



POWERCOND (113 KW TO 275 KW)
POWERCOND (320 KW TO 580 KW)
ACCESSORIES

# **Powercond**

**POWER BOILERS** 





## THE COMPANY

Biasi has been in the Italian heating sector for more than 90 years, investing in solutions that offer comfort in both the domestic and professional sectors. Our product lines cover every market segment, from wall-mounted condensing boilers to floor-standing boilers, along with hot water heaters and a wide range of systems integrated with energy-efficient solar power.

We can also provide comprehensive new systems with heat pumps and hybrids, which can be integrated with low-temperature radiant heating solutions we make.



### **OUR STORY**

Leopoldo Biasi had a dream: to create comfort that would improve quality of life.

The first radiator production was launched, confirming the company's success.

In 1994, Biasi acquired BSG from ENI (Ente Nazionale Idrocarburi) and thus became a top name in the field of wall-mounted gas boilers. Biasi continues to expand its product range, benefitting from new electronics with a graphic interface and display, developed in-house, to make our products even easier for users to use.

2000

The Belloni family acquired BSG Caldaie S.p.A.

1960 1 19

<u> 1990</u>

2010 2018

2020

940

More models for the market with a new steam boiler facility.

A dream became reality as the first boiler manufacturing facility was opened. The Biasi Group consolidated its place on the European market with new products. Our range of models continues evolve; the R&D department is already testing the products of the future using the latest technology.

QUALITY

TECHNOLOGY AND RELIABILITY

RESEARCH AND INNOVATION

ITALIAN DESIGN

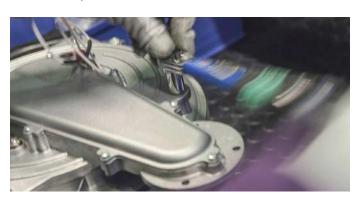
CUSTOMER-FOCUSED APPROACH

**FLEXIBILITY** 

STRUCTURED LOGISTICS

Our wall-mounted boiler production facility is structured to manufacture 500 different products, over 16 product ranges and up to 160,000 boilers/year.

At Biasi, we continue to improve and redesign our products. We assemble them on our production lines, check quality at every stage, and take care of the final distribution. The value of an Italian product lies in the details.



## **OUR PRODUCTS**

#### **RESIDENTIAL LINE**

**Condensing boilers** 

**Traditional boilers** 

**Hybrid systems** 

**Heat pumps** 

Water heaters

Air conditioning

Solar

Water heaters and accumulation tanks Systems with solar integration

#### **PROFESSIONAL LINE**

**Boilers for centralised systems** 

#### UNDERFLOOR HEATING LINE

Radiant heating systems

#### **SPARE PARTS**

## Powercond (113 kW to 275 kW)

















Powercond are latest-generation high-efficiency condensing thermal units equipped with a premixed modulating blown-air burner with low emissions and body in aluminium and high calorific

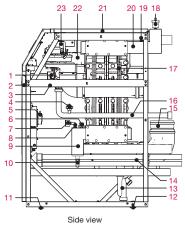
There are 5 available models, with heat input ranging from 113 to 275 kW.

They can be installed individually or in cascade, each consisting of 2 to 4 generators of the same output or different output, controlled by a cascade manger.

The Powercond thermal units must be installed in a boiler room and they must be integrated with system components and devices supplied by the manufacturer. These include specific kits, to be ordered separately, which simplify the work of the installer when installing systems with a single generator, and those of the primary circuit of cascade systems.

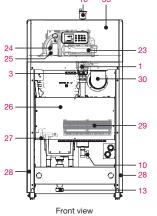
#### **TECHNICAL DESCRIPTION OF A SINGLE GENERATOR**

#### **Technical specifications**

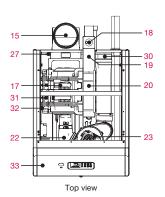


- Gas valve
- Front panel
- Gas pressure switch (for models 200-240-280)
- Gas pressure switch (for models 115-150)
- Siphon pressure switch
- Heating pressure transducer
- Pressure gauge
- Return probe

- System return collector
- 10. Boiler drain cock Supporting foot
- 11. 12.
- Wheel
- 13. Condensate outlet siphon Condensate collection tank
- 15. Flue gas outlet connection
- 16. Gas evacuation pipe 17 Boiler body
- Automatic bleed valve



- NTC heating delivery probe 20. System delivery collector
- 21. Upper panel
- 22. Burner
- 23. Fan
- Ignition electrodes
- Flame detection electrode
- Boiler board container 26.
- 27 Flue gas probe
- Side panels



