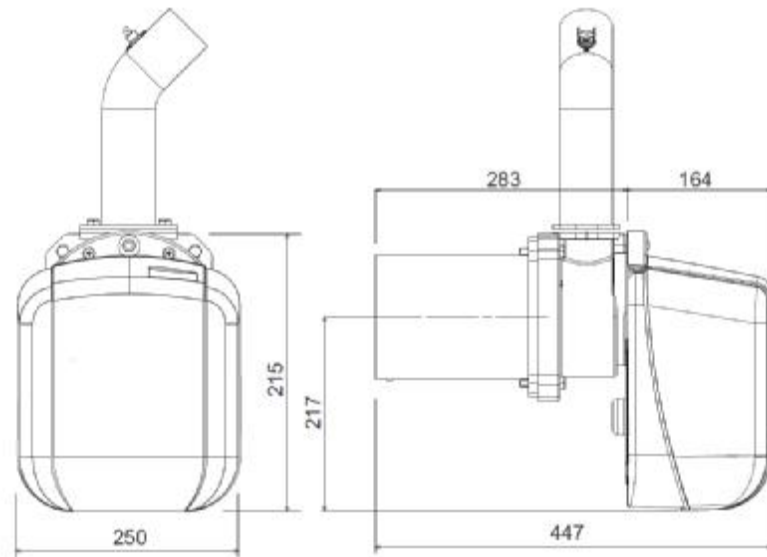


New range of
Pellet Jet Burner

SUN P 7 N

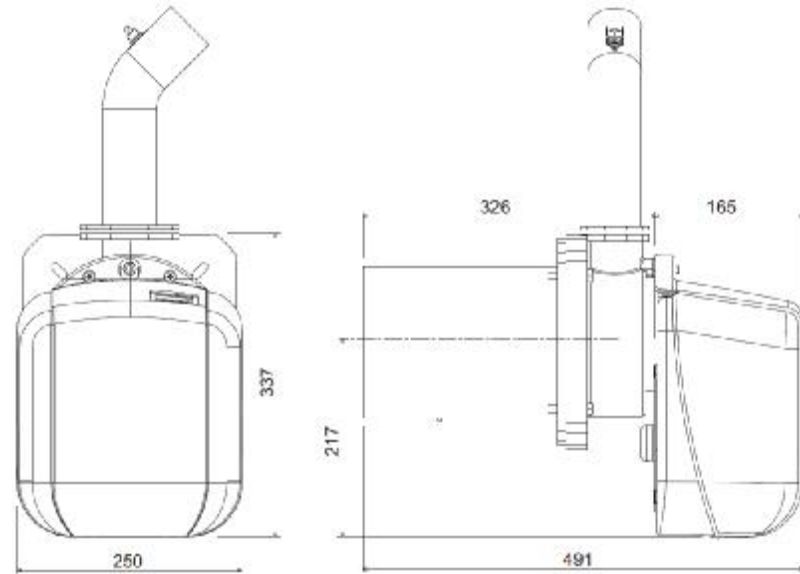
SUN P 12 N

DIMENSION & TECHNICAL DATA

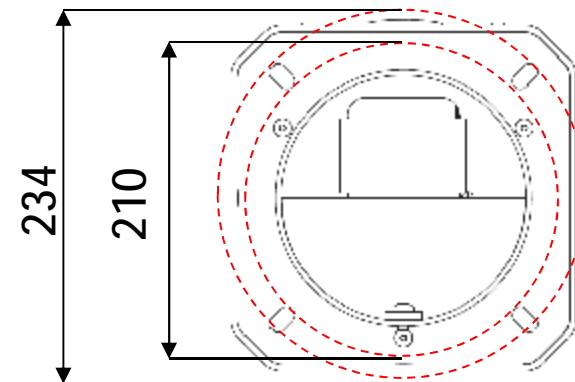
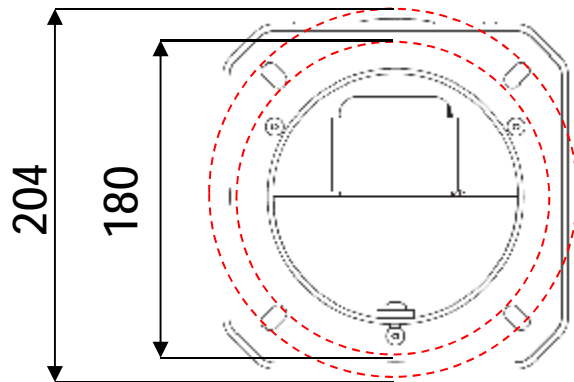


SUN P7 N

The docking flange is the same as the old SUN P



SUN P12 N



SUN P7 N SUN P12 N

<i>OUTPUT Max</i>	kW	34.1	55.0
<i>OUTPUT Min</i>	kW	13.7	30.0
<i>FLOW RATE Max</i>	kg/h	7.2	11.6
<i>FLOW RATE Min</i>	kg/h	2.9	6.3
<i>PROTECTION RATING</i>	IP	X0D	X0D
<i>ELECTRICAL POWER SUPPLY</i>	V/hz	230/50	230/50
<i>POWER CONSUMPTION</i>	W	100	100
<i>IGNITOR POWER CONSUMPTION</i>	W	300	300
<i>EMPTY WEIGHT</i>	kg	11	13.5

