat output with continuity in the entire operating range both for heating (from 6.6 kW to 28.9 kW at ΔT=80-60°C and from 7.2 kW to 31.3 kW at ΔT=50-30°C) and for DHW (from 6.6 kW to 31.4 kW at ΔT=80-60°C). Useful thermal efficiency at ΔT = 80-60°C equal to 98.0% at Pmax and to 97.8% at Pmin, at ΔT = 50-30°C equal to 106.1% at Pmax and to 107.5% at Pmin; at reduced load (30% Pmax) equal to 108.8%. Specific domestic hot water production at ΔT 30°C equal to 195 l/10min. Continuous domestic hot water production at ΔT 30°C equal to 945 l/h. Close coupled combustion system including fan with silencer, air/gas mixing unit and radial burner in steel metal mesh. Primary exchanger consisting of a single stainless steel coil. Storage tank in AISI 316 stainless steel, 50 litre capacity, insulated with full cover in expanded polyurethane, fitted with 9 bar safety valve and 1/2” stored domestic hot water drain valve. Fitted with circulator for low consumption high efficiency modulating heating. Microprocessor digital boiler control and regulation system, adjustment keys and user interface display. Control box fixed on hinges with possible leaf opening. Operation with climatic control at sliding temperature by using an outdoor probe (optional) and set up to use a modulating remote-control timer (optional). Recirculation connection. Heating operating pressure: 3 bar (max) - 0.8 bar (min). Heating expansion vessel capacity 10 litres. 2 litre DHW expansion vessel. Heating safety valve calibrated to 3 bar. Double sensitive element delivery sensor with regulation and safety function. Control of delivery-return ΔT also thanks to the presence of the heating return temperature sensor. Domestic hot water operating pressure: Pmin= 0.3 bar Pmax= 9 bar. Flue gas temperature sensor to protect flue gas outlets in PPS. Water pressure switch calibrated at 0.8 bar. Hydraulic bypass. Electrical protection rating IPX5D.



iXinox B S 32 K 100

Floor standing condensing boiler with stainless steel DHW storage tank

- It reaches one of the highest seasonal space heating efficiencies in its category: η_s 94%
- A+ SYSTEM: combined with modulating remote control and outdoor probe
- Stainless steel primary heat exchanger
- Production of domestic hot water with 100-litre stainless steel storage tank with fitting for recirculation and front flange for inspection and maintenance
- Stainless steel full pre-mixing burner with broad modulating range
- Low consumption high efficiency modulating circulator (ErP Ready - class A)
- Digital controls with user interface display, multi-purpose for easily and correctly entering parameters
- Can be combined with the modulating remote control
- Easily accessible hydraulic and gas fittings to facilitate replacing old generators
- Flue gas outlet with split or coaxial pipes
- Minimum polluting emissions (class 6 according to EN 15502-1)
- Sliding temperature operating mode in combination with the optional outdoor probe
- Certified 3-star comfort in DHW production mode in accordance with EN 13203, amended by Reg. 812/2013
- Exchanger protection function with Δt control
- Timed anti-seize system for circulator and three-way valve
- Digital flame control with three ignition attempts if operation gets blocked due to failed flame detection (only in natural gas mod.)
- Antifrost function with protection as per standard down to -5°C

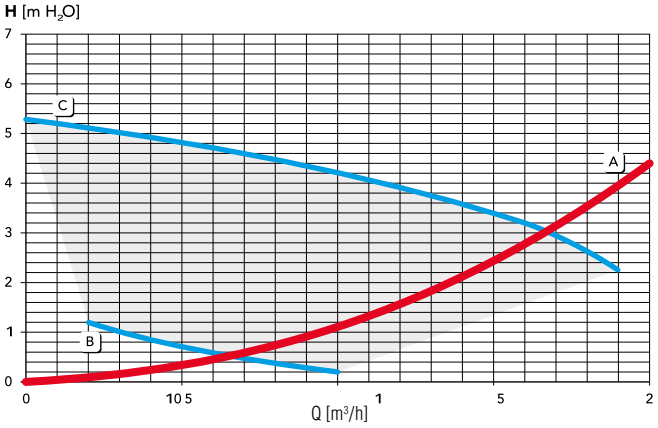
Regulation and control panel

1. Key to increase/decrease parameters and domestic hot water temp. setting
2. Key to increase/decrease the central heating temp. setting.
3. Display.
4. Reset, Summer/Winter mode selection, “Sliding Temp.” Menu key.
5. Economy/Comfort mode selection, Device on/off key.
6. Hydrometer.



Boiler code	Boiler model
0TAV3PWD	**IXINOX B S 32 K 100 (M)**
054025X0	**Conversion kit to LPG**

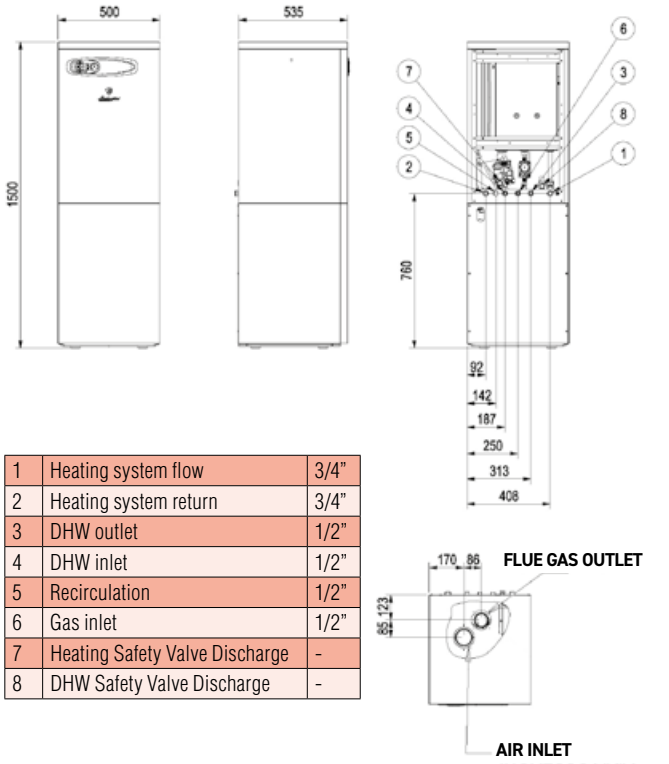
PWM variable speed circulator residual head



Code	Description
013018X0	Outdoor probe kit
041002X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers
041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers
041001X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers
041039X0	Flanged separate split discharge kit Ø 80 with flue gas inspection
Hydraulic - control accessories - / Flue gas accessories / Temperature controls see specific section ACCESSORIES	

MODEL			B S 32 K 100
ErP Class			A
	XXL		A
Rated heat input (LCV)	Min / Max heating Max / Min DHW	kW kW	6.7 / 29.5 6.7 / 32.0
Heating heat output 80°C-60°C 50°C-30°C	Min / Max heating Max DHW Min / Max heating	kW kW kW	6.6 / 28.9 31.4 7.2 / 31.3
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.0 / 97.8 106.1 / 107.5 108.8
NOx emissions class (EN 15502-1)		class	6
Storage tank capacity		litres	100
Domestic hot water production	ΔT 30°C ΔT 30°C	l/h l/10min	1000 270
Heating operating pressure DHW operating pressure	Max Heating / DHW Min Heating / DHW	bar bar	6 / 9 0.8 / 0.3
Empty weight		kg	86

Dimensions (in mm)



1	Heating system flow	3/4”
2	Heating system return	3/4”
3	DHW outlet	1/2”
4	DHW inlet	1/2”
5	Recirculation	1/2”
6	Gas inlet	1/2”
7	Heating Safety Valve Discharge	-
8	DHW Safety Valve Discharge	-

Specification notes

Thermal generator compliant with directives ErP (2009/125/EC) for ecodesign and ELD (2010/30/EC) on labelling (Seasonal energy efficiency of heating Class A, DHW energy efficiency profile XXL Class A), suitable for indoor installation. Steel casing painted white by anaphoresis epoxy powders. Appliance for heating and for production of stored domestic hot water. Very high efficiency forced draught sealed chamber condensing premixed and very low pollution emissions (DHW comfort certificate 3 stars according to EN 13203, pollution Class 6 according to standard EN 15502-1, running with gaseous fuel with effective output in heating mode (LCV) equal to 28.9 kW (at ΔT 80-60°C) and in DHW mode of 31.4 kW. Modulating heat output with continuity in the entire operating range both for heating (from 6.6 kW to 28.9 kW at ΔT=80-60°C and from 7.2 kW to 31.3 kW at ΔT=50-30°C) and for DHW (from 6.6 kW to 31.4 kW at ΔT=80-60°C). Useful thermal efficiency at ΔT = 80-60°C equal to 98.1% at Pmax and to 97.8% at Pmin, at ΔT = 50-30°C equal to 106.1% at Pmax and to 107.5% at Pmin; at reduced load (30% Pmax) equal to 109.8%. Specific domestic hot water production at ΔT 30°C equal to 275 l/10min. Continuous domestic hot water production at ΔT 30°C equal to 1000 l/h. Close coupled combustion system including fan with silencer, air/gas mixing unit and radial burner in steel metal mesh. Primary exchanger consisting of a single steel coil. Storage tank in AISI 316 stainless steel, 100 litre capacity, insulated with full cover in expanded polyurethane, fitted with 9 bar safety valve and 1/2” stored domestic hot water drain valve. Fitted with circulator for low consumption high efficiency modulating heating. Microprocessor digital boiler control and regulation system, adjustment keys and user interface display. Control box fixed on hinges with possible leaf opening. Operation with climatic control at sliding temperature by using an outdoor probe (optional) and set up to use a modulating remote-control timer (optional). Recirculation connection. Heating operating pressure: 3 bar (max) - 0.8 bar (min). Heating expansion vessel capacity 8 litres. 3 litre DHW expansion vessel. Heating safety valve calibrated to 3 bar. Double sensitive element delivery sensor with regulation and safety function. Control of delivery-return ΔT also thanks to the presence of the heating return temperature sensor. Domestic hot water operating pressure: Pmin= 0.3 bar Pmax= 9 bar. Flue gas temperature sensor to protect flue gas outlets in PPS. Water pressure switch calibrated at 0.8 bar. Hydraulic bypass. Electrical protection rating IPX5D.



Clover

Condensing thermal generator for large volume of water

- High power condensing thermal module with large water content, designed for single or cascade installations, in combination with a complete range of water, gas and flue gas accessories, up to 960 kW
- Hydraulic, gas and flue gas accessories for cascade installation, with 2 and 3 modules
- Flue gas pipe heat exchanger, made with AISI 316 Ti stainless steel, with vertical configuration, helical cross-section, set up perpendicularly to the flue gas chamber
- Full pre-mixing combustion unit with metal fibre front combustion burner with very low emissions (CLASS 6 according to EN 15502-1). The modules can run on Natural gas and LPG
- The combustion chamber has an extremely compact overall vertical dimension so that the exchange of water/flue gas can take place along the entire extension of the exchanger
- Generator protection systems: System double sensor (delivery and return) for operation at ΔT constant / Flue gas safety sensor / Water pressure switch with minimum threshold at 0.8 bar
- Air / Flue gas circuit with suction in the installation site and check valve integrated on the extraction unit to size the pressurised flue gas manifold
- Control panel protected by a door built into the casing with key lock
- Four heavy-duty floating wheels fitted as per standard to facilitate discharge and mobility inside the thermal power plant. Adjustable feet for positioning
- It reaches one of the highest seasonal space heating efficiencies in its category: η_s 94%
- A+ SYSTEM: combined with the modulating remote control and the outdoor probe (optional) it reaches the top efficiency class A^{+} (scale from G to A^{+++})
- The large volume of water of the generator allows the boiler to be connected to the system without the need for separating devices and allows for a very high design Δt
- Management of the modules in cascade set-up with self-configuring MASTER / SLAVE system
- Setting of switching on and off of generators (which can be switched on and off in sequence or work simultaneously in parallel) through the control panel of the MASTER generator
- Electronics on board the machine to manage a system with two direct zones and one DHW storage tank or systems with differentiated temperatures (direct and mixed) in combination with the FZ4 B temperature control unit
- RANGE RATED certified generator to adjust the generated power to the system's needs by increasing the efficiency of the system and preserving the mechanics of the machine
- The modules can be controlled and operated remotely: Regulation of power or temperature with 0 - 10V signal / Signalling of block alarm for safety and restoration of operation / OPENTHERM (OT) and MODBUS parameterisable communication protocols
- Electronic control of microprocessor combustion allows 1/5 modulation on the single generator and of the 1/15 for the maximum configuration (3 x 320 modules in cascade set-up)

Boiler code	Boiler model
0RBM4AWD	**CLOVER 70**
0RBM7AWD	**CLOVER 125**
0RBM8AWD	**CLOVER 160**
0RBMAAWD	**CLOVER 220**
0RBMDAWD	**CLOVER 320**

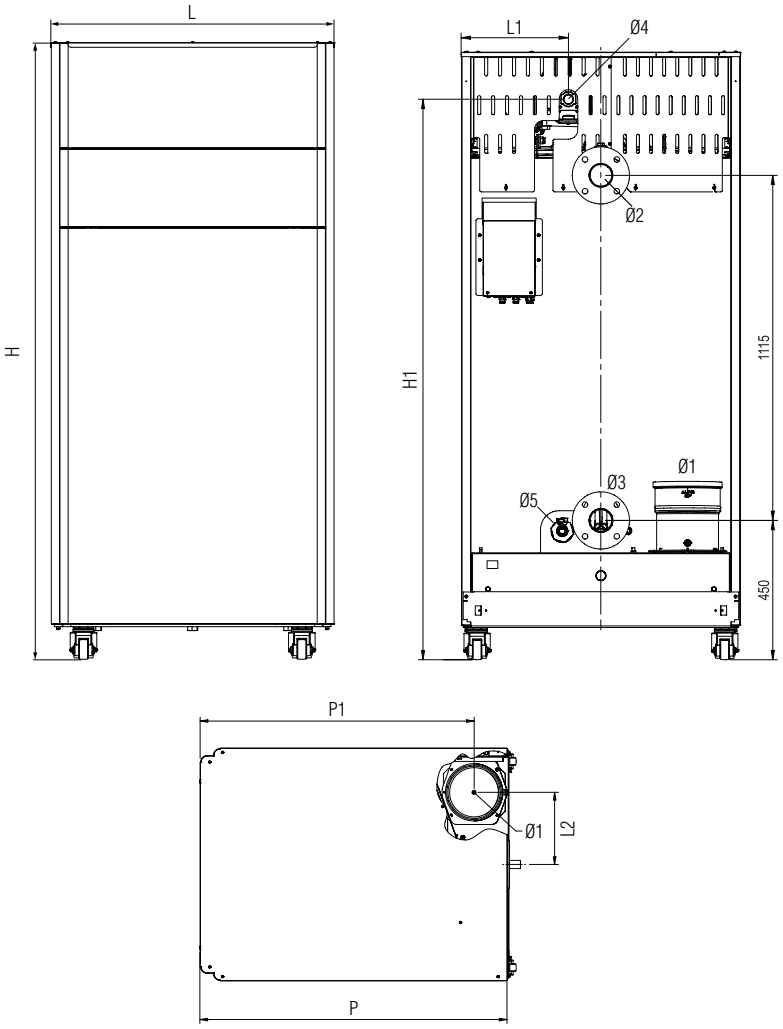
MODEL			70	125	160	220	320
ERP Class		(Class G - A++)	A	-	-	-	-
Heating heat input	Max / Min	kW	65.5 / 14.0	116.0 / 23.0	150,0 / 41,0	207.0 / 41.0	299.0 / 62.0
Heat output (80°C / 60°C)	Max / Min	kW	64.4 / 13.7	114.0 / 22.5	147,0 / 40,2	204.0 / 40.2	294.5 / 60.8
Heat output (50°C / 30°C)	Max /Min	kW	69.9 / 15.0	125.0 / 24.8	160,0 / 44,2	220.0 / 44.2	320.0 / 66.8
Efficiency (80°C / 60°C)	PMax / PMin	%	98.3 / 98.0	98.3 / 98.0	98,4 / 98,0	98.5 / 98.0	98.5 / 98.0
Efficiency (50°C / 30°C)	PMax / PMin	%	106.8 / 107.7	106.8 / 107.7	106,8 / 107,7	106.8 / 107.7	106.8 / 107.7
Efficiency	30% partial load	%	109.6	109.6	109,5	109.6	109.6
NOx emissions class			6	6	6	6	6
CO (o_2= 0%) weighted		mg / kWh	5.5	6	3	8	20
NOx (o_2= 0%) weighted		mg / kWh	18	17	22	22	20
Max operating pressure	Max / Min	bar	6 / 0.5	6 / 0.5	6 / 0,5	6 / 0.5	6 / 0.5
Water content of the generator		litres	160	265	380	380	530
Empty weight		Kg	180	280	400	400	500

Accessories for single installations

	Code	Description
	052000X0	motorised valve, DN 50 powered 230V - 50Hz **for model 70 and 125**
	052001X0	motorised valve, DN 65 powered 230V - 50Hz **for model 160 220 and 320**
	013018X0	Outdoor probe kit
	1KWMA11W	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 2 mt cable
	043005X0	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 5 mt cable
	-	**Plates**
	-	**Temperature control - Neutralisers** in chapter **ACCESSORIES**

	Code	Description
	041072X0	500 mm - 100 mm long PPS M/F flue gas pipe
	041074X0	500 mm - 160 mm long PPS M/F flue gas pipe
	041076X0	500 mm - 200 mm long PPS M/F flue gas pipe
	041073X0	1000 mm - 100 mm long PPS M/F flue gas pipe
	041018X0	1000 mm - 160 mm long PPS M/F flue gas pipe
	041062X0	1000 mm - 200 mm long PPS M/F flue gas pipe
	041077X0	PPS M/F 90° bend in PPS - 100 mm
	041015X0	PPS M/F 90° bend in PPS - 160 mm
	041060X0	PPS M/F 90° bend in PPS - 200 mm

Views and dimensions



Hydraulic, gas fittings and flue gas outlets

MODEL		70	125	160	220	320
Ø 1	Flue gas outlet Ø (mm)	80	100	160	160	200
Ø 2	System flow	1' 1/4	1' 1/4	2'	2'	DN 65
Ø 3	System Return	1' 1/4	1' 1/4	2'	2'	DN 65
Ø 4	Gas inlet	3/4'	1'	1'	1'	1'
Ø 5	Boiler discharge	3/4'	3/4'	3/4'	3/4'	3/4'

Heights and dimensions

ITEMS	L	L1	L2	H	H1	P	P1
	mm	mm	mm	mm	mm	mm	mm
CLOVER 70	540	305	210	1883	1815	730	685
CLOVER 125	660	390	160	1903	1800	880	810
CLOVER 160	780	450	240	1933	1815	1050	950
CLOVER 220	780	300	240	1933	1770	1050	950
CLOVER 320	900	350	280	1963	1810	1190	1060

Cascade installation



It is possible to connect in cascade a minimum of two 70 kW generators to a maximum of three 320 kW generators, in the combinations shown in the table.

Every detail of the CLOVER range has been designed to simplify cascade installations.

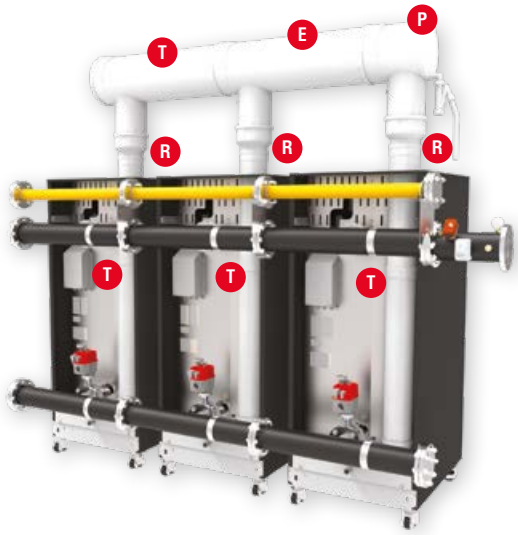
- The hydraulic connections have been positioned at the same heights to simplify connection to the system delivery and return manifolds.
- The satellite flue gas outlet with respect to the generator body and the backflow prevention damper positioned directly on the fan facilitate sizing and implementation of the flue gas manifold (pressurised).
- Coupled with a complete series of accessories for several two or three-generator bank combinations, reaching a maximum output of 960 kW.
- The electronics fitted as per standard was designed to autonomously manage the dynamics of several generators in cascade, with MASTER-SLAVE logic, up to a max of 6.
- By setting the parameters of the cascade MASTER board, the ignition and shutdown sequence of the various modules can be set and rotated so as to evenly divide the number of operating hours.

HEAT INPUT	HEAT OUTPUT		CASCADE MODULATION Pmin/Pmax 50/30°C	NR. OF MODULES	COMBINATION OF MODELS		
	80/60°C	50/30°C			1	2	3
kW	kW	kW	kW				
131,0	128,8	139,8	15,0 / 139,8	2	70	70	-
181,5	178,4	194,9	15,0 / 194,9	2	70	125	-
232,0	228,0	250,0	24,8 / 250,0	2	125	125	-
247,0	242,8	264,8	15,0 / 264,8	3	70	70	125
297,5	292,4	319,9	15,0 / 319,9	3	70	125	125
323,0	318,0	345,0	24,8 / 345,0	2	125	220	-
348,0	342,0	375,0	24,8 / 375,0	3	125	125	125
414,0	408,0	440,0	44,2 / 440,0	2	220	220	-
439,0	432,0	470,0	24,8 / 470,0	3	125	125	220
506,0	498,5	540,0	44,2 / 540,0	2	-	220	320
530,0	522,0	565,0	24,8 / 565,0	3	125	220	220
598,0	589,0	640,0	66,8 / 640,0	2	320	320	-
621,0	612,0	660,0	44,2 / 660,0	3	220	220	220
713,0	702,5	760,0	44,2 / 760,0	3	220	220	320
805,0	793,0	860,0	44,2 / 860,0	3	220	320	320
897,0	883,5	960,0	66,8 / 960,0	3	320	320	320

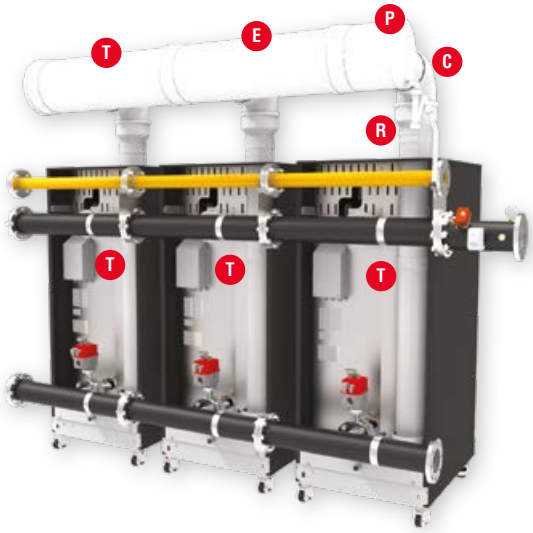
Note: the Company does not provide the accessories for other configurations not shown in the table

Configuration of hydraulic and gas manifold accessories

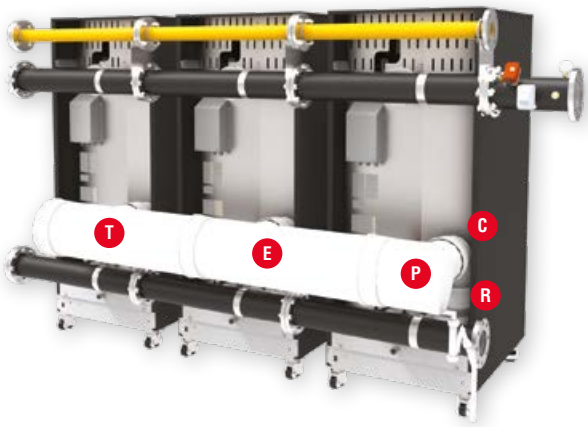
FLUE GAS MANIFOLD HIGH OUTLET



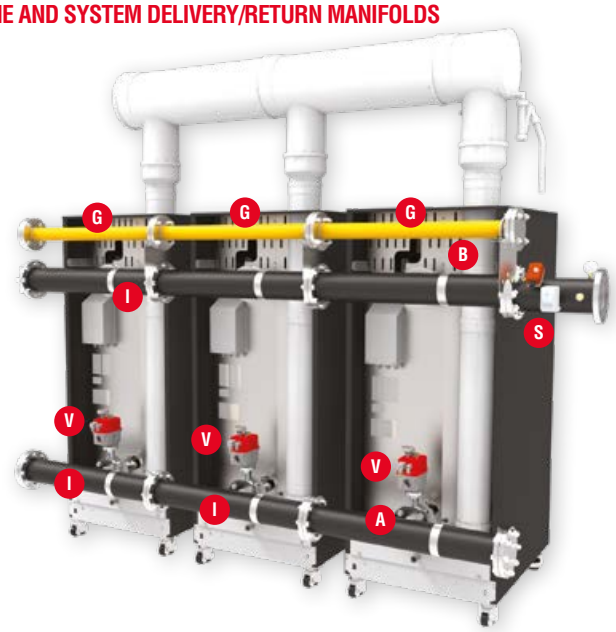
FLUE GAS MANIFOLD MEDIUM OUTLET



FLUE GAS MANIFOLD LOW OUTLET



GAS LINE AND SYSTEM DELIVERY/RETURN MANIFOLDS



Accessories for cascade installations



Code	Description
052000X0	motorised valve, DN 50 powered 230V - 50Hz **for model 70 and 125**
052001X0	motorised valve, DN 65 powered 230V - 50Hz **for model 160, 220 and 320**



Code	Description
-	**Temperature control - Neutralisers** in chapter **ACCESSORIES**



Code	Description
013018X0	Outdoor probe kit



Code	Description
1KWMA11W	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 2 mt cable
043005X0	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator - 5 mt cable



Code	Description
-	**Plates**

Configuration of accessories for cascade installations of 2-3 generators

					G	G	G	I	I	I	F	F	F	B	B	A	A	A
					1"1/2-1" gas manifold	2"-1" gas manifold	2" 1/2-1" gas manifold	DN50 - 2" hydraulic manifold	DN65 - 2" hydraulic manifold	DN100 - DN65 hydraulic manifold	DN50 flange kit	DN65 flange kit	DN100 flange kit	F-F 1"1/4 coupling	F-F 2" coupling	2" - 1"1/4 M-F reduction nipple	flange DN50 - connection 1"1/4	flange DN65 - sleeve 2"
																		
HEAT INPUT kW	CLOVER MODULES			MANIFOLD	0420500X0	0420501X0	0420502X0	0420503X0	0420504X0	0420505X0	0420590X0	0420600X0	0420610X0	0420620X0	0420630X0	0420640X0	0420650X0	0420660X0
	1	2	3		nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.	nr.
131,0	70	70	-	Gas	2													
				Delivery				2			1			2				
				Return				2			1						4	
181,5	70	125	-	Gas	2													
				Delivery				2			1			2				
				Return				2			1						4	
232,0	125	125	-	Gas	2													
				Delivery				2			1			2				
				Return				2			1						4	
247,0	70	70	125	Gas	3													
				Delivery				3			1			3				
				Return				3			1						6	
297,0	70	125	125	Gas	3													
				Delivery				3			1			3				
				Return				3			1						6	
323,0	125	220	-	Gas		2												
				Delivery					2			1			2	1		
				Return					2			1				1		4
348,0	125	125	125	Gas		3												
				Delivery					3			1			3	3		
				Return					3			1				3		6
414,0	220	220	-	Gas		2												
				Delivery					2			1			2			
				Return					2			1						4
439,0	125	125	220	Gas		3												
				Delivery					3			1			3	2		
				Return					3			1				2		6
506,0	220	320	-	Gas			2					1						
				Delivery						2			1					1
				Return						2			1					1
530,0	125	220	220	Gas		3												
				Delivery					3			1			3	1		
				Return					3			1				1		6
598,0	320	320	-	Gas			2					1						
				Delivery						2			1					
				Return						2			1					
621,0	220	220	220	Gas			3					1						
				Delivery						3			1					3
				Return						3			1					3
713,0	320	220	220	Gas			3					1						
				Delivery						3			1					2
				Return						3			1					2
805,0	320	320	220	Gas			3					1						
				Delivery						3			1					1
				Return						3			1					1
897,0	320	320	320	Gas			3					1						
				Delivery						3			1					
				Return						3			1					

Configuration of accessories for cascade installations of 2-3 generators

				P	P	P	E	E	E	T	T	T	T	T	T	C	C	C	R	R	R
				flue gas manifold d. 300 part.	flue gas manifold d. 200 part.	flue gas manifold d. 160 part.	flue gas manifold d. 300 ext.	flue gas manifold d. 200 ext.	flue gas manifold d. 160 ext.	pipe d. 200 MF l. 1000 PPS	pipe d. 200 MF l. 500 PPS	pipe d. 160 MF l. 1000 PPS	pipe d. 160 mf l. 500 PPS	pipe d. 100 MF l. 1000 PPS	pipe d. 100 MF l. 500 PPS	90° bend d. 200 MF PPS	90° bend d. 160 MF PPS	90° bend d. 100 MF PPS	reduction d. 160-200 MF PPS	reduction d. 100-160 MF PPS	reduction d. 80-100 MF PPS
																					
HEAT INPUT kW	**CLOVER MODULES**			**FLUE GAS EJECTION**	041070X0	041068X0	041066X0	041071X0	041069X0	041067X0	041062X0	041076X0	041018X0	041074X0	041073X0	041072X0	041060X0	041015X0	041077X0	041080X0	041079X0	041078X0
	1	**2**	**3**		**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**	**nr.**
131,0	70	70	-	Low			1			1									2			2
				Medium			1			1					2	2			2			2
				High			1			1					2	2						2
181,5	70	125	-	Low			1			1									2			1
				Medium			1			1					2	2			2			1
				High			1			1					2	2						1
232,0	125	125	-	Low			1			1									2			
				Medium			1			1					2	2			2			
				High			1			1					2	2						
247,0	70	70	125	Low			1			2									3			2
				Medium			1			2					3	3			3			2
				High			1			2					3	3						2
297,0	70	125	125	Low			1			2									3			1
				Medium			1			2					3	3			3			1
				High			1			2					3	3						1
323,0	125	220	-	Low		1			1									2			1	
				Medium		1			1				1	2	1	1		2			1	
				High		1			1				1	2	1	1					1	
348,0	125	125	125	Low		1			2									3			3	
				Medium		1			2						3	3		3			3	
				High		1			2						3	3					3	
414,0	220	220	-	Low		1			1									2				
				Medium		1			1				2	2				2				
				High		1			1				2	2								
439,0	125	125	220	Low		1			2					1				3			2	
				Medium		1			2				1	2	2	2		3			2	
				High		1			2				1	2	2	2					2	
506,0	220	320	-	Low	1			1									2			1		
				Medium	1			1			1	1		3			2			1		
				High	1			1			1	1		3						1		
530,0	125	220	220	Low		1			2					2				3			1	
				Medium		1			2				2	4	1	1		3			1	
				High		1			2				2	4	1	1					1	
598,0	320	320	-	Low	1			1									2					
				Medium	1			1			2	2					2					
				High	1			1			2	2										
621,0	220	220	220	Low	1			2									3			3		
				Medium	1			2						9			3			3		
				High	1			2						9						3		
713,0	320	220	220	Low	1			2									3			2		
				Medium	1			2			1	1		6			3			2		
				High	1			2			1	1		6						2		
805,0	320	320	220	Low	1			2									3			1		
				Medium	1			2			2	2		3			3			1		
				High	1			2			2	2		3						1		
897,0	320	320	320	Low	1			2									3					
				Medium	1			2			3	3					3					
				High	1			2			3	3										





Titan

Condensing heat generator with high power modulation, for outdoor use

- High power condensing heat generator with a **modulation range of up to 1/40**. Designed for installation in a central heating plant or **unprotected outdoors.**
- Heat exchange unit made up of a **string of aluminium-silicon alloy elements** designed to obtain maximum exchange efficiency and low pressure drops on the water circuit. Each element is complete with circulation unit and burner.
- The combustion units are of the complete premixing type, with a micro-flame burner with very low polluting emissions (Class 6 according to EN 15502-1). The generator can run on **Methane gas or LPG**
- Generator protection systems: Double sensor (delivery and return) system for operation at **constant ΔT** / Flue gas safety sensor / Water pressure switch with minimum threshold at 0.8 bar
- Hydraulic unit with **three-way shut-off valve for discharge into the atmosphere** on the return circuit and non-return valve on the delivery
- Air / Flue gas circuit with suction at the installation site and **clapet flue gas non-return valve** for sizing the pressurised manifold
- Four sturdy **floating wheels fitted as standard** to facilitate unloading and movements within the thermal power plant. All wheels are equipped with adjustment and locking systems.
- TITAN has been designed to be installed **both indoors and outdoors even without any weather protection.** It can be connected to the system on the right or left side and it is delivered complete with blind flanges.
- The electronic control supplied as standard with TITAN is able to: **configure the switch-on** and switch-off sequence of the individual heating units / manage a heating system with **two direct zones or one direct zone and a DHW storage tank** / adjust the power or temperature with the **0 - 10V signal** / remote the signal of any safety locks / restore normal operation remotely
- Combined with the **THETA+** temperature control kit, it is possible to manage: **up to eight generators in cascade** / a system with three heating circuits (of which **two mixed and one direct**) / the production of domestic hot water with an **external storage tank** / a second energy source (solar thermal, biomass, etc.)

Boiler code	Boiler model
0MCMFAWD	**TITAN 150**
0MCMJAWD	**TITAN 225**
0MCMLAWD	**TITAN 300**
0MCMMAWD	**TITAN 370**
0MCMNAWD	**TITAN 450**
0MCMPAWD	**TITAN 520**
0MCMQAWD	**TITAN 600**

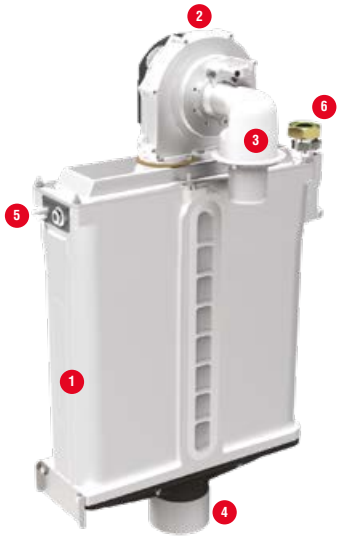
MODEL			**150**	**225**	**300**	**370**	**450**	**520**	**600**
Heat input	Max/Min	kW	142 / 15.5	213 / 15.5	284 / 15.5	355 / 15.5	426 / 15.5	497 / 15.5	568 / 15.5
Heat output (80°C/-60°C)	Max/Min	kW	139.2 / 13.7	208.8 / 13.7	278.4 / 13.7	348.1 / 13.7	417.7 / 13.7	487.3 / 13.7	556.9 / 13.7
Max heat output (50°C/-30°C)	Max/Min	kW	148.4 / 15.1	222.6 / 15.1	296.8 / 15.1	371 / 15.1	445.2 / 15.1	519.4 / 15.1	593.6 / 15.1
Modulation ratio	Max/Min		10 / 1	15 / 1	20 / 1	25 / 1	30 / 1	35 / 1	40 / 1
Efficiency 80°C-60°C	Pmax%/Pmin%		98.0 / 97.7						
Efficiency 50°C-30°C	Pmax%/Pmin%		104.5 / 108.2						
Reduced load 30%	%		108.8						
NOx class			6						
Weighted NOx (O_2= 0%)		mg/kWh	42						
Weighted CO (O_2= 0%)		mg/kWh	19						
Operating pressure	Pmax/Pmin	bar	6 / 0.8						
Degree of protection		IP	X05						
Power supply		V/Hz	230V - 50Hz						
Net weight		kg	220	260	295	360	400	470	505

Components description



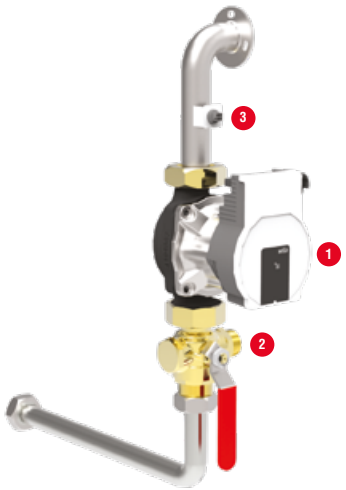
TITAN

1. Heat exchanger with aluminium-silicon alloy elements
2. Total premix combustion unit
3. System return unit
4. System flow unit
5. Air bleed valve
6. Hydraulic pressure safety sensor



THERMAL MODULE

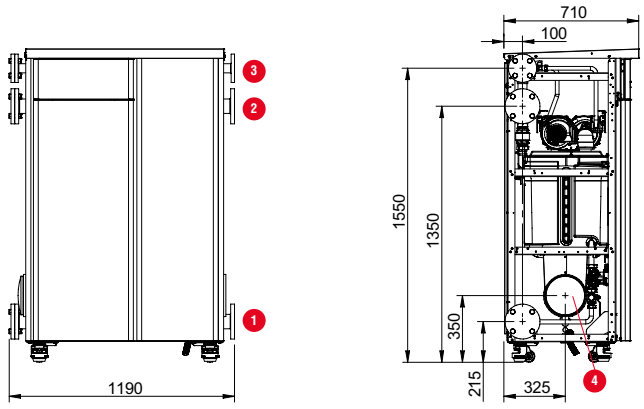
1. High performance heat exchanger with aluminium-silicon alloy elements. Each element can exchange up to 75 kW
2. Premix type combustion unit with modulating fan. Front burner with micro-flame and very low polluting emissions (NOx class 6).
3. FLUE GAS NON-RETURN VALVE. On the suction circuit there is a valve with a mobile damper which prevents the flue gases from going back into the room through the boiler. This allows for the combustion gases to be discharged while pressurised and, consequently, for the flue system to have a smaller diameter compared to traditional vacuum systems.
4. Condensation collection collector
5. Ignition electrodes and flame sensor
6. Delivery temperature sensor



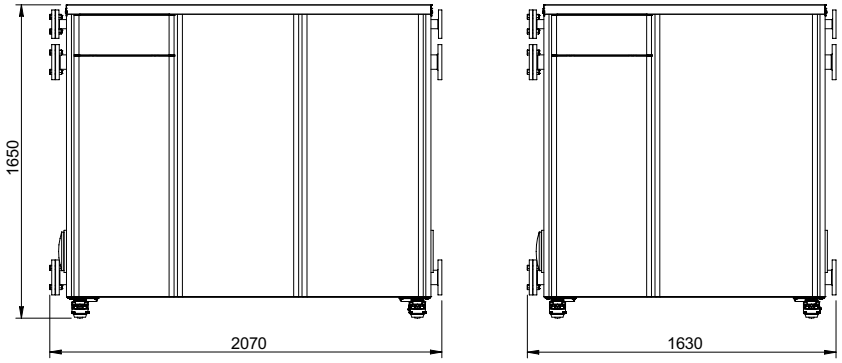
SYSTEM CIRCULATION / RETURN UNIT

1. High-efficiency modulating circulator.
   Max. head 8 metres
2. 3-way valve with discharge into the atmosphere on each thermal module for safe disconnection.
3. System return temperature sensor

Dimensions and connections



mod. 150 - 225 - 300



mod. 520 - 600 | mod.370 - 450

1. DN 65 System return
2. DN 65 System flow
3. DN 40 Gas inlet
4. Flue gas outlet - Ø 200 mm

ACCESSORIES on request for configuration according to the design specifications

	Code	Description	
	1KWMA11W	additional sensor for boiler and/or system delivery for cascade configurations with and without hydraulic separator	cable 2 m
	043005X0		cable 5 m
	046062X0	Empty technical cabinet for outdoor use	
	013018X0	external probe	
	042086X0	Hydraulic separator DN 32 (up to 150 kW). Connection with the generator is the responsibility of the installer	
	042078X0	Hydraulic separator DN 65 (from 151 kW up to 300 kW)	
	042089X0	Hydraulic separator connection kit (from 151 kW up to 300 kW)	
	042080X0	Hydraulic separator DN 100 (from 301 kW up to 600 kW)	
	042088X0	Hydraulic separator connection kit (from 301 kW up to 600 kW)	

	Code	Description
	042057X0	INAIL connection (complete with equipment) DN65 PN16
	013017X0	kit for the management of a DHW boiler with a thermostat (not supplied)
	041076X0	PPS smoke pipe M/F length 500 mm - 200 mm
	041062X0	PPS smoke pipe M/F length 1000 mm - 200 mm
	041060X0	90° elbow M/F, PPS - 200 mm
	-	plate exchanger, see sizing and selection page
	-	See chapter “Accessories - Water treatment”
	-	Condensate neutraliser kit (see dedicated section among accessories)



Prex H 3 Cond 65-1000

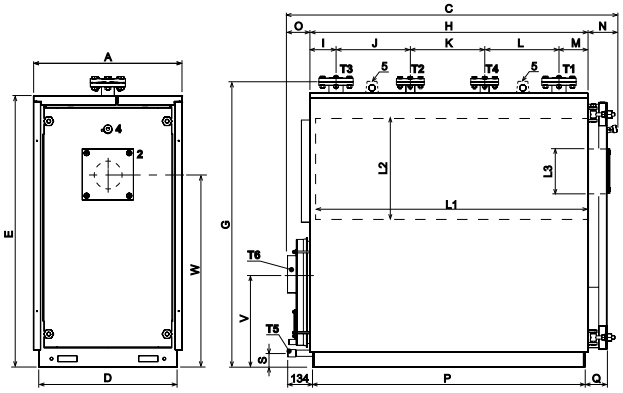
Three pass flue condensing generators

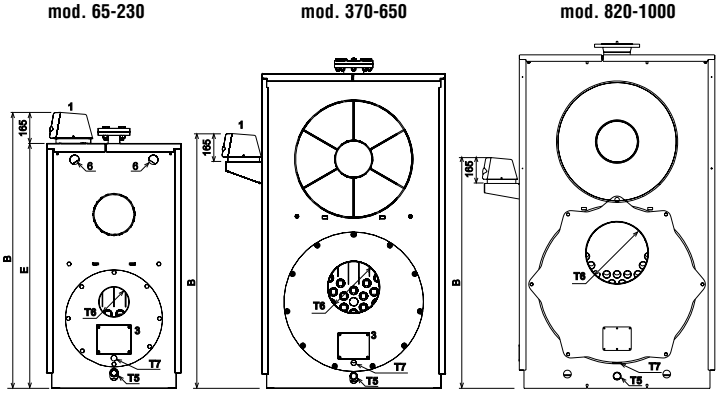
- Steel condensing heat generator with high water content, designed to work in conjunction with gas or oil jet burners
- Boiler with three smoke passes, with return pipe from the bottom of the combustion chamber (second pass) and shell and tube (third pass), built in stainless steel 2205 (Duplex) to guarantee the highest resistance to the corrosive effects of condensation
- Floating combustion chamber with wet bottom, low volumetric heat load and standard turbulators on the last flue gas pass
- Front close coupled door equipped with blind flange for securing the burner. All the parts in contact with the flue gas are coated with refractory material offering high resistance and thermal insulation. Reversible opening (right and left) and closing system and micro-metric adjustment on four points
- Double return fitting for low and high temperature systems
- Small front clearance to fit the generator through the accessways of thermal power plants
- High energy efficiency
- Maximum operating pressure 6 bar
- Heat transfer fluid circulation control system inside the body to improve exchange and avoid thermal shock
- "Satellite" control panel available in thermostatic version

Boiler code	Boiler model	
0RGZ3AXD	**Prex H 3 Cond 65**	
0RGZ4AXD	**Prex H 3 Cond 100**	
0RGZ5AXD	**Prex H 3 Cond 150**	
0RGZ8AXD	**Prex H 3 Cond 230**	
0RGZBAXD	**Prex H 3 Cond 370**	
0RGZDAXD	**Prex H 3 Cond 500**	
0RGZGAXD	**Prex H 3 Cond 650**	
0RGE00XD	**PREX H 3 COND 820**	
0RGF00XD	**PREX H 3 COND 1000**	
0Q2K10XA	**Thermostatic control panel ***	
*** The generator is not supplied as per standard with control panel. It must be ordered to complete the supply**		

MODEL			**65**	**100**	**150**	**230**	**370**	**500**	**650**	**820**	**1000**
ERP Class			A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Heat input (kW)		Max	61.3	94.3	141.5	217	349.1	471.7	613.2	767	935
		Min	18.4	28.3	42.5	65.1	104.7	141.5	184	498	608
Effective rated output (80/60°C) (kW)		Max	59.5	91.5	137.3	210.5	338.6	457.5	594.8	752	916
		Min	18	27.7	41.6	63.8	102.6	138.7	180.3	489	595
Effective rated output (50/30°C) (kW)	Gas	Max	65	100	150	230	370	500	650	820	1000
		Min	19.7	30.3	45.4	69.7	112	151.4	196.8	533	650
	Oil	Max	62.9	96.7	145	222.4	357.8	483.5	628.5	793.5	967.7
		Min	19.1	29.4	44.2	67.7	108.9	147.2	191.3	516.7	630
Efficiency (50/30°C) (%)	Gas	Max	106	106	106	106	106	106	106	106	106
		Min	107	107	107	107	107	107	107	107	107
	Oil	Max	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5
		Min	104	104	104	104	104	104	104	104	104
Efficiency 30%	Gas	Max	107.5	107.5	107.5	107.5	107.5	107.5	107.5	107.5	107.5
	Oil	Min	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
Max operating pressure		bar	6	6	6	6	6	6	6	6	6
Flue gas side pressure drop		mbar	0.4	0.65	1.7	1.7	2	3.5	4.2	6	6.4
Protection rating			IPX0D								
Electric power supply		V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Empty weight		Kg	377	436	490	645	1035	1338	1451	2050	2150

Dimensions (in mm)





T1 Heating delivery
T2 High temperature return
T3 Low temperature return
T4 Safety fitting
T5 Boiler discharge connection
T6 Chimney connection
T7 Condensate discharge connection
1 Tool panel
2 Burner connection flange
3 Flue gas chamber cleaning door
4 Flame control light

MODEL			65	100	150	230	370	500	650	820	1000
Measurements	A	mm	700	700	700	800	950	1050	1050	1180	1180
	B	mm	1437	1437	1437	1637	1462	1462	1462	1424	1424
	C	mm	1157	1377	1577	1777	1987	2187	2387	2620	2620
	D	mm	650	650	650	750	900	1000	1000	1120	1120
	E	mm	1275	1275	1275	1475	1655	1805	1805	2006	2006
	G	mm	1335	1335	1335	1535	1715	1860	1860	2075	2075
	H	mm	878	1098	1298	1498	1698	1900	2100	2094	2094
	I	mm	123	123	123	142	172	179	179	224	224
	J	mm	200	260	350	400	450	500	600	650	650
	K	mm	200	300	320	400	450	500	600	300	450
	L	mm	200	260	350	400	450	500	500	600	600
	M	mm	155	155	155	156	176	221	221	320	320
	N	mm	157	157	157	157	167	167	167	278	273
	O	mm	122	122	122	122	122	120	120	262	262
	P	mm	846	1066	1266	1467	1667	1867	2067	2068	2216
	Q	mm	134	134	134	134	144	144	144	226	226
	S	mm	80	80	80	80	70	70	70	78	78
	V	mm	450	443	435	500	550	587	580	830	830
	W	mm	905	905	905	1055	1200	1315	1315	1480	1480
System flow	T1		DN 50	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN 125	DN 125
High temperature system return	T2		DN 40	DN 40	DN 40	DN 40	DN 50	DN 65	DN 65	DN 65	DN 65
Low temperature system return	T3		DN 50	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN 125	DN 125
Safety fitting	T4		DN 40	DN 40	DN 40	DN 40	DN 50	DN 65	DN 65	DN 80	DN 80
Boiler discharge	T5		1"	1"	1"	1"	1"	1"	1"	1" 1/2	1" 1/2
Flue gas outlet	T6	EØ mm	160	160	160	200	250	300	300	350	350
Hearth length	L1	mm	686	906	1106	1308	1473	1672	1872	1980	2130
Internal diameter of the hearth	L2	Ø mm	420	420	420	500	550	610	610	700	700
Max nozzle diameter	L3	Ø mm	155	155	155	155	190	190	190	270	270
Nozzle length min / max		mm	160/230	160/230	160/230	160/230	160/230	160/230	160/230	320/390	320/390



Prex H 3 LN

Three pass flues steel boiler

- Monobloc generator, 3-pass flues, small thermal load, vertical layout and extremely compact front dimensions. Homologated for systems untill 100°C
- Ready for coupling with jet burners, operating with gas or oil and with low polluting emissions
- Large combustion chamber with floating cooled back
- Flues bundle for second and third flue-pass is situated in the top side of the combustion chamber. Flues tubes protudes from the plate, in order to avoid condensation
- Steel turbolators, increasing thermal efficiency of the generator. They have been carefully designed not to worsen flues pressure drop
- High efficiency. Ranges between 94,7% and 96,3% on LCV (t_{avg} 70°C)
- Max operating pressure: 6 bars. Higher pressure specifications upon demand
- Vertical connection are threaded until model 240 and flanged until model 600
- Completely insulated front door and reversible opening (right and left), thanks to an innovating mechanism on boiler body, with micrometric adjustment. Equipped with flame inspection hole and test point for combustion chamber back pressure
- Models with effective output less than or equal to 400 kW are exclusively suited for replacements according to that set forth by art. 1, paragraph 2, letter G of EU regulation 813/2013

