

# CLAS X



## Wall-hung compact boiler with AUTO function

### ENERGY EFFICIENCY

- / Thanks to the accurate design of the combustion unit, Clas X has a **very high efficiency**, up to 93,8% (24 FF) in the category of traditional boilers;
- / **More energy efficiency** is guaranteed thanks to two-speed pump, bringing further consumption reduction;
- / Ready to be used with **renewable sources** for hot water production

### DESIGN AND TECHNOLOGY

- / Clas X offers the **best enjoyable design** of its category, thanks to the accurate study of the lines, and of the external shape;
- / **High resolution LCD display with full text, touch interface and intuitive menu** from which you can easily set the temperature you desire and activate functions, and even manage different heating zones;
- / **BusBridgeNet®** technology ready, able to dialogue with other Ariston products, so that you can now mix and match products (and energy sources) to optimize energy consumption;

High resolution  
LCD display  
★★★ efficiency  
comfort function  
auto function  
+15% saving  
safety IPX5D



ITALIAN  
DESIGNAUTO  
FUNCTIONCOMFORT  
FUNCTION

EASY TO USE

EASY  
INSTALLATIONEASY  
MAINTENANCESYSTEM  
MANAGEMENTCOMPACT  
SIZE

## COMFORT

- / **Ariston Net** ready for
- / The compatibility with modulating thermoregulation accessories, and the «AUTO function» avoid temperature fluctuations and peaks, forgiving a **constant temperature for the maximum thermic comfort**;
- / The «Comfort Function» gives **instantaneous hot water, for 30', after first withdrawal, reducing waiting times**. Even more DHW is got thanks to the increased sanitary heat exchanger;

## QUALITY

- / Clas X is made up with the best material available: the aluminium used for the primary heat exchanger, and the stainless steel for the sanitary exchanger, guarantee **high reliability and very long lifecycle**;
- / The addition of heating return filter guarantees **boiler protection from water impurities accumulation**;
- / The use of antiseizing systems **prevent freezing and scale accumulation**, protecting not only the wall-hung boiler, but even your whole system;
- / With its IPX5D, the **protection, against water jet streams**, it's certified;

FAN

EXPANSION VESSEL

MAIN HEAT EXCHANGER

COMBUSTION CHAMBER

BURNER

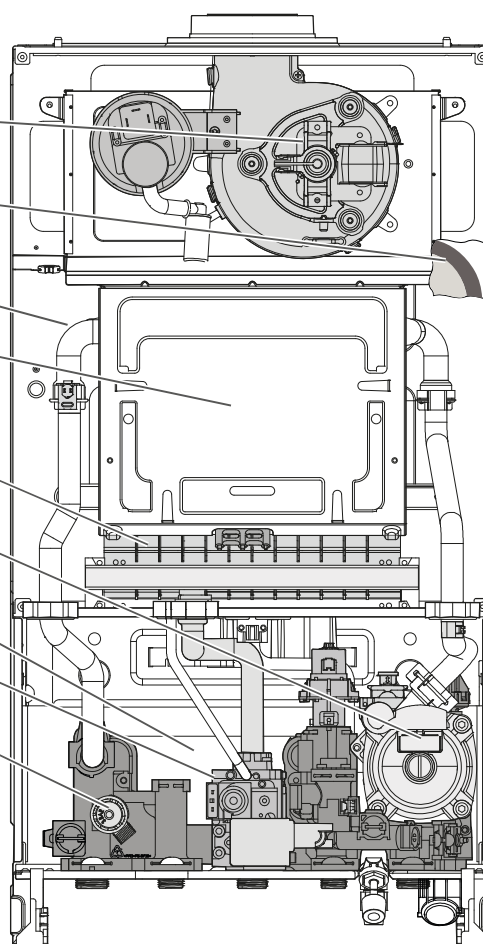
CIRCULATION PUMP (2 STEP)  
WITH AIR RELEASE VALVE

SECONDARY HEAT EXCHANGER

GAS VALVE

SAFETY VALVE (3 BAR)