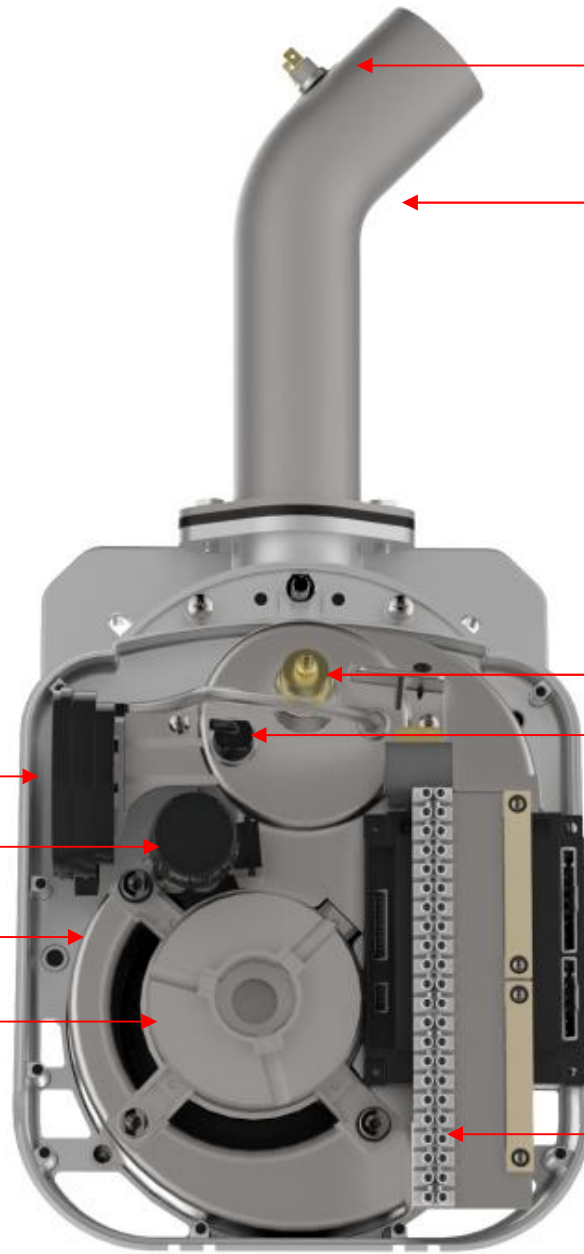
<i>TANK VOLUME</i>	litri	195	323
<i>TANK CONTENTS</i>	kg	140	226
<i>PELLET DIMENSIONS</i>	mm	6/35	6/35
<i>PRESSURE LOSS ON FLUE SIDE</i>	mbar	-0.2	-0.2



COMPONENTS



INTERFACE DISPLAY
& PANEL CONTROL



SAFETY PELLET
THERMOSTAT 85° C

PELLET ENTRY PIPE

ELECTRIC IGNITER
PHOTO CELL

AIR PRESSURE SWITCH

MOTOR START CAPACITOR

FAN

FAN MOTOR

UNIT CONTROL

PLUGS for ELECTRICAL
CONNECTION



The electronic control system is comprised of two main components.

The PCB integrated ABM09 for ignition and control of the burner and the central heating management.

The interface display DSP13 with a large LCD and four keys for the regulation.



INTERFACE DISPLAY DSP13



ELECTRONIC CONTROL ABM 09



ELECTRONIC CONTROL ABM 09

OUTPUT SIGNAL

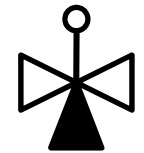
Central Heating
Pump



DHW tank Pump



3 way valve for
DHW tank



Signal for burner
block



INPUT SIGNAL

REMOTE RESET AND RESTART



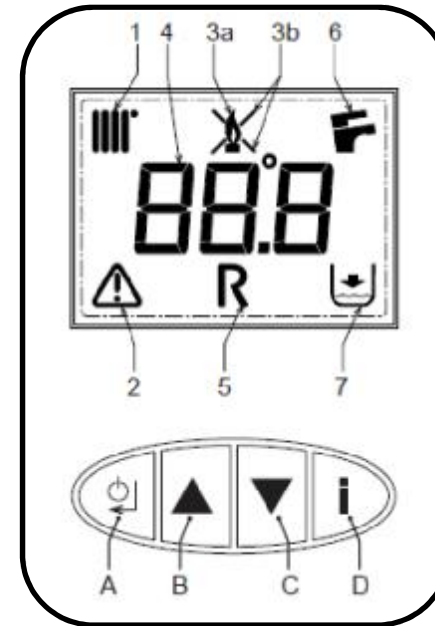
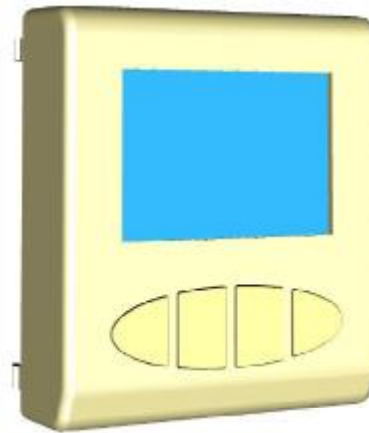
HEATING AND SAFETY SENSOR



DHW SENSOR OR THERMOSTAT



Interface display DSP13



ROOM THERMOSTAT



REMOTE CONTROL



START CONTACT 230 Vac

- 1 = Heating Symbol
- 2 = Fault
- 3a= Burner ON
- 3b= Burner block
- 4 = Multimode indicator
- 5 = Pellet load request
- 6 = Hot water symbol
- 7 = Pressure water too low
- A = On/Off – Confirm – Reset
- B = Selection parameters
- C = Selection parameters
Pellet load
- D = Information - Menù