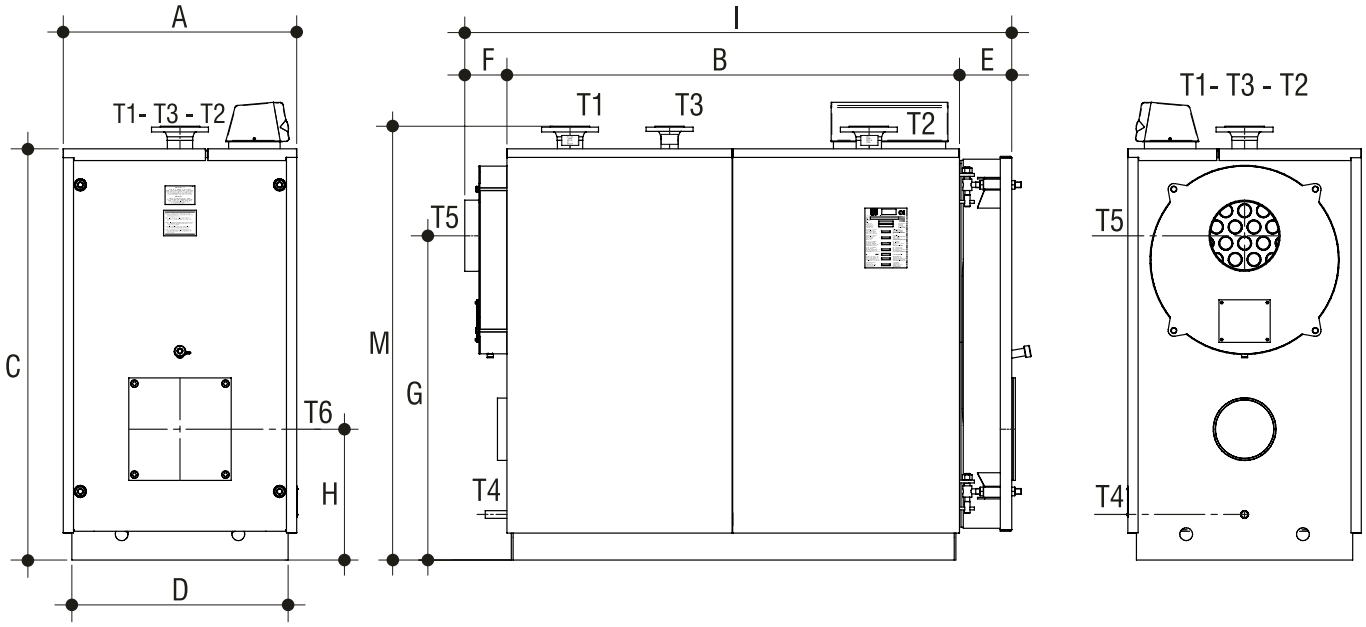
Boiler code	Boiler model
0RD099XD	**PREX H3 70 LN (UN)**
0RD000XD	**PREX H3 92 LN (UN)**
0RD100XD	**PREX H3 107 LN (UN)**
0RD200XD	**PREX H3 152 LN (UN)**
0RD300XD	**PREX H3 190 LN (UN)**
0RD400XD	**PREX H3 240 LN (UN)**
0RD600XD	**PREX H3 320 LN (UN)**
0RD800XD	**PREX H3 399 LN (UN)**
0RDB00XD	**PREX H3 500 LN (UN)**
0RDD00XD	**PREX H3 600 LN (UN)**
0RDE00XD	**PREX H3 720 LN (UN)**
0RDF00XD	**PREX H3 820 LN (UN)**
0RDG00XD	**PREX H3 940 LN (UN)**
0RDH00XD	**PREX H3 1060 LN (UN)**
0RDJ00XD	**PREX H3 1250 LN (UN)**
0RDL00XD	**PREX H3 1480 LN (UN)**
0RDP00XD	**PREX H3 1890 LN (UN)**
0RDS00XD	**PREX H3 2360 LN (UN)**
0RDT00XD	**PREX H3 2800 LN (UN)**
0RDU00XD	**PREX H3 3200 LN (UN)**
0Q2K10XA	**Thermostatic control control panel ***

*** The generator is not supplied as per standard with control panel. It must be ordered to complete the supply**

MODEL		**70**	**92**	**107**	**152**	**190**	**240**	**320**	**399**	**500**	**600**
Useful potential (min-max)	kW	46-70	60-92	70-107	100-152	137-190	160-240	196-320	260-399	341-500	390-600
Firebox potential (min-max)	kW	48 -73.9	62.7-97.1	73.2-112.9	104.7-160.5	143.8-200.8	167.8-252.9	205.2-335.7	271.5-417.4	354.6-522.8	403.8-627.2
Total boiler capacity	l	110	110	171	171	245	287	435	435	576	576
Flue gas side pressure drops	mbar	0.54	0.89	1.2	1.65	1.8	2.4	3.3	4.4	5.43	6.2
Max operating pressure	bar	6	6	6	6	6	6	6	6	6	6
Empty weight	kg	236	236	332	332	460	524	833	833	1146	1146

Model		**720**	**820**	**940**	**1060**	**1250**	**1480**	**1890**	**2360**	**2800**	**3200**
Rated potential (min-max)	kW	468-720	533-820	611-940	689 - 1060	813 - 1250	962 - 1480	1229 - 1890	1535-2360	1820-1887.5	2080-3200
Firebox potential (min-max)	kW	484.8-752.5	522.3-856.7	633.4-981.6	714.5-1106.3	843.7-1303.6	999.1-1542.0	1278.1-1919.3	1598.9-2449.8	1887.5-2913.6	2155.4-3325.3
Total boiler capacity	l	866	866	1,506	1,506	1,822	2,034	2,509	2,783	3,355	3,697
Flue gas side pressure drops	mbar	5.9	6.7	6.3	7.2	7	7.4	7.2	7.8	7.5	9
Max operating pressure	bar	6	6	6	6	6	6	6	6	6	6
Empty weight	kg	1,557	1,584	2,329	2,329	2,601	2,871	3,552	4,041	5,690	6,180
Models with effective output less than or equal to 400 kW are only suited for industrial applications											

Dimensions (in mm)



Model			70	92	107	152	190	240	320	399	500	600
DIMENSIONS	A	mm	670	670	670	670	760	760	820	820	855	855
	B	mm	770	770	1.190	1.190	1.190	1.390	1.590	1.590	1.990	1.990
	C	mm	1.116	1.116	1.116	1.116	1.271	1.271	1.456	1.456	1.546	1.546
	D	mm	610	610	610	610	700	700	760	760	790	790
	E	mm	146	146	146	146	165	165	184	184	184	184
	F	mm	152	152	152	152	152	152	152	152	152	152
	G	mm	880	880	880	880	985	985	1.140	1.140	1.225	1.225
	H	mm	390	390	390	390	420	420	460	460	480	480
	I	mm	1.135	1.135	1.555	1.555	1.570	1.770	1.990	1.990	2.390	2.390
	M	mm	1.185	1.185	1.185	1.185	1.340	1.340	1.525	1.525	1.615	1.615
CONNECTIONS	delivery (T1)		2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	DN 80	DN 80	DN 100	DN 100
	return (T2)		2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	DN 80	DN 80	DN 100	DN 100
	safety devices (T3)		1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	DN 50	DN 50	DN 65	DN 65
	drain (T4)		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
	flue gas outlet (T5 Ø)		160	160	160	160	220	220	250	250	300	300
	burner connection (T6 Ø)		145	145	145	150	150	150	240	240	240	210
	nozzle min/max lg. (T6)		250/320	250/320	250/320	250/320	250/320	250/320	250/320	290/360	290/360	320/390



Megaprex N N

Steel heat generator with flame inversion

- Pressurised heat generator designed for jet burner with liquid and/or gaseous fuel, with flame inversion firebox in the combustion chamber
- Steel boiler body completely covered with insulating material and removable outer casing in grey painted sheet metal
- Large completely wet combustion chamber
- Front door with reversible opening (right and left) and innovative adjustment and closing system in a single mechanism
- System flow and return fittings threaded up to mod. 401, from mod. 525 flanged
- Maximum operating pressure 6 bar
- Heat transfer fluid circulation control system inside the body to improve exchange and avoid thermal shock
- "Satellite" control panel designed to work with single-stage, two-stage and two-stage progressive burners.
- Delivered complete with connection flanges to the system, command control panel (to be ordered upon completion) and 'blind' burner plate (drilled on demand).
- **NOTE** The generators of the MEGAPREX N N series (from model 92 to 350) can only be sold and installed in conformity with EU regulation 813/2013 (art. 1, Paragraph 2, Section G)

Boiler code	Boiler model
0QIJ3AXD	**MEGAPREX N 92N (WN)**
0QIJ4AXD	**MEGAPREX N 107N (WN)**
0QIJ6AXD	**MEGAPREX N 152N (WN)**
0QIJ7AXD	**MEGAPREX N 190N (WN)**
0QIJ8AXD	**MEGAPREX N 240N (WN)**
0QIJ9AXD	**MEGAPREX N 300N (WN)**
0QIJAAXD	**MEGAPREX N 350N (WN)**
0QIJBAXD	**MEGAPREX N 401N (WN)**
0QIJEAXD	**MEGAPREX N 525N (WN)**
0QIJFAXD	**MEGAPREX N 600N (WN)**
0QIJHBXD	**MEGAPREX N 720N (WN)**

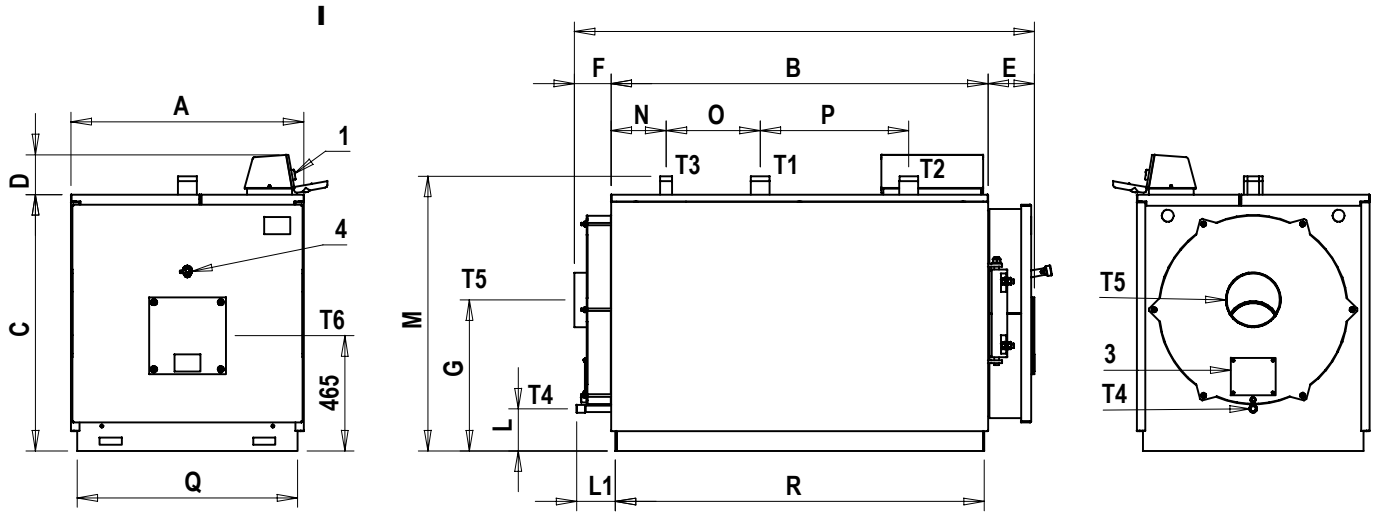
Boiler code	Boiler model
0QIJIBXD	**MEGAPREX N 820N (WN)**
0QIJJBXD	**MEGAPREX N 940N (WN)**
0QIJKBXD	**MEGAPREX N 1060N (WN)**
0Q2K10XA	**Thermostatic control panel ***

*** The generator is not supplied as per standard with control panel. It must be ordered to complete the supply**

MEGAPREX N		92N	107N	152N	190N	240N	300N	350N
Rated output	min kW	60	70	100	137	160	196	228
	max kW	92	107	152	190	240	300	350
Combustion chamber (firebox) output	min kW	64.3	75	107.3	147.4	170.9	209.5	242.5
	max kW	99.5	116	165	206	261	326	378
Useful efficiency at Pn	100% Pn	92.48	92	92.3	91.95	92.25	92.05	92.51
	30% Pn	93.95	93.65	94.5	93.46	94.24	94.12	95.5
Total capacity of the boiler	litres	120	120	185	185	235	300	365
Water side pressure drops	mbar at ΔT 10°C	8	11	20	12	17	40	48
	mbar at ΔT 20°C	4	6	12	7	10	17	23
	mbar at ΔT 30°C	2	2.5	5	3	4	9	13
Flue gas side pressure drops	mbar	0.5	0.7	1.2	1.2	2.3	3.3	3.5
Maximum operating pressure	bar	6	6	6	6	6	6	6
Dry weight	kg	260	260	350	350	440	480	590

MEGAPREX N		401N	525N	600N	720N	820N	940N	1060N
Rated output	min kW	260	341	390	468	533	611	667
	max kW	401	525	600	720	820	940	1000
Combustion chamber output	min kW	277.5	364.5	417	502	566	651	717
	max kW	434	567	648	777	881	1011	1075
Useful efficiency at Pn	100% Pn	92.3	92.5	92.56	92.71	93.1	92.95	93.05
	30% Pn	94.19	94.15	94.32	93.6	94.4	94.2	96.75
Total capacity of the boiler	litres	365	405	465	735	735	850	1250
Water side pressure drops	mbar at ΔT 10°C	43	40	51	32	40	51	65
	mbar at ΔT 20°C	31	22	28	18	25	25	33
	mbar at ΔT 30°C	16	12	16	10	18	16	20
Flue gas side pressure drops	mbar	4.4	4.3	4.8	4.5	5.6	5.4	6
Maximum operating pressure	bar	6	6	6	6	6	6	6
Dry weight	kg	590	860	970	1250	1250	1420	1580

Dimensions (in mm)



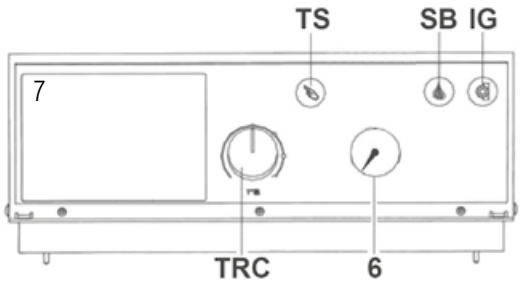
MEASUREMENTS		92N	107N	152N	190N	240N	300N	350N
A	mm	800	800	800	800	800	940	940
B	mm	772	772	1022	1022	1272	1272	1522
C	mm	860	860	915	915	915	1035	1035
D	mm	162	162	162	162	162	162	162
E	mm	167	167	167	167	167	187	187
F	mm	148	148	148	148	148	148	148
G	mm	510	510	545	545	545	630	630
H	mm	385	385	425	425	425	465	465
I	mm	1087	1087	1337	1337	1587	1607	1857
L	mm	160	160	165	165	165	185	185
L1	mm	156	156	156	156	156	156	156
M	mm	925	925	980	980	980	1100	1100
N	mm	152	152	172	172	222	222	222
O	mm	150	150	230	230	330	330	380
P	mm	250	250	350	350	450	450	600
Q	mm	750	750	750	750	750	890	890
R	mm	740	740	990	990	1240	1240	1490
Hot water inlet	T1	2”	2”	2” 1/2	2” 1/2	2” 1/2	2” 1/2	2” 1/2
Hot water return	T2	2”	2”	2” 1/2	2” 1/2	2” 1/2	2” 1/2	2” 1/2
Expansion vessel connection	T3	1 1/2	1 1/2”	1 1/2”	1 1/2”	1 1/2”	1 1/2”	1 1/2”
Boiler discharge	T4	3/4	3/4”	3/4”	3/4”	3/4”	3/4”	3/4”
Flue gas outlet	T5 Ø and mm	200	200	220	220	220	220	220

MEASUREMENTS		401N	525N	600N	720N	820N	940N	1060N
A	mm	940	1050	1050	1250	1250	1250	1430
B	mm	1522	1534	1794	1784	1784	2024	2028
C	mm	1035	1185	1185	1335	1335	1335	1515
D	mm	162	162	162	162	162	162	162
E	mm	187	182	182	212	212	212	240
F	mm	148	143	143	219	219	219	214
G	mm	630	725	725	830	830	830	900
H	mm	455	518	518	565	565	565	670
I	mm	1857	1859	2119	2215	2215	2455	2482
L	mm	170	205	205	196	196	196	196
L1	mm	156	155	155	227	227	227	227
M	mm	1100	1250	1250	1400	1400	1400	1580
N	mm	222	228	228	223	223	223	227
O	mm	380	380	440	440	440	480	480
P	mm	600	600	700	700	700	900	900
Q	mm	890	1000	1000	1200	1200	1200	1380
R	mm	1490	1492	1752	1752	1752	1992	1992
Hot water inlet	T1	2” 1/2	DN 80	DN 80	DN 100	DN 100	DN 100	DN 125
Hot water return	T2	2” 1/2	DN 80	DN 80	DN 100	DN 100	DN 100	DN 125
Expansion vessel connection	T3	1 1/2”	2”	2”	2 1/2	2 1/2	2 1/2	3
Boiler discharge	T4	3/4”	3/4”	3/4”	1	1	1	1
Flue gas outlet	T5 Ø and mm	220	250	250	340	340	340	400



Thermostatic control panel

- Can be combined with single-stage and two-stage jet burners
- Double contact regulation thermostat
- Anticondensation function with minimum threshold for starting the adjustable pump



- **Composed of**
- **IG** Main switch
- **SB** Blocked burner light
- **TRC** Adjustment thermostat
- **TS** Safety Reset / Thermostat
- **6** Thermometer
- **7** Temperature control set-up (not supplied)

Code	Model
0Q2K10XA	**Thermostatic control panel**

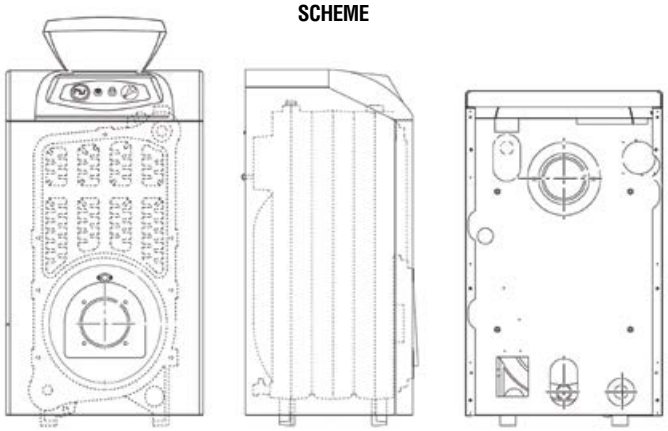


EL DB N

3 Pass-flues boiler, for oil or gas jet burner, heating only

- High efficiency cast iron boiler body, featuring 3 pass technology, insulated with high density rockwool
- Silent operation thanks to low flues turbulence
- Widely copes with requirements for 2 stars efficiency according to directive 92/42 EEC, emended by Reg. 812/2013
- Conic chimney stack, in order to easily adapt to different tolerances of flue pipes diameters
- Analogue control panel with elegant fume cover
- Control board includes thermometer, ignition switch, safety thermostat with manual reset and temperature setting knob
- Stylish steel jacket painted by anaphoresis with epoxy powder
- Available complete range of one and 2 stages burners to be easily fitted, both for gas or liquid fuel

SCHEME



Boiler code	Boiler model
0IHJ3DWD	**EL DB N 32**
0IHJ4DWD	**EL DB N 47**
0IHJ5DWD	**EL DB N 62**
0IHJ6DWD	**EL DB N 78**
0IHJ7DWD	**EL DB N 95**

MODEL			**32**	**47**	**62**	**78**	**95**
Heat input	Max Heating	kW	34.9	51.6	67.7	85.6	103.2
Heat output	Max Heating	kW	32.0	47.0	62.0	78.0	95.0
Efficiency	80°C - 60°C 30% load	Pmax % %	91.7 94.3	91.1 93.5	91.5 94.0	91.1 93.5	92.0 93.8
Number of element		no.	3	4	5	6	7
Heating water content		litres	18	23	28	33	38
Heating operating pressure	Max	bar	6	6	6	6	6
Flues pressure drop		mbar	0.2	0.27	0.4	0.4	0.63
Empty weight		kg	127	166	205	244	283
Dimensions	WxHxD	mm	500x850x400	500x850x500	500x850x600	500x850x700	500x850x800



Era F D 23-32-45

Cast iron atmospheric gas boiler, heating only

- Stainless steel atmospheric burner and gas valve with adjustable output according to the installation's requirement
- Management of optional external storage cylinder, with legionella protection
- System flow temperature compensation (with installation of optional outdoor probe)
- Wide backlit LCD interface with button control
- Can be connected with remote control (optional)
- Frost protection system
- Available as optional pump and expansion vessel kit

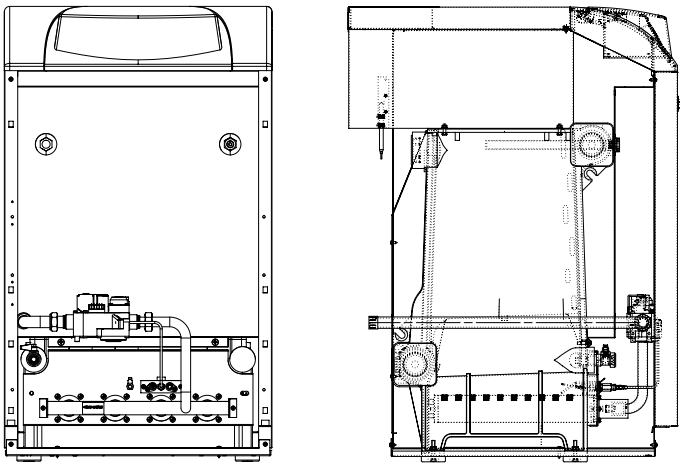
Boiler code	Boiler model
0E4L3AWD	**ERA F 23**
0E4L4AWD	**ERA F 32**
0E4L5AWD	**ERA F 45**



Panel for ERA F D range

Accessories on demand

Code	Description
022002X0	Kit including: pump, 14 lts. CH expansion vessel, 1/2" F-F 3 bar safety valve
1KWMA11W	System flow and storage tank probe kit L=2 m
043005X0	System flow and storage tank probe kit L=5 m
013017X0	Kit for management with thermostat (not supplied) of a DHW storage tank



mod. D 32 - D 45

MODEL			23	32	45
Heat input	Max Heating Min	kW kW	25.3 10.1	34.9 14.9	49.5 19.7
Heat output	Max Heating Min	kW kW	23.0 8.8	32.0 13.0	45.0 17.2
Efficiency	80°C - 60°C 30%	Pmax % %	90.9 91.3	91.7 91.5	90.9 91.6
Number of elements		no.	3	4	5
Heating water content		litres	9.1	11.6	14.1
Heating operating pressure	Max	bar	6	6	6
Empty weight		kg	106	136	164
Dimensions	WxHxD	mm	400x850x615	500x850x615	500x850x615



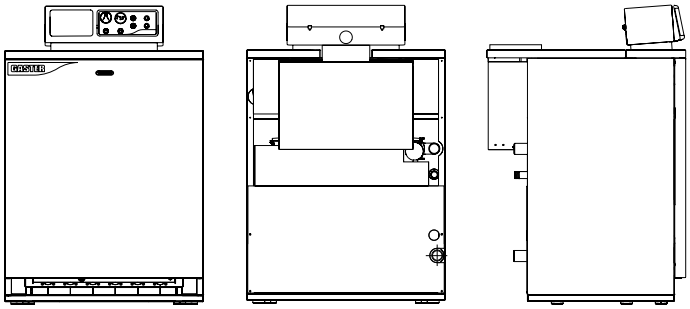
Gaster N

Cast-iron atmospheric gas boiler, heating only

- Boiler body made of assembled G20 cast iron sections, generously insulated by a rockwool layer externally lined with tearproof material
- Atmospheric burner with AISI 304 steel heads, electronic ignition with intermittent pilot flame and safety device detecting the ionisation current produced by the flame
- Variable heat input, with two-stages operation (except model 56)
- Flues collector with semi-integrated antirefouleur and flues test point
- For smaller boilers (67÷107 kW) element with factory name “B.A.G. 21” is used, whereas for higher outputs (119÷289 kW) a bigger element (namely “LS3”) is used
- Efficient operation thanks to the large heat exchange surface of the cast-iron section, and the generous insulation of the boiler body
- Possibility to install the modules in cascade with a side-by-side or back-to-back layout
- Steel casing painted white by anaphoresis using epoxy powder paint
- Control board is preset for integration of an electronic controller

Boiler code	Boiler model
0E4L7A5D	**GASTER N 67**
0E4L8A5D	**GASTER N 77**
0E4LAA5D	**GASTER N 87**
0E4L9A5D	**GASTER N 97**
0E4LBA5D	**GASTER N 107**
0E2L8MAD	**GASTER N 119**
0E2L9MAD	**GASTER N 136**
0E2LAMAD	**GASTER N 153**
0E2LBMAD	**GASTER N 170**
0E2LCMAD	**GASTER N 187**
0E2LEMAD	**GASTER N 221**
0E2LGMAD	**GASTER N 255**
0E2LIMAD	**GASTER N 289**

SCHEME



MODEL			**67**	**77**	**87**	**97**	**107**	**119**	**136**	**153**	**170**	**187**	**221**	**255**	**289**
Heat input	Max Min	kW kW	73.3 31.0	84.2 35.7	95.2 40.3	106.0 45.0	117.0 49.0	131.0 77.0	149.0 89.0	168.0 100.0	187.0 110.0	206.0 122.0	243.0 144.0	280.0 166.0	317.0 188.0
Heat output	Max Min	kW kW	67.0 27.3	77.0 31.4	87.0 35.5	97.0 39.6	107.0 43.0	119.0 71.0	136.0 82.0	153.0 92.0	170.0 102.0	187.0 112.0	221.0 133.0	255.0 153.0	289.0 173.0
Efficiency	80-60°C	Pmax %	91.4	91.5	91.4	91.5	91.5	91.2	91.3	91.4	91.5	91.6	91.7	91.9	92.0
Number of elements		no.	7	8	9	10	11	8	9	10	11	12	14	16	18
Operating temperature	Max	°C	100	100	100	100	100	100	100	100	100	100	100	100	100
Heating operating pressure	Max	bar	6	6	6	6	6	6	6	6	6	6	6	6	6
Heating water content		litres	19.1	21.6	24.1	26.6	29.1	38	42	46	50	54	62	70	78
Depth		mm	760	760	760	760	760	1050	1050	1050	1050	1050	1050	1100	1100
Height		mm	1142	1142	1142	1142	1142	1222	1222	1222	1222	1222	1222	1222	1222
Width		mm	760	850	930	1020	1100	930	1020	1100	1190	1270	1440	1610	1780



Lamborghini CALORECLIMA



Light oil burners

- "Low NOx" light oil burners
- Light oil burners



LOW NOx

Focus Pro

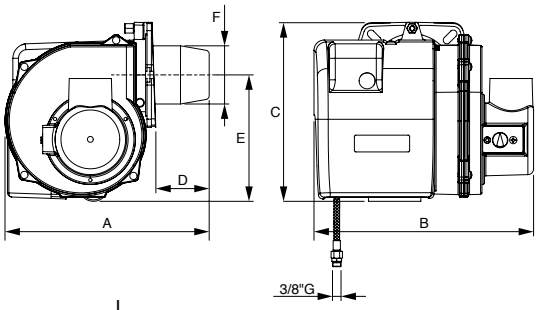
Low NOx single-stage light oil burners

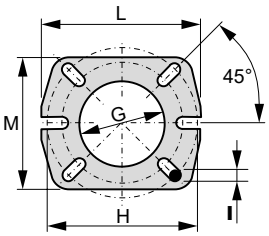
- Very low polluting emissions (lower than required by Class 3 - EN 267 <120 mg/kWh)
- Supplied complete with nozzle, hoses, light oil line filter and 7-pin plug and connection flange
- R version complete with light oil preheater
- Easy access to the air damper adjustments
- Ductable air intake

Range

- FOCUS PRO single-stage burners
- FOCUS PRO R single-stage burners with light oil preheater

Dimensions (in mm)





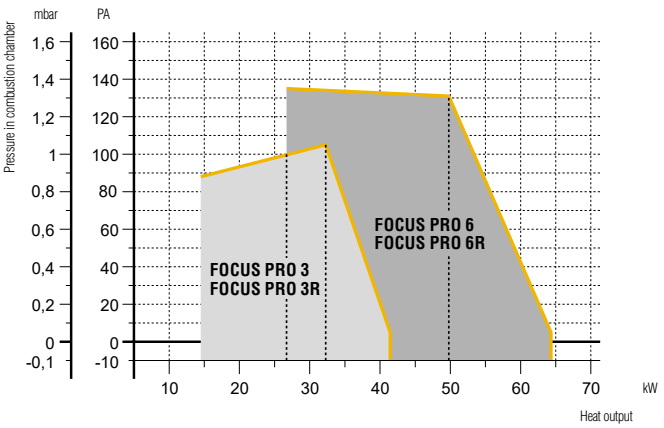
Focus Pro

Burner code	Burner model
0U3T6AXD	**FOCUS PRO 3**
0U3T6RXD	**FOCUS PRO 3R**
0U3T8AXD	**FOCUS PRO 6**
0U3T8RXD	**FOCUS PRO 6R**

NB: products available on stock

Model	**G**	**H** (min)	**H** (max)	**I**	**L**	**M**	**Weight**
	Ø mm	Ø mm	Ø mm	Ø mm	Ø mm	cm	kg
FOCUS PRO 3	85	135	160	M8	170	144	10
FOCUS PRO 3R	85	135	160	M8	170	144	10.1
FOCUS PRO 6	85	135	160	M8	170	144	10
FOCUS PRO 6R	85	135	160	M8	170	144	10.1

Working range



Model	Flow rate	Heat output	Motor	A	B	C	D	E	F
	kg/h	kW	230V ~ 50Hz	mm	mm	mm	mm	mm	mm
FOCUS PRO 3	1.2 - 3.5	14.5 - 41.5	100 W single	280	305	245	75	175	80
FOCUS PRO 3R	1.2 - 3.5	14.5 - 41.5	100 W single	280	305	245	75	175	80
FOCUS PRO 6	2.2 - 5.4	26.2 - 64.3	100 W single	280	305	245	75	175	80
FOCUS PRO 6R	2.2 - 5.4	26.2 - 64.3	100 W single	280	305	245	75	175	80



LOW NOx

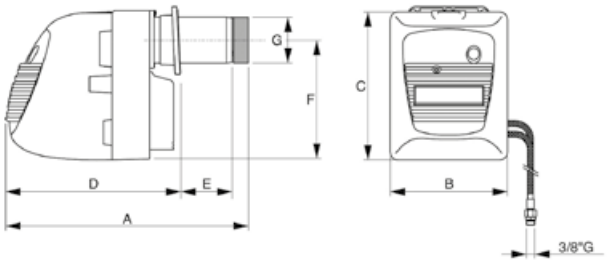
Eco Pro/2

Low NOx two-stage light oil burners

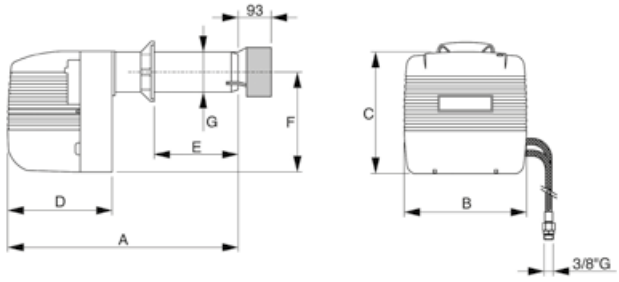
- Very low polluting emissions (lower than required by Class 3 - EN 267 <120 mg/kWh)
- Two-stage operation with pressure gradient
- Electric servo control on the air damper
- The entire series is fitted with sliding flange

Dimensions (in mm)

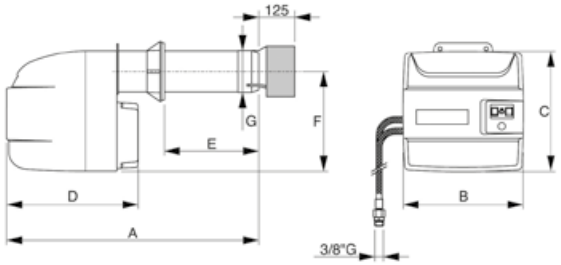
Eco Pro 9/2 - 14/2



Eco Pro 20/2



Eco Pro 30/2



Eco Pro/2

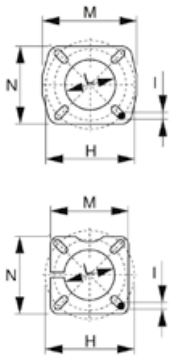
Burner code	Burner model
0U3SCAXD	**ECO PRO 9/2**
0U3SEAXD	**ECO PRO 14/2**
0U3SFAXD	**ECO PRO 20/2**
0U3SGAXD	**ECO PRO 30/2**

NB: products available on stock

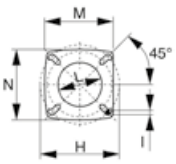
Model	Flow rate	Heat output	Motor	A	B	C	D	E	F	G
	kg/h	kW	230V ~ 50Hz	mm	mm	mm	mm	mm	mm	Ø mm
ECO PRO 9/2	2.92 - 9.72	34.8 - 115	100 W single	515	275	340	358	130	274	90
ECO PRO 14/2	5.5 - 13.0	65.5 - 155	185 W single	605	275	340	358	130	274	100
ECO PRO 20/2	8.5 - 21.8	101 - 260	250 W single	660	360	356	320	280	275	120
ECO PRO 30/2	12.3 - 31.9	147 - 379	370 W single	765	420	423	460	290	350	144

Coupling flange and Weight

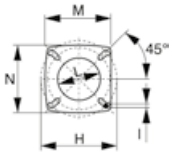
Eco Pro 9/2 - 14/2



Eco Pro 20/2



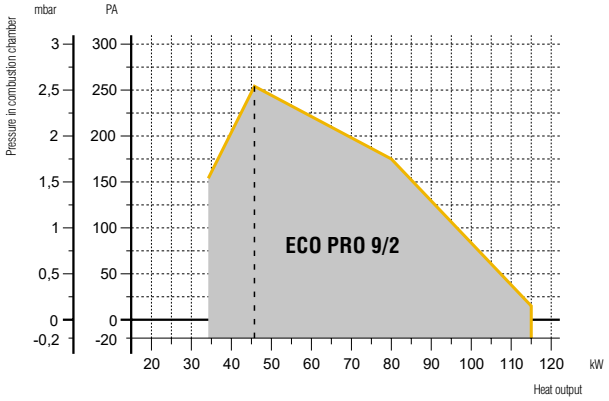
Eco Pro 30/2



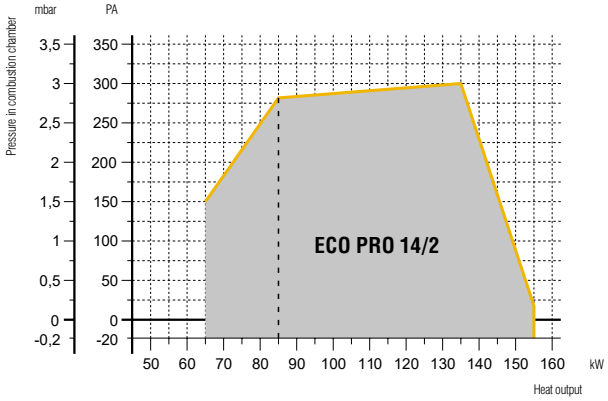
Model	H	L	M	N	Weight
	Ø mm	Ø mm	Ø mm	Ø mm	kg
ECO PRO 9/2	140 - 180	95	180	154	11.5
ECO PRO 14/2	150 - 200	105	166	166	15
ECO PRO 20/2	160 - 226	135	214	205	21
ECO PRO 30/2	172 - 225	160	214	205	28

Working range

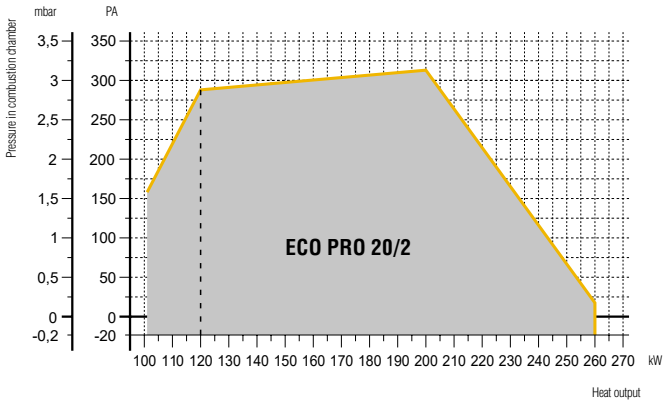
Eco Pro 9/2



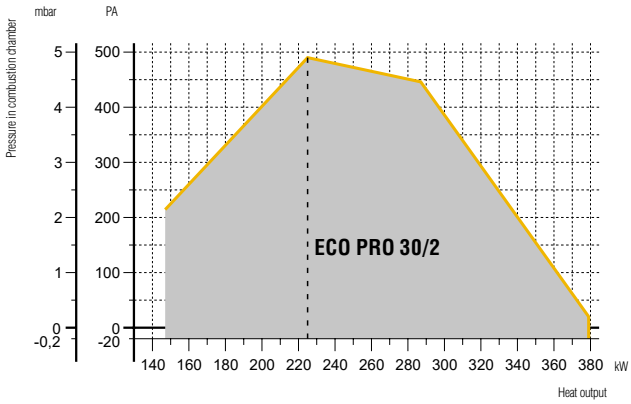
Eco Pro 14/2



Eco Pro 20/2



Eco Pro 30/2





Eco, Eco R

Single-stage burners

- External adjustment of the air and combustion head.
- Stabilised ventilation. Excellent combustion thanks to uniform air distribution. Hood. Compact dimensions.

Range

- ECO single-stage burners
- ECO R single-stage burners with preheater
- ECO/L single-stage burners with long nozzle
- ECO R ST single-stage burners with preheater and with optional external air intake

Eco

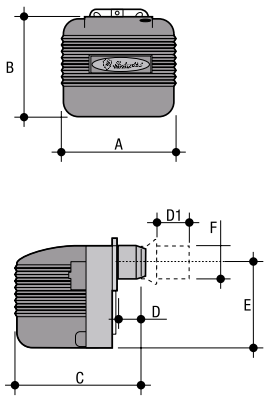
Burner code	Burner model
Z300840005	**ECO 3**
Z300841221	**ECO 5N**
Z300870013	**ECO 8**
Z300870003	**ECO 10**
Z300845650	**ECO 10/L**
Z300841283	**ECO 15**
Z300845660	**ECO 15/L**
Z300870053	**ECO 20**
Z300845670	**ECO 20/L**
Z300840602	**ECO 22**
Z300870151	**ECO 30**
Eco R models with pre-heater	
Z300840017	**ECO 3R**
Z300841231	**ECO 5RN**
Z300840413	**ECO 7R**

NB: products available on stock

NB: The burners of the Eco series (Eco - Eco R - Eco RN) can only be sold and installed in conformity with EU regulation 813/2013 (Art. 1, Paragraph 2, Section G)

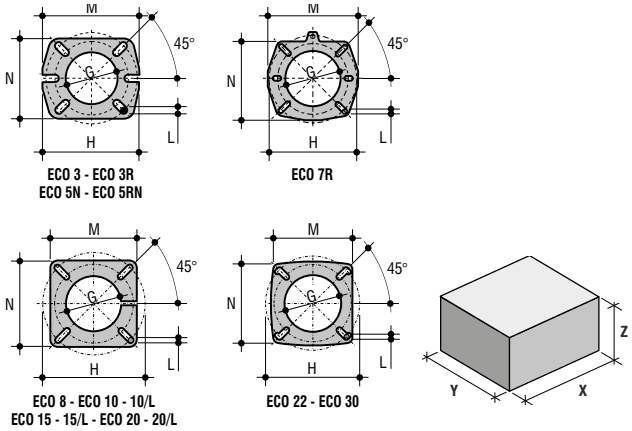
Dimensions (in mm)

Eco, Eco R



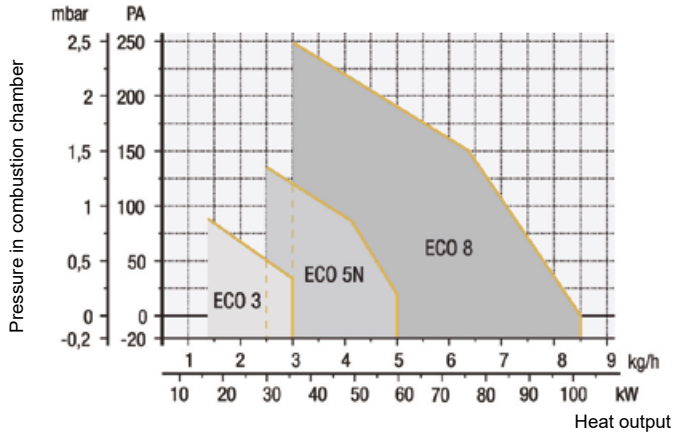
Model	Flow rate	Heat output	Motor	A	B	C	D	D1	E	F
	kg/h	kW	230V ~ 50Hz	mm	mm	mm	mm	mm	mm	Ø mm
ECO 3	1.4 - 3	16.6 - 35.6	100 W single	250	215	320	90	-	160	80
ECO 5N	2.5 - 5	29.6 - 59.3	100 W single	280	247	342	90	-	195	80
ECO 8	3 - 8.5	35.6 - 100.8	100 W single	230	285	465	-	60 - 120	232	89
ECO 10	5 - 10.5	59.3 - 124.5	100 W single	230	285	483	-	60 - 125	232	114
ECO 10/L	5.0 - 10.5	59.3 - 124.5	100 W single	230	285	618	-	60 - 260	232	114
ECO 15	7 - 14.8	83 - 175.5	185 W single	275	340	550	-	80 - 150	274	114
ECO 15/L	7.0 - 14.8	83.0 - 175.5	185 W single	275	340	685	-	80 - 285	274	114
ECO 20	11 - 21	128 - 249	185 W single	275	340	535	-	60 - 135	274	114
ECO 20/L	11.0 - 21.0	128.0 - 249.0	185 W single	275	340	700	-	60 - 300	274	114
ECO 22	11.5 - 22	136.4 - 261	250 W single	360	350	576	-	60 - 200	275	120
ECO 30	16 - 30	190 - 356	370 W single	420	423	770	-	70 - 320	350	135
ECO 3R	1.2 - 3	14.2 - 35.6	100 W single	250	215	320	90	-	160	80
ECO 5RN	2.6 - 5	30.8 - 59.3	100 W single	280	247	342	90	-	195	80
ECO 7R	4.4 - 7.3	52.2 - 86.6	100 W single	280	247	410	-	40 - 140	195	90

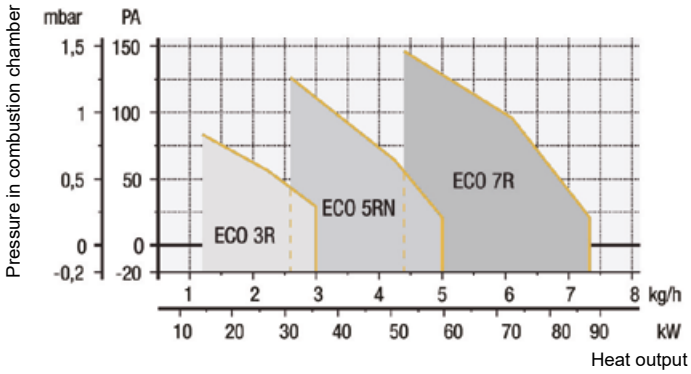
Connection flange, Packaging and Weight

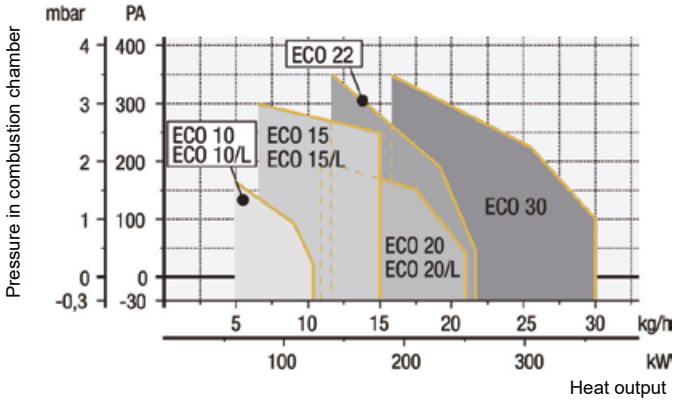


Model	G	H	L	M	N	Dimensions X Y Z	Weight
	Ø mm	Ø mm	Ø mm	Ø mm	Ø mm	cm	kg
ECO 3	85	135 - 160	M8	170	144	45 x 34 x 31	11.3
ECO 5N	85	135 - 160	M8	170	144	45 x 34 x 31	12.5
ECO 8	95	127 - 198	M8	160	160	52 x 37 x 28	12.6
ECO 10	120	155 - 210	M8	180	180	52 x 37 x 28	12.6
ECO 15	120	155 - 210	M8	180	180	63 x 33 x 40	16
ECO 20	120	155 - 210	M8	180	180	63 x 33 x 40	17
ECO 22	135	160 - 225	M10	225	205	76 x 44 x 40	23
ECO 30	145	172 - 225	M10	225	205	96 x 50 x 54	33.5
ECO 10/L	120	110 - 150	M8	180	180	55.5 x 29.5 x 39	13
ECO 15/L	120	110 - 150	M8	180	180	64 x 33.5 x 40	15
ECO 20/L	120	110 - 150	M8	180	180	64 x 33.5 x 40	15
ECO 3R	85	135 - 160	M8	170	144	45 x 34 x 31	11.5
ECO 5RN	85	135 - 160	M8	170	144	45 x 34 x 31	12.6
ECO 7 R	95	135 - 160	M8	180	154	45 x 34 x 31	13.6

Working range









/2 two-stage

Eco/2

Eco/2 - Two-stage burners

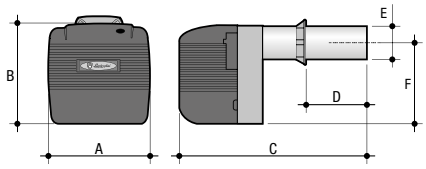
- Adjustment of the air and combustion head.
- Electric servo control on the air damper. Excellent combustion thanks to uniform air distribution. Stabilised ventilation.
- Soundproof hood. Compact dimensions

Burner code	Burner model
Z300840381	**ECO 7/2**
Z300841294	**ECO 15/2**
Z300840744	**ECO 20/2**
Z300840655	**ECO 22/2**
Z300870161	**ECO 30/2**
Z300870171	**ECO 40/2**

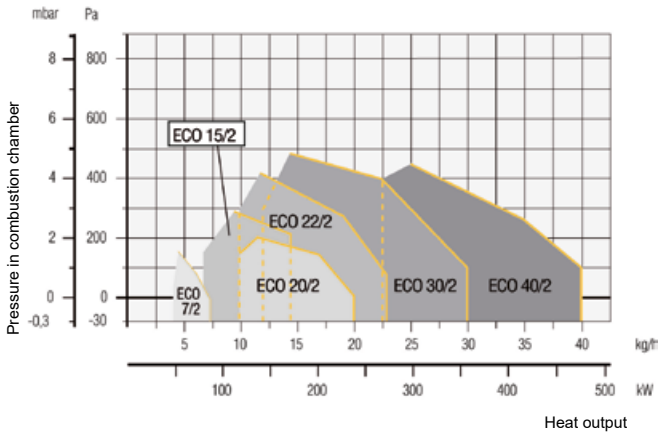
NB: products available on stock

NB: The burners of the Eco/2 series can only be sold and installed in conformity with EU regulation 813/2013 (Art. 1, Paragraph 2, Section G)

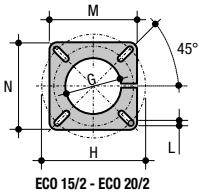
Dimensions (in mm)



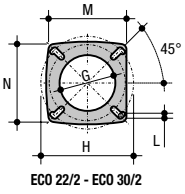
Working range



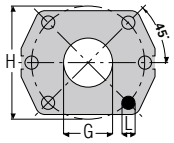
Connection flange, Packaging and Weight



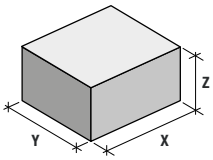
ECO 15/2 - ECO 20/2



ECO 22/2 - ECO 30/2



ECO 7/2



Model	G	H	L	M	N	Dimensions X Y Z	Weight
	Ø mm	Ø mm	mm	mm	mm	cm	kg
ECO 7/2	95	140 - 180	M8	-	-	45 x 34 x 31	15.8
ECO 15/2	120	155 - 210	M8	180	180	76 x 36 x 44	18
ECO 20/2	120	155 - 210	M8	180	180	76 x 36 x 44	19
ECO 22/2	135	160 - 225	M10	214	205	76 x 44 x 40	24
ECO 30/2	145	172 - 225	M10	214	205	96 x 50 x 54	35
ECO 40/2	160	172 - 225	M10	214	205	96 x 50 x 54	35

Model	Flow rate	Heat output	Motor	A	B	C	D	E	F
	kg/h	kW	230V ~ 50Hz	mm	mm	mm	mm	Ø mm	mm
ECO 7/2	4 - 7.3	47.4 - 86.6	100 W single	280	247	410	40 - 140	90	195
ECO 15/2	7 - 14.8	83 - 175.5	185 W single	275	340	685	80 - 285	114	274
ECO 20/2	10 - 20	118.6 - 237.2	185 W single	275	340	700	60 - 300	114	274
ECO 22/2	10 - 23	118.6 - 272.8	250 W single	360	350	576	60 - 300	120	275
ECO 30/2	12 - 30	142.3 - 356	370 W single	420	423	770	70 - 320	135	350
ECO 40/2	22.5 - 40	266.9 - 474	370 W single	420	423	790	70 - 320	148	350



Lmb LO

Two-stage (2ST) light oil burners

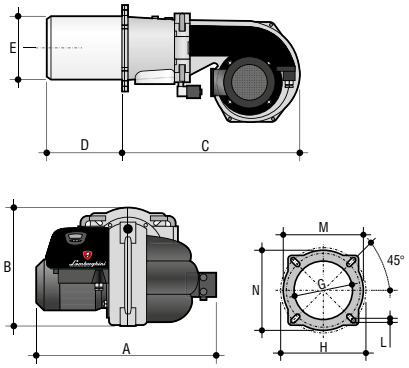
- Adjustment of the combustion head. BC version with short nozzle. BL version with long nozzle. Electric servo control on the air damper. Stabilised ventilation. Electrical panel.

