



## GENERAL CATALOGUE 2024

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Nova Florida is a Fondital brand, Fondital is the first manufacturer of die-cast aluminium radiators worldwide as well as the international leader in heating systems. This is the result of the focus on sustainable innovation in R&D, production renewal related to study of the products, the constant development and training of human resources and the attention to well-being of its employees.

Fondital establishes with its clients strategic partnerships that go beyond a simple supplier-client relationship, but are based on information sharing and customer orientation, maintaining focus on environmental sustainability.





## VISION

We want to be an innovative company in the production of efficient and sustainable products, creating strong partnerships with our stakeholders, enhancing our local roots to be a global reference.

## MISSION

Our mission is to produce heating systems and structural castings for the automotive sector, manufacturing high-quality products using the latest industrial technologies. We are committed to operating efficiently, minimising our energy consumption and promoting sustainable processes that respect the environment. We also want to be a centre of expertise and added value for the territory in which we operate.

## FONDITAL WORLDWIDE

Fondital is market leader internationally. Multilingual staff and representation offices assure a constant presence on the global market, as evidence of its customer oriented vision. Fondital is constantly growing, thanks to its ability to interpret customer needs and

changes, and to the ability to constantly adapt its supply to the new end market needs with process and product innovations.



■ Active markets

# CONTENTS



## CONDENSING BOILERS

PAGE 13

Wall-hung boilers <35kW	page 14
Technical specifications of condensing boilers	page 36



## STANDARD BOILERS

PAGE 49

Wall-hung boilers <35kW	page 50
Floor-standing boilers with gas-fired atmospheric burner	page 92
Technical specifications of standard boilers	page 102



## FLUE FITTINGS AND ACCESSORIES

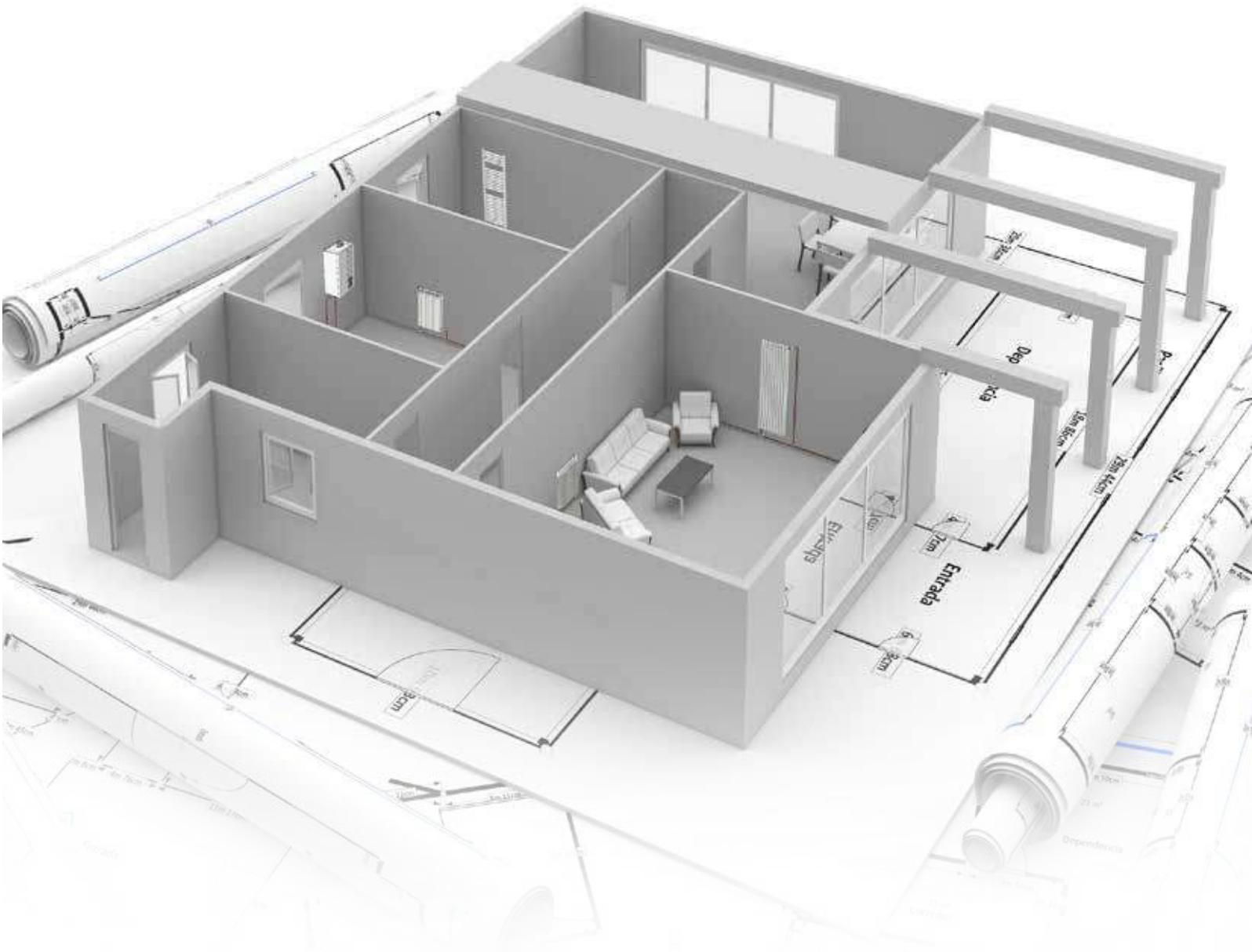
PAGE 123

Flue fittings	page 124
Accessories	page 144

# FONDITAL AND BIM: INNOVATION IN PROJECT DESIGN

Fondital products full range has been added to BIMobject, the world's largest platform of BIM content.

Therefore, you can download the product files and insert them into the desired project by directly accessing all the specific and detailed information for each prototype.



**bimobject**<sup>®</sup>

Download the Fondital products from [www.bimobject.com/en/fondital](http://www.bimobject.com/en/fondital)

# PRODUCT RANGE





MODEL	CONDENSING	STANDARD	BOILER BODY	HEATING	INSTANTANEOUS DHW PRODUCTION	INTEGRATED STORAGE TANK	REMOTE STORAGE TANK	SOLAR EASY	WALL-HUNG	FLOOR-STANDING	CASCADE-TYPE INSTALLATION	< 35 KW	> 35 KW
ORION KC	●				●			●	●			●	
ORION KR	●			●			●	●	●			●	
ORION KRB	●			●			●	●	●			●	
ORION KB	●					●		●	●			●	
VIRGO KC	●				●			●	●			●	
VIRGO KR	●			●			●	●	●			●	
VIRGO KRB	●			●			●	●	●			●	
DELFI KC	●				●			●	●			●	
DELFI KR	●			●			●	●	●			●	
DELFI KRB	●			●			●	●	●			●	
LEO KC	●				●				●			●	

MODEL	CONDENSING	STANDARD	BOILER BODY	HEATING	INSTANTANEOUS DHW PRODUCTION	INTEGRATED STORAGE TANK	REMOTE STORAGE TANK	SOLAR EASY	WALL-HUNG	FLOOR-STANDING	CASCADE-TYPE INSTALLATION	< 35 KW	> 35 KW
ORION CTFS		●			●			●	●			●	
ORION RBTFS		●		●			●	●	●			●	
ORION RTFS		●		●			●	●	●			●	
VIRGO CTFS		●			●			●	●			●	
VIRGO CTN		●			●			●	●			●	
VIRGO RBTFS		●		●			●	●	●			●	
VIRGO RBTN		●		●			●	●	●			●	
VIRGO RTFS		●		●			●	●	●			●	
VIRGO RTN		●		●			●	●	●			●	
DELFI CTFS		●			●				●			●	
DELFI CTN		●			●				●			●	
DELFI RBTFS		●		●			●	●	●			●	
DELFI RBTN		●		●			●		●			●	
DELFI RTFS		●		●			●	●	●			●	
DELFI CTFS 40		●			●			●	●				●
DELFI RBTFS 40		●		●			●		●				●
DELFI RTFS 40		●		●			●		●				●
VEGA CTFS		●			●			●	●			●	
NIBIR CTFS		●			●				●			●	
NIBIR CTFS (CU)		●			●				●			●	
NIBIR CTN (CU)		●			●				●			●	
ALTAIR RTN PVE		●		●			●			●		●	●
ALTAIR RTN T		●		●			●			●		●	●
DRAGO DUAL		●	●	●			●			●	●	●	●



## SYMBOLS



**CONDENSING**  
Condensing boiler



**STANDARD**  
Standard boiler



**OUTDOOR INSTALLATION**  
Boiler that can be installed outdoors, in a partially protected place



**INDOOR INSTALLATION**  
Indoor wall-hung boiler



**BUILT-IN INSTALLATION**  
Boiler to be installed in a suitable flush-mounting unit



**FLOOR-STANDING INSTALLATION**  
Indoor floor-standing boiler



**CASCADE-TYPE INSTALLATION**  
Boiler that can be installed in cascade-type connection



**PLATE EXCHANGER**  
Plate DHW exchanger



**26-PLATE HEAT EXCHANGER**  
26-plate DHW heat exchanger



**ALUMINIUM PRIMARY EXCHANGER**  
Aluminium primary exchanger



**STAINLESS STEEL PRIMARY EXCHANGER**  
Stainless steel heat exchanger



**Primary copper heat exchanger**  
Primary copper heat exchanger



**OUTDOOR DHW hot water storage tank**  
Boiler preset for connection to a remote hot water storage tank



**INTEGRATED DHW hot water storage tank**  
Boiler with hot water storage tank



**MODULATION RATIO 1:9**  
Modulation range of heat output in CH and DHW modes



**MODULATION RATIO 1:10**  
Modulation range of heat output in CH up to 1:10



### SOLAR EASY

Boiler that can be combined with natural or forced circulation solar systems



### EASY TO CONTROL

Multilingual menu with detailed access to parameters



### FREEZE PROTECTION

Boiler self-protection system



### REDUCED SIZE

Reduced overall dimensions



### ELECTRONIC IGNITION

Boiler equipped with electronic flame ignition board



### LOW NOx

Low NOx emission boiler - class 6



### ENERGETIC SAVING

Product with high energy efficiency



### TOP COMFORT DHW\*\*\*

High-performance boiler for DHW



### FRONT DOOR FOR ACCESS

Front access for easy maintenance



### COMFORT FUNCTION

Control for activating DHW comfort function



### MODULATING PUMP

High efficiency modulating pump to optimize energy consumption and performance



### MADE IN ITALY

Manufactured in Italy





# CONDENSING BOILERS

## WALL-HUNG BOILERS <35KW

ORION KC	page 14
ORION KR	page 16
ORION KRB	page 18
ORION KB	page 20
VIRGO KC	page 22
VIRGO KR	page 24
VIRGO KRB	page 26
DELFI KC	page 28
DELFI KR	page 30
DELFI KRB	page 32
LEO KC	page 34

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical specifications of condensing boilers	page 36
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# ORION KC

WALL-HUNG CONDENSING BOILER WITH INSTANTANEOUS PRODUCTION OF DHW CAN BE MATCHED TO OUTDOOR INSTALLATION KIT



Available in the following models:



- ▶ Ambient temperature probe supplied as standard
- ▶ Modulation ratio: 1:9
- ▶ Condensation also in DHW operation thanks to the thermally insulated 26-plate DHW heat exchanger
- ▶ Management of one heating zone with ambient temperature probe and two zones with zone kit
- ▶ Double filling system: automatic and manual
- ▶ High domestic hot water production, more power during DHW operation (18 - 28 - 30 - 35 kW)
- ▶ High-efficiency modulating circulation pump with built-in air purging device
- ) Controls to manage two different types of solar thermal systems fitted as standard
- ) Thermosetting polymer-covered stainless steel heat exchanger
- ) Heating expansion vessel - 10 litres
- ) Thermoregulation with external probe (optional)
- ) Sanitary comfort function: ★★★
- ) Automatic by-pass



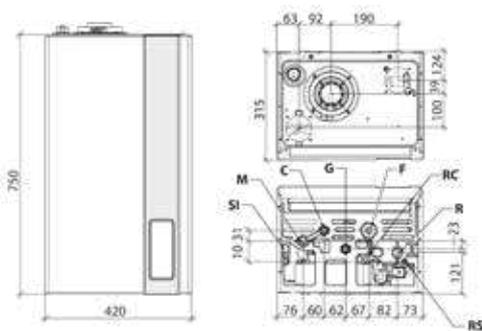
## TOUCH SCREEN INTERFACE

- ▶ Modulation thermostat with ambient probe
- ▶ Day/night temperature level selection
- ▶ Weekly programming
- ▶ Timer and ambient temperature setting
- ▶ DHW "comfort" function enabling: ★★★

The TOUCH SCREEN interface of ORION KC combined with the ambient temperature probe supplied is a class V temperature control system.

Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
KC 12	NATURAL GAS	COTXX2KC12	12,0	18,0	420x750x315	35,5
	PROPANE	COTXX6KC12				
KC 24	NATURAL GAS	COTXX2KC24	23,7	27,3	420x750x315	38,0
	PROPANE	COTXX6KC24				
KC 28	NATURAL GAS	COTXX2KC28	26,4	30,4	420x750x315	39,0
	PROPANE	COTXX6KC28				
KC 32	NATURAL GAS	COTXX2KC32	30,4	34,5	420x750x315	40,5
	PROPANE	COTXX6KC32				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- SI Condensate drain
- M CH system flow (3/4")
- C DHW outlet (1 1/2")
- G Gas inlet (1/2")

- F Cold water inlet (1/2")
- RC Filler tap
- R CH system return (3/4")
- RS Discharge tap





Technical data	um	KC 12	KC 24	KC 28	KC 32
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0	27,3	30,4	34,5
Specific DHW flow $\Delta T=30K$	l/min	8,8	13,4	15,5	16,2
NOx emission class	-	6	6	6	6
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D

(\*\*) with comfort function disabled.

For other technical specifications, see from page 36 - Maximum length of flue gas venting, see page 120



Item	Description	Code
	Coaxial kit $\varnothing$ 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial fitting kit $\varnothing$ 60/100	0KITATCO00
	Splitter kit $\varnothing$ 80+80	0KITSDOP08
	Electrical kit for zone management with external probe	0KITZONE05

Item	Description	Code
	External probe (60x45x31 mm)	0SONDAES01
	Kit for connection to solar plant	0KITSOLC07
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Magnetic dirt separator filter	0AFILDEF00

For other accessories, see from page 119

# ORION KR

WALL-HUNG CONDENSING BOILER CH ONLY

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE (OPTIONAL)



- ▶ **Modulation ratio: 1:9**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Management of one heating zone with ambient temperature probe and two zones with zone kit**
- ▶ **Standard management of one type of solar thermal system**
- ▶ **External hot water storage tank heating setting (optional)**
- ▶ **High-efficiency modulating circulation pump with built-in air purging device**
- ▶ Thermosetting polymer-covered stainless steel heat exchanger
- ▶ Heating expansion vessel - 10 litres
- ▶ Thermoregulation with external probe (optional)
- ▶ Automatic by-pass



## TOUCH SCREEN INTERFACE

- ▶ Modulation thermostat with ambient probe
- ▶ Day/night temperature level selection
- ▶ Weekly programming
- ▶ Timer and ambient temperature setting
- ▶ Heater DHW "comfort" function enabling

Available in the following models:

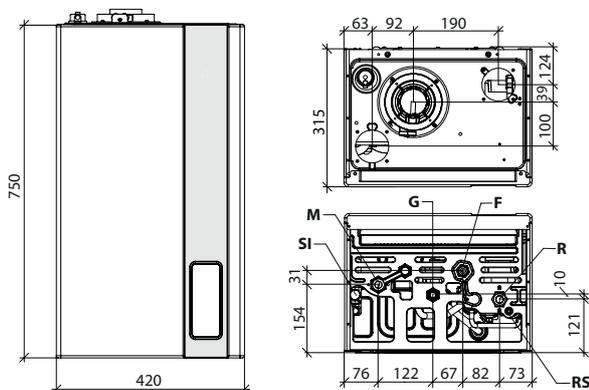


**The TOUCH SCREEN interface of ORION KR combined with the ambient temperature probe supplied is a class V temperature control system.**

Model	Gas type	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
KR 12	NATURAL GAS	COTXX2KR12	12,0	18,0 (*)	420x750x315	34,0
	PROPANE	COTXX6KR12				
KR 24	NATURAL GAS	COTXX2KR24	23,7	27,3 (*)	420x750x315	35,5
	PROPANE	COTXX6KR24				
KR 28	NATURAL GAS	COTXX2KR28	26,4	30,4 (*)	420x750x315	37,0
	PROPANE	COTXX6KR28				
KR 32	NATURAL GAS	COTXX2KR32	30,4	34,5 (*)	420x750x315	38,5
	PROPANE	COTXX6KR32				

(\*) with optional hot water storage tank.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**SI** Condensate drain  
**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")  
**RS** Discharge tap





Technical data	um	KR 12	KR 24	KR 28	KR 32
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
NOx emission class	-	6	6	6	6
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D

(\*) with optional hot water storage tank.

For other technical specifications, see from page 37 - Maximum length of flue gas venting, see page 120



Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial fitting kit Ø60/100	0KITATCO00
	Splitter kit Ø80+80	0KITSDOP08
	hot water storage tank temperature probe 3m	0KITSOND00
	Electrical kit for zone management with external probe	0KITZONE05
	External probe (60x45x31 mm)	0SONDAES01
	Tap kit with filter KR-KB-RT	0KITRUBI04

Item	Description	Code
	Magnetic dirt separator filter	0AFILDEF00
	Coax. adapter kit D.60/100 to D.80/125	0KITADCO00

For other accessories, see from page 119

**Accessories supplied as standard**

Item	Description
	Ambient temperature probe

# ORION KRB

WALL-HUNG CONDENSING BOILER, CH ONLY, WITH INTEGRATED 3-WAY VALVE CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



Available in the following models:



- ▶ **Modulation ratio: 1:9**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Management of one heating zone with ambient temperature probe and two zones with zone kit**
- ▶ **Standard management of one type of solar thermal system**
- ▶ **Integrated 3-way deviating valve**
- ▶ **High-efficiency modulating circulation pump with built-in air purging device**
- ▶ Thermostetting polymer-covered stainless steel heat exchanger
- ▶ Thermoregulation with external probe (optional)
- ▶ Heating expansion vessel - 10 litres
- ▶ Anti-legionella function for hot water storage tank
- ▶ Automatic by-pass
- ▶ External hot water storage tank heating setting (optional)



## TOUCH SCREEN INTERFACE

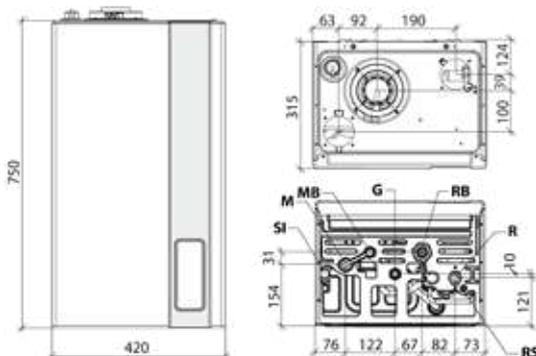
- ▶ *Modulation thermostat with ambient probe*
- ▶ *Day/night temperature level selection*
- ▶ *Weekly programming*
- ▶ *Timer and ambient temperature setting*
- ▶ *Heater DHW "comfort" function enabling*

**The TOUCH SCREEN interface of ORION KRB combined with the ambient temperature probe supplied is a class V temperature control system.**

Model	Gas type	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
KRB 12	NATURAL GAS	COTXX2KU12	12,0	18,0 (*)	420x750x315	36,5
	PROPANE	COTXX6KU12				
KRB 24	NATURAL GAS	COTXX2KU24	23,7	27,3 (*)	420x750x315	37,0
	PROPANE	COTXX6KU24				
KRB 28	NATURAL GAS	COTXX2KU28	26,4	30,4 (*)	420x750x315	38,5
	PROPANE	COTXX6KU28				
KRB 32	NATURAL GAS	COTXX2KU32	30,4	34,5 (*)	420x750x315	40,0
	PROPANE	COTXX6KU32				

(\*) with optional hot water storage tank.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- SI** Condensate drain
- M** CH system flow (3/4")
- MB** Flow for hot water storage tank (1/2")
- G** Gas inlet (1/2")
- RB** Return from hot water storage tank (1/2")
- R** CH system return (3/4")
- RS** Discharge tap





Technical data	um	KRB 12	KRB 24	KRB 28	KRB 32
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
NOx emission class	-	6	6	6	6
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D

(\*) with optional hot water storage tank.

For other technical specifications, see from page 38 - Maximum length of flue gas venting, see page 120



Item	Description	Code	Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00		Electrical kit for zone management with external probe	0KITZONE05
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		External probe (60x45x31 mm)	0SONDAES01
	Coaxial fitting kit Ø60/100	0KITATCO00		Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Splitter kit Ø80+80	0KITSDOP08		Coax. adapter kit D.60/100 to D.80/125	0KITADCO00

For other accessories, see from page 119

# ORION KB

WALL-HUNG CONDENSING BOILER WITH AN INTEGRATED WATER TANK FOR THE PRODUCTION OF DHW



- ▶ **Modulation ratio: 1:9**
- ▶ **Thermally-insulated 45-litre stainless steel hot water storage tank**
- ▶ **hot water storage tank heating setting**
- ▶ **Management of one heating zone with ambient temperature probe and two zones with zone kit**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Heating expansion vessel - 10 litres**
  - ) Thermosetting polymer-covered stainless steel heat exchanger
  - ) Thermoregulation with external probe (optional)
  - ) Anti-legionella function for hot water storage tank
  - ) Prearranged for connection to a recirculation system
  - ) 3-speed circulation pump with built-in air purging device
  - ) Automatic by-pass

Available in the following models:



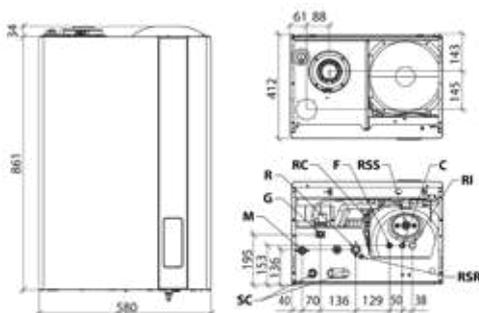
## TOUCH SCREEN INTERFACE

- ▶ *Modulation thermostat with ambient probe*
- ▶ *Day/night temperature level selection*
- ▶ *Weekly programming*
- ▶ *Timer and ambient temperature setting*
- ▶ *Heater DHW "comfort" function enabling*

**The TOUCH SCREEN interface ORION KB combined with the ambient temperature probe supplied is a class V adjustment system.**

Model	Gas type	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
KB 24	NATURAL GAS	COTXX2KB24	23,7	27,3	580x861x412	74,0
	PROPANE	COTXX6KB24				
KB 32	NATURAL GAS	COTXX2KB32	30,4	34,5	580x861x412	79,0
	PROPANE	COTXX6KB32				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- |           |                         |            |                                    |
|-----------|-------------------------|------------|------------------------------------|
| <b>M</b>  | CH system flow (3/4")   | <b>RSS</b> | DHW drain cock                     |
| <b>G</b>  | Gas inlet (1/2")        | <b>C</b>   | DHW outlet (1 1/2")                |
| <b>R</b>  | CH system return (3/4") | <b>RI</b>  | Recirculation inlet (1/2")         |
| <b>RC</b> | Filler tap              | <b>RSR</b> | CH discharge tap                   |
| <b>F</b>  | Cold water inlet (1/2") | <b>SC</b>  | Condensate drain and safety valves |



Technical data	um	KB 24	KB 32
Nominal heat input (Qn)	kW	23,7	30,4
Nominal heat output (80-60°C) (Pn)	kW	23,0	29,4
Heat output (50-30°C)	kW	25,0	32,3
Reduced heat input (Qr)	kW	3,0	4,2
Useful efficiency at nominal input (80-60°C)	%	96,8	96,2
Useful efficiency at nominal input (50-30°C)	%	105,6	106,2
Useful efficiency at 30% (30°C return)	%	107,4	108,3
Heating expansion vessel capacity	l	10	10
DHW nominal heat input	kW	27,3	34,5
Specific DHW flow $\Delta T=30K$	l/min	16,2	19,5
NOx emission class	-	6	6
Electric protection rating	IP	IPX4D	IPX4D

For other technical specifications, see from page 39 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Coaxial kit $\varnothing$ 60/100 length 75cm	0CONDASP00		External probe (60x45x31 mm)	0SONDAES01
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Recirculation kit	0KRIRC02
	Splitter kit $\varnothing$ 80+80	0KITSDOP08		Tap kit with filter KR-KB-RT	0KITRUBI04
	Electrical kit for zone management with external probe	0KITZONE05		Magnetic dirt separator filter	0AFILDEF00

For other accessories, see from page 119

# VIRGO KC

WALL-HUNG CONDENSING BOILER WITH INSTANTANEOUS PRODUCTION OF DHW



- ▶ **Modulation ratio: 1:9**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Controls to manage two different types of solar thermal systems fitted as standard**
- ▶ **High domestic hot water production, more power during DHW operation (18 - 28 - 30 - 35 kW)**
- ▶ **Stainless steel 26-plate DHW heat exchanger**
- ▶ **Heating expansion vessel - 10 litres**
- ) Thermosetting polymer-covered stainless steel heat exchanger
- ) Freeze protection function for heating and hot water storage tank
- ) Thermoregulation with external probe (optional)
- ) Automatic by-pass

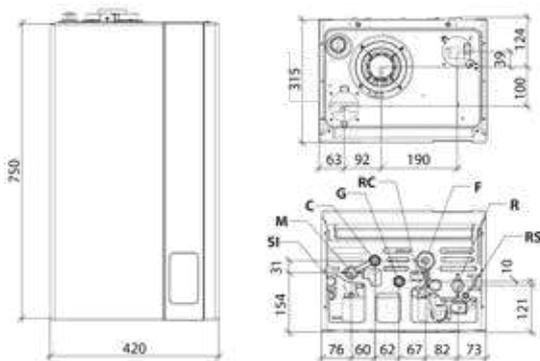


Available in the following models:



Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
KC 12	NATURAL GAS	CVOXX2KC12	12,0	18,0	420x750x315	36,5
	PROPANE	CVOXX6KC12				
KC 24	NATURAL GAS	CVOXX2KC24	23,7	27,3	420x750x315	37,5
	PROPANE	CVOXX6KC24				
KC 28	NATURAL GAS	CVOXX2KC28	26,4	30,4	420x750x315	39,0
	PROPANE	CVOXX6KC28				
KC 32	NATURAL GAS	CVOXX2KC32	30,4	34,5	420x750x315	40,5
	PROPANE	CVOXX6KC32				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- SI Trap inspection cap
- M CH system flow (3/4")
- C DHW outlet (1 1/2")
- G Gas inlet (1/2")

- RC Filler tap
- F Cold water inlet (1/2")
- R CH system return (3/4")
- RS Discharge tap



Technical data	um	KC 12	KC 24	KC 28	KC 32
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0	27,3	30,4	34,5
Specific DHW flow $\Delta T=30K$	l/min	8,8	13,4	15,5	16,2
NOx emission class	-	6	6	6	6
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D

For other technical specifications, see from page 40 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Coaxial kit $\varnothing$ 60/100 length 75cm	0CONDASP00		External probe (60x45x31 mm)	0SONDAES01
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Magnetic dirt separator filter	0AFILDEF00
	Coaxial fitting kit $\varnothing$ 60/100	0KITATCO00		Kit for connection to solar plant	0KITSOLC07
	Splitter kit $\varnothing$ 80+80	0KITSDOP08		Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Electrical kit for zone management with external probe	0KITZONE05		Electric kit for complex solar plant management	0KITSOLC08

For other accessories, see from page 119

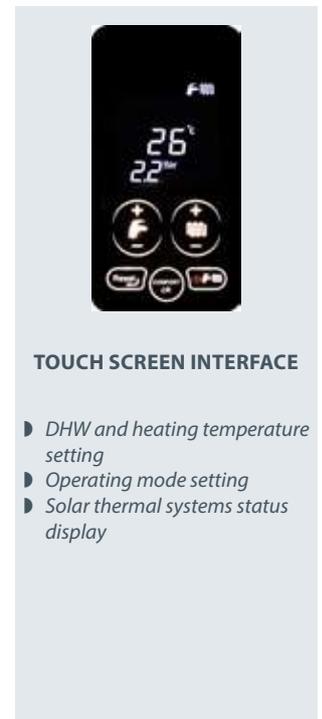
# VIRGO KR

WALL-HUNG CONDENSING BOILER CH ONLY

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE (OPTIONAL)



- ▶ **Modulation ratio: 1:9**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Standard management of one type of solar thermal system**
- ▶ **Heating expansion vessel - 10 litres**
  - ) Thermosetting polymer-covered stainless steel heat exchanger
  - ) Anti-legionella function for hot water storage tank
  - ) Automatic by-pass
  - ) Thermoregulation with external probe (optional)
  - ) 3-speed circulation pump with built-in air purging device



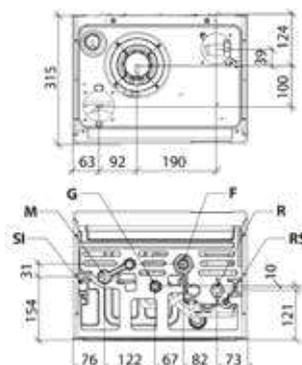
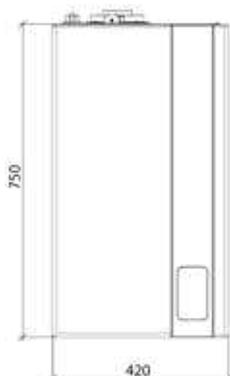
Available in the following models:



Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
KR 12	NATURAL GAS	CVOXX2KR12	12,0	18,0 (*)	420x750x315	34,0
	PROPANE	CVOXX6KR12				
KR 24	NATURAL GAS	CVOXX2KR24	23,7	27,3 (*)	420x750x315	36,0
	PROPANE	CVOXX6KR24				
KR 28	NATURAL GAS	CVOXX2KR28	26,4	30,4 (*)	420x750x315	37,5
	PROPANE	CVOXX6KR28				
KR 32	NATURAL GAS	CVOXX2KR32	30,4	34,5 (*)	420x750x315	39,0
	PROPANE	CVOXX6KR32				

(\*) with optional hot water storage tank.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**SI** Trap inspection cap  
**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")  
**RS** Discharge tap

Technical data	um	KR 12	KR 24	KR 28	KR 32
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
NOx emission class	-	6	6	6	6
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D

(\*) with optional hot water storage tank.

For other technical specifications, see from page 41 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00		External probe (60x45x31 mm)	0SONDAES01
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		hot water storage tank temperature probe 3m	0KITSOND00
	Coaxial fitting kit Ø60/100	0KITATCO00		Magnetic dirt separator filter	0AFILDEF00
	Splitter kit Ø80+80	0KITSDOP08		Tap kit with filter KR-KB-RT	0KITRUBI04
	Electrical kit for zone management with external probe	0KITZONE05		Electric kit for complex solar plant management	0KITSOLC08

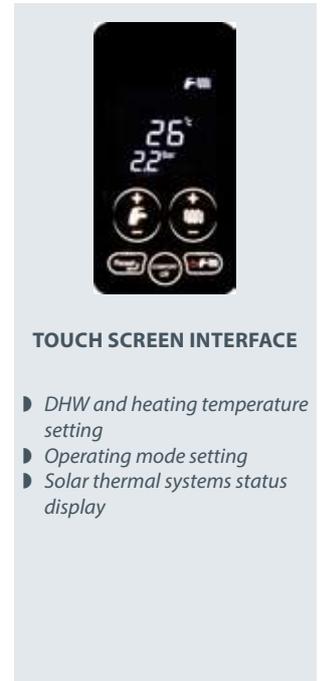
For other accessories, see from page 119

# VIRGO KRB

WALL-HUNG CONDENSING BOILER, CH ONLY, WITH INTEGRATED 3-WAY VALVE CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



- ▶ **Modulation ratio: 1:9**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Standard management of one type of solar thermal system**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Integrated 3-way deviating valve**
- ▶ **Heating expansion vessel - 10 litres**
- ) Thermosetting polymer-covered stainless steel heat exchanger
- ) CH water flow rate electronic control
- ) Freeze protection function for heating and hot water storage tank
- ) 3-speed circulation pump with built-in air purging device
- ) Automatic by-pass



**TOUCH SCREEN INTERFACE**

- ▶ DHW and heating temperature setting
- ▶ Operating mode setting
- ▶ Solar thermal systems status display

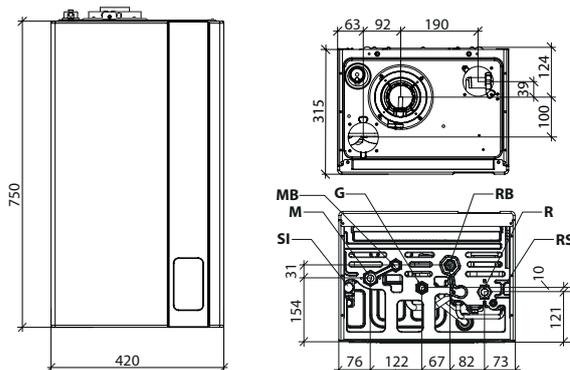
Available in the following models:



Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
KRB 12	NATURAL GAS	CVOXX2KU12	12,0	18,0 (*)	420x750x315	35,5
	PROPANE	CVOXX6KU12				
KRB 24	NATURAL GAS	CVOXX2KU24	23,7	27,3 (*)	420x750x315	37,0
	PROPANE	CVOXX6KU24				
KRB 28	NATURAL GAS	CVOXX2KU28	26,4	30,4 (*)	420x750x315	38,0
	PROPANE	CVOXX6KU28				
KRB 32	NATURAL GAS	CVOXX2KU32	30,4	34,5 (*)	420x750x315	39,0
	PROPANE	CVOXX6KU32				

(\*) with optional hot water storage tank.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- |           |   |           |   |
|-----------|---|-----------|---|
| <b>SI</b> | Trap inspection cap                             | <b>RB</b> | Secondary return from hot water storage tank (1/2") |
| <b>M</b>  | CH system flow (3/4")                           | <b>R</b>  | CH system return (3/4")                             |
| <b>MB</b> | Secondary flow to hot water storage tank (1/2") | <b>RS</b> | Discharge tap                                       |
| <b>G</b>  | Gas inlet (1/2")                                |           |   |



Technical data	um	KRB 12	KRB 24	KRB 28	KRB 32
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
NOx emission class	-	6	6	6	6
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D

(\*) with optional hot water storage tank.