Interface display DSP13

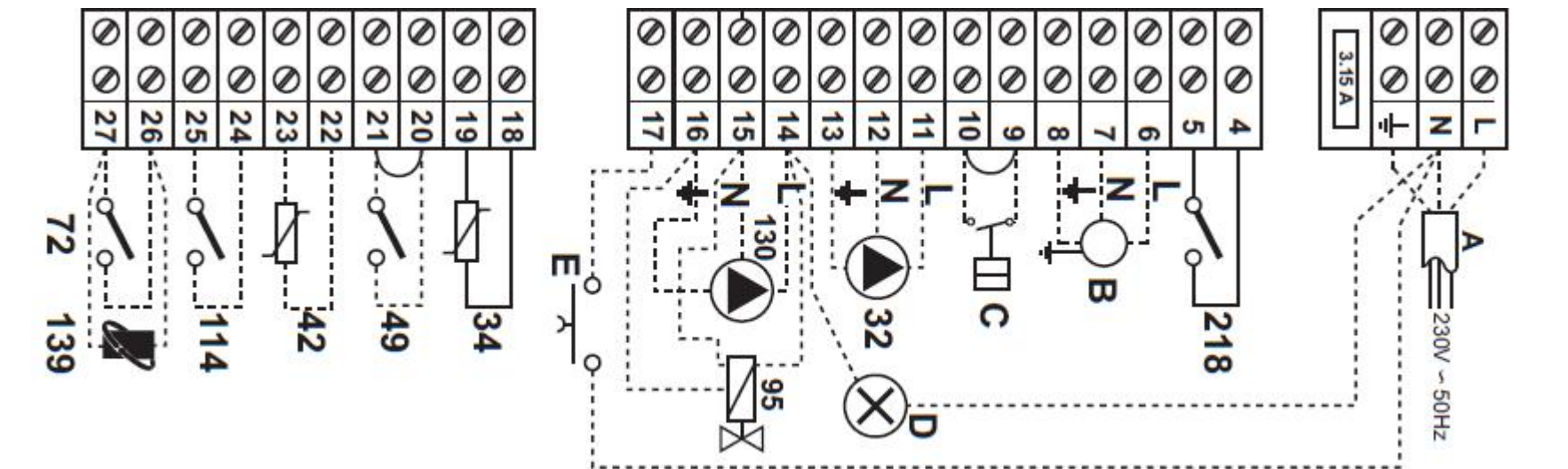
The first level of the menu is for the user. In this menu there are six parameters to customize the operation of the burner.

(Key P for 5 seconds)

Par.	Description	Range	Default
u01	Heating temperature	30 - 80°C	80°C
u02	DHW temperature	10 - 65°C	65°C
u03	Summer/Winter	0=Summer	1=Winter
		1=Winter	
u04	Economy/Comfort	0=Economy	0=Economy
		1=Comfort	
u05	Max power Input	1= mln.	3
		5= max	
u06	Operating type	0= Request Contact	0
u07	Step of power operation	0 - 6	

*The second level of the menu is for the service technician.
(Key P for 10 seconds)*

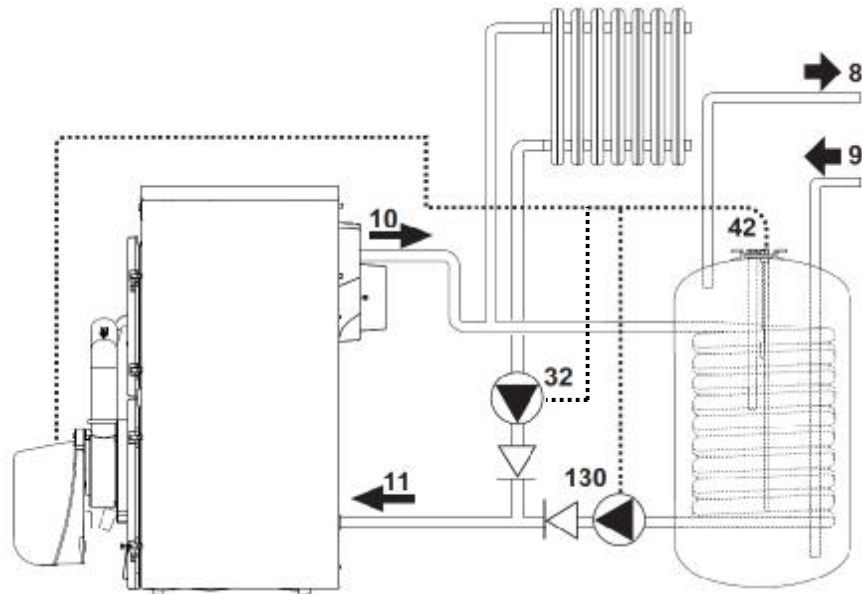
ELECTRIC CONNECTION for HEATING & DHW system