**Intelligent comfort  
in a very enjoyable  
design**



The drawing refers  
to FF version

## TECHNICAL DATA

24 CF

24 FF

28 FF

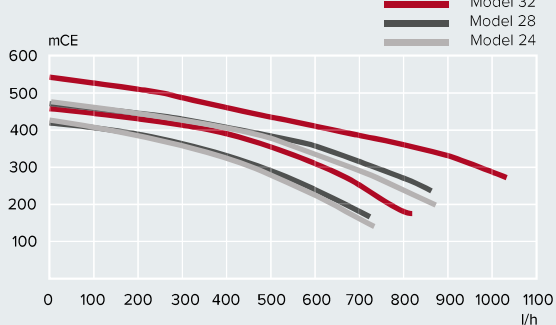
## POWER SPECIFICATIONS

|   |       |             |             |             |
|---|-------|-------------|-------------|-------------|
| Max/min nominal heat input(Hi)                                  | kW    | 25,8 / 11,0 | 25,8 / 11,0 | 30,0 / 13,0 |
| Max/min nominal heat input (Hs)                                 | kW    | 28,7 / 12,2 | 28,7 / 12,2 | 33,3 / 14,4 |
| Max/min nominal heat input for hot water (Hi)                   | kW    | 27,0 / 11,0 | 25,8 / 11,0 | 30,0 / 13,0 |
| Max/min nominal heat input for hot water (Hs)                   | kW    | 30,0 / 12,2 | 28,7 / 12,2 | 33,3 / 14,4 |
| Heat output: max/min  | kW    | 23,7 / 9,9  | 24,0 / 9,5  | 28,1 / 11,6 |
| D.H.W. Heat output: max/min                                     | kW    | 25,0 / 10,2 | 23,6 / 10,0 | 27,4 / 11,9 |
| Combustion efficiency (of flue gas)                             | %     | 92,7        | 93,7        | 93,8        |
| Gross efficiency of nominal heat input (60/80 °C) Hi/Hs         | %     | 91,9 / 82,8 | 93,1 / 83,8 | 93,6 / 84,3 |
| Gross efficiency at 30 % at 47°C Hi/Hs                          | %     | 91,2 / 82,1 | 93,3 / 84,0 | 93,7 / 84,4 |
| Gross efficiency at minimum power Hi/Hs                         | %     | 90,2 / 81,2 | 86,7 / 78,1 | 89,3 / 80,4 |
| Number of efficiency stars (Directive 92/42/EEC)                | stars | **          | ***         | ***         |
| Ma. heat loss to the casing ( $\Delta T = 50^{\circ}\text{C}$ ) | %     | 0,8         | 0,6         |             |
| Heat loss through the flue when burner on                       | %     | 7,3         | 6,3         | 6,5         |
| Heat loss through the flue when burner off                      | %     | 0,4         | 0,4         | 0,4         |

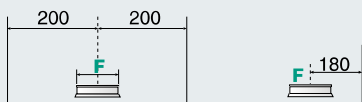
## EMISSIONS

|  |       |      |      |      |
|--|-------|------|------|------|
| Residual discharge head                    | Pa    | -    | 120  | 145  |
| Minimum draw                               | Pa    | 4,1  | -    | -    |
| Nox class                                  | class | 2    | 3    | 3    |
| Flue fumes temperature (G20)               | °C    | 116  | 117  | 110  |
| CO <sub>2</sub> content <sub>2</sub> (G20) | %     | 5,4  | 6,5  | 6    |
| CO content (0 %O <sub>2</sub> )            | ppm   | 54   | 60   | 111  |
| O <sub>2</sub> content <sub>2</sub> (G20)  | %     | 10,8 | 8,8  | 9,7  |
| Max capacity fumes (G20)                   | kg/h  | 67,2 | 56,9 | 71,2 |
| Excess air                                 | %     | 105  | 72   | 86   |

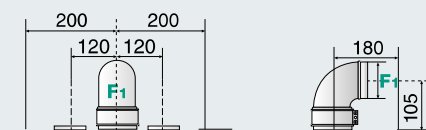
Graph of boiler's residual head



CF version - Natural draught

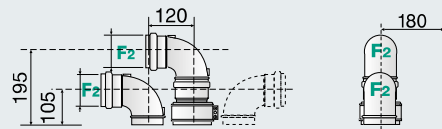


FF Version - Coaxial exhaust

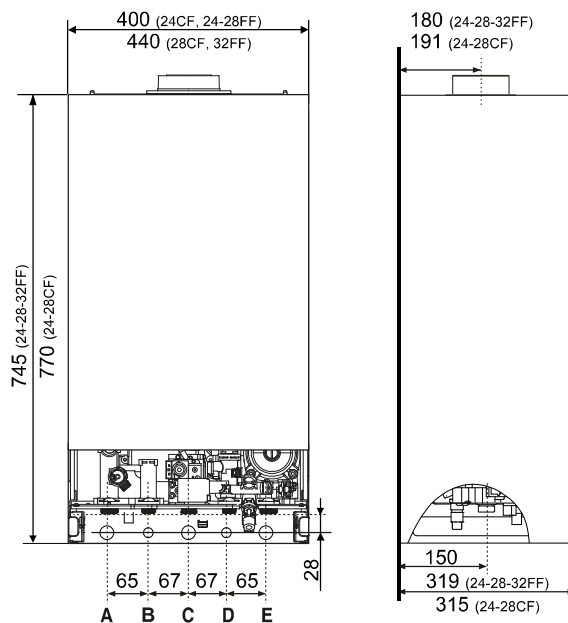


Ø60/100: up to 4m (24-28 kW)  
 Ø80/125: up to 11m (24-28 kW)