- Electrical connections terminal board
- 30. Combustion air inlet
- Boiler body probe 31.
- Doors for inspection and cleaning
- Control panel



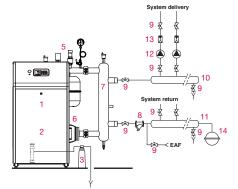
#### **Technical specifications**

Hot water condensing heat generator with low pollutant emissions, type B23, B33, C43, C53, C63, C63, consisting of a high calorific power heat exchanger in aluminium, pre-mixed modulating blown-air burner with low pollutant emissions with modulating operation. Complete with climatic temperature control via an external probe for variable management of the water temperature supplied to the system.

- Heat exchanger body with parts in silicon aluminium, with high exchanging surface area and reduced water content
- Microflame total-premix burner in aluminium which allows high modulation (exceeding 1:5), stable combustion and low polluting emissions (NOx class = 5)
- Maximum operating pressure: 6 bar
- Delivery and return connection with 2" threaded connections
- 1"1/4 gas supply connection
- Electrical protection rating IP 20
- Hydraulic circuit drain cock
- Condensate outlet siphon
- NTC probe to control the delivery temperature
- NTC probe to control the return temperature
- Flue gas safety NTC probes
- Manual reset overtemperature safety thermostat on the heat exchanger body
- Maximum DHW and heating output adjustable individually
- Electronics can interface with remote management systems
- Remote alarm dry contact for boiler faults
- Innovative climatic adjustment 5+1 parameters
- Modulating input management 0...10 V
- Zone controlling connections using OpenTherm
- PWM management of the primary pump
- Secondary pump and DHW/diverter pump management
- Production of DHW through combination with the remote water heater, managed by the electronic control unit of the boiler
- Inspection window on the control panel allowing the user to see the flame
- User interface with graphic display with symbols and self-diagnostics, with error codes and programming keys
- Electronic start-up with double electrode ionisation flame control
- Low polluting emissions class 5 according to UNI-EN 297: CO< 35 ppm and NOx <20 ppm.

The generator can be combined in a cascade with a simple bus connection (does not require external regulators). Using the designated hydraulic accessories, the boiler plant can be easily installed and is ready to combine the thermal units consisting of up to 4 boilers.

#### System for heating only



- Thermal unit
- Condensate outlet siphon
- 3. Condensate neutraliser
- 4.
- 5. INAIL safety module
- Primary pump
- Hydraulic separator 7. 8. Purification filter
- Shut-off valve

- **Delivery collector** 10.
- 11 Return collector
- 12. System pump

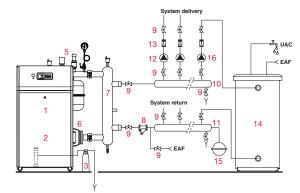
14.

- 13. Non-return valve

Expansion vessel

FAF Cold water inlet

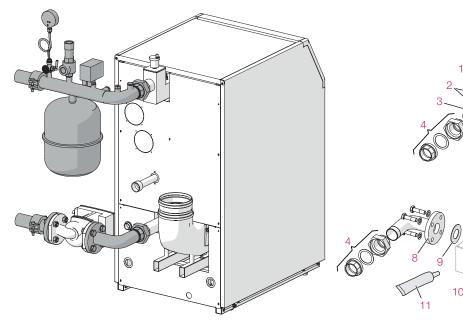
#### **System for heating and DHW production** with downstream water heater



- Thermal unit
- Condensate outlet siphon 2.
- 3. Condensate neutraliser
- 4. Drain
- 5. INAIL safety module
- 6. Primary pump
- 7. Hydraulic separator
- 8. Purification filter
- 9. Shut-off valve Delivery collector

- Return collector 11.
- 12. System pump
- 13. Non-return valve
- 14. Remote water heater
- Expansion vessel 15. Water heater pump 16.
- **EAF** Cold water inlet
  - DHW users

#### **Base primary ring**



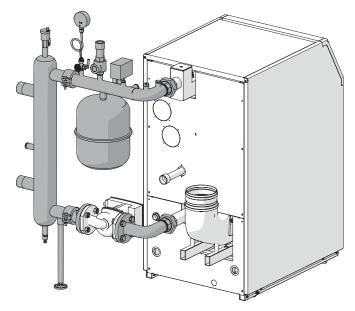
- G1/2 M Plug
- 1" Gasket
- INAIL stub pipe
- 4. 3-part joint
- Thermometer
- 3/4" Gasket

- Expansion vessel
- 8. Flanged stub pipe
- Primary pump gasket 9
- 10. Primary pump (\*) 11. Grease for joints
- Flanged stub pipe
- 13.
- Split coupling Stub pipe DN50 L100 3-way cock 14.
- 15.
- 16. Insulation ring with gaskets
- 17. Pressure gauge
- Safety valve 18.