**ELECTRIC CONNECTIONS
for
HEATING AND DHW SYTSTEM**

- 72 Room Thermostat (*optional*)
- 139 Room Unit/Remot control (*optional*) Open Therm entry
- 114 Water pressure switch (*Not supplied*)
- 42 Hot domestic water temperatur probe (*Not supplied*)
- 49 Safety boiler thermostat (*Not supplied*)
- E Remote reset and restart input (230V – 50 Hz) (*Not supplied*)
- 130 DHW circulating pump (*Not supplied*)
- 95 Three ways valve for DHW tank (*Not supplied*)
- 32 Heating circulating pump (*Not supplied*)
- D Stop operating allarm signal (*Not supplied*)
- C Free request contact (230V – 50 Hz) (*Not supplied*)
- A Electric power supplied (230 V – 50 Hz)



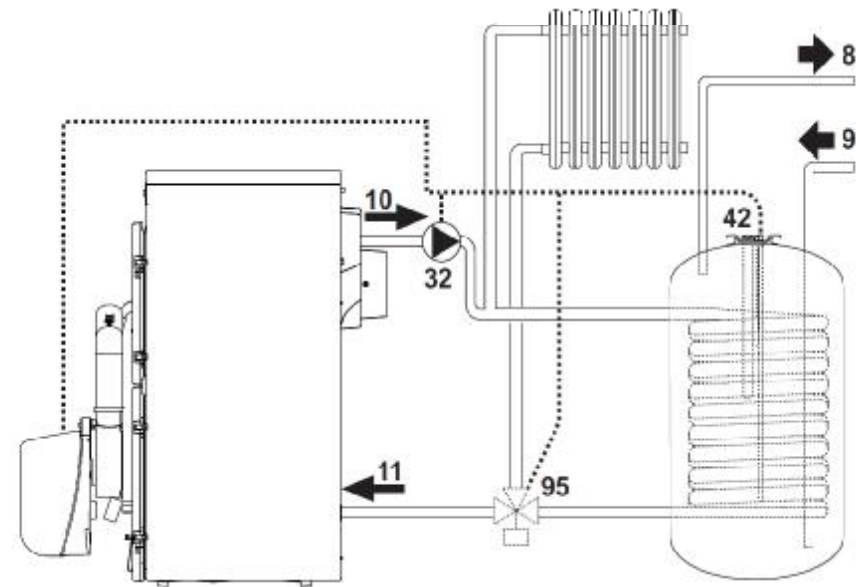


C.H. + DHW with circ. pump

- 42 HDW temperature probe
- 130 Three ways valve for DHW tank
- 32 Heating circulating pump