For other technical specifications, see from page 42 - Maximum length of flue gas venting, see page 120



Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Splitter kit Ø80+80	0KITSDOP08
	Coaxial fitting kit Ø60/100	0KITATCO00
	External probe (60x45x31 mm)	0SONDAES01
	Electrical kit for zone management with external probe	0KITZONE05
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05

Item	Description	Code
	Magnetic dirt separator filter	0AFILDEF00
	Temperature probe for solar plants	PSPTMILL00

For other accessories, see from page 119

**Accessories supplied as standard**

Item	Description
	hot water storage tank temperature probe 3m

# DELFI KC

WALL-HUNG CONDENSING BOILER WITH INSTANTANEOUS PRODUCTION OF DHW



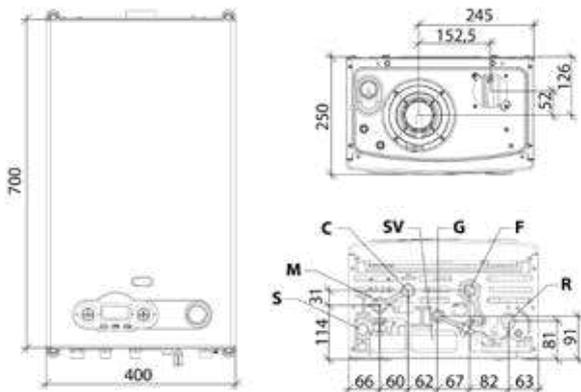
- ▶ **High domestic hot water production, more power during DHW operation (18 - 28 - 30 kW)**
- ▶ **Modulation ratio: 1:9**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Heating expansion vessel - 9 litres**
- ▶ **Compact dimension, only 250 mm deep**
- ) Management of 2 different kinds of solar thermal system (with additional kit)
- ) Thermoregulation with external probe (optional)
- ) Thermosetting polymer-covered stainless steel heat exchanger
- ) Prearrangement for connection to Remote Control (optional, supplied by the manufacturer)
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Automatic by-pass

Available in the following models:



Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
KC 12	NATURAL GAS	CDOXX2KC12	12,0	18,0	400x700x250	30,5
	PROPANE	CDOXX6KC12				
KC 24	NATURAL GAS	CDOXX2KC24	23,7	27,3	400x700x250	32,0
	PROPANE	CDOXX6KC24				
KC 28	NATURAL GAS	CDOXX2KC28	26,4	30,4	400x700x250	33,5
	PROPANE	CDOXX6KC28				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**S** Trap inspection cap  
**M** CH system flow (3/4")  
**C** DHW outlet (1/2")  
**SV** 3-bar safety valve drain

**G** Gas inlet (1/2")  
**F** Cold water inlet (1/2")  
**R** CH system return (3/4")

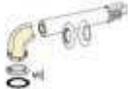




Technical data	um	KC 12	KC 24	KC 28
Nominal heat input (Qn)	kW	12,0	23,7	26,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	22,8	25,5
Heat output (50-30°C)	kW	12,6	24,9	28,0
Reduced heat input (Qr)	kW	2,0	3,0	3,3
Useful efficiency at nominal input (80-60°C)	%	97,1	96,3	96,7
Useful efficiency at nominal input (50-30°C)	%	105,1	105,1	105,9
Useful efficiency at 30% (30°C return)	%	106,0	107,2	107,5
Heating expansion vessel capacity	l	9	9	9
DHW nominal heat input	kW	18,0	27,3	30,4
Specific DHW flow $\Delta T=30K$	l/min	8,6	13,4	15,0
NOx emission class	-	6	6	6
Electric protection rating	IP	IPX4D	IPX4D	IPX4D

For other technical specifications, see from page 43 - Maximum length of flue gas venting, see page 120



Item	Description	Code
	Coaxial kit $\varnothing$ 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Splitter kit $\varnothing$ 80+80	0KITSDOP08
	Electrical kit for zone management with external probe	0KITZONE05
	External probe (60x45x31 mm)	0SONDAES01
	Coaxial fitting kit $\varnothing$ 60/100	0KITATCO00
	Electric kit for complex solar plant management	0KITSOLC08

Item	Description	Code
	Magnetic dirt separator filter	0AFILDEF00
	Kit for connection to solar plant	0KITSOLC07
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Coax. adapter kit D.60/100 to D.80/125	0KITADCO00
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00

For other accessories, see from page 119

# DELFI KR

WALL-HUNG CONDENSING BOILER CH ONLY

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE (OPTIONAL)



- ▶ Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal
- ▶ Modulation ratio: 1:9
- ▶ Heating expansion vessel - 9 litres
- ▶ Compact dimension, only 250 mm deep
- ) Freeze protection function for heating and hot water storage tank
- ) Thermoregulation with external probe (optional)
- ) Thermosetting polymer-covered stainless steel heat exchanger
- ) Prearrangement for connection to Remote Control (optional, supplied by the manufacturer)
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Automatic by-pass

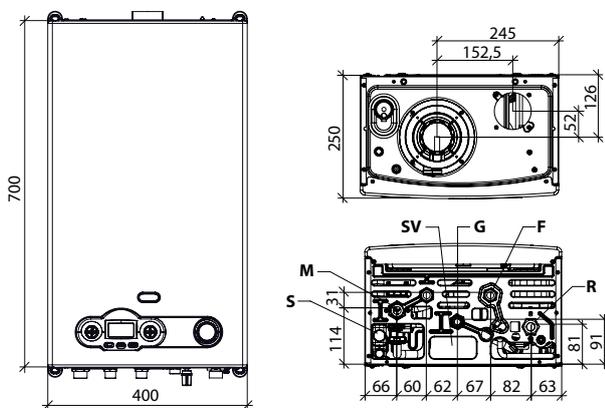
Available in the following models:



Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
KR 12	NATURAL GAS	CDOXX2KR12	12,0	18,0 (*)	400x700x250	29,5
	PROPANE	CDOXX6KR12				
KR 24	NATURAL GAS	CDOXX2KR24	23,7	27,3 (*)	400x700x250	32,0
	PROPANE	CDOXX6KR24				
KR 28	NATURAL GAS	CDOXX2KR28	26,4	30,4 (*)	400x700x250	31,0
	PROPANE	CDOXX6KR28				

(\*) with optional hot water storage tank.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**S** Trap inspection cap  
**M** CH system flow (3/4")  
**SV** 3-bar safety valve drain

**G** Gas inlet (1/2")  
**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	KR 12	KR 24	KR 28
Nominal heat input (Qn)	kW	12,0	23,7	26,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	22,8	25,5
Heat output (50-30°C)	kW	12,6	24,9	28,0
Reduced heat input (Qr)	kW	2,0	3,0	3,3
Useful efficiency at nominal input (80-60°C)	%	97,1	96,3	96,7
Useful efficiency at nominal input (50-30°C)	%	105,1	105,1	105,9
Useful efficiency at 30% (30°C return)	%	106,0	107,2	107,5
Heating expansion vessel capacity	l	9	9	9
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)
NOx emission class	-	6	6	6
Electric protection rating	IP	IPX4D	IPX4D	IPX4D

(\*) with optional hot water storage tank.

For other technical specifications, see from page 44 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Tap kit with filter KR-KB-RT	0KITRUBI04
	Splitter kit Ø80+80	0KITSDOP08
	Electrical kit for zone management with external probe	0KITZONE05
	External probe (60x45x31 mm)	0SONDAES01
	Coaxial fitting kit Ø60/100	0KITATCO00

Item	Description	Code
	Coax. adapter kit D.60/100 to D.80/125	0KITADCO00
	hot water storage tank temperature probe 3m	0KITSOND00
	Magnetic dirt separator filter	0AFILDEF00
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Starting flange kit for condensing boilers	0KITFLAN00

For other accessories, see from page 119

# DELFI KRB

WALL-HUNG CONDENSING BOILER, CH ONLY, WITH INTEGRATED 3-WAY VALVE CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Modulation ratio: 1:9**
- ▶ **Heating expansion vessel - 9 litres**
- ▶ **Integrated 3-way deviating valve**
- ▶ **Compact dimension, only 250 mm deep**
- ) Freeze protection function for heating and hot water storage tank
- ) Thermoregulation with external probe (optional)
- ) Thermosetting polymer-covered stainless steel heat exchanger
- ) Prearrangement for connection to Remote Control (optional, supplied by the manufacturer)
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Automatic by-pass

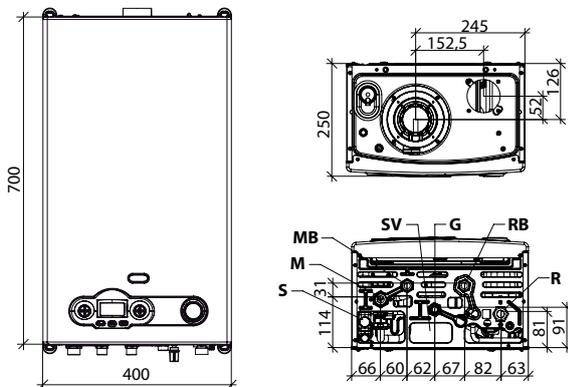
Available in the following models:



Model	Gas type	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
<b>KRB 12</b>	NATURAL GAS	CDOXX2KU12	12,0	18,0 (*)	400x700x250	29,5
	PROPANE	CDOXX6KU12				
<b>KRB 24</b>	NATURAL GAS	CDOXX2KU24	23,7	27,3 (*)	400x700x250	31,0
	PROPANE	CDOXX6KU24				
<b>KRB 28</b>	NATURAL GAS	CDOXX2KU28	26,4	30,4 (*)	400x700x250	32,5
	PROPANE	CDOXX6KU28				

(\*) with optional hot water storage tank.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- |           |   |           |   |
|-----------|---|-----------|---|
| <b>S</b>  | Trap inspection cap                             | <b>G</b>  | Gas inlet (1/2")                                    |
| <b>M</b>  | CH system flow (3/4")                           | <b>RB</b> | Secondary return from hot water storage tank (1/2") |
| <b>MB</b> | Secondary flow to hot water storage tank (1/2") | <b>R</b>  | CH system return (3/4")                             |
| <b>SV</b> | 3-bar safety valve drain                        |           |   |



Technical data	um	KRB 12	KRB 24	KRB 28
Nominal heat input (Qn)	kW	12,0	23,7	26,4
Nominal heat output (80-60°C) (Pn)	kW	11,7	22,8	25,5
Heat output (50-30°C)	kW	12,6	24,9	28,0
Reduced heat input (Qr)	kW	2,0	3,0	3,3
Useful efficiency at nominal input (80-60°C)	%	97,1	96,3	96,7
Useful efficiency at nominal input (50-30°C)	%	105,1	105,1	105,9
Useful efficiency at 30% (30°C return)	%	106,0	107,2	107,5
Heating expansion vessel capacity	l	9	9	9
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)
NOx emission class	-	6	6	6
Electric protection rating	IP	IPX4D	IPX4D	IPX4D

(\*) with optional hot water storage tank.

For other technical specifications, see from page 45 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Splitter kit Ø80+80	0KITSDOP08
	Electrical kit for zone management with external probe	0KITZONE05
	External probe (60x45x31 mm)	0SONDAES01
	Coaxial fitting kit Ø60/100	0KITATCO00
	Coax. adapter kit D.60/100 to D.80/125	0KITADCO00

Item	Description	Code
	Magnetic dirt separator filter	0AFILDEF00
	Electric kit for complex solar plant management	0KITSOLEC08
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00

For other accessories, see from page 119

#### Accessories supplied as standard

Item	Description
	hot water storage tank temperature probe 3m

# LEO KC

WALL-HUNG CONDENSING BOILER WITH INSTANTANEOUS PRODUCTION OF DHW



- ▶ **High efficiency stainless steel heat exchanger with single coil and wide passage section**
- ▶ **Heating expansion vessel - 9 litres**
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **Easy to install in pre-existing plants thanks to: central flue vent, wall fixing bracket and double hole for split suction**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Backlit LCD user interface with diagnostics**
- ) Modulation ratio: 1:5
- ) Fully pre-mixed burner
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Stainless steel plate DHW heat exchanger
- ) Automatic by-pass

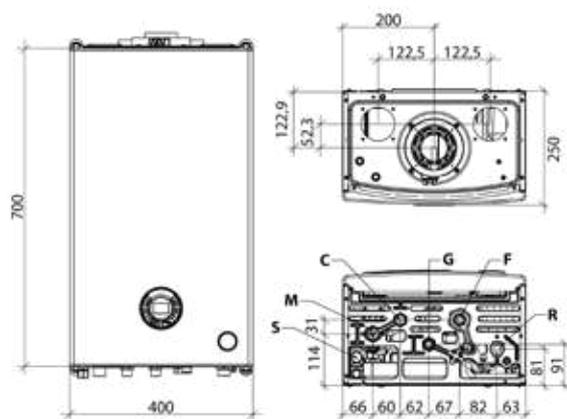
Available in the following models:

24

Model	Gas type	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
KC 24	NATURAL GAS	CLFXX2KC24	20,0	24,0	400x700x250	29,0
	PROPANE	CLFXX6KC24				

Included in the price: Paper installation template, aspiration closing plugs.

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**S** Condensate drain  
**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")

**G** Gas inlet (1/2")  
**F** Cold water inlet (1/2")  
**R** CH system return (3/4")

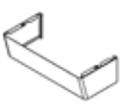




Technical data	um	KC 24
Nominal heat input (Qn)	kW	20,0
Nominal heat output (80-60°C) (Pn)	kW	19,4
Heat output (50-30°C)	kW	21,2
Reduced heat input (Qr)	kW	5,0
Useful efficiency at nominal input (80-60°C)	%	97,1
Useful efficiency at nominal input (50-30°C)	%	106,1
Useful efficiency at 30% (30°C return)	%	108,1
Heating expansion vessel capacity	l	9
DHW nominal heat input	kW	24,0
Specific DHW flow $\Delta T=30K$	l/min	12,0
NOx emission class	-	6
Electric protection rating	IP	IPX4D

For other technical specifications, see from page 46 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Coaxial kit $\varnothing$ 60/100 length 75cm	0CONDASP00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Ambient temperature probe	0KITSAMB00
	Coaxial fitting kit $\varnothing$ 60/100	0KITATCO00
	Splitter kit $\varnothing$ 80+80	0KITSDOP08
	External probe (60x45x31 mm)	0SONDAES01

Item	Description	Code
	Magnetic dirt separator filter	0AFILDEF00
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Coax. adapter kit D.60/100 to D.80/125	0KITADCO00

For other accessories, see from page 119

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Orion	Orion	Orion	Orion
Model	-	KC 12	KC 24	KC 28	KC 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,6	3,0	3,9
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5	4,4
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83	83
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0	27,3	30,4	34,5
DHW minimum heat input	kW	2,0	3,0	3,3	4,2
DHW nominal heat output (ΔT 30°C)	kW	18,6	27,4	29,2	33,4
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	8,8	13,4	15,5	16,2
Qualification of domestic hot water	-	***	***	***	***
DHW temperature range	°C	35-57	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62	62
NOx emission class	-	6	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,40	0,44	1,04	0,87
Casing heat loss with burner off	%	0,53	0,21	0,20	0,19
Chimney heat loss with burner on at nominal heat input	%	2,50	2,72	2,26	2,33
Air-flue ΔT at nominal heat input	°C	57,9	61	60	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	88	97	101	106
Circulation pump power input	W	50	50	50	50
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Orion	Orion	Orion	Orion
Model	-	KR 12	KR 24	KR 28	KR 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,6	3,0	3,9
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5	4,4
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83	83
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
DHW minimum heat input	kW	2,0 (*)	3,0 (*)	3,3 (*)	4,2 (*)
DHW temperature range	°C	35-65 (***)	35-65 (***)	35-65 (***)	35-65 (***)
DHW maximum working temperature	°C	65 (***)	65 (***)	65 (***)	65 (***)
NOx emission class	-	6	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,40	0,44	1,04	0,87
Casing heat loss with burner off	%	0,53	0,21	0,20	0,19
Chimney heat loss with burner on at nominal heat input	%	2,50	2,72	2,26	2,33
Air-flue ΔT at nominal heat input	°C	57,9	61	60	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	88	97	101	106
Circulation pump power input	W	50	50	50	50
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

(\*) with optional hot water storage tank.

(\*\*\*) with hot water storage tank probe connected.

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Orion	Orion	Orion	Orion
Model	-	KRB 12	KRB 24	KRB 28	KRB 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,6	3,0	3,9
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5	4,4
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83	83
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
DHW minimum heat input	kW	2,0 (*)	3,0 (*)	3,3 (*)	4,2 (*)
DHW temperature range	°C	35-65 (***)	35-65 (***)	35-65 (***)	35-65 (***)
DHW maximum working temperature	°C	65 (***)	65 (***)	65 (***)	65 (***)
NOx emission class	-	6	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,40	0,44	1,04	0,87
Casing heat loss with burner off	%	0,53	0,21	0,20	0,19
Chimney heat loss with burner on at nominal heat input	%	2,50	2,72	2,26	2,33
Air-flue ΔT at nominal heat input	°C	57,9	61	60	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	88	97	101	106
Circulation pump power input	W	50	50	50	50
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

(\*) with optional hot water storage tank.

(\*\*\*) with hot water storage tank probe connected.

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Orion	Orion
Model	-	KB 24	KB 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93
Nominal heat input (Qn)	kW	23,7	30,4
Reduced heat input (Qr)	kW	3,0	4,2
Nominal heat output (80-60°C) (Pn)	kW	23,0	29,4
Reduced heat output (80-60°C) (Pr)	kW	2,6	3,9
Heat output (50-30°C)	kW	25,0	32,3
Reduced heat output (50-30°C)	kW	3,2	4,4
Useful efficiency at nominal input (80-60°C)	%	96,8	96,2
Useful efficiency at nominal input (50-30°C)	%	105,6	106,2
Useful efficiency at 30% (30°C return)	%	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78
CH maximum working temperature	°C	83	83
Heating expansion vessel capacity	l	10	10
DHW nominal heat input	kW	27,3	34,5
DHW minimum heat input	kW	3,0	4,2
DHW nominal heat output (ΔT 30°C)	kW	26,8	33,4
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	16,2	19,5
Qualification of domestic hot water	-	***	***
DHW temperature range	°C	35-65	35-65
DHW maximum working temperature	°C	65	65
NOx emission class	-	6	6
Casing heat loss with burner on at nominal heat input	%	0,44	0,87
Casing heat loss with burner off	%	0,21	0,19
Chimney heat loss with burner on at nominal heat input	%	2,72	2,33
Air-flue ΔT at nominal heat input	°C	61	60
Flue gas flow at nominal heat input	g/s	12,43	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50
Maximum power consumption	W	116	126
Circulation pump power input	W	86	86
Electric protection rating	IP	IPX4D	IPX4D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80



## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Virgo	Virgo	Virgo	Virgo
Model	-	KC 12	KC 24	KC 28	KC 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,6	3,0	3,9
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5	4,4
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83	83
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0	27,3	30,4	34,5
DHW minimum heat input	kW	2,0	3,0	3,3	4,2
DHW nominal heat output (ΔT 30°C)	kW	18,6	27,4	29,2	33,4
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	8,8	13,4	15,5	16,2
Qualification of domestic hot water	-	**	**	**	**
DHW temperature range	°C	35-57	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62	62
NOx emission class	-	6	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,40	0,44	1,04	0,87
Casing heat loss with burner off	%	0,53	0,21	0,20	0,19
Chimney heat loss with burner on at nominal heat input	%	2,50	2,72	2,26	2,33
Air-flue ΔT at nominal heat input	°C	57,9	61	60	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	107	120	125	129
Circulation pump power input	W	86	86	86	86
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Virgo	Virgo	Virgo	Virgo
Model	-	KR 12	KR 24	KR 28	KR 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,6	3,0	3,9
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5	4,4
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83	83
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
DHW minimum heat input	kW	2,0 (*)	3,0 (*)	3,3 (*)	4,2 (*)
DHW temperature range	°C	35-65 (***)	35-65 (***)	35-65 (***)	35-65 (***)
DHW maximum working temperature	°C	65 (***)	65 (***)	65 (***)	65 (***)
NOx emission class	-	6	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,40	0,44	1,04	0,87
Casing heat loss with burner off	%	0,53	0,21	0,20	0,19
Chimney heat loss with burner on at nominal heat input	%	2,50	2,72	2,26	2,33
Air-flue ΔT at nominal heat input	°C	57,9	61	60	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	107	120	125	129
Circulation pump power input	W	86	86	86	86
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

(\*) with optional hot water storage tank.

(\*\*\*) with hot water storage tank probe connected.

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Virgo	Virgo	Virgo	Virgo
Model	-	KRB 12	KRB 24	KRB 28	KRB 32
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4	30,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3	4,2
Nominal heat output (80-60°C) (Pn)	kW	11,7	23,0	25,5	29,4
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,6	3,0	3,9
Heat output (50-30°C)	kW	12,6	25,0	28,0	32,3
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5	4,4
Useful efficiency at nominal input (80-60°C)	%	97,1	96,8	96,7	96,8
Useful efficiency at nominal input (50-30°C)	%	105,1	105,6	106,0	106,2
Useful efficiency at 30% (30°C return)	%	106,0	107,4	107,4	108,3
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83	83
Heating expansion vessel capacity	l	10	10	10	10
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)	34,5 (*)
DHW minimum heat input	kW	2,0 (*)	3,0 (*)	3,3 (*)	4,2 (*)
DHW temperature range	°C	35-65 (***)	35-65 (***)	35-65 (***)	35-65 (***)
DHW maximum working temperature	°C	65 (***)	65 (***)	65 (***)	65 (***)
NOx emission class	-	6	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,40	0,44	1,04	0,87
Casing heat loss with burner off	%	0,53	0,21	0,20	0,19
Chimney heat loss with burner on at nominal heat input	%	2,50	2,72	2,26	2,33
Air-flue ΔT at nominal heat input	°C	57,9	61	60	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93	15,81
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	107	120	125	129
Circulation pump power input	W	86	86	86	86
Electric protection rating	IP	IPX5D	IPX5D	IPX5D	IPX5D
Air intake/flue gas vent pipe diameter	mm	80+80	80+80	80+80	80+80
		60+60	60+60	60+60	60+60
		100/60	100/60	100/60	100/60
		125/80	125/80	125/80	125/80

(\*) with optional hot water storage tank.

(\*\*\*) with hot water storage tank probe connected.

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Delfis	Delfis	Delfis
Model	-	KC 12	KC 24	KC 28
Type	-	B23-B23P- B33-C13- C33-C43- C53-C63- C83-C13X- C33X- C43X- C53X- C63X- C83X-C93- C93X	B23-B23P- B33-C13- C33-C43- C53-C63- C83-C13X- C33X- C43X- C53X- C63X- C83X-C93- C93X	B23-B23P- B33-C13- C33-C43- C53-C63- C83-C13X- C33X- C43X- C53X- C63X- C83X-C93- C93X
Stated load profile	-	M	XL	XL
Water heating energy efficiency ( $\eta_{wh}$ )	%	78	84	80
Energy efficiency class of water heating	-	A	A	A
Nominal heat input ( $Q_n$ )	kW	12,0	23,7	26,4
Reduced heat input ( $Q_r$ )	kW	2,0	3,0	3,3
Nominal heat output (80-60°C) ( $P_n$ )	kW	11,7	22,8	25,5
Reduced heat output (80-60°C) ( $P_r$ )	kW	1,8	2,8	3,1
Heat output (50-30°C)	kW	12,6	24,9	28,0
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5
Useful efficiency at nominal input (80-60°C)	%	97,1	96,3	96,7
Useful efficiency at nominal input (50-30°C)	%	105,1	105,1	105,9
Useful efficiency at 30% (30°C return)	%	106,0	107,2	107,5
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	9	9	9
DHW nominal heat input	kW	18,0	27,3	30,4
DHW minimum heat input	kW	2,0	3,0	3,3
DHW nominal heat output ( $\Delta T$ 30°C)	kW	18,4	27,4	29,2
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow $\Delta T=30K$	l/min	8,6	13,4	15,0
Qualification of domestic hot water	-	**	**	**
DHW temperature range	°C	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62
NOx emission class	-	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,26	1,28	1,11
Casing heat loss with burner off	%	0,55	0,26	0,27
Chimney heat loss with burner on at nominal heat input	%	2,64	2,45	2,19
Air-flue $\Delta T$ at nominal heat input	°C	57,9	61	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	111	120	125
Circulation pump power input	W	86	86	86
Electric protection rating	IP	IPX4D	IPX4D	IPX4D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Delfs	Delfs	Delfs
Model	-	KR 12	KR 24	KR 28
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3
Nominal heat output (80-60°C) (Pn)	kW	11,7	22,8	25,5
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,8	3,1
Heat output (50-30°C)	kW	12,6	24,9	28,0
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5
Useful efficiency at nominal input (80-60°C)	%	97,1	96,3	96,7
Useful efficiency at nominal input (50-30°C)	%	105,1	105,1	105,9
Useful efficiency at 30% (30°C return)	%	106,0	107,2	107,5
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	9	9	9
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)
DHW minimum heat input	kW	2,0 (*)	3,0 (*)	3,3 (*)
DHW temperature range	°C	35-65 (***)	35-65 (***)	35-65 (***)
DHW maximum working temperature	°C	65 (***)	65 (***)	65 (***)
NOx emission class	-	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,26	1,28	1,11
Casing heat loss with burner off	%	0,55	0,26	0,27
Chimney heat loss with burner on at nominal heat input	%	2,64	2,45	2,19
Air-flue ΔT at nominal heat input	°C	57,9	61	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	111	120	125
Circulation pump power input	W	86	86	86
Electric protection rating	IP	IPX4D	IPX4D	IPX4D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

(\*) with optional hot water storage tank.

(\*\*\*) with hot water storage tank probe connected.

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Delfs	Delfs	Delfs
Model	-	KRB 12	KRB 24	KRB 28
Type	-	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X	B23-B23P-B33-C13-C33-C43-C53-C63-C83-C13X-C33X-C43X-C53X-C63X-C83X-C93-C93X
Nominal heat input (Qn)	kW	12,0	23,7	26,4
Reduced heat input (Qr)	kW	2,0	3,0	3,3
Nominal heat output (80-60°C) (Pn)	kW	11,7	22,8	25,5
Reduced heat output (80-60°C) (Pr)	kW	1,8	2,8	3,1
Heat output (50-30°C)	kW	12,6	24,9	28,0
Reduced heat output (50-30°C)	kW	2,1	3,2	3,5
Useful efficiency at nominal input (80-60°C)	%	97,1	96,3	96,7
Useful efficiency at nominal input (50-30°C)	%	105,1	105,1	105,9
Useful efficiency at 30% (30°C return)	%	106,0	107,2	107,5
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	20-78	20-78	20-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	9	9	9
DHW nominal heat input	kW	18,0 (*)	27,3 (*)	30,4 (*)
DHW minimum heat input	kW	2,0 (*)	3,0 (*)	3,3 (*)
DHW temperature range	°C	35-65 (***)	35-65 (***)	35-65 (***)
DHW maximum working temperature	°C	65 (***)	65 (***)	65 (***)
NOx emission class	-	6	6	6
Casing heat loss with burner on at nominal heat input	%	0,26	1,28	1,11
Casing heat loss with burner off	%	0,55	0,26	0,27
Chimney heat loss with burner on at nominal heat input	%	2,64	2,45	2,19
Air-flue ΔT at nominal heat input	°C	57,9	61	60
Flue gas flow at nominal heat input	g/s	8,25	12,43	13,93
CO2 at nominal heat input of heating (Natural gas)	%	9	9	9
CO2 at nominal heat input of heating (Propane)	%	10	10	10
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	111	120	125
Circulation pump power input	W	86	86	86
Electric protection rating	IP	IPX4D	IPX4D	IPX4D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80	80+80 60+60 100/60 125/80

(\*) with optional hot water storage tank.

(\*\*\*) with hot water storage tank probe connected.