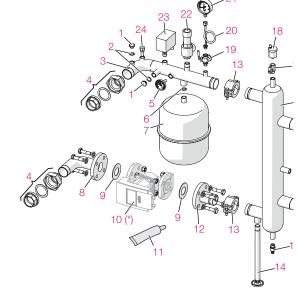
- Water pressure switch (reducer supplied)
- Probe holder

(\*) Component supplied in a separate kit (optional).

#### Primary ring with hydraulic separator



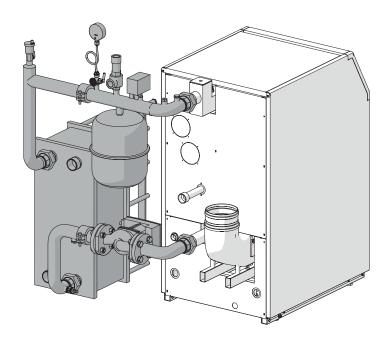
- G1/2 M Plug
- 2. 1" Gasket
- INAIL stub pipe
- 3-part joint 5. Thermometer
- 6. 7. 3/4" Gasket
- Expansion vessel
- 8. Flanged stub pipe
- Primary pump gasket 9.
- 10. Primary pump (\*)
- Grease for joints
- 12. Flanged stub pipe 13. Split coupling
- Hydraulic separator mount

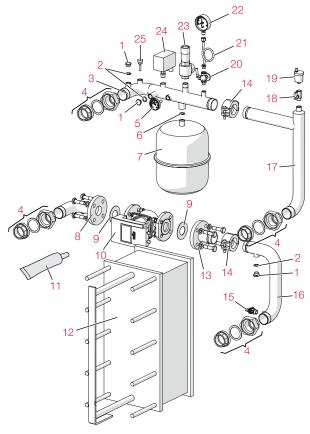


- 15. Drain cock
- Hydraulic separator 16.
- G1/2 MF cock 17.
- 18. Automatic bleed valve
- 19. 3-way cock
- Insulation ring with gaskets 20.
- 21. Pressure gauge
- Safety valve
- Water pressure switch (reducer supplied)
- Probe holder



#### Primary ring with exchanger





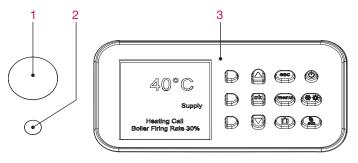
- G1/2 M Plug 1" Gasket INAIL stub pipe 2.
- 3-part joint
- 4. 5. 6. 7. Thermometer
- 3/4" Gasket
- Expansion vessel
- 8.
- Flanged stub pipe Primary pump gasket Primary pump 9. 10.
- Grease for joints
- Hydraulic exchanger Flanged stub pipe Split coupling 12.
- 13.

- Drain cock
- 16.
- Exchanger return pipe
  Exchanger delivery pipe 17.
- G1/2 MF cock
- 19. Automatic bleed valve
- 20.
- 3-way cock Insulation ring with gaskets

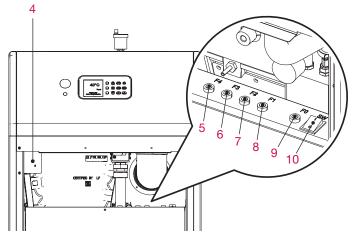
- Pressure gauge Safety valve Water pressure switch (reducer supplied)
- Probe holder

#### Control panel and user interface

The control panel of the Powercond is equipped with the components indicated below, and is simple and intuitive to use.

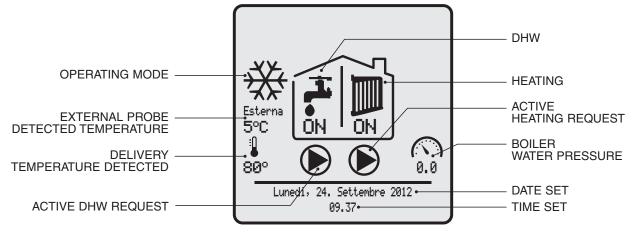


- Flame screen
- 2. Lockout warning light indication tripping of the INAIL safety devices
- User interface board
- Safety Thermostat with manual reset
- Primary pump fuse 1 (6.3A)
- Water heater pump fuse (6.3A)
- Primary pump fuse 2 (6.3A)
- Cascade pump fuse (6.3A)
- Main fuse (10A)
- Main switch with light signalling indicators