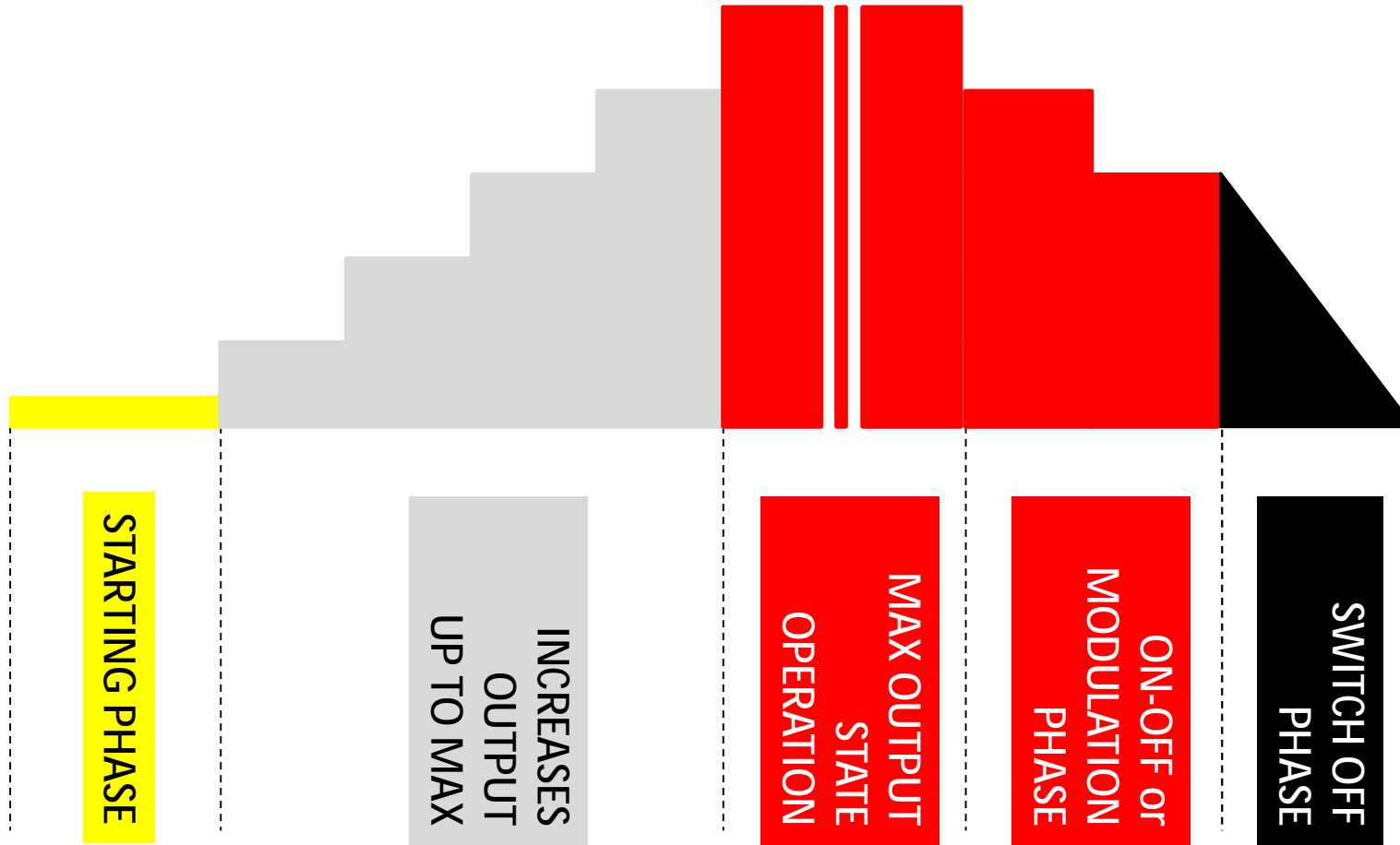
C.H. + DHW with three ways valve

- 42 HDW temperature probe
- 95 Three ways valve for DHW tank
- 32 Heating circulating pump