Burner code	Burner model
Z300845960	**LMB LO 300 BC - 2ST**
0U41G0XD	**LMB LO 300 BL - 2ST**
Z300845970	**LMB LO 450 BC - 2ST**
0U41I0XD	**LMB LO 450 BL - 2ST**
Z300845871	**LMB LO 700 BC - 2ST**
Z300845881	**LMB LO 700 BL - 2ST**
Z300845281	**LMB LO 1000 BC - 2ST**
Z300845301	**LMB LO 1000 BL - 2ST**
Z300845351	**LMB LO 1300 - 2ST**
Z300845361	**LMB LO 2000 - 2ST**

NB: products delivered within 3 weeks from the date of the order

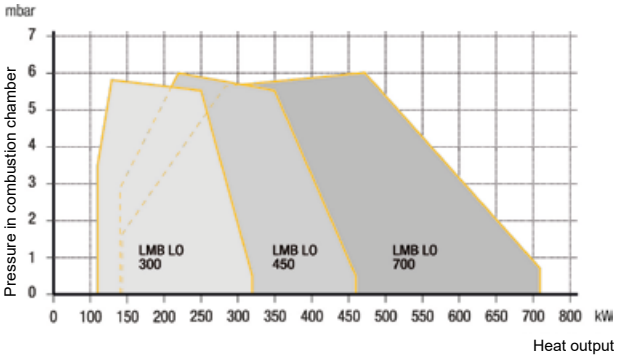
NB: The burners of the LMB LO 300 series can only be sold and installed in conformity with EU regulation 813/2013 (Art. 1, Paragraph 2, Section G)

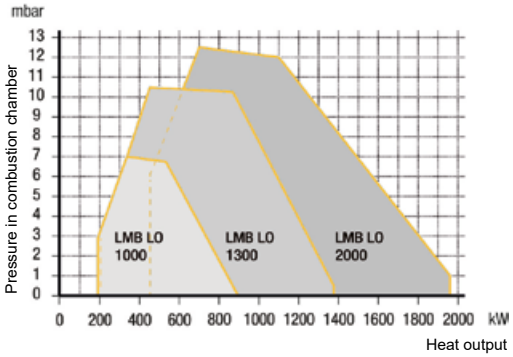
Dimensions, connection flange



Model	A	B	C	D	E	G	H	L	M	N
	mm	mm	mm	mm	Ø mm	Ø mm	Ø mm	mm	mm	mm
LMB LO 300 BC	480	340	370	230	124	135	194 ÷ 234	M12	216	216
LMB LO 300 BL	480	340	370	300	124	135	194 ÷ 234	M12	216	216
LMB LO 450 BC	480	340	370	230	138	150	194 ÷ 234	M12	216	216
LMB LO 450 BL	480	340	370	300	138	150	194 ÷ 234	M12	216	216
LMB LO 700 BC	560	370	540	235	166	180	246 ÷ 286	M12	268	268
LMB LO 700 BL	560	370	540	325	166	180	246 ÷ 286	M12	268	268
LMB LO 1000 BC	560	370	540	230	196	205	246 ÷ 286	M12	268	268
LMB LO 1000 BL	560	370	540	320	196	205	246 ÷ 286	M12	268	268
LMB LO 1300	650	440	620	340	244	255	294 ÷ 334	M12	316	316
LMB LO 2000	650	440	620	340	244	255	294 ÷ 334	M12	316	316

Working range





Model	Flow rate	Heat output	Motor	Packaging dimensions	Weight
	kg/h	kW	230V/400V ~ 50Hz	cm	kg
LMB LO 300 BC / BL	9,7 ÷ 30,4	115 ÷ 360	370 W monofase	70 x 60 x 60	18
LMB LO 450 BC / BL	11,8 ÷ 39,6	140 ÷ 470	370 W monofase	70 x 60 x 60	18
LMB LO 700 BC / BL	11,4 ÷ 59,4	135 ÷ 704	750 W trifase	102 x 60 x 44	32
LMB LO 1000 BC / BL	16,1 ÷ 80,0	192 ÷ 950	1100 W trifase	102 x 60 x 44	33
LMB LO 1300	41,1 ÷ 115,0	201 ÷ 1370	2200 W trifase	104 x 68 x 56	41
LMB LO 2000	59,8 ÷ 166,0	452 ÷ 1976	3000 W trifase	104 x 68 x 56	42

Lamborghini CALORECLIMA



Gas burners

- "Low NOx" gas burners
- Gas burners
- Accessories



LOW NOx

Em LN

Single-stage burners. Very low NOx emissions (class 3 ≤ 80 mg/kWh) achieved with a special combustion head

- Operating with natural gas
- Gas train with stabiliser, double valve and filter
- Adjustable combustion head
- Internal combustion air regulator (mod. Em 4 LN - Em 7 LN), or internal (mod. EM 13 LN - EM 21 LN)
- Air damper with gravitaty closure when stopped
- Stabilised ventilation
- Accessories assembly kit and valve sealing control kit

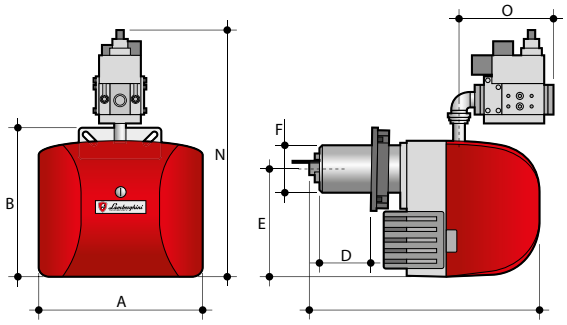
(for kits dedicated to Em LN burners, see "Accessories")

Burner code	Burner model
0U3C7CXD	**EM 4 LN 15**
0U3C7DXD	**EM 4 LN 15 L**
0U3C9AXD	**EM 7 LN 15**
0U3C9BXD	**EM 7 LN 15 L**
0U3C9CXD	**EM 7 LN 20**
0U3C9DXD	**EM 7 LN 20 L**
0U3CCAXD	**EM 13 LN 20**
0U3CCBXD	**EM 13 LN 20 L**
0U3CDAXD	**EM 21 LN 20**
0U3CDBXD	**EM 21 LN 20 L**
0U3CDCXD	**EM 21 LN 25**
0U3CDDXD	**EM 21 LN 25 L**

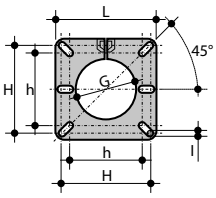
NB: products delivered within 3 weeks from the date of the order

Dimensions (in mm)

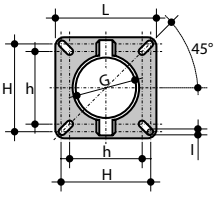
Em 4 LN
Em 7 LN
Em 13 LN
Em 21 LN



Flange and connection



Em 4 LN - Em 7 LN



Em 13 LN - Em 21 LN

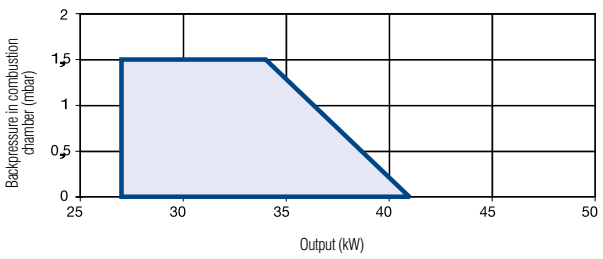
Model	A	B	C	D (min-max)	E	F	N	O	G	h - H	I	L
	mm	mm	mm	mm	mm	Ø mm	mm	mm	Ø mm	Ø mm	mm	mm
EM 4 LN 15	269	266	338	58 - 98	194	80	400	168	95	96 - 120	M8	145
EM 4 LN 15 L	269	266	418	58 - 178	194	80	400	168	95	96 - 120	M8	145
EM 7 LN 15	304	291	393	76	218	80	438	168	95	96 - 120	M8	145
EM 7 LN 15 L	304	291	461	76 - 149	218	80	438	168	95	96 - 120	M8	145
EM 7 LN 20	304	291	393	76	218	80	438	168	95	96 - 120	M8	145
EM 7 LN 20 L	304	291	461	76 - 149	218	80	438	168	95	96 - 120	M8	145
EM 13 LN 20	373	340	581	85 - 170	245	108	560	220	128	108 - 158	M8	188
EM 13 LN 20 L	373	340	681	85 - 270	245	108	560	220	128	108 - 158	M8	188
EM 21 LN 20	373	340	581	85 - 170	245	115	560	220	134	108 - 158	M8	188
EM 21 LN 20 L	373	340	681	85 - 270	245	115	560	220	134	108 - 158	M8	188
EM 21 LN 25	373	340	581	85 - 170	245	115	560	220	134	108 - 158	M8	188
EM 21 LN 25 L	373	340	681	85 - 270	245	115	560	220	134	108 - 158	M8	188

Model	Natural Gas Flow Rate	Minimum Pressure Natural Gas	Heat output	Motor	Fan motor absorption	Gas train connection
	m^3/h	mbar*	kW		W	Ø
EM 4 LN 15	2.72 - 4.12	10	27 - 41	230 V / 50 Hz / single-phase	75	1/2"
EM 4 LN 15 L	2.72 - 4.12	10	27 - 41	230 V / 50 Hz / single-phase	75	1/2"
EM 7 LN 15	4.02 - 6.54	23	40 - 65	230 V / 50 Hz / single-phase	100	1/2"
EM 7 LN 15 L	4.02 - 6.54	23	40 - 65	230 V / 50 Hz / single-phase	100	1/2"
EM 7 LN 20	4.02 - 6.54	20	40 - 65	230 V / 50 Hz / single-phase	100	3/4"
EM 7 LN 20 L	4.02 - 6.54	20	40 - 65	230 V / 50 Hz / single-phase	100	3/4"
EM 13 LN 20	7.54 - 12.07	13.5	75 - 120	230 V / 50 Hz / single-phase	180	3/4"
EM 13 LN 20 L	7.54 - 12.07	13.5	75 - 120	230 V / 50 Hz / single-phase	180	3/4"
EM 21 LN 20	8.55 - 15.09	15	85 - 150	230 V / 50 Hz / single-phase	180	3/4"
EM 21 LN 20 L	8.55 - 15.09	15	85 - 150	230 V / 50 Hz / single-phase	180	3/4"
EM 21 LN 25	8.55 - 15.09	11	85 - 150	230 V / 50 Hz / single-phase	180	1"
EM 21 LN 25 L	8.55 - 15.09	11	85 - 150	230 V / 50 Hz / single-phase	180	1"

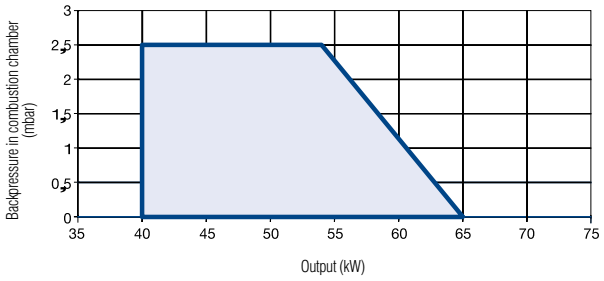
* Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in the combustion chamber

Working ranges

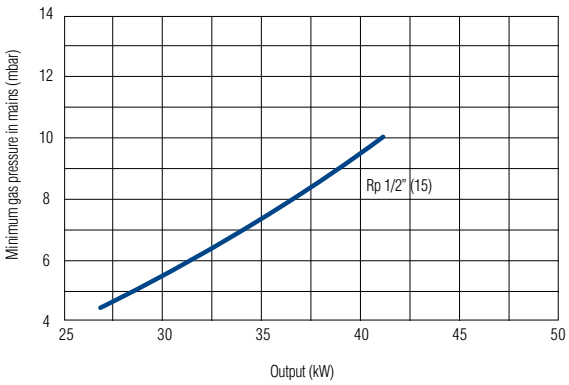
Em 4 LN



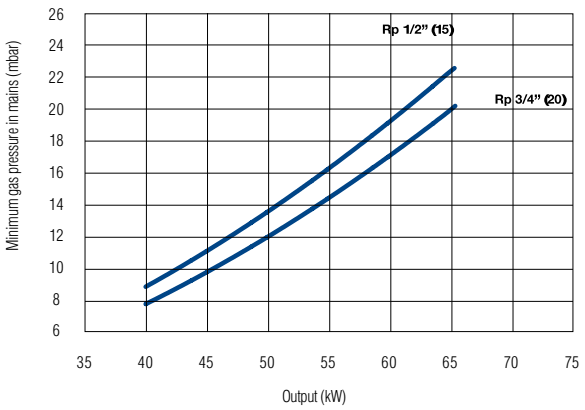
Em 7 LN



Em 4 LN

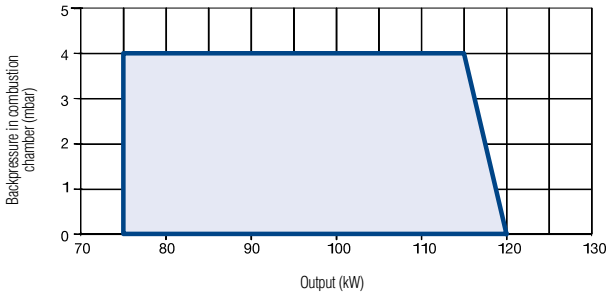


Em 7 LN

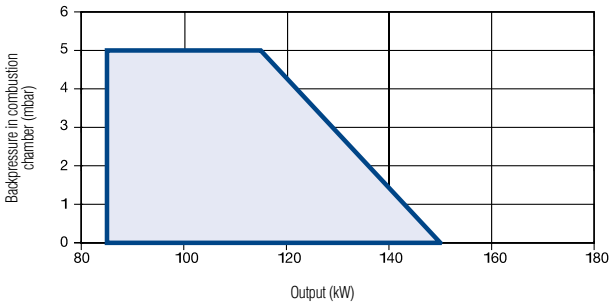


Working ranges

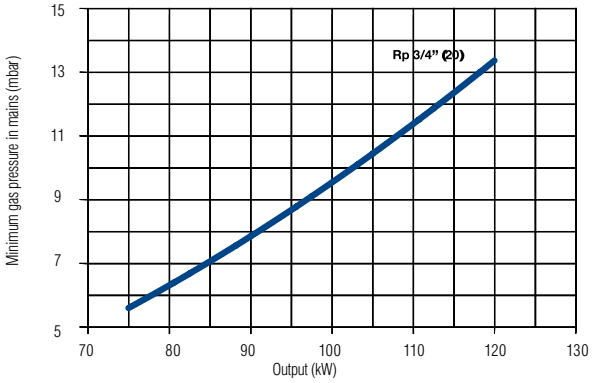
Em 13 LN



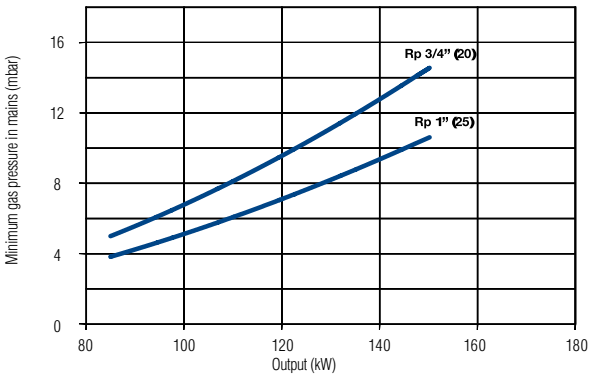
Em 21 LN



Em 13 LN



Em 21 LN





LOW NOx

Em LN/AB - Em LN/PR

LOW NOx, AB: Two-stage - PR: Progressive two-stage

- Optional continuous modulation operation by applying the modul kit (on demand)
- Operating with natural gas
- Gas train with stabiliser, double valve and filter
- Adjustable combustion head
- Electric servo control on the air damper and stabilised ventilation
- Adjustment of the gas flow rate through the variable profile cam controlled by the electric servo control
- Accessories assembly kit and valve sealing control kit
- Modulation kit (temperature/pressure) available as optional

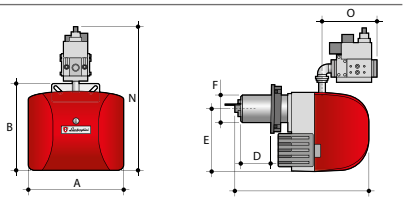
For kits dedicated to Em LN/AB - Em LN/PR burners, see "Accessories"

Burner code	Burner model
0U3BCAXD	**EM 13 LN AB 20**
0U3BCBXD	**EM 13 LN AB 20 L**
0U3BDAXD	**EM 21 LN PR 25**
0U3BDBXD	**EM 21 LN PR 25 L**
0U3BEAXD	**EM 30 LN PR 25**
0U3BEBXD	**EM 30 LN PR 25 L**
0U3BECXD	**EM 30 LN PR 32**
0U3BEDXD	**EM 30 LN PR 32 L**
0U3BEEXD	**EM 30 LN PR 40**
0U3BEFXD	**EM 30 LN PR 40 L**
0U3BFAXD	**EM35 LN PR 25**
0U3BFCXD	**EM35 LN PR 32**
0U3BFEXD	**EM35 LN PR 40**
0U3BGAXD	**EM 42 LN PR 25**
0U3BGCXD	**EM 42 LN PR 32**
0U3BGEXD	**EM 42 LN PR 40**
0U3BGGXD	**EM 42 LN PR 50**
0U3BHAXD	**EM 49 LN PR 32**
0U3BHBXD	**EM 49 LN PR 32 L**
0U3BHCXD	**EM 49 LN PR 40**
0U3BHDXD	**EM 49 LN PR 40 L**
0U3BHEXD	**EM 49 LN PR 50**
0U3BHFXD	**EM 49 LN PR 50 L**

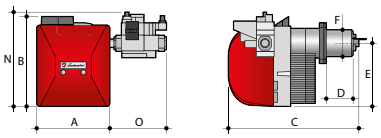
NB: products delivered within 3 weeks from the date of the order

Dimensions (in mm)

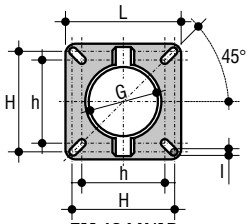
Em 13 LN/AB
Em 21 LN/PR



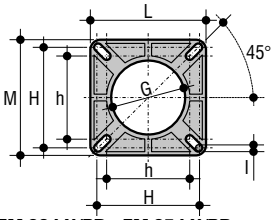
Em 30 LN/PR
Em 35 LN/PR
Em 42 LN/PR
Em 49 LN/PR



Flange and connection



EM 13 LN/AB
EM 21 LN/PR



EM 30 LN/PR - EM 35 LN/PR
EM 42 LN/PR - EM 49 LN/PR

Model	A	B	C	D (min-max)	E	F	N	O	G	h ÷ H	I	L	M
	mm	mm	mm	mm	mm	Ø mm	mm	mm	Ø mm	Ø mm	mm	mm	mm
EM 13 LN AB 20	373	340	581	85-170	245	108	560	-	128	108-158	M8	188	-
EM 13 LN AB 20 L	373	340	681	85-270	245	108	560	-	128	108-158	M8	188	-
EM 21 LN PR 25	373	340	581	85-170	245	115	560	-	134	108-158	M8	188	-
EM 21 LN PR 25 L	373	340	681	85-270	245	115	560	-	134	108-158	M8	188	-
EM 30 LN PR 25	396	491	754	163	-	113	508	200	164	131-179	M10	215	223
EM 30 LN PR 25 L	396	491	899	308	-	113	508	200	164	131-179	M10	215	223
EM 30 LN PR 32	396	491	754	163	-	113	508	200	164	131-179	M10	215	223
EM 30 LN PR 32 L	396	491	899	308	-	113	508	200	164	131-179	M10	215	223
EM 30 LN PR 40	396	491	754	163	-	113	517	330	164	131-179	M10	215	223
EM 30 LN PR 40 L	396	491	899	308	-	113	517	330	164	131-179	M10	215	223
EM35 LN PR 25	396	491	778	178 or 308*	-	131 + 19	508	200	164	131-179	M10	215	223
EM35 LN PR 32	396	491	908	178 or 308*	-	131 + 19	508	200	164	131-179	M10	215	223
EM35 LN PR 40	396	491	778	178 or 308*	-	131 + 19	517	330	164	131-179	M10	215	223
EM 42 LN PR 25	396	491	798 + 19	198 or 308*	-	148	508	200	168	131-179	M10	215	223
EM 42 LN PR 32	396	491	798 + 19	198 or 308*	-	148	508	200	168	131-179	M10	215	223
EM 42 LN PR 40	396	491	798 + 19	198 or 308*	-	148	517	330	168	131-179	M10	215	223
EM 42 LN PR 50	396	491	798 + 19	198 or 308*	-	148	567	330	168	131-179	M10	215	223
EM 49 LN PR 32	426	533	874	253	384	168	543	245	198	157-192	M10	241	241
EM 49 LN PR 32 L	426	533	974	353	384	168	543	245	198	157-192	M10	241	241
EM 49 LN PR 40	426	533	874	253	384	168	553	318	198	157-192	M10	241	241
EM 49 LN PR 40 L	426	533	974	353	384	168	553	318	198	157-192	M10	241	241
EM 49 LN PR 50	426	533	874	253	384	168	603	318	198	157-192	M10	241	241
EM 49 LN PR 50 L	426	533	974	353	384	168	603	318	198	157-192	M10	241	241

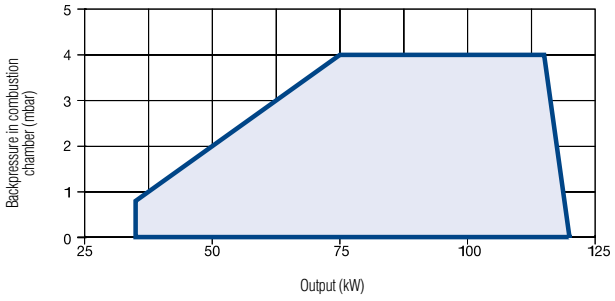
* Nozzle adjustable to 2 lengths

Model	Natural Gas Flow Rate	Min. pressure Natural Gas	Power	Electric power supply	Fan motor absorption	Gas Train connection
	m^3/h	mbar*	kW			
EM 13 LN AB 20	3.52 - 12.07	13.5	35 - 120	230 V/ 50 Hz / single-phase	0.18 kW	3/4
EM 13 LN AB 20 L	3.52 - 12.07	13.5	35 - 120	230 V/ 50 Hz / single-phase	0.18 kW	3/4
EM 21 LN PR 25	4.02 - 15.09	11	40 - 150	230 V/ 50 Hz / single-phase	0.18 kW	1"
EM 21 LN PR 25 L	4.02 - 15.09	11	40 - 150	230 V/ 50 Hz / single-phase	0.18 kW	1"
EM 30 LN PR 25	6.04 - 19.11	16.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1"
EM 30 LN PR 25 L	6.04 - 19.11	16.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1"
EM 30 LN PR 32	6.04 - 19.11	15.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/4
EM 30 LN PR 32 L	6.04 - 19.11	15.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/4
EM 30 LN PR 40	6.04 - 19.11	15	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/2
EM 30 LN PR 40 L	6.04 - 19.11	15	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/2
EM35 LN PR 25	6.54 - 26.15	24	65 - 260	230 V/ 50 Hz / single-phase	0.37 kW	1"
EM35 LN PR 32	6.54 - 26.15	19	65 - 260	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/4
EM35 LN PR 40	6.54 - 26.15	17.5	65 - 260	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/2
EM 42 LN PR 25	9.05 - 35.20	25	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	1"
EM 42 LN PR 32	9.05 - 35.20	15	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/4
EM 42 LN PR 40	9.05 - 35.20	12	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/2
EM 42 LN PR 50	9.05 - 35.20	11.5	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	2"
EM 49 LN PR 32	13.22 - 49.29	30	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/4
EM 49 LN PR 32 L	13.22 - 49.29	30	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/4
EM 49 LN PR 40	13.22 - 49.29	20	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/2
EM 49 LN PR 40 L	13.22 - 49.29	20	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/2
EM 49 LN PR 50	13.22 - 49.29	14	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	2"
EM 49 LN PR 50 L	13.22 - 49.29	14	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	2"

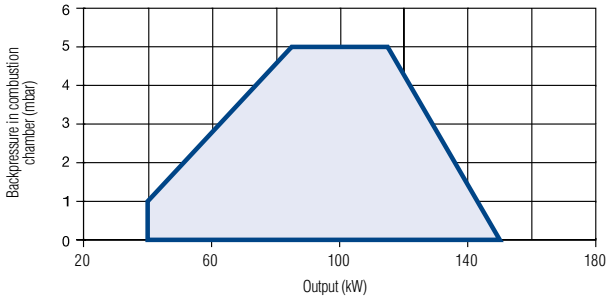
* Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in the combustion chamber

Working ranges

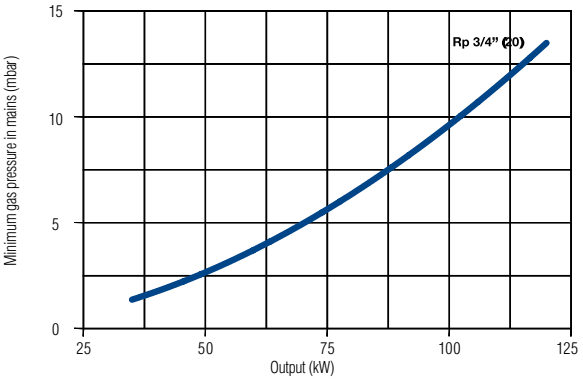
Em 13 LN AB



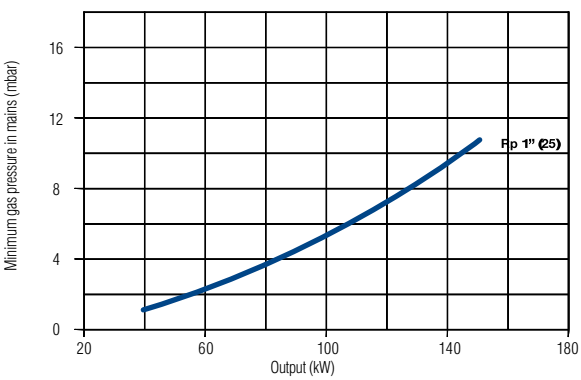
Em 21 LN PR



Em 13 LN AB

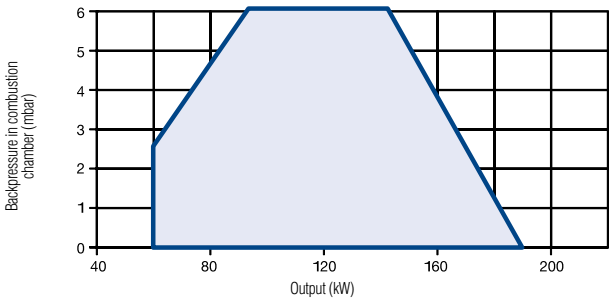


Em 21 LN PR

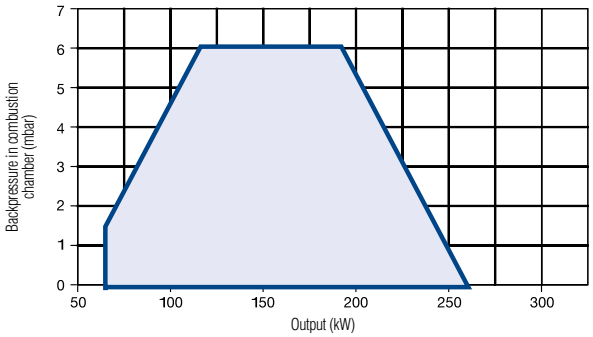


Working ranges

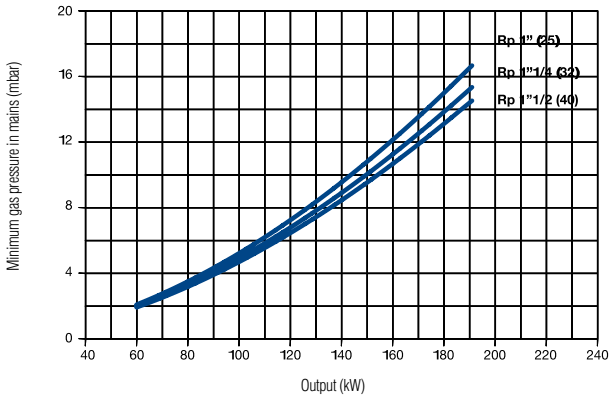
Em 30 LN PR



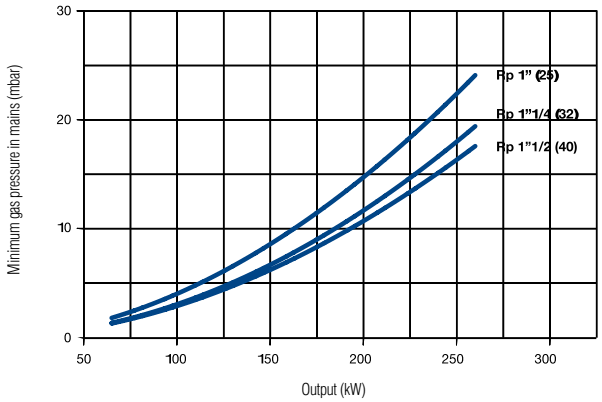
Em 35 LN PR



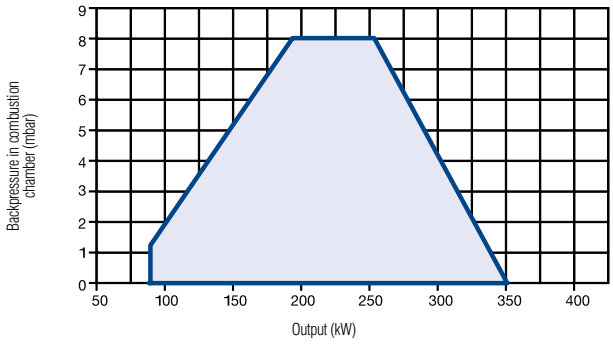
Em 30 LN PR



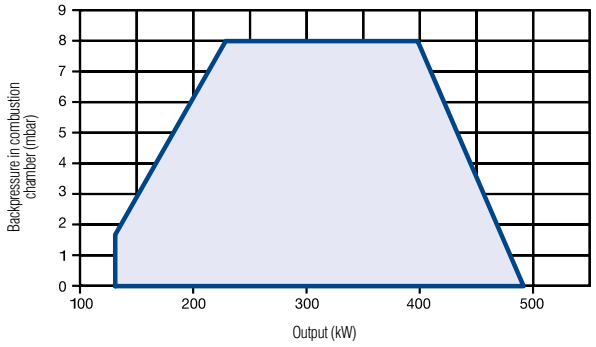
Em 35 LN PR



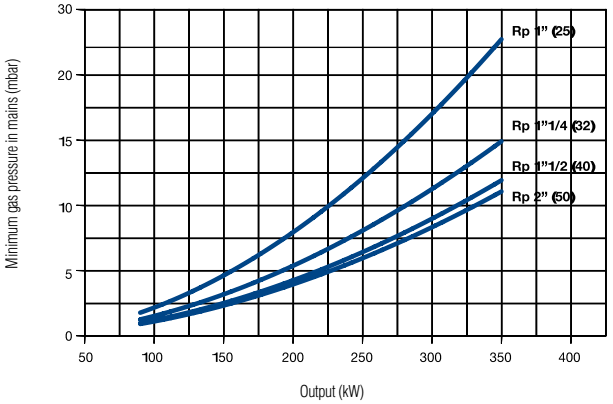
Em 42 LN PR



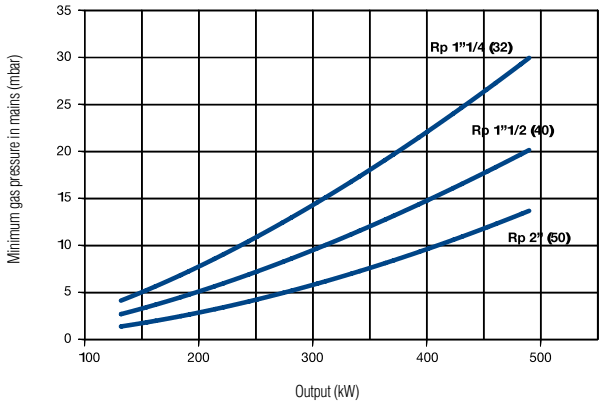
Em 49 LN PR



Em 42 LN PR

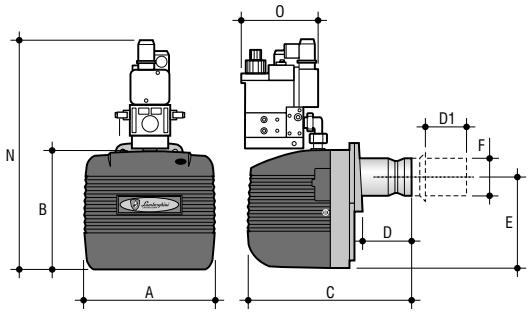


Em 49 LN PR





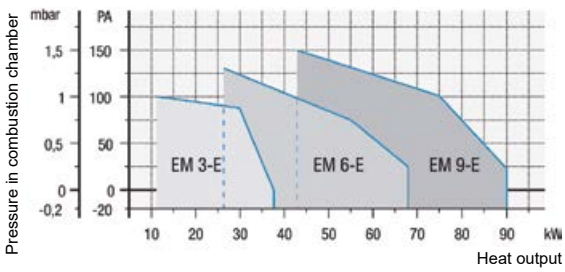
Dimensions (in mm)

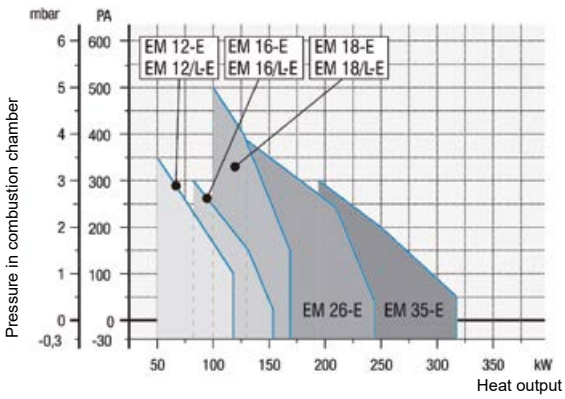


Model	A	B	C	D	D1	E	F	N*	O*
	mm	mm	mm		mm	mm	Ø mm	mm	mm
EM 3-E	250	215	320	90	–	160	80	410	145
EM 6-E	280	247	342	90	–	195	80	410	145
EM 9-E	280	247	417	–	40-140	195	90	445	145
EM 12-E	230	285	483	–	60-125	232	114	485	240
EM 12/L-E	230	285	633	–	60-275	232	114	485	240
EM 16-E	310	282	480	–	60-150	215	108	465	210
EM 16/L-E	310	282	480	–	60-250	215	108	465	210
EM 18-E	275	340	550	–	60-150	274	114	540	240
EM 18/L-E	275	340	675	–	60-275	274	114	540	240
EM 26-E	360	350	750	–	100-265	275	140	550	240
EM 35-E	420	423	880	–	120-310	350	140	740	260

* The dimensions refer to the burner with a 20 mbar train installed.

Working ranges





EM-E

Single-stage burners

- Operating with natural gas or LPG (for mod. Em 16-E - Em 26-E requires conversion kit, available on-demand)
- Gas train with stabiliser, double valve and filter
- Adjustment of the combustion head (external in mod. Em 26-E - Em 35-E)
- Adjustment of the combustion air outside the burner
- Air damper with gravitational closure when stopped (excluding mod. Em 35-E)
- Stabilised ventilation
- Soundproof hood
- Equipped with a hinge for full inspection (mod. Em 26-E - Em 35-E)
- Easy installation thanks to the universally drilled mobile flange (sliding from mod. Em 9-E to Em 35-E)
- Supplied in 2 packages (Burner + Gas train)

Accessories on demand

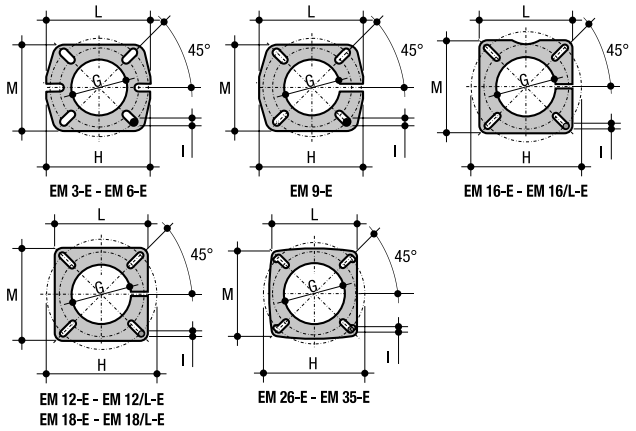
- Accessories assembly kit
- Valve sealing control kit
- For accessories dedicated to EM-E burners, see accessories

Burner code	Burner model
Z300873960	**EM 3-E.D1**
Z300860121	**EM 3-E.D3**
Z300873970	**EM 6-E.D1**
Z300860221	**EM 6-E.D3**
Z300860301	**EM 9-E.D2**
Z300860311	**EM 9-E.D3**
Z300860054	**EM 12-E.D6**
Z300873020	**EM 12/L-E.D6**
Z300860063	**EM 12-E.D3**
Z300873030	**EM 12/L-E.D3**
Z300860401	**EM 16-E.D3**
Z300860411	**EM 16-E.D4**
Z300874130	**EM 16/L-E.D4**
Z300860353	**EM 18-E.D6**
Z300873040	**EM 18/L-E.D6**
Z300860362	**EM 18-E.D3**
Z300873050	**EM 18/L-E.D3**
Z300860501	**EM 26-E.D6**
Z300860521	**EM 26-E.D4**
Z300870202	**EM 35-E.D7**
Z300870212	**EM 35-E.D4**

NB: products available on stock

NB: The burners of the Em-E series can only be sold and installed in conformity with EU regulation 813/2013 (Art. 1, Paragraph 2, Section G)

Flange and connection



Model	G Ø mm	H Ø mm	I Ø mm	L Ø mm	M Ø mm
EM 3-E	85	135-160	M8	170	144
EM 6-E	85	135-160	M8	170	144
EM 9-E	95	135-160	M8	180	154
EM 12-E	120	155-210	M8	180	180
EM 12/L-E	120	155-210	M8	180	180
EM 16-E	115	150-200	M8	166	166
EM 16/L-E	115	150-200	M8	166	166
EM 18-E	120	155-210	M8	180	180
EM 18/L-E	120	155-210	M8	180	180
EM 26-E	155	172-225	M10	205	205
EM 35-E	155	172-225	M10	205	205

Technical data

Model	Flow rate	Heat output	Motor	Mains connection	Valve size	Nat. gas min. press.	LPG min. press.	Max. press	Weight (body+ gas train)	LPG Kit Accessory
	m^3/h	kW	230V ~ 50Hz	Ø	Ø	mbar*	mbar*	mbar**	kg	code
EM 3-E.D1	1.19-3.79	11.9-37.7	100 W single	1/2"	1/2"	12.5	10.5	65	11 + 1.5	-
EM 3-E.D3	1.19-3.79	11.9-37.7	100 W single	3/4"	1/2"	11	-	360	11 + 2.85	-
EM 6-E.D1	2.71-6.69	27-66.6	100 W single	1/2"	1/2"	24	14	65	12.5 + 1.5	-
EM 6-E.D2	2.71-6.69	27-66.6	100 W single	1/2"	1/2"	24	-	200	12.5 + 1.5	-
EM 9-E.D2	4.32-9	43-89.5	100 W single	1/2"	1/2"	33	19	200	12.5 + 1.5	-
EM 9-E.D3	4.32-9	43-89.5	100 W single	3/4"	1/2"	18	-	360	12.5 + 2.85	-
EM 12-E.D6	5-12.07	49.8-120	100 W single	1"	1"	12	-	360	11 + 6.8	-
EM 12-E.D3	5-12.07	49.8-120	100 W single	1/2"	1/2"	22	11	360	11 + 4.2	-
EM 12/L-E.D6	5-12.07	49.8-120	100 W single	1"	1"	12	-	360	16 + 6.8	-
EM 12/L-E.D3	5-12.07	49.8-120	100 W single	1/2"	1/2"	22	11	360	16 + 4.2	-
EM 16-E.D3	8-16.1	80-160	110 W single	3/4"	1/2"	29	28	360	16 + 4.2	Z308025490
EM 16-E.D4	8-16.1	80-160	110 W single	3/4"	3/4"	18	-	360	16 + 3.2	-
EM 16/L-E.D4	8-16.1	80-160	110 W single	3/4"	3/4"	18	-	360	16 + 3.2	-
EM 18-E.D6	9.9-17	99-169	185 W single	1"	1"	11	-	360	15 + 8	-
EM 18-E.D3	9.9-17	99-169	185 W single	1/2"	1/2"	27	14	360	16 + 8	-
EM 18/L-E.D6	9.9-17	99-169	185 W single	1"	1"	11	-	360	23 + 8	-
EM 18/L-E.D3	9.9-17	99-169	185 W single	1/2"	1/2"	27	14	360	23 + 8	-
EM 26-E.D6	12.9-24.6	129-245	220 W single	1"	1"	20	-	360	30 + 6.3	-
EM 26-E.D4	12.9-24.6	129-245	220 W single	3/4"	3/4"	-	28	360	30 + 3.7	Z308025380
EM 35-E.D7	18.9-32.1	188-320	370 W single	1 1/4"	1 1/4"	18	-	360	44 + 9.7	-
EM 35-E.D4	18.9-32.1	188-320	370 W single	3/4"	3/4"	46	26	360	44 + 9.7	-

* Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in combustion chamber. - ** Maximum operating pressure of the gas valves.

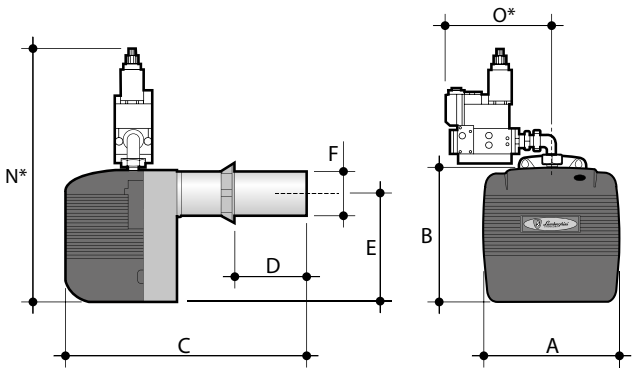


Em/2-E

2-stage burners

- Operating with natural gas or LPG (for mod. Em 16 - Em 26 require conversion kit)
- Gas train with stabiliser, double valve and filter
- Adjustment of the external combustion head
- Electric servo control on the air damper
- Stabilised ventilation
- Soundproof hood
- Can be combined with various types of gas trains for maximum versatility
- Supplied in 2 packages (Burner + Gas train)

Dimensions (in mm)



Model	A	B	C	D	E	F	N*	O*
	mm	mm	mm	mm	mm	Ø mm	mm	mm
EM 9/2-E	280	247	417	40-140	195	90	515	195
EM 16/2-E	310	282	480	60-150	215	108	535	210
EM 16/2-L-E	310	282	480	60-250	215	108	535	210
EM 18/2-E	275	340	675	60-275	274	114	640	240
EM 26/2-E	360	350	750	100-265	275	140	650	240
EM 40/2-E	420	423	880	120-310	350	140	835	260

* The dimensions refer to the burner with a 20 mbar train installed.

Accessories on demand

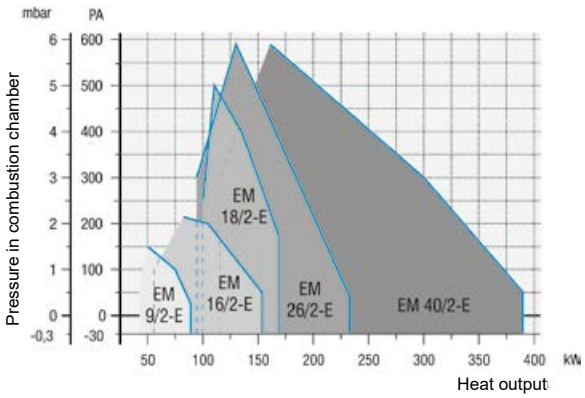
- Accessories assembly kit
- Conversion kit from natural gas to LPG (for mod. Em 16 and 26)
- Valve sealing control kit
- The "pressure or temperature modul kits" are only available for models /M (progressive two-stage) for the burners to be modulating
- For accessories dedicated to Em/2-E, see accessories

Burner code	Burner model
Z300860322	**EM 9/2-E.D3**
Z300860421	**EM 16/2-E.D3**
Z300860431	**EM 16/2-E.D4**
Z300874160	**EM 16/2-L-E.D4**
Z300860463	**EM 18/2-E.D3**
Z300860531	**EM 26/2-E.D6**
Z300860551	**EM 26/2-E.D4**
Z300870252	**EM 40/2-E.D7**
Z300870262	**EM 40/2-E.D4**

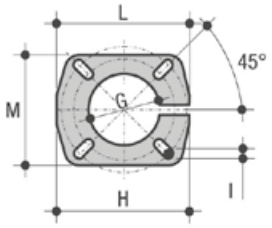
NB: products available on stock

NB: The burners of the Em/2E serie can only be sold and installed in conformity with EU reg. 813/2013 (Art. 1, Paragraph 2, Section G)

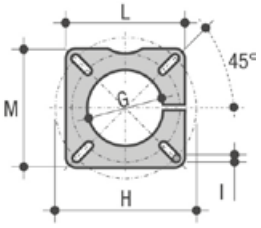
Working ranges



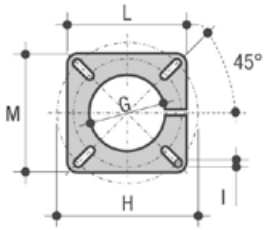
Flange and connection



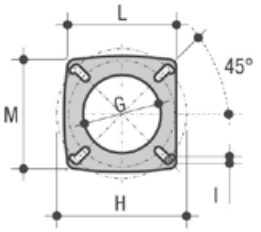
EM 9/2-E



EM 16/2-E
EM 16/2-L-E



EM 18/2-E



EM 26/2-E - EM 40/2-E

Model	G	H	I	L	M
	Ø mm	Ø mm	Ø mm	Ø mm	Ø mm
EM 9/2-E	95	140-180	M8	180	154
EM 16/2-E L-E	115	150-200	M8	166	166
EM 18/2-E	120	155-210	M8	180	180
EM 26/2-E	155	172-225	M10	205	205
EM 40/2-E	155	172-225	M10	205	205

Technical data

Model	Flow rate	Heat output	Motor	Mains connection	Valve size	Nat. gas min. press.	LPG min. press.	Max. press	Weight (body+ gas train)	LPG Kit Accessory
	m^3/h	kW	230V ~ 50Hz	Ø	Ø	mbar*	mbar*	mbar**	kg	code
EM 9/2-E.D3	4.3-9	43-89.5	100 W single	3/4"	1/2"	18	19	360	14 + 3.6	
EM 16/2-E.D3	5.5-15.3	55-153	150 W single	3/4"	1/2"	28	27	360	18 + 4.2	Z308025490
EM 16/2-E.D4	5.5-15.3	55-153	150 W single	3/4"	3/4"	19	-	360	18 + 4	-
EM 16/2-L-E.D4	5.5-15.3	55-153	150 W single	3/4"	3/4"	19	-	360	18 + 5	-
EM 18/2-E.D3	9.9-17	99-169	185 W single	3/4"	1/2"	23	14	360	25 + 6.5	-
EM 26/2-E.D6	9-23.2	90-231	220 W single	1"	1"	18	-	360	31 + 7.7	-
EM 26/2-E.D4	9-23.2	90-231	220 W single	3/4"	3/4"	-	31	360	31 + 4.5	Z308025380
EM 40/2-E.D7	11.5-39.2	115-390	370 W single	1 1/4"	1 1/4"	23	-	360	44 + 11.7	-
EM 40/2-E.D4	11.5-39.2	115-390	370 W single	3/4"	3/4"	62	32	360	44 + 10	-

* Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in combustion chamber. - ** Maximum operating pressure of the gas valves.



LMB G

Progressive two-stage burners

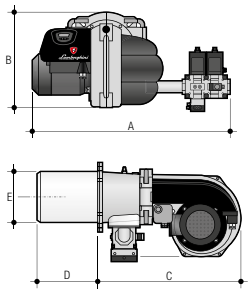
- Optional continuous modulation operation by applying the modul kit (on demand)
- They work with natural gas or LPG (* **)
- Adjustment of the combustion head
- Electric servo control on the air damper
- Stabilised ventilation
- Standard valve sealing control in mod. 1300 and 2000
- Supplied in two packages (Burner + Gas train)
- Equipped with a hinge for full inspection

NB: The burners of the LMB G 300 series can only be sold and installed in conformity with EU regulation 813/2013 (Art. 1, Paragraph 2, Section G)

Accessories on demand

- Modul kit (temperature/pressure) for continuous modulation.
- Valve sealing control kit mod. 300,450,700,1000.
- For accessories dedicated to LMB G burners, see accessories.

Dimensions (in mm)



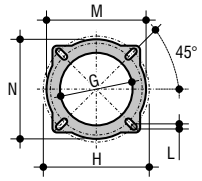
* The dimensions refer to the burner with the larger sized train installed.

Model	A*	B	C	D	E
	mm	mm	mm	mm	Ø mm
LMB G 300 BC	805	340	370	230	124
LMB G 300 BL	805	340	370	300	124
LMB G 450 BC	805	340	370	230	138
LMB G 450 BL	805	340	370	300	138
LMB G 700 BC	950	370	540	235	166
LMB G 700 BL	950	370	540	325	166
LMB G 1000 BC	850	370	540	230	196
LMB G 1000 BL	850	370	540	350	196
LMB G 1300	1.070	440	620	340	232
LMB G 2000	1.070	440	620	340	244

Burner code	Burner model *
Z300873780	**LMB G 300 BC - K 1" (VCV-L 225)**
0U45GDXD	**LMB G 300 BL - K 1" (VCV-L 225)**
Z300873810	**LMB G 450 BC - K 1" (VCV-L 225)**
0U45IDXD	**LMB G 450 BL - K 1" (VCV-L 225)**
Z300873511	**LMB G 700 BC - K 1 1/2" (VCV-L 240)**
Z300873541	**LMB G 700 BL - K 1 1/2" (VCV-L 240)**
Z300872511	**LMB G 1000 BC - K 2" (VCV-L 350)**
Z300872591	**LMB G 1000 BL - K 2" (VCV-L 350)**
Z300872871	**LMB G 1300 - K 2" (VCV-L 350)**
Z300872901	**LMB G 2000 - K 2" (VCV-L 350)**
* The burner can subsequently be converted to LPG with the special conversion kit.	

