

Safety unit for hot water storage heaters

5265 series



Function

Safety units are used to protect hot water storage heaters in domestic water systems.

They are composed of various components that perform the following functions:

- safety, to prevent the pressure of the water contained within the storage heaters from reaching dangerous limits
- anti-pollution, to prevent hot water from flowing back into the cold water supply system
- shut-off, to isolate the mains system for maintenance and checks on the water heater circuit.

The safety units, installation of which is compulsory according to current regulations, **are certified as meeting the requirements of European standard EN 1487.**

N.B: while the domestic water tank is heating up, you may notice water dripping or trickling from the safety unit. This is caused by the increased temperature of the water heater.



Product range

Code 526554 TH X-Cross multi-position safety unit for hot water storage heater _____ size 3/4"

Code B531003 TH Spare safety relief valve for X-Cross safety unit

Code 319601 U trap for safety unit _____ size 1" F x Ø 32/25 mm

Technical specifications

Materials

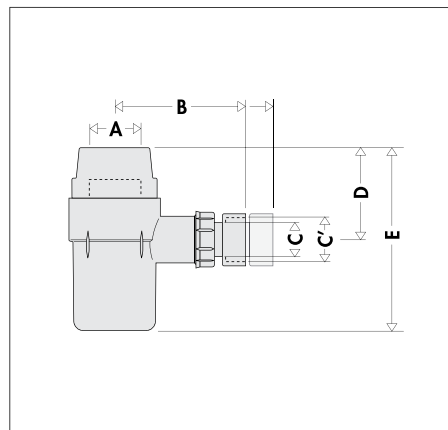
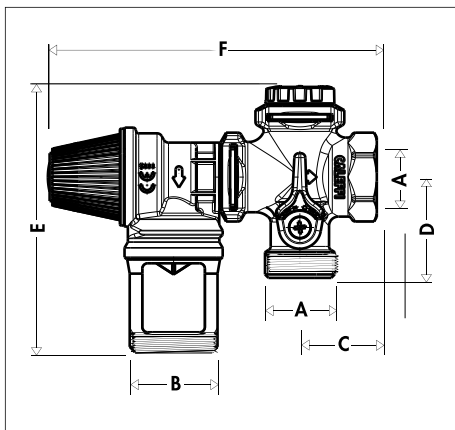
Body: - safety unit: brass EN 12165 CW617N
 - safety relief valve: PPSU
 Ball valve: brass EN 12164 CW614N
 Check valve: PPAG40
 Safety relief valve obturator: EPDM
 Safety relief valve seat: PPSU
 Hydraulic seals: EPDM
 Safety relief valve spring: steel EN 10270-1
 Check valve spring: stainless steel EN 10270-3 (AISI 302)

Performance

Medium: water
 Maximum working temperature: $\pm 120^{\circ}\text{C}$
 Max. working pressure: 10 bar
 Safety relief valve setting pressure: 7 bar

Threaded connections: inlet 3/4" (ISO 228-1)
 outlet 3/4" F (ISO 228-1)
 drain 1" M (ISO 228-1)

Dimensions



Code	DN	A	B	C	D	E	F	Mass (kg)
526554	20	3/4"	1"	29	38	100,3	24	0,32

Code	DN	A	B	C	C'	D	E	Mass (kg)
319601	25	1"	83±100	Ø25	Ø32	55	117	0,08

PPSU specifications

PPSU (polyphenylsulfone) is an ultra-high-performance polymer. This material is highly resistant to chlorinated water, corrosion and hard limescale deposits. PPSU can withstand high temperatures and vapour (it can withstand over 1000 sterilisation cycles in a hydro-pneumatic well with vapour at 2 bar and at a temperature of 132°C). It is also self-extinguishing.



Discharge flow rate at 8.4 bar (+20 % Po):

- with water:
- with vapour:

> 650 l/h (3/4")
> 225 kg/h (3/4")

Safety unit size	Heater maximum power output ----- for direct heater EN 1487	Heater maximum power output ----- for indirect heater EN 1488	Maximum heater volume EN 1488
3/4"	10 kW	150 kW	1000 l

For more details see EN 1487 - par. 12

Product certification in accordance with European standards

European standard EN 806-2:2008

This standard provides recommendations and specifies the requirements for designing potable water systems in buildings.

• In point 10.2.3 "Temperature and hydraulic control units", the standard requires **hydraulic control units to comply with EN 1487**.