## TECHNICAL SPECIFICATIONS OF CONDENSING BOILERS

Technical data	um	Leo
Model	-	KC 24
Type	-	B23-B23P-B33-C13-C13X-C33-C33X-C43-C43X-C53-C53X-C63-C63X-C83-C83X
Nominal heat input (Qn)	kW	20,0
Reduced heat input (Qr)	kW	5,0
Nominal heat output (80-60°C) (Pn)	kW	19,4
Reduced heat output (80-60°C) (Pr)	kW	4,8
Heat output (50-30°C)	kW	21,2
Reduced heat output (50-30°C)	kW	5,4
Useful efficiency at nominal input (80-60°C)	%	97,1
Useful efficiency at nominal input (50-30°C)	%	106,1
Useful efficiency at 30% (30°C return)	%	108,1
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	20-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	9
DHW nominal heat input	kW	24,0
DHW minimum heat input	kW	5,0
DHW nominal heat output (ΔT 30°C)	kW	23,3
DHW circuit working pressure (min-max)	bar	0,5-6,0
Specific DHW flow ΔT=30K	l/min	12,0
Qualification of domestic hot water	-	**
DHW temperature range	°C	35-57
DHW maximum working temperature	°C	62
NOx emission class	-	6
Casing heat loss with burner on at nominal heat input	%	0,16
Casing heat loss with burner off	%	0,38
Chimney heat loss with burner on at nominal heat input	%	2,79
Air-flue ΔT at nominal heat input	°C	73,3
Flue gas flow at nominal heat input	g/s	11,0
CO2 at nominal heat input of heating (Natural gas)	%	9,0 ± 0,3
CO2 at nominal heat input of heating (Propane)	%	10,0 ± 0,3
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	133
Circulation pump power input	W	84
Electric protection rating	IP	IPX4D
Air intake/flue gas vent pipe diameter	mm	80+80 60+60 100/60 125/80







# STANDARD BOILERS

## WALL-HUNG BOILERS

ORION CTFS	page 50
ORION RBTFS	page 52
ORION RTFS	page 54
VIRGO CTFS	page 56
VIRGO CTN	page 58
VIRGO RBTFS	page 60
VIRGO RBTN	page 62
VIRGO RTFS	page 64
VIRGO RTN	page 66
DELFI CTFS	page 68
DELFI CTN	page 70
DELFI RBTFS	page 72
DELFI RBTN	page 74
DELFI RTFS	page 76
DELFI CTFS 40	page 78
DELFI RBTFS 40	page 80
DELFI RTFS 40	page 82
VEGA CTFS	page 84
NIBIR CTFS	page 86
NIBIR CTFS (CU)	page 88
NIBIR CTN (CU)	page 90

## FLOOR-STANDING BOILERS WITH GAS-FIRED ATMOSPHERIC BURNER

ALTAIR RTN PVE	page 92
ALTAIR RTN T	page 94
DRAGO DUAL	page 96

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical specifications of standard boilers	page 98
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# ORION CTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



- ▶ **Sanitary comfort function: ★★★**
- ▶ **Double filling system: automatic and manual**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ▶ **Management of one heating zone with ambient temperature probe and two zones with zone kit**
- ▶ **Controls to manage two different types of solar thermal systems fitted as standard**
- ▶ 3-speed circulation pump with built-in air purging device
- ▶ Mono-thermal primary heat exchanger
- ▶ Programmable parameters to adapt the boiler to the installation and alerts history
- ▶ Heating expansion vessel - 7 litres
- ▶ Automatic by-pass



### TOUCH SCREEN INTERFACE

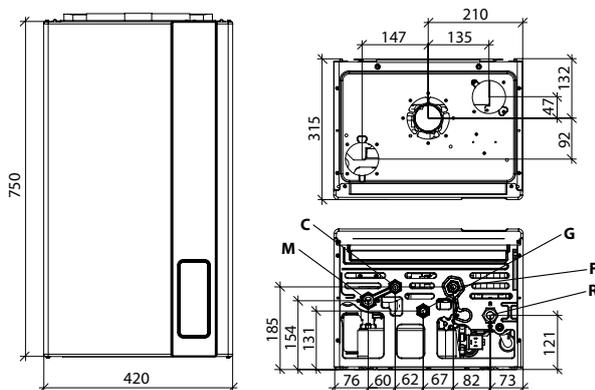
- ▶ Day/night temperature level selection
- ▶ Weekly programming
- ▶ Timer and ambient temperature setting
- ▶ DHW "comfort" function enabling

Available in the following models:



Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTFS 24	NATURAL GAS	COBXX2CA24	25,5	25,5	420x750x315	38,50
	LPG	COBXX3CA24				
CTFS 28	NATURAL GAS	COBXX2CA28	30,5	30,5	420x750x315	39,00
	LPG	COBXX3CA28				
CTFS 32	NATURAL GAS	COBXX2CA32	33,0	33,0	420x750x315	39,50
	LPG	COBXX3CA32				

### DIMENSIONS AND CONNECTION CENTRE DISTANCES



- M** CH system flow (3/4")
- C** DHW outlet (1 1/2")
- G** Gas inlet (1/2")

- F** Cold water inlet (1/2")
- R** CH system return (3/4")





Technical data	um	CTFS 24	CTFS 28	CTFS 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
DHW nominal heat input	kW	25,5	30,5	33,0
Specific DHW flow ΔT=30K	l/min	11,6	14,2	15,1
NOx emission class	-	3	3	3
Electric protection rating	IP	X5D	X5D	X5D

For other technical specifications, see from page 98 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Flow - return cold water 90° taps kit	0KITIDBA11
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Kit for connection to solar plant	0KITSOLC07
	Electric kit for complex solar plant management	0KITSOLC08

Item	Description	Code
	Electrical kit for zone management with external probe	0KITZONE05
	Temperature probe for solar plants	PSPTMILL00
	Coaxial air intake/flue gas venting connection for B22 type installations	0ATTCOVE04
	Coaxial flue kit	0SDOPPIA13
	Cover and anti-freeze protection kit	0KITCOPE03
	External protection kit for standard boilers	0KITCOPE04

For other accessories, see from page 119

# ORION RBTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY, WITH INTEGRATED 3-WAY VALVE

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



- ▶ **Integrated 3-way deviating valve**
- ▶ **Management of one heating zone with ambient temperature probe and two zones with zone kit**
- ▶ **Standard management of one type of solar thermal system**
- ▶ **External hot water storage tank heating setting (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ) Mono-thermal primary heat exchanger
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Heating expansion vessel - 7 litres
- ) Automatic by-pass
- ) 3-speed circulation pump with built-in air purging device



## TOUCH SCREEN INTERFACE

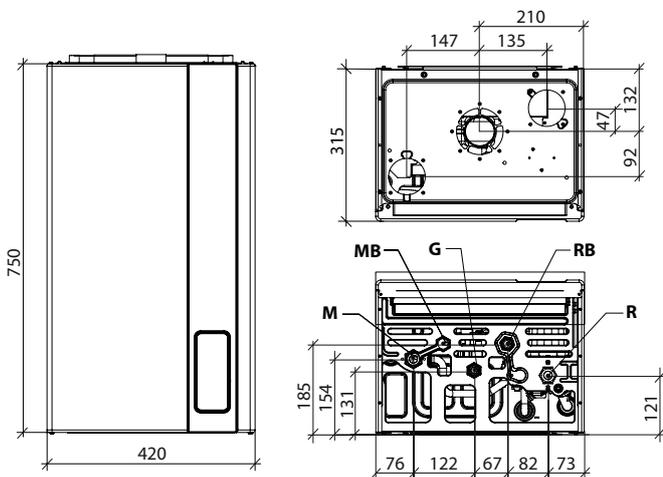
- ▶ Day/night temperature level selection
- ▶ Weekly programming
- ▶ Timer and ambient temperature setting
- ▶ Heater DHW "comfort" function enabling

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RBTFS 24	NATURAL GAS	COBXX2RF24	25,5	420x750x315	35,50
	LPG	COBXX3RF24			
RBTFS 28	NATURAL GAS	COBXX2RF28	30,5	420x750x315	36,50
	LPG	COBXX3RF28			
RBTFS 32	NATURAL GAS	COBXX2RF32	33,0	420x750x315	37,00
	LPG	COBXX3RF32			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- M** CH system flow (3/4")
- MB** Water heater secondary flow (1/2")
- G** Gas inlet (1/2")
- RB** Water heater secondary return (1/2")
- R** CH system return (3/4")

Technical data	um	RBTF5 24	RBTF5 28	RBTF5 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Electric protection rating	IP	X5D	X5D	X5D

For other technical specifications, see from page 99 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03		Temperature probe for solar plants	PSPTMILL00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Cover and anti-freeze protection kit	0KITCOPE03
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00		External protection kit for standard boilers	0KITCOPE04
	Flow - return cold water 90° taps kit	0KITIDBA11		Coaxial air intake/flue gas venting connection for B22 type installations	0ATTCOVE04
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05		Coaxial flue kit	0SDOPPIA13
	Electric kit for complex solar plant management	0KITSOLC08	For other accessories, see from page 119		
	Electrical kit for zone management with external probe	0KITZONE05	<b>Accessories supplied as standard</b>		
	Electrical kit for zone management with external probe	0KITZONE05		hot water storage tank temperature probe 3m	

# ORION RTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY  
CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE  
(OPTIONAL)



- ▶ **Management of one heating zone with ambient temperature probe and two zones with zone kit**
- ▶ **Standard management of one type of solar thermal system**
- ▶ **External hot water storage tank heating setting (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ) Mono-thermal primary heat exchanger
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Heating expansion vessel - 7 litres
- ) Automatic by-pass
- ) 3-speed circulation pump with built-in air purging device



### TOUCH SCREEN INTERFACE

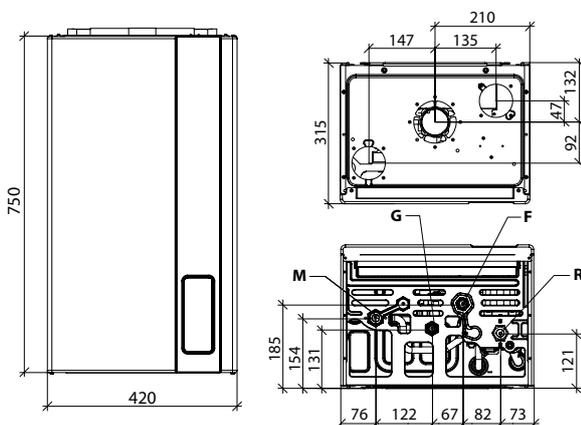
- ▶ Day/night temperature level selection
- ▶ Weekly programming
- ▶ Timer and ambient temperature setting
- ▶ Heater DHW "comfort" function enabling

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RTFS 24	NATURAL GAS	COBXX2RA24	25,5	420x750x315	35,50
	LPG	COBXX3RA24			
RTFS 28	NATURAL GAS	COBXX2RA28	30,5	420x750x315	36,50
	LPG	COBXX3RA28			
RTFS 32	NATURAL GAS	COBXX2RA32	33,0	420x750x315	37,00
	LPG	COBXX3RA32			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	RTFS 24	RTFS 28	RTFS 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Electric protection rating	IP	X5D	X5D	X5D

For other technical specifications, see from page 100 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Pipes and taps low plastic cover	OCOPETUB03		Temperature probe for solar plants	PSPTMILL00
	Remote control, ErP V class (118x85x32 mm)	OCREMOTO04		Cover and anti-freeze protection kit	OKITCOPE03
	Coaxial kit D60/100 L=1m (for boiler TFS)	OKITCONC00		External protection kit for standard boilers	OKITCOPE04
	Tap kit with filter KR-KB-RT	OKITRUBI04		Coaxial air intake/flue gas venting connection for B22 type installations	OATTCOVE04
	Electric kit for complex solar plant management	OKITSOLC08		Coaxial flue kit	OSDOPPIA13
	Electrical kit for zone management with external probe	OKITZONE05	For other accessories, see from page 119		

# VIRGO CTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



- ▶ Controls to manage two different types of solar thermal systems fitted as standard
- ▶ Thermoregulation with external probe (optional)
- ▶ Stainless steel 26-plate DHW heat exchanger
- ▶ Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal
- ) Mono-thermal primary heat exchanger
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Heating expansion vessel - 7 litres
- ) Automatic by-pass
- ) 3-speed circulation pump with built-in air purging device



## TOUCH SCREEN INTERFACE

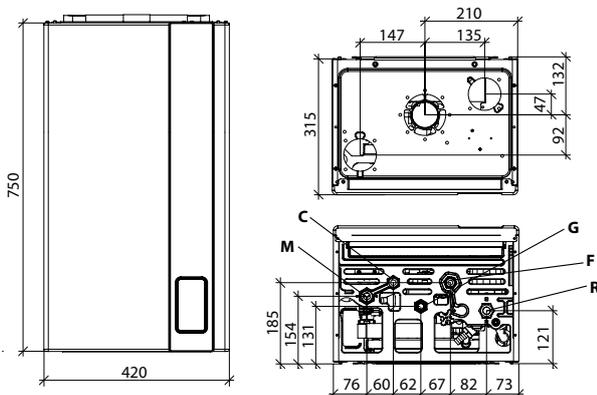
- ▶ DHW and heating temperature setting
- ▶ Operating mode setting
- ▶ Solar thermal systems status display

Available in the following models:



Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTFS 24	NATURAL GAS	CVNXX2CA24	25,5	25,5	420x750x315	37,50
	LPG	CVNXX3CA24				
CTFS 28	NATURAL GAS	CVNXX2CA28	30,5	30,5	420x750x315	38,00
	LPG	CVNXX3CA28				
CTFS 32	NATURAL GAS	CVNXX2CA32	33,0	33,0	420x750x315	38,50
	LPG	CVNXX3CA32				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	CTFS 24	CTFS 28	CTFS 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
DHW nominal heat input	kW	25,5	30,5	33,0
Specific DHW flow $\Delta T=30K$	l/min	11,6	14,2	15,1
NOx emission class	-	3	3	3
Electric protection rating	IP	X5D	X5D	X5D

For other technical specifications, see from page 101 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03		Coaxial flue kit	0SDOPPIA13
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Kit for connection to solar plant	0KITSOLC07
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00		Electric kit for complex solar plant management	0KITSOLC08
	Flow - return cold water 90° taps kit	0KITIDBA11		Cover and anti-freeze protection kit	0KITCOPE03
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05		External protection kit for standard boilers	0KITCOPE04
	Electrical kit for zone management with external probe	0KITZONE05		Coaxial air intake/flue gas venting connection for B22 type installations	0ATTCOVE04
	Temperature probe for solar plants	PSPTMILL00	For other accessories, see from page 119		

# VIRGO CTN

WALL-HUNG GAS BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT WITH INSTANT DHW PRODUCTION



- ▶ Controls to manage two different types of solar thermal systems fitted as standard
- ▶ Thermoregulation with external probe (optional)
- ▶ Stainless steel 26-plate DHW heat exchanger
- ▶ Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal
- ) Mono-thermal primary heat exchanger
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Heating expansion vessel - 7 litres
- ) Automatic by-pass
- ) 3-speed circulation pump with built-in air purging device
- ) Installation flexibility thanks to IPX5D electrical protection degree



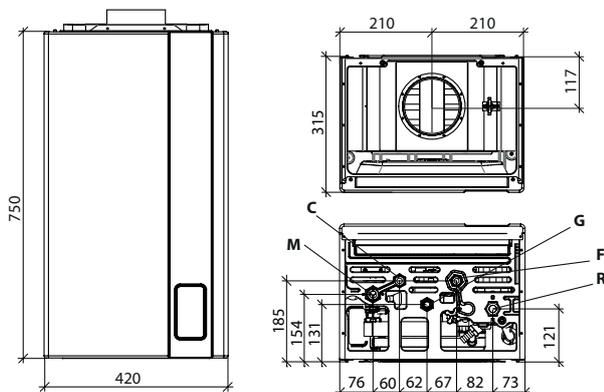
- TOUCH SCREEN INTERFACE**
- ▶ DHW and heating temperature setting
  - ▶ Operating mode setting
  - ▶ Solar thermal systems status display

Available in the following models:



Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTN 24	NATURAL GAS	CVNXX2CC24	25,5	25,5	420x750x315	36,00
	LPG	CVNXX3CC24				
CTN 28	NATURAL GAS	CVNXX2CC28	30,5	30,5	420x750x315	36,50
	LPG	CVNXX3CC28				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- M** CH system flow (3/4")
- C** DHW outlet (1 1/2")
- G** Gas inlet (1/2")
- F** Cold water inlet (1/2")
- R** CH system return (3/4")





Technical data	um	CTN 24	CTN 28
Nominal heat input (Qn)	kW	25,5	30,5
Nominal heat output (80-60°C) (Pn)	kW	23,1	27,4
Reduced heat input (Qr)	kW	10,0	12,5
Useful efficiency at nominal input (80-60°C)	%	90,6	90,0
Useful efficiency at 30% (47°C return)	%	89,4	87,8
Heating expansion vessel capacity	l	7	7
DHW nominal heat input	kW	25,5	30,5
Specific DHW flow $\Delta T=30K$	l/min	11,2	13,5
NOx emission class	-	2	2
Electric protection rating	IP	X5D	X5D

For other technical specifications, see from page 102 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Flow - return cold water 90° taps kit	0KITIDBA11
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBIO5

Item	Description	Code
	Electric kit for complex solar plant management	0KITSOLC08
	Electrical kit for zone management with external probe	0KITZONE05
	Temperature probe for solar plants	PSPTMILL00

For other accessories, see from page 119

# VIRGO RBTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY, WITH INTEGRATED 3-WAY VALVE

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



- ▶ Controls to manage two different types of solar thermal systems fitted as standard
- ▶ Thermoregulation with external probe (optional)
- ▶ Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal
- ▶ Integrated 3-way deviating valve
  - ) Mono-thermal primary heat exchanger
  - ) Programmable parameters to adapt the boiler to the installation and alerts history
  - ) Heating expansion vessel - 7 litres
  - ) Automatic by-pass
  - ) 3-speed circulation pump with built-in air purging device



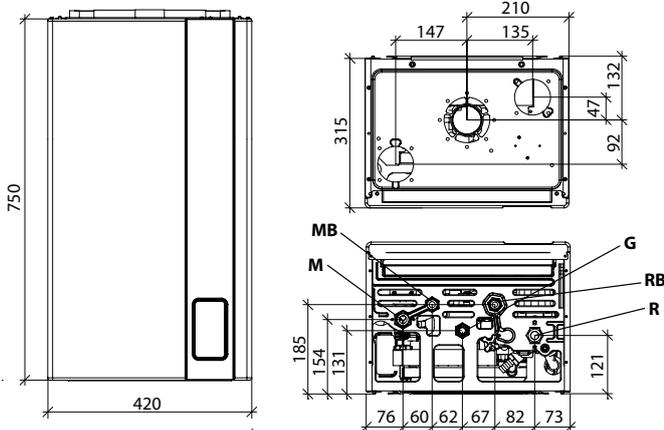
- TOUCH SCREEN INTERFACE**
- ▶ DHW and heating temperature setting
  - ▶ Operating mode setting
  - ▶ Solar thermal systems status display

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RBTFS 24	NATURAL GAS	CVNXX2RF24	25,5	420x750x315	35,50
	LPG	CVNXX3RF24			
RBTFS 28	NATURAL GAS	CVNXX2RF28	30,5	420x750x315	36,50
	LPG	CVNXX3RF28			
RBTFS 32	NATURAL GAS	CVNXX2RF32	33,0	420x750x315	37,00
	LPG	CVNXX3RF32			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- M** CH system flow (3/4")
- MB** Water heater secondary flow (1/2")
- G** Gas inlet (1/2")

- RB** Water heater secondary return (1/2")
- R** CH system return (3/4")



Technical data	um	RBTF5 24	RBTF5 28	RBTF5 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Electric protection rating	IP	X5D	X5D	X5D

For other technical specifications, see from page 103 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03		Temperature probe for solar plants	PSPTMILL00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Cover and anti-freeze protection kit	0KITCOPE03
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00		External protection kit for standard boilers	0KITCOPE04
	Coaxial flue kit	0SDOPPIA13		Coaxial air intake/flue gas venting connection for B22 type installations	0ATTCOVE04
	Flow - return cold water 90° taps kit	0KITIDBA11	For other accessories, see from page 119		
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05			
	Electric kit for complex solar plant management	0KITSOLC08			
	Electric kit for complex solar plant management	0KITSOLC08			
	Electrical kit for zone management with external probe	0KITZONE05			
<b>Accessories supplied as standard</b>					
	hot water storage tank temperature probe 3m				

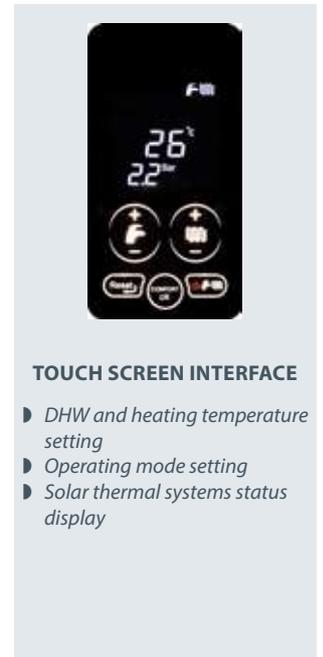
# VIRGO RBTN

WALL-HUNG GAS BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT, CH ONLY, WITH INTEGRATED 3-WAY VALVE CONNECTION

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



- ▶ Controls to manage two different types of solar thermal systems fitted as standard
- ▶ Thermoregulation with external probe (optional)
- ▶ Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal
- ▶ Integrated 3-way deviating valve
  - ) Mono-thermal primary heat exchanger
  - ) Programmable parameters to adapt the boiler to the installation and alerts history
  - ) Heating expansion vessel - 7 litres
  - ) Automatic by-pass
  - ) 3-speed circulation pump with built-in air purging device



### TOUCH SCREEN INTERFACE

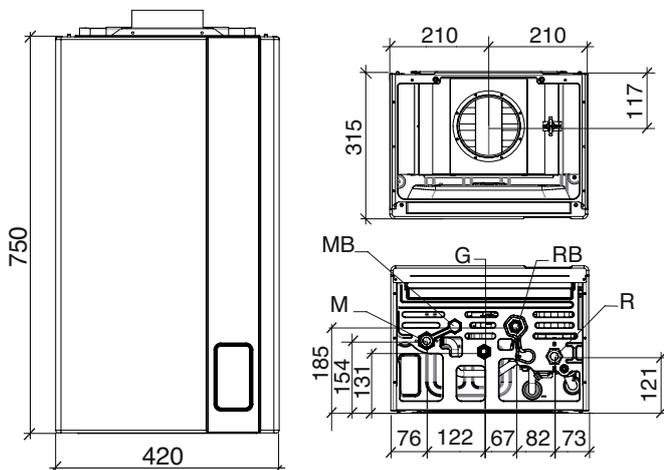
- ▶ DHW and heating temperature setting
- ▶ Operating mode setting
- ▶ Solar thermal systems status display

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RBTN 24	NATURAL GAS	CVNXX2RH24	25,5	420x750x315	34,50
	LPG	CVNXX3RH24			
RBTN 28	NATURAL GAS	CVNXX2RH28	30,5	420x750x315	35,00
	LPG	CVNXX3RH28			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



- M** CH system flow (3/4")
- MB** Water heater secondary flow (1/2")
- G** Gas inlet (1/2")

- RB** Water heater secondary return (1/2")
- R** CH system return (3/4")





Technical data	um	RBTN 24	RBTN 28
Nominal heat input (Qn)	kW	25,5	30,5
Nominal heat output (80-60°C) (Pn)	kW	23,1	27,4
Reduced heat input (Qr)	kW	10,0	12,5
Useful efficiency at nominal input (80-60°C)	%	90,6	90,0
Useful efficiency at 30% (47°C return)	%	89,4	87,8
Heating expansion vessel capacity	l	7	7
NOx emission class	-	2	2
Electric protection rating	IP	X5D	X5D

For other technical specifications, see from page 104 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Flow - return cold water 90° taps kit	0KITIDBA11
	Tap kit with filter KR-KB-RT	0KITRUBI04
	Electric kit for complex solar plant management	0KITSOLC08

Item	Description	Code
	Electrical kit for zone management with external probe	0KITZONE05
	Temperature probe for solar plants	PSPTMILL00

For other accessories, see from page 119

**Accessories supplied as standard**

Item	Description
	hot water storage tank temperature probe 3m



# VIRGO RTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY  
CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE (OPTIONAL)



Available in the following models:



- ▶ Controls to manage two different types of solar thermal systems fitted as standard
- ▶ Thermoregulation with external probe (optional)
- ▶ Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal
- ▶ 3-speed circulation pump with built-in air purging device
- ▶ Mono-thermal primary heat exchanger
- ▶ Programmable parameters to adapt the boiler to the installation and alerts history
- ▶ Heating expansion vessel - 7 litres
- ▶ Automatic by-pass
- ▶ Compatible with SPOT smart thermostat

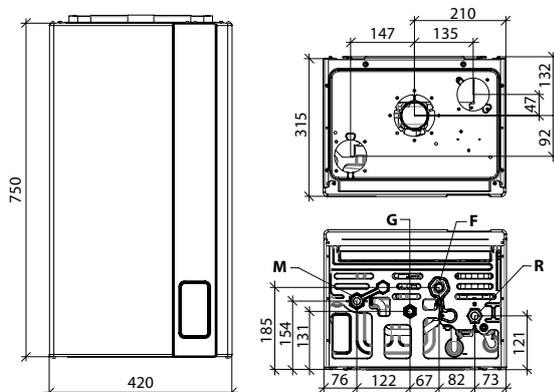


### TOUCH SCREEN INTERFACE

- ▶ DHW and heating temperature setting
- ▶ Operating mode setting
- ▶ Solar thermal systems status display

Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RTFS 24	NATURAL GAS	CVNXX2RA24	25,5	420x750x315	35,50
	LPG	CVNXX3RA24			
RTFS 28	NATURAL GAS	CVNXX2RA28	30,5	420x750x315	36,50
	LPG	CVNXX3RA28			
RTFS 32	NATURAL GAS	CVNXX2RA32	33,0	420x750x315	37,00
	LPG	CVNXX3RA32			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	RTFS 24	RTFS 28	RTFS 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Electric protection rating	IP	X5D	X5D	X5D

For other technical specifications, see from page 105 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03		Temperature probe for solar plants	PSPTMILL00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		hot water storage tank temperature probe 3m	0KITSOND00
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00		Cover and anti-freeze protection kit	0KITCOPE03
	Coaxial flue kit	0SDOPPIA13		External protection kit for standard boilers	0KITCOPE04
	Tap kit with filter KR-KB-RT	0KITRUBI04		Coaxial air intake/flue gas venting connection for B22 type installations	0ATTCOVE04
	Electric kit for complex solar plant management	0KITSOLC08	For other accessories, see from page 119		
	Electrical kit for zone management with external probe	0KITZONE05			

# VIRGO RTN

WALL-HUNG GAS BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT, CH ONLY.  
CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE (OPTIONAL)



- ▶ **Controls to manage two different types of solar thermal systems fitted as standard**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to solar plant or to remote alarm signal**
- ) 3-speed circulation pump with built-in air purging device
- ) Mono-thermal primary heat exchanger
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Heating expansion vessel - 7 litres
- ) Automatic by-pass



### TOUCH SCREEN INTERFACE

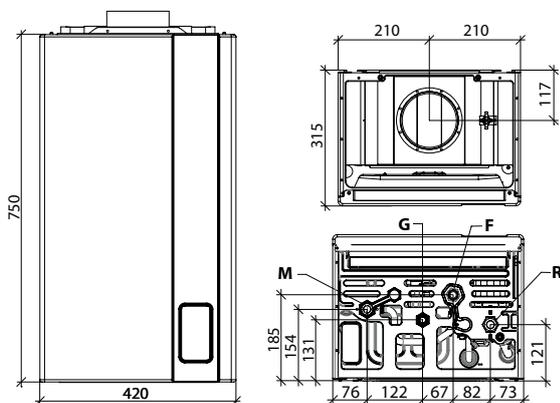
- ▶ DHW and heating temperature setting
- ▶ Operating mode setting
- ▶ Solar thermal systems status display

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RTN 24	NATURAL GAS	CVNXX2RC24	25,5	420x750x315	34,50
	LPG	CVNXX3RC24			
RTN 28	NATURAL GAS	CVNXX2RC28	30,5	420x750x315	35,00
	LPG	CVNXX3RC28			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")





Technical data	um	RTN 24	RTN 28
Nominal heat input (Qn)	kW	25,5	30,5
Nominal heat output (80-60°C) (Pn)	kW	23,1	27,4
Reduced heat input (Qr)	kW	10,0	12,5
Useful efficiency at nominal input (80-60°C)	%	90,6	90,0
Useful efficiency at 30% (47°C return)	%	89,4	87,8
Heating expansion vessel capacity	l	7	7
NOx emission class	-	2	2
Electric protection rating	IP	X5D	X5D

For other technical specifications, see from page 106 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Pipes and taps low plastic cover	0COPETUB03
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Tap kit with filter KR-KB-RT	0KITRUBI04
	Tap kit with filter KR-KB-RT	0KITRUBI04
	Electric kit for complex solar plant management	0KITSOLC08

Item	Description	Code
	Electrical kit for zone management with external probe	0KITZONE05
	Temperature probe for solar plants	PSPTMILL00
	hot water storage tank temperature probe 3m	0KITSOND00

For other accessories, see from page 119

# DELFI CTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



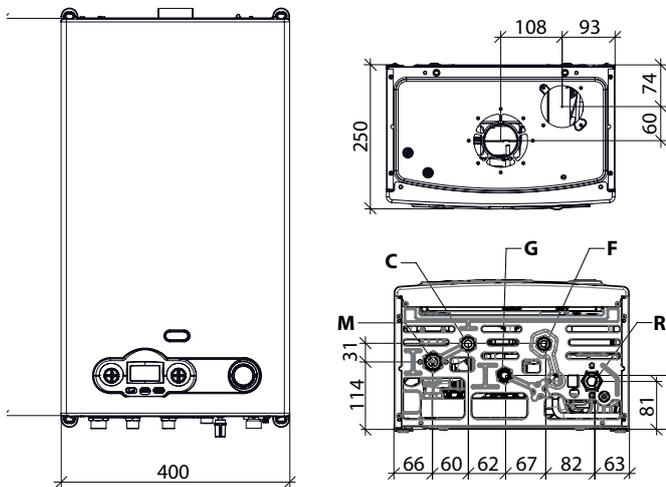
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Thermoregulation with external probe (optional)**
  - ) Heating expansion vessel - 7 litres
  - ) Stainless steel plate DHW heat exchanger
  - ) Hydraulic unit in composite material
  - ) Programmable parameters to adapt the boiler to the installation and alerts history
  - ) Exclusive compact version circulation pump with integrated air purging device
  - ) Automatic by-pass

Available in the following models:

24

Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTFS 24	NATURAL GAS	CDHXX2CA24	25,5	25,5	400x700x250	28,00
	LPG	CDHXX3CA24				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")





Technical data	um	CTFS 24
Nominal heat input (Qn)	kW	25,5
Nominal heat output (80-60°C) (Pn)	kW	23,7
Reduced heat input (Qr)	kW	12,5
Useful efficiency at nominal input (80-60°C)	%	93,0
Useful efficiency at 30% (47°C return)	%	90,4
Heating expansion vessel capacity	l	7
DHW nominal heat input	kW	25,5
Specific DHW flow $\Delta T=30K$	l/min	11,1
NOx emission class	-	2
Electric protection rating	IP	X4D

For other technical specifications, see from page 107 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Flow - return cold water 90° taps kit	0KITIDBA11
	Basic hydraulic kit	0KITIDBA29
	Plus hydr. kit for basic compact unit	0KITIDBA14
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05

Item	Description	Code
	Kit for connection to solar plant	0KITSOLC07
	Electrical kit for zone management with external probe	0KITZONE05
	External probe (60x45x31 mm)	0SONDAES01
	Coaxial flue kit	0SDOPPIA13
	Electric kit for complex solar plant management	0KITSOLC08

For other accessories, see from page 119



# DELFI CTN

WALL-HUNG GAS BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT WITH INSTANT DHW PRODUCTION



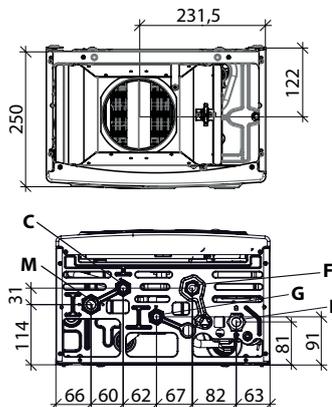
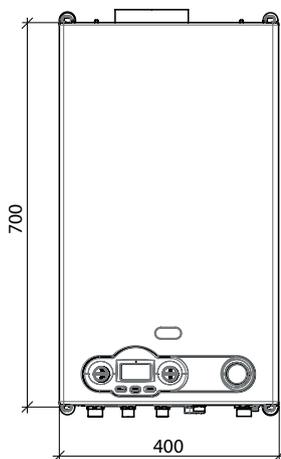
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ) Heating expansion vessel - 7 litres
- ) Stainless steel plate DHW heat exchanger
- ) Hydraulic unit in composite material
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Prearrangement for connection to Remote Control (optional, supplied by the manufacturer)
- ) Automatic by-pass
- ) Mono-thermal primary heat exchanger

Available in the following models:

24

Model	Gas	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
CTN 24	NATURAL GAS	CDHXX2CC24	24,5	24,5	400x700x250	25,00
	LPG	CDHXX3CC24				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	CTN 24
Nominal heat input (Qn)	kW	24,5
Nominal heat output (80-60°C) (Pn)	kW	22,07
Reduced heat input (Qr)	kW	12,0
Useful efficiency at nominal input (80-60°C)	%	90,1
Useful efficiency at 30% (47°C return)	%	88,45
Heating expansion vessel capacity	l	7
DHW nominal heat input	kW	24,5
Specific DHW flow $\Delta T=30K$	l/min	10,6
NOx emission class	-	2
Electric protection rating	IP	X4D

For other technical specifications, see from page 108 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00		Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Kit for connection to solar plant	0KITSOLC07
	Flow - return cold water 90° taps kit	0KITIDBA11		Electric kit for complex solar plant management	0KITSOLC08
	Basic hydraulic kit	0KITIDBA29		Electrical kit for zone management with external probe	0KITZONE05
	Plus hydr. kit for basic compact unit	0KITIDBA14		External probe (60x45x31 mm)	0SONDAES01

For other accessories, see from page 119

# DELFI RBTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY, WITH INTEGRATED 3-WAY VALVE

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



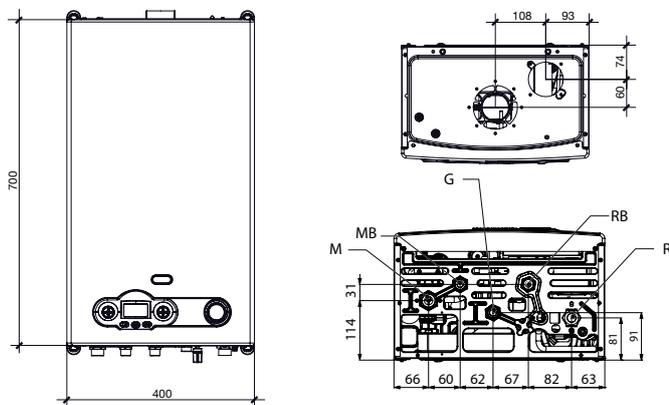
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Mono-thermal primary heat exchanger**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Integrated 3-way deviating valve**
  - ) Heating expansion vessel - 7 litres
  - ) Programmable parameters to adapt the boiler to the installation and alerts history
  - ) Hydraulic unit in composite material
  - ) Pump unit including: air purging device, water pressure switch, safety valve calibrated at 3 bar, discharge tap and filler tap
  - ) Automatic by-pass
  - ) Exclusive compact version circulation pump with integrated air purging device

Available in the following models:

24

Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RBTFS 24	NATURAL GAS	CDHXX2RF24	25,5	400x700x250	27,50
	LPG	CDHXX3RF24			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



M CH system flow - 3/4"  
 MB Water heater secondary flow (1/2")  
 G Gas inlet (1/2")

RB Water heater secondary return (1/2")  
 R CH system return - 3/4"





Technical data	um	RBTF5 24
Nominal heat input (Qn)	kW	25,5
Nominal heat output (80-60°C) (Pn)	kW	23,7
Reduced heat input (Qr)	kW	12,5
Useful efficiency at nominal input (80-60°C)	%	93,0
Useful efficiency at 30% (47°C return)	%	90,4
Heating expansion vessel capacity	l	7
NOx emission class	-	2
Electric protection rating	IP	X4D

For other technical specifications, see from page 109 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Flow - return cold water 90° taps kit	0KITIDBA11
	Electrical kit for zone management with external probe	0KITZONE05
	External probe (60x45x31 mm)	0SONDAES01
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05

Item	Description	Code
	Electric kit for complex solar plant management	0KITSOLC08
	Coaxial flue kit	0SDOPPIA13

For other accessories, see from page 119

**Accessories supplied as standard**

Item	Description
	hot water storage tank temperature probe 3m



# DELFI RBTN

WALL-HUNG GAS BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT, CH ONLY, WITH INTEGRATED 3-WAY VALVE CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