Button	Function description			
Н	ON/STAND-BY STAND-BY: Stops the appliance, preventing the use of the buttons on the user interface board. ON: Starts the appliance, authorising the use of the buttons on the user interface board.			
ı	OPERATING MODE SUMMER: only DHW production. WINTER: heating only or heating and DHW. NONE: neither heating, nor DHW. Anti-freeze or "Manual Test" active.			
J	<b>ECO - Manual:</b> Reduces the set temperature of the DHW and the heating water (reduced operation).			
Ε	<b>ESC:</b> Stops the activity currently in progress and returns to the home screen.			
F	<b>MENU:</b> Shows the menu selection page (USER or TECHNICAL).			
G	<b>HOLIDAY:</b> Sets the holiday start and end dates and the temperatures for the DHW and the heating water for this period.			

Button	Function description
B D	UP: Scrolls upwards through the rows on the screen. DOWN: Scrolls downwards through the rows on the screen. Press and hold for quick skip.
С	OK Used for: - opening the selected row in the menu or submenu; - confirming a new value where data has been changed.
Α	RED (top) Used for: - accessing the USER menu; - increasing the value to be changed. Press and hold for quick skip.
Α	RED (middle) Used for: - accessing the TECHNICAL menu; - reducing the value to be changed. Press and hold for quick skip.
Α	RED (bottom) Returns to the selected row without saving/storing the changed value.

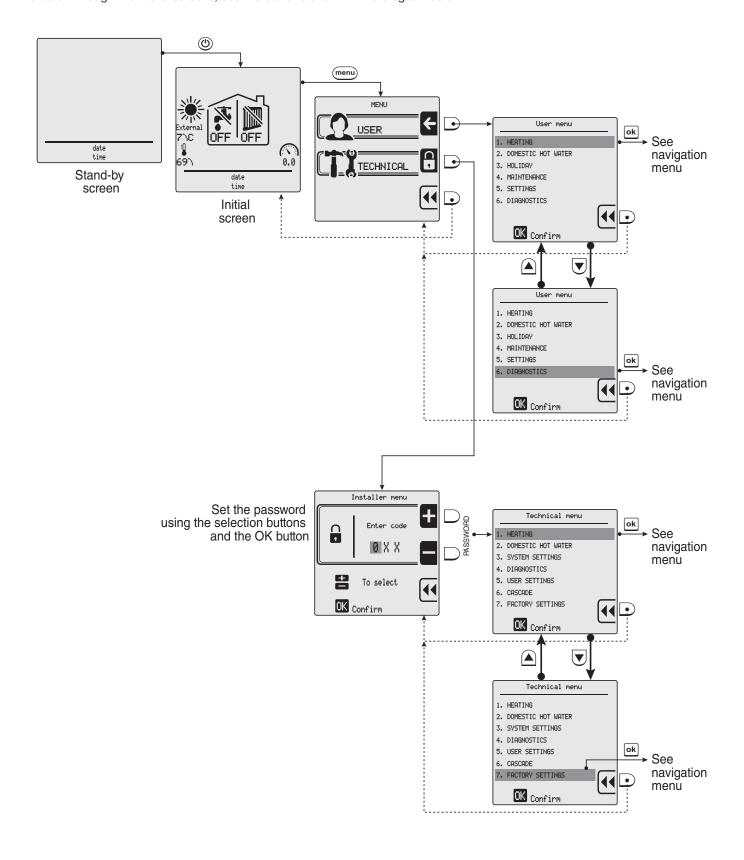




#### **Navigation procedure**

The appliance leaves the factory configured in STAND-BY mode.

To scroll through the menu screens, use the buttons shown in the diagram below.