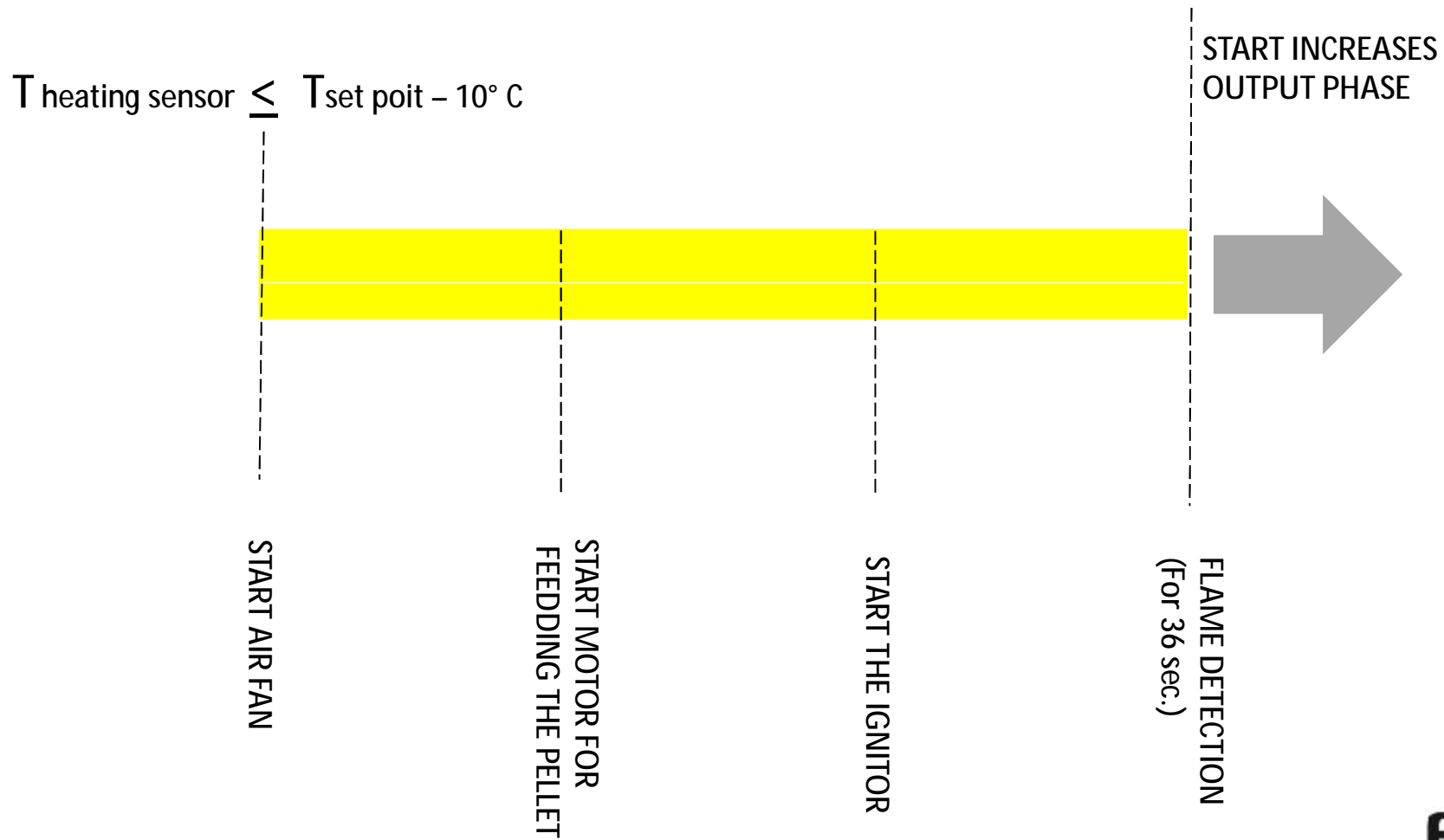


BURNER OPERATION

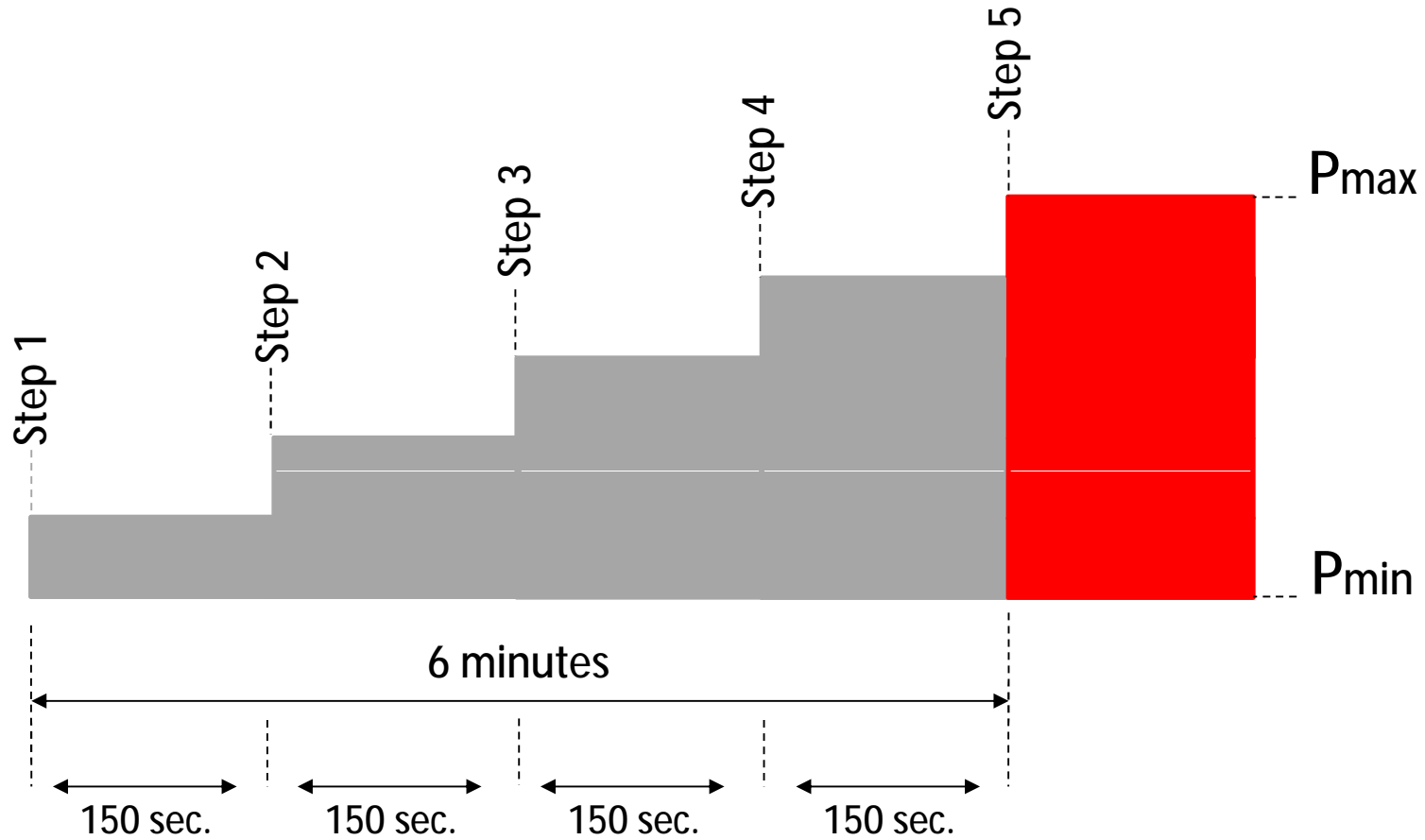
BURNER OPERATION



STARTING PHASE



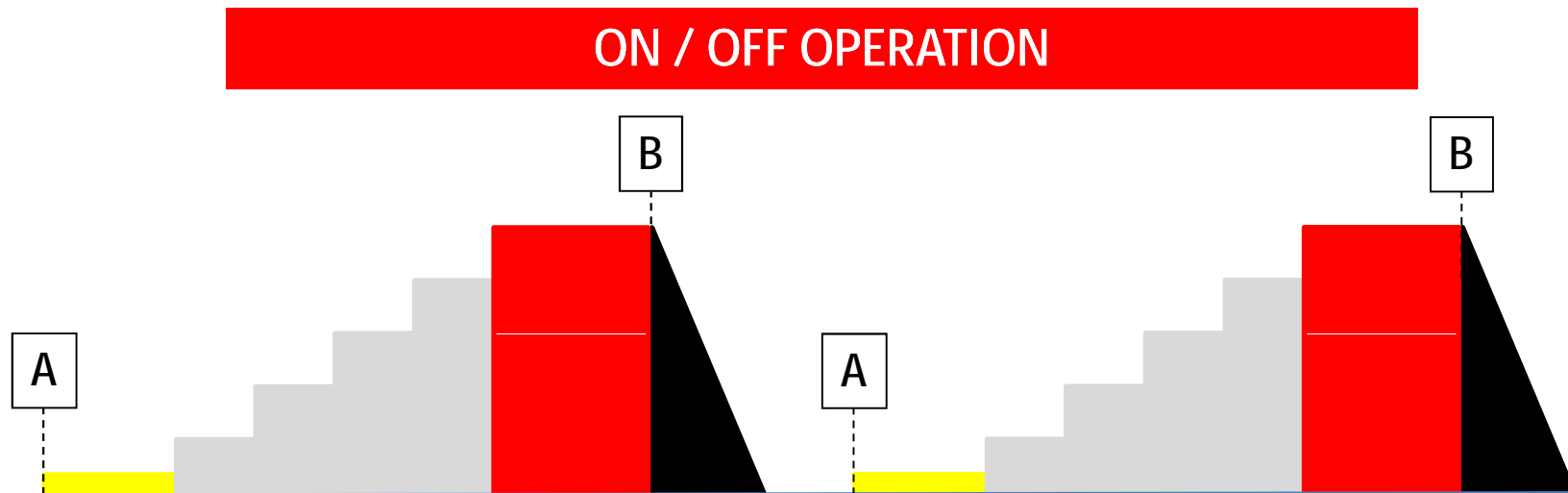
INCREASES OUTPUT PHASE



The burner has a soft start with an increase of flame in five steps. This phase lasts 6 minutes.