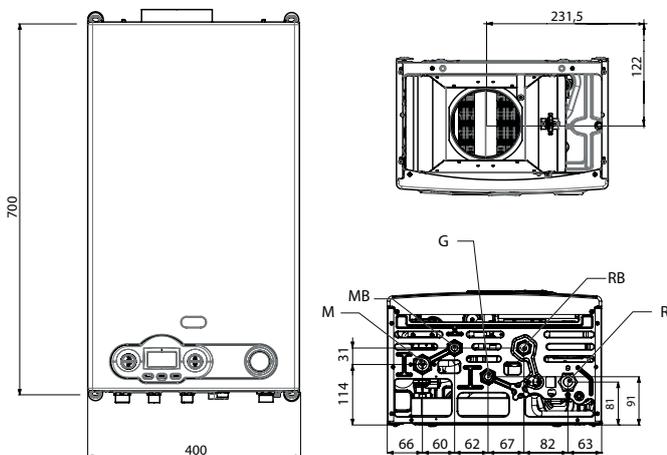
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Integrated 3-way deviating valve**
  - ) Heating expansion vessel - 7 litres
  - ) Hydraulic unit in composite material
  - ) Programmable parameters to adapt the boiler to the installation and alerts history
  - ) Mono-thermal primary heat exchanger
  - ) Pump unit including: air purging device, water pressure switch, safety valve calibrated at 3 bar, discharge tap and filler tap
  - ) Automatic by-pass
  - ) Exclusive compact version circulation pump with integrated air purging device

Available in the following models:

24

Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RBTN 24	NATURAL GAS	CDHXX2RH24	24,5	400x700x250	25,00
	LPG	CDHXX3RH24			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



M CH system flow - 3/4"  
 MB Water heater secondary flow (1/2")  
 G Gas inlet (1/2")

RB Water heater secondary return (1/2")  
 R CH system return - 3/4"





Technical data	um	RBTN 24
Nominal heat input (Qn)	kW	24,5
Nominal heat output (80-60°C) (Pn)	kW	22,07
Reduced heat input (Qr)	kW	12,0
Useful efficiency at nominal input (80-60°C)	%	90,1
Useful efficiency at 30% (47°C return)	%	88,45
Heating expansion vessel capacity	l	7
NOx emission class	-	2
Electric protection rating	IP	X4D

For other technical specifications, see from page 110 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Flow - return cold water 90° taps kit	0KITIDBA11
	Basic hydraulic kit	0KITIDBA29
	Plus hydr. kit for basic compact unit	0KITIDBA14
	Electrical kit for zone management with external probe	0KITZONE05

Item	Description	Code
	External probe (60x45x31 mm)	0SONDAES01
	Electric kit for complex solar plant management	0KITSOLC08

For other accessories, see from page 119

**Accessories supplied as standard**

Item	Description
	hot water storage tank temperature probe 3m



# DELFI RTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE (OPTIONAL)



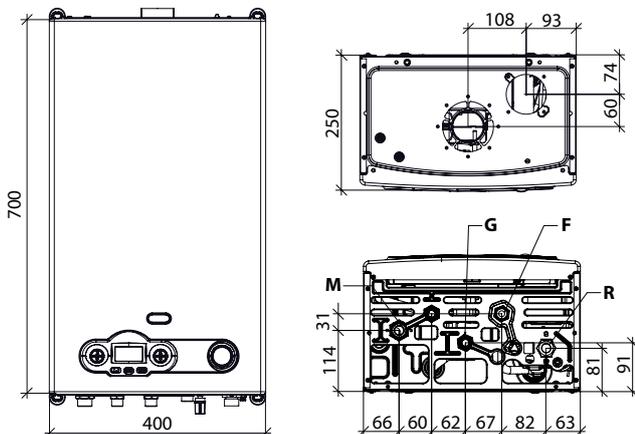
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ) Heating expansion vessel - 7 litres
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Hydraulic unit in composite material
- ) Pump unit including: air purging device, water pressure switch, safety valve calibrated at 3 bar, discharge tap and filler tap
- ) Automatic by-pass
- ) Exclusive compact version circulation pump with integrated air purging device

Available in the following models:

24

Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RTFS 24	NATURAL GAS	CDHXX2RA24	25,5	400x700x250	27,50
	LPG	CDHXX3RA24			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

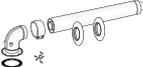
**F** Cold water inlet (1/2")  
**R** CH system return (3/4")





Technical data	um	RTFS 24
Nominal heat input (Qn)	kW	25,5
Nominal heat output (80-60°C) (Pn)	kW	23,7
Reduced heat input (Qr)	kW	12,5
Useful efficiency at nominal input (80-60°C)	%	93,0
Useful efficiency at 30% (47°C return)	%	90,4
Heating expansion vessel capacity	l	7
NOx emission class	-	2
Electric protection rating	IP	X4D

For other technical specifications, see from page 111 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Electrical kit for zone management with external probe	0KITZONE05

Item	Description	Code
	External probe (60x45x31 mm)	0SONDAES01
	Tap kit with filter KR-KB-RT	0KITRUBI04
	Coaxial flue kit	0SDOPPIA13
	hot water storage tank temperature probe 3m	0KITSOND00

For other accessories, see from page 119

# DELFI CTFS 40

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



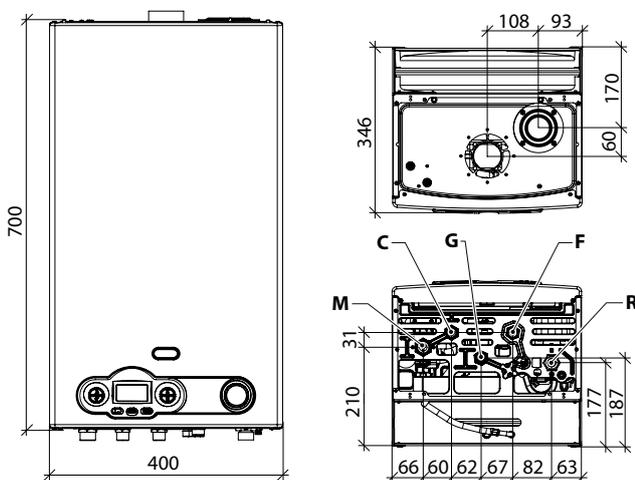
- ▶ **LCD user interface with diagnostics**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Heating expansion vessel - 10 litres**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **High domestic hot water production (22.2 l/min  $\Delta T$  25°C)**
- ) Stainless steel, atmospheric burner that can run on several gases
- ) Hydraulic unit in composite material
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Flame modulation in CH and DHW modes
- ) Stainless steel plate DHW heat exchanger
- ) Automatic by-pass

Available in the following models:



Model	Gas	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
CTFS 40	NATURAL GAS	CDHXX2CA40	41,0	41,0	400x700x346	33,00
	LPG	CDHXX3CA40				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



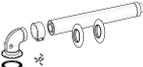
**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	CTFS 40
Water heating energy efficiency ( $\eta_{wh}$ )	%	78
Nominal heat input ( $Q_n$ )	kW	41,0
Nominal heat output (80-60°C) ( $P_n$ )	kW	38,0
Reduced heat input ( $Q_r$ )	kW	15,0
Useful efficiency at nominal input (80-60°C)	%	92,7
Useful efficiency at 30% (47°C return)	%	89,4
Heating expansion vessel capacity	l	10
DHW nominal heat input	kW	41,0
Specific DHW flow $\Delta T=30K$	l/min	18,5
NOx emission class	-	3
Electric protection rating	IP	X4D

For other technical specifications, see from page 112 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00		Kit for connection to solar plant	0KITSOLC07
	Flow - return cold water 90° taps kit	0KITIDBA11		Electric kit for complex solar plant management	0KITSOLC08
	External probe (60x45x31 mm)	0SONDAES01		Coaxial flue kit	0SDOPPIA13
	Electrical kit for zone management with external probe	0KITZONE05		Basic solar kit	0KITSOLC09

For other accessories, see from page 119

# DELFI RBTFS 40

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY, WITH INTEGRATED 3-WAY VALVE

CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL)



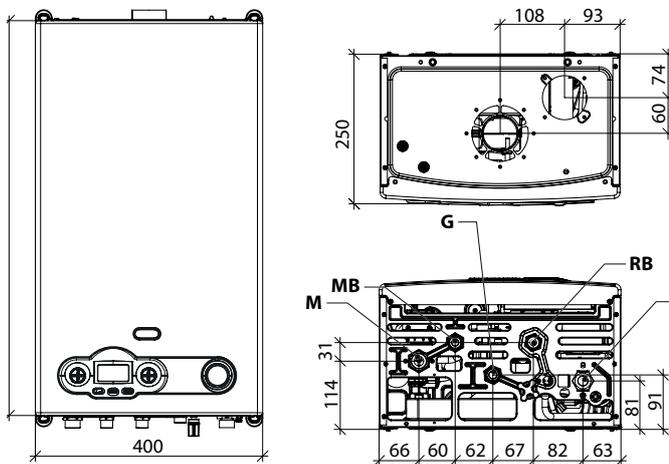
- ▶ **LCD user interface with diagnostics**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Programmable parameters to adapt the boiler to the installation and alerts history**
- ▶ **Integrated 3-way deviating valve**
- ) Stainless steel, atmospheric burner that can run on several gases
- ) Hydraulic unit in composite material
- ) Flame modulation in CH and DHW modes
- ) Automatic by-pass

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RBTFS 40	NATURAL GAS	CDHXX2RF40	41,0	400x700x250	24,50
	LPG	CDHXX3RF40			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



M CH system flow (3/4")  
 MB Water heater secondary flow (1/2")  
 G Gas inlet (1/2")

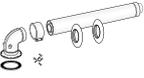
RB Water heater secondary return (1/2")  
 R CH system return (3/4")





Technical data	um	RBTF5 40
Nominal heat input (Qn)	kW	41,0
Nominal heat output (80-60°C) (Pn)	kW	38,0
Reduced heat input (Qr)	kW	15,0
Useful efficiency at nominal input (80-60°C)	%	92,7
Useful efficiency at 30% (47°C return)	%	89,4
NOx emission class	-	3
Electric protection rating	IP	X4D

For other technical specifications, see from page 113 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Flow - return cold water 90° taps kit	0KITIDBA11
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	Electrical kit for zone management with external probe	0KITZONE05
	Electrical kit for zone management with external probe	0KITZONE05

Item	Description	Code
	External probe (60x45x31 mm)	0SONDAES01
	Coaxial flue kit	0SDOPPIA13
	Electric kit for complex solar plant management	0KITSOLC08

For other accessories, see from page 119

**Accessories supplied as standard**

Item	Description
	hot water storage tank temperature probe 3m



# DELFI RTFS 40

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT, CH ONLY  
 CONNECTION TO AN EXTERNAL HOT WATER STORAGE TANK (OPTIONAL) WITH EXTERNAL 3-WAY VALVE  
 (OPTIONAL)



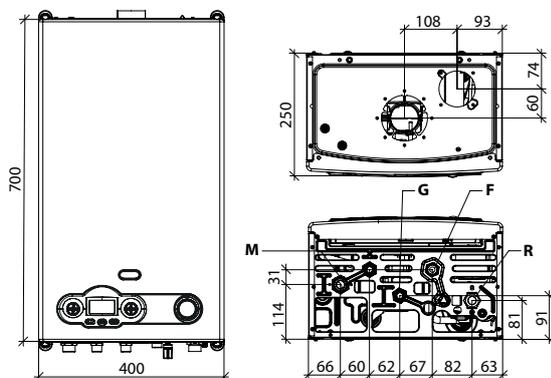
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Thermoregulation with external probe (optional)**
- ▶ **Multifunction relay for connection to systems with zone valves or to external pump management or to remote alarm signal**
- ) Stainless steel, atmospheric burner that can run on several gases
- ) Hydraulic unit in composite material
- ) Additional relay to manage 2 heating zones
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Flame modulation in CH and DHW modes
- ) Automatic by-pass

Available in the following models:



Model	Gas	Code	Heat input	W x H x D	Gross weight
			Nominal (Qn) kW	mm	kg
RTFS 40	NATURAL GAS	CDHXX2RA40	41,0	400x700x250	24,40
	LPG	CDHXX3RA40			

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



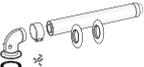
**M** CH system flow (3/4")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	RTFS 40
Nominal heat input (Qn)	kW	41,0
Nominal heat output (80-60°C) (Pn)	kW	38,0
Reduced heat input (Qr)	kW	15,0
Useful efficiency at nominal input (80-60°C)	%	92,7
Useful efficiency at 30% (47°C return)	%	89,4
NOx emission class	-	3
Electric protection rating	IP	X4D

For other technical specifications, see from page 114 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Tap kit with filter KR-KB-RT	0KITRUBI04
	Electrical kit for zone management with external probe	0KITZONE05

Item	Description	Code
	External probe (60x45x31 mm)	0SONDAES01
	hot water storage tank temperature probe 3m	0KITSOND00
	Coaxial flue kit	0SDOPPIA13

For other accessories, see from page 119

# VEGA CTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



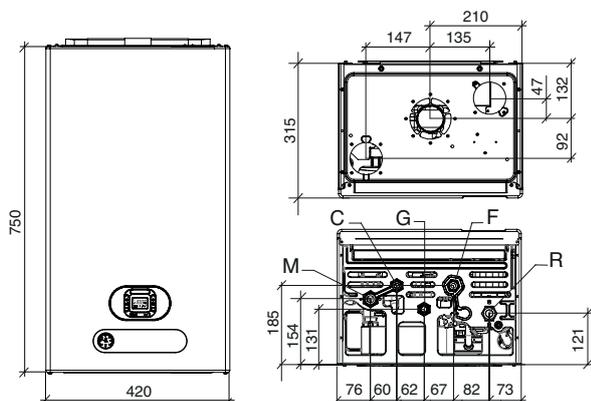
- ▶ Ambient temperature probe supplied as standard
- ▶ Ambient temperature can be set from the boiler if an ambient probe is installed
- ▶ Thermoregulation with external probe (optional)
- ▶ LCD user interface with diagnostics
  - ) Mono-thermal primary heat exchanger
  - ) 3-speed circulation pump with built-in air purging device
  - ) Heating expansion vessel - 7 litres
  - ) Programmable parameters to adapt the boiler to the installation and alerts history
  - ) Stainless steel plate DHW heat exchanger
  - ) Automatic by-pass

Available in the following models:



Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTFS 24	NATURAL GAS	CVGXX2CA24	25,5	25,5	420x750x315	37,50
	LPG	CVGXX3CA24				
CTFS 28	NATURAL GAS	CVGXX2CA28	30,5	30,5	420x750x315	38,00
	LPG	CVGXX3CA28				
CTFS 32	NATURAL GAS	CVGXX2CA32	33,0	33,0	420x750x315	38,50
	LPG	CVGXX3CA32				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



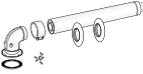
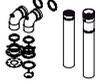
**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	CTFS 24	CTFS 28	CTFS 32
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating expansion vessel capacity	l	7	7	7
DHW nominal heat input	kW	25,5	30,5	33,0
Specific DHW flow ΔT=30K	l/min	11,6	14,2	15,1
NOx emission class	-	3	3	3
Electric protection rating	IP	X4D	X4D	X4D

For other technical specifications, see from page 115 - Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04		External probe (60x45x31 mm)	0SONDAES01
	Wall spacing kit	0DISTANZ00		Basic hydraulic kit	0KITIDBA16
	Pipes and taps low plastic cover	0COPETUB03		4 angled tap valves kit	0KITIDBA24
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05	For other accessories, see from page 119		
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00			
	Coaxial flue kit	0SDOPPIA13			
	Split comp. plus kit '11 (while stocks last)	0SDOPPIA12	<b>Accessories supplied as standard</b>		
				Ambient temperature probe	

# NIBIR CTFS

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



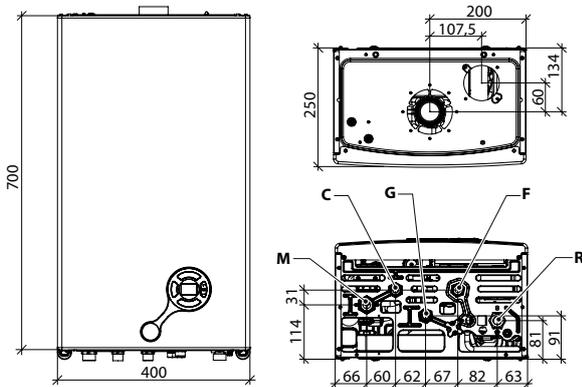
- ▶ **High-efficiency monothermal heat exchanger**
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Ambient temperature can be set from the boiler if an ambient probe is installed**
- ▶ **Ambient temperature probe supplied as standard**
- ) Stainless steel plate DHW heat exchanger
- ) Exclusive compact version circulation pump with integrated air purging device
- ) LCD interface to view CH flow water temperature, DHW outlet temperature, failure codes, CH setting, DHW setting and operating status setting
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Hydraulic unit in composite material
- ) Heating expansion vessel - 6 litres

Available in the following models:



Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTFS 9	NATURAL GAS	CNEXX2CA09	10,4	20,0	400x700x250	25,00
	LPG	CNEXX3CA09				
CTFS 11	NATURAL GAS	CNEXX2CA11	12,3	20,0	400x700x250	25,00
	LPG	CNEXX3CA11				
CTFS 13	NATURAL GAS	CNEXX2CA13	14,2	20,0	400x700x250	25,00
	LPG	CNEXX3CA13				
CTFS 15	NATURAL GAS	CNEXX2CA15	16,4	20,0	400x700x250	25,00
	LPG	CNEXX3CA15				
CTFS 18	NATURAL GAS	CNEXX2CA18	20,0	20,0	400x700x250	25,50
	LPG	CNEXX3CA18				
CTFS 24	NATURAL GAS	CNEXX2CA24	25,5	25,5	400x700x250	25,50
	LPG	CNEXX3CA24				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



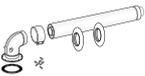
**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	CTFS 9	CTFS 11	CTFS 13	CTFS 15	CTFS 18	CTFS 24
Nominal heat input (Qn)	kW	10,4	12,3	14,2	16,4	20,0	25,5
Nominal heat output (80-60°C) (Pn)	kW	9,3	11,1	13,0	15,1	18,6	23,3
Reduced heat input (Qr)	kW	7,0	7,0	7,0	7,0	7,0	11,5
Useful efficiency at nominal input (80-60°C)	%	89,2	90,2	91,2	91,8	93,2	91,2
Useful efficiency at 30% (47°C return)	%	86,2	86,9	87,6	87,7	88,2	87,4
Heating expansion vessel capacity	l	6	6	6	6	6	6
DHW nominal heat input	kW	20,0	20,0	20,0	20,0	20,0	25,5
Specific DHW flow $\Delta T=30K$	l/min	9,5	9,5	9,5	9,5	9,5	11,7
NOx emission class	-	3	3	3	3	3	3
Electric protection rating	IP	X4D	X4D	X4D	X4D	X4D	X4D

For other technical specifications, see from page 116 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	OCREMOTO04
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	OCOPETUB00
	Coaxial kit D60/100 L=1m (for boiler TFS)	OKITCONC00
	Flow - return cold water 90° taps kit	OKITIDBA11
	Basic hydraulic kit	OKITIDBA29
	Plus hydr. kit for basic compact unit	OKITIDBA14

Item	Description	Code
	Tap kit with filter KC-KRB-CT-RBT	OKITRUBI05
	External probe (60x45x31 mm)	OSONDAES01
	Coaxial flue kit	OSDOPPIA13

For other accessories, see from page 119

#### Accessories supplied as standard

Item	Description
	Ambient temperature probe

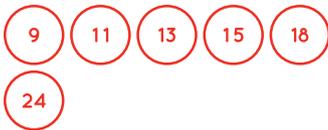
# NIBIR CTFS (CU)

WALL-HUNG GAS BOILER WITH SEALED CHAMBER AND FORCED DRAUGHT WITH INSTANT DHW PRODUCTION



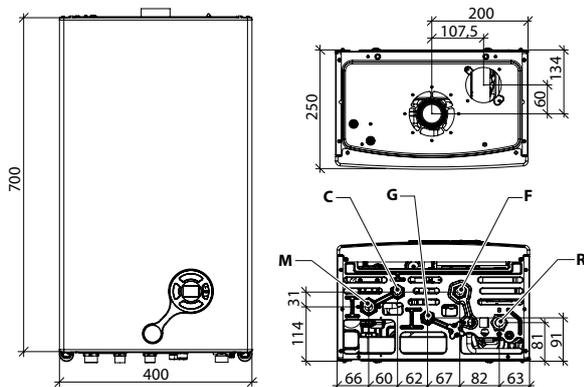
- ▶ **Mono-thermal, copper heat exchanger**
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Ambient temperature can be set from the boiler if an ambient probe is installed**
- ▶ **Ambient temperature probe supplied as standard**
- ) Stainless steel plate DHW heat exchanger
- ) Exclusive compact version circulation pump with integrated air purging device
- ) LCD interface to view CH flow water temperature, DHW outlet temperature, failure codes, CH setting, DHW setting and operating status setting
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Hydraulic unit in composite material
- ) Heating expansion vessel - 6 litres

Available in the following models:



Model	Gas	Code	Heat input		W x H x D mm	Gross weight kg
			Nominal (Qn) kW	Nominal DHW kW		
CTFS 9	NATURAL GAS	CNEXX2CG09	10,4	20,0	400x700x250	25,00
	LPG	CNEXX3CG09				
CTFS 11	NATURAL GAS	CNEXX2CG11	12,3	20,0	400x700x250	25,00
	LPG	CNEXX3CG11				
CTFS 13	NATURAL GAS	CNEXX2CG13	14,2	20,0	400x700x250	25,00
	LPG	CNEXX3CG13				
CTFS 15	NATURAL GAS	CNEXX2CG15	16,4	20,0	400x700x250	25,00
	LPG	CNEXX3CG15				
CTFS 18	NATURAL GAS	CNEXX2CG18	20,0	20,0	400x700x250	25,50
	LPG	CNEXX3CG18				
CTFS 24	NATURAL GAS	CNEXX2CG24	25,5	25,5	400x700x250	25,50
	LPG	CNEXX3CG24				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

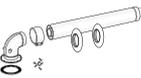
**F** Cold water inlet (1/2")  
**R** CH system return (3/4")





Technical data	um	CTFS 9	CTFS 11	CTFS 13	CTFS 15	CTFS 18	CTFS 24
Nominal heat input (Qn)	kW	10,4	12,3	14,2	16,4	20,0	25,5
Nominal heat output (80-60°C) (Pn)	kW	9,3	11,1	13,0	15,1	18,6	23,3
Reduced heat input (Qr)	kW	7,0	7,0	7,0	7,0	7,0	11,5
Useful efficiency at nominal input (80-60°C)	%	89,2	90,2	91,2	91,8	93,2	91,2
Useful efficiency at 30% (47°C return)	%	86,2	86,9	87,6	87,7	88,2	87,4
Heating expansion vessel capacity	l	6	6	6	6	6	6
DHW nominal heat input	kW	20,0	20,0	20,0	20,0	20,0	25,5
Specific DHW flow ΔT=30K	l/min	9,5	9,5	9,5	9,5	9,5	11,7
NOx emission class	-	3	3	3	3	3	3
Electric protection rating	IP	X4D	X4D	X4D	X4D	X4D	X4D

For other technical specifications, see from page 116 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
	Flow - return cold water 90° taps kit	0KITIDBA11
	Basic hydraulic kit	0KITIDBA29
	Plus hydr. kit for basic compact unit	0KITIDBA14

Item	Description	Code
	Tap kit with filter KC-KRB-CT-RBT	0KITRUBI05
	External probe (60x45x31 mm)	0SONDAES01
	Coaxial flue kit	0SDOPPIA13

For other accessories, see from page 119

#### Accessories supplied as standard

Item	Description
	Ambient temperature probe

# NIBIR CTN (CU)

WALL-HUNG GAS BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT WITH INSTANT DHW PRODUCTION



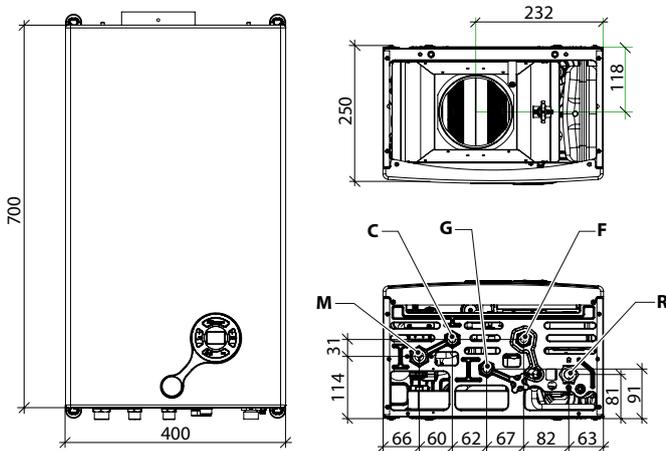
- ▶ **Mono-thermal, copper heat exchanger**
- ▶ **Compact dimension, only 250 mm deep**
- ▶ **LCD user interface with diagnostics**
- ▶ **Ambient temperature can be set from the boiler if an ambient probe is installed**
- ▶ **Ambient temperature probe supplied as standard**
- ) Stainless steel plate DHW heat exchanger
- ) LCD interface to view CH flow water temperature, DHW outlet temperature, failure codes, CH setting, DHW setting and operating status setting
- ) Programmable parameters to adapt the boiler to the installation and alerts history
- ) Hydraulic unit in composite material
- ) Heating expansion vessel - 6 litres

Available in the following models:

24

Model	Gas	Code	Heat input		W x H x D	Gross weight
			Nominal (Qn) kW	Nominal DHW kW	mm	kg
CTN 24	NATURAL GAS	CNEXX2CH24	24,5	24,5	400x700x250	24,0
	LPG	CNEXX3CH24				

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**M** CH system flow (3/4")  
**C** DHW outlet (1 1/2")  
**G** Gas inlet (1/2")

**F** Cold water inlet (1/2")  
**R** CH system return (3/4")



Technical data	um	CTN 24
Nominal heat input (Qn)	kW	24,5
Nominal heat output (80-60°C) (Pn)	kW	21,8
Reduced heat input (Qr)	kW	12,0
Useful efficiency at nominal input (80-60°C)	%	89,1
Useful efficiency at 30% (47°C return)	%	86,7
Heating expansion vessel capacity	l	6
DHW nominal heat input	kW	24,5
Specific DHW flow $\Delta T=30K$	l/min	11,0
NOx emission class	-	2
Electric protection rating	IP	X4D

For other technical specifications, see from page 117 - Maximum length of flue gas venting, see page 120

Item	Description	Code
	Remote control, ErP V class (118x85x32 mm)	0CREMOTO04
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	0COPETUB00
	Kit for connection to solar plant	0KITSOLC07
	External probe (60x45x31 mm)	0SONDAES01
	Plus hydr. kit for basic compact unit	0KITIDBA14

Item	Description	Code
	Flow - return cold water 90° taps kit	0KITIDBA11
	Ambient temperature probe	0KITSAMB00

For other accessories, see from page 119

#### Accessories supplied as standard

Item	Description
	Ambient temperature probe

# ALTAIR RTN PVE

FLOOR-STANDING BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT, CH ONLY  
CIRCULATION PUMP AND EXPANSION VESSEL INCLUDED



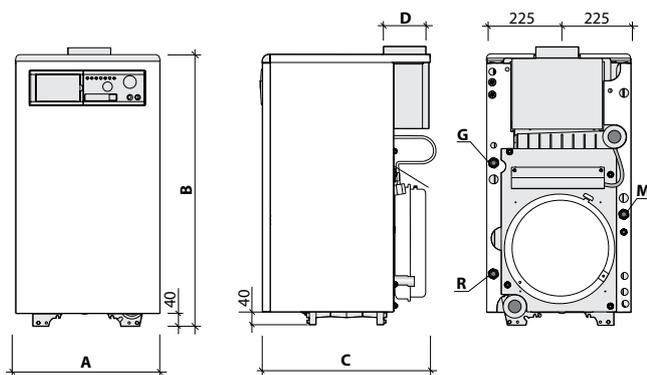
- ▶ **Stainless steel atmospheric burner**
- ▶ **Electronic ignition and ionisation flame detection device**
- ▶ **Heat exchanger with cast iron elements**
- ▶ **CH circulation pump**
- ▶ **CH expansion vessel**
- ) Prearrangement for connection to the electric board for the remote management of a water heater (optional), and for the connection to the electric board for the management of three heating zones (optional)
- ) Control and management electric panel, CH circulation pump control, prearranged for connection to the ambient thermostat and to a water pressure switch
- ) Limit thermostat
- ) Safety flue gas thermostat

Available in the following models:

from **18** to **36**

Model	Gas	Code	Heat output (kW)	Energy efficiency class	A x B x C	G	Price €
			Nominal Pn	Room heating	mm	inches	
RTN PVE 18	NATURAL GAS	CATXX2MH18	18	-	450x850x525	¾"	-
	LPG	CATXX3MH18					
RTN PVE 24	NATURAL GAS	CATXX2MH24	24	-	450x850x525	¾"	-
	LPG	CATXX3MH24					
RTN PVE 32	NATURAL GAS	CATXX2MH32	31.5	-	450x850x625	¾"	-
	LPG	CATXX3MH32					
RTN PVE 36	NATURAL GAS	CATXX2MH36	36	-	450x850x625	¾"	-
	LPG	CATXX3MH36					

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**G** Gas connection (3/4")  
**M** Flow (3/4")

**R** Return (3/4")



Model	-	RTN PVE 18	RTN PVE 24	RTN PVE 32	RTN PVE 36
Type	-	B11BS	B11BS	B11BS	B11BS
Switching on	-	ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC
Heat exchanger number of elements	-	3	3	4	4
Nominal heat output (80-60°C) (Pn)	kW	18	24	31.5	36
Nominal heat input (Qn)	kW	20	26.6	34.4	39.2
Useful efficiency at nominal input (80-60°C)	%	89.6	90.9	90.9	90.83
Useful efficiency at 30% (30°C return)	%	89.2	91.1	89	90.75
Water content	l	10	10	13,4	13,4
Minimum water flow rate	l/h	400	520	680	770
CH temperature setting range	°C	45 ÷ 85	45 ÷ 85	45 ÷ 85	45 ÷ 85
Maximum CH system pressure	bar	3	3	3	3
Heating expansion vessel capacity	l	8	8	10	10
Flue gas discharge pipe diameter	mm	110	130	130	130
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Maximum power consumption	W	110	110	110	110
Electric protection rating	IP	40	40	40	40

Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Remote control for thermoregulation control unit (temperature regulation), ErP VI class (87x87x31 mm)	OCREMOTO00		External hot water storage tank kit for ALTAIR RTN PVE - DRAGO DUAL	OKITBEST06
	Remote control for thermoregulation control unit, ErP V class (146x97x34 mm)	OCREMOTO01		Thermoregulation control unit kit, ErP II class (143x97x74 mm)	OKITCEEL02
	Daily timer kit (61.5 x 61.5 x 34.5 mm)	OKITBEST04		Kit for zone pumps	OKITPOMZ00
	Weekly timer kit (61.5 x 61.5 x 34.5 mm)	OKITBEST05		Ext. heat. kit for ALTAIR RTN PVE - DRAGO DUAL	OKITPOVA03

For other accessories, see from page 119

# ALTAIR RTN T

FLOOR-STANDING BOILER WITH OPEN CHAMBER AND NATURAL DRAUGHT, CH ONLY  
OPERATION WITH NO POWER SUPPLY



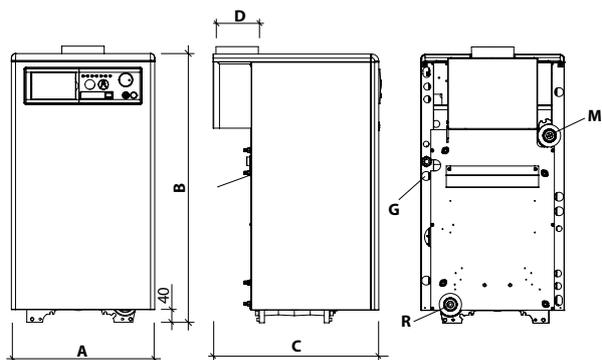
- ▶ **Stainless steel atmospheric burner**
- ▶ **Piezoelectric ignition with permanent pilot**
- ▶ **Heat exchanger with cast iron elements**
- ) Limit thermostat
- ) Safety flue gas thermostat

Available in the following models:



Model	Gas	Code	Heat output (kW)	Energy efficiency class	A x B x C	G	Price €
			Nominal Pn	Room heating	mm	inches	
RTN T 24	NATURAL GAS	CATXX2NB24	24	-	450x850x525	¾"	-
	LPG	CATXX3NB24					
RTN T 32	NATURAL GAS	CATXX2NB32	31,5	-	450x850x625	¾"	-
	LPG	CATXX3NB32					
RTN T 48	NATURAL GAS	CATXX2NB48	48	-	450x850x765	¾"	-
	LPG	CATXX3NB48					

## DIMENSIONS AND CONNECTION CENTRE DISTANCES



**G** Gas connection (3/4")  
**M** Flow (1" 1/2)

**R** Return (1" 1/2)



Model	-	RTN T 24	RTN T 32	RTN T 48
Type	-	B11BS	B11BS	B11BS
Switching on	-	PIEZOELECTRIC	PIEZOELECTRIC	PIEZOELECTRIC
Heat exchanger number of elements	-	3	4	5
Nominal heat output (80-60°C) (Pn)	kW	24	31,5	48
Nominal heat input (Qn)	kW	26,6	34,4	52,8
Useful efficiency at nominal input (80-60°C)	%	90,9	90,9	91,84
Useful efficiency at 30% (30°C return)	%	91,1	89	90,4
Water content	l	10	13,4	16,8
Minimum water flow rate	l/h	520	680	1030
CH temperature setting range	°C	45 ÷ 85	45 ÷ 85	45 ÷ 85
Maximum CH system pressure	bar	4	4	4
Flue gas discharge pipe diameter	mm	130	130	150