NB: products delivered within 3 weeks from the date of the order

Flange and connection



Model	G	H	L	M	N
	Ø mm	Ø mm	mm	mm	mm
LMB G 300 (BC e BL)	135	194÷234	M12	216	216
LMB G 450 (BC e BL)	150	194÷234	M12	216	216
LMB G 700 (BC e BL)	180	246÷286	M12	268	268
LMB G 1000 (BC e BL)	205	246÷286	M12	268	268
LMB G 1300	255	294÷334	M12	316	316
LMB G 2000	255	294÷334	M12	316	316

Peculiar characteristics



Air damper



Control, regulation and safety panel

Burner model	Flow rate	Heat output	Motor	Mains connection	Valve size	Nat. gas min. press.	LPG min. press.	Max. press	Weight (body+train)	LPG Kit Accessory
	m³/h	kW	230V ~ 50Hz	Ø	Ø	mbar*	mbar*	mbar**	kg	
LMB G 300 BC (K 1"-225)	11,6÷33,9	110÷320	370 W mon.	1"	1 1/2"	20	19	500	18+14	-
LMB G 300 BL (K 1"-225)	11,6÷33,9	110÷320	370 W mon.	1"	1 1/2"	20	19	500	18+14	-
LMB G 450 BC (K 1"-225)	14,8÷48,7	140÷460	370 W mon.	1"	1 1/2"	20	16	500	18+14	-
LMB G 450 BL (K 1"-225)	14,8÷48,7	140÷460	370 W mon.	1"	1 1/2"	20	16	500	18+14	-
LMB G 700 BC - K 1 1/2"	14,0÷79,0	135÷748	740 W tri.	1 1/2"	1 1/2"	25	14	500	30+14	Z308028720
LMB G 700 BL - K 1 1/2"	14,0÷79,0	135÷748	740 W tri.	1 1/2"	1 1/2"	25	14	500	30+14	Z308028730
LMB G 1000 BC - K 2"	16,0÷103,0	152÷979	1.100 W tri.	2"	2"	20	30	500	31+17	Z308028360
LMB G 1000 BL - K 2"	16,0÷103,0	152÷979	1.100 W tri.	2"	2"	20	30	500	31+17	Z308028370
LMB G 1300 - K 2"	25,0÷136,5	237÷1.296	2.200 W tri.	2"	2"	22	30	500	45+17	Z308028380
LMB G 2000 - K 2"	36,5÷202	336÷1.918	3.000 W tri.	2"	2"	45	30	500	48+18	Z308028390

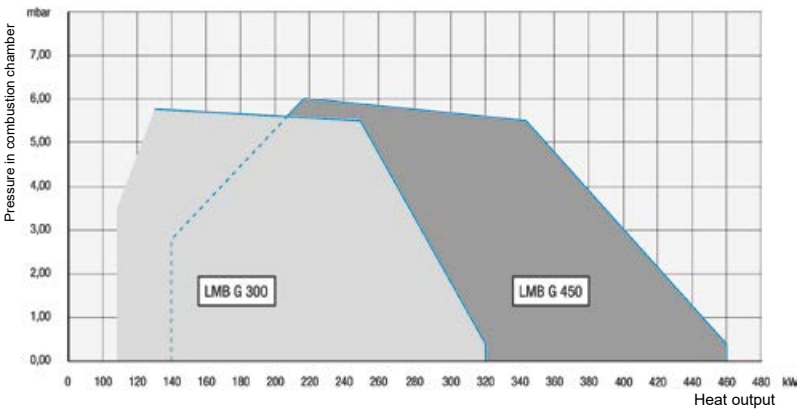
* Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in combustion chamber. - ** Maximum operating pressure of the gas valves.

Working ranges

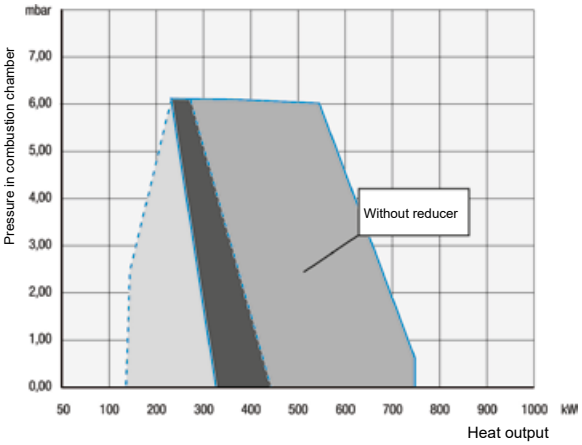
The working range was obtained at an ambient temperature of 15°C, at an atmospheric pressure of 1013.5 mbar (at 0 metres above sea level).

The shaded working range can be obtained with the reducer diaphragm inserted and the right damper blocked

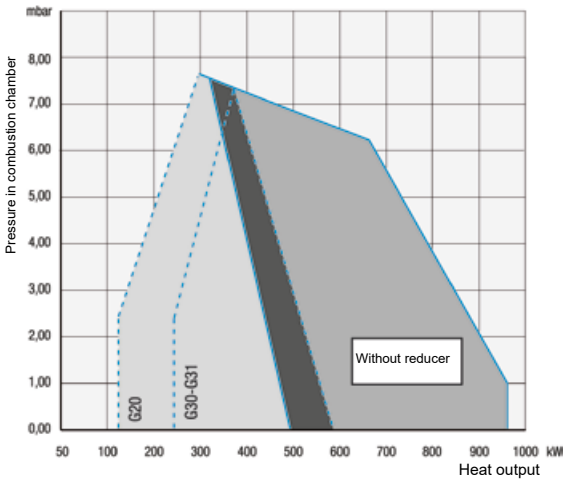
LMB G 300 and 450



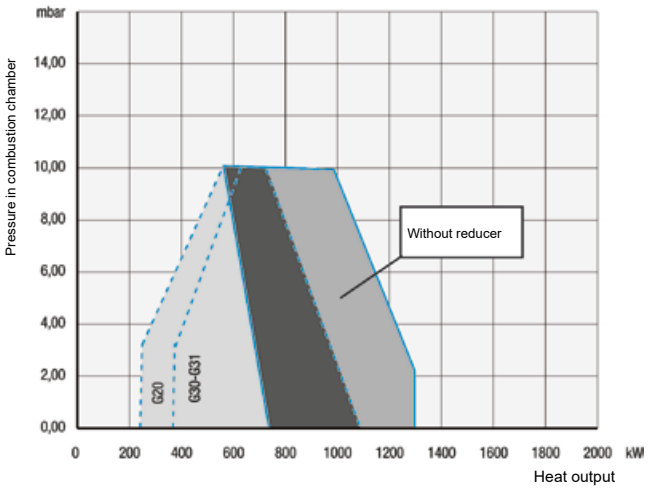
LMB G 700



LMB G 1000

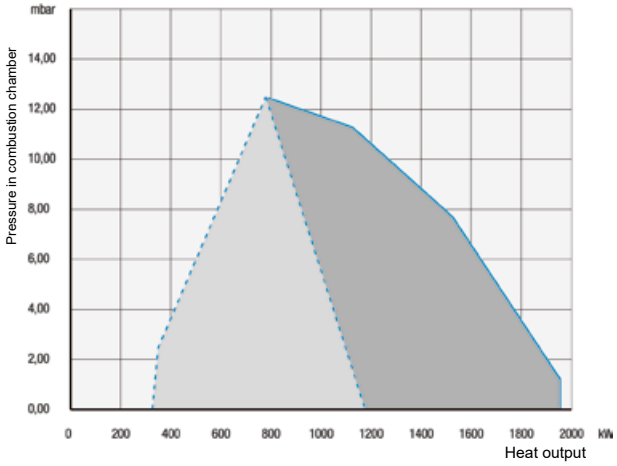


LMB G 1300



For the NATURAL GAS version: the shaded working range can be obtained with the reducer diaphragm inserted and the right damper blocked. The LPG version does not require the reducer.

LMB G 2000



Gas burner accessories



Sealing control pressure switch kit

Pressure switch to control the gas pressure relative to the gas valve sealing control. Electrical connection cable.

Code	Description	Burners
Z308027270	**Valve sealing control pressure switch kit**	All LMB G with type “K” train
Z308027300	**Valve sealing control pressure switch kit**	All LMB G with type “S” train



Accessories assembly kit

Anti-vibration joint in stainless steel and ball shut-off valve. Connecting fitting.

Code	Description	Burners
Z308004890	**Accessories assembly kit for burners - Ø 3/4” with reduction also for 1/2” connections**	EM 3-E (D1-D2-D3) - EM 4 LN EM 6-E (D1-D2-D3) - EM 7 LN - EM 9-E (D2-D3) - EM 9/2-E (D3) EM 12-E (D3) - EM 12/L-E (D3) - EM 13 LN - EM 13LN AB20 - EM 18-E (D3) - EM 18/L-E (D3) - EM 18/2-E (D3) - EM 21 LN 20 - EM 35-E (D4) EM 40/2-E (D4) - EM 40/M-E (D5)
Z308004900	**Accessories assembly kit for burners - Ø 1”**	EM 12/-E (D6) - EM 12/L-E (D6) - EM 16-E (D3-D4) EM 16/2-E (D3-D4) - EM 16/M-E (D4) - EM 18-E (D6) EM 18/L-E (D6) - EM 18/2-E (D6) - EM 21 LN25 EM 21 LN/PR - EM 26-E (D3-D4-D6) - EM 26/2-E (D3-D4-D6) - EM 30 LN PR25 - EM 35 LN PR25 - EM 42 LN PR25 EM 26/M-E (D4-D5-D7) - LMB G 300 - LMB G 450 LMB G 700 K 1”
Z308004910	**Accessories assembly kit for burners - Ø 1 1/2” - with reduction also for 1-1/4” connections**	EM 35-E (D7) - EM 35.1 LN/PR - EM 40/2-E (D7) EM 40/M-E (D4-D7) - EM 30LN PR 32-40 - EM 35 LN PR 32-40 -EM 42 LN PR 32-40 - EM 49 LN PR32-40 EM 42 LN/PR - EM 49 LN/PR LMB G 700 K 1 1/2” - LMB G 1000 S 1 1/2” LMB G 1300 S 1 1/2” - LMB G 2000 S 1 1/2”
Z308004930	**Accessories assembly kit for burners - Ø 2”**	LMB G 1000 K 2” - LMB G 1300 K 2” - LMB G 1300 S 2” LMB G 2000 K 2” - LMB G 2000 S 2” EM 42LN PR50 - EM 49 LN PR50



Code	Description	Burners
Z308025490	**Natural gas to LPG kit**	EM 16-E - EM 16/2-E - EM 16/M-E



Code	Description	Burners
Z308025380	**Natural gas to LPG kit**	EM 26-E - EM 26/2-E - EM 26/M-E

Code	Description	Burners
Z308028720	**Natural gas to LPG kit**	LMB G 700 BC
Z308028730	**Natural gas to LPG kit**	LMB G 700 BL
Z308028360	**Natural gas to LPG kit**	LMB G 1000 BC
Z308028370	**Natural gas to LPG kit**	LMB G 1000 BL
Z308028380	**Natural gas to LPG kit**	LMB G 1300
Z308028390	**Natural gas to LPG kit**	LMB G 2000

Electronic modulation accessories for all progressive two-stage burners



Temperature modul kit

Temperature probe and RWF regulation unit

Code	Description	Burners
Z308013161	**0-130°C temperature modul kit ***	All progressive 2-stage burners
Z308013171	**150-450°C temperature modul kit ****	All progressive 2-stage burners
* Recommended for conventional boilers. - ** Recommended for diathermic light oil and superheated water boilers.		



Pressure modul kit

Pressure probe and RWF regulation unit

Code	Description	Burners
Z308013131	**0-4 bar pressure modul kit**	All progressive 2-stage burners
Z308013141	**0-10 bar pressure modul kit**	All progressive 2-stage burners
Z308013151	**0-25 bar pressure modul kit**	All progressive 2-stage burners
Recommended for steam boilers		

Lamborghini CALORECLIMA



DHW production systems

- Instantaneous gas water heater

NEW



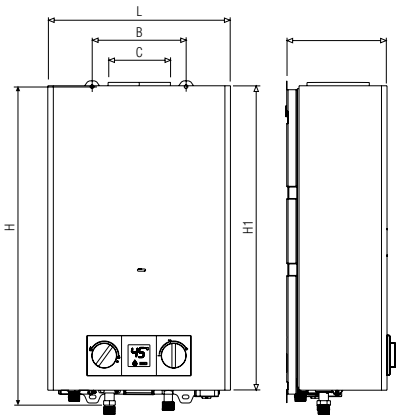
Monza

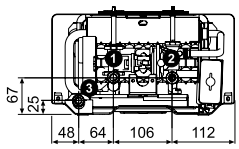
Open chamber, natural draught gas-fired water heater with modulating heat output with LOW NOx flue gas emission - Class 6

- Finned copper tube heat exchanger, externally finished with an anti-corrosion aluminium treatment
- Modulating heat output and fine adjustment of hot water outlet temperature
- Easy-to-read display with indicators on device operation and power battery charge. Adjustment of power and hot water temperature with pleasant, ergonomic knobs
- Battery power supply
- Item sold in Methane and LPG versions
- Can run on propane air (50% air - 50% propane) following conversion by Authorised Technical Service for a maximum total price of EUR 30 (plus VAT)
- Wide range of hot water temperature control and heat output modulation
- Compact size and low weight

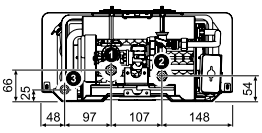
Code	Model	Euro
GCC1MKAD	**MONZA 11 (M)**	-
GCC1MLAD	**MONZA 11 (LPG)**	-
GCC1PKAD	**MONZA 14 (M)**	-
GCC1PLAD	**MONZA 14 (LPG)**	-

Connections and dimensions (in mm)

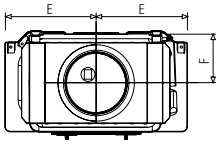




mod. 11



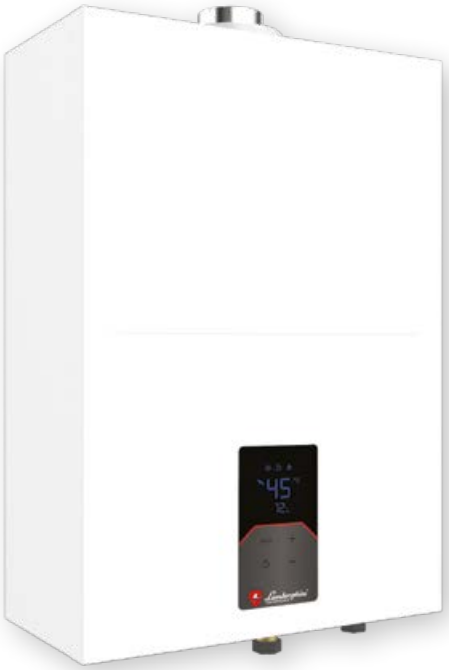
mod. 14



1	Gas supply	Ø 1/2"
2	Hot water inlet	Ø 1/2"
3	Cold water outlet	Ø 1/2"
4	flue gas outlet mod. 11 flue gas outlet mod. 14	Ø 110 mm Ø 130 mm

MONZA	L (mm)	B (mm)	C (mm)	P (mm)	E (mm)	F (mm)	H (mm)	H1 (mm)
11	330	170	110	180	165	91	550	575
14	400	220	130	187	200	93	650	678

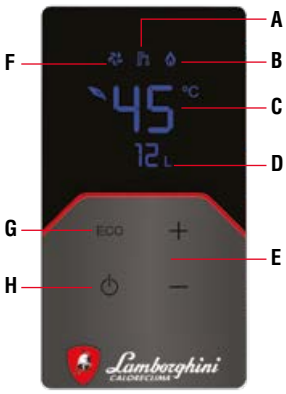
MODEL			**11**	**14**
ERP Class	M	(Class G - A)	A	A
Nominal heat output (Pn)		kW	21.1	26.8
Useful heat output	Min / Max	kW	7.1 / 18.8	9.5 / 23.7
NOx class (in accordance with EN 15502)			6	6
Maximum working pressure		bar	10	10
DHW production	Δt 25°C Δt 30°C	l/min l/min	11.0 9.1	13.9 11.3
DHW temperature control	Min / Max	°C	40 / 65	40 / 65
Power supply			Battery	Battery
No. pieces/pallet		No.	21	14



Estoril

Wall-mounted gas-fired water heater, LOW NOx, forced draught and sealed chamber

- Gas-fired water heater with sealed chamber, modulating heat output and electronic combustion control with LOW NOx flue gas emission - Class 6
- Touch control panel and large, easy-to-read display
- Electronic combustion control
- Wide range of heat output and water temperature modulation
- Available in Methane and LPG versions
- Can run on propane air (50% air - 50% propane) following conversion by Authorised Technical Service for a maximum total price of EUR 30 (plus VAT)
- Flue gas outlet and air inlet configurable with 60/100 mm coaxial pipe or 80 mm double pipe (air/flue). Extensive range of accessories for both solutions
- Suitable for indoor and outdoor installation in a partially protected location (down to -15°C with installation of an optional antifreeze kit; protection of domestic water inlet and outlet pipes by installer)
- Designed to work in conjunction with solar panel systems
- ECO function (hot water temperature at 42°C and 20% heat output reduction)



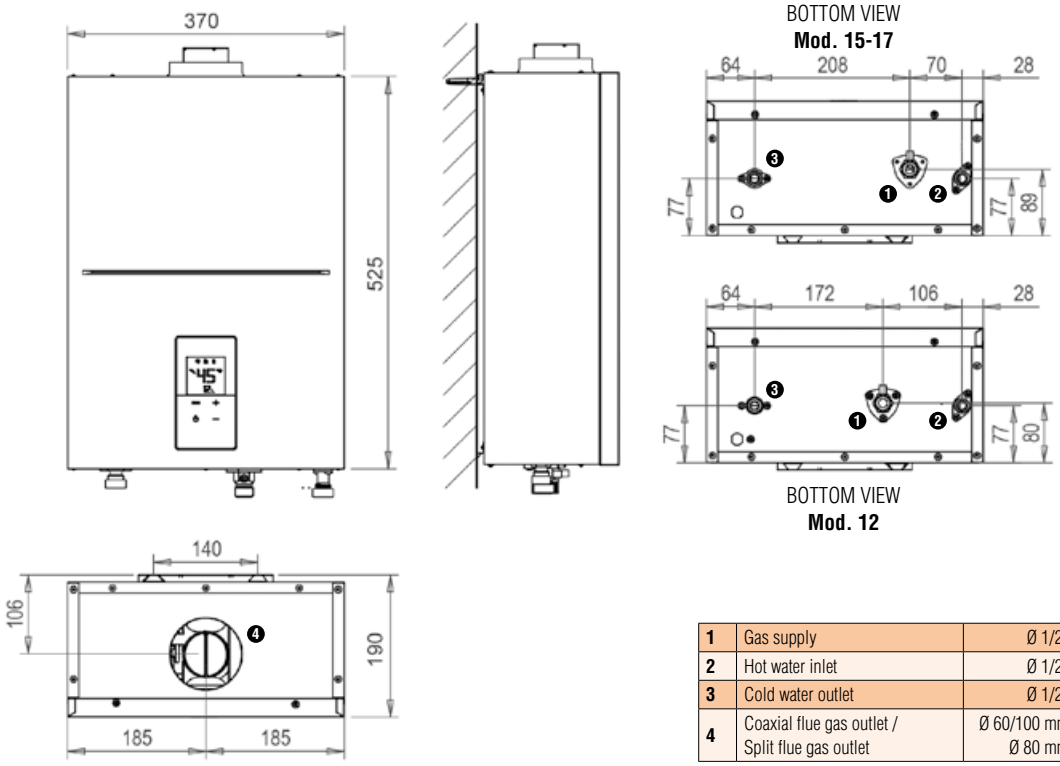
LEGEND

A Burner on
B Hot water demand
C Water temperature
D Water flow rate
E Edit parameters
F Fan on
G ECO function
H On / Off

Code	Model
0DK96KAD	**ESTORIL 12 LPG**
0DK96IAD	**ESTORIL 12 M**
0DK95KAD	**ESTORIL 15 LPG**
0DK95IAD	**ESTORIL 15 M**
0DK97KAD	**ESTORIL 17 LPG**
0DK97IAD	**ESTORIL 17 M**

ESTORIL			12	15	17
ERP Class	XL		A	A	A
Nominal heat output	Max	kW	23	29.7	33
Heat output	Max / Min	kW	20.9/3.6	27/3.6	30/3.6
NOx class (in accordance with EN 15502)			6	6	6
Maximum working pressure		bar	10	10	10
Maximum DHW production	Δt 25°C Δt 30°C	l/min l/min	12 10	15.5 12.9	17 14.3
DHW temperature control	Min / Max	°C	40 / 65	40 / 65	40 / 65
Empty weight		Kg	13.7	14.5	14.5
Power supply		V/Hz	230 / 50	230 / 50	230 / 50
No. pieces/pallet		No.	21	21	21

Connections and dimensions (in mm)



1	Gas supply	Ø 1/2"
2	Hot water inlet	Ø 1/2"
3	Cold water outlet	Ø 1/2"
4	Coaxial flue gas outlet / Split flue gas outlet	Ø 60/100 mm Ø 80 mm

Accessories on request

Code	Description
010039X0	80/80 mm air/flue gas pipe splitter kit
010037X0	Vertical connection kit for coaxial system ø 60/100 mm
010040X0	complete air intake kit coaxial flue gas exhaust, ø 60/100 mm, horizontal (L = 1000 mm)

Code	Description
1KWMA56A	Coaxial tube ø 60/100 mm with end piece and seal, inner aluminium, outer plastic Length L = 1000 mm
1KWMA56U	Male/female coaxial extension ø 60/100 mm complete with gaskets, inner aluminium, outer plastic Length L = 1000 mm
1KWMA81W	Coaxial elbow 90°, ø 60/100 mm, complete with gasket Pack of 1 piece
013027X0	Electric heater kit for auxiliary antifreeze (on +5°C / off +15°C)

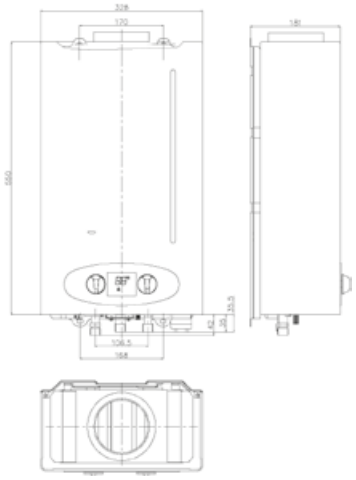


Jerez D

Instantaneous gas water heater, open flue, electronic ignition

- Hot water outlet: 11 Lt
- Gas type: LPG / NG
- Control: mechanic knobs
- Display: LCD
- Natural flue type
- Power and temperature selector
- LCD display to adjust temperature accurate
- Efficient combustion system
- Flue gas discharge control device
- Electronic ignition with flame detection by ionization
- Output regulation from 40% to 100%
- SOFT START device for progressive and silent ignition
- Safety device to protect against insufficient water pressure
- Also certified for operation on propane-air max gas (50% air - 50% G31)
- Startup with low water supply pressure
- Anti-freezing drain device / valve

Connections and dimensions (in mm)



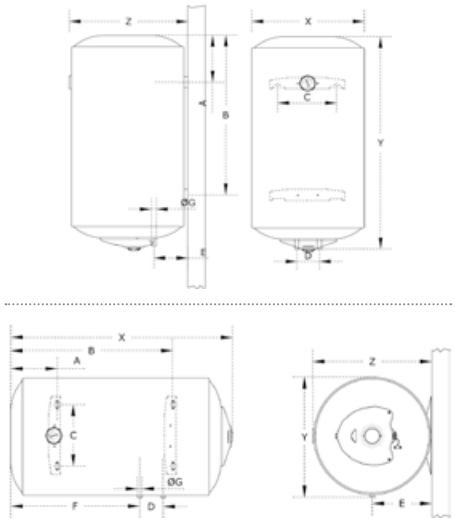
MODEL		11 D
Gas type		NG / LPG
Input power rating	kW	22
Output power rating (thermal load)	kW	18.9
Thermal efficiency	%	74.5
Power supply	v/Hz	3 Phase / 230 Volt
Height x Width x Depth	mm	550 x 328 x 181
Net weight	kg	9
Hot water yield Δt=25°C	kg/min	10.8
Water applicable pressure	bar	0.1-10
IP rating		IPX 5
Installation		Indoor wall mounted
Range of hot water regulation (±3°C)	°C	Δt=50°C
Minimum start-up flow	l/min	2.5
Gas rated pressure	pa	2800
Cold water inlet / Hot water outlet / Gas inlet	Ø	G 1/2" / G 1/2" / G 1/2"



Taurus / Taurus BF

Mid capacity electric water heater

- Entirely manufactured in Italy
- The tank is enamelled with a titanium-glass powder process, highly hygienic, antishock and corrosion free.
- The series ranges from 50 to 150 liters
- Thermometer in robust ABS
- Magnesium anode - Protecting tank from galvanic corrosion
- 5 bolts flange - Robust sealing, EPDM gasket, 70 mm manhole access to the appliance
- External regulation - On vertical model, stepless adjustment
- Thermostat - Double safety design: regulation, with antifrost setting and safety, with manual reset
- **TAURUS BF is also available with BLUEFOREVER enamelled element.** This heat treatment obstacles incrustations of limestone. Lifespan of the element and appliance is then highly increased, above all maintaining unvaried performances.



		50 VE	80 VE	100 VE	120 VE	150 VE	50 HO	80 HO	100 HO	120 HO	150 HO
X	mm	440	440	440	440	440	565	770	990	1135	1255
Y	mm	555	755	995	1130	1175	440	440	440	440	440
Z	mm	460	460	460	460	460	460	460	460	460	460
A	mm	185	185	185	190	190	200	180	200	190	200
B	mm	-	-	-	915	955	345	555	740	915	955
C	mm	265	265	265	265	265	265	265	265	265	265
D	mm	100	100	100	100	100	100	100	100	100	100
E	mm	130	130	130	130	130	230	230	230	230	230
F	mm	-	-	-	-	-	180	355	570	720	760
G	inches	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M

VERTICAL EXECUTION			**50 VE**	**80 VE**	**100 VE**	**120 VE**	**150 VE**
DHW tapping profile			M	L	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35°C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45°C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20.5	25	28.5	29.5

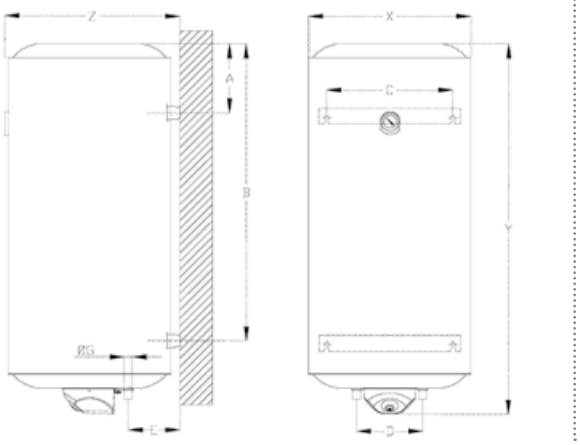
HORIZONTAL EXECUTION			**50 HO**	**80 HO**	**100 HO**	**120 HO**	**150 HO**
DHW tapping profile			M	M	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35°C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45°C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20.5	25	28.5	29.5

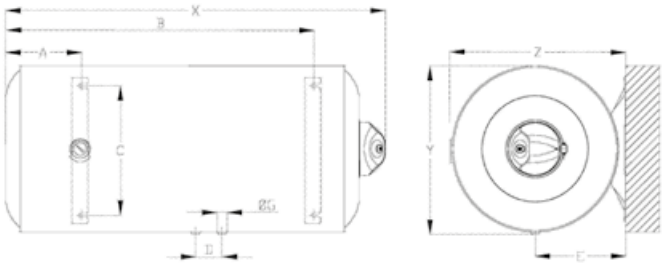


Taurus 200

Mid capacity electric water heater

- TAURUS 200 covers the needs of big residential plants or commercial applications for collective leisure, restauration, lodging facilities.
- Copper/Steel element
- Range: model 200 litres - Vertical / Horizontal
- Internal regulation
- Max operating pressure: 6 bar
- Insulation thickness: 33 mm
- Voltage: 220~240V / 50-60 Hz
- Setpoint temperature can be modified through the internal knob, removing the plastic cover. It is however factory pre-set in order to get maximum possible efficiency according to european regulation 812/2013.





MODEL			200 VE	200 HO
Dimensions	X	mm	565	565
	Y	mm	1253	1253
	Z	mm	592	592
	A	mm	195	195
	B	mm	1035	1035
	C	mm	440	440
	D	mm	230	230
	E	mm	175	175
	G	inches	3/4"	3/4"
Capacity		litres	200	200
Power		W	2400	2400
Heating time	ΔT 35°C	minutes	3 h 36'	3 h 36'
	ΔT 45°C	minutes	4 h 38'	4 h 38'
Weight		Kg	51	51



Lamborghini CALORECLIMA



System accessories

- Advanced temperature control



Control



RF/Wifi receiver



CONNECT

Wifi modulating remote control with programmable thermostat function

- Remote control to **manage comfort in the home also from Smartphone**.
- Connection to the home WiFi network for internet access through the supplied RF/WiFi receiver.
- **CONNECT APP** available for switching the boiler on and off and managing home comfort for heating/DHW via remote control from Smartphone (iOS and Android)
- With the APP it is possible to remotely control boilers in «evolved» mode via the OpenTherm connection and in «basic» mode through the ON/OFF connection.
- Modulating regulation of the delivery temperature with ambient climatic compensation, for boilers connected via OpenTherm («evolved»).
- Modulating regulation of the delivery temperature with climatic compensation through external temperature (detected by the internet or by an optional outdoor probe), for boilers connected via OpenTherm («evolved»).
- **It improves the average seasonal efficiency in space heating by +4%** if combined with boilers via the OpenTherm connection.
- Room regulation with ON/OFF programmable thermostat operation, for boilers connected via on/off («basic»)
- Weekly hourly programming in 30-minute intervals (via APP CONNECT).
- **Reading of the external temperature from the internet** (via CONNECT APP) or from an optional outdoor probe (if installed)
- Display of alarms and possibility of releasing boiler (also via CONNECT APP)
- Operating mode: Off, Holiday, Automatic, Manual.
- Three modifiable temperature levels: Comfort, Economy, Antifrost
- Battery status indicator (also via CONNECT APP)
- Supplied material: 2 x 1.5V AAA batteries, table stand, 230 Vac power supply unit, boiler connection USB cable, set of wall fixing screws, user manual

Code	Description	Boiler/Thermal module
013011XD	**Wifi modulating remote control with programmable thermostat function**	RAGGIO - SERIES IXINOX - FL D LN FL D CONDENS LN



FZ4 B ZONE BOARD

- Board for zone systems (max. 3) of which two mixed and one direct operating in combination with both modulating and ON/OFF timed thermostats
- Manages sliding and differentiated delivery temperatures between zones

* Cannot be combined with CRM N (cod. 013032XD) or CRONOREM (cod. 013114XD)

Code	Description	Boiler/Thermal module
013013X0	**Kit centralina gestione zone FZ4 B** (max. 2 zone miscelate + 1 diretta)	RAGGIO - SERIE IXINOX - ALHENA - ALHENA TECH - FL D LN - FL D CONDENS LN



CRM N

Modulating remote control

- Connection with boiler via OpenTherm bus
- 3” display
- Setting of heating and domestic hot water flow temperature and viewing of errors
- Holiday function: possibility to switch the heating/DHW off for a settable period from 1 hour to 45 days
- Pre-heating function: anticipates the start of heating in order that the set room temperature is reached at the start of the programmed period
- Weekly heating programming with 6 separate daily time slots
- Weekly domestic hot water programming ECONOMY/COMFORT (for boilers with cylinder)
- Sliding temperature mode with external temperature compensation using an external probe (optional) connected to the boiler
- Sliding temperature mode with room temperature compensation, adjustment of flow temperature depending on the room temperature
- System filling: possibility to activate the filling unit in automatic/manual mode (only in combination with RAGGIO)
- Input for control with telephone on/off contact
- A+ SYSTEM : CRM N together with the external probe, combined with a Lamborghini CaloreClima boiler with seasonal efficiency ηs 94%, constitute a heating system with an A+ energy efficiency rating (scale from G to A+++)



Lamborghini boiler | Crm N Cronorem | External probe | System energy class A+

Code	Description	Boiler/Thermal module
013032XD	**CRM N - Modulating remote control**	RAGGIO - SERIES IXINOX - ALHENA - ALHENA TECH - FL D LN - FL D CONDENS LN



CRONOREM

Modulating remote control

- Connection with boiler via OpenTherm bus
- 3” display
- Setting of heating and domestic hot water flow temperature and viewing of errors
- Holiday function: possibility to switch the heating/DHW off for a settable period from 10 min to 45 days
- Weekly heating programming with 4 separate daily time slots
- Sliding temperature mode with external temperature compensation using an external probe (optional) connected to the boiler
- Sliding temperature mode with room temperature compensation, adjustment of flow temperature depending on the room temperature
- System filling: possibility to activate the filling unit in automatic/manual mode (only in combination with RAGGIO)
- A+ SYSTEM : CRONOREM together with the external probe, combined with a Lamborghini CaloreClima boiler with seasonal efficiency ηs 94%, constitute a heating system with an A+ energy efficiency rating (scale from G to A+++)

Code	Description	Boiler/Thermal module
013114XD	**CRONOREM - Modulating remote control**	RAGGIO - SERIES IXINOX - ALHENA - ALHENA TECH - FL D LN - FL D CONDENS LN





CONNECT CRP

Advanced remote control

- 3.2'' dot matrix colour display with 4 Capsense buttons
- Communication with generator via Modbus RTU
- Weekly programming
- System management in heating, cooling, DHW
- Silent, ECO, Fast DHW and OPTIMUM START & STOP functions
- Alarm display
- RF connection of up to an additional 7 Connect CRP Zones (up to 8 zones, one of which is managed by the CRP itself)
- Management via APP, available for Android and IOS

Code	Description	Systems
013069XD	**CONNECT CRP**	HEAT PUMPS AND HYBRID SYSTEMS - IDOLA S / ST / S IN RANGE





BASE FOR FREE-STANDING INSTALLATION INCLUDED

CONNECT CRP ZONE

Zone control to be connected via RF to CONNECT CRP

- Zone setpoint temperature editing
- Operating modes for both heating and cooling: automatic, timed manual, permanent manual or off
- Hourly zone programming from APP or CRP
- Fault display
- Battery power supply (2 x AA)
- RF connection
- Contact for zone valve management
- Wall or table-top installation (freestanding base)
- CONNECT CRP manages up to 7 additional CONNECT CRP ZONES

Code	Description	Systems
013055XD	**CONNECT CRP ZONES**	HEAT PUMPS AND HYBRID SYSTEMS - IDOLA S / ST / S IN RANGE

Lamborghini CALORECLIMA



Aluminium Radiators Range

- Aluminium radiators


PROTEO


PROTEO HP

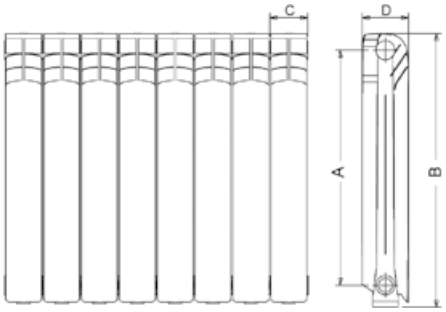
Proteo - Proteo Hp

Die-cast aluminium radiators

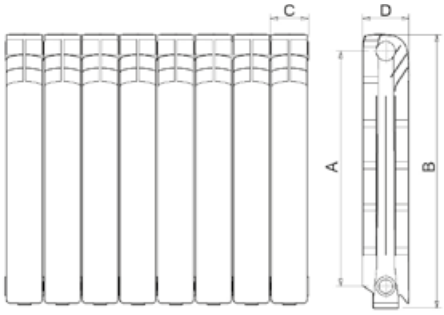
- Die-cast aluminium radiators assembled with nipples and gaskets in sets of 4 to 10 elements
- Painted white (RAL 9010)
- A careful study of the shapes has made it possible to obtain particularly effective convective exchange fins, with one of the highest thermal outputs on the market.
- The packaging consists of four corner pieces in thick cardboard, protected by a heat-shrinkable nylon cover. It was designed to be able to install the radiator without removing the cardboard corners in order to protect it until the work is completed.
- The HP models (600 and 700) are built with a reinforced structure capable of running at high operating pressures, up to a maximum of 16 bar.
- PROTEO and PROTEO HP radiators are covered by a 10-year warranty starting from the date of manufacture stamped on the product. The warranty covers: material or manufacturing defects. The aforementioned warranty covers the replacement of faulty components but not labour costs.

Connections and dimensions (in mm)

PROTEO



PROTEO HP



10 element bank code	Model
ZE17113**XX**B	**PROTEO 450**
Proteo 450 is supplied only in a 10 element bank	
Code (1) bank made to measure	Model
ZE17115**XX**C	**PROTEO 600 HP**
ZE17116**XX**C	**PROTEO 700 HP**
ZE17117**XX**B	**PROTEO 800**
ZE17118**XX**B	**PROTEO 900**

(1) Replace **XX** with the number of elements that make up the bank, from 04 (four-element bank) to 10 (ten-element bank)
EXAMPLE: Code ZE1711706E = Proteo 800 radiator in 6-element bank

Accessories on demand

Code	Description
ZE19993000	**Nipple rh-lh 1”**
ZE19993010	**1” gasket**

MOD.	HEAT OUTPUT			EXPONENT	CONSTANT	MAX OPERATING PRESS.	WATER CONTENT	CONNECTION CENTRE DISTANCE	HEIGHT	WIDTH	DEPTH	CONNECTIONS
	ΔT 30K	ΔT 40K	ΔT 50K	n	k_m	bar	litres/el.	A	B	C	D	inches
	W/el	W/el	W/el					mm	mm	mm	mm	
PROTEO 450	47.4	69.0	92.0	1.30565	0.558700	6	0.310	350	431.0	80	100	1”
PROTEO HP 600	55.8	81.1	106.6	1.29670	0.678240	16	0.320	500	581.5	80	100	1”
PROTEO HP 700	64.9	94.2	125.7	1.29403	0.795932	16	0.354	600	681.5	80	100	1”
PROTEO 800	81.0	119.6	161.0	1.35387	0.810530	6	0.500	700	781.0	80	100	1”
PROTEO 900	86.9	126.8	170.0	1.31409	0.995242	10	0.520	800	881.0	80	98	1”

NB: For the chemical-physical characteristics of the water in the thermal circuit, strictly observe standard UNI 8065
Thermal emissions in WATTS (according to standard EN 442 with ΔT=50°C) - Characteristic equation of the model: $ø = K_M \times (\Delta T)^n$

Lamborghini CALORECLIMA



Storage tanks

- Thermal storage tanks



BSF

Single/double coil storage tank

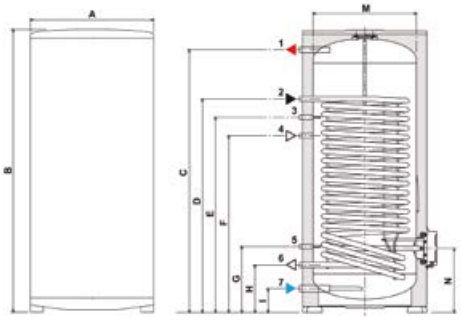
- Vertical storage tanks for DHW, with single coil **(version 1C)** or with double coil **(version 2C)**, in enamelled steel.
- Glass-porcelain steel storage tank, rigid insulation and external finish of white painted steel sheeting
- Supplied in standard configuration with magnesium anode and integrating electrical heater of 1500W and adjustable from 15°C to 75°C
- Fitting for recirculation

Storage Tank Code	Storage tank Model
GRN1010D	**BSF 100-1C**
GRN3010D	**BSF 150-1C**
GRN4120D	**BSF 200-2C**
GRN6320D	**BSF 300-2C**
GRN8420D	**BSF 500-2C**

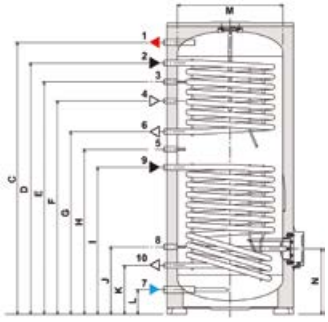
Dimensions (in mm)

	100-1C	150-1C	200-2C	300-2C	500-2C
A	500	500	540	620	750
B	978	1325	1453	1535	1769
C	870	1216	1344	1431	1626
D	736	1088	1234	1311	1474
E	636	988	1134	1211	1374
F	536	888	1034	1111	1274
G	336	336	934	961	1152
H	236	236	834	861	1052
I	126	126	734	761	898
J	-	-	234	261	398
K	-	-	124	131	298
L	-	-	324	351	155
M	400	400	440	520	650
N	326	326	324	351	418

BSF VERSION 1C



BSF VERSION 2C



1. Hot water outlet
2. Boiler inlet
3. Probe
4. Recirculation
5. Probe
6. Boiler outlet
7. Cold water inlet
8. Probe
9. Solar inlet
10. Solar outlet

BSF		Single coil		Double coil		
		100-1C	**150-1C**	**200-2C**	**300-2C**	**500-2C**
ERP Class		C	C	C	C	C
Heat loss	W	66	74	82	93	113
Total capacity	l	89	129	174	262	461
Upper/lower exchange surface	m^2	0.74	1.25	0.5/0.83	0.72/1	1.19/2.2
Power (ΔT 35°C - upper/lower)	kW	18.5	31.25	12.5/20.75	18/25	29.6/55
Upper/lower pressure drops	mbar	228	386	155/254	220/308	58/109
Upper/lower coil surface	m^2	0.74	1.25	0.5/0.83	0.72/1	1.19/2.2
Max operating temperature	°C	95	95	95	95	95
Primary flow rate	m^3/h	2	2	2	2	3
Max operating pressure	bar	8	8	8	8	8
Empty weight	kg	45	64	73	102	155
Type of fitting						
DHW		3/4"	3/4"	3/4"	1"	1"
coil/s		3/4"	3/4"	3/4"	3/4"	1"
recirculation		3/4"	3/4"	3/4"	3/4"	3/4"



BSF HP

Integrated dhw tanks for heat pump and boiler

- Vertical storage tanks for DHW, with single coil **(version 1C)** or with double coil **(version 2C)**, in enamelled steel
- Glass-coated steel storage tank, 50mm rigid insulation and external finish of grey painted steel sheeting
- Supplied in standard configuration with **double magnesium anode** and 2000W integrated **electric heater, regulation thermostat** (from 15°C to 75°C), **safety thermostat** (93°C)
- Fitting for re-circulation

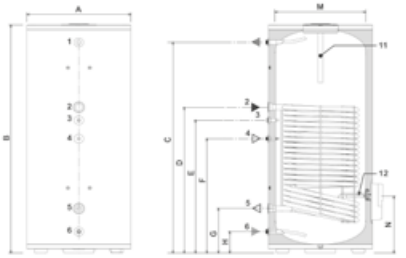
Storage Tank Code	Storage tank Model
GRN411PD	**BSF HP 200-1C**
GRN631PD	**BSF HP 300-1C**
GRM741AD	**BSF HP 400-1C**
GRM841AD	**BSF HP 500-1C**
GRM412PD	**BSF HP 200-2C**
GRM632PD	**BSF HP 300-2C**
GRM742AD	**BSF HP 400-2C**
GRM842AD	**BSF HP 500-2C**

Dimensions (in mm)

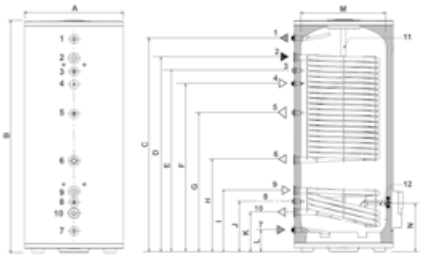
DIMENSIONS (mm)								
BSF HP	**200-1C**	**300-1C**	**400-1C**	**500-1C**	**200-2C**	**300-2C**	**400-2C**	**500-2C**
A	540	620	750	750	540	620	750	750
B	1438	1557	1469	1769	1438	1557	1469	1769
C	1316	1431	1313	1618	1328	1423	1313	1618
D	1197	1301	997	1120	1226	1323	1174	1474
E	976	1061	885	1020	1126	1223	1074	1374
F	876	961	785	878	1026	1123	974	1274
G	226	261	341	341	826	873	752	1053
H	124	131	163	163	637	699	559	695
I	-	-	-	-	400	453	462	462
J	-	-	-	-	313	363	380	380
K	-	-	-	-	226	273	298	298
L	-	-	-	-	124	163	163	163
M	440	520	650	650	440	520	650	650
N	304	331	448	448	324	316	373	373

TYPE OF FITTING								
BSF HP	**200-1C**	**300-1C**	**400-1C**	**500-1C**	**200-2C**	**300-2C**	**400-2C**	**500-2C**
DHW	3/4"	1"	1"	1"	3/4"	1"	1"	1"
coil/s	1"	1"	1 1/4"	1 1/4"	1"	1"	1 1/4"	1 1/4"
re-circulation	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"

BSF HP version 1C



BSF HP version 2C



KEY mod. 1C

1 Domestic hot water outlet
2 Water exchanger inlet
3 Temperature probe
4 Re-circulation
5 Water exchanger outlet
6 Cold water inlet
11 Upper anode
12 Lower anode - electric heater - thermostats

KEY mod. 2C

1 Domestic hot water outlet
2 Upper water exchanger inlet
3 Temperature probe
4 Re-circulation
5 Temperature probe
6 Upper water exchanger outlet
7 Cold water inlet
8 Temperature probe
9 Lower water exchanger inlet
10 Lower water exchanger outlet
11 Upper anode
12 Lower anode - electric heater - thermostats

BSF HP		**200-1C**	**300-1C**	**400-1C**	**500-1C**	**200-2C**	**300-2C**	**400-2C**	**500-2C**
ERP class	(Class F - A+)	C	C	C	C	C	C	C	C
Capacity	l	167	254	350	444	162	247	345	434
Standing loss	W	80	92	102	111	80	92	102	111
DHW max operating pressure	bar	8	8	8	8	8	8	8	8
Max operating temperature domestic hot water	°C	95	95	95	95	95	95	95	95
Empty weight	Kg	91	118	153	180	92	126	161	194
Upper coil surface	m^2	2.3	3.1	4.7	5.5	2.3	3.1	4.7	5.5
Heat delivered (DHW 60°C/50°C)	kW	11.5	15.5	23.5	27.5	17.5	17.5	30	30
DHW production 10°C/45°C - DIN 4708	l/h	283	381	577	676	430	430	737	737
Lower coil surface	m^2	-	-	-	-	0.7	0.7	1.2	1.2
Upper coil surface (DHW 80°C/60°C)	kW	-	-	-	-	17.5	17.5	30	30
Heat delivered 10°C/45°C - DIN 4708	l/h	-	-	-	-	430	430	737	737
Coil in series surface	m^2	-	-	-	-	3	3.8	5.9	6.7
Upper coil surface (DHW 60°C/50°C)	kW	-	-	-	-	15	19	29.5	33.5
Heat delivered 10°C/45°C - DIN 4708	l/h	-	-	-	-	369	467	725	823



Lamborghini CALORECLIMA



Water heater in Heat Pumps

NEW



Dora Tech HT

Heat pump water heater for floor-standing installation with positive air temperatures

- Air heat pump and integrated storage tank for DHW production with inlet air temperature range not lower than 4°C
- Possibility of ducting the expelled air
- Floor-standing installation
- Available operating modes: **Eco, Auto, Boost, Electric, Fan**
- **Wi-Fi card** installed as standard and control via smartphone using the **"LAMBORGHINI CALORECLIMA HOME" App**
- 1500 W **support heating element**
- **Simple and intuitive touch control panel** on board machine
- Enameled steel water storage tank with 50 mm polyurethane insulation
- Aluminum main heat exchanger outside the tank
- Corrosion protection by means of magnesium anode
- Programmable **anti-legionella cycle**
- Arrangement (digital input) for **activation with availability of photovoltaic energy**
- Arrangement (digital input) for **activation with reduced electricity rates**
- **R134a** ecological gas

Code	Model
2CP0022L	**DORA TECH 200 HT**
2CP0023L	**DORA TECH 260 HT**
Code	Accessories
2CP00280	Cascade regulator kit (1 piece should be installed for each water heater in cascade)

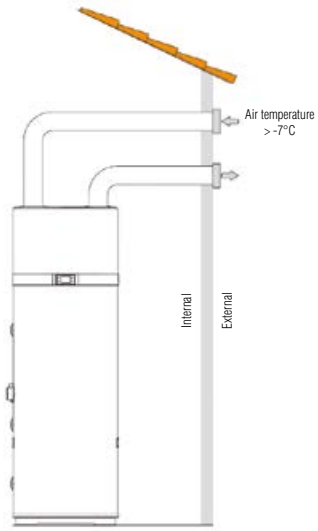
Control panel

The simple and intuitive programmable control system on board the machine allows selection of the various Operating Modes: **Eco:** heat pump only (Max setpoint 62°C) / **Auto:** heat pump with heating element for possible support (Max setpoint 62°C) / **Boost:** heat pump and heating element at the same time (Max setpoint 75°C) / **Electric:** heating element only (Max setpoint 75°C) / **Fan:** active ventilation only.

The **DORA TECH electronics are able to optimize** the integration of energy from other sources, exploiting the possible availability of photovoltaic electricity. The DORA TECH electronics can manage and optimize the integration of energy from other sources: activating and exploiting any overproduction of **photovoltaic electricity** by raising the temperature of water in the storage tank up to a value set by the user (max 75°C).

Application

The air can be ducted in order to direct the flow appropriately in different situations.



Use of energy present in the environment
(BOILER ROOM OR LAUNDRY)

Connectivity

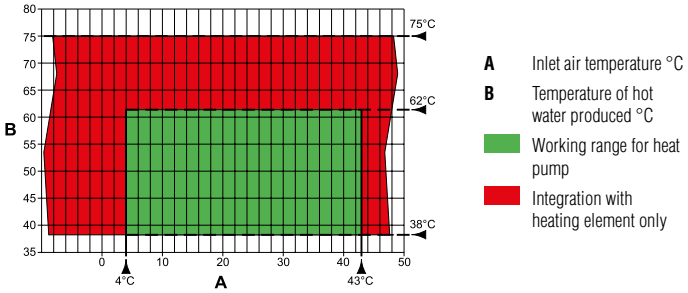
CONNECTIVITY Thanks to the "**LAMBORGHINI CALORECLIMA HOME**" App downloadable on smartphone, DORA TECH can be fully managed by changing its parameters and operating modes.



Lamborghini CaloreClima Home

Limits of use

TEMPERATURE RANGE. The graph below indicates the temperature range of the produced air and water, which guarantees correct operation.