It's possible to set up the burner running operation in three modes:

- ON/OFF
- MODULATION 1
- MODULATION 2



A - if $T_{\text{heating sensor}} < T_{\text{set point}} - 10^{\circ}\text{C}$

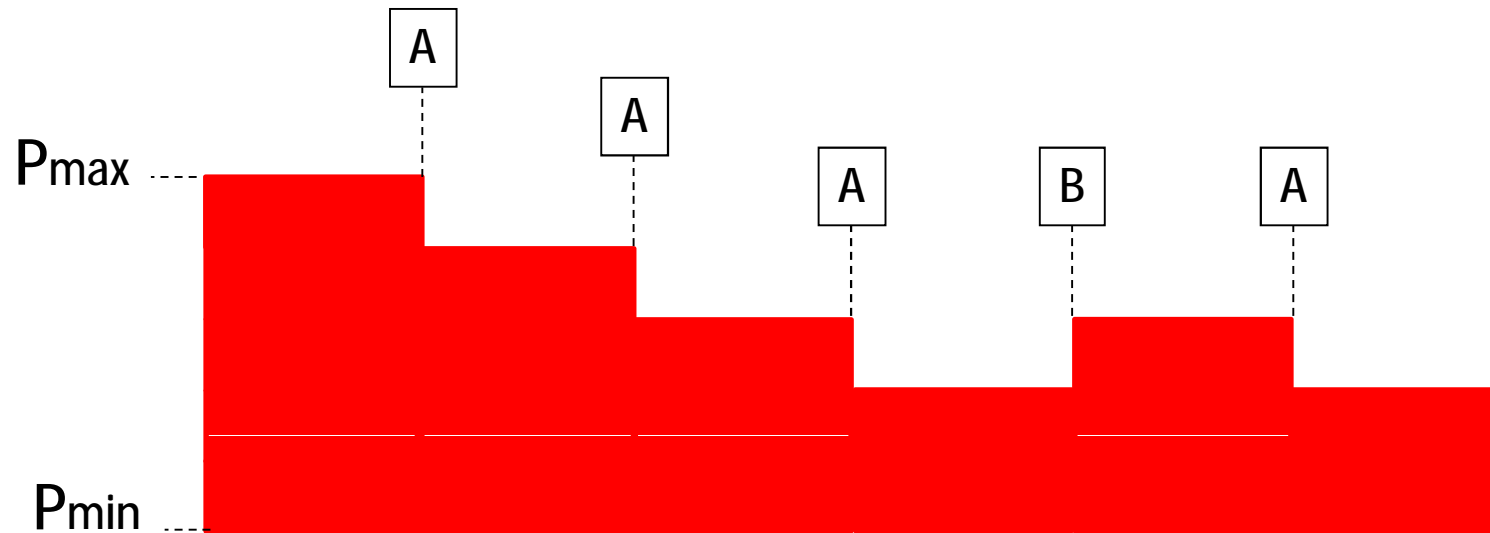
Burner ON (start ignition phase)

B - if $T_{\text{heating sensor}} > T_{\text{set point}}$

Burner OFF (start turn off phase)