Maximum length of flue gas venting, see page 120



# DRAGO DUAL

FLOOR-STANDING BOILER

FOR OPERATION WITH DIESEL AND GAS FORCED DRAF BURNERS (OPTIONAL)



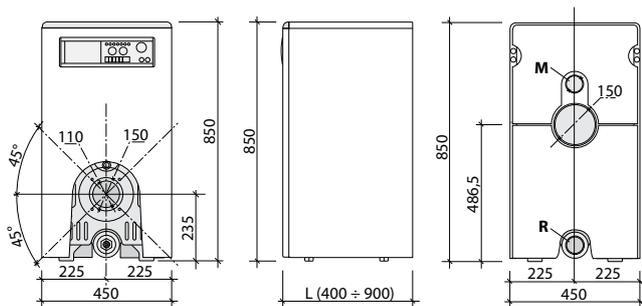
- ▶ **Control and management electric panel, CH circulation pump control, prearranged for connection to the ambient thermostat and to a water pressure switch**
- ▶ **Heat exchanger with three-pass fire-tube cast iron elements**
- ▶ **Easy maintenance**
  - ) Prearrangement for connection to the electric board for the remote management of a water heater (optional), and for the connection to the electric board for the management of three heating zones (optional)
  - ) Thick insulation against heat dissipation
  - ) Limit thermostat
  - ) Casing in powder coated electro-galvanised steel sheet

Available in the following models:

from 23 to 73

Model	Code	Heat output	L	M	R	Gross weight
		(kW)				(Kg)
33	CDBXXGNB33	33	525	G 1 ¼	G 1	159,5
43	CDBXXGNB43	43	625	G 1 ¼	G 1	191
53	CDBXXGNB53	53	700	G 1 ¼	G 1	213
63	CDBXXGNB63	63	800	G 1 ¼	G 1	239
73	CDBXXGNB73	73	900	G 1 ¼	G 1	263,5

## DIMENSIONS AND CONNECTION CENTRE DISTANCES

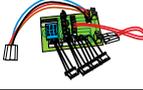
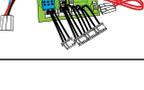


**M** Flow

**R** Return

Technical data	um	33	43	53	63	73
Type	-	B23	B23	B23	B23	B23
Nominal heat input (Q <sub>n</sub> )	kW	36,3	47,2	57,9	68,5	79,3
Nominal heat output (80-60°C) (P <sub>n</sub> )	kW	33	43	53	63	73
Useful efficiency at nominal input (80-60°C)	%	91	91	91,5	92	92
Useful efficiency at 30% (30°C return)	%	90,7	90,7	91,1	91,6	91,6
CH temperature setting range	°C	49-82	49-82	49-82	49-82	49-82
Flue gas flow at nominal heat input	g/s	14,8	19,3	23,1	27,1	31,8
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50	230/50
Electric protection rating	IP	40	40	40	40	40

Maximum length of flue gas venting, see page 120

Item	Description	Code	Item	Description	Code
	Remote control for thermoregulation control unit (temperature regulation), ErP VI class (87x87x31 mm)	0CREMOTO00		Thermoregulation control unit kit, ErP II class (143x97x74 mm)	0KITCEEL02
	Remote control for thermoregulation control unit, ErP V class (146x97x34 mm)	0CREMOTO01		Kit for zone pumps	0KITPOMZ00
	Daily timer kit (61.5 x 61.5 x 34.5 mm)	0KITBEST04		Ext. heat. kit for ALTAIR RTN PVE - DRAGO DUAL	0KITPOVA03
	Weekly timer kit (61.5 x 61.5 x 34.5 mm)	0KITBEST05		Pump and vessel kit for ALTAIR RTN PVE - DRAGO DUAL for hot water storage tank	0KITPOVA04
	External hot water storage tank kit for ALTAIR RTN PVE - DRAGO DUAL	0KITBEST06		Hydraulic kit with pump and expansion tank - ALTAIR RTN PVE - DRAGO DUAL	0KITPOVA05

For other accessories, see from page 119

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Orion	Orion	Orion
Model	-	CTFS 24	CTFS 28	CTFS 32
Type	-	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
DHW nominal heat input	kW	25,5	30,5	33,0
DHW minimum heat input	kW	12,5	13,5	16,0
DHW nominal heat output (ΔT 30°C)	kW	23,7	28,6	30,8
DHW minimum heat output (ΔT 30°C)	kW	11,1	12,0	14,3
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	11,6	14,2	15,1
Qualification of domestic hot water	-	***	***	***
DHW temperature range	°C	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue ΔT at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	122	134	134
Circulation pump power input	W	69	69	69
Electric protection rating	IP	X5D	X5D	X5D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Orion	Orion	Orion
Model	-	RBTF5 24	RBTF5 28	RBTF5 32
Type	-	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue ΔT at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	122	134	134
Circulation pump power input	W	69	69	69
Electric protection rating	IP	X5D	X5D	X5D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Orion	Orion	Orion
Model	-	RTFS 24	RTFS 28	RTFS 32
Type	-	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue ΔT at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	122	134	134
Circulation pump power input	W	69	69	69
Electric protection rating	IP	X5D	X5D	X5D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Virgo	Virgo	Virgo
Model	-	CTFS 24	CTFS 28	CTFS 32
Type	-	B22-C12-C32-C42-C52-C82-C12X	B22-C12-C32-C42-C52-C82-C12X	B22-C12-C32-C42-C52-C82-C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
DHW nominal heat input	kW	25,5	30,5	33,0
DHW minimum heat input	kW	12,5	13,5	16,0
DHW nominal heat output (ΔT 30°C)	kW	23,7	28,6	30,8
DHW minimum heat output (ΔT 30°C)	kW	11,1	12,0	14,3
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	11,6	14,2	15,1
DHW temperature range	°C	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue ΔT at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	125	134	134
Circulation pump power input	W	69	69	69
Electric protection rating	IP	X5D	X5D	X5D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Virgo	Virgo
Model	-	CTN 24	CTN 28
Type	-	B11BS	B11BS
Nominal heat input (Qn)	kW	25,5	30,5
Reduced heat input (Qr)	kW	10,0	12,5
Nominal heat output (80-60°C) (Pn)	kW	23,1	27,4
Reduced heat output (80-60°C) (Pr)	kW	8,5	10,8
Useful efficiency at nominal input (80-60°C)	%	90,6	90,0
Useful efficiency at 30% (47°C return)	%	89,4	87,8
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78
CH maximum working temperature	°C	83	83
Heating expansion vessel capacity	l	7	7
DHW nominal heat input	kW	25,5	30,5
DHW minimum heat input	kW	10,0	12,5
DHW nominal heat output (ΔT 30°C)	kW	23,1	27,4
DHW minimum heat output (ΔT 30°C)	kW	8,5	10,8
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	11,2	13,5
DHW temperature range	°C	35-57	35-57
DHW maximum working temperature	°C	62	62
NOx emission class	-	2	2
Casing heat loss with burner on at nominal heat input	%	1,88	2,83
Casing heat loss with burner off	%	0,55	0,55
Chimney heat loss with burner on at nominal heat input	%	7,52	7,17
Air-flue ΔT at nominal heat input	°C	86	96
Flue gas flow at nominal heat input	g/s	20,73	21,7
CO2 at nominal heat input of heating (Natural gas)	%	4,9	5,5
CO2 at nominal heat input of heating (Propane)	%	5,6	6,5
CO2 at nominal heat input of heating (Butane gas)	%	5,8	6,5
Power supply voltage/frequency	V/Hz	230/50	230/50
Maximum power consumption	W	86	86
Circulation pump power input	W	69	69
Electric protection rating	IP	X5D	X5D
Flue gas discharge pipes diameter	mm	130	130

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Virgo	Virgo	Virgo
Model	-	RBTF5 24	RBTF5 28	RBTF5 32
Type	-	B22-C12-C32-C42-C52-C82-C12X	B22-C12-C32-C42-C52-C82-C12X	B22-C12-C32-C42-C52-C82-C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue $\Delta T$ at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	125	134	134
Circulation pump power input	W	69	69	69
Electric protection rating	IP	X5D	X5D	X5D
Air intake/flue gas vent pipe diameter	mm	100/60	100/60	100/60
		125/80	125/80	125/80
		80+80	80+80	80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Virgo	Virgo
Model	-	RBTN 24	RBTN 28
Type	-	B11BS	B11BS
Nominal heat input (Qn)	kW	25,5	30,5
Reduced heat input (Qr)	kW	10,0	12,5
Nominal heat output (80-60°C) (Pn)	kW	23,1	27,4
Reduced heat output (80-60°C) (Pr)	kW	8,5	10,8
Useful efficiency at nominal input (80-60°C)	%	90,6	90,0
Useful efficiency at 30% (47°C return)	%	89,4	87,8
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78
CH maximum working temperature	°C	83	83
Heating expansion vessel capacity	l	7	7
NOx emission class	-	2	2
Casing heat loss with burner on at nominal heat input	%	1,88	2,83
Casing heat loss with burner off	%	0,55	0,55
Chimney heat loss with burner on at nominal heat input	%	7,52	7,17
Air-flue $\Delta T$ at nominal heat input	°C	86	96
Flue gas flow at nominal heat input	g/s	20,73	21,7
CO2 at nominal heat input of heating (Natural gas)	%	4,9	5,5
CO2 at nominal heat input of heating (Propane)	%	5,6	6,5
CO2 at nominal heat input of heating (Butane gas)	%	5,8	6,5
Power supply voltage/frequency	V/Hz	230/50	230/50
Maximum power consumption	W	86	86
Circulation pump power input	W	69	69
Electric protection rating	IP	X5D	X5D
Flue gas discharge pipes diameter	mm	130	130

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Virgo	Virgo	Virgo
Model	-	RTFS 24	RTFS 28	RTFS 32
Type	-	B22-C12-C32-C42-C52-C82-C12X	B22-C12-C32-C42-C52-C82-C12X	B22-C12-C32-C42-C52-C82-C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue $\Delta T$ at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	125	134	134
Circulation pump power input	W	69	69	69
Electric protection rating	IP	X5D	X5D	X5D
Air intake/flue gas vent pipe diameter	mm	100/60	100/60	100/60
		125/80	125/80	125/80
		80+80	80+80	80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Virgo	Virgo
Model	-	RTN 24	RTN 28
Type	-	B11BS	B11BS
Nominal heat input (Qn)	kW	25,5	30,5
Reduced heat input (Qr)	kW	10,0	12,5
Nominal heat output (80-60°C) (Pn)	kW	23,1	27,4
Reduced heat output (80-60°C) (Pr)	kW	8,5	10,8
Useful efficiency at nominal input (80-60°C)	%	90,6	90,0
Useful efficiency at 30% (47°C return)	%	89,4	87,8
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78
CH maximum working temperature	°C	83	83
Heating expansion vessel capacity	l	7	7
NOx emission class	-	2	2
Casing heat loss with burner on at nominal heat input	%	1,88	2,83
Casing heat loss with burner off	%	0,55	0,55
Chimney heat loss with burner on at nominal heat input	%	7,52	7,17
Air-flue $\Delta T$ at nominal heat input	°C	86	96
Flue gas flow at nominal heat input	g/s	20,73	21,7
CO2 at nominal heat input of heating (Natural gas)	%	4,9	5,5
CO2 at nominal heat input of heating (Propane)	%	5,6	6,5
CO2 at nominal heat input of heating (Butane gas)	%	5,8	6,5
Power supply voltage/frequency	V/Hz	230/50	230/50
Maximum power consumption	W	86	86
Circulation pump power input	W	69	69
Electric protection rating	IP	X5D	X5D
Flue gas discharge pipes diameter	mm	130	130

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	CTFS 24
Type	-	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5
Reduced heat input (Qr)	kW	12,5
Nominal heat output (80-60°C) (Pn)	kW	23,7
Reduced heat output (80-60°C) (Pr)	kW	11,1
Useful efficiency at nominal input (80-60°C)	%	93,0
Useful efficiency at 30% (47°C return)	%	90,4
Useful efficiency at reduced flow rate (80-60°C)	%	88,7
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	7
DHW nominal heat input	kW	25,5
DHW minimum heat input	kW	8,6
DHW nominal heat output (ΔT 30°C)	kW	23,7
DHW minimum heat output (ΔT 30°C)	kW	11,0
DHW circuit working pressure (min-max)	bar	0,5-8,0
Specific DHW flow ΔT=30K	l/min	11,1
DHW temperature range	°C	35-57
DHW maximum working temperature	°C	62
NOx emission class	-	2
Casing heat loss with burner on at nominal heat input	%	1,01
Casing heat loss with burner off	%	0,23
Chimney heat loss with burner on at nominal heat input	%	5,89
Air-flue ΔT at nominal heat input	°C	98
Flue gas flow at nominal heat input	g/s	14,18
CO2 at nominal heat input of heating (Natural gas)	%	6,8
CO2 at nominal heat input of heating (Propane)	%	7,7
CO2 at nominal heat input of heating (Butane gas)	%	8,0
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	120
Circulation pump power input	W	84
Electric protection rating	IP	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	CTN 24
Type	-	B11BS
Nominal heat input (Qn)	kW	24,5
Reduced heat input (Qr)	kW	12,0
Nominal heat output (80-60°C) (Pn)	kW	22,07
Reduced heat output (80-60°C) (Pr)	kW	10,46
Useful efficiency at nominal input (80-60°C)	%	90,1
Useful efficiency at 30% (47°C return)	%	88,45
Useful efficiency at reduced flow rate (80-60°C)	%	87,15
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	7
DHW nominal heat input	kW	24,5
DHW minimum heat input	kW	12,0
DHW nominal heat output (ΔT 30°C)	kW	22,07
DHW minimum heat output (ΔT 30°C)	kW	10,46
DHW circuit working pressure (min-max)	bar	0,5-8,0
Specific DHW flow ΔT=30K	l/min	10,6
DHW temperature range	°C	35-57
DHW maximum working temperature	°C	62
NOx emission class	-	2
Casing heat loss with burner on at nominal heat input	%	3,04
Casing heat loss with burner off	%	0,61
Chimney heat loss with burner on at nominal heat input	%	6,86
Air-flue ΔT at nominal heat input	°C	83
Flue gas flow at nominal heat input	g/s	16,72
CO2 at nominal heat input of heating (Natural gas)	%	5,7
CO2 at nominal heat input of heating (Propane)	%	7,3
CO2 at nominal heat input of heating (Butane gas)	%	6,7
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	88
Circulation pump power input	W	84
Electric protection rating	IP	X4D
Flue gas discharge pipes diameter	mm	130

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	RBTFS 24
Type	-	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5
Reduced heat input (Qr)	kW	12,5
Nominal heat output (80-60°C) (Pn)	kW	23,7
Reduced heat output (80-60°C) (Pr)	kW	11,1
Useful efficiency at nominal input (80-60°C)	%	93,0
Useful efficiency at 30% (47°C return)	%	90,4
Useful efficiency at reduced flow rate (80-60°C)	%	88,7
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	7
NOx emission class	-	2
Casing heat loss with burner on at nominal heat input	%	1,01
Casing heat loss with burner off	%	0,23
Chimney heat loss with burner on at nominal heat input	%	5,89
Air-flue ΔT at nominal heat input	°C	98
Flue gas flow at nominal heat input	g/s	14,18
CO2 at nominal heat input of heating (Natural gas)	%	6,8
CO2 at nominal heat input of heating (Propane)	%	7,7
CO2 at nominal heat input of heating (Butane gas)	%	8,0
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	120
Circulation pump power input	W	84
Electric protection rating	IP	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	RBTN 24
Type	-	B11BS
Nominal heat input (Qn)	kW	24,5
Reduced heat input (Qr)	kW	12,0
Nominal heat output (80-60°C) (Pn)	kW	22,07
Reduced heat output (80-60°C) (Pr)	kW	10,46
Useful efficiency at nominal input (80-60°C)	%	90,1
Useful efficiency at 30% (47°C return)	%	88,45
Useful efficiency at reduced flow rate (80-60°C)	%	87,15
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	7
NOx emission class	-	2
Casing heat loss with burner on at nominal heat input	%	3,04
Casing heat loss with burner off	%	0,61
Chimney heat loss with burner on at nominal heat input	%	6,86
Air-flue ΔT at nominal heat input	°C	83
Flue gas flow at nominal heat input	g/s	16,72
CO2 at nominal heat input of heating (Natural gas)	%	5,7
CO2 at nominal heat input of heating (Propane)	%	7,3
CO2 at nominal heat input of heating (Butane gas)	%	6,7
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	88
Circulation pump power input	W	84
Electric protection rating	IP	X4D
Flue gas discharge pipes diameter	mm	130

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	RTFS 24
Type	-	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5
Reduced heat input (Qr)	kW	12,5
Nominal heat output (80-60°C) (Pn)	kW	23,7
Reduced heat output (80-60°C) (Pr)	kW	11,1
Useful efficiency at nominal input (80-60°C)	%	93,0
Useful efficiency at 30% (47°C return)	%	90,4
Useful efficiency at reduced flow rate (80-60°C)	%	88,7
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	7
NOx emission class	-	2
Casing heat loss with burner on at nominal heat input	%	1,01
Casing heat loss with burner off	%	0,23
Chimney heat loss with burner on at nominal heat input	%	5,89
Air-flue $\Delta T$ at nominal heat input	°C	98
Flue gas flow at nominal heat input	g/s	14,18
CO2 at nominal heat input of heating (Natural gas)	%	6,8
CO2 at nominal heat input of heating (Propane)	%	7,7
CO2 at nominal heat input of heating (Butane gas)	%	8,0
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	120
Circulation pump power input	W	84
Electric protection rating	IP	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	CTFS 40
Type	-	B22-C12- C32-C42- C52-C62- C82-C12X
Nominal heat input (Qn)	kW	41,0
Reduced heat input (Qr)	kW	15,0
Nominal heat output (80-60°C) (Pn)	kW	38,0
Reduced heat output (80-60°C) (Pr)	kW	12,9
Useful efficiency at nominal input (80-60°C)	%	92,7
Useful efficiency at 30% (47°C return)	%	89,4
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	10
DHW nominal heat input	kW	41,0
DHW minimum heat input	kW	15,0
DHW nominal heat output (ΔT 30°C)	kW	38,0
DHW minimum heat output (ΔT 30°C)	kW	12,9
DHW circuit working pressure (min-max)	bar	0,5-6,0
Specific DHW flow ΔT=30K	l/min	18,5
DHW temperature range	°C	35-57
DHW maximum working temperature	°C	62
NOx emission class	-	3
Casing heat loss with burner on at nominal heat input	%	1,82
Casing heat loss with burner off	%	0,17
Chimney heat loss with burner on at nominal heat input	%	5,48
Air-flue ΔT at nominal heat input	°C	96,5
Flue gas flow at nominal heat input	g/s	26,7
CO2 at nominal heat input of heating (Natural gas)	%	6,6
CO2 at nominal heat input of heating (Propane)	%	7,8
CO2 at nominal heat input of heating (Butane gas)	%	7,8
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	157
Circulation pump power input	W	73
Electric protection rating	IP	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	RBTFS 40
Type	-	B22-C12- C32-C42- C52-C62- C82-C12X
Nominal heat input (Qn)	kW	41,0
Reduced heat input (Qr)	kW	15,0
Nominal heat output (80-60°C) (Pn)	kW	38,0
Reduced heat output (80-60°C) (Pr)	kW	12,9
Useful efficiency at nominal input (80-60°C)	%	92,7
Useful efficiency at 30% (47°C return)	%	89,4
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
NOx emission class	-	3
Casing heat loss with burner on at nominal heat input	%	1,82
Casing heat loss with burner off	%	0,17
Chimney heat loss with burner on at nominal heat input	%	5,48
Air-flue $\Delta T$ at nominal heat input	°C	96,5
Flue gas flow at nominal heat input	g/s	26,7
CO2 at nominal heat input of heating (Natural gas)	%	6,6
CO2 at nominal heat input of heating (Propane)	%	7,8
CO2 at nominal heat input of heating (Butane gas)	%	7,8
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	157
Circulation pump power input	W	73
Electric protection rating	IP	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80



## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Delfis
Model	-	RTFS 40
Type	-	B22-C12- C32-C42- C52-C62- C82-C12X
Nominal heat input (Qn)	kW	41,0
Reduced heat input (Qr)	kW	15,0
Nominal heat output (80-60°C) (Pn)	kW	38,0
Reduced heat output (80-60°C) (Pr)	kW	12,9
Useful efficiency at nominal input (80-60°C)	%	92,7
Useful efficiency at 30% (47°C return)	%	89,4
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
NOx emission class	-	3
Casing heat loss with burner on at nominal heat input	%	1,82
Casing heat loss with burner off	%	0,17
Chimney heat loss with burner on at nominal heat input	%	5,48
Air-flue $\Delta T$ at nominal heat input	°C	96,5
Flue gas flow at nominal heat input	g/s	26,7
CO2 at nominal heat input of heating (Natural gas)	%	6,6
CO2 at nominal heat input of heating (Propane)	%	7,8
CO2 at nominal heat input of heating (Butane gas)	%	7,8
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	157
Circulation pump power input	W	73
Electric protection rating	IP	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Vega	Vega	Vega
Model	-	CTFS 24	CTFS 28	CTFS 32
Type	-	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X	B22-C12- C32-C42- C52-C82- C12X
Nominal heat input (Qn)	kW	25,5	30,5	33,0
Reduced heat input (Qr)	kW	12,5	13,5	16,0
Nominal heat output (80-60°C) (Pn)	kW	23,7	28,6	30,8
Reduced heat output (80-60°C) (Pr)	kW	11,1	12,0	14,3
Useful efficiency at nominal input (80-60°C)	%	93,0	93,7	93,4
Useful efficiency at 30% (47°C return)	%	90,2	90,6	91,0
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83
Heating expansion vessel capacity	l	7	7	7
DHW nominal heat input	kW	25,5	30,5	33,0
DHW minimum heat input	kW	12,5	13,5	16,0
DHW nominal heat output (ΔT 30°C)	kW	23,7	28,6	30,8
DHW minimum heat output (ΔT 30°C)	kW	11,1	12,0	14,3
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	11,6	14,2	15,1
DHW temperature range	°C	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62
NOx emission class	-	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,05	0,76	1,37
Casing heat loss with burner off	%	0,26	0,20	0,20
Chimney heat loss with burner on at nominal heat input	%	5,97	5,54	5,23
Air-flue ΔT at nominal heat input	°C	95	101	105
Flue gas flow at nominal heat input	g/s	15,44	17,29	17,8
CO2 at nominal heat input of heating (Natural gas)	%	6,1	7,0	7,4
CO2 at nominal heat input of heating (Propane)	%	6,7	7,7	8,4
CO2 at nominal heat input of heating (Butane gas)	%	7,0	8,0	8,7
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50
Maximum power consumption	W	132	145	145
Circulation pump power input	W	90	90	90
Electric protection rating	IP	X4D	X4D	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80



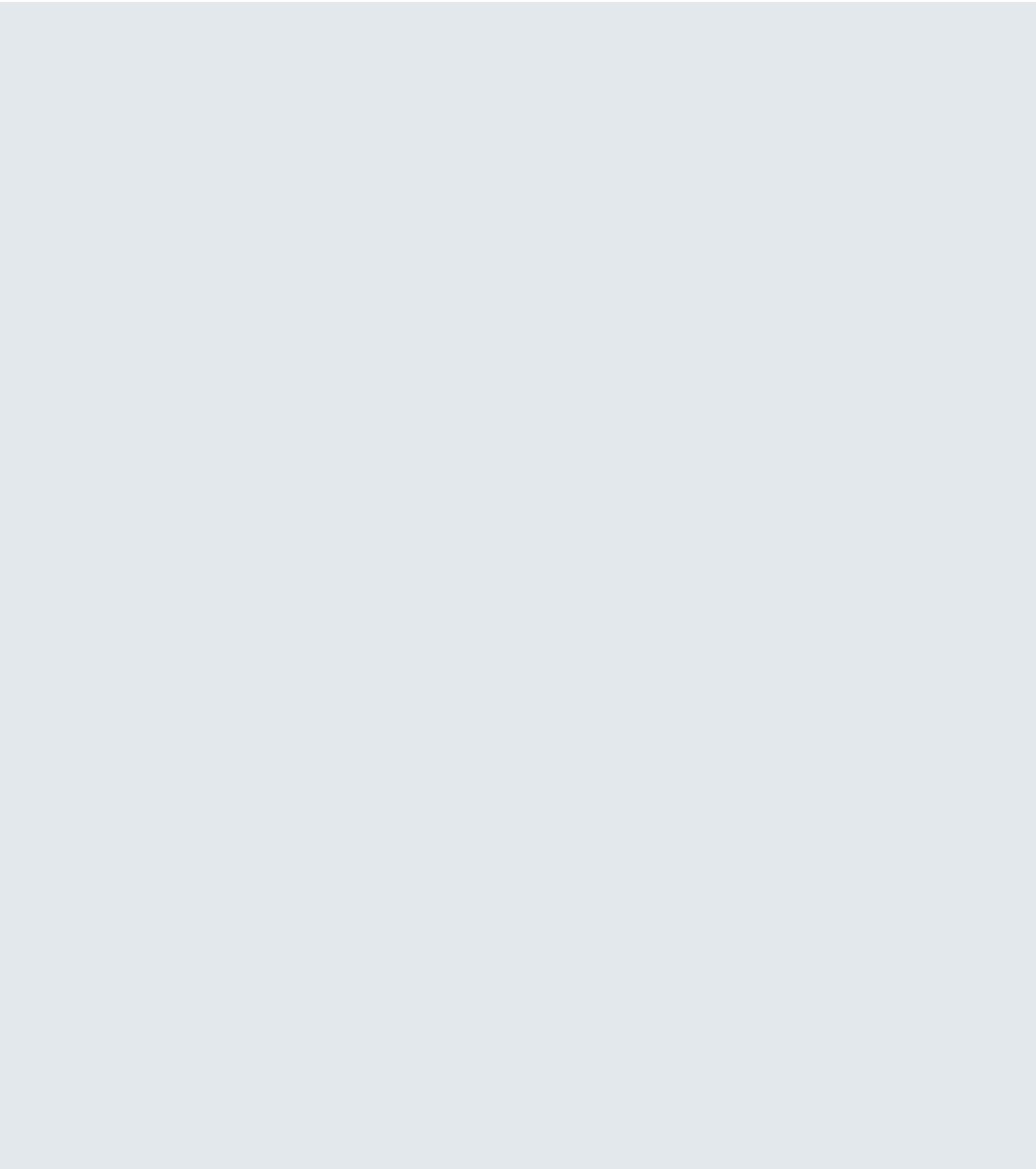
## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Nibir	Nibir	Nibir	Nibir	Nibir	Nibir
Model	-	CTFS 9	CTFS 11	CTFS 13	CTFS 15	CTFS 18	CTFS 24
Type	-	B22-C12-C12X-C32-C42-C52-C62-C82	B22-C12-C12X-C32-C42-C52-C62-C82	B22-C12-C12X-C32-C42-C52-C62-C82	B22-C12-C12X-C32-C42-C52-C62-C82	B22-C12-C12X-C32-C42-C52-C62-C82	B22-C12-C12X-C32-C42-C52-C62-C82
Nominal heat input (Qn)	kW	10,4	12,3	14,2	16,4	20,0	25,5
Reduced heat input (Qr)	kW	7,0	7,0	7,0	7,0	7,0	11,5
Nominal heat output (80-60°C) (Pn)	kW	9,3	11,1	13,0	15,1	18,6	23,3
Reduced heat output (80-60°C) (Pr)	kW	6,0	6,0	6,0	6,0	6,0	9,9
Useful efficiency at nominal input (80-60°C)	%	89,2	90,2	91,2	91,8	93,2	91,2
Useful efficiency at 30% (47°C return)	%	86,2	86,9	87,6	87,7	88,2	87,4
Heating circuit working pressure (min-max)	bar	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0	0,5-3,0
CH temperature setting range	°C	35-78	35-78	35-78	35-78	35-78	35-78
CH maximum working temperature	°C	83	83	83	83	83	83
Heating expansion vessel capacity	l	6	6	6	6	6	6
DHW nominal heat input	kW	20,0	20,0	20,0	20,0	20,0	25,5
DHW minimum heat input	kW	18,6	18,6	18,6	18,6	18,6	23,1
DHW nominal heat output (ΔT 30°C)	kW	7,0	7,0	7,0	7,0	7,0	11,5
DHW minimum heat output (ΔT 30°C)	kW	6,0	6,0	6,0	6,0	6,0	9,9
DHW circuit working pressure (min-max)	bar	0,5-6,0	0,5-6,0	0,5-6,0	0,5-6,0	0,5-6,0	0,5-6,0
Specific DHW flow ΔT=30K	l/min	9,5	9,5	9,5	9,5	9,5	11,7
DHW temperature range	°C	35-57	35-57	35-57	35-57	35-57	35-57
DHW maximum working temperature	°C	62	62	62	62	62	62
NOx emission class	-	3	3	3	3	3	3
Casing heat loss with burner on at nominal heat input	%	1,59	1,46	1,46	1,37	1,55	1,96
Casing heat loss with burner off	%	0,31	0,25	0,22	0,19	0,16	0,11
Chimney heat loss with burner on at nominal heat input	%	9,05	7,90	7,32	6,83	5,25	6,84
Air-flue ΔT at nominal heat input	°C	101,3	101,3	101,3	101,3	101,3	125,5
Flue gas flow at nominal heat input	g/s	11,5	11,5	11,5	11,5	11,5	15,4
CO2 at nominal heat input of heating (Natural gas)	%	7,0	7,0	7,0	7,0	7,0	6,7
CO2 at nominal heat input of heating (Propane)	%	7,6	7,6	7,6	7,6	7,6	7,9
CO2 at nominal heat input of heating (Butane gas)	%	8,1	8,1	8,1	8,1	8,1	7,9
Power supply voltage/frequency	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50
Maximum power consumption	W	120	120	120	120	120	120
Circulation pump power input	W	84	84	84	84	84	84
Electric protection rating	IP	X4D	X4D	X4D	X4D	X4D	X4D
Air intake/flue gas vent pipe diameter	mm	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80	100/60 125/80 80+80

## TECHNICAL SPECIFICATIONS OF STANDARD BOILERS

Technical data	um	Nibir
Model	-	CTN 24
Type	-	B11BS
Nominal heat input (Qn)	kW	24,5
Reduced heat input (Qr)	kW	12,0
Nominal heat output (80-60°C) (Pn)	kW	21,8
Reduced heat output (80-60°C) (Pr)	kW	10,4
Useful efficiency at nominal input (80-60°C)	%	89,1
Useful efficiency at 30% (47°C return)	%	86,7
Heating circuit working pressure (min-max)	bar	0,5-3,0
CH temperature setting range	°C	35-78
CH maximum working temperature	°C	83
Heating expansion vessel capacity	l	6
DHW nominal heat input	kW	24,5
DHW minimum heat input	kW	12,0
DHW circuit working pressure (min-max)	bar	0,5-6,0
Specific DHW flow $\Delta T=30K$	l/min	11,0
DHW temperature range	°C	35-57
DHW maximum working temperature	°C	62
NOx emission class	-	2
Casing heat loss with burner on at nominal heat input	%	3,72
Casing heat loss with burner off	%	0,71
Chimney heat loss with burner on at nominal heat input	%	7,17
Air-flue $\Delta T$ at nominal heat input	°C	92
Flue gas flow at nominal heat input	g/s	18,1
CO2 at nominal heat input of heating (Natural gas)	%	5,3
CO2 at nominal heat input of heating (Propane)	%	6,1
CO2 at nominal heat input of heating (Butane gas)	%	6,2
Power supply voltage/frequency	V/Hz	230/50
Maximum power consumption	W	88
Circulation pump power input	W	84
Electric protection rating	IP	X4D
Flue gas discharge pipes diameter	mm	130







# FLUE FITTINGS AND ACCESSORIES

## FLUE FITTINGS

Discharge for condensing boilers type B23	page 120
Discharge for condensing boilers type C13	page 122
Discharge for condensing boilers type C33	page 123
Discharge for condensing boilers type C53	page 126
Discharge for standard boilers Type B22	page 128
Discharge for standard boilers Type C12	page 129
Discharge for standard boilers Type C32	page 130
Discharge for standard boilers Type C52	page 132
Concentric flue fittings for condensing boilers Ø 60/100	page 133
Concentric flue fittings for condensing boilers Ø 80/125	page 133
Split flue fittings for condensing boilers Ø 50	page 134
Split flue fittings for condensing boilers Ø 60	page 135
Split flue fittings for condensing boilers Ø 80	page 136
Concentric flue fittings for standard boilers Ø 60-100	page 137
Split flue fittings for standard boilers Ø 80	page 138
Concentric flue fittings for standard boilers Ø 80-125	page 139

## ACCESSORIES

Thermoregulation and electronic	page 140
Outdoor installation partially protected and optional accessories	page 142
Hydraulic	page 144