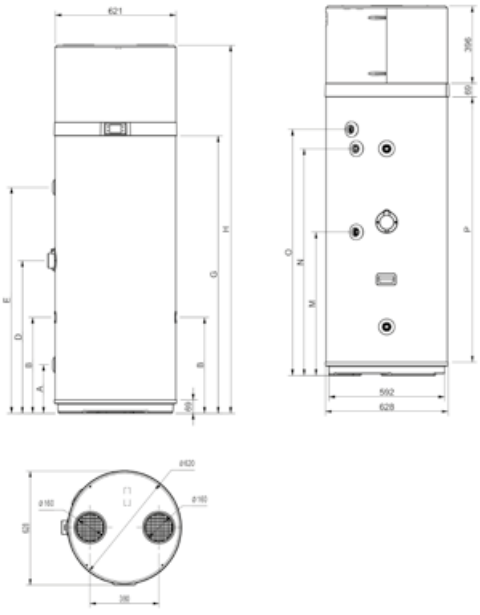
POWER SUPPLY VOLTAGE RANGE. The table below provides the admissible variation conditions for the electrical power supply

Standard power supply	V-ph-Hz	230-1-50
Admissible voltage range	V	207 - 254

DORA TECH		200 HT	260 HT
Nominal storage capacity	L	192	250
Max. hot water capacity at 40°C	L	260	358
Storage dispersion	W	60	70
DHW max. temperature with heat pump only	°C	62	62
DHW max. temperature with supplementary electric booster	°C	75	75
Integrated heating element power	W	1500	1500
Average absorbed power in heating	W	370	370
Pump heat output	W	1248	1283
Dimensions (Ø x H)	mm	621 x 1607	621 x 1892
Empty weight	kg	86	98
Max. water pressure	bar	7	7
Max. air temperature	°C	43	43
Min. air temperature	°C	4	4
Nominal air flow	m^3/h	350	350
Max. available head for cold air outlet	Pa	100	100
Duct diameter	mm	160	160
Required room volume	m^3	>20	>20
Power supply parameters	V-Hz	230V - 50Hz	230V - 50Hz
Protection rating		IP24	IP24
Indoor sound power Lw(A)	dB(A)	52	52
Gas type		R134a	R134a
Charge quantity	g	1000	1000
Heating time 7°C in ECO mode	hh:mm	07:16	09:44
COP		2,8	3,1
Internal coil for solar		--	--
Energy efficiency class for heating water in average climatic conditions		A+	A+
Energy efficiency of water heating in % in average climatic conditions	%	116	127
Annual energy consumption in average climatic conditions	kW/h	883	1315
Declared load profile		L	XL

* Test in accordance with EN16147-2017 with air inlet temperature at 20°C, boiler storage ambient temperature 20°C, water heating from 10°C to 55°C.

Dimensions and hydraulic connections (in mm)



DORA TECH		Ø	200 HT	260 HT
A	mm	1"G	250	250
B	mm	-	490	493
D	mm	-	705	785
E	mm	1"G	876,5	1162
G	mm	-	1142	1427
H	mm	-	1607	1892
M	mm	3/4"G	705	735
N	mm	3/4"G	877	1162
O*	mm	1/2"G	976	1261
P	mm	-	1073	1358

* Outlet connection in plastic material



Dora Tech LT

Heat pump water heater for wall mounting and floor-standing installation with negative air temperatures

- Air heat pump and integrated storage tank for DHW production
- Active defrosting system for operating correctly to -7°C air temperature
- R290 **ecological gas** for model 90-120 and **R134a** for model 200-260
- Possibility of ducting the expelled air
- Wall mounting (model 90-120) and floor-standing installation (model 200-260)
- **Support heating element** (1500 W floor-standing - 1200 W wall)
- Available operating modes: **Eco, Auto, Boost, Electric, Fan**
- **Wi-Fi card** installed as standard and control via smartphone using the **"LAMBORGHINI CALORECLIMA HOME"** App
- **Simple and intuitive touch control panel** on board machine
- Enameled steel water storage tank with 50 mm polyurethane insulation
- Aluminum main heat exchanger outside the tank
- Arrangement with **solar coil** (version "LT-S")
- Double anti-corrosion magnesium anode (model 200-260)
- Programmable **anti-legionella cycle**
- Arrangement (digital input) for **activation with availability of photovoltaic energy**
- Arrangement (digital input) for **activation with reduced electricity rates**
- Arrangement (digital input) for **combination with solar thermal systems** (models "LT-S").
- **Integrated management of forced circulation solar thermal system** (models "LT-S").

Code	Model
2CP0020L	**DORA TECH 90 LT**
2CP0021L	**DORA TECH 120 LT**
2CP0024L	**DORA TECH 200 LT**
2CP0025L	**DORA TECH 260 LT**
2CP0026L	**DORA TECH 200 LT-S**
2CP0027L	**DORA TECH 260 LT-S**
Code	Accessories
2CP00280	Cascade regulator kit (1 piece should be installed for each water heater in cascade)
043007X0	**FOR LT-S VERSIONS ONLY** Solar collectors probe (see solar thermal)

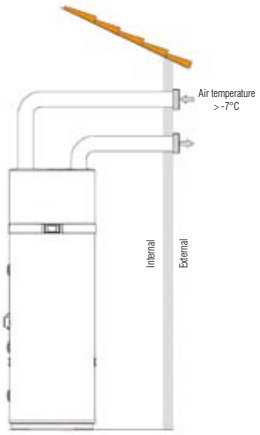
Control panel

The simple and intuitive programmable control system on board the machine allows selection of the various Operating Modes: **Eco:** heat pump only (Max setpoint 62°C) / **Auto:** heat pump with heating element for possible support (Max setpoint 62°C) / **Boost:** heat pump and heating element at the same time (Max setpoint 75°C) / **Electric:** heating element only (Max setpoint 75°C) / **Fan:** active ventilation only. The DORA TECH electronics can manage and optimize the integration of energy from other sources: deactivating the heat pump if **solar thermal energy** is available (models LT-S), activating and exploiting any overproduction of **photovoltaic electricity** by raising the temperature of water in the storage tank up to a value set by the user (max 75°C). The LT-S models can be combined with a solar thermal system whether managed by own control unit or, otherwise, the DORA TECH electronics can directly manage the components of the solar circuit.

Connectivity

CONNECTIVITY Thanks to the "**LAMBORGHINI CALORECLIMA HOME**" App downloadable on smartphone, DORA TECH can be fully managed by changing its parameters and operating modes.





Application

USE OF ENERGY PRESENT OUTSIDE
The air can be ducted both in and out in order to convey the flow appropriately in the different situations.

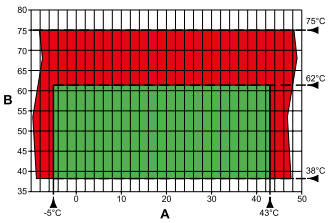
SUPPLY VOLTAGE RANGE The table below gives the variation conditions allowed for the power supply

Standard power supply	V-ph-Hz	230-1-50
Admissible voltage range	V	207 - 254

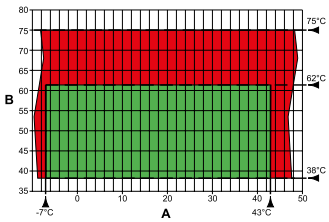
Limits of use

Temperature range. The graph below gives the temperature range of the air and water produced within which correct operation is guaranteed.

mod. 90-120 LT



mod. 200-260 LT / LT-S



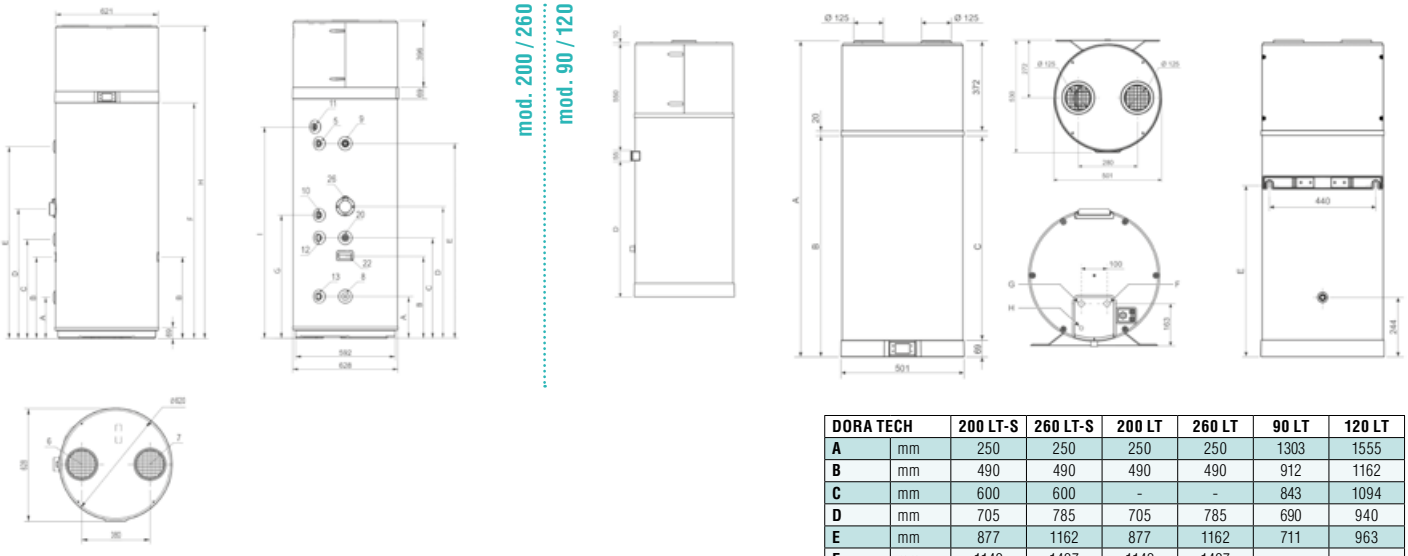
A Inlet air temperature °C
B Temperature of hot water produced °C

Working range for heat pump
Integration with heating element only

DORA TECH		90 LT	120 LT	200 LT	260 LT	200 LT-S	260 LT-S
Nominal storage capacity	L	89	118	192	250	187	247
Max. hot water capacity at 40°C	L	102	145	247	340	241	335
Storage dispersion	W	40	46	60	70	60	70
DHW max. temperature with heat pump only	°C	62	62	62	62	62	62
DHW max. temperature with supplementary electric booster	°C	75	75	75	75	75	75
Integrated heating element power	W	1200	1200	1500	1500	1500	1500
Average absorbed power in heating	W	270	270	430	430	430	430
Pump heat output	W	607	613	1339	1249	1339	1249
Dimensions (Ø x H)	mm	510 x 1333	510 x 1555	621 x 1607	621 x 1892	621 x 1607	621 x 1892
Empty weight	kg	49	55	88	100	97	109
Max. water pressure	bar	7	7	7	7	7	7
Max. air temperature	°C	43	43	43	43	43	43
Min. air temperature	°C	-5	-5	-7	-7	-7	-7
Nominal air flow	m^3/h	170	170	450	450	450	450
Max. available head for cold air outlet	Pa	110	110	117	117	117	117
Duct diameter	mm	125	125	160	160	160	160
Required room volume	m^3	15	15	>20	>20	>20	>20
Power supply parameters	V-Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz
Protection rating		IP24	IP24	IP24	IP24	IP24	IP24
Indoor sound power Lw(A)	dB(A)	54	54	53	51	53	51
Gas type		R290	R290	R134a	R134a	R134a	R134a
Charge quantity	g	150	150	1000	1000	1000	1000
Heating time 7°C in ECO mode	hh:mm	05:52*	08:15*	06:27*	09:29*	06:27*	09:29*
COP DHW 7°C		2,88	2,62	3,23	3,37	3,23	3,37
Internal coil for solar		--	--	--	--	0,72	0,72
Energy efficiency class for heating water in average climatic conditions		A+	A+	A+	A+	A+	A+
Energy efficiency of water heating in % in average climatic conditions	%	123	112	135	138	135	138
Annual energy consumption in average climatic conditions	kW/h	419	458	761	1210	761	1210
Declared load profile		M	M	L	XL	L	XL

- Test in accordance with EN16147-2017 with air inlet temperature at 7°C (6°C), boiler storage ambient temperature 20°C, water heating from 10°C to 53°C. **(*)**
- Test in accordance with EN16147-2017 with air inlet temperature at 14°C (13°C), boiler storage ambient temperature 20°C, water heating from 10°C to 53°C. **(**)**

Dimensions and hydraulic connections (in mm)



DORA TECH		200 LT-S	260 LT-S	200 LT	260 LT	90 LT	120 LT
A	mm	250	250	250	250	1303	1555
B	mm	490	490	490	490	912	1162
C	mm	600	600	-	-	843	1094
D	mm	705	785	705	785	690	940
E	mm	877	1162	877	1162	711	963
F	mm	1142	1427	1142	1427	-	-
G	mm	705	735	705	735	-	-
H	mm	1607	1892	1607	1892	-	-
I	mm	976	1261	976	1261	-	-



Lamborghini CALORECLIMA



Hybrid Systems and Heat Pump Systems





Idola S Hybrid C

Air-water reversible heat pumps in R32 for split installation with instant production of DHW

- **The IDOLA S HYBRID C 3.2** hybrid heat pumps combine **R32 eco-friendly heat pump technology** and **the condensation boiler** with the instant production of DHW in a single compact product.
- The eco-friendly **R32** gas combines high efficiency with a reduced environmental impact. Thanks to its **GWP of 675,** about a third compared to the GWP of R410a, it helps to reduce emissions of CO_2, which are the main cause of global warming.
- Lamborghini CaloreClima hybrid systems are the **ideal solution for replacing old existing boilers, even on high-temperature systems with radiators**, thanks to the integration of the boiler.
- The compact size, similar to that of a wall-hung boiler, **makes it easier to replace without significant loss of space** or the need for major restructuring work.
- **By running the** boiler or heat pump as the climatic conditions vary, the internal electronics **optimise the output of the system** by constantly operating **in the most economic and efficient mode possible**, with excellent benefits for the end user.
- The boiler will be free to **produce instant DHW** even during heat pump heating or cooling operations, thereby **maximising the comfort levels**. In the unlikely event that the heat pump is blocked, the boiler will still be able to operate autonomously in backup mode, **thus guaranteeing heating and the production of DHW**.
- The system consists of a **Full DC inverter external unit,** available with a choice of 4 different powers, **associated with the hybrid internal and condensation unit with an integrated hydronic module, including a DC inverter pump** to manage the cooling circuit. The system is **extremely versatile** and capable of operating in **harsh climate conditions up to -20°C outdoors. It avoids the risk of freezing** thanks to a split cooling circuit.
- Wall flue gas exhaust in the cases pertaining to Italian Leg. Decree no. 102 of 4 July 2014.

System code (*)	System model
0XHK4EWD	**IDOLA S HYBRID C 3.2 04**
0XHK4FWD	
0XHK4GWD	
0XHK6EWD	**IDOLA S HYBRID C 3.2 06**
0XHK6FWD	
0XHK6GWD	
0XHK8GWD	**IDOLA S HYBRIDC 3.2 08**
0XHK8EWD	
0XHKAEWD	**IDOLA S HYBRID C 3.2 10**
0XHKAGWD	

(*) *The code will be confirmed during the order phase based on the commercial back office availability*

THE CONTROL SYSTEM

- The interface features **Capsense** technology with a 2.8" graphic display for user-friendly, practical interaction. The on-board machine interface communicates seamlessly with the new **Connect CRP** smart systems, which can control **up to 8 thermostats** (of which 7 are **Connect CRP Zones**), divided into 2 zones, one direct and one mixed.
- **MODBUS PROTOCOL** for smart control via an external BMS
- **HEATING AND COOLING** with Lamborghini CaloreClima's Full Inverter modulation which allows you to set the temperature curve to reduce consumption and improve user comfort.
- **SMART GRID INPUT FROM PHOTOVOLTAIC SYSTEM AND POWER GRID** Smart Grid contacts to optimise consumption and save on energy bills. Consult the manuals for more details
- **REMOTE CONTROL VIA APP** Available for iOS and Android using the Connect CRP (optional)
- **SILENT PDC MODE.** Reduces the maximum compressor frequency and fan speed, thus significantly reducing noise levels.
- **ON/OFF and SUMMER/WINTER** from external contacts. The unit can be switched on and off via an external contact, by receiving summer/winter switching signals (e.g. from the zone thermostat). The operating mode will follow the controller settings
- **ECO** Dedicated setpoint for "Eco" mode. Can be set with a daily time slot
- **WEEKLY HOURLY PROGRAMMING.** The Connect CRP (optional) allows differentiated hourly programming for each day of the week, defining the mode (COOL/WARM/DHW) and operating setpoints for each time slot.

FEATURES OF THE EXTERNAL UNIT:

- Approved for external use in completely exposed site
- Powered by R32 eco-friendly gas with low environmental impact
- Inrush current and reduced noise thanks to Full Inverter technology
- Compressor with twin rotary DC INVERTER motor on vibration damping supports and wrapped in double layer of soundproofing material to minimise vibrations and noise.
- Axial fans with DC brushless motor including protective grilles
- Outdoor air temperature probe pre-installed on the unit.

FEATURES OF THE INTERNAL UNIT:

- Sturdy and suitable for replacements even in particularly critical systems.
- Combustion module with a 1:10 modulation range and extra-thick stainless steel heat exchanger with larger channels to maintain high efficiency even on old oxidised and soiled systems
- Standard supply with squared system supply and return valves (with easy-access filter for inspection)
- **M.G.R: Methane, LPG, Propane-air Ready**, with a simple configuration, the boiler can run on natural gas, LPG and a propane-air mixture without the use of any additional conversion kits
- **MC²: Multi Combustion Control**, combustion system with patented gas-adaptive technology for improved adaptability of use to variations in the gas supply conditions (e.g. pressure fluctuations or drops)
- **F.P.S: Flue gas protection system.** The standard flue gas check valve offers easy connection to pressurised collective flue systems
- **Particularly suited to operating in flues requiring "heavy-duty" pipes** thanks to approval for **operation with flue gas exhaust pipes with a diameter of 50mm**

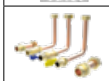
IDOLA S 3.2 HY C		04		06		08		10	
ERP class in heating / Seasonal efficiency average temperature (produced water 35°C)	Class / ηs (%)	A+++	186	A+++	191	A+++	200	A+++	201
ERP class in heating / Seasonal efficiency low temperature (produced water 55°C)	Class / ηs (%)	A++	128	A++	136	A++	130	A++	135
SCOP (low temperature 35°C)	W/W	4.85		4.95		5.21		5.19	
SEER (produced water 7°C)	W/W	4.99		5.34		5.83		5.98	
Power supply	V-ph-Hz	220/240-1-50							
Type and no. of compressors	-	1 x Twin Rotary DC							
Type of exchanger system side / source side	-	brazed stainless steel plates / finned coil							
Type of fans / no. of fans	-	brushless DC / 1							
Refrigerant fittings - liquid line	Ø	1/4" SAE / Ø 6.35				3/8" SAE / Ø 9.52			
Refrigerant fittings - gas line	Ø	5/8" SAE / Ø 15.88							
Indoor unit expansion vessel volume	L	8							
SWL - outdoor* / indoor* unit sound power level	dB(A)	56 / 39		58 / 39		59 / 39		60 / 39	
Outdoor / indoor unit weight	kg	58 / 43				77 / 43			

NOTE: Efficiency class calculated according to the European regulation 811/2013. The values refer to a unit without any optionals or accessories. * **SWL =** Sound power level, for $1x10^{-12}$ W with unit functioning in **A7W35** conditions. The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. The Total Sound Power in dB(A) which is, therefore, the only demanding acoustic data. The sound pressure levels are values calculated from the sound power level (SWL) applying the ISO-3744 relationship.

PERFORMANCE DATA			04	06	08	10
A7W35	Nominal heat output	kW	4.20	6.35	8.40	10.0
	Nominal input power	kW	0.82	1.28	1.63	2.02
	COP	W/W	5.10	4.95	5.15	4.95
A7W45	Nominal heat output	kW	4.30	6.30	8.30	10.0
	Nominal input power	kW	1.13	1.70	2.16	2.67
	COP	W/W	3.80	3.70	3.85	3.75
A35W18	Designed cooling capacity	kW	4.50	6.50	8.30	9.90
	Nominal input power	kW	0.82	1.35	1.64	2.18
	EER	W/W	5.50	4.80	5.05	4.55
A35W7	Designed cooling capacity	kW	4.70	6.50	7.45	8.20
	Nominal input power	kW	1.36	2.17	2.22	2.52
	EER	W/W	3.45	3.00	3.35	3.25

The values refer to a unit without any optionals or accessories. Data declared according to **EN 14511**: **EER** (Energy Efficiency Ratio) = ratio of cooling power to input power **COP** (Coefficient Of Performance) = ratio of heat output to input power **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C **A7W45** = source: air in 7°C d.b. 6°C w.b. / system: water in 40°C out 45°C **A35W18** = source: air in 35°C d.b. / system: water in 23°C out 18°C **A35W7** = source: air in 35°C d.b. / system: water in 12°C out 7°C **NOTES:** Efficiency class calculated according to the European regulation **811/2013**.

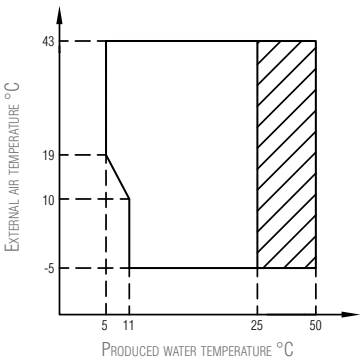
INDOLA S 3.2 HY C PERFORMANCE		04	06	08	10
Max/min thermal output in heating (Hi)	kW	24.5 / 2.9			
Max/min thermal output in heating (80/60°C)	kW	24 / 2.8			
Max/min thermal output in heating (50/30°C)	kW	26 / 3.1			
Max/min thermal output in DHW (Hi)	kW	28.5 / 3.2			
Max/min thermal output in DHW	kW	28.0 / 2.8			
Pmax/Pmin efficiency (80-60°C) (Hi)	%	98.1 / 98			
Pmax/Pmin efficiency (50-30°C) (Hi)	%	106.1 / 107.5			
Efficiency 30% (Hi)	%	109.7			
Max/min working pressure in heating	bar	3 / 0.8			
Max/min working pressure in DHW	bar	9 / 0.3			
DHW flow rate Δt 25°C / 30°C	l/min	16.1 / 13.4			

OPTIONAL ACCESSORIES		DESCRIPTION
	046053X0	Galvanised normal template
	012050W0	Hydraulic kit with: gas tap, water inlet tap and connection pipes/fittings
	016009X0	Attachment cover kit for aesthetic cover of wall-mounted hydraulic connections
	013069XD	Connect CRP
	013055XD	Connect CRP Zones

OPTIONAL ACCESSORIES		DESCRIPTION
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensation boilers
	041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensation boilers
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensation boilers
	041082X0	Twin pipe 80/80 discharge kit for condensation boilers, including test points
	2CP000ZF	Rubber anti-vibration kit for outdoor unit
	2CP000NF	System flow temperature probe or for hybrid solar/ hybrid system integration

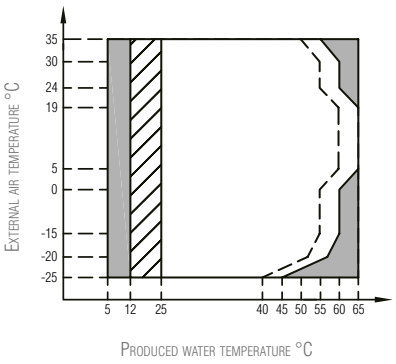
Operational limits

COOL MODE



Operating range with heat pump with possible limitation and protection

WARM MODE



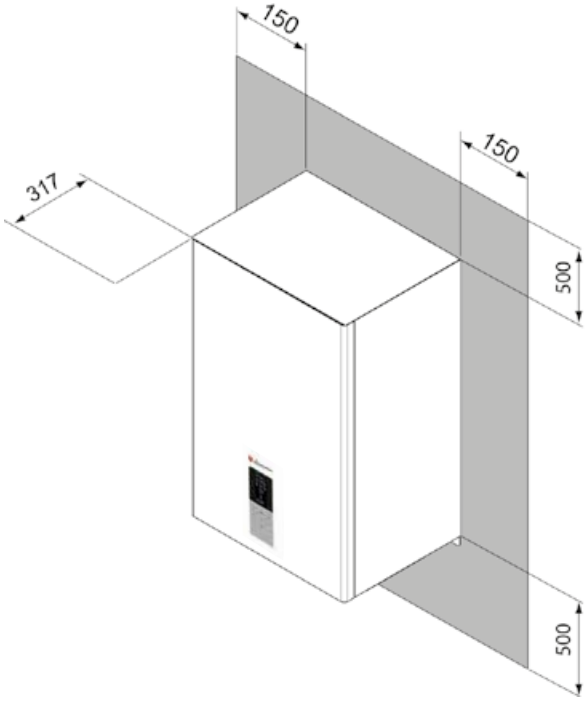
Operating range with heat pump with possible limitation and protection

With IBH (internal backup heater) installed

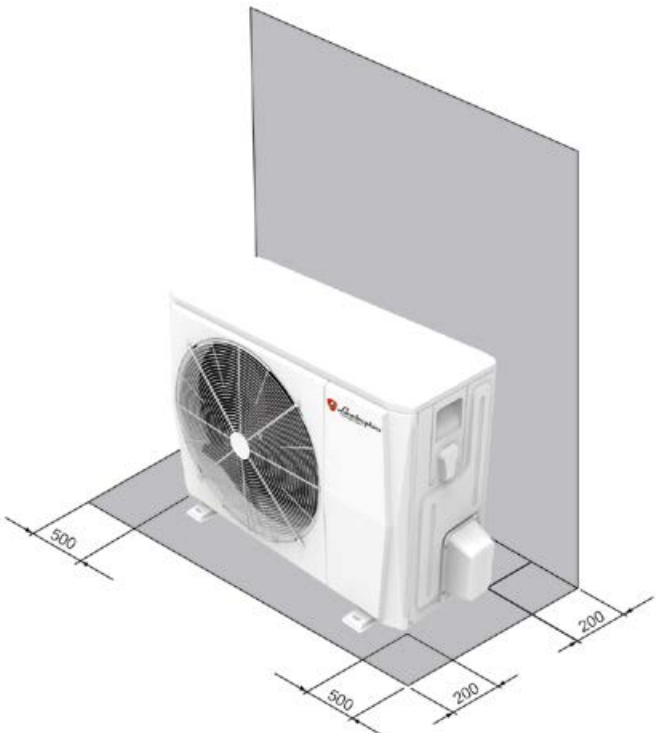
Maximum inlet water temperature for heat pump operation

Minimum working spaces (in mm)

INDOOR UNIT

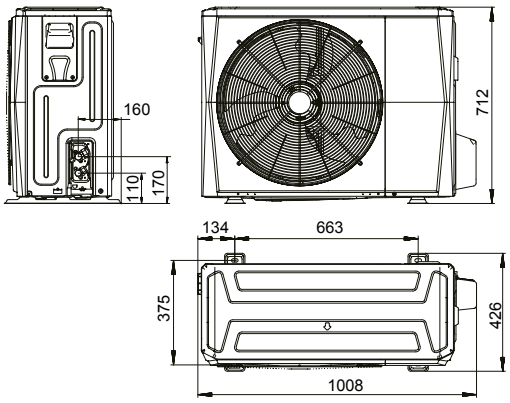


OUTDOOR UNIT

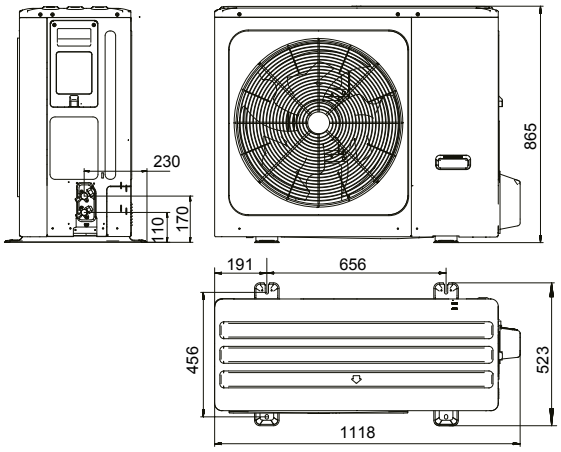


Overall dimensions of outdoor unit (in mm)

mod. 4 - 6

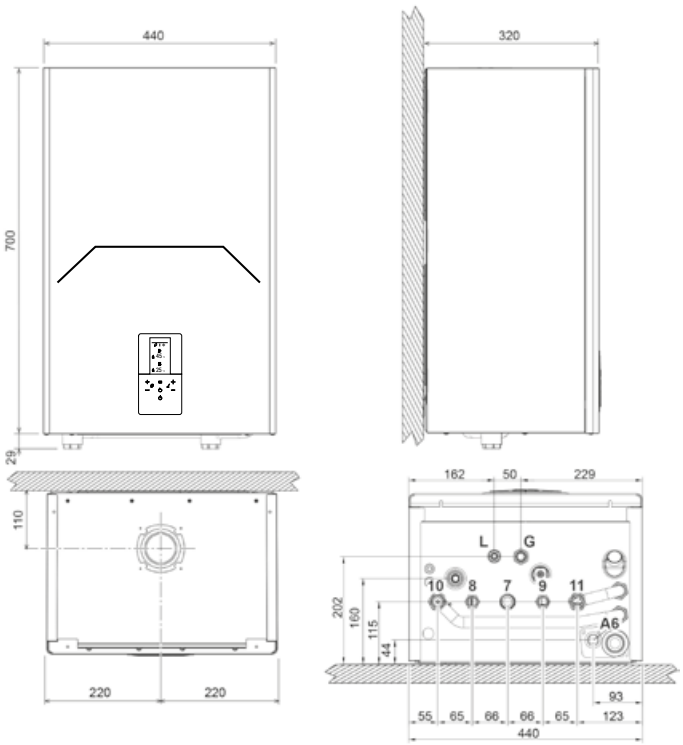


mod. 8 - 10



MODELS		4	6	8	10
Packaging (WxHxD)	mm	1065x800x485		1190x970x560	
Packaging weight	kg	65		94	

Overall dimensions of indoor unit (in mm)



LEGEND

7 Gas inlet - Ø 3/4”
8 DHW outlet - Ø 1/2”
9 DHW inlet - Ø 1/2”
10 System delivery - Ø 3/4”
11 System return - Ø 3/4”
A6 Condensate drain connection
L Liquid line
G Gas line





Idola S Hybrid H

R32 air-to-water reversible hybrid heat pumps for split installation; can be combined with external DHW heater

- **The IDOLA S HYBRID H 3.2 hybrid heat pumps** combine **R32 eco-friendly heat pump** technology and the **condensation boiler** for heating in a single compact product.
- The eco-friendly **R32** gas combines high efficiency with a reduced environmental impact. Thanks to its **GWP of 675,** about a third compared to the GWP of R410a, it helps to reduce emissions of CO_2, which are the main cause of global warming.
- The **compact size**, similar to that of a wall-hung boiler, **makes it easier to replace without significant loss of space** or the need for major restructuring work.
- **By running the** boiler or heat pump as the climatic conditions vary, the internal electronics **optimise the output of the system** by constantly operating **in the most economic and efficient mode possible**, with excellent benefits for the end user.
- The boiler will be free to produce **DHW in the external DHW storage tank** during heat pump heating or cooling operations, thereby **maximising the comfort levels**. In the unlikely event that the heat pump is blocked, the boiler will still be able to operate autonomously in backup mode, **thus guaranteeing heating and the production of DHW**.
- The system consists of a **Full DC Inverter external unit**, available with a choice of 4 different powers, associated with a **hybrid internal unit and condensation unit with an integrated hydronic module**, including a DC inverter pump for the control of the cooling circuit. The system is extremely versatile and capable of operating in harsh climate conditions **up to -20°C** outdoors. It **avoids the risk of freezing** thanks to a split cooling circuit.
- The **Photovoltaic Input** function prevents the boiler from producing DHW, promoting the use of the heat pump only and any electric water heater, thus maximising self-consumption and the benefits for the user.
- Wall flue gas exhaust in the cases pertaining to Italian Leg. Decree no. 102 of 4 July 2014.

System code (*)	System model
0XHK4NWD	**IDOLA S HYBRID H 3.2 04**
0XHK4MWD	
0XHK4KWD	
0XHK6NWD	**IDOLA S HYBRID H 3.2 06**
0XHK6MWD	
0XHK6KWD	
0XHK8KWD	**IDOLA S HYBRID H 3.2 08**
0XHK8MWD	
0XHKAMWD	**IDOLA S HYBRID H 3.2 10**
0XHKAKWD	

(*) *The code will be confirmed during the order phase based on the commercial back office availability*

THE CONTROL SYSTEM

- The interface features **Capsense** technology with a 2.8" graphic display for user-friendly, practical interaction. The on-board machine interface communicates seamlessly with the new **Connect CRP** smart systems, which can control **up to 8 thermostats** (of which 7 are **Connect CRP Zones**), divided into 2 zones, one direct and one mixed
- **MODBUS PROTOCOL** for smart control via an external BMS
- **HEATING AND COOLING** with Full Inverter modulation by Lamborghini CaloreClima which allows you to set the temperature curve to reduce consumption and improve user comfort.
- **SMART GRID INPUT FROM PHOTOVOLTAIC SYSTEM AND GRID.** Smart Grid contacts to optimise your consumption and save on energy bills. We invite you to read the manuals for more details.
- **REMOTE CONTROL VIA APP.** Available for iOS and Android using the Connect CRP (optional)
- **SILENT PDC MODE.** Reduces the maximum compressor frequency and fan speed, thus significantly reducing noise levels.
- **ON/OFF and SUMMER/WINTER** from external contacts. The unit can be switched on and off via an external contact, by receiving summer/winter switching signals (e.g. from the zone thermostat). The operating mode will follow the controller settings
- **ECO** Dedicated setpoint for "Eco" mode. Can be set with a daily time slot
- **WEEKLY HOURLY PROGRAMMING.** The Connect CRP (optional) allows differentiated hourly programming for each day of the week, defining the mode (COOL/WARM/DHW) and operating setpoints for each time slot.

FEATURES OF THE OUTDOOR UNIT:

- Approved for external use in completely exposed site
- Powered by R32 eco-friendly gas with low environmental impact
- Inrush current and reduced noise thanks to Full Inverter technology
- Compressor with twin rotary DC INVERTER motor on vibration damping supports and wrapped in double layer of soundproofing material to minimise vibrations and noise.
- Axial fans with DC brushless motor including protective grilles
- External air temperature probe pre-installed on the unit.

FEATURES OF THE INDOOR UNIT:

- Sturdy and suitable for replacements even in particularly critical systems.
- Combustion module with a 1:10 modulation range and extra-thick stainless steel heat exchanger with larger channels to maintain high efficiency even on old oxidised and soiled systems
- Standard supply with squared system supply and return valves (with easy-access filter for inspection)
- **M.G.R: Methane, LPG, Propane-air Ready**, with a simple configuration, the boiler can run on natural gas, LPG and a propane-air mixture without the use of any additional conversion kits
- **MC²: Multi Combustion Control**, combustion system with patented gas-adaptive technology for improved adaptability of use to variations in the gas supply conditions (e.g. pressure fluctuations or drops)
- **F.P.S: Flue gas protection system.** The standard flue gas check valve offers easy connection to pressurised collective flue systems
- **Particularly suited to operating in flues requiring "heavy-duty" pipes** thanks to approval for **operation with flue gas exhaust pipes with a diameter of 50mm**

IDOLA S 3.2 HY H		04		06		08		10	
ERP class in heating / Seasonal efficiency average temperature (produced water 35°C)	Class / ηs (%)	A+++	186	A+++	191	A+++	200	A+++	201
ERP class in heating / Seasonal efficiency low temperature (produced water 55°C)	Class / ηs (%)	A++	128	A++	136	A++	130	A++	135
SCOP (low temperature 35°C)	W/W	4.85		4.95		5.21		5.19	
SEER (produced water 7°C)	W/W	4.99		5.34		5.83		5.98	
Power supply	V-ph-Hz	220/240-1-50							
Type and no. of compressors	-	1 x Twin Rotary DC							
Type of exchanger system side / source side	-	brazed stainless steel plates / finned coil							
Type of fans / no. of fans	-	brushless DC / 1							
Refrigerant fittings - liquid line	Ø	1/4" SAE / Ø 6.35				3/8" SAE / Ø 9.52			
Refrigerant fittings - gas line	Ø	5/8" SAE / Ø 15.88							
Indoor unit expansion vessel volume	L	8							
SWL - outdoor* / indoor* unit sound power level	dB(A)	55 / 43		58 / 43		59 / 43		60 / 43	
Outdoor / indoor unit weight	kg	58 / 28				77 / 28			

NOTE: Efficiency class calculated according to the European regulation 811/2013. The values refer to a unit without any optionals or accessories. *** SWL =** Sound power level, for $1x10^{-12}$ W with unit functioning in **A7W35** conditions. The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. The Total Sound Power in dB(A) which is, therefore, the only demanding acoustic data. The sound pressure levels are values calculated from the sound power level (SWL) applying the ISO-3744 relationship.

PERFORMANCE DATA			04	06	08	10
A7W35	Nominal heat output	kW	4.20	6.35	8.40	10.0
	Nominal input power	kW	0.82	1.28	1.63	2.02
	COP	W/W	5.10	4.95	5.15	4.95
A7W45	Nominal heat output	kW	4.30	6.30	8.30	10.0
	Nominal input power	kW	1.13	1.70	2.16	2.67
	COP	W/W	3.80	3.70	3.85	3.75
A35W18	Designed cooling capacity	kW	4.50	6.50	8.30	9.90
	Nominal input power	kW	0.82	1.35	1.64	2.18
	EER	W/W	5.50	4.80	5.05	4.55
A35W7	Designed cooling capacity	kW	4.70	6.50	7.45	8.20
	Nominal input power	kW	1.36	2.17	2.22	2.52
	EER	W/W	3.45	3.00	3.35	3.25

The values refer to a unit without any optionals or accessories. Data declared according to **EN 14511**: **EER** (Energy Efficiency Ratio) = ratio of cooling power to input power **COP** (Coefficient Of Performance) = ratio of heat output to input power **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C **A7W45** = source: air in 7°C d.b. 6°C w.b. / system: water in 40°C out 45°C **A35W18** = source: air in 35°C d.b. / system: water in 23°C out 18°C **A35W7** = source: air in 35°C d.b. / system: water in 12°C out 7°C **NOTES:** Efficiency class calculated according to the European regulation **811/2013**.

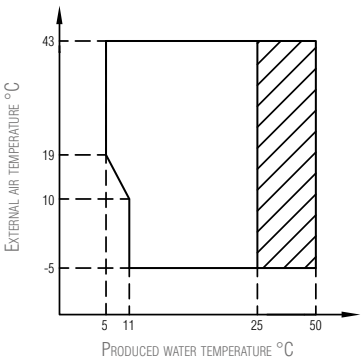
IDOLA S 3.2 HY H PERFORMANCE		04	06	08	10
Max/min thermal output heating (Hs)	kW	28.5 / 2.9			
Max/min thermal output in heating (80/60°C)	kW	27.9 / 2.8			
Max/min thermal output in heating (50/30°C)	kW	30.2 / 3.1			
Pmax/Pmin efficiency (80-60°C) (Hi)	%	97.8 / 98			
Pmax/Pmin efficiency (50-30°C) (Hi)	%	106.1 / 107.5			
Efficiency 30% (Hi)	%	109.5			
Max/min working pressure in heating	bar	3 / 0.8			

OPTIONAL ACCESSORIES		DESCRIPTION
	046054X0	Galvanised normal template
	012051W0	Hydraulic kit with: gas tap, water inlet tap and connection pipes/fittings
	016009X0	Attachment cover kit for aesthetic cover of wall-mounted hydraulic connections
	013069XD	Connect CRP
	013055XD	Connect CRP Zones

OPTIONAL ACCESSORIES		DESCRIPTION
	041083X0	Coupling for vertical coaxial pipe ø 100/60 mm for condensation boilers
	041006X0	Coupling for vertical coaxial pipe ø 80/125 mm for condensation boilers
	041084X0	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensation boilers
	041082X0	Twin pipe 80/80 discharge kit for condensation boilers, including test points
	2CP000ZF	Rubber anti-vibration kit for outdoor unit
	2CP000NF	System flow temperature probe or for hybrid solar/ hybrid system integration

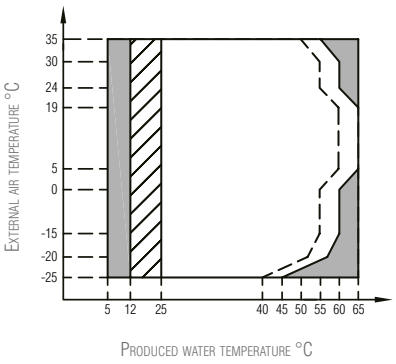
Operational limits

COOL MODE



Operating range with heat pump with possible limitation and protection

WARM MODE

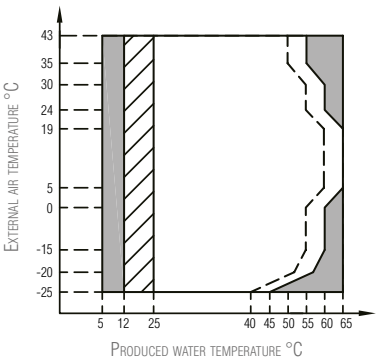


Operating range with heat pump with possible limitation and protection

With IBH (internal backup heater) installed

Maximum inlet water temperature for heat pump operation

DHW MODE



Operating range with heat pump with possible limitation and protection

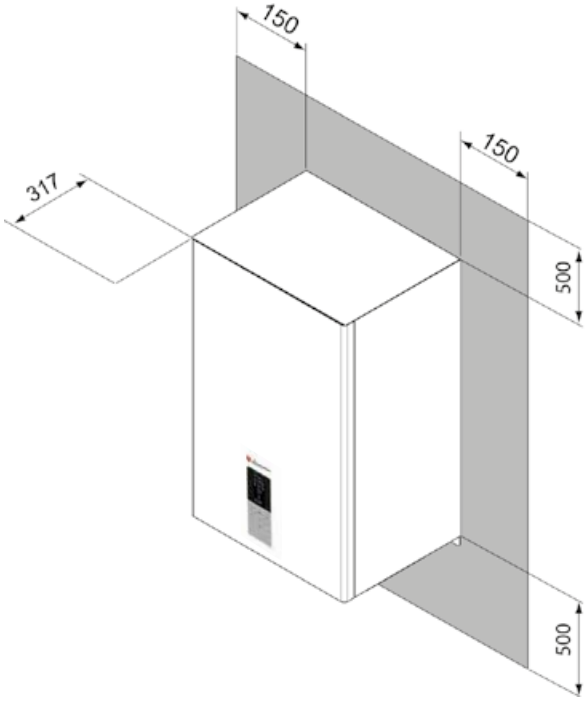
With IBH (internal backup heater) installed

Maximum inlet water temperature for heat pump operation

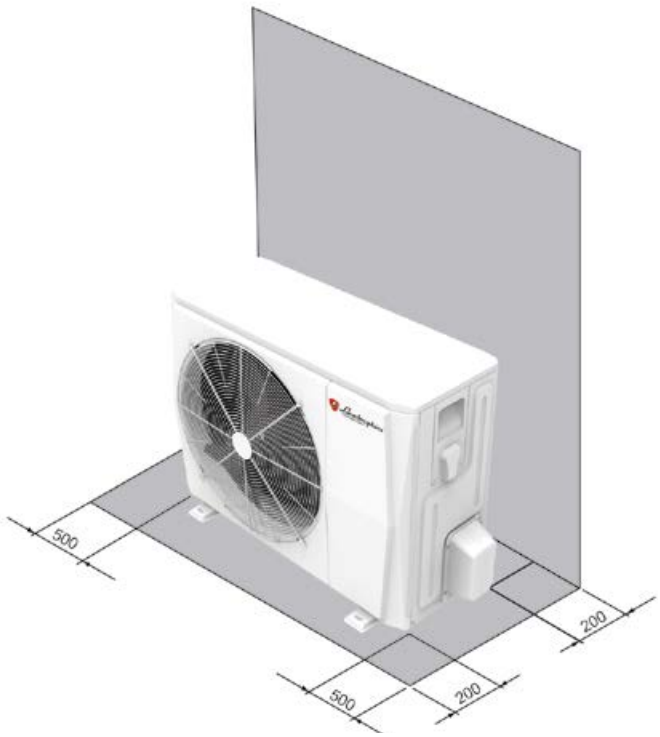
NOTE DHW MODE: the produced water temperature is the temperature of the water produced by the unit and not the DHW temperature available to the user, which is a function of this parameter and of the surface of the coil of the DHW cylinder, if any.

Minimum working spaces (in mm)

INDOOR UNIT

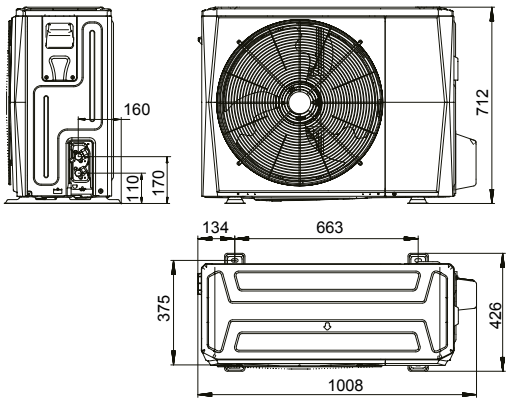


OUTDOOR UNIT

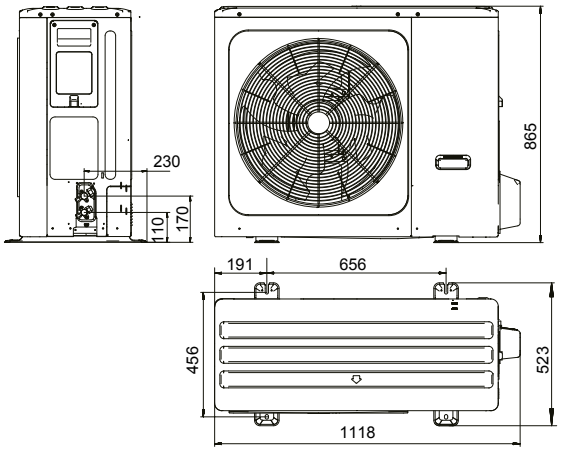


Overall dimensions of outdoor unit (in mm)

mod. 4 - 6

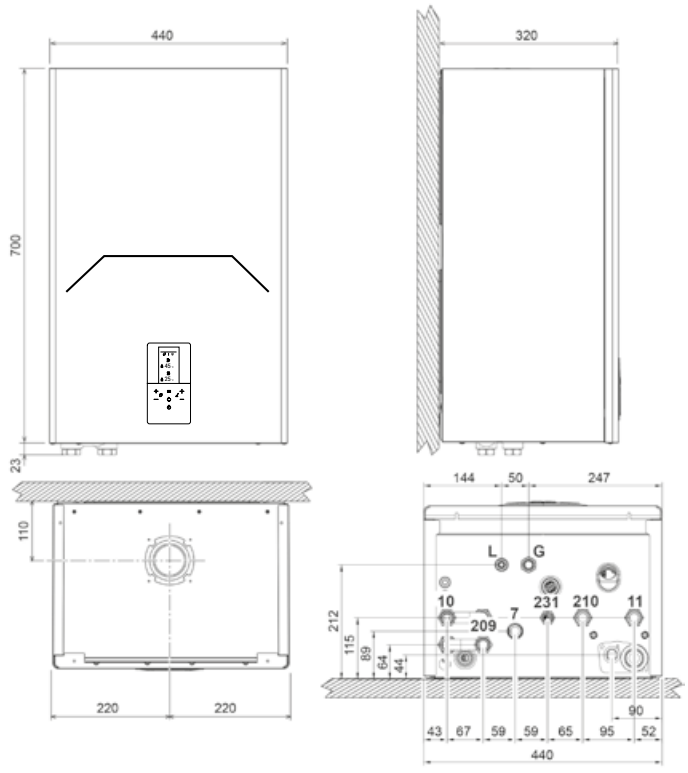


mod. 8 - 10



MODELS		4	6	8	10
Packaging (WxHxD)	mm	1065x800x485		1190x970x560	
Packaging weight	kg	65		94	

Overall dimensions of indoor unit (in mm)



LEGEND

7 Gas inlet - Ø 3/4”
10 System delivery - Ø 3/4”
11 System return - Ø 3/4”
209 Water heater supply - Ø 3/4”
210 Water heater return - Ø 3/4”
231 Filling coupling - Ø 1/2”
A6 Condensate drain connection
L Liquid line
G Gas line



Hybrid Hydro-Kit

Hydraulic kit for hybrid systems with boiler and heat pump

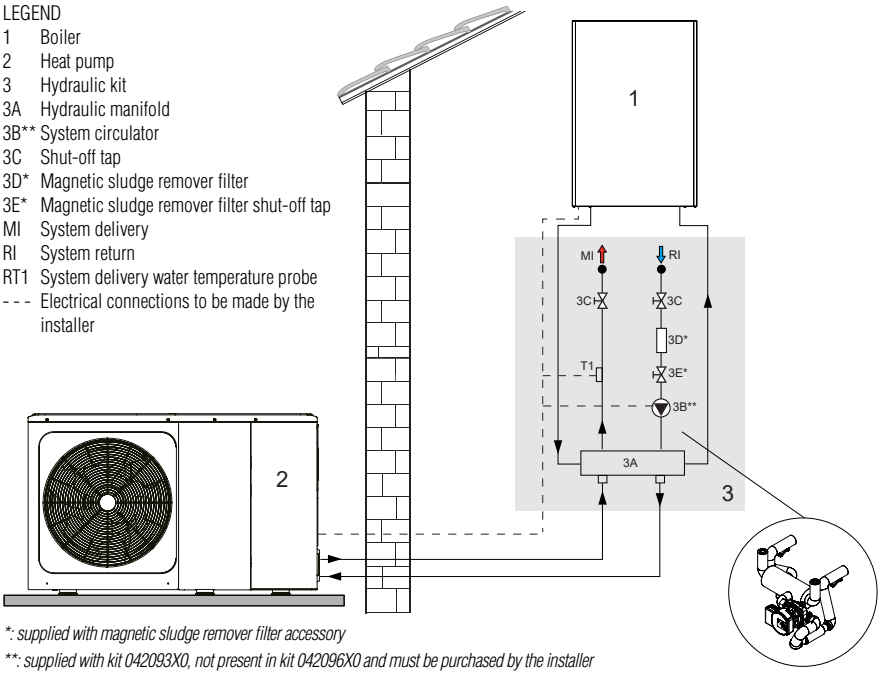
- Kit placed under the boiler that allows the creation of a hybrid system, integrating a reversible heat pump and a gas boiler
- Reduces hydraulic and electrical installation work as much as possible
- The kit consists primarily of:
- isolated hydraulic manifold
- system shut-off taps to facilitate the maintenance of the various components
- circulator for the system (only supplied with kit 042093X0)

*** Check compatibility of accessories with the desired wall-mounted boiler**

Kit code	Kit model
042096X0	**Hybrid Hydro-Kit (without circulator)**
042093X0	**Hybrid Hydro-Kit (with circulator)**
Code	Description of accessories
0YBP3BX0	Magnetic sludge remover filter
016096X0	Under-boiler cover kit

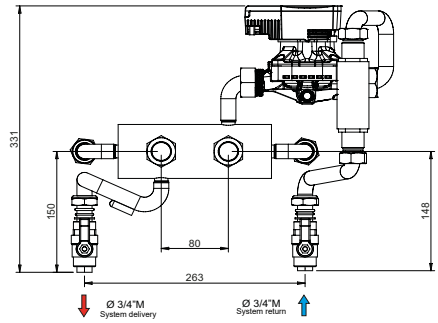
OPERATIONAL HYDRAULIC DIAGRAM

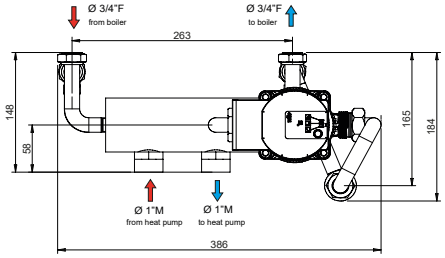
LEGEND
1 Boiler
2 Heat pump
3 Hydraulic kit
3A Hydraulic manifold
3B** System circulator
3C Shut-off tap
3D* Magnetic sludge remover filter
3E* Magnetic sludge remover filter shut-off tap
MI System delivery
RI System return
RT1 System delivery water temperature probe
- - - Electrical connections to be made by the installer



**: supplied with magnetic sludge remover filter accessory*
***: supplied with kit 042093X0, not present in kit 042096X0 and must be purchased by the installer*

HYDRAULIC KIT DIMENSIONS





HYDRAULIC HYDRO-KIT		WITHOUT CIRCULATOR	WITH CIRCULATOR
Height	mm	202	202
Width	mm	386	386
Depth	mm	331	331
Connections	Heat Pump Boiler System	Ø 1"M Ø 3/4"F Ø 3/4"M	Ø 1"M Ø 3/4"F Ø 3/4"M















Idola M 3.2

Reversible heat pump for outdoor installation with dc inverter compressor

This series of air-water heat pumps meets the needs of winter and summer air-conditioning of small and medium power residential and commercial installations. All the units are suitable for outdoor installation and being able to produce water up to 65°C they can be used in radiant systems, fan coils, radiators and for the indirect production of domestic hot water (DHW) via an external boiler.
The units are characterized by the use of a DC inverter compressor that modulates the supplied power and come complete with a hydronic kit composed of all the essential components for quick and safe installation.
The units are characterised by high energy efficiency and reduced sound levels allowing them to be used as a single generator for the plant or integrated with other energy sources such as additional electric heating elements or boiler.
All units are supplied as standard with a DHW water storage tank temperature probe (to be installed by the installer) and with an outdoor air temperature probe (already installed on the unit), to achieve climatic adjustment in heating and cooling. For specific applications, the units can be installed in multiple "cascade" configuration with a "MASTER" unit (directly managed by the controller) and up to 5 "SLAVE" units, also different in their output power.
The preparation of the domestic hot water is left to the master unit, while in the event of a failure of one of the slave units the remaining ones may continue to work in a normal way.
All units are carefully built and individually tested in factory. Installation only requires electrical and hydraulic connections.