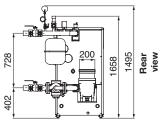


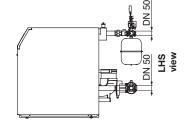
	Powercond	U.M.	115	150	200	240	280
	Series				Powercond		
Classification	Category		II2H3P				
	Country of destination		EN				
	Туре		B23, B33, C43, C53, C63, C83				
	Efficiency directive rating		Condensing boiler				
Heat inputs	Nominal heat input (ref. Lower calorific power value)	kW	113.0	150.0	200.0	235.0	275.0
	Minimum heat input (ref. Lower calorific power value)	kW	21.0	30.0	35.5	42.5	49.5
Jseful output	Nominal useful output (60/80°C)	kW	109.7	146.7	196.0	229.8	269.2
	Minimum useful output (60/80°C)	kW	20.0	29.0	34.7	41.5	48.3
	Nominal useful output (30/50°C)	kW	116.1	156.2	207.8	243.9	285.5
	Minimum useful output (30/50°C)	kW	22.6	32.3	38.2	45.7	53.2
Efficiency	Efficiency measured at nominal heat input (60/80°C)	%	97.1	97.8	98.0	97.8	97.9
	Efficiency measured at nominal heat input (30/50°C)	%	102.7	104.1	103.9	103.8	103.8
	Efficiency measured at 30% of load (30°C return)	%	107.6	107.5	107.5	107.5	107.5
	Efficiency measured at minimum heat input (60/80°C)	%	95.0	96.5	97.7	97.6	97.5
	Efficiency measured at minimum heat input (30/50°C)	%	107.6	107.5	107.5	107.5	107.5
	Star rating		***				
	Heat loss at the flue with burner operating $(P_t)$	%	2.1	1.5	1.4	1.5	1.4
	Heat loss into the room through the casing $(P_d)$	%	0.8	0.7	0.6	0.7	0.7
Emissions	T flue gas at outlet with nominal heat input (60/80°C) - Gas G20	°C			65 - 70		
	T flue gas at outlet with minimum heat input (60/80°C) - Gas G20	°C			60 - 65		
	T flue gas at outlet with nominal heat input (30/50°C) - Gas G20	°C			40 - 45		
	Flue gas mass flow rate with nominal heat input (60/80°) - Gas G20	kg/s	0.0531	0.0740	0.0940	0.1104	0.1292
	Flue gas mass flow rate with minimum heat input (60/80°) - Gas G20	kg/s	0.0101	0.0144	0.0170	0.0204	0.0237
	Air mass flow rate with nominal heat input - Gas G20	kg/s	0.0507	0.0673	0.0898	0.1050	0.1230
	Air mass flow rate with minimum heat input - Gas G20	kg/s	0.0097	0.0139	0.0164	0.0197	0.0229
	CO <sub>2</sub> max / min - G20	%			9.3 / 9.1		
	CO <sub>2</sub> max / min - G31	%			10.6 / 10.3		
	CO - G20	ppm	25	30	35	30	28
	NOx - G20	ppm	15	20	18	18	18
	NOx class				5		
	Maximum condensate quantity	dm³/h	15	19	25	30	36
	pH of the condensate (UNI 11071 2003)	рН			4		

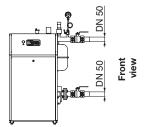


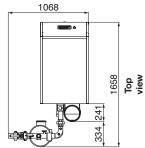
	Powercond	U.M.	115	150	200	240	280
Gas flow rates	Nominal gas flow rate G20	m³/h	11.96	15.87	21.16	24.87	29.10
	Nominal gas flow rate G31	kg/h	8.78	11.66	15.54	18.26	21.37
	Minimum gas flow rate G20	m³/h	2.22	3.17	3.76	4.50	5.24
	Minimum gas flow rate G31	kg/h	1.63	2.33	2.76	3.30	3.85
Electrical specifica-	Voltage / Frequency	V ~ Hz			230 ~ 50		
tions	Absorbed power	W	225	260	320	320	320
	Protection rating (according to EN 60529)				IP XOD		
Supply pressures	Minimum supply pressure G20	mbar			17		
	Nominal supply pressure G20	mbar			20		
	Maximum supply pressure G20	mbar			25		
	Minimum supply pressure G31	mbar			25		
	Nominal supply pressure G31	mbar			37		
	Maximum supply pressure G31	mbar			45		
Boiler specifications	Adjustable temperature	°C			20 - 85		
	Maximum operating temperature	°C			90		
	Maximum / minimum pressure	bar			6 / 1.2		
	Water content	1	15.3	18.0	22.9	25.6	28.4
	Head losses water side ΔT 20	mbar	80	80	90	90	100
	ΔT Maximum delivery/return at Pn max	°C			25		
	ΔT Maximum delivery/return at Pn min	°C			35		
	Water flow rate △T 20	m³/h	4.86	6.45	8.60	10.11	11.83
	Water flow rate ∆T 10	m³/h	9.72	12.90	17.20	20.21	23.65
Boiler dimensions	Height				1200		
	Width				640		
	Depth (including flue)	mm	1100	1100	1320	1320	1320
Boiler weight	Net	kg	180	190	240	257	274
Flue gas / air	Flue fitting	Ø	150	150	200	200	200
duct specifications	Air fitting	Ø			100		
	Maximum straight line length	m	28	24	20	16	10