# DISCHARGE FOR CONDENSING BOILERS TYPE B23

INTAKE AND VENT PIPES Ø 80

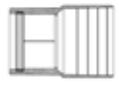


No.	Item	Description	Code
09		Splitter kit Ø80+80	0KITSDOP08
10		Extension M/F Ø80 L=1 m	0PROLUNG00
11		Extension M/F Ø80 L=0.5 m	0PROLUNG01
13		90° elbow M/F Ø80	0CURVAXX02
15		Suction opening Ø80	0GRIGASP01
16		Flue vent chimney Ø80 H=138cm	0CAMISCA00
18		Flue vent terminal Ø80 L=1m	0TERMSCA00
37		Tile for tilted roof (flue output)	0TEGTEIN00
43		Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPAS100

# DISCHARGE FOR CONDENSING BOILERS TYPE B23

INTAKE AND VENT PIPES Ø 80-60



No.	Item	Description	Code
09		Splitter kit Ø80+80	OKITSDOP08
13		90° elbow M/F Ø80	0CURVAXX02
15		Suction opening Ø80	0GRIGASP01
16		Flue vent chimney Ø80 H=138cm	0CAMISCA00
24		Adapter Ø80/60	0RIDUZIO19
25		Adapter M/F Ø 60-80 M/F	0RIDUZIO10
28		90° elbow Ø60	0CURVAXX16
30		Extension M/F Ø60 L=1m	0PROLUNG16
32		Extension M/F Ø60 L=0.5 m	0PROLUNG18
36		Flue vent terminal Ø60 L=1m	0TERMSCA01
37		Tile for tilted roof (flue output)	0TEGTEIN00



# DISCHARGE FOR CONDENSING BOILERS TYPE C13

INTAKE AND VENT PIPES Ø 60/100

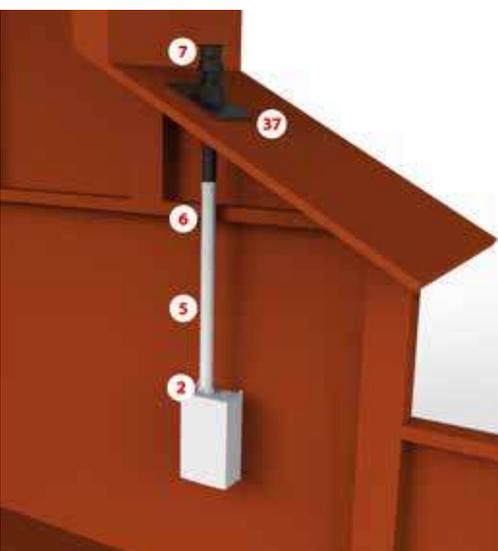
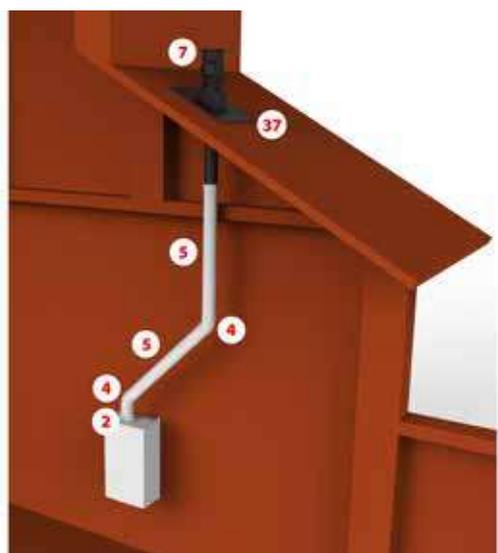


No.	Item	Description	Code
01		Coaxial kit Ø 60/100 length 75cm	0CONDASP00
02		Coaxial fitting kit Ø60/100	0KITATCO00
03		90° elbow M/F coaxial Ø60/100	0CURVAXX05
05		Coaxial extension M/F Ø60/100 L=1m	0PROLUNG02
06		Coaxial extension M/F Ø60/100 L=0.5m	0PROLUNG03



# DISCHARGE FOR CONDENSING BOILERS TYPE C33

INTAKE AND VENT PIPES Ø 60/100



No.	Item	Description	Code
02		Coaxial fitting kit Ø60/100	0KITATCO00
03		90° elbow M/F coaxial Ø60/100	0CURVAXX05
04		45° elbow M/F coaxial Ø60/100	0CURVAXX04
05		Coaxial extension M/F Ø60/100 L=1m	0PROLUNG02
06		Coaxial extension M/F Ø60/100 L=0.5m	0PROLUNG03
07		Coaxial flue kit Ø60/100	0KCAMASP00
37		Tile for tilted roof (flue output)	0TEGTEIN00



# DISCHARGE FOR CONDENSING BOILERS TYPE C33

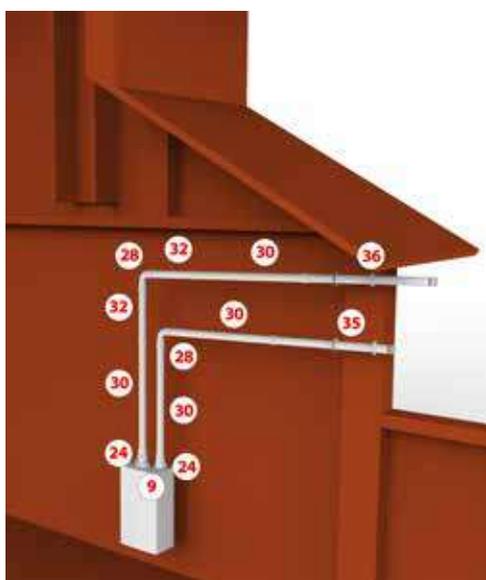
INTAKE AND VENT PIPES Ø 80

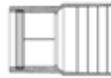
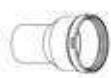


No.	Item	Description	Code
09		Splitter kit Ø80+80	0KITSDOP08
10		Extension M/F Ø80 L=1 m	0PROLUNG00
11		Extension M/F Ø80 L=0.5 m	0PROLUNG01
13		90° elbow M/F Ø80	0CURVAXX02
15		Suction opening Ø80	0GRIGASP01
17		Flue gas intake/vent chimney Ø80+80 H=138.4cm	0CAMIASP00
18		Flue vent terminal Ø80 L=1m	0TERMSCA00
19		Tee kit for visual inspection and collecting condensate Ø80	0KITRACT00
23		Tee M/M/F Ø80	0RACCORT00
37		Tile for tilted roof (flue output)	0TEGTEIN00
43		Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASI00

# DISCHARGE FOR CONDENSING BOILERS TYPE C33

INTAKE AND VENT PIPES Ø 60

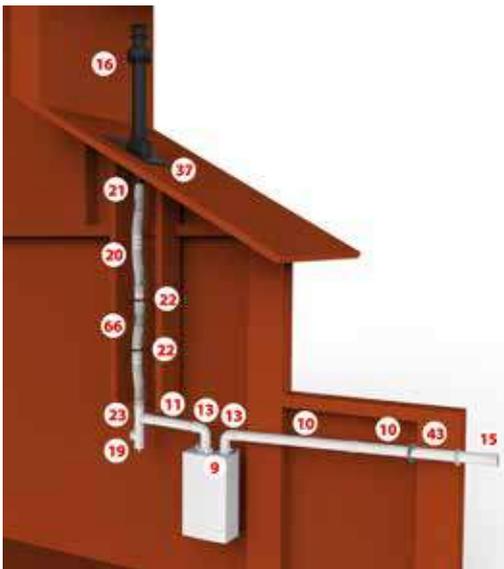
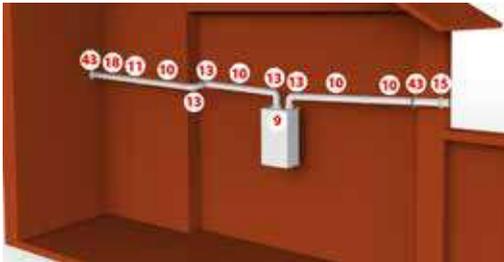


No.	Item	Description	Code
09		Splitter kit Ø80+80	OKITSDOP08
17		Flue gas intake/vent chimney Ø80+80 H=138.4cm	0CAMIASP00
24		Adapter Ø80/60	ORIDUZIO19
25		Adapter M/F Ø 60-80 M/F	ORIDUZIO10
28		90° elbow Ø60	0CURVAXX16
30		Extension M/F Ø60 L=1m	OPROLUNG16
31		Extension M/F Ø60 L=2 m	OPROLUNG17
32		Extension M/F Ø60 L=0.5 m	OPROLUNG18
33		Tee M/M/F Ø60	0RACCORT06
34		Condensate drain Ø60	0SCARCON03
35		Air intake terminal Ø60 L=1m	0TERMASP01
36		Flue vent terminal Ø60 L=1m	0TERMSCA01
37		Tile for tilted roof (flue output)	0TEGTEIN00



# DISCHARGE FOR CONDENSING BOILERS TYPE C53

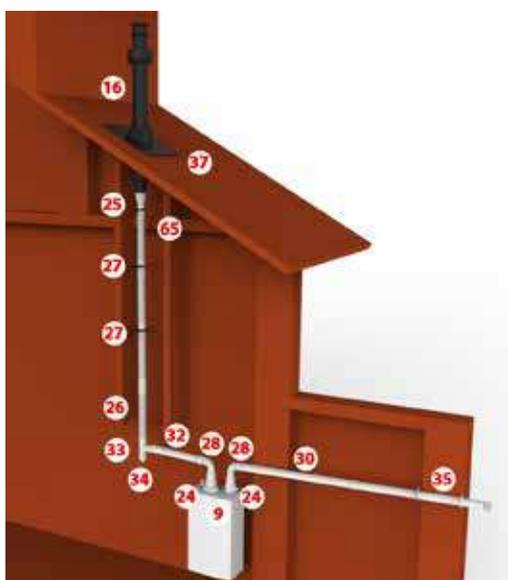
INTAKE AND VENT PIPES Ø 80



No.	Item	Description	Code
09		Splitter kit Ø80+80	0KITSDOP08
10		Extension M/F Ø80 L=1 m	0PROLUNG00
11		Extension M/F Ø80 L=0.5 m	0PROLUNG01
13		90° elbow M/F Ø80	0CURVAXX02
15		Suction opening Ø80	0GRIGASP01
16		Flue vent chimney Ø80 H=138cm	0CAMISCA00
18		Flue vent terminal Ø80 L=1m	0TERMSCA00
19		Tee kit for visual inspection and collecting condensate Ø80	0KITRACT00
20		Kit of adapters for flexible hose Ø80 (included gaskets)	0KADAFLE00
22		Centring element for flexible hose Ø80	0CENTFLE00
23		Tee M/M/F Ø80	0RACCORT00
37		Tile for tilted roof (flue output)	0TEGTEIN00
43		Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASI00
66		Flexible pipe M/F Ø80 (20m roll)	0TUBOFLE06

# DISCHARGE FOR CONDENSING BOILERS TYPE C53

INTAKE AND VENT PIPES Ø 60



No.	Item	Description	Code
09		Splitter kit Ø80+80	0KITSDOP08
16		Flue vent chimney Ø80 H=138cm	0CAMISCA00
24		Adapter Ø80/60	0RIDUZIO19
25		Adapter M/F Ø 60-80 M/F	0RIDUZIO10
26		Kit of adapters for flexible hose Ø60	0KADAFLE01
27		Centring element for flexible hose Ø60	0CENTFLE02
28		90° elbow Ø60	0CURVAXX16
30		Extension M/F Ø60 L=1m	0PROLUNG16
31		Extension M/F Ø60 L=2 m	0PROLUNG17
32		Extension M/F Ø60 L=0.5 m	0PROLUNG18
33		Tee M/M/F Ø60	0RACCORT06
34		Condensate drain Ø60	0SCARCON03
35		Air intake terminal Ø60 L=1m	0TERMASP01
36		Flue vent terminal Ø60 L=1m	0TERMSCA01
37		Tile for tilted roof (flue output)	0TEGTEIN00
65		Flexible pipe M/F Ø60 (20m roll)	0TUBOFLE07



# DISCHARGE FOR STANDARD BOILERS TYPE B22

INTAKE AND VENT PIPES Ø 80

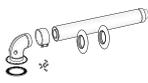
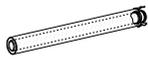


No.	Item	Description	Code
15		Suction opening Ø80	0GRIGASP01
37		Tile for tilted roof (flue output)	0TEGTEIN00
38		Extension Ø80 L= 1m	0CONDOTT00
39		Ø80 pipe L= 0.5m (for TFS boilers)	0CONDOTT01
40A		Elbow 90° Ø80 broad beam	0CURRALA00
40B		90° elbow with inspection Ø80 narrow radius (for TFS boilers)	0CURVAXX03
43		Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASI00
84		Upwind terminal Ø80 stainless steel	0TERCOIN00
86		Horizontal chimney terminal D80	0TESTCAM00
153		Coaxial flue kit	0SDOPPIA13

# DISCHARGE FOR STANDARD BOILERS TYPE C12

INTAKE AND VENT PIPES Ø 60/100



No.	Item	Description	Code
140		Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00
147		Concentric pipe length 1m D60/100 (for TFS boilers)	0TUBCOLU00
148		Concentric pipe length 0.5m D60/100 (for TFS boilers)	0TUBCOLU01



# DISCHARGE FOR STANDARD BOILERS TYPE C32

INTAKE AND VENT PIPES Ø 60/100



No.	Item	Description	Code
37		Tile for tilted roof (flue output)	0TEGTEIN00
78		Elbow 90° coaxial Ø100/60 (for boilers TFS)	0CURVCON00
79		Elbow 45° coaxial Ø100/60 (for boilers TFS)	0CURVCON01
147		Concentric pipe length 1m D60/100 (for TFS boilers)	0TUBCOLU00
148		Concentric pipe length 0.5m D60/100 (for TFS boilers)	0TUBCOLU01
151		Coaxial roof chimney Ø100/60 (for TFS boilers)	0SCATECO00

# DISCHARGE FOR STANDARD BOILERS TYPE C32

INTAKE AND VENT PIPES Ø 80

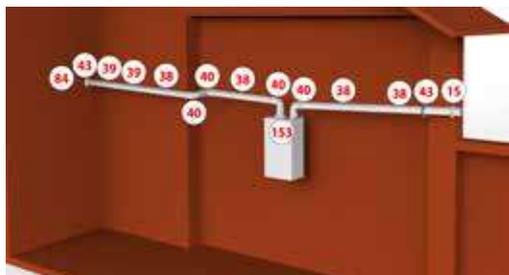


No.	Item	Description	Code
15		Suction opening Ø80	0GRIGASP01
37		Tile for tilted roof (flue output)	0TEGTEIN00
38		Extension Ø80 L= 1m	0CONDOTT00
39		Ø80 pipe L= 0.5m (for TFS boilers)	0CONDOTT01
40A		Elbow 90° Ø80 broad beam	0CURRALA00
40B		90° elbow with inspection Ø80 narrow radius (for TFS boilers)	0CURVAXX03
43		Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASI00
84		Upwind terminal Ø80 stainless steel	0TERCOIN00
149		Chimney for splitted pipes Ø80/80 (for boilers TFS)	0CAMCOSD00
153		Coaxial flue kit	0SDOPPIA13



# DISCHARGE FOR STANDARD BOILERS TYPE C52

INTAKE AND VENT PIPES Ø 80



No.	Item	Description	Code
15		Suction opening Ø80	0GRIGASP01
37		Tile for tilted roof (flue output)	0TEGTEIN00
38		Extension Ø80 L= 1m	0CONDOTT00
39		Ø80 pipe L= 0.5m (for TFS boilers)	0CONDOTT01
40A		Elbow 90° Ø80 broad beam	0CURREALA00
40B		90° elbow with inspection Ø80 narrow radius (for TFS boilers)	0CURVAXX03
43		Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASI00
84		Upwind terminal Ø80 stainless steel	0TERCOIN00
86		Horizontal chimney terminal D80	0TESTCAM00
88		Vertical stub pipe with condensate trap Ø80 L=0.135m (for TFS boilers)	0TRONVER00
153		Coaxial flue kit	0SDOPPIA13

# CONCENTRIC FLUE FITTINGS FOR CONDENSING BOILERS Ø 60/100

Item	Description	Code
	Coaxial kit Ø 60/100 length 75cm	0CONDASP00
	Coaxial fitting kit Ø60/100	0KITATCO00
	90° elbow M/F coaxial Ø60/100	0CURVAXX05
	45° elbow M/F coaxial Ø60/100	0CURVAXX04
	Coaxial extension M/F Ø60/100 L=1m	0PROLUNG02
	Coaxial extension M/F Ø60/100 L=0.5m	0PROLUNG03
	Coaxial flue kit Ø60/100	0KCAMASP00
	Elbow 90° and flange kit Ø60/100	0KCURFLA00

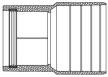
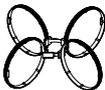
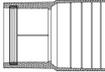
Item	Description	Code
	Tile for tilted roof (flue output)	0TEGTEIN00
	Sealing collar kit D 100	0KCOLLBL00
	Concentric terminal 60/100	0TERMCON01
	Starting flange kit for condensing boilers	0KITFLAN00
	Ducting plate kit Ø60/100	0PIASINT02
	30° elbow M/F coaxial Ø60/100	0CURVAXX31
	15° elbow M/F coaxial Ø60/100	0CURVAXX32

# CONCENTRIC FLUE FITTINGS FOR CONDENSING BOILERS Ø 80/125

Item	Description	Code
	Coax. adapter kit D.60/100 to D.80/125	0KITADCO00
	Intake/condensate drain kit	0KITASCA00
	80/125 straight intake/vent tailpipe kit	0KITASCA01
	Coaxial flue + flange kit	0KITCACO00
	80/125 flue kit	0KITCACO01
	Coax. extension D.80/125 L=1m	0PROLUNG04
	Coax. extension D.80/125 L=0.5m	0PROLUNG05

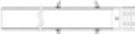
Item	Description	Code
	Coaxial M-F 45° elbow D. 80/125	0CURVAXX06
	Coaxial M-F 90° elbow D. 80/125	0CURVAXX07
	90° elbow for visual inspection D. 80/125	0CURVISP05
	Extension for visual inspection d80/125	0TUBISPV05
	Coaxial flue gases starting kit 125/80 (for boiler ITACA CH KR)	0ATTCOFL01
	80/125 pipework plate kit	0PIASINT01
	Sealing collar kit D 125	0KCOLLBL01

# SPLIT FLUE FITTINGS FOR CONDENSING BOILERS Ø 50

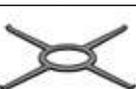
Item	Description	Code	Item	Description	Code
	Adapter M/F Ø80/50	0RIDUZIO32		Condensate drain Ø50 (*)	0SCARCON05
	Extention M/F Ø50 L=1m (*)	0PROLUNG32		Vertical flue vent terminal Ø50 H=145cm (*)	0TERMTE02
	90° elbow Ø50 (*)	0CURVAXX33		Flexible pipe M/F Ø50 (20m roll) (*)	0TUBOFLE08
	45° elbow Ø50 (*)	0CURVAXX34		Kit of adapters for flexible hose Ø50 (*)	0KADAFLE02
	Air intake terminal Ø50 L=1m (*)	0TERMASP02		Centring element for flexible hose Ø50 (*)	0CENTFLE03
	Flue vent terminal Ø50 L=0,36m (*)	0TERMSCA04		Vertical terminal for flexible hose Ø50 with flue cover (C9 type installation) (*)	0TERMTE03
	Tee M/M/F Ø50 (*)	0KITRACT06		Adapter Ø60/50 M-F (C9 type installation) (*)	0RIDUZIO33

(\*) Items normally not in stock, minimum stock availability time 8 weeks.

# SPLIT FLUE FITTINGS FOR CONDENSING BOILERS Ø 60

Item	Description	Code	Item	Description	Code
	Adapter Ø80/60	0RIDUZIO19		Extension M/F Ø60 L=2 m	0PROLUNG17
	Adapter M/F Ø 60-80 M/F	0RIDUZIO10		Extension M/F Ø60 L=0.5 m	0PROLUNG18
	Flexible pipe M/F Ø60 (20m roll)	0TUBOFLE07		Tee M/M/F Ø60	0RACCORT06
	Kit of adapters for flexible hose Ø60	0KADAFLE01		Condensate drain Ø60	0SCARCON03
	Centring element for flexible hose Ø60	0CENTFLE02		Air intake terminal Ø60 L=1m	0TERMASP01
	90° elbow Ø60	0CURVAXX16		Flue vent terminal Ø60 L=1m	0TERMSCA01
	45° elbow Ø60	0CURVAXX17		Vertical terminal for flexible hose Ø60 with flue cover (C9 type installation) (*)	0TERMTET04
	Extension M/F Ø60 L=1m	0PROLUNG16	(*) Items normally not in stock, minimum stock availability time 8 weeks.		

# SPLIT FLUE FITTINGS FOR CONDENSING BOILERS Ø 80

Item	Description	Code	Item	Description	Code
	Splitter kit Ø80+80	0KITSDOP08		Suction opening in AISI316 Stainless steel Ø80 H=30mm (for TFS boilers)	0GRIASIN00
	Telescopic extension M/F Ø80 (0.34-0.45m)	0PROLTEL01		Flanged flue gas starter fitting D 80 (for boiler ITACA CH KR)	0PARTFUM01
	45° elbow M/F Ø80	0CURVAXX01		Air intake stub pipe + inspection (for boiler ITACA CH KR)	0TRONASP00
	Suction opening Ø80	0GRIGASP01		Split starting kit 80 (for boiler ITACA CH KR)	0KITSDOP06
	Flue vent chimney Ø80 H=138cm	0CAMISCA00		Extension M/F Ø80 L=1 m	0PROLUNG00
	Flue gas intake/vent chimney Ø80+80 H=138.4cm	0CAMIASP00		Extension M/F Ø80 L=0.5 m	0PROLUNG01
	Tee kit for visual inspection and collecting condensate Ø80	0KITRACT00		90° elbow M/F Ø80	0CURVAXX02
	Flexible pipe M/F Ø80 (20m roll)	0TUBOFLE06		Flue vent terminal Ø80 L=1m	0TERMSCA00
	Kit of adapters for flexible hose Ø80 (included gaskets)	0KADAFLE00		Vertical terminal for flexible hose Ø80 with flue cover (C9 type installation) (*)	0TERMTET05
	Centring element for flexible hose Ø80	0CENTFLE00		Double lip seal Ø80 for condensation	0GUADOLA04
	Tee M/M/F Ø80	0RACCORT00		Seal for flexible hose Ø80 (10pcs) (included in 0KADAFLE00)	0GUAFLEX00
	Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASIO0			

(\*) Items normally not in stock, minimum stock availability time 8 weeks.

# CONCENTRIC FLUE FITTINGS FOR STANDARD BOILERS Ø 60-100

Item	Description	Code	Item	Description	Code
	Coaxial kit D60/100 L=1m (for boiler TFS)	0KITCONC00		Clamp Ø100 for coaxial kit	0FASCETT04
	Concentric pipe length 1m D60/100 (for TFS boilers)	0TUBCOLU00		Twin-lip seal Ø60	0GUADOLA00
	Concentric pipe length 0.5m D60/100 (for TFS boilers)	0TUBCOLU01		Twin-lip seal Ø100	0GUADOLA01
	Elbow 90° coaxial Ø100/60 (for boilers TFS)	0CURVCON00		Coaxial kit D60/100 L=0.75m (for boiler TFS)	0KITCONC01
	Elbow 45° coaxial Ø100/60 (for boilers TFS)	0CURVCON01		Coaxial kit for covering frame D600/100 L=0.75m (for TFS boilers)	0KITCONC02
	Coaxial roof chimney Ø100/60 (for TFS boilers)	0SCATECO00		Coaxial kit D60/100 L=0.5m (for boiler TFS)	0KITCONC03
	Tile for tilted roof (flue output)	0TEGTEIN00		Sealing caps kit for venting	0KITTACA00
	Vertical coaxial fitting Ø100/60 (for boilers TFS)	0ATTCOVE00		Wall rosette external Ø100	0ROSONEX00
	Vertical coaxial fitting with collecting condensate Ø100/60 (for boilers TFS)	0ATTCOVE02		Wall rosette internal Ø100	0ROSONEX01
	Elbow 90° flangiata coassiale Ø100/60 (per caldaie TFS)	0CURCOFL00			

# SPLIT FLUE FITTINGS FOR STANDARD BOILERS Ø 80

Item	Description	Code	Item	Description	Code
	Coaxial flue kit	0SDOPPIA13		90° elbow Ø80 narrow radius (for TFS boilers)	0CURRAST00
	Extension Ø80 L= 1m	0CONDOTT00		45° elbow Ø80 (for TFS boilers)	0CURVAXX00
	Ø80 pipe L= 0.5m (for TFS boilers)	0CONDOTT01		Seal Ø80 (twin-lip)	0GUADOLA02
	Elbow 90° Ø80 broad beam	0CURRALA00		Condensation drain trap M/F Ø80 (for TFS boilers)	0RACCOOR00
	90° elbow with inspection Ø80 narrow radius (for TFS boilers)	0CURVAXX03		Roof brace terminal Ø80 INOX	0TERCOIN02
	Suction opening Ø80	0GRIGASP01		STAINLESS STEEL "Chinese" terminal Ø80 (for TFS boilers)	0TERMCIN00
	Upwind terminal Ø80 stainless steel	0TERCOIN00		Vertical stub pipe Ø80 L=0.135m (for TFS boilers)	0TRONCMF00
	Tile for tilted roof (flue output)	0TEGTEIN00		Split comp. plus kit '11 (while stocks last)	0SDOPPIA12
	Horizontal chimney terminal D80	0TESTCAM00		Splitter kit for traditional boiler (for boiler NIBIR CTF5)	0SDOPPIA14
	Wall rosette in silicone, ID Ø80 OD Ø170	0ROSPASIO0		Vertical stub pipe with condensate trap Ø80 L=0.135m (for TFS boilers)	0TRONVER00
	Chimney for splitted pipes Ø80/80 (for boilers TFS)	0CAMCOSD00			

# CONCENTRIC FLUE FITTINGS FOR STANDARD BOILERS Ø 80-125

Item	Description	Code
	Coaxial kit 80/125 horizontal terminal	0KITCONC05
	90° elbow for visual inspection D. 80/125	0CURVISPO2
	Extension for visual inspection D. 80/125	0TUBISPV02
	T-shaped fitting 80/125	0KITRACT05
	Vertical coaxial connection D. 80/125	0ATTCOVE01
	90° concentric elbow D. 80/125	0CURVCON02

Item	Description	Code
	45° concentric elbow D. 80/125	0CURVCON03
	Vertical concentric roof discharge 80/125	0SCATECO01
	Concentric pipe D. 80/125 length 0.5 m	0TUBCOLU03
	Concentric pipe D. 80/125 length 1 m	0TUBCOLU02
	Concentric pipe D. 80/125 length 0.25 m	0TUBCOLU04

# ACCESSORIES

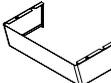
## THERMOREGULATION AND ELECTRONIC

Item	Description												Code
		DEL F I S K C	DEL F I S K R	DEL F I S K R B	V I R G O K C	V I R G O K R	V I R G O K R B	O R I O N K C	O R I O N K R	O R I O N K R B	O R I O N K B	L E O K C	
	Remote control, ErP V class (118x85x32 mm)	●	●	●	●	●	●	●	●	●	●	●	0CREMOTO04
	Antifreeze heating element kit	●	●	●	●	●	●	●	●	●	●	●	0KANTIGE00
	Ambient temperature probe								●	●	●	●	0KITSAMB00
	Surge arrester kit	●	●	●	●	●	●	●	●	●	●	●	0KITSCAR00
	Electric kit for complex solar plant management	●	●	●	●	●	●	●	●	●	●	●	0KITSOLC08
	hot water storage tank temperature probe 3m		●	●		●	●		●	●			0KITSOND00
	Electrical kit for zone management with external probe	●	●	●	●	●	●	●	●	●	●	●	0KITZONE05
	External probe (60x45x31 mm)	●	●	●	●	●	●	●	●	●	●	●	0SONDAES01
	Electromechanical ambient thermostat, ErP I class (71x71x40 mm)	●	●	●	●	●	●	●	●	●	●	●	0TERAMEL00



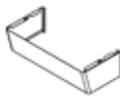
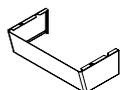
# ACCESSORIES

## OUTDOOR INSTALLATION PARTIALLY PROTECTED AND OPTIONAL ACCESSORIES

Item	Description	DEL FIS KC	DEL FIS KR	DEL FIS KRB	VIRGO KC	VIRGO KR	VIRGO KRB	ORION KC	ORION KR	ORION KRB	ORION KB	LEO KC	Code
	Coaxial air intake/flue gas venting connection for B23 type installations				●	●	●	●	●	●			0ATTCOVE06
	Outdoor cover kit with antifreeze protection kit				●	●	●	●	●	●			0KITCOPE01
	Outdoor cover kit				●	●	●	●	●	●			0KITCOPE02
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	●	●	●								●	0COPETUB00
	Pipes and taps low plastic cover				●	●	●	●	●	●			0COPETUB03
	Pipes and taps cover											●	0COPETUB05
	Pipes and taps high metal cover				●	●	●	●	●	●			0COPETUB07
	Basic compact install. metal template	●	●	●									0DIMMECO10
	Metal fixing template				●	●	●	●	●	●			0DIMMECO11
	Metal template for KB boiler											●	0DIMMECO12
	Wall mounting bracket for compact boiler	●	●	●									0KSTASOS00

# ACCESSORIES

## OUTDOOR INSTALLATION PARTIALLY PROTECTED AND OPTIONAL ACCESSORIES

Item	Description														Code									
		DELFI CTFS	DELFI CTFS 40	DELFI CTN	DELFI RBTF5	DELFI RBTF5 40	DELFI RBTN	DELFI RTFS	DELFI RTFS 40	VIRGO CTFS	VIRGO CTN	VIRGO RBTF5	VIRGO RBTN	VIRGO RTFS		VIRGO RTN	ORION CTFS	ORION RBTF5	ORION RTFS	VEGA CTFS	NIBIR CTFS	NIBIR CTFS (CU)	NIBIR CTN (CU)	
	Coaxial air intake/flue gas venting connection for B22 type installations									●						●								0ATTCOVE04
	Cover and anti-freeze protection kit									●		●		●		●	●	●						0KITCOPE03
	External protection kit for standard boilers									●		●		●		●	●	●						0KITCOPE04
	Compact wall pipe cover - Height 110 mm - Width 400 mm - Depth (upper part) 194 mm - Depth (lower part) 165 mm	●		●	●	●	●	●	●												●	●	●	0COPETUB00
	Pipes and taps low plastic cover									●	●	●	●	●	●	●	●	●	●					0COPETUB03
	Pipes and taps high metal cover									●	●	●	●	●	●	●	●	●	●					0COPETUB07
	Basic compact install. metal template	●	●	●	●	●	●	●	●												●	●	●	0DIMMECO10
	Wall mounting bracket for compact boiler	●		●	●	●	●	●	●												●	●	●	0KSTASOS00

# ACCESSORIES

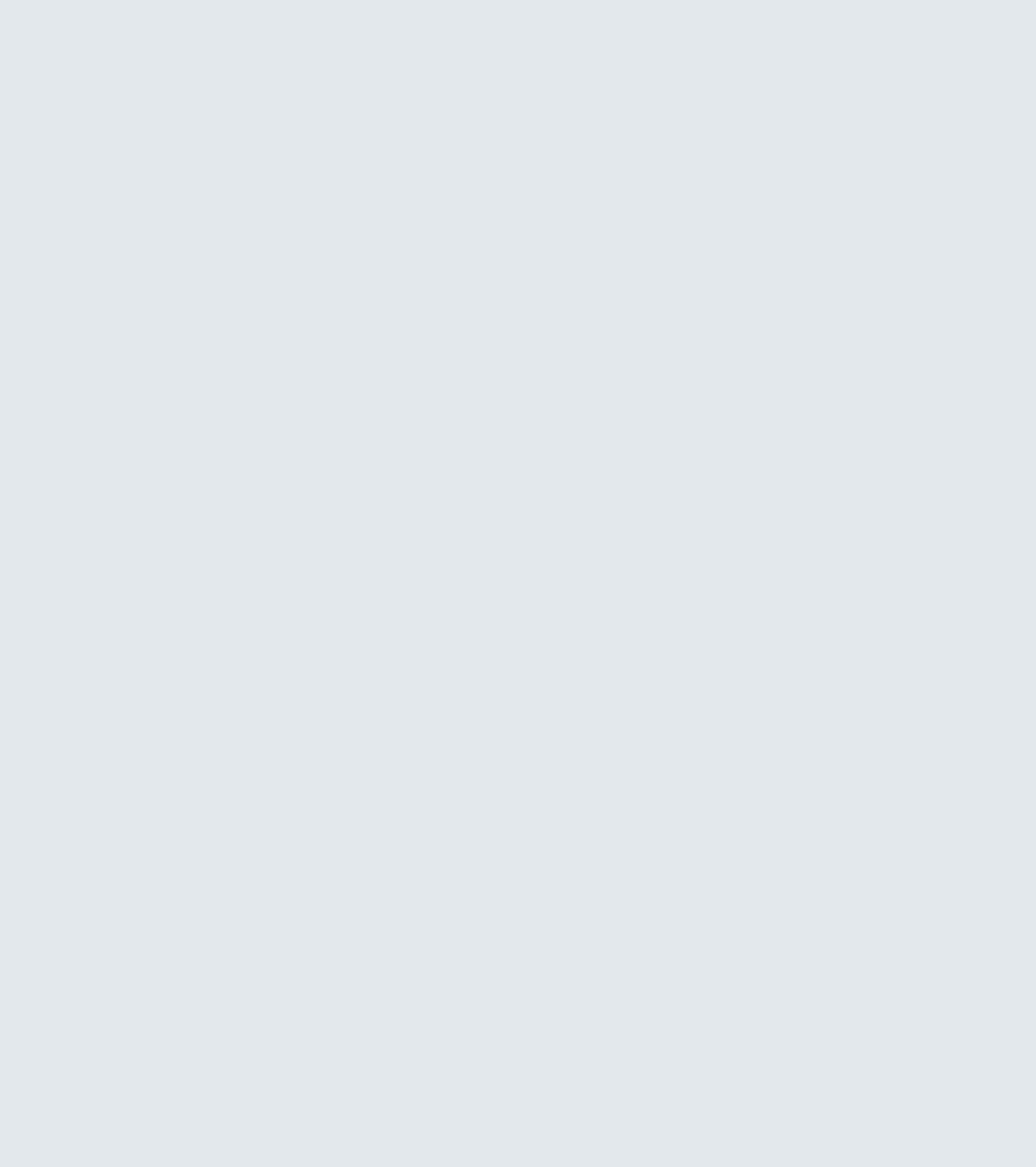
## HYDRAULIC

Item	Description	DEL F1S KC	DEL F1S KR	DEL F1S KRB	VIRGO KC	VIRGO KR	VIRGO KRB	ORION KC	ORION KR	ORION KRB	ORION KB	LEO KC	Code
	Magnetic dirt separator filter	●	●	●	●	●	●	●	●	●	●	●	0AFILDEF00
	Flow - return cold water 90° taps kit												0KITIDBA11
	Tap kit with filter KR-KB-RT		●			●			●		●		0KITRUBI04
	Tap kit with filter KC-KRB-CT-RBT	●		●	●		●	●		●		●	0KITRUBI05
	Recirculation kit										●		0KRICIRC02
	Kit for connection to solar plant	●			●			●				●	0KITSOLC07
	Basic hydraulic kit							●		●			0KITIDBA17
	Gas and water cock kit	●	●	●	●	●	●	●	●	●	●	●	0KITRUBI01
	Basic hydraulic kit	●	●		●	●		●	●			●	0KITIDBA16
	Spare coated SS hose kit. N°2x3 ¼" L=0.260m - n° 3x½" L=0.520m	●	●	●	●			●	●	●	●	●	0KITIDTR00