The control system

- The user interface consists of a remote wired controller (5 wires, max 50 mt length from the unit) that manages:
- **HEATING AND COOLING SYSTEM** Where the unit is the only heater. If the unit is running in hot or cold mode, it works by modulating the compressor frequency to maintain the temperature of the produced water at the established setpoint value. By mean of a parametrization value, it is possible to use the remote controller (e.g. for single zone heating circuits) as a room thermostat.
- **DOMESTIC HOT WATER PRODUCTION (DHW)** The unit starts in hot mode to maintain the temperature of a DHW storage tank at the established setpoint value. A 3-way diverter valve (not supplied) and a temperature probe (probe T5, supplied with cable length 10mt) are required to be inserted in a pit of the DHW tank.
- **ADDITIONAL ENERGY SOURCES** (boiler or electric heating element) Depending from the set values of the parametrization, these sources can be started in integration or replacement of the heat pump during operation in heating or for DHW production and if the heat pump does not work.
- **CASCADING FUNCTION** of multiple units. The master unit can control in cascade mode up to 6 different units (1 master, 5 slaves, also with different output power) with a single controller connected to the master unit. It is possible to assign the function of production of DHW to the master unit, while in the event of a failure of one of the 5 slave units, the remaining ones may continue to work normally.
- **MANAGEMENT UP TO 2 HEATING CIRCUITS (1 DIRECT AND 1 MIXED)**. The unit is able to manage the circulation pumps (not supplied) of both 2 heating circuits and, only for the mixed circuit, the mixing valve (not supplied) and the water supply line temperature probe (not supplied).
- **PHOTOVOLTAIC INPUT AND SMART GRID.** The unit is equipped with 2 digital inputs to be connected with the signal coming from the photovoltaic system and from the electrical grid.
- The logic of the management is the following:
- if the digital PV input is closed, the unit starts the DHW mode with DHW setpoint = 70°C and (if available) will start the electrical heating element of the DHW storage tank. The unit is running in cooling/heating mode with the normal logic.
- if the digital PV input is open and the smart grid input is closed, the unit runs normally
- if the digital PV input is open and the smart grid input is open, the unit deactivates the DHW mode and may run in cooling/heating mode for a limited period (set by a parameter), then will stop running
- **REMOTE CONTROL OF THE UNIT VIA APP.** (available for IOS and Android systems).
- **DHW STORAGE TANK ELECTRIC HEATING ELEMENT** In the DHW mode it is possible to manage an integration electric heating element in the DHW storage tank as integration of the heat pump, as antilegionella function, or as total backup in case of failure of the heat pump.
- **FAST DHW** This function can be started manually to prioritize DHW by bringing the DHW storage tank to the setpoint in the quickest possible time, by the use of all available energy sources (heat pump, electrical backup resistors, boiler).
- **ANTILEGIONELLA FUNCTION** Weekly anti-legionella cycles can be set. The heat pump must be integrated with DHW boiler or boiler electrical heating element.
- **SILENCED MODE** When on, according to a programmed schedule, it reduces the maximum frequency of the compressor and the fan speed, to reduce the noise generated and the power absorbed by the unit.
- **ON/OFF** with an external contact. The unit can be switched on and off by an external contact (e.g. by a room thermostat / remote switch). In this circumstance, the unit will run in the mode set by the control keyboard.
- **HOT/COLD** with 2 external contacts. The unit can be started and stopped in cold or hot mode by 2 external contacts (e.g. by a room thermostat / remote switch which manages the hot/cold request).
- **ECO/COMFORT** Possibility of defining time slots in hot and cold and relative setpoints for ECO and COMFORT modes
- **WEEKLY SCHEDULE PROGRAMMING** allows to set a different schedule for each day of the week defining the operating mode for each time slot (COLD/HOT/DHW) and the working setpoint.
- **ANTIFROST PROTECTION.** Guaranteed down to -20°C outdoor air temperature thanks to the heat pump itself working in hot mode, to the electric antifrost heating element (as per standard) and the electric booster (if installed).

Cooling circuit

This is contained inside the unit to facilitate maintenance operations, it is equipped with **COMPRESSOR** with twin rotary **DC INVERTER** motor to guarantee greater dynamic balancing and reduce vibrations. It is positioned on rubber antivibration supports and wrapped in a double layer of sound-absorbing material to reduce noise. The compressor is also equipped with oil casing heating element. The circuit is completed with **BRAZE-WELDED STAINLESS STEEL PLATE HEAT EXCHANGER** complete with antifrost heating element, **AXIAL FANS WITH BRUSHLESS DC MOTOR** complete with accident prevention safety grilles, finned coil made of copper tubes and aluminium fins. All units are equipped with variable fan speed control which allows operation at low outdoor temperatures in cooling and high outdoor temperatures in heating.

Hydraulic circuit

Contained inside the unit to facilitate maintenance operations, it is fitted as per standard with LOW CONSUMPTION CIRCULATOR with brushless DC motor, water flow switch, automatic air vent, water pressure gauge, expansion vessel, safety valve, Y water filter (installation by the installation technician). The plate heat exchanger and all the hydraulic circuit pipes are thermally insulated to prevent condensation and reduce heat loss.

Standard accessories

- **PROBE** for the integration of a supplementary heat source
- **REMOTE CONTROLLER**
- **Y FILTER**

Basic system code	Basic system model
2CP000AL	**IDOLA M 3.2 04**
2CP000BL	**IDOLA M 3.2 06**
2CP000CL	**IDOLA M 3.2 08**
2CP000DL	**IDOLA M 3.2 10**
2CP000EL	**IDOLA M 3.2 12**
2CP000FL	**IDOLA M 3.2 14**
2CP000GL	**IDOLA M 3.2 16**
2CP000HL	**IDOLA M 3.2 12T**
2CP000IL	**IDOLA M 3.2 14T**
2CP000JL	**IDOLA M 3.2 16T**

GENERAL DATA			**4**	**6**	**8**	**10**	**12**	**14**	**16**	**12T**	**14T**	**16T**
ERP class in heating / Seasonal efficiency medium temperature (produced water 55°C)		(Class G - A^{++})	A^{++} 129	A^{++} 138	A^{++} 131	A^{++} 136	A^{++} 135	A^{++} 135	A^{++} 133	A^{++} 135	A^{++} 135	A^{++} 133
ERP class in heating / Seasonal efficiency low temperature (produced water 35°C)		(Class G - A^{+++})	A^{+++} 191	A^{+++} 195	A^{+++} 205	A^{+++} 204	A^{+++} 189	A^{+++} 185	A^{+++} 181	A^{+++} 189	A^{+++} 185	A^{+++} 182
Electric power supply		V-ph-Hz	220/240-1-50							380/415-3-50		
SCOP low temperature (water temp. 35°C)		W/W	4,85	4,95	5,21	5,19	4,81	4,72	4,62	4,81	4,72	4,62
SCOP medium temperature (water temp. 55°C)		W/W	3,31	3,52	3,36	3,49	3,45	3,47	3,41	3,45	3,47	3,41
SEER water temp 7°C		W/W	4,99	5,34	5,83	5,98	4,89	4,86	4,69	4,86	4,83	4,67
SEER water temp 18°C		W/W	7,77	8,21	8,95	8,78	7,10	6,90	6,75	7,04	6,85	6,71
Type of compressor		-	Twin Rotary DC									
No. of compressors		no	1									
No. of cooling circuits		no	1									
Type of exchanger system side		-	brazed stainless steel plates									
Type of exchanger source side			finned coil									
Type of fans		-	DC axial									
No. of fans		no	1									
Expansion vessel volume		l	2		5							
Setup of the water pressure safety valve		bar	3									
Hydraulic fittings		"	1"		1-1/4"							
Minimum water content on the system		l	15		25							
DHW boiler - minimum surface of the coil (min / recommended)	steel	m^2	1,4 / 2,5		1,75 / 4,0							
	enamel	m^2	1,7 / 3,0		2,5 / 5,6							
Refrigerant type		type	R32									
GWP			675									
Refrigerant charge		kg	1,4				1,75					
Control type		-	with remote wire									
SWL - Sound power level Cooling *	A7W35	dB(A)	55	58	59	60	65	65	69	65	65	69
	Max	dB(A)	60	61	61	62	65	65	69	65	65	69
	Sil. 1	dB(A)	56	56	57	58	62	62	63	62	62	63
	Sil. 2	dB(A)	53	53	55	55	56	56	56	56	56	56
SWL - Sound power level Heating *	A35W18	dB(A)	56	58	60	60	64	64	69	64	64	69
	Max	dB(A)	60	61	61	62	65	65	69	65	65	69
	Sil. 1	dB(A)	55	57	57	58	62	62	63	62	62	63
	Sil. 2	dB(A)	52	54	54	54	56	56	56	56	56	56
Max current input		A	12	14	16	17	25	26	27	10	11	12

*** : SWL** = Sound power levels, with reference to 1x10-12 W with unit operating in conditions:
A7W35 = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C
A35W18 = source : air in 35°C d.b. / plant : water in 23°C out 18°C
Max = at maximum conditions in heating / cooling mode

Sil. 1 = if silent level 1 active in heating / cooling mode
Sil. 2 = if silent level 2 active in heating / cooling mode
The Total sound power level in dB(A) measured in compliance with ISO 9614 standards.

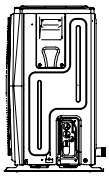
PERFORMANCE DATA				4	6	8	10	12	14	16	12T	14T	16T
A7W35	Heating capacity	kW	nom	4.20	6.35	8.40	10.0	12.1	14.5	15.9	12.1	14.5	15.9
	Power input	kW	nom	0.82	1.28	1.63	2.02	2.44	3.15	3.53	2.44	3.15	3.53
	COP	W/W		5.10	4.95	5.15	4.95	4.95	4.60	4.50	4.95	4.60	4.50
	Water flow rate	l/h		722	1092	1445	1720	2081	2494	2735	2081	2494	2735
	Available static pressure	kPa		85	84	79	71	61	46	40	61	46	40
A7W45	Heating capacity	kW	nom	4.30	6.30	8.30	10.0	12.3	14.1	16.0	12.3	14.1	16.0
	Power input	kW	nom	1.13	1.70	2.16	2.67	3.32	3.92	4.57	3.32	3.92	4.57
	COP	W/W		3.80	3.70	3.85	3.75	3.70	3.60	3.50	3.70	3.60	3.50
	Water flow rate	l/h		740	1084	1428	1720	2116	2425	2752	2116	2425	2752
	Available static pressure	kPa		85	84	79	71	60	47	40	60	47	40
A7W55	Heating capacity	kW	nom	4.40	6.00	7.50	9.50	11.9	13.8	16.0	11.9	13.8	16.0
	Power input	kW	nom	1.49	2.03	2.36	3.06	3.90	4.68	5.61	3.90	4.68	5.61
	COP	W/W		2.95	2.95	3.18	3.10	3.05	2.95	2.85	3.05	2.95	2.85
	Water flow rate	l/h		473	645	806	1021	1279	1484	1720	1279	1484	1720
	Available static pressure	kPa		85	85	85	84	84	80	71	84	80	71
A35W18	Cooling capacity	kW	nom	4.50	6.50	8.30	9.90	12.0	12.9	13.6	12.0	12.9	13.6
	Power input	kW	nom	0.82	1.35	1.64	2.18	3.04	3.49	3.77	3.04	3.49	3.77
	EER	W/W		5.50	4.80	5.05	4.55	3.95	3.70	3.61	3.95	3.70	3.61
	Water flow rate	l/h		774	1118	1428	1703	2064	2219	2339	2064	2219	2339
	Available static pressure	kPa		85	84	79	71	61	56	52	61	56	52
A35W7	Cooling capacity	kW	nom	4.70	6.50	7.45	8.20	11.5	12.4	14.0	11.5	12.4	14.0
	Power input	kW	nom	1.36	2.17	2.22	2.52	4.18	4.96	5.60	4.18	4.96	5.60
	EER	W/W		3.45	3.00	3.35	3.25	2.75	2.50	2.50	2.75	2.50	2.50
	Water flow rate	l/h		808	1118	1281	1410	1978	2133	2408	1978	2133	2408
	Available static pressure	kPa		85	84	81	79	63	60	49	63	60	49

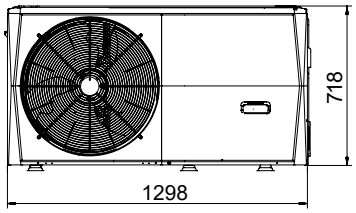
The values are referred to units without options and accessories. Data declared according to EN 14511: EER (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit - COP (Coefficient Of Performance) = ratio of the total heating capacity to the effective power input of the unit - A7W35 = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C - A7W45 = source : air in 7°C d.b. 6°C w.b. / plant : water in 40°C out 45°C - A7W55 = source : air in 7°C d.b. 6°C w.b. / plant : water in 47°C out 55°C - A35W18 = source : air in 35°C d.b. / plant : water in 23°C out 18°C - A35W7 = source : air in 35°C d.b. / plant : water in 12°C out 7°C

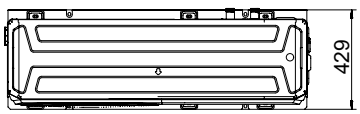
ACCESSORIES	DESCRIPTION
2C0970AF	3kW 230-1-50 electric heating booster for internal installation - IDOLA M mod. 4 - 6
2CP000KF	3kW 230-1-50 electric heating booster for internal installation - IDOLA M mod. 8 - 10 - 12 - 14 - 16
2CP000MF	4,5 kW 400-3-50 electric heating booster for internal installation - IDOLA M mod. 12T - 14T - 16T
2CP000NF	System flow temperature sensor
2CP001EF	KFM IDOLA M 3.2 rubber vibration damping kit (to be used without the 60 liter inertial tank)
2CP000TF	IDOLA M 3.2 rubber vibration damping kit
2CP001FF	IDOLA M 3.2 KFI inertial tank 60 lt

Overall dimensions of external unit

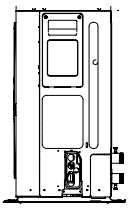
mod. 4-6

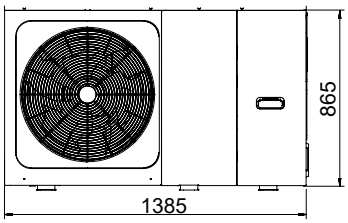


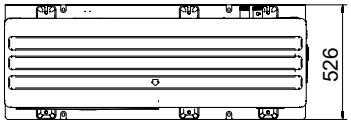




mod. 8 - 10 - 12 - 12T - 14 - 14T - 16 - 16T



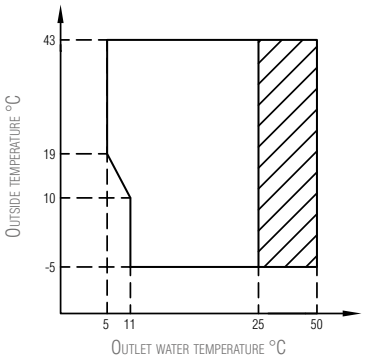




MODEL	4	6	8	10	12	14	16	12T	14T	16T
Packaging (W×H×D)	1384x890x526		1470X1040X565							
Weight Net \ Gross (kg)	86 / 109		105 / 132		129 / 155			144 / 172		

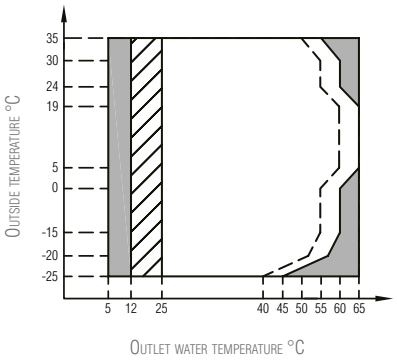
Operating limits

COOLING MODE



Operation range by heat pump with possible limitation and protection

HEATING MODE

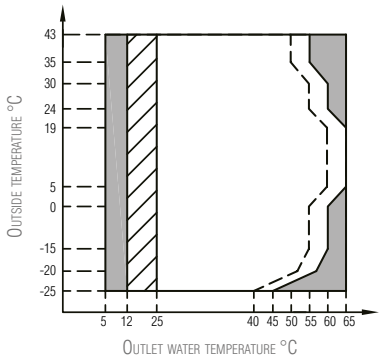


Operation range by heat pump with possible limitation and protection

If IBH (backup heater) /AHS (boiler) setting is valid, only IBH/AHS turns on If IBH/AHS setting is invalid, only heat pump turns on

Maximum inlet water temperature line for heat pump operation

DHW MODE



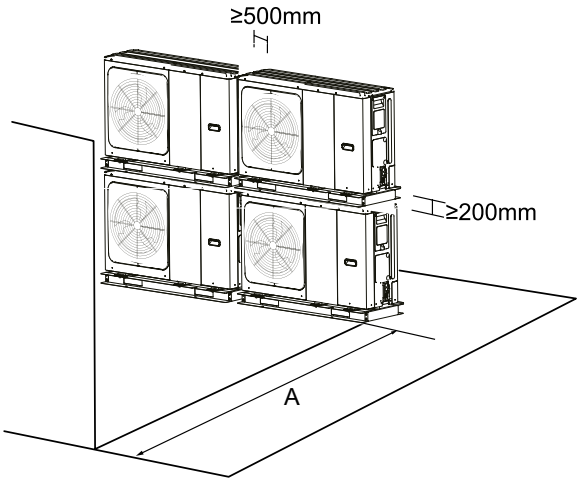
Operation range by heat pump with possible limitation and protection

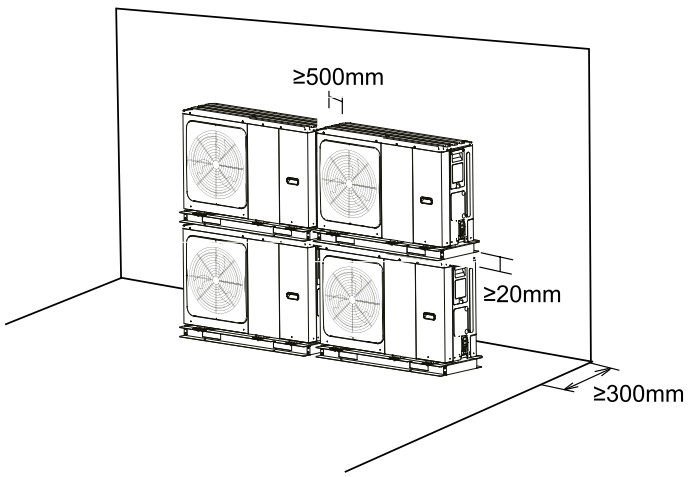
If IBH (backup heater) /AHS (boiler) setting is valid, only IBH/AHS turns on If IBH/AHS setting is invalid, only heat pump turns on

Maximum inlet water temperature line for heat pump operation

NOTE FOR DHW MODE: outlet water temperature is the temperature of the water produced by the unit and not the DHW temperature available to the user; the DHW temperature is in fact a function of this parameter and of the coil surface of the DHW boiler.

Minimum operating area





MODEL	4	6	8	10	12	14	16	12T	14T	16T
A (mm)	1000		1500							



Idola M 3.2 22T-30T

Reversible heat pump for outdoor installation with DC inverter compressor

- This series of air-water heat pumps meets the needs of winter and summer air conditioning of residential and commercial installations of medium power.
- All units are suitable for outdoor installation and being able to produce water up to 60°C may be employed in systems with radiant floor, fancoils, radiators and for the indirect production of domestic hot water (DHW) via an external boiler (not provided).
- The units are characterized by the use of a DC inverter compressor that allows you to modulate the capacity from 30 to 120% of the rated capacity and are complete with a hydronic kit including all the essential components for a quick and safe installation.
- The units are characterized by high energy efficiency and low noise level and they can be used as the sole generator of the system or integrated with other energy sources such as backup electric heaters or boiler.
- All units are supplied with temperature probe (supplied as standard, assembled by the installer) for domestic hot water tank (DHW) and with external air temperature probe (already installed on the unit) to realize the climatic control in heating and cooling modes.
- All the units are accurately built and individually tested in the factory. The installation only requires the electrical and hydraulic connections.

CASCADE

Can be installed in multiple **"cascade" configuration with a "MASTER"** unit (directly managed by the controller) **up to 5 "SLAVE"** units, also different in their output power

R32

New Heat Pump in R32, eco-friendly refrigerant with low GWP.
Up to 75% less CO2 equivalent emissions in the environment with respect to machines in R410a

Code	Model
2CP000QL	**IDOLA M 3.2 22T**
2CP000RL	**IDOLA M 3.2 26T**
2CP000SL	**IDOLA M 3.2 30T**

Accessories code	Accessories
2CP000NF	System flow temperature sensor
2CP001GF	Rubber vibration damping kit mod. 22T-30T

THE CONTROL SYSTEM

- The user interface consists of a wired remote controller (5 wires, max length 50 m from the unit) with menu in 11 languages which allows the management of

- **HEATING AND COOLING SYSTEM,** where the heat pump is the sole energy source. The unit, if activated in heat or cool mode, works by modulating the frequency of the compressor to maintain the temperature of the produced water to the setpoint value set by the controller. Through parameter you can use the remote controller (eg. For single-zone systems) as a room thermostat.
- **DOMESTIC HOT WATER PRODUCTION (DHW).** The unit is activated in a heatt mode to keep the temperature of a DHW tank (not supplied) to the setpoint value. It requires a 3-way diverter valve (not supplied) and a temperature sensor (T5 probe, L = 10m, provided) to be inserted into one well of the DHW tank
- **ADDITIONAL SOURCES OF ENERGY** (boiler or electrical heater). Depending on the parameters set, these sources can be activated in integration or replacement of the heat pump when the system is used for space heating or for DHW production. The controller also activate additional energy sources in case the heat pump is not working
- **ELECTRIC HEATER OF THE DHW TANK.** The controller can manage the activation of an electric heater inserted in the DHW tank as a heat integration to the heat pump, for disinfecting function, or as a source of energy reserve for DHW production in case the heat pump is not working.
- **FAST DHW.** This function can be activated manually and it allows you to give priority to DHW production by activating all energy sources (heat pumps, electric heaters, boiler) available for DHW heating to bring in the shortest time possible the DHW tank to the setpoint required.
- **DISINFECT FUNCTION.** You can set from the controller weekly cycles for disinfecting the water in the Dhw tank. In order to successfully execute these cycles, the heat pump must be integrated with DHW electric heater or boiler.
- **SILENT MODE.** If active it allows a reduction of the maximum frequency of the compressor and of the fan speed in order to reduce the noise emitted and the power absorbed by the unit. There are 2 levels of silencing. Through time programming, you can define for 2 daily time bands the desired silent level (eg. during the night).
- **ON / OFF** using an external contact. The unit can be turned on and off (eg. thermostat / remote switch) via an external contact: in this case the unit will operate in the mode set by the controller keyboard.
- **HEAT / COOL** via external contacts. The unit can be activated in heat or cool mode via two external contacts (eg. thermostat that manages the heat and cool demand / remote switch).
- **ECO MODE.** For heating mode it is possible to define daily time band and corresponding set point for ECO mode
- **WEEKLY SCHEDULING.** It allows a schedulation of 6 time bands for each day of the week: for each time band it is possible to define the mode (COOL / HEAT / DHW) and the required setpoint.
- **ANTIFREEZE PROTECTION.** Guaranteed for outdoor air temperature down to -20°C, thanks to the management of the electronic board of the unit which allows you to heat water using antifreeze heater (standard on the plate heat exchanger), the heat pump itself working in heating mode and the electric booster (if installed).
- **CASCADE FUNCTION** up to 6 units can be controlled together in cascade mode (1 master unit, 5 slave units), with only one remote controller connected to the master unit. The master unit can be dedicated to the production of DHW (domestic hot water). In case of failure of a slave unit, all other units can operate normally.
- **MANAGEMENT OF UP TO 2 SYSTEM ZONES (1 MIXED AND 1 DIRECT).** The unit is able to manage the pumps (not supplied) for both zones and, for the mixed zone only, the mixing valve (not supplied) and the water delivery temperature probe (available as an accessory).
- **PHOTOVOLTAIC INPUT AND SMART GRID INPUT.** The unit is equipped with 2 digital inputs for the management of an input from a photovoltaic system and from the electricity grid. Working logic:
  - if the photovoltaic input is closed, the unit turns on DHW mode with DHW setpoint=70°C and(if available) the electrical heater of DHW tank will be turned on. The unit operates in cooling/heating mode as the normal logic.
  - If the photovoltaic input is open and smart grid input is closed, the unit operates normally.
  - If the photovoltaic input is open and smart grid input is open, the unit turns off DHW mode and can operate in cooling/heating mode for a defined period (settable via parameter) then will be turned off.
- **CURRENT INPUT LIMITATION BY PARAMETER.**
- **REMOTE CONTROL OF THE UNIT VIA APP** (available for IOS and Android).
- **DETAILED ALARMS DIAGNOSTICS WITH ALARMS HISTORY.**
- **DISPLAY OF ALL OPERATING PARAMETERS.**

REFRIGERANT CIRCUIT

- Contained in a compartment protected from the air flow to simplify the maintenance operations, is equipped with 3-speed electronic circulator (brushless DC motor), water flow switch, automatic air vent, water manometer, expansion vessel, safety valve, Y water filter (supplied as standard, assembled by the installer).
- The plate heat exchanger and all the hydraulic pipes are thermally insulated to avoid the formation of condensation and reduce heat loss.

HYDRAULIC CIRCUIT

- Contained in a compartment protected from the air flow to simplify the maintenance operations, is equipped with 3-speed electronic circulator (brushless DC motor), water flow switch, automatic air vent, water manometer, expansion vessel, safety valve, Y water filter (supplied as standard, assembled by the installer).
- The plate heat exchanger and all the hydraulic pipes are thermally insulated to avoid the formation of condensation and reduce heat loss.

ACCESSORIES

- **WATER TEMPERATURE PROBE** The temperature probe can be connected to perform the functions T1 / Tbt1 / Tbt2 / T5 / Tw2 / Tsolar (for more details refer to the installation and user manual of the unit).
- **RUBBER ANTIVIBRATION DAMPERS**

CONTROL THROUGH CLIMA CONTROL DISPLAY (REM CC) SUPPLIED AS PER STANDARD



Technical data

GENERAL DATA			22T		26T		30T	
Seasonal space heating energy efficiency class / medium temperature (water at 55°C)		(Class G - A++)	A++	126	A+	123	A+	123
Seasonal space heating energy efficiency class / low temperature (water outlet at 35°C)		(Class G - A++)	A+++	178	A+++	177	A++	165
Power supply		V-ph-Hz	380/415-3-50					
SCOP low temperature (water outlet at 35°C)		W/W	4.53		4.50		4.19	
SCOP medium temperature (water at 55°C)		W/W	3.22		3.14		3.14	
SEER water at 7°C		W/W	4.70		4.66		4.49	
SEER water at 18°C		W/W	5.67		5.88		5.71	
Power supply		-	Twin Rotary DC					
Compressor type		n°	1					
N° compressors / N° refrigerant circuits		n°	1					
Plant side heat exchanger type		-	stainless steel brazed plates					
Source side heat exchanger type			finned coil					
Fans type		-	DC axial					
N° fans		n°	2					
Expansion tank volume		l	8					
Water safety valve set		bar	3					
Hydraulic fittings		"	1-1/4"					
Minimum water content onf the system		l	40					
DHW boiler - minimum surface of the coil (minimum / recommended)	steel	m^2	3.5					
	enamel	m^2	5					
Refrigerant type		type	R32					
GWP		kg-CO_2 eq.	675					
Refrigerant charge		kg	5					
		t-CO_2 eq.	3.38					
Control type		-	remote wired					
SWL - Sound power level Cooling *	A7W35	dB(A)	73		75		77	
	A7W55	dB(A)	73		75		77	
	Sil. 1	dB(A)	69		71		73	
	Sil. 2	dB(A)	66		68		69	
SWL - Sound power level Heating *	A35W18	dB(A)	73		75		75	
	A35W7	dB(A)	73		75		75	
	Sil. 1	dB(A)	69		71		73	
	Sil. 2	dB(A)	66		68		69	
Max. current input		A	25		27		29	

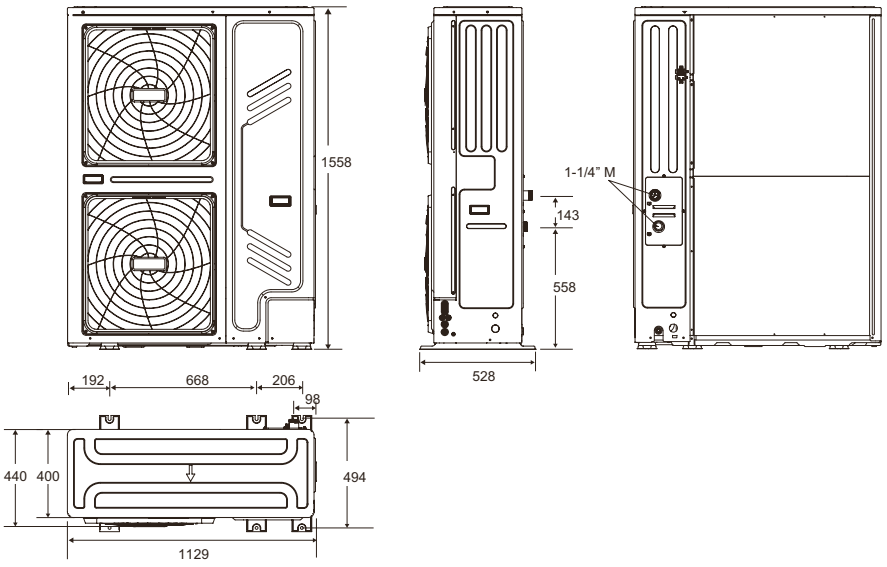
*** : SWL =** Sound power levels, with reference to $1x10^{-12}$ W with unit operating in conditions:
A7W35 = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C
A7W55 = source : air in 7°C d.b. 6°C w.b. / plant : water in 47°C out 55°C
A35W18 = source : air in 35°C d.b. / plant : water in 23°C out 18°C
A35W7 = source : air in 35°C d.b. / plant : water in 12°C out 7°C
Sil. 1 = if silent level 1 active in heating / cooling mode
Sil. 2 = if silent level 2 active in heating / cooling mode
The Total sound power level in dB(A) measured in compliance with ISO 9614 standards.

Performances

PERFORMANCES				22T	26T	30T
A7W35	Heating capacity	kW	nom	22	26	30.1
	Power input	kW	nom	5	6.37	7.70
	COP	W/W		4.4	4.08	3.91
	Water flow rate	l/h		3784	4472	5160
	Available static pressure	kPa		92	78	60
A7W45	Heating capacity	kW	nom	22	26	30
	Power input	kW	nom	6.47	8.39	10.34
	COP	W/W		3.4	3.1	2.9
	Water flow rate	l/h		3784	4472	5160
	Available static pressure	kPa		92	78	60
A7W55	Heating capacity	kW	nom	22	26	30
	Power input	kW	nom	8.3	10.61	13.04
	COP	W/W		2.65	2.45	2.3
	Water flow rate	l/h		2365	2795	3225
	Available static pressure	kPa		106	103	99
A35W18	Cooling capacity	kW	nom	23	27	31
	Power input	kW	nom	5	6.28	7.75
	EER	W/W		4.6	4.3	4
	Water flow rate	l/h		3612	4472	5160
	Available static pressure	kPa		95	78	60
A35W7	Cooling capacity	kW	nom	21	26	29.5
	Power input	kW	nom	7.12	9.63	11.57
	EER	W/W		2.95	2.7	2.55
	Water flow rate	l/h		3956	4644	5332
	Available static pressure	kPa		90	74	54

The values are referred to units without options and accessories. Data declared according to **EN 14511**: **EER** (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit **COP** (Coefficient Of Performance) = ratio of the total heating capacity to the effective power input of the unit **A7W35** = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C **A7W45** = source : air in 7°C d.b. 6°C w.b. / plant : water in 40°C out 45°C **A7W55** = source : air in 7°C d.b. 6°C w.b. / plant : water in 47°C out 55°C **A35W18** = source : air in 35°C d.b. / plant : water in 23°C out 18°C **A35W7** = source : air in 35°C d.b. / plant : water in 12°C out 7°C

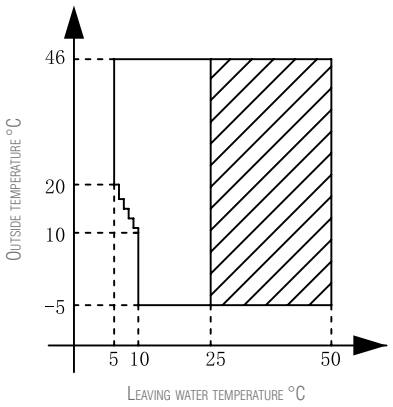
Dimensions



MODEL	22T	26T	30T
Packaging (W×H×D)	1220x1725x565		
Weight Net \ Gross	177 / 206		

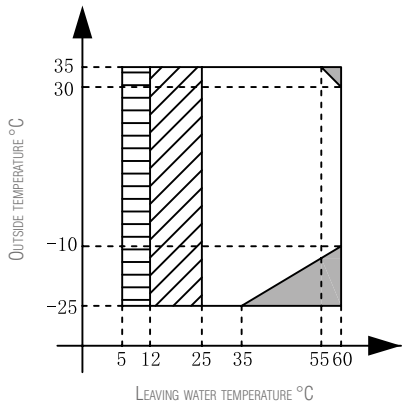
Operating limits

COOLING MODE



Water flow temperature drop or rise interval

HEATING MODE

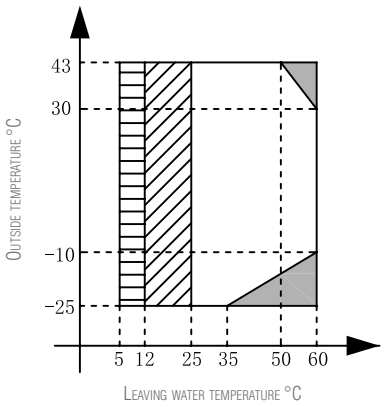


Water flow temperature drop or rise interval

No heat pump operation, IBH or AHS only

If IBH/AHS setting is valid, only IBH/AHS turns on. If IBH/AHS setting is invalid, only heat pump turns on

DHW MODE



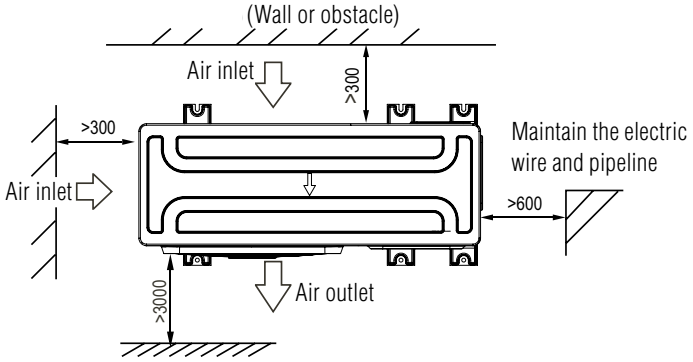
Water flow temperature drop or rise interval

No heat pump operation, IBH or AHS only

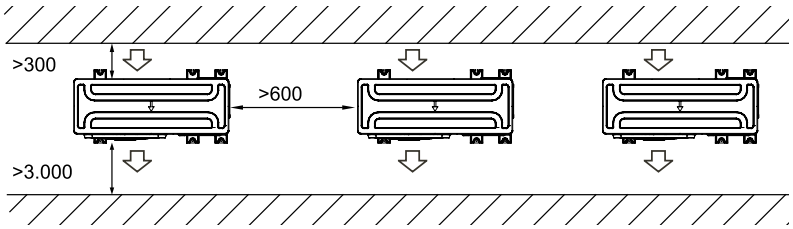
If IBH/AHS setting is valid, only IBH/AHS turns on. If IBH/AHS setting is invalid, only heat pump turns on

Minimun operating area

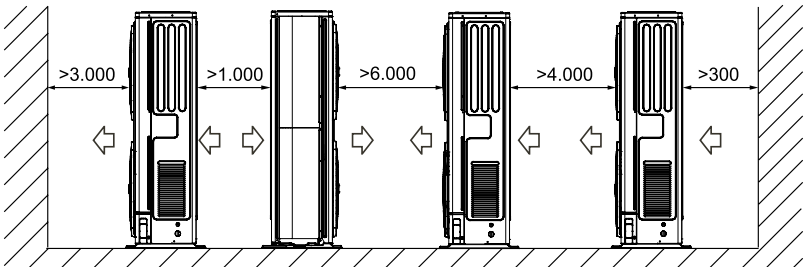
SINGLE UNIT INSTALLATION



PARALLEL CONNECT THE TWO UNITS OR ABOVE



PARALLEL CONNECT THE FRONT WITH REAR SIDES







Idola S 3.2

Split system reversible heat pump with DC inverter compressor

- New range of Full Inverter split system heat pumps with R32 eco-friendly refrigerant. The range consists of an Outdoor Unit housing the most important elements of the refrigeration circuit, from the compressor to the air-side heat exchanger, which will be connected with the refrigerant pipes to the Indoor Unit.
- The Indoor Unit on the other hand houses the main components of the heat source's water circuit, with the pre-installation of all essential parts such as the high-performance circulator and expansion tank, to allow safe, fast and practical installation.
- It is supplied standard with an electrical integration of 3kW for single phase models, and 6kW for threephase models. Installing a split system also offers the undeniable advantage of avoiding the problem of freezing, even at the lowest temperatures (up to -25°C) and in the absence of electricity (the only real problem with anti-freeze heating elements in outdoor packaged machines).
- All units satisfy the most extreme winter/summer heating/cooling needs with the capacity to produce hot water up to 65°C, making them ideal for practically all heating systems, whether radiant, with fan coil units
- or radiators, including the production of domestic hot water (DHW) through an external water cylinder. Lamborghini CaloreClima's new Full Inverter design uses DC inverter modulation on the machine's 3 main powerconsuming components, i.e., the compressor, fan, and pump. This allows modulation of the distributed power by finely tracking the heat load, thus allowing very high energy efficiency and important power savings for the end user.
- Moreover, Lamborghini CaloreClima's Full Inverter design reduces the inrush current, avoiding power grid fluctuations and thus improving the mission time of components. The noise levels are among the lowest in the market, and it can be used either as a stand-alone or integrated with other heat sources, for example a boiler
- All units are supplied with a temperature probe for a DHW cylinder (not supplied, to be assembled by the installer) and an outdoor air temperature probe (pre-assembled on the Outdoor Unit) for temperature regulation in both heating and cooling.

ECO-FRIENDLY R32 REFRIGERANT GAS

R32

New Heat Pump in R32, eco-friendly refrigerant with low GWP.

Up to 75% less CO_2 equivalent emissions in the environment with respect to machines in R410a

HYBRID FACTORY MADE

FACTORY MADE

Product suitable for Factory Made Hybrid Systems

Code	Model
0XHK4SWD	**IDOLA S 3.2 04**
0XHK6SWD	**IDOLA S 3.2 06**
0XHK8SWD	**IDOLA S 3.2 08**
0XHKASWD	**IDOLA S 3.2 10**
0XHKCSWD	**IDOLA S 3.2 12**
0XHKESWD	**IDOLA S 3.2 14**
0XHKGSWD	**IDOLA S 3.2 16**
0XHLCSWD	**IDOLA S 3.2 12T**
0XHLESWD	**IDOLA S 3.2 14T**
0XHLGSWD	**IDOLA S 3.2 16T**

Accessories

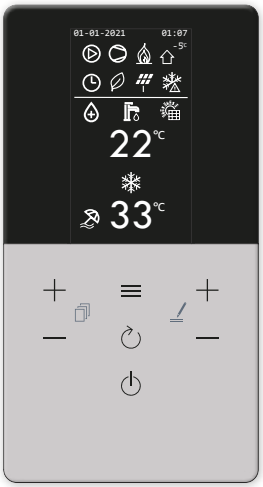
	DESCRIPTION	CODE
	**Connect CRP.** Evolutionary remote control with programmable thermostat function. Can manage up to 7 additional CRP ZONES in 2 separate zones. Also accessible via App	013069XD
	**Connect CRP Zones.** Zone thermostat with RF connection to Connect CRP. Wall-mounted or table-top installation, powered with 2 x AA batteries	013055XD

	DESCRIPTION	CODE
	System flow temperature probe or for hybrid solar/ hybrid system integration	2CP000NF
	Rubber vibration dampers for outdoor unit	2CP000ZF

The control system

- The user interface comes with Capsense technology with a 2.8” graphic display, ensuring easy and extremely simple user interaction with the product. The on-board machine interface easily communicates with the new smart Connect CRP systems, which can manage up to 8 thermostats (7 Connect CRP Zones + 1 Connect CRP with all programmable thermostat functions) divided into 2 zones, one direct and one mixed. The main control functions include:
- **MODBUS PROTOCOL** for smart control via an external BMS.
- **HEATING AND COOLING** with the heat pump as the only heat source. Full Inverter modulation means the setpoints can be maintained in both heating and cooling, thus optimising consumption for the user. The temperature curve setting (standard) can improve comfort and further reduce consumption.
- **DOMESTIC HOT WATER PRODUCTION (DHW).** When the DHW Temperature probe (to be installed on the external cylinder, not supplied with the machine) falls below a certain value, the machine enters DHW mode, that is, Heating with dedicated Setpoint. 3-way diverter valve supplied standard.
- **SMART GRID INPUT FROM PHOTOVOLTAIC SYSTEM AND GRID.** The unit is equipped with 2 digital contacts to manage an input from a photovoltaic system and the grid. These are the famous Smart Grid contacts used to optimise consumption and save on bills. The first contact (EVU) tells the heat pump when the photovoltaic system is producing: the heat pump increases the DHW setpoint with the aim of improving self-consumption (where the user has the best earnings). The contact toward the grid (SG) warns the heat pump when the electrical power costs more (if allowed by the operator), which will then be limited in accordance with customised settings. We invite you to read the manuals for more details.
- **REMOTE CONTROL VIA APP.** Available for iOS and Android using the Connect CRP (optional) DHW
- **CYLINDER HEATING ELEMENT.** In DHW mode, the unit manages a heating element inserted in the cylinder as an integration, anti-legionella function, or reserve source in case of a failure.
- **FAST DHW.** A function making it possible to give priority to DHW production by activating all available power sources, to bring the DHW cylinder to the setpoint in the shortest possible time.
- **ANTI-LEGIONELLA FUNCTION.** Allows the setting of weekly anti-legionella cycles. In order for it work effectively, a heating element must be installed on the DHW cylinder or integrated boiler.
- **SILENT MODE.** When activated, reduces the maximum compressor frequency and fan speed so as to significantly reduce noise levels. Available with 2 different levels and programmable in daily time slots (for example at night).
- **ON/OFF** from external contact. The unit can be activated and deactivated via an external contact (for example a zone thermostat): in this case the operating mode will follow the controller settings.
- **WARM/COOL** from external contacts. The unit can receive an external summer/winter switching signal (for example from a zone thermostat).
- **ECO.** Dedicated setpoint for “Eco” mode. Settable with a daily time slot.
- **WEEKLY HOURLY PROGRAMMING.** The Connect CRP (optional) allows differentiated hourly programming for each day of the week, defining the mode (COOL/WARM/DHW) and operating setpoints for each time slot.
- **ANTI-FREEZE PROTECTION.** Heat pump operation in heating mode with the circulator set to ON and eventually an electric booster.

2.8” GRAPHIC INTERFACE WITH CAPSENSE TECHNOLOGY



OUTDOOR UNIT			4	6	8	10	12	14	16	12T	14T	16T
Power supply		V-ph-Hz	220/240-1-50							380/415-3-50		
No. compressors / No. refrigeration circuits		n°	1 x DC Twin Rotary / 1 circuit									
Exchanger type		-	finned coil									
No. and type of fans		-	1 x DC axial									
Refrigerant type / GWP		-	R32 / GWP 675									
Factory refrigerant charge ***		kg	1,5		1,65		1,84					
Refrigeration lines (max length/vert. lift) ***		m	30 / 20									
SWL - Sound power level in heating *	A7W35	dB(A)	55	58	59	60	65	65	69	65	65	69
	Max	dB(A)	60	61	61	62	65	65	69	65	65	69
	Sil. 1 / Sil. 2	dB(A)	56 / 53	56 / 53	57 / 55	58 / 55	62 / 56	62 / 56	63 / 56	62 / 56	62 / 56	63 / 56
SWL - Sound power level in cooling *	A35W18	dB(A)	56	58	60	60	64	64	69	64	64	69
	Max	dB(A)	60	61	61	62	65	65	69	65	65	69
	Sil. 1 / Sil. 2	dB(A)	55 / 52	57 / 54	57 / 54	58 / 54	62 / 56	62 / 56	63 / 56	62 / 56	62 / 56	63 / 56
Maximum input current		A	12	14	16	17	25	26	27	10	11	12
Net weight		kg	58		77		96			112		

INDOOR UNIT		10	16	16T
Power supply	V-ph-Hz	220/240-1-50		380/415-3-50
Exchanger type	-	Brazed stainless steel plate type		
System expansion tank volume	l	10		
System water safety valve calibration	bar	3		
Minimum system water content	l	40		
Internal backup heater	kW	3		6
SWL - Sound power level indoor unit	dB(A)	42	43	
Maximum input current	A	14		10
Net weight	kg	34	36	37

*** SWL** = Sound power level, considering 1x10-12 W with unit operating in conditions: **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C. A35W18 = source: air in 35°C d.b. / system: water in 23°C out 18°C **Max** = at maximum conditions in heating/cooling mode **Sil. 1** = if silent level 1 active in heating / cooling mode **Sil. 2** = if silent level 2 active in heating / cooling mode. The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. ****** For combination with outdoor units mod. 4-6, an adapter from 3/8" SAE to 1/4" SAE is supplied for the liquid line Ø 6.35. ******* The factory refrigerant charge allows a maximum refrigeration line length of 15 metres. It is possible to reach 30 metres by integrating the charge during installation.