FF Version - Twin pipe exhaust



Ø80/80: up to 45m (24kW) - 50m (28kW)



## LEGEND

- A: Central Heating Flow
- B: Domestic Hot Water Outlet
- C: Gas Inlet
- D: Domestic Cold Water Inlet
- E: Central Heating Return

## TECHNICAL DATA

24 CF

24 FF

28 FF

## HEATING CIRCUIT

|  |           |         |         |         |
|--|-----------|---------|---------|---------|
| Expansion vessel pre-charged pressure    | Mpa (bar) | 0,1 (1) | 0,1 (1) | 0,1 (1) |
| Maximum central heating circuit pressure | Mpa (bar) | 0,3 (3) | 0,3 (3) | 0,3 (3) |
| Expansion vessel capacity                | l         | 8       | 8       | 8       |
| Central heating temperature: max/min     | °C        | 82 / 35 | 82 / 35 | 82 / 35 |

## DOMESTIC HOT WATER CIRCUIT

|  |           |                   |                   |                   |
|--|-----------|-------------------|-------------------|-------------------|
| Domestic hot water temperature max/min   | °C        | 60 / 36           | 60 / 36           | 60 / 36           |
| Specific flow rate of domestic hot water system<br>(10 min. with $\Delta T=30^{\circ}\text{C}$ ) instant boilers | l/min     | 11,8              | 11,2              | 13,2              |
| D.H.W. flow rate $\Delta T=25^{\circ}\text{C}$   | l/min     | 14,3              | 13,5              | 15,7              |
| D.H.W. flow rate $\Delta T=35^{\circ}\text{C}$   | l/min     | 10,2              | 9,6               | 11,2              |
| Hot water comfort stars (EN13203)  | stars     | **                | **                | **                |
| D.H.W. minimum flow rate   | l/min     | <2                | <2                | <2                |
| Domestic hot water pressure max/min  | Mpa (bar) | 0,7 / 0,1 (7 / 1) | 0,7 / 0,1 (7 / 1) | 0,7 / 0,1 (7 / 1) |

## ELECTRICAL

|                                      |      |          |          |          |
|--------------------------------------|------|----------|----------|----------|
| Power supply voltage/frequency       | V/Hz | 220 / 50 | 220 / 50 | 220 / 50 |
| Power consumption                    | W    | 50       | 108      | 131      |
| Minimum operating room temperature   | °C   | 5        | 5        | 5        |
| Electric system grades of protection | IP   | X5D      | X5D      | X5D      |
| Weight                               | kg   | 27       | 29       | 28       |

## CODE NATURAL GAS

3300866

3300864

3300865

## OPTIONAL ACCESSORIES

## CODE



Sensys system interface



Room sensor



External probe

BUS interface

Included

**LPG CONVERSION KIT**

for Clas X 24 CF-FF

3318261

for Clas X 28 FF

3318264

**HYDRAULIC ACCESSORIES**

First installation kit (4 taps)

3318228

First installation kit (2 taps)

3318224

No tap kit

3318222

2 taps only-heating kit

3318225

Universal replacement kit

3318227

**THERMOREGULATION ACCESSORIES**

Sensys system interface (TK-RUS-GR-HR-SRB)

3318613

Sensys system interface (PL-CZ-HU-RO)

3318615

Modulating Room sensor

3318586

External Probe (wired)

3318588

On-off Cronothermostat (wired)

3318590

On-off Cronothermostat (wireless)

3318591

On-off Cronothermostat BUS supplied (wired, no batteries)

3318593

On-off room thermostat ambiente on-off

3318594

**ZONES MANAGER MODULES**

Multifunctional kit

3318636

\*for the multizone module list, see page 122-123

**SOLAR MANAGEMENT AND INTEGRATION ACCESSORIES**

Sensys system interface (TK-RUS-GR-HR-SRB)

3318613

Sensys system interface (PL-CZ-HU-RO)

3318615

Thermostatic mixer

3024085

Integrated thermostatic mixing valve

3318379

Thermostatic mixing valve for high flow rate

3318419

Integrated solar probe

3318317

Integrated thermostatic mixing valve and integrated solar probe kit

3318290

Forced circulation probe kit

3318485

Solar collector probe

3318564

**FLUE PIPES**

1000mm coaxial kit complete with 90° elbow and terminal

3318000

Vertical starter with gaskets and fixing screws

3318008

1000mm 80/125 coaxial kit complete with 90° elbow and terminal

3318035

Adaptor/Vertical starter Ø60/100 - Ø80/125

3318040

Horizontal twin pipe (Ø80) flue kit

3318368

Adaptor (Ø60/100 - Ø80) for twin pipe systems

3318367

For the whole accessories list see pag. 116