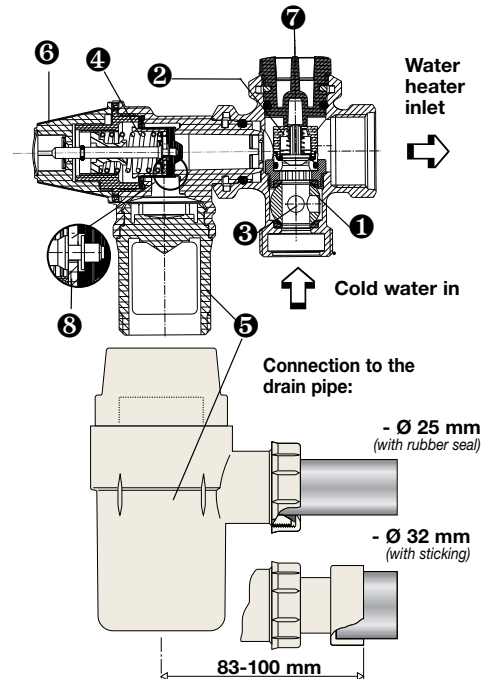
Product certification in accordance with the EN 1487 European standard
European Standard EN 1487:2014, under the heading "Building valves - Hydraulic safety groups - Tests and requirements", describes build and performance specifications of safety units for hot water storage heaters.

Caleffi 5265 series safety units are certified by the CSTB and Belgaqua Certifying Authorities as compliant with the requirements of European Standard EN 1487.

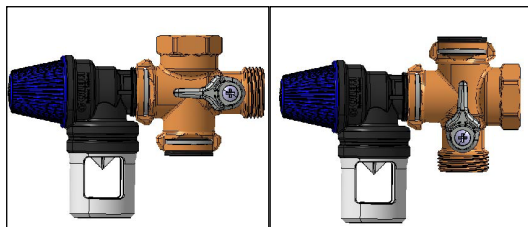
Standard DTU 60.11 recommends operating the drain knob at least once a month. Although it is technically possible to perform other maintenance procedures on CALEFFI safety units (such as replacing the anti-pollution valve), French regulations regarding safety devices recommend that no work is carried out on these devices. In the event of a malfunction, the entire safety unit should be replaced.

Characteristic components

- ① Shut-off cock
- ② Class A check valve
- ③ Hole for making sure the check valve is working
- ④ Safety relief valve
- ⑤ U trap and backflow prevention air ports
- ⑥ Manual drain knob
- ⑦ Plug for check valve replacement
- ⑧ PPSU seat

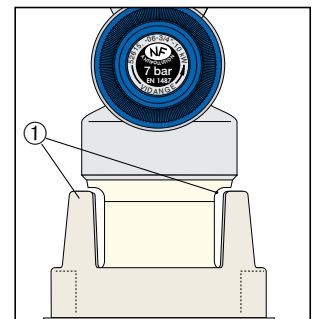


Installation



U trap

The U trap, positioned at the safety relief valve outlet, must conform to the size requirements specified by standard EN 1487 and drainage must take place without water leaks occurring. For this reason, 319 series U traps have special **side dividers** ① which collect sprays of water during safety relief valve drainage and channel them to the sewerage system.



N.B. : IT IS PROHIBITED TO CONNECT ANYTHING OTHER THAN THE END PLUG TO THE UNUSED FITTING

SPECIFICATION SUMMARY

Code 526554 TH

Safety unit for water heaters. Certified to EN standard 1487. Brass body. With shut-off valve and EA controllable type check valve. Safety relief valve seat in PPSU. Size 3/4". Water heater connection 3/4" F. Drain connection 1" M. EPDM seals. Maximum working temperature 120 °C. Maximum working pressure 10 bar. Safety relief valve setting pressure 7 bar.

Code B531003 TH

Spare safety relief valve for X-Cross multi-position safety unit. Certified to EN standard 1487. PPSU body. Seat in PPSU. Snap-fit connection to the safety unit. Drain fitting 1" M (ISO 228-1). EPDM seals. Maximum working temperature 120 °C. Maximum working pressure 10 bar. Safety relief valve setting pressure 7 bar.

Code 319601

U trap for water heater safety unit as specified in standard EN 1487. Connections 1". In plastic.

We reserve the right to make changes and improvements to our products and the related technical data in this publication, at any time and without prior notice.

The www.caleffi.it always has the most up-to-date version of the document, which should be used for technical verifications.