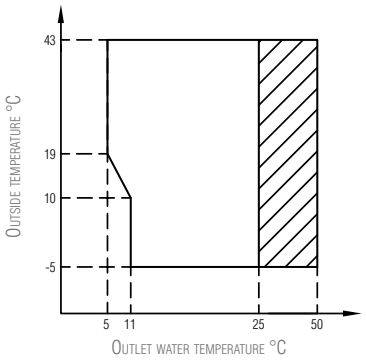
Performances

PERFORMANCE DATA			4	6	8	10	12	14	16	12T	14T	16T
A7W35	Nominal heat output	kW	4.20	6.35	8.40	10.0	12.1	14.5	15.9	12.1	14.5	15.9
	Nominal input power	kW	0.82	1.28	1.63	2.02	2.44	3.15	3.53	2.44	3.15	3.53
	COP	W/W	5.10	4.95	5.15	4.95	4.95	4.60	4.50	4.95	4.60	4.50
	Water flow rate	l/h	722	1092	1445	1720	2081	2494	2735	2081	2494	2735
	External static pressure	kPa	81	76	61	47	58	42	34	58	42	34
A7W45	Nominal heat output	kW	4.30	6.30	8.30	10.0	12.3	14.1	16.0	12.3	14.1	16.0
	Nominal input power	kW	1.13	1.70	2.16	2.67	3.32	3.92	4.57	3.32	3.92	4.57
	COP	W/W	3.80	3.70	3.85	3.75	3.70	3.60	3.50	3.70	3.60	3.50
	Water flow rate	l/h	740	1084	1428	1720	2116	2425	2752	2116	2425	2752
	External static pressure	kPa	81	76	62	47	57	45	33	57	45	33
A35W18	Designed cooling capacity	kW	4.50	6.50	8.30	9.90	12.0	12.9	13.6	12.0	12.9	13.6
	Nominal input power	kW	0.82	1.35	1.64	2.18	3.04	3.49	3.77	3.04	3.49	3.77
	EER	W/W	5.50	4.80	5.05	4.55	3.95	3.70	3.61	3.95	3.70	3.61
	Water flow rate	l/h	774	1118	1428	1703	2064	2322	2563	2064	2322	2563
	External static pressure	kPa	80	75	62	48	58	49	40	59	49	40
A35W7	Designed cooling capacity	kW	4.70	6.50	7.45	8.20	11.5	12.4	14.0	11.5	12.4	14.0
	Nominal input power	kW	1.36	2.17	2.22	2.52	4.18	4.96	5.60	4.18	4.96	5.60
	EER	W/W	3.45	3.00	3.35	3.25	2.75	2.50	2.50	2.75	2.50	2.50
	Water flow rate	l/h	808	1118	1281	1410	1978	2133	2408	1978	2133	2408
	External static pressure	kPa	80	75	68	63	61	56	46	61	56	46

The values refer to a unit without any optionals or accessories. Data declared pursuant to **EN 14511: EER** (Energy Efficiency Ratio) = ratio of cooling power to input power **COP** (Coefficient Of Performance) ratio of heat output to input power **A7W35** = source : air in 7°C d.b. 6°C w.b. / system : water in 30°C out 35°C **A7W45** = source : air in 7°C d.b. 6°C w.b. / system : water in 40°C out 45°C **A35W18** = source : air in 35°C d.b. / system : water in 23°C out 18°C **A35W7** = source : air in 35°C d.b. / system : water in 12°C out 7°C

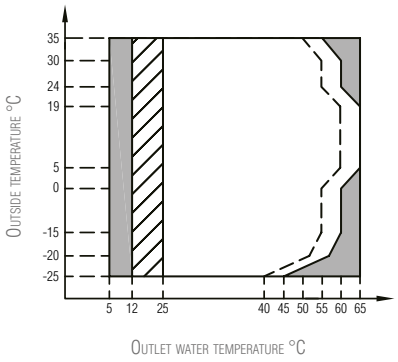
Operating limits

COOLING MODE



Operation range by heat pump with possible limitation and protection

HEATING MODE

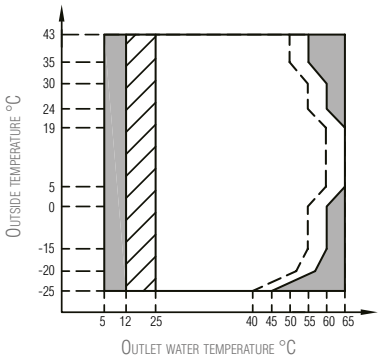


Operation range by heat pump with possible limitation and protection

If IBH (backup heater) /AHS (boiler) setting is valid, only IBH/AHS turns on If IBH/AHS setting is invalid, only heat pump turns on

Maximum inlet water temperature line for heat pump operation

DHW MODE



Operation range by heat pump with possible limitation and protection

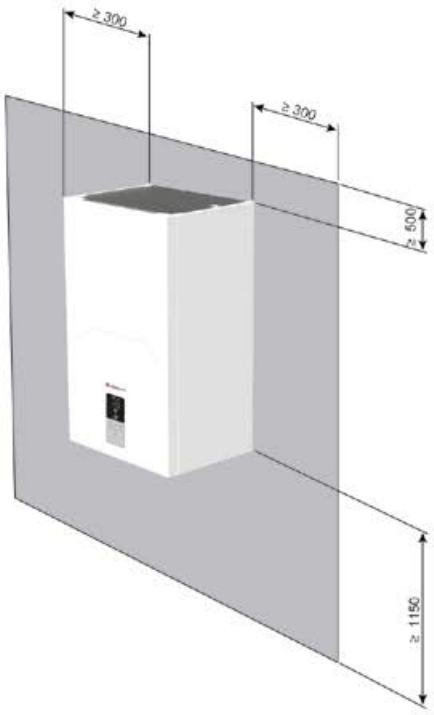
If IBH (backup heater) /AHS (boiler) setting is valid, only IBH/AHS turns on If IBH/AHS setting is invalid, only heat pump turns on

Maximum inlet water temperature line for heat pump operation

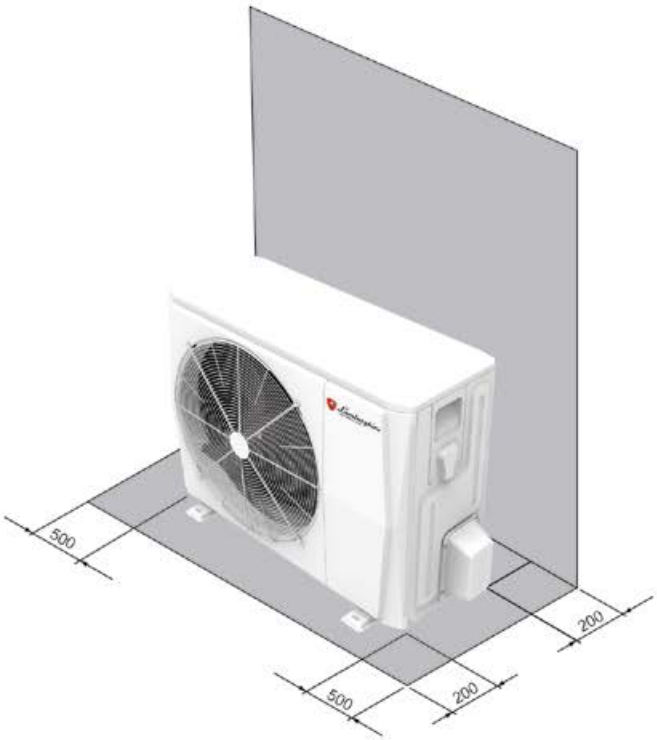
NOTE FOR DHW MODE: outlet water temperature is the temperature of the water produced by the unit and not the DHW temperature available to the user; the DHW temperature is in fact a function of this parameter and of the coil surface of the DHW boiler.

Minimum operating spaces (mm)

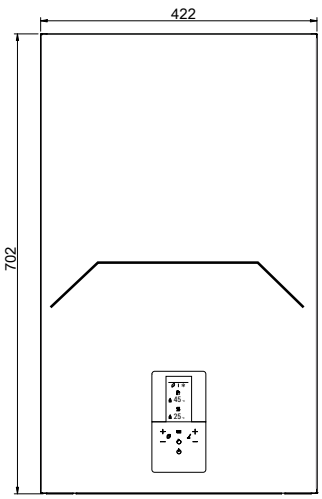
INTERNAL UNIT



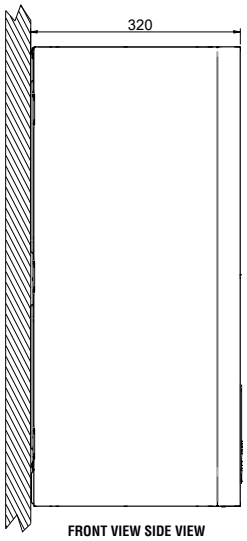
EXTERNAL UNIT



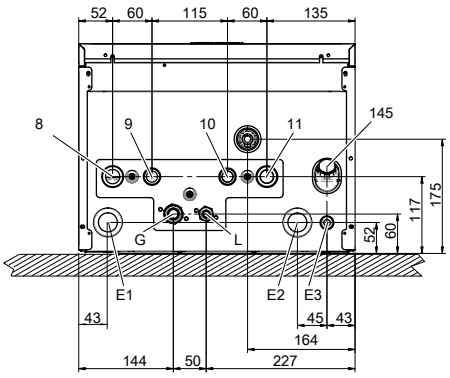
Indoor unit footprint (in mm)



FRONT VIEW



FRONT VIEW SIDE VIEW



VIEW FROM BELOW

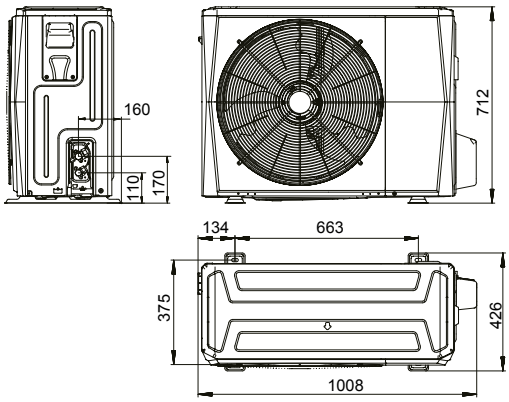
KEY

8 System outlet Ø 1”
9 DHW outlet Ø 3/4”
10 DHW inlet Ø 3/4”
11 System inlet Ø 1”
145 Water pressure gauge
G Gas line Ø 15.88 (5/8”)
L* Liquid line Ø 9.52 (3/8”)
E1 Cable gland for signal cables
E2 Cable gland for power cables
E3 Power cable with cable gland

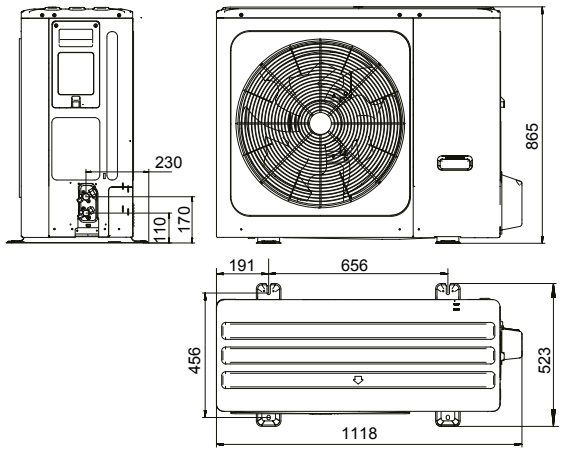
* For combination with outdoor units mod. 4-6, an adapter from 3/8” SAE to 1/4” SAE is supplied for the liquid line Ø 6.35.

Outdoor unit footprint (in mm)

mod. 4 - 6



mod. 8 - 10 - 12 - 12T - 14 - 14T - 16 - 16T



MODELS		4	6	8	10	12	14	16	12T	14T	16T
Packaging (WxHxD)	mm	1065x800x485		1190x970x560							
Packaging weight	kg	65		94		114			130		





Idola ST 3.2

Reversible and split system heat pumps with DC inverter compressor and built-in DHW tank

- New range of Full Inverter split system heat pumps with **R32 refrigerant gas**, with its low environmental impact.
- The range consists of an Outdoor Unit housing the most important elements of the refrigeration circuit, from the compressor to the air-side heat exchanger, which will be connected with the refrigerant pipes to the Indoor Unit. The Indoor Unit on the other hand houses the main components of the heat source's water circuit, with the pre-installation of all essential parts such as the high-performance circulator and expansion tank, to allow safe, fast and practical installation.
- The Indoor Unit is also equipped with electrical integration, which will be 3kW for single-phase models and 6kW for three-phase models. IDOLA ST 3.2 models differ from IDOLA S 3.2 models because they feature a built-in Domestic Hot Water tank directly in the Indoor Unit.
- The sizes from 4 to 10 feature a **190L DHW tank**, while the sizes from 12 to 16T feature **a 240L tank**. This tank can then be integrated with an electric heater (accessory) or a solar thermal system (supplied separately).
- Installing a split system also offers the undeniable advantage of avoiding the problem of freezing, even at the lowest temperatures **(down to -25°C)** and in the absence of electricity (the only real problem with anti-freeze heating elements in outdoor packaged machines). All units meet the most extreme **winter and summer air conditioning requirements of small and medium power systems**; they can indeed produce **hot water up to 65°C**, which makes them suitable for basically all heating systems, whether of the radiant, fan coil or radiator type.
- Lamborghini CaloreClima's new **Full Inverter design** uses DC inverter modulation on the machine's 3 main power-consuming components, i.e., the compressor, fan, and pump. This allows modulation of the distributed power by finely tracking the heat load, thus allowing **very high energy efficiency and important power savings** for the end user. Moreover, **Lamborghini CaloreClima's Full Inverter design** reduces the inrush current, avoiding power grid fluctuations and thus improving the service life of the components. **The sound levels are among the lowest on the market,** so it can be used as the only heat source in the system, instead of being integrated with other heat sources, such as a boiler **(see our Factory Made Hybrid Systems).**

R32

New Heat Pump with R32, an eco-friendly refrigerant gas with a low GWP.

Up to 75% less CO_2 equivalent emissions into the environment compared to an R410a machine.

FACTORY MADE

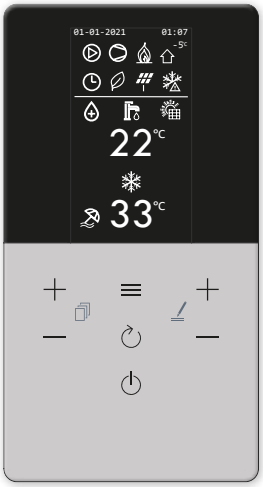
Product suitable for Factory Made Hybrid Systems

System code	System model
0XHT4SWD	**IDOLA ST 3.2 04**
0XHT6SWD	**IDOLA ST 3.2 06**
0XHT8SWD	**IDOLA ST 3.2 08**
0XHTASWD	**IDOLA ST 3.2 10**
0XHTCSWD	**IDOLA ST 3.2 12**
0XHTESWD	**IDOLA ST 3.2 14**
0XHTGSWD	**IDOLA ST 3.2 16**
0XHUCSWD	**IDOLA ST 3.2 12T**
0XHUESWD	**IDOLA ST 3.2 14T**
0XHUGSWD	**IDOLA ST 3.2 16T**

The control system

- The multilingual user interface comes with **Capsense** technology with a 2.8" graphic display, which allows the user to interact with the product in an extremely simple way. The on-board interface communicates easily with the new smart **Connect CRP** systems, which can manage **up to 8 thermostats** (7 **Connect Evo Zones** + 1 **Connect CRP** which in turn has all the programmable thermostat functions) divided into 2 zones, one direct and one mixed.
- The main control functions include:
- **MODBUS PROTOCOL** for smart control via an external **BMS**.
- **HEATING AND COOLING** with the heat pump as the only heat source. Full Inverter modulation means the setpoints can be maintained in both heating and cooling, thus optimising consumption for the user. The temperature curve setting (standard) can improve comfort and further reduce consumption.
- **DOMESTIC HOT WATER PRODUCTION (DHW).** When the DHW Temperature probe falls below a certain value, the machine enters DHW mode, i.e. Heating with a dedicated Setpoint by diverting to the built-in DHW tank.
- **ADDITIONAL ENERGY SOURCES** (boiler or heating element). The heat pump can activate these additional sources as an Integration or as a Replacement, based on customisable parameters. In addition to these settings, the additional sources can be activated in an emergency, if the heat pump is not working.
- **SMART GRID INPUT FROM PHOTOVOLTAIC SYSTEM AND GRID.** The unit is equipped with 2 digital contacts to manage an input from a photovoltaic system and the grid. These are the famous **Smart Grid** contacts used to **optimise consumption and save on bills**. The first contact (EVU) will tell the heat pump when the photovoltaic system is producing. The heat pump will raise the DHW setpoint with a view to improving self-consumption (making it as advantageous as possible for the user). The contact toward the grid (SG) warns the heat pump when the electrical power costs more (if allowed by the operator), which will then be limited in accordance with customised settings. We invite you to read the manuals for more details.
- **REMOTE CONTROL VIA APP.** Available for iOS and Android, with the use of Connect CRP (optional). **DHW CYLINDER HEATING ELEMENT.** In DHW mode, the unit manages a heating element inserted in the cylinder as an integration, anti-legionella function, or reserve source in case of a failure.
- **FAST DHW.** A function making it possible to give priority to DHW production by activating all available power sources, to bring the DHW cylinder to the setpoint in the shortest possible time.
- **ANTI-LEGIONELLA FUNCTION.** Allows the setting of weekly anti-legionella cycles. For correct operation, the boiler will be used as an integration or the heating element on the DHW cylinder, if any.
- **SILENT MODE.** When activated, reduces the maximum compressor frequency and fan speed so as to significantly reduce noise levels. 2 different levels available, which can be programmed according to daily time slots (e.g. night).
- **ON/OFF** from external contact. The unit can be activated and deactivated via an external contact (e.g. a zone thermostat): in this case the operating mode will follow the controller settings.
- **WARM/COOL** from external contacts. The unit can receive an external summer/winter switching signal (e.g. from a zone thermostat).
- **ECO.** Dedicated setpoint for "Eco" mode. Settable also by time slots.
- **WEEKLY HOURLY PROGRAMMING.** The **Connect CRP** (optional) allows differentiated hourly programming for each day of the week, defining the mode (COOL/WARM/DHW) and operating setpoints for each time slot.
- **ANTI-FREEZE PROTECTION** with hot operation of the heat pump with circulator ON and electric booster, if any.

2.8" GRAPHIC INTERFACE WITH CAPSENSE TECHNOLOGY



OUTDOOR UNIT			4	6	8	10	12	14	16	12T	14T	16T
Low temperature seasonal efficiency (produced water 35°C)		η (%)	191	195	205	204	189	185	182	189	185	182
ERP class in heating mode		Class	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Medium temperature seasonal efficiency (produced water 55°C)		η (%)	129	138	131	136	135	135	133	135	135	133
ERP class in heating mode		Class	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
Low temperature SCOP (produced water 35°C)		W/W	4.85	4.95	5.21	5.19	4.81	4.72	4.62	4.81	4.72	4.62
SEER (produced water 7°C)		W/W	4.99	5.34	5.83	5.98	4.89	4.86	4.69	4.86	4.83	4.67
Declared DHW profile		ηs (%)	L	L	L	L	XL	XL	XL	XL	XL	XL
DHW production energy efficiency class		Class	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Power supply		V-ph-Hz	220/240-1-50							380/415-3-50		
No. compressors / No. refrigeration circuits		no.	1 x DC Twin Rotary / 1 circuit									
Exchanger type		-	finned coil									
No. and type of fans		-	1 x DC axial									
Refrigerant type / GWP		-	R32 / GWP 675									
Factory refrigerant charge ***		kg	1.5		1.65		1.84					
Refrigeration lines (max length/vert. lift) ***		m	30 / 20									
SWL - Sound power level in heating mode*	A7W35	dB(A)	55	58	59	60	65	65	69	65	65	69
SWL - Sound power level in cooling mode*	A35W18	dB(A)	56	58	60	60	64	64	69	64	64	69
Maximum input current		A	12	14	16	17	25	26	27	10	11	12
Net weight		kg	58		77		96			112		

INDOOR UNIT			10	16	16T
Power supply		V-ph-Hz	220/240-1-50		380/415-3-50
Exchanger type		-	Brazed stainless steel plate type		
System expansion tank volume		L	10		
System water safety valve calibration		bar	3		
Minimum system water content		L	40		
DHW cylinder volume		L	190	240	
DHW cylinder/system electric heat. (access.)		kW	3 / 1.5		6 / 1.5
DHW expansion tank volume (accessory)		L	8		
DHW cylinder water safety valve calibration		bar	9		
SWL - Sound power level indoor unit		dB(A)	42	43	
Maximum input current		A	14		10
Net weight		kg	192	224	

*** SWL** = Sound power levels, referred to $1x10^{-12}$ W with unit operating in the following conditions: **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C. **A35W18** = source: air in 35°C d.b. / system: water in 23°C out 18°C. The Total sound power level in dB(A) is measured according to Standard ISO 9614. ****** For combination with outdoor units mod. 4-6, an adapter from 3/8" SAE to 1/4" SAE is supplied for the liquid line Ø 6.35. ******* The factory refrigerant charge allows for a maximum length of the refrigerant lines of 15 metres. IT IS possible to go up to 30 metres with an additional charge during installation.

PERFORMANCE DATA				4	6	8	10	12	14	16	12T	14T	16T
A7W35	Nominal heat output		kW	4.2	6.35	8.4	10	12.1	14.5	15.9	12.1	14.5	15.9
	Nominal input power		kW	0.82	1.28	1.63	2.02	2.44	3.15	3.53	2.44	3.15	3.53
	COP		W/W	5.1	4.95	5.15	4.95	4.95	4.6	4.5	4.95	4.6	4.5
A7W45	Nominal heat output		kW	4.3	6.3	8.3	10	12.3	14.1	16	12.3	14.1	16
	Nominal input power		kW	1.13	1.7	2.16	2.67	3.32	3.92	4.57	3.32	3.92	4.57
	COP		W/W	3.8	3.7	3.85	3.75	3.7	3.6	3.5	3.7	3.6	3.5
A35W18	Designed cooling capacity		kW	4.5	6.5	8.3	9.9	12	12.9	13.6	12.0	12.9	13.6
	Nominal input power		kW	0.82	1.35	1.64	2.18	3.04	3.49	3.77	3.04	3.49	3.77
	EER		W/W	5.5	4.8	5.05	4.55	3.95	3.70	3.61	3.95	3.70	3.61
A35W7	Designed cooling capacity		kW	4.7	6.5	7.45	8.2	11.5	12.4	14	11.5	12.4	14
	Nominal input power		kW	1.36	2.17	2.22	2.52	4.18	4.96	5.6	4.18	4.96	5.6
	EER		W/W	3.45	3	3.35	3.25	2.75	2.5	2.5	2.75	2.5	2.5

The values refer to a unit without any optionals or accessories. Data declared pursuant to **EN 14511**: **EER** (Energy Efficiency Ratio) = ratio of cooling power to input power **COP** (Coefficient Of Performance) = ratio of heat output to input power **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C **A7W45** = source: air in 7°C d.b. 6°C w.b. / system: water in 40°C out 45°C **A35W18** = source: air in 35°C d.b. / system: water in 23°C out 18°C **A35W7** = source: air in 35°C d.b. / system: water in 12°C out 7°C

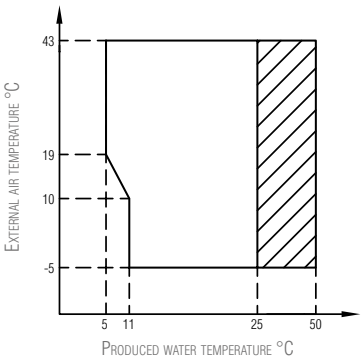
Accessories

	DESCRIPTION	CODE
	**Connect CRP** Advanced remote control with programmable thermostat function. Can manage up to 7 additional CRP ZONES in 2 separate zones. Also accessible via App	013069XD
	**Connect CRP Zone** Zone thermostat with RF connection towards Connect CRP. Wall-mounted or table-top installation, powered with 2 x AA batteries	013055XD
	System flow temperature probe or for hybrid solar/ hybrid system integration	2CP000NF
	Rubber anti-vibration kit for outdoor unit	2CP000ZF
	18L inertial storage kit	012084W0

	DESCRIPTION	CODE
	Solar pipe kit	012094W0
	PHE solar kit	012095W0
	2-Zone kit (direct and mixed)	012091W0
	Wall connection pipe kit	012092W0
	1.5 kW DHW heating element	012090W0
	Expansion tank for 8L DHW	012093W0

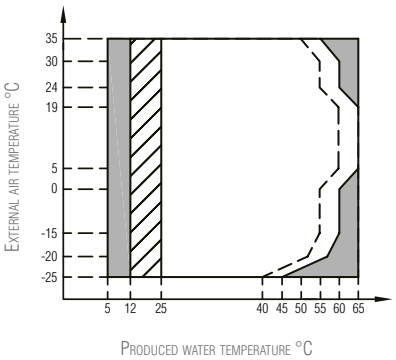
Operational limits

COOL MODE



Operating range with heat pump with possible limitation and protection

WARM MODE

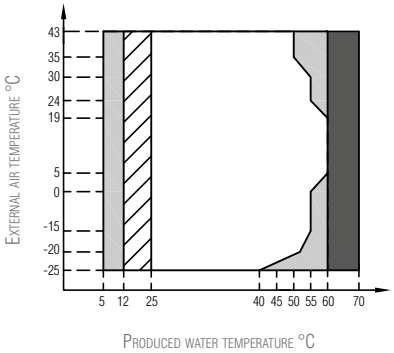


Operating range with heat pump with possible limitation and protection

With IBH (system heating element heat.) installed

Maximum inlet water temperature for heat pump operation

DHW MODE



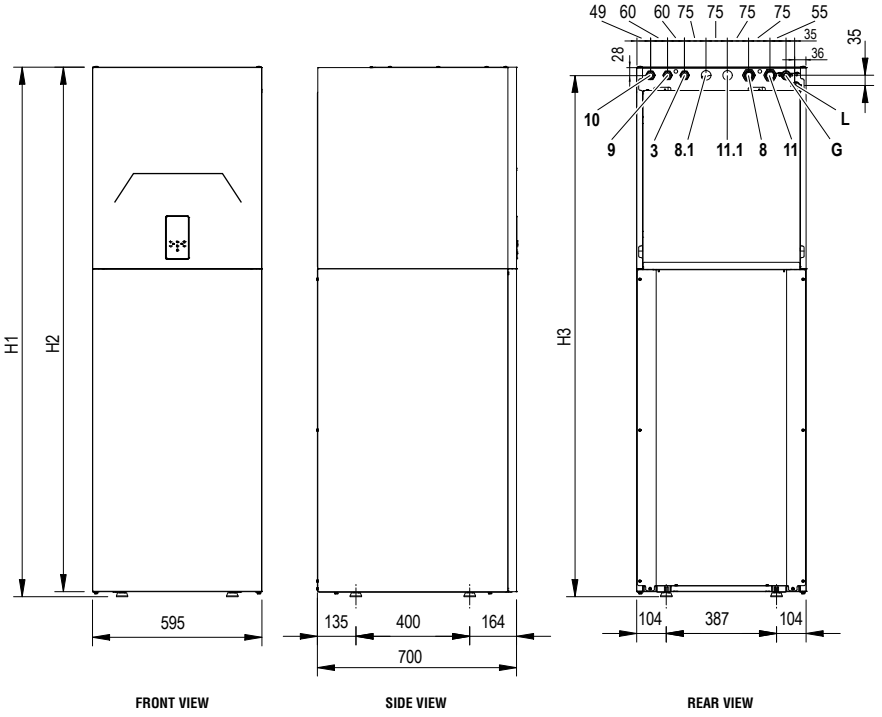
Operating range with heat pump with possible limitation and protection

With IBH (system heating element heat.) installed

With TBH (DHW heating element heat.) installed

NOTE DHW MODE: the produced water temperature is the temperature of the water produced by the unit and not the DHW temperature available to the user, which is a function of this parameter and of the surface of the coil of the DHW cylinder, if any.

Overall dimensions of indoor unit (in mm)



FRONT VIEW | SIDE VIEW | REAR VIEW

VIEW FROM ABOVE

MODELS		10	16
H1	mm	1860	2110
H2	mm	1842	2092
H3	mm	1832	2082

LEGEND

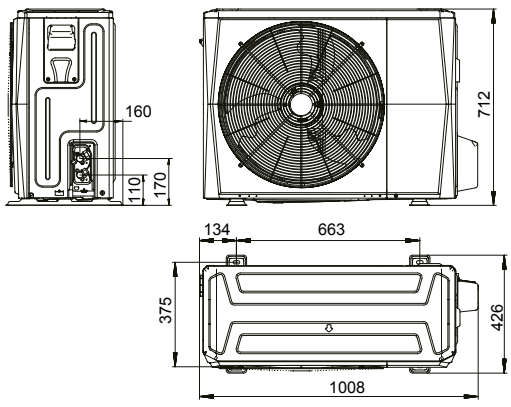
8	System outlet Ø 1"
8.1	System outlet for zone 2 Ø 1"
9	DHW outlet Ø 3/4"
10	DHW inlet Ø 3/4"
11	System inlet Ø 1"
11.1	System inlet for zone 2 Ø 1"
145	Water pressure gauge
G	Gas line Ø 15.88 (5/8")
L*	Liquid line Ø 9.52 (3/8")
E1	Cable gland for signal cables
E2	Cable gland for power cables
E3	Power cable with cable gland

* For combination with outdoor units mod. 4-6, an adapter from 3/8" SAE to 1/4" SAE is supplied for the liquid line Ø 6.35.

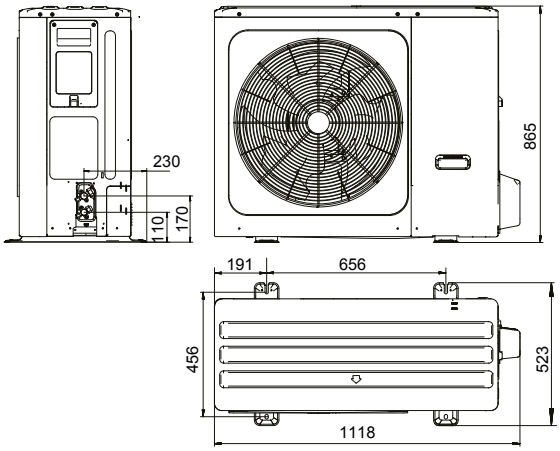
** Distance between hydraulic connections and refrigeration connections from the rear support point.

Overall dimensions of outdoor unit (in mm)

mod. 4 - 6



mod. 8 - 10 - 12 - 12T - 14 - 14T - 16 - 16T



MODELS		4	6	8	10	12	14	16	12T	14T	16T
Packaging (WxHxD)	mm	1065x800x485		1190x970x560							
Packaging weight	kg	65		94		114			130		



Idola SW-T 3.2

Reversible and split heat pumps with DC inverter compressor and integrated DHW storage

Full Inverter split heat pumps with low environmental impact R32 gas with low environmental impact. The split installation has the advantage of avoiding any problem of freezing in the outdoor unit, even at the coldest temperatures **(to -25°C)** and in the absence of power.
OMNIA SW-T 3.2 is a heat pump, for **heating and the production of domestic hot water**, designed for applications in small and medium-sized housing units.
Each of its components has been designed with the **renovation of existing heating systems** in mind and for the **replacement of boilers** and electric water heaters, ensuring the same comfort, with an efficient and environmentally friendly solution.
All the units meet the most extreme winter climate control requirements, in fact they can produce **hot water up to 65°C**, which makes them suitable for practically all heating systems.
The generators consist of an outdoor unit with the heart of the cooling circuit, from the compressor to the fan with the air side exchanger, which will be connected to the refrigerant gas pipes towards the indoor unit which, instead, contains the hub of the hydraulic circuit (complete with all system components) and the **100-liter DHW storage tank**.
The indoor unit is also equipped with two electrical integrations: **3kW for the heating system and 1.2 kW for DHW production**.
The new Full Inverter concept by Ferroli uses DC inverter modulations on the 3 main energy-intensive components of the machine, i.e. compressor, fan and pump. This makes it possible to modulate the power by finely tracking the thermal load and offering the user very high efficiencies and significant energy saving.
The Ferroli Full Inverter concept also makes it possible to reduce inrush currents, avoiding sudden changes in the grid and ensuring a longer service life for the components.
The quality of the components and production processes has made it possible to achieve one of the **lowest noise levels** among the units on the market today

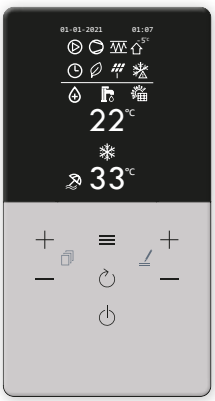
The control system

The user interface is equipped with **Capsense** technology with a 2.8" graphic display, which allows the user to interact easily and simply. The interface on the machine communicates with the **Connect CRP** systems, which can manage **up to 8 thermostats** (7 **Connect CRP Zone** + 1 **Connect CRP**) divided into 2 zones, one direct and one mixed.

MODBUS PROTOCOL for smart management via possible external **BMS**
HEATING AND COOLING with singular generator and heat pump. Full Inverter modulation makes it possible to maintain the desired setpoints, optimizing consumption for the user. The setting of climate curves (as standard) can improve comfort and further reduce consumption
DOMESTIC HOT WATER (DHW) PRODUCTION It activates when the DHW temperature probe goes below the DHW setpoint
ADDITIONAL ENERGY SOURCES (heating elements). The heat pump can activate these additional sources in Integration or Replacement, based on customizable parameters. In addition to these settings, the call can occur in an emergency, where the heat pump is faulty
PHOTOVOLTAIC AND GRID SMART GRID INPUTS The unit is equipped with 2 digital inputs (Smart Grid contacts) for managing an input from the photovoltaic system and from the electricity grid and optimizing consumption and bill costs
REMOTE CONTROL VIA APP Available for iOS and Android in combination with Connect CRP (optional)
DHW STORAGE TANK HEATING ELEMENT In DHW mode, the unit manages a heating element inserted in the storage tank as integration, anti-legionella function or as a reserve source, in case of a fault
FAST DHW A function to give priority to DHW production by activating all available energy sources, to bring the DHW storage tank to the setpoint in the shortest possible time
ANTI-LEGIONELLA FUNCTION For setting anti-legionella weekly cycles.
SILENT MODE Reduces compressor frequency and fan speed to reduce noise. 2 different levels are available, programmable in daily time bands (e.g. night)
ON/OFF from external contact. The unit can be activated and deactivated via an external contact (e.g. from a zone thermostat): in this case the operating mode will follow the controller settings
HEAT/COOL from external contacts. The unit can receive a summer/winter switching signal from outside (e.g. from the zone thermostat)
ECO Dedicated setpoint for "Eco" operation. Settable also for time bands
WEEKLY TIME PROGRAMMING The Connect CRP (optional) allows time programming for each day of the week by defining the mode (COOL/HEAT/DHW) and setpoint for each band
FROST PROTECTION with heat pump working in heating mode with circulating pump ON and possible electric booster

System code	System model
0XHM4SWD	**IDOLA SW-T 3.2 04**
0XHM6SWD	**IDOLA SW-T 3.2 06**
0XHM8SWD	**IDOLA SW-T 3.2 08**
0XHMASWD	**IDOLA SW-T 3.2 10**

2.8" GRAPHIC INTERFACE WITH CAPSENSE TECHNOLOGY



OUTDOOR UNIT TECHNICAL DATA			4	6	8	10
Low temperature seasonal efficiency (water produced 35°C)		ηs (%)	191	195	205	204
ErP class in heating		Class	A+++	A+++	A+++	A+++
Average temperature seasonal efficiency (water produced 55°C)		ηs (%)	129	138	131	136
ErP class in heating		Class	A++	A++	A++	A++
SCOOP low temperature (water produced 35°C)			4.85	4.95	5.21	5.19
SEER (water produced 7°C)			4.99	5.34	5.83	5.98
Electrical power supply		Vac / Hz	220-240 / 50			
Compressors / Cooling circuits / Type of exchanger		no.	1 / 1 / Finned coil			
No. and Type of fans			1 x Axial DC			
Type of refrigerant / GWP			R32 / GWP 675			
Factory refrigerant charge ***		Kg	1.5	1.65	1.84	1.84
Cooling lines (max. length / max. vertical difference) ***		m	30/20			
SWL - Sound power level in heating	A7W35	dB(A)	56	58	59	60
SWL - Sound power level in cooling *	A35W18	dB(A)	56	58	60	60
Max. current absorbed		A	12	14	16	17
Net weight		Kg	58		77	

INDOOR UNIT TECHNICAL DATA		4	6	8	10
Electrical power supply	Vac / Hz	220-240 / 50			
Heating system expansion vessel volume	liters	10			
Heating system max. pressure	bar	3			
Heating system plumbing connections		3/4" GAS M			
DHW plumbing connections		1/2" GAS M			
Liquid line cooling connections		3/8" SAE / f 9,52			
Gas line cooling connections		5/8" SAE / f 15,88			
DHW storage tank volume	liters	100			
System electric heater / DHW storage tank	kW	3 / 1,2			
DHW expansion vessel volume	liters	5			
DHW max. working pressure	bar	9			
SWL - indoor unit sound power level	dB(A)	39			
Net weight	Kg	95/103			

*** SWL** = Sound power levels, referred to $1x10^{-12}$ W with unit operating under conditions: **A7W35** = source: air at 7°C d.b. 6°C w.b. / system: water at 30°C out 35°C. **A35W18** = source: air at 35°C d.b. / system: water at 23°C out 18°C. The Total sound power level in dB(A) is measured in accordance with ISO 9614. ****** For combination with outdoor units models 4-6 a reduction from 3/8" SAE to 1/4" SAE for Ø 6.35 liquid line is supplied. ******* The factory refrigerant charge allows a maximum cooling line length of 15 meters. It is possible to reach 30 meters with a charge integration during installation.

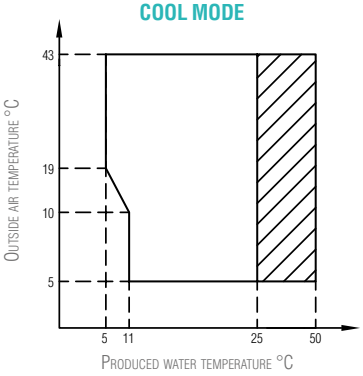
PERFORMANCE DATA			4	6	8	10
A7W35	Nominal heat output	kW	4,2	6,35	8,4	10
	Nominal absorbed power	kW	0,82	1,28	1,63	2,02
	COP	W/W	5,1	4,95	5,15	4,95
A7W45	Nominal heat output	kW	4,3	6,3	8,3	10
	Nominal absorbed power	kW	1,13	1,7	2,16	2,67
	COP	W/W	3,8	3,7	3,85	3,75
A35W18	Nominal cooling capacity	kW	4,5	6,5	8,3	9,9
	Nominal absorbed power	kW	0,82	1,35	1,64	2,18
	EER	W/W	5,5	4,8	5,05	4,55
A35W7	Nominal cooling capacity	kW	4,7	6,5	7,45	8,2
	Nominal absorbed power	kW	1,36	2,17	2,22	2,52
	EER	W/W	3,45	3	3,35	3,25

The values refer to units without possible options or accessories. Data declared according to EN 14511: **EER** (Energy Efficiency Ratio) = ratio of cooling capacity to absorbed power **COP** (Coefficient Of Performance) = ratio of heat output to absorbed power **A7W35** = source : air at 7°C d.b. 6°C w.b. / system : water at 30°C out 35°C **A7W45** = source : air at 7°C d.b. 6°C w.b. / system : water at 40°C out 45°C **A35W18** = source : air at 35°C d.b. / system : water at 23°C out 18°C **A35W7** = source : air at 35°C d.b. / system : water at 12°C out 7°C

	DESCRIPTION	CODE
	**Connect CRP.** Advanced remote control with chronothermostat function.	013069XD
	**Connect CRP Zone.** Zone thermostat with RF connection to Connect CRP	013055XD
	Plumbing connection kit with faucets (DHW inlet, system flow and return), pipes and fittings. Arranged for installation combined with the dirt separator and the polyphosphate doser.	012101X0
	Rubber anti-vibration kit for outdoor unit	2CP000ZF

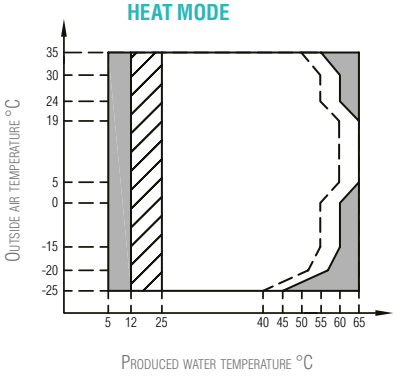
	DESCRIPTION	CODE
	Spacer kit for generator replacement with wall mounts	016010X0
	Mount cover kit	016011X0
	**PROTECTOR+** Magnetic dirt separator filter kit supplied with shutoff valve	0YBP3BX0
	**DOSAPLUS** Double action polyphosphate/silicate dosing filter kit	0YBD0QX0

COOL MODE



Operating range with heat pump with possible limitation and protection

HEAT MODE

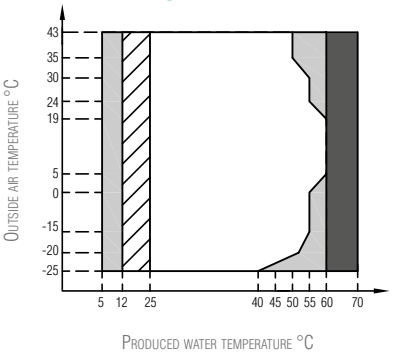


Operating range with heat pump with possible limitation and protection

With IBH (system electric heater) installed

Max. inlet water temperature line for heat pump operation

DHW MODE



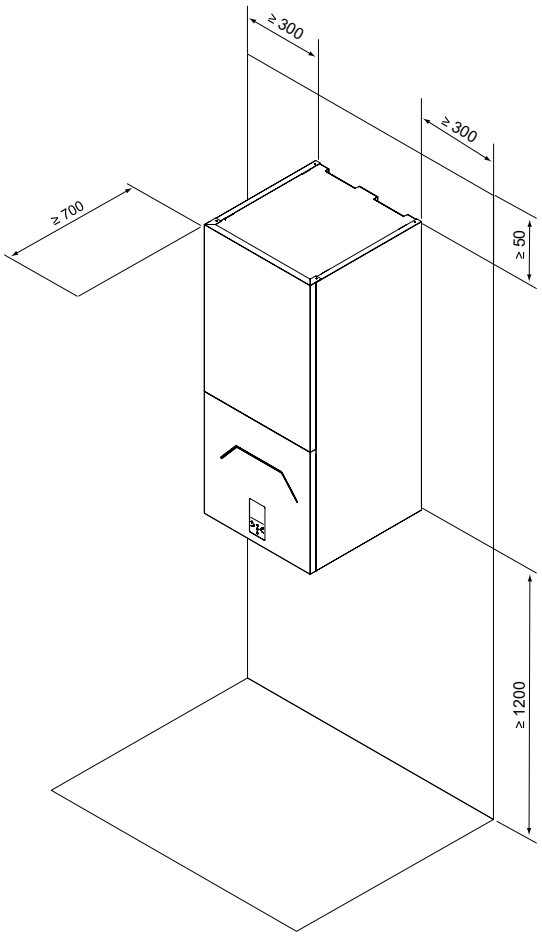
Operating range with heat pump with possible limitation and protection

With IBH (system electric heater) / TBH (DHW electric heater) installed

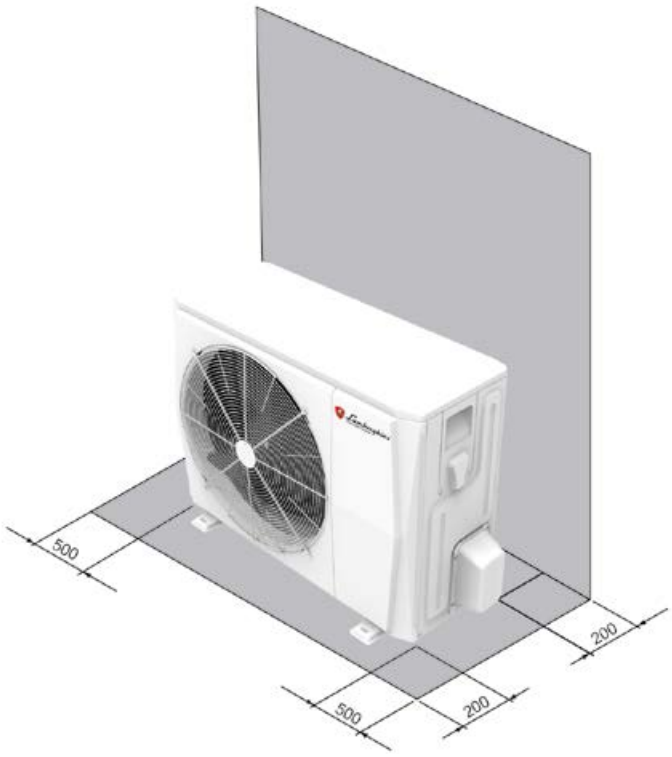
With TBH (DHW electric heater) installed

Minimum operating spaces (in mm)

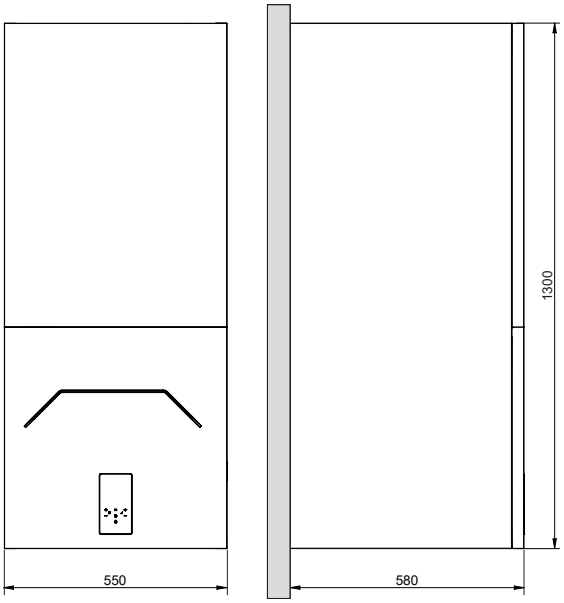
INDOOR UNIT



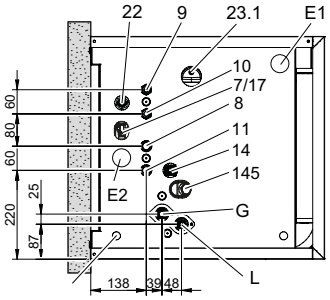
OUTDOOR UNIT



Indoor unit overall dimension (in mm)



FRONT VIEW SIDE VIEW



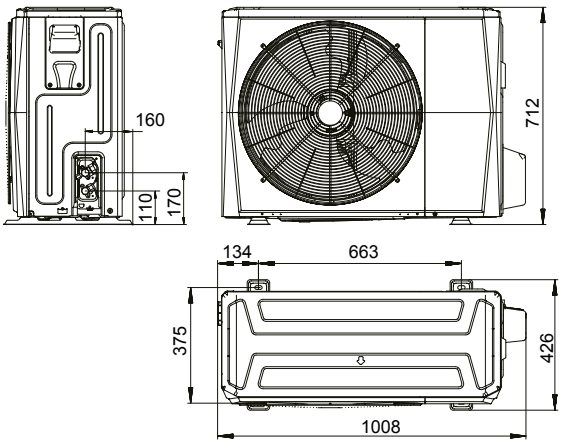
KEY

7 Water filling
8 System outlet - Ø 3/4" M
9 DHW outlet - Ø 1/2" M
10 DHW inlet - Ø 1/2" M
11 System inlet - Ø 3/4" M
14 System safety valve with water drain faucet function
17 Check valve
22 DHW safety valve
23.1 Access to the system expansion vessel filling valve
145 Water pressure switch
E1 Cable gland for signal cables
E2 Cable gland for power cables
E3 Power cable
G Gas line - Ø 15.88 (5/8")
L* Liquid line - Ø 9.52 (3/8")

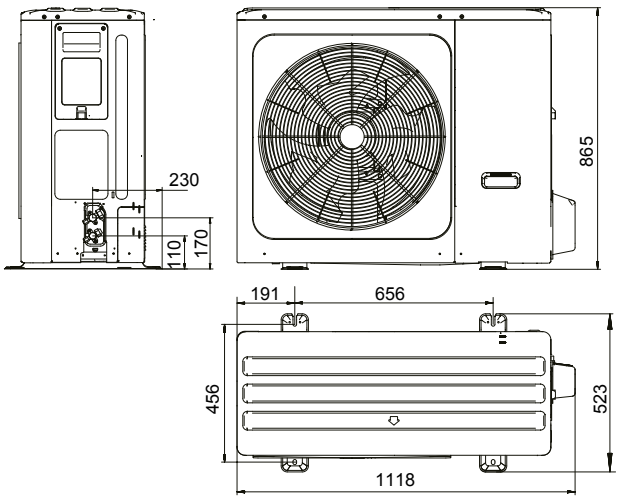
* For combination with outdoor units models 4-6, a reduction from 3/8" SAE to 1/4" SAE is supplied for Ø 6.35 liquid line

Outdoor unit overall dimension (in mm)

mod. 4 - 6



mod. 8 - 10



MODELS		**4**	**6**	**8**	**10**
Packing (WxHxD)	mm	1065x800x485		1190x970x560	
Packing weight	kg	65		94	



Lamborghini CALORECLIMA



Solar thermal systems

NEW



Solextech Nat

Natural circulation system

- **System complete with:**
  * flat-plate collector SOLEXTECH 2.1 (mod. 160 lt and 200 lt) or SOLEXTECH 2.6 (mod. 300 lt)
  * boiler, hydraulic fittings, connecting pipes
  * concentrated glycol for mixing
  * non-return valve and 10-bar safety at domestic cold water inlet
  * safety valve 2.5 bar solar primary circuit
  * frames for flat roof (mod. **"TP"**) or pitched roof (mod. **"TI"**) supplied in the kit
- **New SOLEXTECH flat-plate solar collector** with self-supporting aluminum frame
- **3.2 mm high-transparency toughened solar glass**
- Highly selective **absorber** (AL-Tinox)
- Mineral wool collector **insulation** 40 mm
- Optional 1.5 kW supplementary electric heater
- No need for electrical components such as temperature control or circulators
- "Keymark" quality certification for **"Factory Made"** systems (solar kits) (EN 12976-1/2)

Code	Model
0XGN12XD	**Solextech Nat 160 - TP 45°**
0XGN15XD	**Solextech Nat 160 - TI**
0XGN13XD	**Solextech Nat 200 - TP 45°**
0XGN16XD	**Solextech Nat 200 - TI**
0XGN54XD	**Solextech Nat 300 - TP 45°**
0XGN58XD	**Solextech Nat 300 - TP 30°**
0XGN57XD	**Solextech Nat 300 - TI**

Solextech Nat	Max no. persons
160	**2 - 3**
200	**3 - 4**
300	**4 - 6**

N.B.: The data shown are indicative and refer to correctly oriented and inclined collectors. The optimal system should be chosen taking into account the actual domestic hot water consumption of the dwelling unit served

MODEL		**160 / 2.1**		**200 / 2.1**		**300 / 5.2**		
		TP 45°	**TI**	**TP 45°**	**TI**	**TP 45°**	**TP 30°**	**TI**
Floor plan dimensions (WxD) pitched roof	mm	-	1240x1600	-	1240x2000	-	-	2000x2000
Dimensions (WxDxH) of flat roof	mm	1230x1684x1700	-	1520x1684x1700	-	2553x1973x1989	2553x2247x1531	-
Overall gross/useful surface area	m^2	2.09/1.99		2.09/1.99		5.20/4.96		
Weight of empty system	kg	92.5		107.5		178.4		
Weight of full system	kg	245.1		301.1		477		
Number of collectors	no.	1 (mod. 2.1)		1 (mod. 2.1)		2 (mod. 2.6)		
Boiler volume	L	151		192		295		
Hot water circuit connections	Ø	1/2"						
Max operating pressure of solar circuit	bar	2.5						
Max operating pressure of domestic water circuit	bar	10						
Boiler cathodic protection		magnesium anode						

The installation of an expansion vessel on the domestic water circuit is recommended

Complementary accessories

Code	Description
076241X0	Kit 4 brackets for pantiles/tiles
076242X0	Kit 4 universal brackets

Code	Description
073109X0	Kit 1.5 kW electric heaters with thermostat
13002X0	Thermostatic mixer connections 1/2"





Solar compact kit

Pre-assembled solar package

- Pre-assembled circulation unit with: 1/2" safety valve, flow meter with flow regulator, system fill and drain valves, shut-off valve and pressure gauge set, solar circulator, shut-off valve, solar electronic controller, expansion tank for 18-lt solar circuit
- The solar controller manages solar circuit temperature through tank and collector probes (1 PT1000 probe + 1 NTC) and features autodiagnostics
- Double coil storage tank, 200 or 300 litres
- SOLEXTECH V 2.1 flat solar collector included with Models ST 200 H / ST 300 H. Solar-keymark certification (EN 12975). 22 mm diameter connection, compression type
- Models BL 200 / BL 300 are without solar collectors (omoboblock only)
- Lodging for electrical heating element, 1" 1/2 fitting

Code	Model
0XGU1MXD	**Solar compact kit ST 200 H**
0XDT0MXA	**Solar compact kit BL 200**
0XGU2NXD	**Solar compact kit ST 300 H**
0XDT0NXA	**Solar compact kit BL 300**

MODEL		ST 200 H	BL 200	ST 300 H	BL 300
Storage tank: ERP Class		C	C	C	C
Storage tank: useful volume	l	196	196	273	273
Storage tank: heat loss	W	67	67	85	85
Solar control unit ECOTRONIC HITECH	n	1	1	1	1
Collector: SOLEXTECH V 2.1	n	1	not supplied	2	not supplied
Collector: overall gross surface / overall effective surface	m^2	2,09 / 1,96	-	4,18 / 3,92	-

Complementary accessories



ASSEMBLY FRAMES FOR SLOPED ROOF	
076239X0	**COMPLETE FRAME** for no. **1 collector** (*)
076240X0	**COMPLETE FRAME** for no. **2 collectors** (*)

(*) In case of more than two collectors, use several kits in combination



FASTENING BRACKETS FOR SLOPED ROOF	
076241X0	Kit 4 brackets for pantiles/tiles (**)
076242X0	Kit 4 universal brackets (**)

(**) Use 1 "Bracket kit" for each "Complete frame kit for pitched roof"



ASSEMBLY FRAMES FOR FLAT ROOF	
076235X0	**BASE KIT** to be used for 1 collector mod. 2.1 V
076237X0	**EXTENSION KIT** to be used for each **collector (mod. 2.1 V)** additional to the first one



HYDRAULIC ACCESSORIES	
Z308904000	Premixed solar fluid PROSUN TP - 2 x 5 kg
Z308904010	Premixed solar fluid PROSUN - 25 kg
0YDI0KX0	Premixed solar fluid PROSUN PLUS -27°C - 25 kg
013002X0	Thermostatic mixer connections 1/2"
072293X0	Purge valve (de-aerator) for the solar circuit

NEW





Solextech V

Forced circulation flat solar collector

- **High efficiency** flat solar collector with **forced circulation** (max 10 for each battery)
- **Solar-keymark (EN 12975) certified** as one of the most efficient solar thermal collectors in the market (η0= 80%)
- **Highly selective aluminum absorber** with titanium oxide treatment
- **Sturdy frame** allows supported by two aluminum sticks offering a **neat and versatile installation**
- **Double-wall aluminum profile** 2,4mm offers increased durability and enhanced insulation
- High transparency, **prismatic tempered glass** (thickness 3,2 mm)
- **High performing absorber** made of a harp with laser-welded copper risers, and 0,5mm full plate ultra-selective surface.
- **Integrated support attachments** for ease of installation and universal compatibility
- The collector can easily and safely be adjusted on different types of **sloping or flat roof** supports
- ø 22 mm **compression** connecting/interconnecting fittings

Code	Model
0XGF1VWD	**Solextech V 2.1**
0XGF2VWD	**Solextech V 2.6**

MODEL		**V 2.1**	**V 2.6**
Dimensions (LxHxD)	mm	1230 x 1696 x 86	1230 x 2111 x 86
Gross surface area	m^2	2,09	2,60
Effective surface area	m^2	1,99	2,48
Empty weight	kg	34,5	41,2
Closed circuit volume	l	1,6	1,8
Stagnation temperature	°C	175,2	175,2
Absorption factor	%	95	
Emission factor	%	4	
Thermal collector insulation		40 mm HD mineral wool	
Heat transfer circuit fittings	Ø	22 mm	
Maximum primary circuit operating pressure	bar	10	
Fittings for collector	no.	4	
No. of pieces/pallets	no.	12	12

Complementary accessories



ASSEMBLY FRAMES FOR SLOPED ROOF	
076239X0	**COMPLETE FRAME** for no. **1 collector** (*)
076240X0	**COMPLETE FRAME** for no. **2 collectors** (*)

(*) In case of more than two collectors, use several kits in combination



FASTENING BRACKETS FOR SLOPED ROOF	
076241X0	Kit 4 brackets for pantiles/tiles (**)
076242X0	Kit 4 universal brackets (**)

(**) Use 1 "Bracket kit" for each "Complete frame kit for pitched roof"





ASSEMBLY FRAMES FOR FLAT ROOF	
076235X0	**BASE KIT** to be used for 1 collector mod. 2.1 V
076236X0	**BASE KIT** to be used for 1 collector mod. 2.6 V
076237X0	**EXTENSION KIT** to be used for each **collector (mod. 2.1 V)** additional to the first one
076238X0	**EXTENSION KIT** to be used for each **collector (mod. 2.6 V)** additional to the first one



HYDRAULIC ACCESSORIES	
Z308904000	Premixed solar fluid PROSUN TP - 2 x 5 kg
Z308904010	Premixed solar fluid PROSUN - 25 kg
0YDI0KX0	Premixed solar fluid PROSUN PLUS -27°C - 25 kg
013002X0	Thermostatic mixer connections 1/2"
072291X0	Hydraulic connections (start set) for first/last collector **(BASE)**
072292X0	Hydraulic connections (interconnection set) **(EXTENSION)**
072293X0	Purge valve (de-aerator) for the solar circuit

Lamborghini CALORECLIMA



Terminal units

- Fan coils
- Thermoventilation units



VM version



VN version

Vega I

Fan coil with centrifugal fan

- New series of fan coil units with centrifugal fan with high efficiency DC brushless motor. Characterised by a maximum depth of 200 mm in the cased models and a particularly attractive aesthetic line, they are intended for residential heating and air conditioning applications.
- Available in 5 sizes with cooling capacities from 1.50 to 5.60 kW and air flow rates from 255 to 1190 m^3/h. In the standard version they are proposed with a single 3-row coil to which can be combined as an accessory, in the case of 4-pipe systems, an additional 1-row coil. Available in the two versions, VM with casing and VN without shell for recessed applications. The units can be installed in both vertical and horizontal positions.