### Measurements and overall dimensions of 1 boiler with base primary ring (no separator / no heat exchanger / no pump)

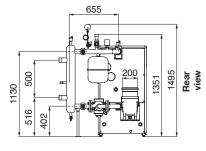


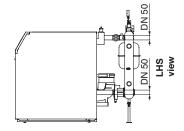


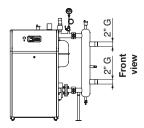


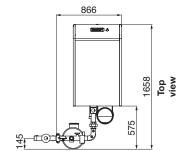


#### Measurements and overall dimensions of 1 boiler with separator primary ring

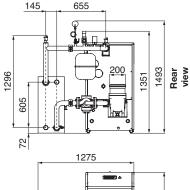


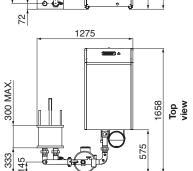


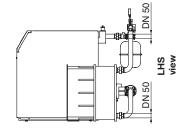


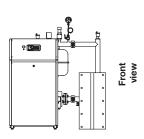


### Measurements and overall dimensions of 1 boiler with HEAT EXCHANGER complete with pump



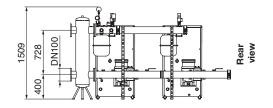


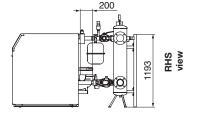


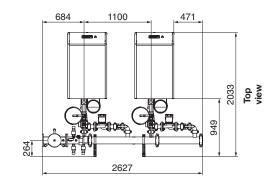




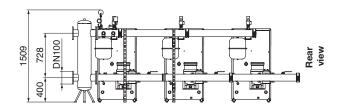
#### Measurements and overall dimensions of 2 cascade boilers

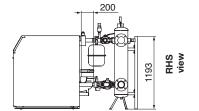


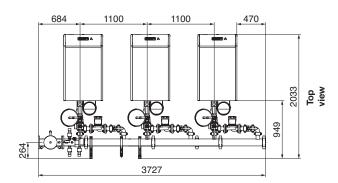




### Measurements and overall dimensions of 3 cascade boilers

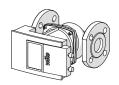




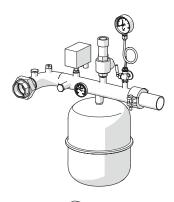




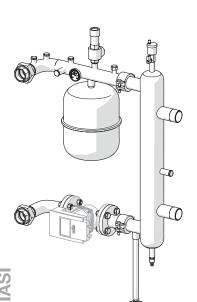
Description	Code	Output (kW)
Powercond 115 boiler	10568.2000.1	115
Powercond 150 boiler	10568.2001.1	150
Powercond 200 boiler	10568.2002.1	200
Powercond 240 boiler	10568.2003.1	240
Powercond 280 boiler	10568.2004.1	280



Description	Code	Output (kW)
Pump kit (0.5-8 MT)	10999.1079.0	All



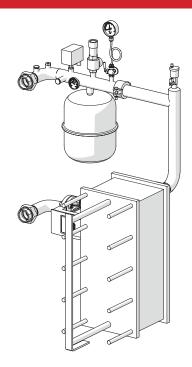
Description	Code	Output (kW)
Base primary ring kit (no separator / no heat exchanger / no pump)	10999.1092.0	All



Description	Code	Output (kW)
Single boiler separator primary ring kit (no pump)	10999.1085.0	All

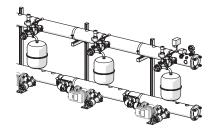
## ERP FLOOR-STANDING CASCADE LINE





Description	Code	Output (kW)
Kit 115 HEAT EXCHANGER complete with pump	10999.1086.0	115
Kit 150 HEAT EXCHANGER complete with pump	10999.1088.0	150
Kit 200 HEAT EXCHANGER complete with pump	10999.1089.0	200
Kit 240 HEAT EXCHANGER complete with pump	10999.1090.0	240
Kit 280 HEAT EXCHANGER complete with pump	10999.1091.0	280

Description	NO. boilers	Code
	Separator assembly	14350.0038.0
Hudraulia canaratar	Drain cock	4022.3135.76
Hydraulic separator	Cock 1/2" G MF	4022.3134.18
	Bleed valve 1/2" G	4021.1198.00



Description	NO. boilers	Code
	1 Boiler	N/A
cascade probe holder (excluding safety valve and pump)	2 Boilers	10999.4000.0
	3 Boilers	10999.4001.0

Description	Code	Output (kW)
VS INAIL 5.4 bar 3/4"Gx1"G **	10999.0489.0	All



Description	Code	Output (kW)
Cascade/ remote water heater probe kit	10999.0576.0	All



Description	Code	Output (kW)
Cascade connection wiring kit	10999.1139.0	All



Description	Code	Output (kW)
External probe kit	10999.3417.0	All

Description	Code	Output (kW)		
Condensate neutraliser kit	10999.0664.0	All		

# Powercond (320 kW to 580 kW)

















Lightweight, compact design occupying minimal space.