MODULATION STATE OPERATION

It is possible to set the burner in two different ways of flame modulation



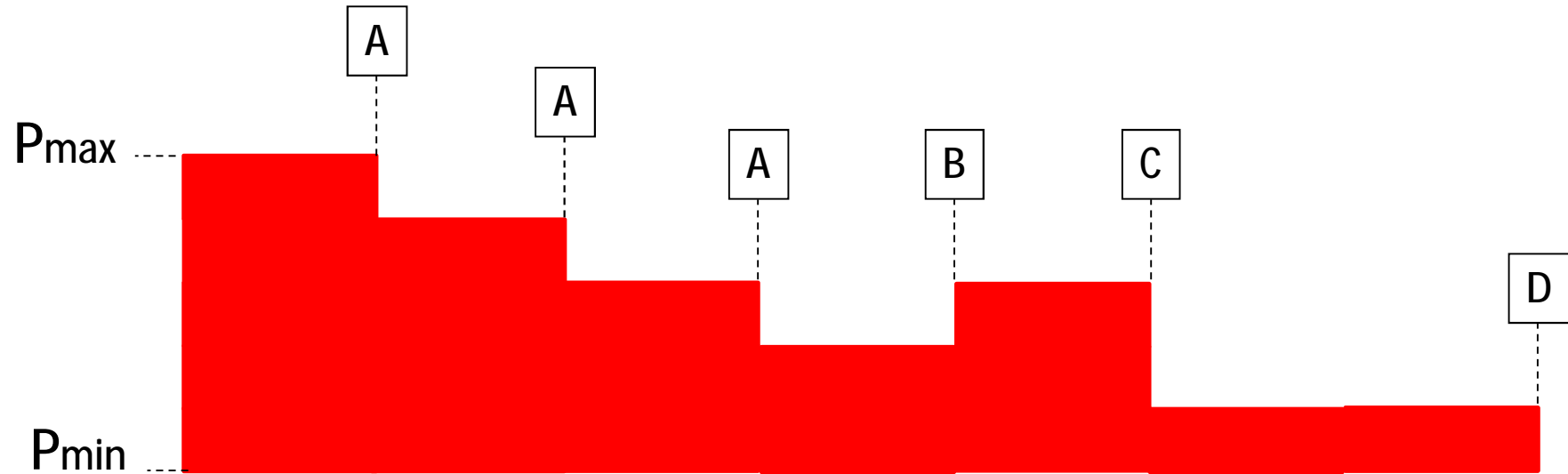
MODULATION 1

A - if $T_{\text{heating sensor}} > T_{\text{set point}} - 10^{\circ}\text{C}$ **P** increases 1 step

B - if $T_{\text{heating sensor}} < T_{\text{set point}} - 12^{\circ}\text{C}$ **P** decreases 1 step

MODULATION STATE OPERATION

It is possible to set the burner in two different ways of flame modulation



MODULATION 2

A - if $T_{\text{heating sensor}} > T_{\text{set point}} - 10^{\circ}\text{C}$

P increases 1 step

B - if $T_{\text{heating sensor}} < T_{\text{set point}} - 12^{\circ}\text{C}$

P decreases 1 step

C - if $T_{\text{heating sensor}} > T_{\text{set point}}$

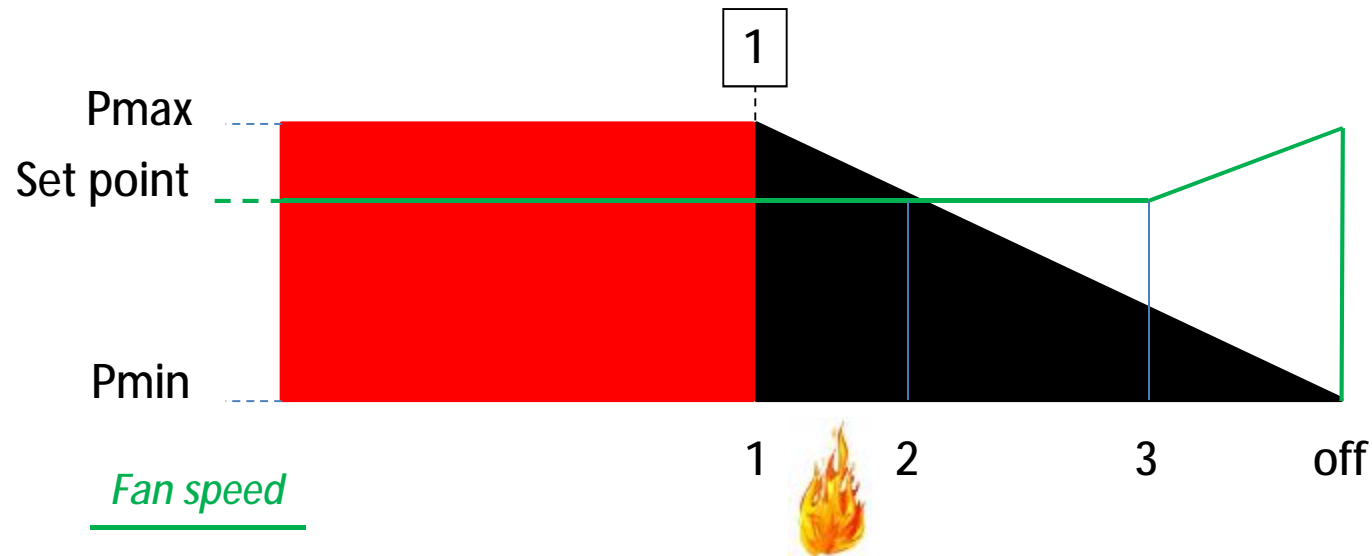
Burner ON on 1° power step

D - until $T_{\text{heating sensor}} > 95^{\circ}\text{C}$

Burner OFF



SWITCH OFF PHASE



- 1 if $T_{\text{heating sensor}} > T_{\text{set point}}$ Start turn off phase
Fan on set-point power until the photocell sees the flame
- 2 Fan on set-point power for 180 seconds
- 3 Fan on max power for 20 second

FUNCTION

WARM-UP

With this function it is possible to maintain the exchanger of the boiler in a range of temperatures from 0° C to 5° C for the normaly configuration and from 50° C to 55° C for the Istantanous DHW configuration boiler.

AUTO-CONFIGURATION BOILER

The electronic control on board of the boiler can feel the connection of a DHW sensor and automatically changes its configuration from 'only Heating' to combi boiler' (with double pump or with three ways valve).

Hi TEMPERATURE PROTECTION

After switch off phase, if the thermal exchanger goes over 92°C, it starts in automatically:

- the heating pump in case of only heating configuration
- the DHW pump (and 3 ways valve) in case of combi configuration

Anti-LEGIONELLA

For the protection from the bacteria of the Legionelle it is possible to bring the temperature of DHW tank to over 65° C for 15 minutes

COMFORT

With this function it is possible to maintain the exchanger of the boiler in a range of temperatures from 55° C to 75° C. This function is normally used in instantaneous DHW configuration.

Anti-FREEZE

If the heating sensor (of the boiler) goes below 5° C the burner starts. The switch off phase starts when the temperature exceeds 15° C