UNIT SPECIFICATIONS

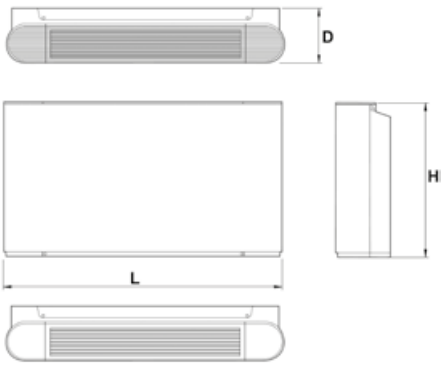
- **BEARING STRUCTURE** It is made of galvanized sheet metal of adequate thickness. There are slots at the rear to fix the unit. For models without a cover casing, there is a front mounted fan unit closing panel
- **HEAT EXCHANGE COIL** 3-row copper tube coil with aluminium fins blocked by mechanical expansion of the tubes. The manifolds in the upper part of the coil are equipped with air vents, while the lower part has a water drain tap*.* *The default hydraulic connection for the coil is on the left. However it is possible to turn the coil and modify it to the right (see installation manual)*
- **CONDENSATE DRIP TRAY** Made of thermoplastic material to avoid corrosion it allows the machine to be installed in either vertical or horizontal positions. In particular, in the horizontal installation, its shape makes it possible to collect the drops of condensate that form on the collectors during cold operation. The drain hole is made directly from the condensate drip tray and allows it to be removed during cold operation. It is present on both sides of the machine to facilitate the rotation of the coil
- **FAN MOTOR** The electric motor is a DC brushless type with continuous speed regulation at high efficiency and is directly coupled to the fans and cushioned by elastic supports
- **CENTRIFUGAL FAN** The fan unit consists of double inlet centrifugal fans with blades developed in length to obtain high flow rate at low speed.
- **AIR FILTER** Easily removable and regenerable by simply washing with water
- **COVER CASING (VM only)** Made of steel sheet part painted with epoxy powder to ensure high resistance to corrosion and part in anti-UV thermoplastic material to ensure resistance to ultraviolet rays. The air diffusion grilles and the door to access the control panel, both made of anti-UV thermoplastic material are inserted in the upper part
- **HYDRAULIC CONNECTIONS** The connections, located on the left side, are of ¾" gas female type. It is possible to rotate the coil, which is supplied as standard with left side connections, by moving the hydraulic connections to the right side

Available versions

VM - Fan coil unit with suction casing from below
Composed of a sheet metal casing, a supply grille with doors to access the control, if required, in thermoplastic material and a regenerable e air filter, placed on a metal frame housed on guides cut out in the lower part of the frame.
VN - Fan coil unit without casing for recessed applications
Without cover casing

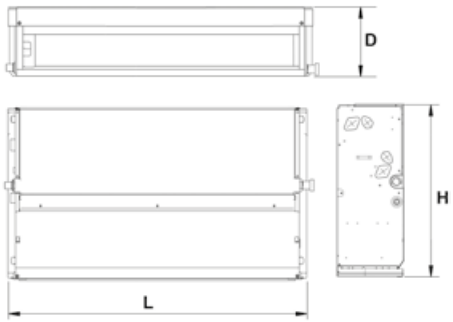
Code	Model
2CO9A3AL	**VEGA 150-I VM**
2CO9A3BL	**VEGA 250-I VM**
2CO9A3CL	**VEGA 350-I VM**
2CO9A3DL	**VEGA 500-I VM**
2CO9A3EL	**VEGA 700-I VM**
2CO9A3FL	**VEGA 150-I VN**
2CO9A3GL	**VEGA 250-I VN**
2CO9A3HL	**VEGA 350-I VN**
2CO9A3IL	**VEGA 500-I VN**
2CO9A3JL	**VEGA 700-I VN**

VM VERSION



Mod.	150	250	350	500	700
L (mm)	790	1020	1240		1360
H (mm)	495				
D (mm)	200				

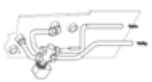
VN VERSION



Mod.	150	250	350	500	700
L (mm)	637	867	1087		1207
H (mm)	455				
D (mm)	200				

MODEL			150	250	350	500	700
Power supply		V-ph-Hz	230-1-50				
WATER: IN 7° - OUT 12°C - ROOM AIR: 27°C D.B 19°C W.B.							
Total cooling capacity	max	kW	1.50	2.35	3.50	4.30	5.60
	med	kW	1.06	1.94	2.89	3.48	4.47
	min	kW	0.92	1.19	2.22	2.71	3.14
Sensible cooling capacity	max	kW	1.14	1.79	2.65	3.25	4.62
	med	kW	0.77	1.44	2.14	2.56	3.6
	min	kW	0.66	0.86	1.57	1.91	2.43
Water flow rate	max	l/h	258	404	602	740	963
	med	l/h	182	334	497	599	769
	min	l/h	158	205	382	466	540
Water side pressure drops	max	kPa	14	13	34	54	51
	med	kPa	8	10	25	36	33
	min	kPa	6	5	15	23	18
WATER: IN 45/70°C - OUT 40/60°C - ROOM AIR: 20°C							
Heat output	max	kW	1.57 / 3.18	2.60 / 5.26	3.80 / 7.68	4.70 / 9.47	6.00 / 12.18
	med	kW	1.07 / 2.18	2.11 / 4.28	3.10 / 6.3	3.70 / 7.48	4.77 / 9.69
	min	kW	0.92 / 189	1.34 / 2.71	2.35 / 4.74	2.81 / 4.74	3.36 / 6.81
Water flow rate	max	l/h	270 / 270	447 / 450	654 / 660	808 / 820	1032 / 1050
	med	l/h	184 / 190	363 / 370	533 / 540	636 / 650	820 / 830
	min	l/h	158 / 160	230 / 230	404 / 410	483 / 500	578 / 590
Water side pressure drops	max	kPa	15 / 8.62	14 / 10.28	35 / 26.48	54 / 38.23	55 / 30.5
	med	kPa	8 / 4.5	10 / 7.18	24 / 18.64	37 / 25.3	38 / 20.35
	min	kPa	6 / 3.51	5 / 3.26	15 / 11.34	22 / 15.9	19 / 10.98
WATER: IN 70° - OUT 60°C - AMBIENT AIR: 20°C							
Auxiliary coil heat output	max	kW	1.82	2.46	3.78	4.4	5.87
	med	kW	1.61	1.91	3.3	3.75	5.22
	min	kW	1.27	1.32	2.63	3.15	4.19
Auxiliary coil water flow rate	max	l/h	120	200	250	290	390
	med	l/h	110	150	210	250	340
	min	l/h	80	100	170	200	260
Water side pressure drops auxiliary coil	max	kPa	12.54	29.06	61.88	80.05	145.93
	med	kPa	10.25	19.07	49.07	61.91	118.24
	min	kPa	6.89	10.13	32.61	44.87	79.31
GENERAL DATA							
Air flow rate	max	m³/h	255	400	595	790	1190
	med	m³/h	170	315	470	580	855
	min	m³/h	150	190	340	410	505
Air flow with main coil only for static pressure available 0/12/30 PA	max	m³/h	333 / 280 / 146	489 / 392 / 32	683 / 570 / 261	893 / 812 / 656	1350 / 1258 / 1091
	med	m³/h	276 / 210 / 43	345 / 128 / 24	538 / 367 / 31	666 / 552 / 237	1029 / 899 / 630
	min	m³/h	192 / 77 / 24	232 / 19 / 19	397 / 197 / 25	475 / 258 / 28	677 / 451 / 31
Air flow rates with main and auxiliary coils for static pressure available 0/12/30 PA	max	m³/h	318 / 264 / 131	465 / 373 / 47	641 / 527 / 258	845 / 764 / 606	1198 / 1112 / 949
	med	m³/h	265 / 198 / 31	327 / 164 / 25	508 / 339 / 31	631 / 516 / 229	897 / 774 / 554
	min	m³/h	186 / 76 / 24	222 / 20 / 20	357 / 95 / 24	452 / 251 / 228	574 / 386 / 32
Absorbed power	max / med / min	W	15 / 9 / 8	17 / 12 / 7	26 / 17 / 10	50 / 25 / 14	96 / 44 / 17
Maximum current consumption	max	A	0.18	0.20	0.26	0.49	0.85
Sound power	max / med / min	dB(A)	47 / 36 / 34	43 / 37 / 29	52 / 44 / 36	59 / 51 / 43	64 / 56 / 45
Sound pressure (measured at 1 m distance in reverberation chamber)	max / med / min	dB(A)	34 / 24 / 21	29 / 24 / 18	38 / 32 / 23	46 / 38 / 30	50 / 42 / 31
Motor		type	DC brushless				
No. of fans (centrifugal)		No.	1	2	2	2	3
Maximum operating pressure		bar	16				
Main 3R coil water content		l	0.46	0.68	0.90	0.90	1.02
Auxiliary 1R coil water content		l	0.15	0.23	0.30	0.30	0.34
Main 3R coil connections	F	"	3/4" G	3/4" G	3/4" G	3/4" G	3/4" G
Auxiliary 1R coil connections	F	"	1/2" G	1/2" G	1/2" G	1/2" G	1/2" G
Condensate discharge connections		mm	18.5				
Gross/net weight VM version		kg	23.5 / 18	27.5 / 21.5	32.5 / 25.5	32.5 / 25.5	36 / 28.5
Gross/net weight VN version		kg	19.5 / 14	22.5 / 16.5	26.5 / 19.5	26.5 / 19.5	29.5 / 22

Table of accessories

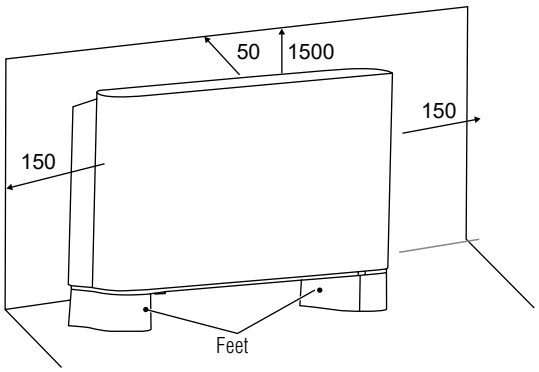
CONTROL ACCESSORIES								
MODEL		**DESCRIPTION**	**150**	**250**	**350**	**500**	**700**	**CODE**
TE / TER		**Thermostat with display for on board unit or remote wall-hung installation.** Allows to: 1. Turn the unit on or off 2. Choose Hot-Cool-Airing-Dehumidification mode of operation 3. Display the room temperature and set the setpoint 4. Select the fan speed	•	•	•	•	•	**2CO9A3K0**
502-503		**Wall adapter for boxes** Adapter kit for wall installation of the TE/TER thermostat in case you want to use it on a recessed box mod. 503 (fixing centre distance 83.5 mm)	•	•	•	•	•	**2CO9A3W0**
GC01		**Central unit module** Allows to connect in serial network up to 16 fan coils that will be controlled as a single unit with a single TE/TER thermostat.	•	•	•	•	•	**2CO9A3N0**
GCM09		**Wall-hung centralized control** It allows to connect up to 64 fan coils in a serial network and therefore allows, in unit or singularly for all connected fan coils, to: 1. Turn the units on or off 2. Choose the Hot-Cold mode of operation 3. Display the room temperature and set the setpoint 4. Select the fan speed 5. Weekly schedule	•	•	•	•	•	**2CO9A3Q0**
COMMON ACCESSORIES FOR INSTALLATION AND HYDRAULIC CONNECTIONS								
MODEL		**DESCRIPTION**	**150**	**250**	**350**	**500**	**700**	**CODE**
FCPW		**Support feet** in case the unit rests on the floor	•	•	•	•	•	**2CO9A3R0**
BATT 1R FC150		**Auxiliary 1-row coil**	•					**2CO9A3S0**
BATT 1R FC250				•				**2CO9A3T0**
BATT 1R FC350-500					•	•		**2CO9A3U0**
BATT 1R FC700							•	**2CO9A3V0**
FC BATT 3R		**3-way valve kit 3-way main coil**	•	•	•	•	•	**2CO9A3Y0**
FC BATT 1R		**3-way valve kit auxiliary 1-row coil**	•	•	•	•	•	**2CO9A3Z0**
FC		**Condensate drip tray f**or the installation of the 3-way valve auxiliary kit	•	•	•	•	•	**2CO9A3X0**

Installation examples

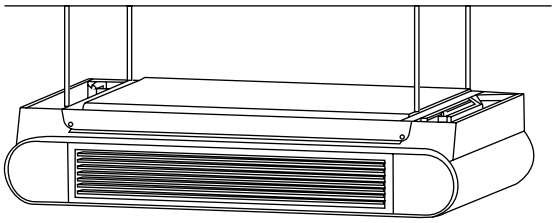
These new units are characterized by an elegant aesthetic design and multiple insertion possibilities in different types of installations.

The cased models can be wall-hung or recessed (raised or supported by feet), or suspended horizontally from the ceiling.

WALL-HUNG OR RECESSED INSTALLATION

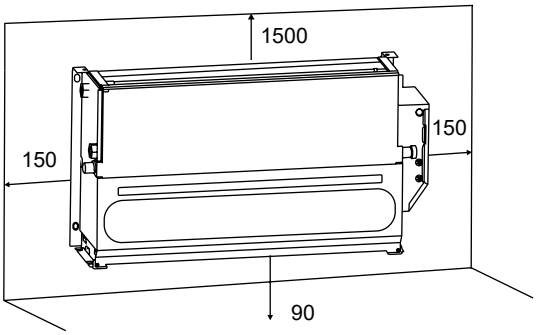


SUSPENDED HORIZONTALLY FROM THE CEILING INSTALLATION

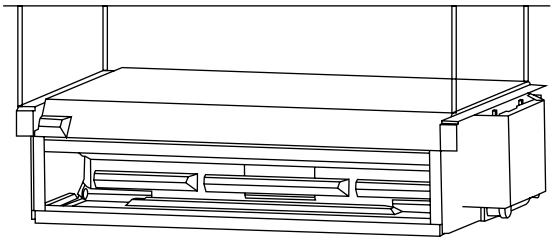


The models without casing are particularly suitable for vanishing solutions in recessed or in false ceilings.

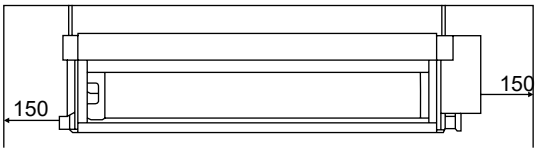
RECESSED INSTALLATION



SUSPENDED HORIZONTALLY FROM THE CEILING INSTALLATION



CEILING-HUNG HORIZONTAL INSTALLATION





Idro Breeze

Wall hung fan coil

- New series of wall-hung fan coil units.
- Terminal units for air handling which, in combination with a chiller, a heat pump or a boiler, can be used either in the winter or in the summer.
- Particularly flexible, they are suitable for meeting air climatisation and air conditioning requirements for both hotel applications and a wide range of commercial and residential uses.
- Available in 4 models with nominal cooling capacity from 1 to 3.71 kW and nominal heat output from 1.2 to 4.06 kW , they are suitable for wall installation. The compact dimensions provide a pleasant visual impact. The covering cabinet built with ABS guarantees high mechanical characteristics and resistance to aging, and also acts as the bearing structure of the unit. The fan unit consists of a tangential fan with low consumption EC motor.
- The units are equipped with a display showing the selected operating mode and the set room temperature.
- To allow easy installation, all units in the series are equipped with flexible hydraulic pipes; they are also equipped with valves inserted inside the unit and easily accessible from the front panel.
- The use of the three-way valve prevents excessive cooling of the unit when the fan stops, and the unpleasant formation of condensation on the casing of the machine.
- The units are designed to be connected in Master-Slave system to control multiple units through a single controller.

AVAILABLE CONTROLS

- **Infrared remote control REM-I (supplied as standard)** This sets all of the unit's essential functions. Equipped with an LCD display for easy and immediate viewing of all the active functions and the various parameters necessary for correct use. The control comes with a support that fixes it in the most easily accessible position. It allows to control up to a distance of 7 m
- **Wired control for wall application REM2-W (supplied as accessory)** This allows to control all machine parameters and measures the local temperature. With a Master-Slave system, this allows the individual control of each unit.

Master-Slave system



EC motor



Valve 3-way



REM-I



REM2-W

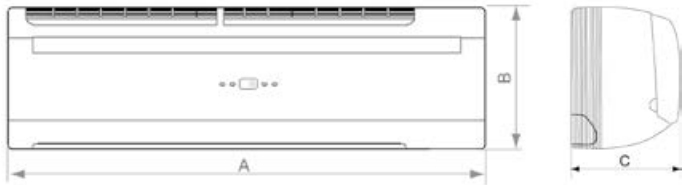


Code	Model
2CP000VL	**IDRO BREEZE 15**
2CP000WL	**IDRO BREEZE 25**
2CP000XL	**IDRO BREEZE 35**
2CP000YL	**IDRO BREEZE 45**
2C09710F	**REM2-W**

MODEL			15	25	35	45
Power supply	V-F-Hz		230-1-50			
Air flow rate	max.	m³/h	370	500	645	788
	med.	m³/h	290	370	500	740
	min.	m³/h	220	290	370	570
N° fans	N°		1	1	1	1
Power input	max.	W	13	18	22	30
	med.	W	10	13	15	20
	min.	W	5	10	10	13
Assorbimento motore	max.	A	0,11	0,16	0,19	0,26
Coil water content	l		0,045	0,0789	0,124	0,192
Sound power	max.	dB(A)	42	45	54	58
	med.	dB(A)	38	35	43	53
	min.	dB(A)	33	33	40	46
Sound pressure (1)	max.	dB(A)	34	39	45	49
	med.	dB(A)	29	31	34	44
	min.	dB(A)	24	26	31	37
Hydraulic connection	F	"	1/2" F	1/2" F	1/2" F	1/2" F
Condensate drain connection		mm	16	16	16	16
Valve	Type		3 way ON-OFF			
Connection		"	1/2"	1/2"	1/2"	1/2"
Heating capacity (2)	max.	kW	1,2	2,23	3,25	4,06
	med.	kW	1	1,76	2,65	3,86
	min.	kW	0,82	1,38	2,07	3,12
Water flow rate (2)	max.	l/h	205	380	552	690
	med.	l/h	170	301	456	656
	min.	l/h	140	235	352	532
Water pressure drop on water side (2)	max.	kPa	18	29	39	52
	med.	kPa	14	19	28	46
	min.	kPa	9	12	17	32
Total cooling capacity (3)	max.	kW	1	1,82	3,01	3,71
	med.	kW	0,84	1,43	2,47	3,26
	min.	kW	0,68	1,21	1,86	2,66
Sensible cooling capacity (3)	max.	kW	0,85	1,53	2,22	2,74
	med.	kW	0,71	1,2	1,81	2,4
	min.	kW	0,57	1	1,35	1,94
Water flow rate (3)	max.	l/h	172	313	518	638
	med.	l/h	144	246	425	561
	min.	l/h	117	208	320	458
Water pressure drop on water side (3)	max.	kPa	23	29	38	50
	med.	kPa	17	19	28	40
	min.	kPa	12	12	16	28

NOTE:
(1) Sound pressure level in 100m³ room with 0.5sec of reverberation time
(2) Air T=20°C D.B., water IN/OUT 45°/40°C, Δt water 5°C
(3) Air T=27°C D.B. / 19°C W.B., Water IN/OUT 7°/12°C, Δt water 5°C

Dimensions (in mm)



MODEL	A mm	B mm	C mm	WEIGHT kg
15	876	300	228	11
25	876	300	228	12
35	876	300	228	13
45	876	300	228	14



Lamborghini CALORECLIMA



Direct expansion

- Reversible air conditioners in heat pump

NEW



Smeraldo S

Wall hung monosplit DC inverter in heat pump

- R32 Eco Coolant
- Efficiency Class A++ / A+++
- 4 Filters: **Cold Catalyst, Active Carbon, Silver Ion and Biohepa**. New four-layer filter technology that purifies the air and removes gases, odours, formaldehydes, pollutants, bacteria, viruses and fungi from it
- New **Super Ioniser** that releases millions of ions to drastically reduce the presence of viruses and bacteria in the air
- Remote control with dedicated smartphone App
- **Compatible with the "Amazon Alexa" and "Google Home" voice assistants**
- Temperature display on board the machine
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- Easily removable intake grille and filters for quick cleaning
- Automatic restart in case of a power outage
- Night operating mode / "AUTOMATIC" mode / Timer function
- Outdoor unit treated with protective anti-rust substances
- Wi-fi connectivity included

Filtering
Q·U·A·D·R·U·P·L·E

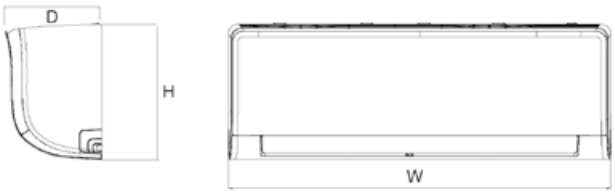
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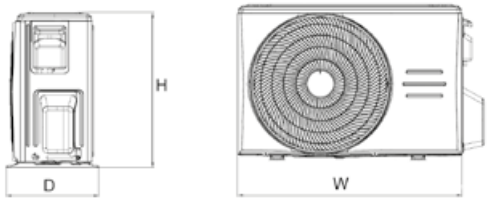


Indoor unit



MODEL	W mm	H mm	D mm	Weight kg
9	726	291	210	8,0
12	835	295	208	8,7
18	969	320	241	11,2
24	1083	336	244	13,6

Outdoor unit



MODEL	W mm	H mm	D mm	Weight kg
9	720	495	270	23,5
12	720	495	270	23,7
18	874	554	330	33,5
24	955	673	342	43,9

MODEL			09	12	18	24
Power supply		V-Ph-Hz	220/240 V - 1 phase - 50Hz			
Cooling power (1)	nominal	W	2,770	3,350	5,270	5,860
	min-max	W	908 ~ 3,398	1,113 ~ 4,160	3,390 ~ 5,830	2,080 ~ 7,910
Power absorbed in cooling	nominal	W	769	1,021	1,550	1,787
	min-max	W	100 ~ 1,240	130 ~ 1,580	560 ~ 2,050	420 ~ 3,150
Current absorbed in cooling	nominal	A	3.34	4.44	6.70	7.77
	min-max	A	0.4 ~ 5.4	0.5 ~ 6.9	2.4 ~ 8.9	1.8 ~ 13.8
EER ref. Standard EN14511 (nominal)			3.60	3.28	3.40	3.28
Cooling	SEER		6.30	6.10	7.40	6.10
	PdesignC	kW	2.80	3.60	5.20	7.00
	Class ErP		A++	A++	A++	A++
Thermal power (2)	nominal	W	2,930	3,570	4,970	6,000
	min-max	W	820 ~ 3,369	1,084 ~ 4,220	3,100 ~ 5,850	1,610 ~ 7,910
Power absorbed in heating	nominal	W	733	963	1,298	1,608
	min-max	W	120 ~ 1,200	100 ~ 1,680	780 ~ 2,000	300 ~ 2,750
Current absorbed in heating	nominal	A	3.18	4.19	5.64	6.99
	min-max	A	0.5 ~ 5.2	0.4 ~ 6.9	3.4 ~ 8.7	1.3 ~ 12.2
COP ref. Standard EN14511 (nominal)			3.99	3.71	3.83	3.73
Heating Moderate climate zone	SCOP		4.00	4.00	4.00	4.00
	PdesignH	kW	2.60	2.70	4.10	4.80
	Class ErP		A+	A+	A+	A+
	Tbiv / Tol	°C	-7 / -15	-7 / -15	-7 / -15	-7 / -15
Heating Warm climate zone	SCOP		5.10	5.10	5.10	4.80
	PdesignH	kW	2.60	2.50	4.40	5.80
	Class ErP		A+++	A+++	A+++	A++
	Tbiv / Tol	°C	2 / -15	2 / -15	2 / -15	2 / -15
Maximum power absorbed		W	2,150	2,150	2,500	3,500
Maximum current absorbed		A	10	10	13	15.5
Inrush current		A	Negligible thanks to inverter technology			
Indoor unit	Air flow rate (max-med-min)	m^3/h	466 / 360 / 325	540 / 430 / 314	840 / 680 / 540	980 / 817 / 662
	Sound pressure (3) (max-med-min)	dB(A)	38.5 / 32 / 25	40.5 / 34.5 / 25	42.5 / 36 / 26	45 / 40.5 / 36
	Sound pressure (max)	dB(A)	54	55	56	59
Outdoor unit	Air flow rate	m^3/h	1,750	1,800	2,100	3,500
	Sound pressure (3)	dB(A)	55.5	56	56	59
	Sound power	dB(A)	62	63	63	67
Refrigerant gas	Type / GWP		R32 / 675			
	Load quantity	kg	0.55	0.55	1.08	1.42
Liquid / gas line connections		inches	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"	3/8" - 5/8"
Maximum length refrigeration lines		m	25	25	30	50
Maximum height difference		m	10	10	20	25
CODE	**INDOOR UNIT**		**2CP001HL**	**2CP001IL**	**2CP001JL**	**2CP001KL**
	OUTDOOR UNIT		**2CP001LL**	**2CP001ML**	**2CP001NL**	**2CP0010L**

(1) External air temperature = 35°C D.B. • Room air temperature = 27°C D.B. / 19°C W.B. - (2) External air temperature = 7°C D.B. / 6°C W.B. • Room air temperature = 20°C D.B. - (3) Sound pressure measured at a distance of 1 m: E.U. in open area, I.U. in 100 m^3 room with 0.5 second reverberation time

NEW



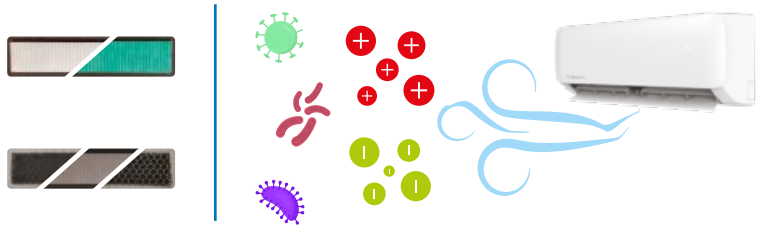
Smeraldo M

Wall hung multisplit DC inverter in heat pump

- R32 Eco Coolant
- Efficiency Class A^{++} / A^{+++}
- **4 Filters: Cold Catalyst, Active Carbon, Silver Ion and Biohepa**. New four-layer filter technology that purifies the air and removes gases, odours, formaldehydes, pollutants, bacteria, viruses and fungi from it
- New **Super Ioniser** that releases millions of ions to drastically reduce the presence of viruses and bacteria in the air
- Remote control with dedicated smartphone App
- **Compatible with the "Amazon Alexa" and "Google Home" voice assistants**
- Wide range of combinable powers
- Outdoor unit combinable with different types of indoor units
- Temperature display on board the machine
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Filtering
Q·U·A·D·R·U·P·L·E

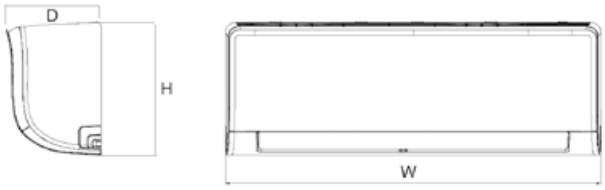
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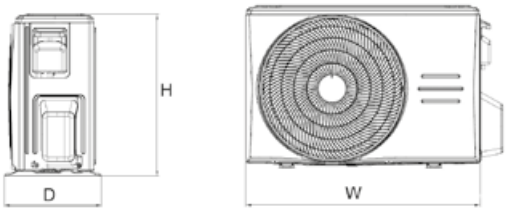


Indoor unit



MODEL	W mm	H mm	D mm	Weight kg
9	726	291	210	8,0
12	835	295	208	8,7
18	969	320	241	11,2

Outdoor unit



MODEL	W mm	H mm	D mm	Weight kg
18-2	805	554	330	35,0
27-3	890	673	342	48,0
28-4	946	810	410	62,1

Outdoor unit*			18-2	27-3	28-4
Power supply		V-Ph-Hz	220/240 V - 1 phase - 50Hz		
Cooling power (1)	nominal	W	5,275	7,915	8,205
	min-max	W	2,225 ~ 5,570	3,025 ~ 8,500	2,490 ~ 10,255
Power absorbed in cooling	nominal	W	1,635	2,450	2,500
	min-max	W	690 ~ 2,000	230 ~ 3,250	150 ~ 3,340
Current absorbed in cooling	nominal	A	7.1	11.2	10.9
	min-max	A	3.2 ~ 9.0	2.1 ~ 14.7	1.3 ~ 14.5
EER ref. Standard EN14511 (nominal)			3.23	3.23	3.23
Cooling	SEER		6.1	6.1	7
	PdesignC	kW	5.3	7.9	8.2
	Class ErP		A++	A++	A++
Thermal power (2)	nominal	W	5,570	8,205	8,790
	min-max	W	2,340 ~ 5,625	2,200 ~ 8,500	1,605 ~ 10,140
Power absorbed in heating	nominal	W	1,500	2,210	2,400
	min-max	W	600 ~ 1,780	330 ~ 2,960	280 ~ 3,200
Current absorbed in heating	nominal	A	6.6	10.1	10.4
	min-max	A	2.80 ~ 7.95	2.6 ~ 13.5	1.98 ~ 14.0
COP ref. Standard EN14511 (nominal)			3.71	3.71	3.71
Heating Moderate climate zone	SCOP		4.0	4.0	4.0
	PdesignH	kW	4.5	5.7	6.8
	Class ErP		A+	A+	A+
	Tbiv / Tol	°C	-7 / -15	-7 / -15	-7 / -15
Heating Warm climate zone	SCOP		5.1	5.1	5.1
	PdesignH	kW	5	6	6.8
	Class ErP		A+++	A+++	A+++
	Tbiv / Tol	°C	2 / -15	2 / -15	2 / -15
Maximum power absorbed		W	3,050	4,100	4,150
Maximum current absorbed		A	13	18	19
Inrush current		A	Negligible thanks to inverter technology		
Outdoor unit	Air flow rate	m^3/h	2,100	3,000	3,800
	Sound pressure (3)	dB(A)	54	55	63.0
	Sound power	dB(A)	65	68	68
Refrigerant gas	Type / GWP		R32 /675		
	Load quantity	kg	1.25	1.85	2.1
CODE			**2CP001PL**	**2CP001RL**	**2CP001SL**

Indoor unit		9	12	18
Cooling performance	W	2,640	3,515	5,275
Thermal performance	W	2,930	3,810	5,570
Air flow rate (max-med-min)	m^3/h	520 / 460 / 330	530 / 400 / 350	800 / 600 / 500
Sound pressure (max-med-min-slo)	dB(A)	37 / 32 / 22 / 20	37 / 32 / 22 / 21	41 / 37 / 31 / 20
Sound pressure (max)	dB(A)	54	56	56
Liquid / gas line connections	inches	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"
CODE		**2CP001HL**	**2CP001IL**	**2CP001JL**

(1) External air temperature = 35°C D.B. • Room air temperature = 27°C D.B. / 19°C W.B. - (2) External air temperature = 7°C D.B. / 6°C W.B. • Room air temperature = 20°C D.B. - (3) Sound pressure measured at a distance of 1 m: E.U. in open area, I.U. in 100 m^3 room with 0.5 second reverberation time * Nominal data, check combinations on the following pages

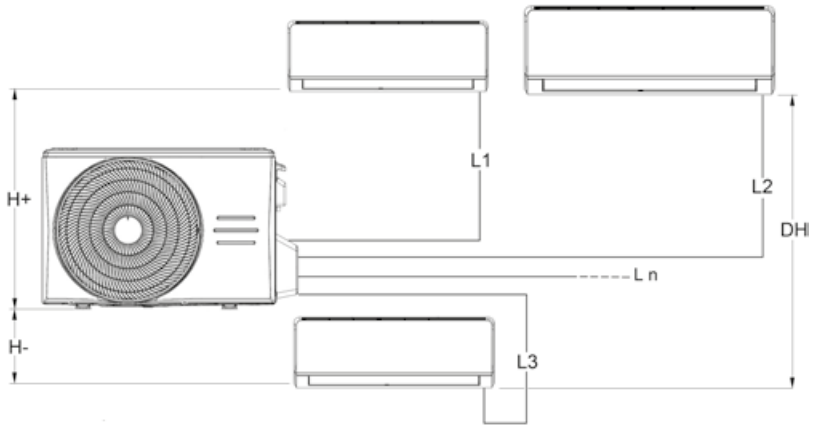
Field of application

OPERATING MODE	PARAMETER		INDOOR SIDE	OUTDOOR SIDE
Cooling	Input air max/min temperature (B.S.)	°C	32 / 17	50 / -15
Heating	Input air max/min temperature (B.S.)	°C	30 / 0	30 / -15
All	Power voltage / frequency	V	230±10% / 50±2	

LIMITS ON LENGTH AND HEIGHT DIFFERENCE OF COOLING PIPES

The length of the cooling pipes between the indoor and outdoor units must be the shortest possible and is, in any case, limited by the maximum values in height difference between the two units.

With the decrease in the difference in height between the units (H1,H2) and the length of the pipes (L), the load loss will be limited, thus increasing the overall performance of the machine. Observe the limits indicated in the following tables.



Outdoor unit			18-2	27-3			28-4			
Diameter	Liquid	“	1/4”	1/4”	1/4”	1/4”	1/4”	1/4”	1/4”	1/4”
	Gas	“	3/8”	3/8”	3/8”	3/8”	3/8”	3/8”	3/8”	1/2”
Tot. maximum length		m	40	60			80			
Maximum length single unit		m	25	30			35			
Maximum height difference	H+	m	15	15			15			
	H-	m	15	15			15			
	DH	m	10	10			10			
Total maximum length of pipes with standard load		m	7.5	7.5			7.5			
Additional quantity of refrigerant per metre		g/m	12	12	12	12	12	12	12	24

Table of possible combinations

Outdoor unit	Indoor unit connected					
	1	2		3		4
18-2	9K	9K+9K	-	non previsto		non previsto
	12K	9K+12K	-			
	18K	12K+12K	-			
27-3	9K	9K+9K	12K+12K	9K+9K+9K	9K+12K+12K	non previsto
	12K	9K+12K	12K+18K	9K+9K+12K	12K+12K+12K	
	18K	9K+18K	-	9K+9K+18K	-	
28-4	9K	9K+9K	12K+12K	9K+9K+9K	9K+12K+12K	9K+9K+9K+9K
	12K	9K+12K	12K+18K	9K+9K+12K	12K+12K+12K	9K+9K+9K+12K
	18K	9K+18K	18K+18K	9K+9K+18K	-	-

NB:

- combinations for which the total power required by the indoor units is compatible with the nominal power of the outdoor unit.
- combinations for which the total power required by the indoor units is higher than the nominal power of the outdoor unit. In the event of a simultaneous request for power by all the units connected, the power available for the individual units will be in line with the indications given in the previous table.

Performance in cooling mode

EU	IU	Combination	Partial capacity (kW) Room				Total capacity in cooling (kW)			Power absorbed Total (kW)			Current absorbed Total (A)			EER	SEER	Energy class
			A	B	C	D	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Nom		
18-2	1	9	2.50	—	—	—	1.43	2.50	3.20	0.35	0.75	0.93	1.52	3.24	4.06	3.35	—	—
		12	3.50	—	—	—	1.43	3.50	3.90	0.35	1.08	1.29	1.52	4.68	5.62	3.25	—	—
	2	9+9	2.65	2.65	—	—	2.12	5.30	6.41	0.54	1.64	2.05	2.35	7.13	8.92	3.23	6.1	A++
		9+12	2.27	3.03	—	—	2.12	5.30	6.41	0.54	1.64	2.05	2.35	7.13	8.92	3.23	6.1	A++
		12+12	2.65	2.65	—	—	2.12	5.30	6.41	0.54	1.64	2.05	2.35	7.13	8.92	3.23	6.1	A++
27.3	2	9+9	2.65	2.65	—	—	2.21	5.30	7.11	0.64	1.64	2.45	2.76	7.13	10.63	3.23	5.6	A+
		9+12	2.57	3.43	—	—	2.21	6.00	7.51	0.64	1.86	2.57	2.76	8.08	11.17	3.23	5.6	A+
		9+18	2.27	4.53	—	—	2.21	6.80	7.90	0.64	2.09	2.69	2.76	9.10	11.70	3.25	5.6	A+
		12+12	3.15	3.15	—	—	2.21	6.30	7.66	0.64	1.94	2.64	2.76	8.45	11.48	3.24	5.6	A+
		12+18	2.72	4.08	—	—	2.21	6.80	7.90	0.64	2.09	2.69	2.76	9.10	11.70	3.25	5.6	A+
	3	9+9+9	2.63	2.63	2.63	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
		9+9+12	2.37	2.37	3.16	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
		9+12+12	2.15	2.87	2.87	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
		12+12+12	2.63	2.63	2.63	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
28.4	2	9+9	2.65	2.65	—	—	2.05	5.30	6.81	0.63	1.64	2.28	2.76	7.13	9.93	3.23	5.1	A
		9+12	2.57	3.43	—	—	2.05	6.00	6.97	0.63	1.86	2.41	2.76	8.08	10.49	3.23	5.1	A
		9+18	2.43	4.87	—	—	2.05	7.30	7.54	0.63	2.26	2.79	2.76	9.83	12.14	3.23	5.1	A
		12+12	3.25	3.25	—	—	2.05	6.50	7.38	0.63	2.01	2.49	2.76	8.75	10.82	3.23	5.1	A
		12+18	2.92	4.38	—	—	2.05	7.30	7.54	0.63	2.26	2.79	2.76	9.83	12.14	3.23	5.1	A
		18+18	3.75	3.75	—	—	2.05	7.50	7.54	0.63	2.32	2.79	2.76	10.10	12.14	3.23	5.1	A
	3	9+9+9	2.37	2.37	2.37	—	2.62	7.10	8.45	0.76	2.20	2.94	3.31	9.56	12.80	3.23	5.6	A+
		9+9+12	2.34	2.34	3.12	—	2.62	7.80	8.45	0.76	2.41	2.94	3.31	10.50	12.80	3.23	5.6	A+
		9+9+18	1.95	1.95	3.90	—	2.62	7.80	8.45	0.76	2.41	2.94	3.31	10.50	12.80	3.23	5.6	A+
		9+12+12	2.13	2.84	2.84	—	2.62	7.80	8.45	0.76	2.41	2.94	3.31	10.50	12.80	3.23	5.6	A+
		9+12+18	1.80	2.40	3.60	—	2.62	7.80	8.45	0.76	2.41	2.94	3.31	10.50	12.80	3.23	5.6	A+
		12+12+12	2.60	2.60	2.60	—	2.62	7.80	8.45	0.76	2.41	2.94	3.31	10.50	12.80	3.23	5.6	A+
	4	9+9+9+9	2.05	2.05	2.05	2.05	2.87	8.20	9.92	0.86	2.54	3.17	3.75	11.04	13.80	3.23	7.0	A++
		9+9+9+12	1.89	1.89	1.89	2.52	2.87	8.20	9.92	0.86	2.54	3.17	3.75	11.04	13.80	3.23	7.0	A++

Performance in heating mode

EU	IU	Combination	Partial capacity (kW) Room				Total capacity in heating (kW)			Power absorbed Total (kW)			Current absorbed Total (A)			COP	SCOP	Energy class
			A	B	C	D	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Nom		
18-2	1	9	3.00	—	—	—	1.56	3.00	3.63	0.32	0.80	1.00	1.39	3.48	4.35	3.75	—	—
		12	3.80	—	—	—	1.56	3.80	4.60	0.32	1.02	1.23	1.39	4.45	5.34	3.71	—	—
	2	9+9	2.79	2.79	—	—	2.23	5.57	6.68	0.51	1.50	1.88	2.22	6.53	8.16	3.71	4.0	A+
		9+12	2.40	3.20	—	—	2.23	5.60	6.68	0.51	1.51	1.88	2.22	6.56	8.16	3.71	4.0	A+
		12+12	2.80	2.80	—	—	2.23	5.60	6.96	0.51	1.51	1.88	2.22	6.56	8.16	3.71	4.0	A+
27-3	2	9+9	3.00	3.00	—	—	2.30	6.00	7.38	0.57	1.62	2.21	2.50	7.03	9.61	3.71	3.8	A
		9+12	2.70	3.60	—	—	2.30	6.30	7.79	0.57	1.70	2.32	2.50	7.38	10.09	3.71	3.8	A
		9+18	2.33	4.67	—	—	2.30	7.00	8.20	0.57	1.89	2.43	2.50	8.20	10.57	3.71	3.8	A
		12+12	3.25	3.25	—	—	2.30	6.50	7.95	0.57	1.75	2.39	2.50	7.62	10.38	3.71	3.8	A
		12+18	2.80	4.20	—	—	2.30	7.00	8.20	0.57	1.89	2.43	2.50	8.20	10.57	3.71	3.8	A
	3	9+9+9	2.73	2.73	2.73	—	2.87	8.20	9.84	0.69	2.21	2.76	2.98	9.61	12.01	3.71	4.0	A+
		9+9+12	2.49	2.49	3.32	—	2.87	8.30	9.84	0.69	2.24	2.76	2.98	9.73	12.01	3.71	4.0	A+
		9+12+12	2.26	3.02	3.02	—	2.87	8.30	9.84	0.69	2.24	2.76	2.98	9.73	12.01	3.71	4.0	A+
		12+12+12	2.77	2.77	2.77	—	2.87	8.30	9.84	0.69	2.24	2.76	2.98	9.73	12.01	3.71	4.0	A+
28-4	2	9+9	3.00	3.00	—	—	2.20	6.00	7.30	0.59	1.62	2.13	2.58	7.03	9.28	3.71	3.4	A
		9+12	3.00	4.00	—	—	2.20	7.00	7.48	0.59	1.89	2.25	2.58	8.20	9.80	3.71	3.4	A
		9+18	2.63	5.27	—	—	2.20	7.90	8.10	0.59	2.13	2.61	2.58	9.26	11.34	3.71	3.4	A
		12+12	3.75	3.75	—	—	2.20	7.50	7.92	0.59	2.02	2.32	2.58	8.79	10.11	3.71	3.4	A
		12+18	3.20	4.80	—	—	2.20	8.00	8.10	0.59	2.16	2.61	2.58	9.38	11.34	3.71	3.4	A
		18+18	4.00	4.00	—	—	2.20	8.00	8.10	0.59	2.16	2.61	2.58	9.38	11.34	3.71	3.4	A
	3	9+9+9	2.87	2.87	2.87	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
		9+9+12	2.58	2.58	3.44	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
		9+9+18	2.15	2.15	4.30	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
		9+12+12	2.35	3.13	3.13	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
		9+12+18	1.98	2.65	3.97	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
		12+12+12	2.87	2.87	2.87	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
	4	9+9+9+9	2.23	2.23	2.23	2.2	3.08	8.90	10.65	0.81	2.40	2.96	3.51	10.43	12.89	3.71	4.0	A+
		9+9+9+12	2.10	2.10	2.10	2.8	3.08	9.10	10.65	0.81	2.45	2.96	3.51	10.66	12.89	3.71	4.0	A+

Notes



Notes

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