Silent operation.

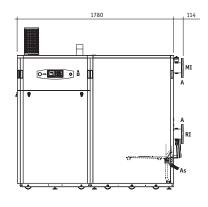
Modular structure.

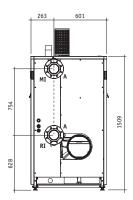
Intuitive user interface.

Heat input at firebox from 320 to 585 kW.

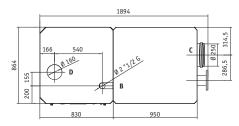
Efficiency class in accordance with EcoDesign requirements (Reg. 813/2013/EC). Class 6 NOx.

#### **Dimensions and connections**





- A Water connections DN100 PN16
- B Gas connection G2"1/2 male
- C Flue gas outlet DN250
- D Air inlet DN160



			Boile	er tech	nical da	ata						
	Nominal Nominal Minimum heat input useful heat useful heat useful heat		LHV efficiency			Dimensions (mm)						
Model	Code	LHV kW	output (80/60°C) kW	output (50/30°C) kW	output (80/60°C) kW	A nominal power (50/30°C)	A nominal power (80/60°C)	At 30% of load	w	Н	D	Weight kg
Powercond 340	10168.2013.0	320	313.6	340.2	57	106.3	98.0	109.1	2,000	1,509	865	410
Powercond 425	10168.2014.0	390	383	412.6	66.9	105.8	98.2	107.9	2,000	1,509	865	440
Powercond 510	10168.2015.0	460	452	488	79.4	106.0	98.2	108.9	2,000	1,509	865	470
Powercond 595	10168.2016.0	520	511	551	89.0	106.0	98.2	107.8	2,000	1,509	865	500
Powercond 620	10168.2017.0	585	575	620	100.8	106.0	98.2	107.0	2.000	1.509	865	535





#### Main features:

- High modulation range (18% to 100 % power)
- Maximum DHW and heating output adjustable individually
- Certified for gas category I2H (methane)
- Boiler panel can be moved, meaning you can choose which side of the boiler will face the wall
- Front casing can be opening without any tools
   Space provided to house
   condensate neutraliser inside the boiler
- Boiler and pallet can be divided into two parts to facilitate handling
- Air suction unit has sliding mechanism for easy maintenance
- Mixing unit has a check valve to prevent flue gas leakage in cascade systems
- Option to pair in cascade with a simple bus connection (no external regulators required)
- Electronics can interface with remote management systems
- Innovative 5+1 climatic adjustment parameters
- Modulating input management 0-10 V (temperature or power)
- Connections to zone controls using OpenTherm
- PWM management of the primary pump and cascade
- · Secondary pump and DHW/diverter pump management
- DHW production via combination with remote water heater, managed by boiler electronics
- Light or contact powered (230 V AC) for INAIL lock
- Remote alarm dry contact for boiler faults.

<sup>\*</sup> In combination with a class V or higher temperature-control device.

On request							
	Description	Details	Code				
	External probe	By connecting a probe outside the boiler room, the boiler regulates the temperature according to the temperature detected outside.	10999.3417.0				
	Hot water heater probe	3-metre probe. 10 K $\Omega$ sensor.	10999.0576.0				
785 mm	DN 100 INAIL stub pipe kit	INAIL kit including safety devices according to regulation Raccolta R/09, and an expansion vessel (safety valve not supplied)	10999.1173.0				
960 mm	Return manifold kit DN 100 with pump	Return kit DN 100 including circulation pump	10999.1174.0				
	Condensate neutraliser	Condensate neutraliser for up to 1500 kW	10999.0664.0				
	VS 5.4 bar 1"Gx1"1/4G	Certified safety valve	10999.0489.0				