# ACCESSORIES

## HYDRAULIC

Item	Description													Code												
		DELFI CTFS	DELFI CTFS 40	DELFI CTN	DELFI RBTF5	DELFI RBTF5 40	DELFI RBTN	DELFI RTFS	DELFI RTFS 40	ALTAIR RTN T	DRAGO DUAL	VIRGO CTFS	VIRGO CTN		VIRGO RBTF5	VIRGO RBTN	VIRGO RTFS	VIRGO RTN	ORION CTFS	ORION RBTF5	ORION RTFS	VEGA CTFS	NIBIR CTFS	NIBIR CTFS (CU)	NIBIR CTN (CU)	
	Flow - return cold water 90° taps kit	●	●	●							●	●						●			●	●	●	●	OKITIDBA11	
	Tap kit with filter KR-KB-RT							●	●											●					OKITRUBI04	
	Tap kit with filter KC-KRB-CT-RBT	●	●	●	●	●	●				●	●	●	●				●	●		●				OKITRUBI05	
	Basic hydraulic kit	●		●		●	●	●															●	●	●	OKITIDBA29
	Plus hydr. kit for basic compact unit	●		●		●	●	●															●	●	●	OKITIDBA14
	Kit for connection to solar plant	●	●	●							●	●						●			●	●	●	●	OKITSOLC07	
	Gas and water cock kit	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	●	●	●	●	●	●	OKITRUBI01	
	Basic hydraulic kit	●		●				●	●			●						●	●		●	●			OKITIDBA16	
	Ext. heat. kit for ALTAIR RTN PVE - DRAGO DUAL									●	●														OKITPOVA03	
	Pump and vessel kit for ALTAIR RTN PVE - DRAGO DUAL for hot water storage tank																								OKITPOVA04	
	Hydraulic kit with pump and expansion tank ALTAIR RTN PVE - DRAGO DUAL																								OKITPOVA05	
	Spare coated SS hose kit. N°2x3 3/4" L=0.260m - n° 3x1/2" L=0.520m	●	●		●	●	●	●	●			●						●		●		●	●	●	OKITIDTR00	





# SOLAR THERMAL PRODUCTS

## COLLECTORS

Solar collectors HWF 20 - HWF 26	page 148
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## SYSTEMS

Sulpack Evo	page 149
Sulpack Pro	page 150
Sulpack Easy	page 151
Sulpack Natural Plus	page 152

## ACCESSORIES

Solar pump group rs1, only return	page 154
Solar pump group mrs3, flow and return	page 154
Circulation pumps	page 155
Additional tanks	page 155
Expansion vessels	page 155
Accessories for tanks	page 156
Thermostatic mixing valve	page 156
Three-way deviating valve	page 157
Concentrated solar protection liquid	page 157
Pipes for solar plants	page 158
Fitting for solar plants	page 158
Solar kit for combination boilers	page 159
Temperature probe	page 159
SG2 solar control unit	page 160
SG3 solar control unit	page 160



# SOLAR COLLECTORS HWF 20 - HWF 26

SOLAR THERMAL FLAT-PLATE COLLECTORS FOR INSTALLATION ON FLAT ROOF AND PITCHED-ROOF (PARALLEL OR IN-ROOF INSTALLATION)

HWF 20 included in the GSE "Solar thermal catalogue"



- ▶ **High-efficiency aluminium absorber**
- ▶ **Copper piping**
- ▶ **Laser welding**
- ▶ **Aluminium tank-frame**
- ▶ **Rock wool insulation with a thickness of 40 mm**
- ) Tempered clear glass with low iron content
- ) Possibility to connect up to 8 collectors in series
- ) Suitable for installation in the vertical direction, with the short side on top

Data	um	HWF 20	HWF 26
Total gross surface	m <sup>2</sup>	2,06	2,62
Absorber surface	m <sup>2</sup>	1,93	2,47
Absorbance	%	95	95
Emission	%	5	5
Glass transmittancy	%	91	91
Liquid content	litres	0,9	1,14
Maximum operating pressure	bar	10	10
Net weight	kg	32,2	39,3
Stagnation temperature	°C	201	201
Opening surface	m <sup>2</sup>	1,93	2,47
$\eta_0$	-	0,75	0,75
$\alpha_1$	W/(m <sup>2</sup> K)	3,17	3,17
$\alpha_2$	W/(m <sup>2</sup> K <sup>2</sup> )	0,012	0,012
IAM (K 50°)	-	0,95	0,95
External dimensions HC 25 (W x H x D)	mm	2022x1019x90	2022x1295x90
Code	-	PSHWF20000	PSHWF26000

Package includes: collectors.

Description	Code	Description	Code
Viton seals (10 pieces) (*)	PSGUAHWF00	HWF 20 single collector in-roof installation kit	PSKITCOP08
Collector connection kit	PSKITHWF00	HWF 20 supplementary collector in-roof installation kit	PSKITCOP09
Joining kit for two collectors	PSKITHWF01	HWF 20 single collector in-roof installation kit	PSKITCOP10
HWF 20 single collector fixing kit, for installation on the roof	PSKMHWF206	HWF 20 supplementary collector in-roof installation kit	PSKITCOP11
HWF 20 single collector fixing kit, brackets for roofs with wood-blocks	PSKMHWF207	HWF 26 single collector fixing kit, for installation on the roof	PSKMVL2506
HWF 20 single collector fixing kit, brackets for roofs without wood-blocks	PSKMHWF208	HWF 26 single collector fixing kit, brackets for roofs with wood-blocks	PSKMVL2507
HWF 20 single collector fixing kit, installation on roof with an inclination of 35°	PSKMHWF209	HWF 26 single collector fixing kit, brackets for roofs without wood-blocks	PSKMVL2508
Single collector fixing kit HWF 20, for sheet metal roofing	PSKMHWF210	HWF 26 single collector fixing kit, installation on roof with an inclination of 35°	PSKMVL2509
Single collector fixing kit HWF 26, for sheet metal roofing	PSKMVL2510		

(\*) Product available while stocks last

# SULPACK EVO

SOLAR KIT FOR FORCED CIRCUIT WITH HEAT INTEGRATION IN THE HOT WATER STORAGE TANK



- ▶ **Solar collectors**
- ▶ **High thermal insulation glazed hot water storage tank**
- ▶ **Two-way hydraulic unit with high efficiency solar pump, factory assembled**
- ▶ **Hydraulic and safety accessories**
  - ) ES solar expansion vessel
  - ) Hose with bracket for tanks
  - ) Thermostatic mixing valve
  - ) Propylene glycol for solar plants
  - ) Sealing gaskets

The solar kit can be combined with wall-hung pre-mixed condensing boilers for sole heating. This solar kit requires you to position the hot water storage tank inside the building, preferably close to the heat power plant. By means of appropriate temperature probes which regulate its operation, a pump enables circulation of the liquid in the solar circuit.

Technical data	um	HWF 20 - 200	PLUS HWF 20 - 200	HWF 20 - 300	HWF 26 - 200	HWF 26 - 300
Orientation	-	Vertical				
Collectors	no.	1	2	2	1	2
Model	-	HWF 20			HWF 26	
Water heater	-	WHPS BZ 200 DS	WHPS BZ 200 DS	WHPS BZ 300 DS	WHPS BZ 200 DS	WHPS BZ 300 DS
hot water storage tank energy efficiency class	-	<b>B</b> →	<b>B</b> →	<b>B</b> →	<b>B</b> →	<b>B</b> →
Usable tank volume [Vu]	l	196	196	273	196	273
Tank dispersion [S]	W	51	51	63	51	63
Back up vol. [Vbu]	l	67	67	85	67	85
Solar unit	-	2 ways				
Qnonsol (M)	kWh	855	632	681	749	673
Qnonsol (L)	kWh	1851	1231	1245	1640	1058
Qnonsol (XL)	kWh	3331	2445	2431	3055	2079
Qnonsol (XXL)	kWh	4472	3469	3443	4169	3011
Solar pump consumption [solpump]	W	45				
Qaux	W	91				
Standby consumption [solsb]	W	0,08				
Expansion vessel	-	ES 18				
Propylene glycol to be mixed	kg	10				
Code	-	PSPACKEV05	PSPACKEV07	PSPACKEV06	PSPACKEV08	PSPACKEV09

The solar kits do not include the retainers for roof installation, to be chosen among the systems specified for the different types of collectors, connection pipes and temperature probes. The solar control unit, if necessary, must be chosen among those indicated in the solar accessories in case you do not use a Nova Florida boiler set to manage the solar system.



# SULPACK PRO

SOLAR KIT FOR FORCED CIRCUIT WITH HEAT INTEGRATION IN THE HOT WATER STORAGE TANK



- ▶ **Solar collectors**
- ▶ **Glazed hot water storage tank**
- ▶ **Two-way hydraulic unit with high-efficiency solar pump**
- ▶ **Hydraulic and safety accessories**

- ) ES solar expansion vessel
- ) RS additional solar tank
- ) Hose with bracket for tanks
- ) Thermostatic mixing valve
- ) Propylene glycol for solar plants
- ) Sealing gaskets

The solar kit can be combined with wall-hung pre-mixed condensing boilers for sole heating. This solar kit requires you to position the hot water storage tank inside the building, preferably close to the heat power plant. By means of appropriate temperature probes which regulate its operation, a pump enables circulation of the liquid in the solar circuit.

Technical data	um	HWF 20 - 200	HWF 20 - 300	HWF 20 - 500	HWF 26 - 200	HWF 26 - 300	HWF 26 - 500
Orientation	-	Vertical					
Collectors	no.	1	2	3	1	2	3
Model	-	HWF 20			HWF 26		
Water heater	-	WHPS BNF 200 DS	WHPS BNF 300 DS	WHPS BNF 500 DS	WHPS BNF 200 DS	WHPS BNF 300 DS	WHPS BNF 500 DS
hot water storage tank energy efficiency class	-	C	C	C	C	C	C
Usable tank volume [Vu]	l	196	273	475	196	273	475
Tank dispersion [S]	W	67	85	112	67	85	112
Back up vol. [Vbu]	l	67	85	130	67	85	130
Solar unit	-	2 ways					
Qnonsol (M)	kWh	940	827	972	844	820	974
Qnonsol (L)	kWh	1916	1370	1188	1714	1193	1150
Qnonsol (XL)	kWh	3383	2531	1990	3114	2192	1691
Qnonsol (XXL)	kWh	4518	3531	2804	4220	3111	2374
Solar pump consumption [solpump]	W	45					
Qaux	W	91					
Standby consumption [solsb]	W	0,08					
Expansion vessel	-	ES 12	ES 18	ES 25	ES12	ES 18	ES 25
Additional tank	-	RS 5	RS 5	RS 8	RS5	RS5	RS 8
Propylene glycol to be mixed	kg	10					
Code	-	PSPACKEX06	PSPACKEX07	PSPACKEX08	PSPACKEX09	PSPACKEX10	PSPACKEX11

The solar kits do not include the retainers for roof installation, to be chosen among the systems specified for the different types of collectors, connection pipes and temperature probes. The solar control unit, if necessary, must be chosen among those indicated in the solar accessories in case you do not use a Nova Florida boiler set to manage the solar system.

# SULPACK EASY

SOLAR KIT FOR FORCED CIRCUIT WITHOUT HEAT INTEGRATION IN THE HOT WATER STORAGE TANK



- ▶ **Solar collectors**
- ▶ **Glazed hot water storage tank**
- ▶ **One-way hydraulic unit with high efficiency solar pump**
- ▶ **Hydraulic and safety accessories**

- ) Sealing gaskets
- ) ES solar expansion vessel
- ) Hoses with brackets for tanks
- ) Thermostatic mixing valve
- ) Propylene glycol for solar plants

The solar kit can be combined to wall-hung combination boilers with instantaneous production of domestic hot water, using the solar kit for instantaneous boilers. The solar kit do not include the retainers for roof installation, to be chosen among the systems specified for the different types of collectors and connection pipes.

Technical data	-	HWF 20 - 200	HWF 20 - 300	HWF 20 - 500	HWF 26 - 200	HWF 26 - 300	HWF 26 - 500
Orientation	-	Vertical					
Collectors	no.	1	2	3	1	2	3
Model	-	HWF 20			HWF 26		
Water heater	-	WHPS BNF 200 SS	WHPS BNF 300 SS	WHPS BNF 500 SS	WHPS BNF 200 SS	WHPS BNF 300 SS	WHPS BNF 500 SS
hot water storage tank energy efficiency class	-	C	C	C	C	C	C
Usable tank volume [Vu]	l	196	273	475	196	273	475
Tank dispersion [S]	W	67	85	112	67	85	112
Solar unit	-	1 way					
Qnonsol (M)	kWh	849	778	930	772	774	932
Qnonsol (L)	kWh	1775	1277	1132	1591	1119	1099
Qnonsol (XL)	kWh	3212	2391	1884	2956	2072	1607
Qnonsol (XXL)	kWh	4335	3368	2668	4048	2966	2261
Solar pump consumption [solpump]	W	45					
Qaux	W	91					
Standby consumption [solsb]	W	0,08					
Expansion vessel	-	ES 12	ES 18	ES 25	ES 12	ES 18	ES 25
Propylene glycol to be mixed	kg	10					
Code	-	PSPACKEY06	PSPACKEY07	PSPACKEY08	PSPACKEY19	PSPACKEY20	PSPACKEY21

The solar kits do not include the retainers for roof installation, to be chosen among the systems specified for the different types of collectors, connection pipes and temperature probes. The solar control unit, if necessary, must be chosen among those indicated in the solar accessories in case you do not use a Nova Florida boiler set to manage the solar system (for combination boilers only).



The Solar Kit for instant boilers allows you to bypass the boiler if water temperature from the solar tank is higher than 48 °C. It includes one unit integrating both a thermostatic deviating valve and an adjustable thermostatic mixing valve.

If you order the solar kit for boiler, when ordering a SULPACK EASY KIT, the mixing valve will not be supplied and will automatically be eliminated from the cost of the kit.

For solar kits for combination boilers, refer to page 163

# SULPACK NATURAL PLUS

## SULPACK NATURAL PLUS



- ▶ **Solar collectors**
- ▶ **Glazed hot water storage tank**
- ▶ **Fastening system for tilted roof**
- ▶ **Hydraulic connection accessories**
- ▶ **1500W auxiliary electric resistance supplied as standard, adjustable by means of a thermostat**

- ) Heat transfer fluid circuit safety valve
- ) Double magnesium anode
- ) Domestic cold water input check and safety valve

The Sulpack Natural Plus system can be combined to Fondital combination boilers with instantaneous production of domestic hot water, using the solar kit for instantaneous boilers. The Solar Kit allows you to bypass the boiler if water temperature from the solar tank is higher than 48 °C.

Technical data	um	150	200	300
Collectors	no.	1	1	2
Gross surface (single collector)	m <sup>2</sup>	2,11		
Liquid content (single collector)	litres	1,4		
Collector structure material	-	aluminium		
Glass	type	low-iron		
Thickness	mm	3,2		
Insulation	type	mineral wool		
Insulation thickness	mm	40		
Size (W x L x H) (single collector)	mm	1036x2037x90		
Overall empty weight (single collector)	kg	42		
Opening surface (single collector)	m <sup>2</sup>	1,92		
η <sub>0</sub>	-	0,702		
α <sub>1</sub>	W/(m <sup>2</sup> K)	3,930		
α <sub>2</sub>	W/(m <sup>2</sup> K <sup>2</sup> )	0,007		
IAM	-	0,91		
<b>Absorber</b>				
Surface (single collector)	m <sup>2</sup>	1,91		
Material	type	aluminium		
Finishing	type	selective		
<b>Tank</b>				
hot water storage tank energy efficiency class	-	<b>C</b>	<b>C</b>	<b>C</b>
Dissipation S	W	68	72	97
Useful volume	litres	152	198	282
Heat exchanger	-	jacket	jacket	jacket
Heat transfer fluid capacity	litres	8,5	12	18,8
Insulation thickness	mm	50	50	50
Maximum operating pressure	bar	6	6	6
Internal finishing	type	enamelling	enamelling	enamelling
Corrosion protection	type	Anodic (double anode - Mg)		
Empty weight	kg	72	88	110
Electric resistance (as standard)	W	1500	1500	1500
Connections	-	G 3/4	G 3/4	G 3/4
Total amount of heat transfer fluid in the system	litres	11	14,5	22,5
Code	-	PSPACTER09	PSPACTER10	PSPACTER11

Description	Code
Supplementary kit for flat roofs, mod. 150	PSKITPAC03
Supplementary kit for flat roofs, mod. 200	PSKITPAC04

Description	Code
Supplementary kit for flat roofs, mod. 300	PSKITPAC05
Sulpack natural plus pressure-temperature safety valve	PSVALSIC00

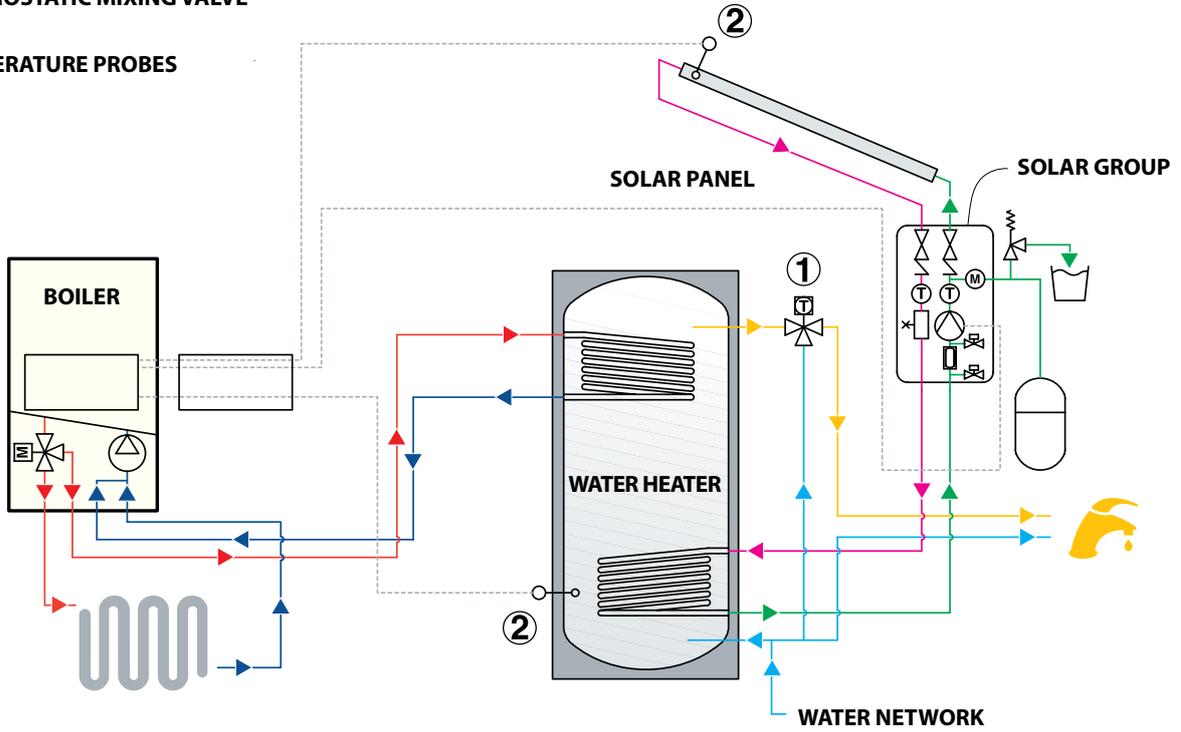
It can be combined with the following models: ORION KC - VIRGO KC - VIRGO CTN - DELFIS KCDELFI CTN -

## EXAMPLES

### Connection to a boiler with integrated deviating valve Sulpack Pro / Sulpack Evo

① THERMOSTATIC MIXING VALVE

② TEMPERATURE PROBES

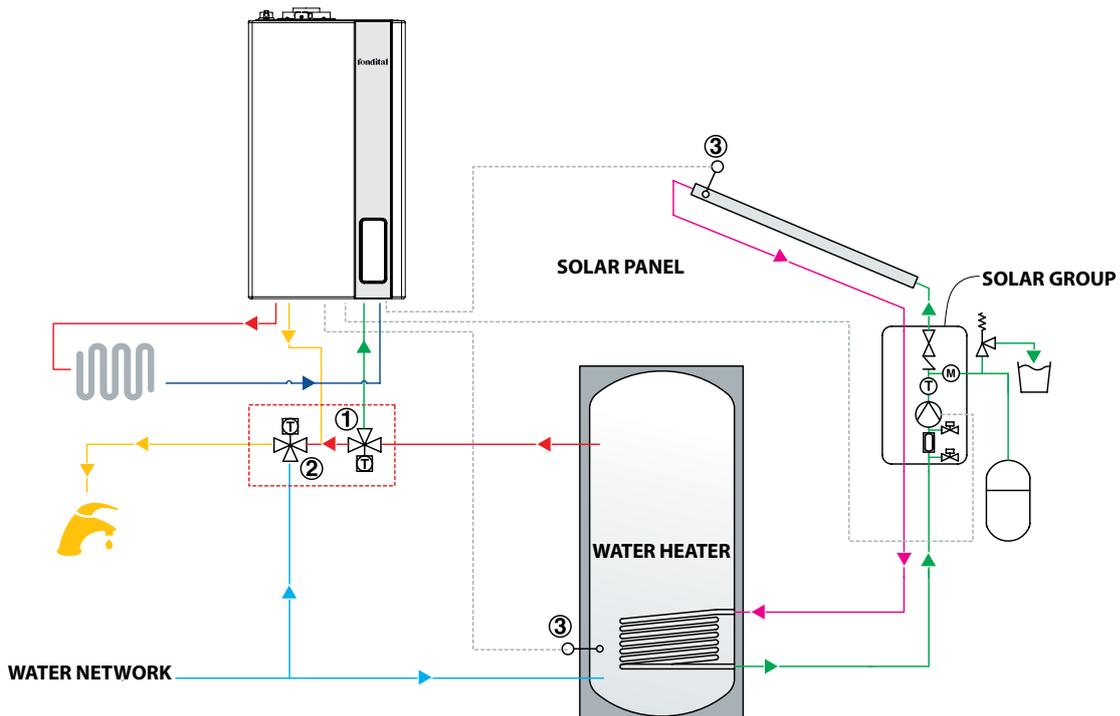


### Connection to combination instantaneous boiler Sulpack Easy

① THERMOSTATIC DIVERTER VALVE

② THERMOSTATIC MIXING VALVE

③ TEMPERATURE PROBES



## ACCESSORIES

# SOLAR PUMP GROUP RS1, ONLY RETURN



Flow regulator with 2-12 l/min flowmeter and integrated loading system

- ) Ball tap with built-in return thermometer and check valve
- ) Insulation in black EPP
- ) High efficiency solar circulation pump
- ) Solar safety valve calibrated at 6 bar
- ) Pressure gauge with 10 bar scale
- ) Expansion tank connection G 1/2
- ) Wall-mounted, steel bracket included

### SOLAR UNIT RS1

Flow rate adjustment	l/min.	2 ÷ 12
Max. head	m	7,5
Max. power	w	45
Code	PSGRUP0011	

# SOLAR PUMP GROUP MRS3, FLOW AND RETURN



Flow regulator with 4-15 l/min flowmeter and integrated loading system

- ) Built-in degasser with manual bleed valve
- ) Ball taps with built-in flow and return thermometers and check valve
- ) Insulation in black EPP
- ) High efficiency solar circulation pump
- ) Solar safety valve calibrated at 6 bar
- ) Pressure gauge with 10 bar scale
- ) Expansion tank connection G 3/4
- ) Wall-mounted, steel bracket included

### SOLAR UNIT MRS3

Flow rate adjustment	l/min.	4 ÷ 15
Max. head	m	7,5
Max. power	w	45
Code	PSGRUP0012	

# CIRCULATION PUMPS

High-efficiency circulation pumps for solar plants



SOLAR CIRCULATION PUMP C6		
Maximum head	m	5,4
Max. power	w	49
Fan	no.	3
Fittings	-	41
Maximum ambient temperature	°C	60
Maximum temperature of solar fluid	°C	110
Code	PSCIRCOLA7	

# ADDITIONAL TANKS

Diaphragm-free tank with tank protection feature  
Colour White



ADDITIONAL TANKS		RS 5	RS 8	RS 12
Capacity	litres	5	8	12
Diameter	mm	160	200	270
High	mm	270	280	264
Fitting	-	2 x G ¾ M		
Max. pressure	bar	10		
Code		PSVASO0009	PSVASO0010	PSVASO0011

# EXPANSION VESSELS

Diaphragm for solar fluid for T max 100 °C.  
Colour White



EXPANSION VESSELS		ES 12	ES 18	ES 25	ES 35	ES 50	ES 80	ES 100	ES 200	
Capacity	litres	12	18	25	35	50	80	105	200	
Diameter	mm	270	270	300	380	380	450	500	600	
High	mm	264	350	392	377	525	608	665	812	
Fitting	-	G ¾					G 1			
Max. pressure	bar	10								
Preload	bar	2,5								
Code		PSVASO0001	PSVASO0002	PSVASO0003	PSVASO0004	PSVASO0005	PSVASO0006	PSVASO0007	PSVASO0008	

# ACCESSORIES FOR TANKS



Item	Description	Code
	STES 5 - 25: Universal mounting bracket for expansion vessels and additional tanks up to a capacity of 25 litres.	PSVASO0012
	STES 5 - 18: Wall mounting bracket with clamp for additional tanks and expansion vessels up to a capacity of 18 litres	PSVASO0014
	STES 35 - 50: Quick wall-mounting bracket for expansion vessels up to a capacity between 35 and 50 litres.	PSVASO0015
	FLEX 600: Hose for solar tanks, 600 mm long.	PSVASO0016
	STES 12 - 50 w/valve: Wall mounting bracket with double shut-off fitting for expansion vessels up to a capacity of 50 litres. Allows tank control without emptying the system.	PSVASO0017

## THERMOSTATIC MIXING VALVE



- ) Bronze external body
- ) Internal parts in special anti-scale plastic
- ) Automatic shut-off if no mixing cold water is available

THERMOSTATIC MIXING VALVE		
Fittings	-	G 1 M
Temperature range	°C	35 - 50
Maximum operating temperature	°C	100
Maximum flow rate	l/h	1500
Code	PSVALMIX00	

## THERMOSTATIC MIXING VALVE



- ) Brass external body
- ) Automatic shut-off if no mixing cold water is available

THERMOSTATIC MIXING VALVE		
Fittings	-	G 3/4 M
Temperature range	°C	30 - 60
Maximum operating temperature	°C	85
Maximum flow rate	l/h	1000
Code	PSVALMIX01	

# THREE-WAY DEVIATING VALVE

Three-way deviating valve for solar plants with 3-wire auxiliary contact



THREE-WAY DEVIATING VALVE		
Fittings	-	G 3/4 M
Maximum operating temperature	°C	160
Code	PSVALDEV01	

# CONCENTRATED SOLAR PROTECTION LIQUID



Concentrated monopropylene glycol-based antifreeze fluid, to be diluted in water



CONCENTRATED SOLAR PROTECTION LIQUID					
Quantity	kg	10	10	10	10
Percentage of protection liquid in the system	%	20	25	30	45
Minimum temperature	°C	-8	-12	-15	-28
Code	PSPROSOL04				

# PIPES FOR SOLAR PLANTS



Splittable double flexible pipe system in AISI 316 L stainless steel with insulation coating in EPDM closed cell foam

- ) External protection case in black polyethylene
- ) Silicone cable for two-wire collector probe (maximum operating temperature in continuous duty: 280°C)
- ) Maximum resistance to temperature values of 175°C for short periods
- ) It includes 4 swivel nut connectors, 4 seals, 4 O-rings
- ) Hose flaring is made using a steel washer and a brass nipple, which are included in the kit

		Stainless steel Tuboflex 12/20 (*)	Stainless steel Tuboflex 12/25 (*)	Stainless steel Tuboflex 16/20 (*)	Stainless steel Tuboflex 16/25 (*)
Diameter	mm	12	12	146	16
Length	m	20	25	20	25
Insulation thickness	mm	13			
Maximum working temperature in continuous duty	°C	125			
Code		PSTUBI0015	PSTUBI0016	PSTUBI0017	PSTUBI0018

(\*) Product available while stocks last

# FITTING FOR SOLAR PLANTS



- ) The FITTING KIT includes 4 swivel nut connectors, 4 seals, 4 O-rings.
- ) Hose flaring is made using a steel washer and a brass nipple, which are included in the kit
- ) The NIPPLE KIT includes brass nipples in 3-piece package

FITTINGS FOR SOLAR PLANTS	Fitting kit for Tuboflex SS 12 (*)	Fitting kit for Tuboflex SS 16 (*)	Nipple kit G ½ for Tuboflex SS 12 (*)	Nipple kit G ¾ for Tuboflex SS 16 (*)
Code	PSTUBI0019	PSTUBI0020	PSTUBI0021	PSTUBI0022

(\*) Product available while stocks last

# SOLAR KIT FOR COMBINATION BOILERS



0KITSOLC07

Solar kit for combination instantaneous boilers; it can be combined with the boilers listed below for connection to the solar plants featuring forced circuit and natural circulation, with heat not integrated in the water heater SULPACK EASY and SULPACK NATURAL. The kit allows you to bypass the boiler if water temperature from the solar tank is higher than 48 °C and to adjust the maximum temperature of water delivered at the users/use points. Mixer valve adjustment interval: 30 - 56°C. Limit temperature for flow stop in case of lack of cold water: 60°C. Minimum working pressure: 0.5 bar. Optimum working pressure: 1 - 10 bar.

Consisting of:

- ) One thermostatic deviating valve and one mixing valve
- ) Connection pipes
- ) Shut-off cocks:

ORION KC VIRGO KC DELFIS KC VIRGO CTN DELFIS CTN VIRGO CTFS DELFIS CTFS	
System connection	Rear connections
Code	0KITSOLC07

# TEMPERATURE PROBE

PT 1000 temperature probe for solar plants, suitable for all models of solar control unit

Heat paste supplied



SOLAR PROBE		
Bulb diameter	mm	6
Cable length	mm	2,5
Code	PSPTMILL00	



# SG2 SOLAR CONTROL UNIT



Control unit for managing 9 types of solar circuits.