## **Technical specifications**

Description			Powercond			
Description	340	425	510	595	620	
uel			G20 (20 mbar)			
estination country			ITALY			
Appliance category			I2H			
appliance type		В	23p, C43, C53, C63, C	C83		
Max. rated heat input (Qn)	320.0	390.0	460.0	520.0	585.0	kW
Ainimum heat input (Qmin)	57.0	69.0	81.0	92.0	104.0	kW
lominal heat output (80-60°C) (Pn)	313.6	383.0	451.7	510.6	574.5	kW
Nominal heat output (50-30°C)	340.2	412.6	487.6	551.2	620.1	kW
Minimum heat output (80-60°C) (Pmin)	55.2	66.9	79.4	89.0	100.8	kW
FFICIENCY	00.2	00.0	70.4	00.0	100.0	IXIV
seful efficiency at Pn (80-60°C)	98.0	98.2	98.2	98.2	98.2	%
seful efficiency at Pn min (80-60°C)	96.9	97.0	98.0	96.7	96.9	%
Iseful efficiency at Pn (50-30°C)	106.3	105.8	106.0	106.0	106.0	%
Iseful efficiency at 30% (return 30°C)	109.1	107.9	108.9	107.8	107.0	%
Max. gas consumption (G20)	35.621	41.784	49.208	54.978	62.100	m³/h
Ain. gas consumption (G20)	5.997	7.512	8.679			
MISSIONS	0.887	7.312	0.079	9.924	11.258	m³/h
	61.2	60.7	62.2	62.7	60.6	°C
lue gas temperature (80-60°C) at Pn	61.3	60.7	62.3	63.7	62.6	
lue gas temperature (80-60°C) at min. Pn	53.5	55.0	55.1	54.0	55.5	°C
lue gas temperature (50-30°C) Pn	41.6	42.9	40.8	41.5	41.4	°C
lue gas temperature (50-30°C) min. Pn	28.6	29.1	29.3	29.3	29.5	°C
lue gas mass flow rate at Pn (80-60°C)	144.7	176.9	203.9	232.8	273.7	g/s
lue gas mass flow rate at min. Pn (80-60°C)	24.8	32.1	36.3	42.9	49.1	g/s
Max. condensation production	27.6	34.7	42.8	51.2	54.9	l/h
O <sub>2</sub> max/min (G20)	9.7/9.5	9.4/9.3	9.5/9.4	9.4/9.2	9.4/9.1	%
0 max/min (G20)	76/12	67/9	82/15	79/9	57/5	ppm
10x	47	34	58	47	52	mg/kWh
IOx CLASS	6	6	5	6	6	-
LECTRICAL DATA						
bsorbed electric power	500	563	771	658	689	W
ower supply voltage			220-240 ~ 50/60			V ~ Hz
rotection rating			XOD			IP
BOILER						
Max heating pressure			6			bar
Maximum operating temperature			85			°C
leating water contents	45.0	50.6	56.3	61.9	67.6	ı
oad loss water side ΔT nom. (20°C)	85.14	81.31	79.58	76.04	75.32	mbar
\T Maximum delivery/return	00.14	01.31	35	70.04	10.02	°C
*	10.770	10.005		01.040	04.007	
lominal water flow ΔT (20°C)	13.773	16.635	19.831	21.848	24.837	m³/h
Vater flow ΔT 15°C	18.364	22.180	26.441	29.131	33.116	m³/h
Combustion chamber back pressure: ignition	0.80	1.26	0.95	0.85	0.90	mbar
ombustion chamber back pressure: minimum	0.14	0.12	0.11	0.11	0.12	mbar
Combustion chamber back pressure: maximum	3.30	3.20	3.05	2.80	2.78	mbar
nlet air speed Pn	6.2	7.71	9.4	8.1	12.4	m/s
nlet air flow rate Pn	448.766	558.062	680.387	586.279	897.085	m³/h
nlet air speed min. Pn	0.2	0.81	0.9	1.2	1.5	m/s
nlet air flow rate min. Pn	14.476	58.629	65.143	86.856	108.573	m³/h
LUE GAS OUTLET						
lue outlet fitting			250			Ø mm
ir inlet connection			160			Ø mm
otal residual head (outlet + inlet)	170	170	170	170	120	Pa
AN						, u
umber of rotations Pn	5000	5200	5700	5350	4100	revs/mir
lumber of rotations min. Pn	1150	1200	1250	1200	900	revs/mir
lumber of rotations ignition Pn	2450	2400	2400	2400	1750	revs/min
IMENSIONS and WEIGHT						
/idth			864			mm
lepth (including flue)			1894			mm
leight (excluding inlet grille) Veight	410	440	1525 470	500	535	mm Kg