- ) Load of a twin-coil hot water storage tank with heat being integrated from the boiler
- ) Management of a combined hot water storage tank
- ) Possibility to have two arrays of collectors
- ) Pre-set for thermal discharge
- ) Five probe inputs
- ) Two relay outputs
- ) Two adjustable temperature differentials
- ) Hysteresis settings
- ) One pulse input for heat metering
- ) Pump anti-seize function
- ) Possibility to control circulation pumps in PWM or 0-10V
- ) Wide LCD display showing system layout and probe current temperatures
- ) Charts showing the trend of the probe temperature reading in time
- ) Can be set for 10 types of systems

# SG3 SOLAR CONTROL UNIT



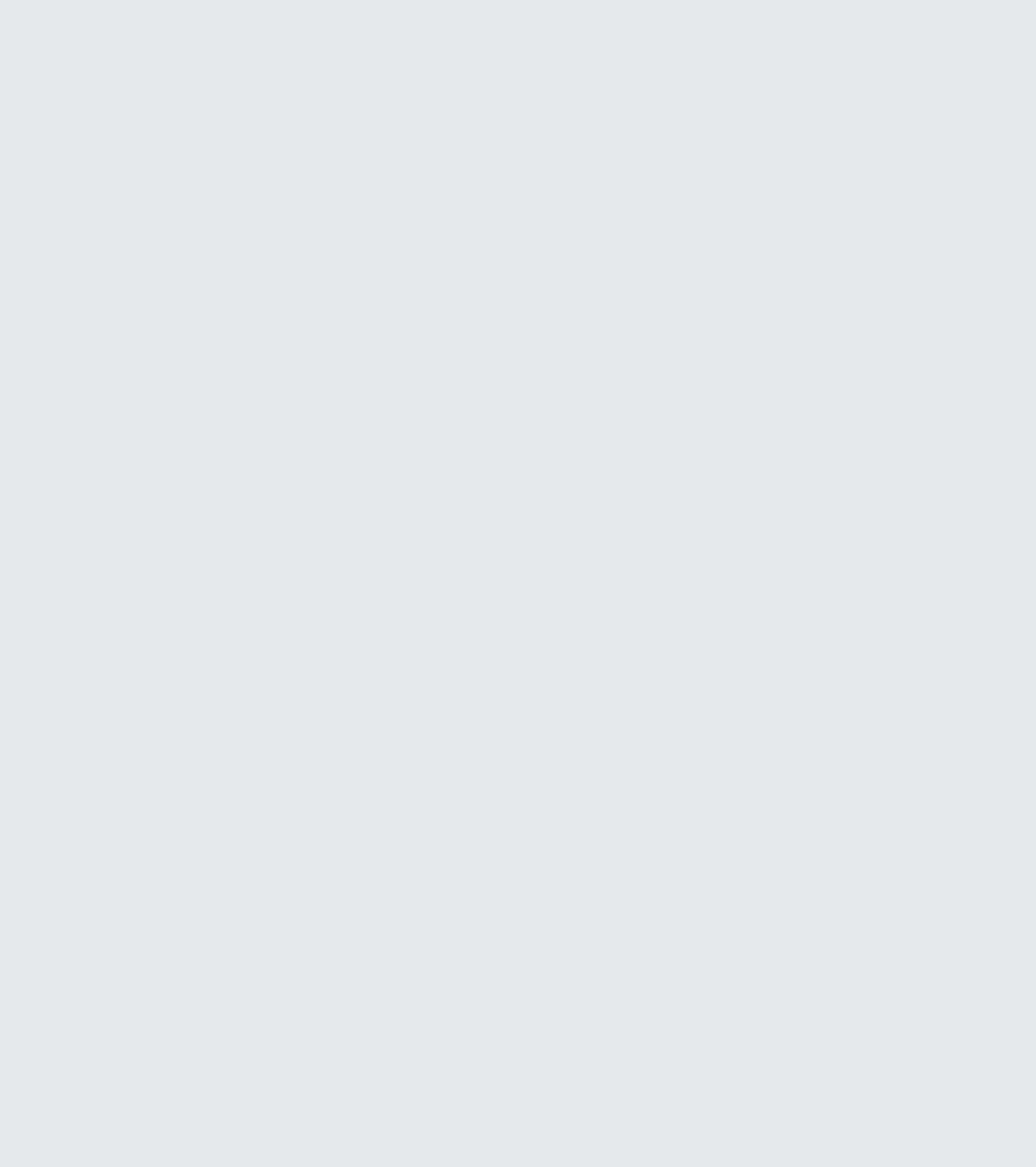
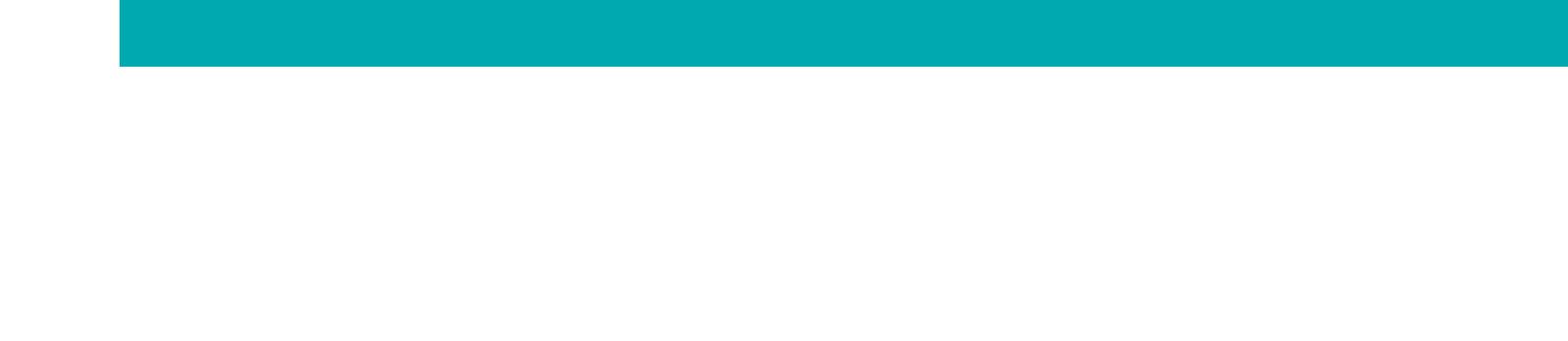
Control unit for managing 12 types of solar circuits.

- ) Load of a twin-coil hot water storage tank with heat being integrated from the boiler
- ) Management of two hot water storage tanks in cascade-type connection
- ) Management of a combined hot water storage tank
- ) Possibility to have two arrays of collectors
- ) Pre-set for thermal discharge
- ) Five probe inputs
- ) Two relay outputs
- ) One output for modulating solar pump
- ) Two adjustable temperature differentials
- ) Hysteresis settings
- ) One pulse input for heat metering
- ) Pump anti-seize function
- ) Collector protection function
- ) Function for hot water storage tank thermal discharge during the night with collector
- ) Heating pump post-circulation function
- ) Wide LCD display showing system layout and probe current temperatures
- ) Charts showing the trend of the probe temperature reading in time
- ) Can be set for 13 types of systems

SOLAR ELECTRONIC CONTROL UNITS	SG2	SG3
Code	PSCENSO004	PSCENSO005 (while stocks last)

The supply includes collector probe and hot water storage tank probe (both PT 1000) as well as the wall-mounting base.







# HOT WATER STORAGE TANKS

## HOT WATER STORAGE TANKS

WHPS BNF SS 200 - 500	page 164
WHPS BNF DS 200 - 500	page 165
WHPS BNF SS E 200 - 500	page 166
WHPS BNF DS E 200 - 500	page 168
WHPS BA SS	page 170
WHPS BZ DS	page 171
WHPS PU S	page 172
WHPS BA DS	page 173



# WHPS BNF SS

SOLAR HOT WATER STORAGE TANK WITH SINGLE COIL



- ▶ **High efficiency and low operating costs**
- ▶ **Can be integrated with solar systems**
- ▶ **Fast storage with supply of abundant and continuous water**
- ) Insulation in stiff expanded polyurethane, CFC and HCFC free
- ) External case in white skai
- ) Magnesium protection anode
- ) DHW thermometer
- ) DHW recirculation
- ) Presetting for auxiliary resistor (thread G 1 1/2)



Available in the following capacities (l):

from 200 to 500

WHPS BNF SS is a hot water storage tank that can be combined with boilers for CH only, to produce domestic hot water, in porcelain-glass steel with single coil.

Model	Code	Dissipation S	Useful volume	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres		mm	mm	kg
<b>BNF 200 SS</b>	PSBOLLV061	67	196	<span style="background-color: #FFC000; padding: 2px;">C</span>	1215	600	90
<b>BNF 300 SS</b>	PSBOLLV062	85	273	<span style="background-color: #FFC000; padding: 2px;">C</span>	1615	600	115
<b>BNF 500 SS</b>	PSBOLLV063	112	475	<span style="background-color: #FFC000; padding: 2px;">C</span>	1705	750	155

Model		BNF 200 SS	BNF 300 SS	BNF 500 SS
Nominal volume	litres	200	300	500
Maximum working pressure	bar	10		
Maximum working temperature	°C	95		
Coil area	m <sup>2</sup>	0,7	1,2	1,8
Coil power (ΔT 35 K)	kW	19	29	43
Tilting height	mm	1340	1735	1820
Insulation thickness	mm	50	50	50

Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	0ANOELET01
	Thermostat and thermometer kit	0KTERMTE00

Item	Description	Code
	3 kW heating element kit 390 mm-long heating element	DKRESELE02

# WHPS BNF DS

SOLAR HOT WATER STORAGE TANK WITH DOUBLE COIL



- ▶ **Easy installation**
- ▶ **High efficiency and low operating costs**
- ▶ **Can be integrated with solar systems**
- ▶ **Fast storage with supply of abundant and continuous water**
  - ) Insulation in stiff expanded polyurethane, CFC and HCFC free
  - ) External case in white skai
  - ) Magnesium protection anode
  - ) DHW thermometer
  - ) DHW recirculation
  - ) Presetting for auxiliary resistor (thread G 1 1/2)



Available in the following capacities (l):

from 200 to 500

WHPS BNF DS is a hot water storage tank that can be combined with boilers for CH only, to produce domestic hot water, in porcelain-glass steel with double coil.

Model	Code	Dissipation S	Useful volume	Backup volume	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres	Vbu		mm	mm	
<b>BNF 200 DS</b>	PSBOLLV064	67	196	67	C	1215	600	95
<b>BNF 300 DS</b>	PSBOLLV065	85	273	85	C	1615	600	130
<b>BNF 500 DS</b>	PSBOLLV066	112	475	130	C	1705	750	170

Model		BNF 200 DS	BNF 300 DS	BNF 500 DS
Nominal volume	litres	200	300	500
Maximum working pressure	bar	10		
Maximum working temperature	°C	95		
Auxiliary coil area	m <sup>2</sup>	0,5	0,8	0,9
Solar coil area	m <sup>2</sup>	0,7	1,2	1,8
Coil power (ΔT 35 K)	kW	12	19	23
Solar coil power (ΔT 35 K)	kW	19	29	43
Tilting height	mm	1340	1735	1820
Insulation thickness	mm	50	50	50

Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	0ANOELET01
	Thermostat and thermometer kit	0KTERMTE00

Item	Description	Code
	3 kW heating element kit 390 mm-long heating element	DKRESELE02

# WHPS BNF SS E

GLASS-PORCELAIN STEEL SINGLE-COIL BOILER COMBINABLE WITH HEATING-ONLY BOILERS FOR DOMESTIC HOT WATER PRODUCTION



- ▶ High efficiency and low operating costs
- ▶ Can be integrated with solar systems
- ▶ Fast storage with supply of abundant and continuous water
- ▶ Thermometer and holders for probe included in the supply
- ▶ Magnesium protection anode
- ▶ DHW recirculation
- ▶ Electric auxiliary heating element set-up
- ) Insulation in stiff expanded polyurethane, CFC and HCFC free
- ) Glass-porcelain interior
- ) Grey stiff polystyrene external case



Available in the following capacities (l):

from 200 to 500

Model	Code	Dissipation S	Useful volume	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres		mm	mm	
<b>WHPS BNF 200 SS E</b>	PSBOLLV071	57	189	<b>B</b>	1170	600	54
<b>WHPS BNF 300 SS E</b>	PSBOLLV072	67	273	<b>B</b>	1659	650	77
<b>WHPS BNF 500 SS E</b>	PSBOLLV073	108	484	<b>C</b>	1710	750	112

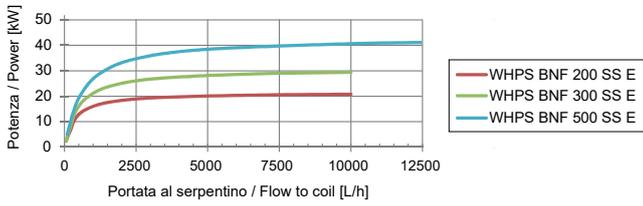
Model		BNF 200 SS E	BNF 300 SS E	BNF 500 SS E
Nominal volume	litres	200	300	500
Maximum working pressure	bar	10		
Maximum working temperature	°C	95		
Coil area	m <sup>2</sup>	0,7	1,05	1,45
Coil power (ΔT 35 K)	kW	See graphs		
Tilting height	mm	1320	1790	1870
Insulation thickness	mm	50	75	50

Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	0ANOELET01
	Thermostat and thermometer kit	0KTERMTE00

Item	Description	Code
	3 kW heating element kit 390 mm-long heating element	DKRESELE02

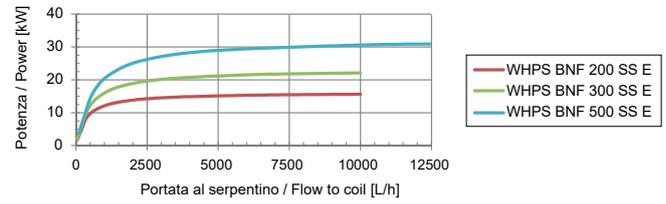
### Potenza scambiata / Exch. power

$T_{in,coil} = 80\text{ °C}$ ;  $T_{serb,in} = 10\text{ °C}$ ,  $T_{serb,out} = 45\text{ °C}$



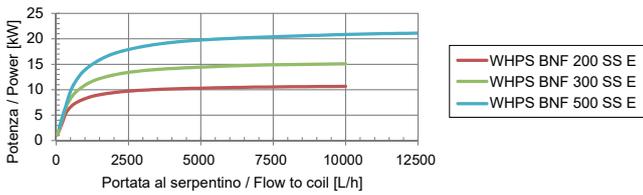
### Potenza scambiata / Exch. power

$T_{in,coil} = 70\text{ °C}$ ;  $T_{serb,in} = 10\text{ °C}$ ,  $T_{serb,out} = 45\text{ °C}$



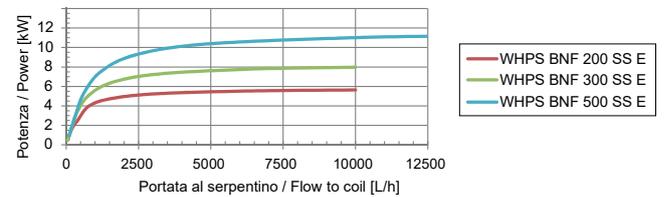
### Potenza scambiata / Exch. power

$T_{in,coil} = 60\text{ °C}$ ;  $T_{serb,in} = 10\text{ °C}$ ,  $T_{serb,out} = 45\text{ °C}$

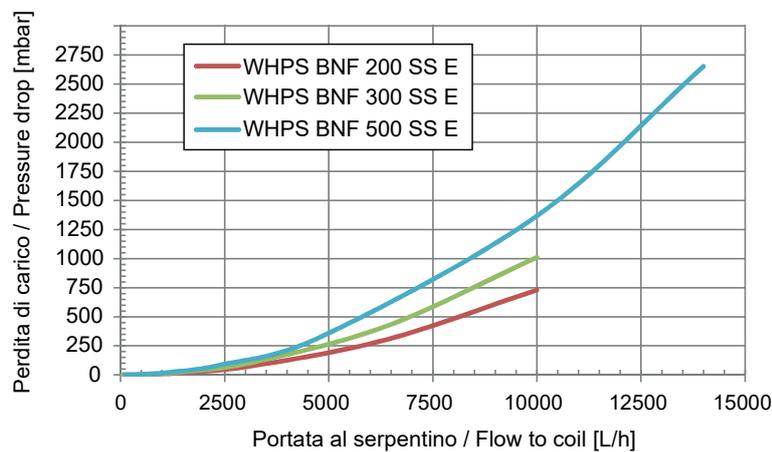


### Potenza scambiata / Exch. power

$T_{in,coil} = 50\text{ °C}$ ;  $T_{serb,in} = 10\text{ °C}$ ,  $T_{serb,out} = 45\text{ °C}$



### Perdite di carico sul serpentino / Coil pressure drop



# WHPS BNF DS E

GLASS-PORCELAIN STEEL DOUBLE-COIL BOILER COMBINABLE WITH HEATING-ONLY BOILERS FOR DOMESTIC HOT WATER PRODUCTION



- ▶ **High efficiency and low operating costs**
- ▶ **Can be integrated with solar systems**
- ▶ **Fast storage with supply of abundant and continuous water**
- ▶ **Thermometer and holders for probe included in the supply**
- ▶ **Magnesium protection anode**
- ▶ **DHW recirculation**
- ▶ **Electric auxiliary heating element set-up**
- ) Insulation in stiff expanded polyurethane, CFC and HCFC free
- ) Glass-porcelain interior
- ) Grey stiff polystyrene external case
- ) Easy installation



Available in the following capacities (l):

from 200 to 500

Model	Code	Dissipation S	Useful volume	Backup volume	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres	Vbu		mm	mm	kg
<b>WHPS BNF 200 DS E</b>	PSBOLLV074	57	184	96	B	1170	600	63
<b>WHPS BNF 300 DS E</b>	PSBOLLV075	67	267	118	B	1659	650	94
<b>WHPS BNF 500 DS E</b>	PSBOLLV076	108	474	211	C	1710	750	141

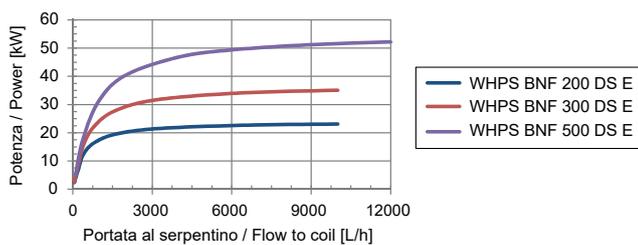
Model		BNF 200 DS E	BNF 300 DS E	BNF 500 DS E
Nominal volume	litres	200	300	500
Maximum working pressure	bar	10		
Maximum working temperature	°C	95		
Auxiliary coil area	m <sup>2</sup>	0,6	0,75	0,9
Solar coil area	m <sup>2</sup>	0,8	1,2	1,8
Coil power (ΔT 35 K)	kW	See graphs		
Solar coil power (ΔT 35 K)	kW			
Tilting height	mm	1320	1790	1870
Insulation thickness	mm	50	75	50

Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	0ANOELET01
	Thermostat and thermometer kit	0KTERMTE00

Item	Description	Code
	3 kW heating element kit 390 mm-long heating element	DKRESELE02

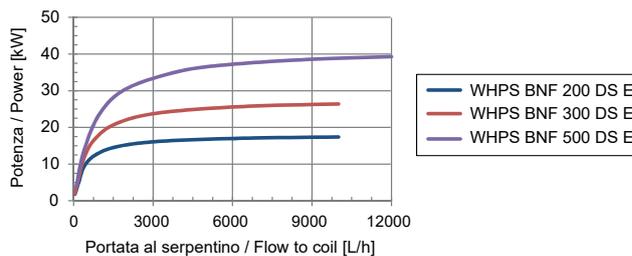
Potenza scambiata, scamb. solare  
Exch. power, solar coil

$T_{in,coil} = 80\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



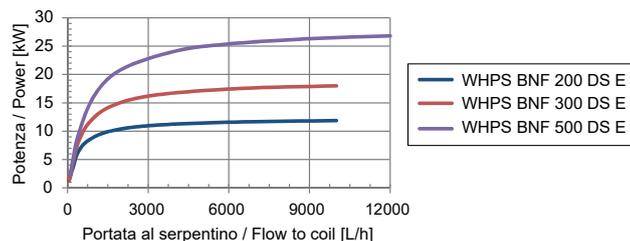
Potenza scambiata, scamb. solare  
Exch. power, solar coil

$T_{in,coil} = 70\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



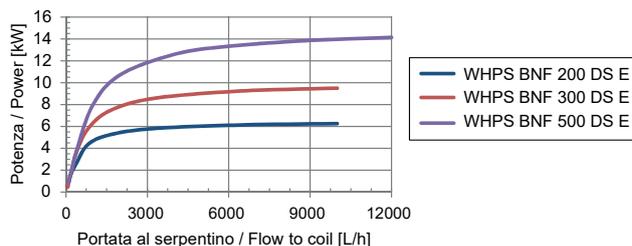
Potenza scambiata, scamb. solare  
Exch. power, solar coil

$T_{in,coil} = 60\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



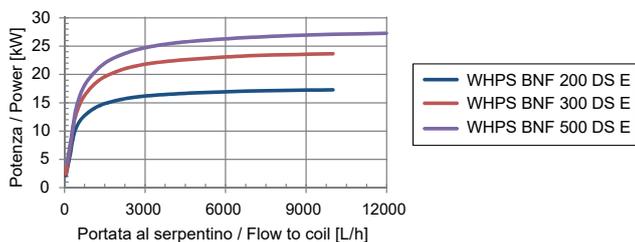
Potenza scambiata, scamb. solare  
Exch. power, solar coil

$T_{in,coil} = 50\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



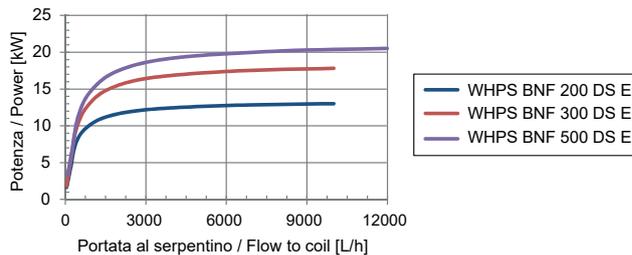
Potenza scambiata, scamb.integr.  
Exch. power, integr.coil

$T_{in,coil} = 80\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



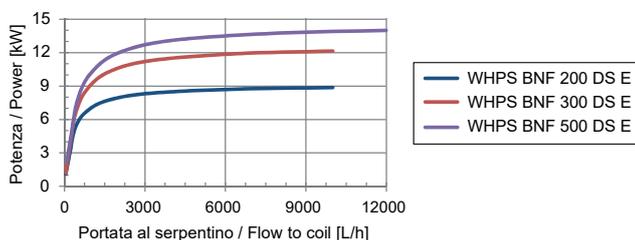
Potenza scambiata, scamb.integr.  
Exch. power, integr.coil

$T_{in,coil} = 70\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



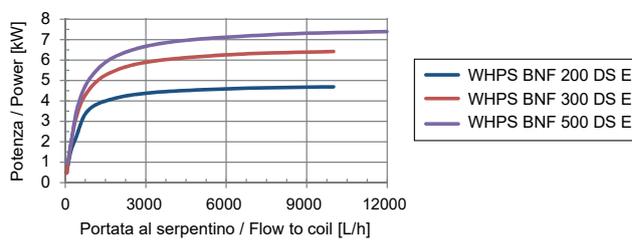
Potenza scambiata, scamb.integr.  
Exch. power, integr.coil

$T_{in,coil} = 60\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$

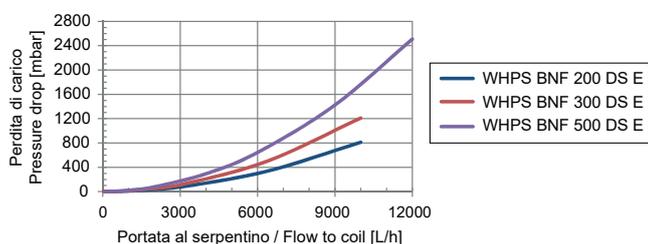


Potenza scambiata, scamb.integr.  
Exch. power, integr.coil

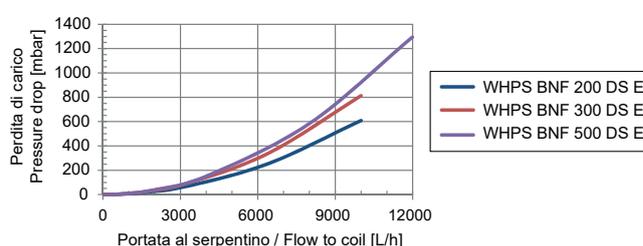
$T_{in,coil} = 50\text{ }^{\circ}\text{C}$ ;  $T_{serb,in} = 10\text{ }^{\circ}\text{C}$ ,  $T_{serb,out} = 45\text{ }^{\circ}\text{C}$



Perdite di carico sul serp. solare  
Solar coil press. drop



Perdite di carico sul serp. integr.  
Integr. coil press. drop



# WHPS BA SS

HOT WATER STORAGE TANK THAT CAN BE COMBINED WITH HEATING-ONLY BOILERS FOR THE PRODUCTION OF DOMESTIC HOT WATER, IN PORCELAIN-GLASS STEEL WITH SINGLE COIL



- ▶ **Inspection flange**
- ▶ **High efficiency and low operating costs**
- ▶ **Fast storage with supply of abundant and continuous water**
- ▶ **Can be integrated with solar systems**
  - ) Insulation in soft expanded polyurethane, CFC and HCFC free
  - ) External case in white skai
  - ) Magnesium protection anode for up to 1000 litre capacity
  - ) Protection electrodes with electronic device for 1500 and 2000 litre capacity
  - ) Front inspection flange
  - ) DHW recirculation
  - ) Presetting for auxiliary resistor (thread G 1 1/2)
  - ) Optional kit with flange and heating element for 200 - 300 - 500 models



Available in the following capacities (l):

from 200 to 2000

Model	Code	Dissipation S	Useful volume	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres		mm	mm	kg
<b>BA 200 SS</b>	PSBOLLV054	67	196	<span style="background-color: #FFD700; border: 1px solid black; padding: 2px;">C</span>	1215	600	90
<b>BA 300 SS</b>	PSBOLLV055	85	273	<span style="background-color: #FFD700; border: 1px solid black; padding: 2px;">C</span>	1615	600	115
<b>BA 500 SS</b>	PSBOLLV056	112	475	<span style="background-color: #FFD700; border: 1px solid black; padding: 2px;">C</span>	1705	750	155
<b>BA 1000 SS AE</b>	PSBOLLV069	142	930	complying with Regulation 814/2013	2205	990	245
<b>BA 2000 SS AE</b>	PSBOLLV070	186	1950	complying with Regulation 814/2013	2470	1300	410

Model		BA 200 SS	BA 300 SS	BA 500 SS	BA 1000 SS AE	BA 2000 SS AE
Nominal volume	litres	200	300	500	1000	2000
Maximum working pressure	bar	10				
Maximum working temperature	°C	95				
Coil area	m <sup>2</sup>	1,5	1,8	2,2	3,5	4,3
Coil power (ΔT 35 K)	kW	36	44	55	88	112
Tilting height	mm	1375	1735	1900	2250	2580
Insulation thickness	mm	50	50	50	100	100

Item	Description	Code	Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	0ANOELE01		3 kW heating element kit 390 mm-long heating element	DKRESELE02
	Thermostat and thermometer kit	0KTERMTE00		Resistor with flange and single-phase power supply - 200/300/500 - 3kW	PSRESELE13

# WHPS BZ DS

SOLAR HOT WATER STORAGE TANK WITH INTEGRATED SOLAR GROUP



- ▶ **Inspection flange**
- ▶ **Thicker 70 mm insulation**
- ▶ **Fast storage with supply of abundant and continuous water**
- ▶ **Can be integrated with solar systems**
  - ) Insulation in stiff expanded polyurethane, CFC and HCFC free
  - ) External case in white skai
  - ) Magnesium protection anode for up to 1000 litre capacity
  - ) Front inspection flange
  - ) DHW recirculation
  - ) Presetting for auxiliary resistor (thread G 1 1/2)



Available in the following capacities (l):

from 200 to 300

WHPS BZ DS is a hot water storage tank that can be combined with boilers for CH only, to produce domestic hot water, in porcelain-glass steel with double coil with integrated high-efficiency solar hydraulic unit.

Model	Code	Dissipation S	Useful volume	Backup volume	Circulation pump power	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres	Vbu	W		mm	mm	kg
<b>BZ 200 DS</b>	AVBZ0MD200	51	196	67	45	<b>B</b> →	1215	640	88
<b>BZ 300 DS</b>	AVBZ0MD300	63	273	85	45	<b>B</b> →	1615	640	117

Model		BZ 200 DS	BZ 300 DS
Nominal volume	litres	200	300
Maximum working pressure	bar	10	
Maximum working temperature	°C	95	
Auxiliary coil area	m <sup>2</sup>	0,7	0,9
Solar coil area	m <sup>2</sup>	1	1,1
Coil power (ΔT 35 K)	kW	17	22
Solar coil power (ΔT 35 K)	kW	24	26
Tilting height	mm	1335	1725
Insulation thickness	mm	70	70

Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	OANOLET01
	Thermostat and thermometer kit	OKTERMTE00

Item	Description	Code
	3 kW heating element kit 390 mm-long heating element	DKRESELE02
	Resistor with flange and single-phase power supply - 200/300/500 - 3kW	PSRESELE13

# WHPS PU S

SINGLE-COIL STEEL PUFFER FOR HEATING SYSTEMS, WITH OUTER COATING IN WHITE SKAY



- ▶ **Easy installation**
- ▶ **High efficiency and low operating costs**
- ▶ **Can be integrated with solar systems**
  - ) Insulation in soft expanded polyurethane, CFC and HCFC free
  - ) External case in white skai
  - ) Control probes and heating circuit connections



Available in the following capacities (l):



Model	Code	Total volume	Overall height	Outer diameter	Net weight
		litres	mm	mm	kg
<b>PU 2000 S</b>	PSBOLLV015	2000	2195	1400	330,00
<b>PU 3000 S</b>	PSBOLLV016	3000	2750	1450	430,00

Model		PU 2000 S	PU 3000 S
Nominal volume	litres	2000	3000
Maximum working pressure	bar	10	
Maximum working temperature	°C	95	
Coil area	m <sup>2</sup>	4,2	4,2
Coil power (80/60)	kW	120	120
Tilting height	mm	2710	2985
Insulation thickness	mm	100	100

PRODUCT AVAILABLE WHILE STOCKS LAST

# WHPS BA DS

HOT WATER STORAGE TANK THAT CAN BE COMBINED WITH HEATING-ONLY BOILERS FOR THE PRODUCTION OF DOMESTIC HOT WATER, IN PORCELAIN-GLASS STEEL WITH DOUBLE COIL



- ▶ **Inspection flange**
- ▶ **High efficiency and low operating costs**
- ▶ **Fast storage with supply of abundant and continuous water**
- ▶ **Can be integrated with solar systems**
- ▶ Insulation in soft expanded polyurethane, CFC and HCFC free
- ▶ External case in white skai
- ▶ Magnesium protection anode for up to 1000 litre capacity
- ▶ Protection electrodes with electronic device for 1500 and 2000 litre capacity
- ▶ Front inspection flange
- ▶ DHW recirculation
- ▶ Three holders for temperature probes (standard for models 200 - 300 - 500), other models are preset for two holders (G 1/2 fitting)
- ▶ Ready for resistor with G 1 1/2 fitting for 1000 - 2000 models
- ▶ Optional kit with flange and heating element for 200 - 300 - 500 models



Available in the following capacities (l):

from 200 to 2000

Model	Code	Dissipation S	Useful volume	Backup volume	Energy efficiency class	Overall height	Outer diameter	Gross weight
		W	litres	Vbu		mm	mm	kg
<b>BA 200 DS</b>	PSBOLLV050	67	196	67	<span style="background-color: #FFC000; border: 1px solid black; border-radius: 50%; padding: 2px;">C</span>	1215	600	95
<b>BA 300 DS</b>	PSBOLLV051	85	273	85	<span style="background-color: #FFC000; border: 1px solid black; border-radius: 50%; padding: 2px;">C</span>	1615	600	130
<b>BA 500 DS</b>	PSBOLLV052	112	475	130	<span style="background-color: #FFC000; border: 1px solid black; border-radius: 50%; padding: 2px;">C</span>	1705	750	170
<b>BA 1000 DS AE</b>	PSBOLLV067	142	930	350	complying with Regulation 814/2013	2205	990	265
<b>BA 2000 DS AE</b>	PSBOLLV068	186	1950	840	complying with Regulation 814/2013	2470	1300	480

Model		BA 200 DS	BA 300 DS	BA 500 DS	BA 1000 DS AE	BA 2000 DS AE
Nominal volume	litres	200	300	500	1000	2000
Maximum working pressure	bar	10				
Maximum working temperature	°C	95				
Auxiliary coil area	m <sup>2</sup>	0,5	1,1	1,3	1,6	2,8
Solar coil area	m <sup>2</sup>	1,5	1,8	2,2	3	4,6
Coil power (ΔT 35 K)	kW	12	26	33	40	73
Solar coil power (ΔT 35 K)	kW	36	44	55	75	120
Tilting height	mm	1375	1735	1900	2250	2580
Insulation thickness	mm	50	50	50	100	100

Item	Description	Code
	Single electrode electronic anode - 200/300/500/1000	OANOLET01
	Thermostat and thermometer kit	OKTERMTE00

Item	Description	Code
	3 kW heating element kit 390 mm-long heating element	DKRESELE02
	Resistor with flange and single-phase power supply - 200/300/500 - 3kW	PSRESELE13









The manufacturer reserves the right to make any modifications deemed necessary without prior notification.

Uff. Pub. Fondital - CTC 04 C 285 - 03 Febbraio 2024 (02/2024)

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9 P C E N O 4 C 2 8 5

COMPANY WITH  
MANAGEMENT SYSTEM  
CERTIFIED BY DNV  
ISO 9001 • ISO 14001  
ISO 45001 • ISO 50001