

SATK20

heat interface unit



 **CALEFFI**

altecnic

SATK20 heat interface unit



Introduction

The satK20 heat interface unit is the latest 'intelligent' range of HIU from Altecnic.

The satK20 is the complete solution for instantaneous hot water production and space heating control.

Design

The single plate design hydraulically separates the domestic water with the space heating supplied directly from the central primary supply.

The on-board electronic control unit ensures maximum efficiency and control but crucially also enables additional important features.

Similar to the indirect version, the satK20 can be set to modulate the heating flow circuit for greater efficiency and to compensate for changes in the external environment.

The satK20 is available with a heating circuit support pump (all models) if required.

The low temperature heating version, for UFH, includes a heating pump, bypass and safety thermostat, allowing the space heating circuit temperature to be set and controlled as required.

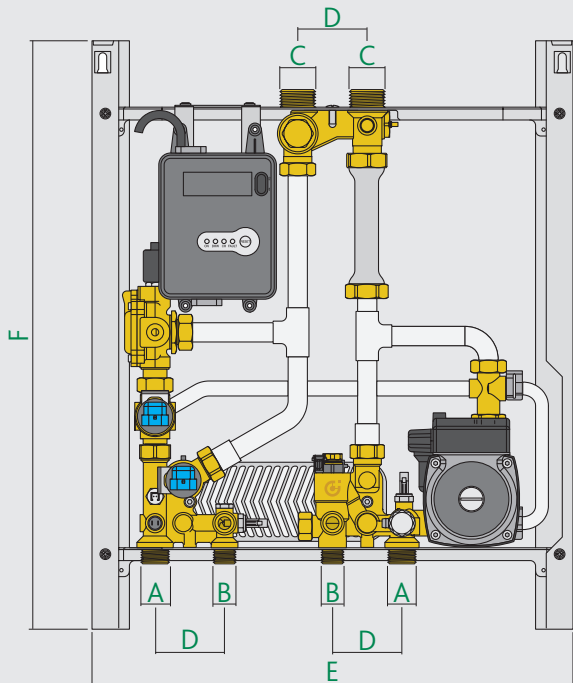
All models with a heating support pump come, as standard, with a pump bypass loop in case of complete radiator TRV shutdown.

The satK20 is extremely compact in design and lightweight, benefitting installers and architects alike.

The unit has a fully insulated cover, manufactured from expanded PPE fully insulating the unit and includes a sliding window to allow the tenant to access the integral heat meter (if installed).

The unit can be fitted with an optional isolation module that allows the DHW and heating circuits to be remotely isolated by the building owner/landlord etc. via a PC with internet access.

Dimensions



| Connection | A | B | C |
|------------|-------|-------|-----|
| Thread | G3/4B | G1/2B | G1B |

| D | E | F | Depth inc. Cover | kg |
|----|-----|-----|------------------|----|
| 65 | 450 | 550 | 265 | 16 |

Technical Specification

Component

| | |
|------------------------|-----------------|
| Frame: | Painted steel |
| Front cover: | PPE |
| Connecting pipework: | Stainless steel |
| Pump: | UPS 15/60 |
| Electronic controller: | 230 V -50 Hz |

Materials

Performance

| | |
|---------------------------|--|
| Maximum working pressure: | 10 bar - primary 10 bar - secondary |
| Maximum temperature: | 85°C |
| Medium: | Water |

Operation

Heating

The temperature setting operates on the principle of set point regulation and can be fixed within application limits.

| | |
|-------------|-------------------------------|
| Set Point - | Low temperature 25 to 45°C |
| | Medium temperature 45 to 75°C |
| | High temperature 45 to 85°C |

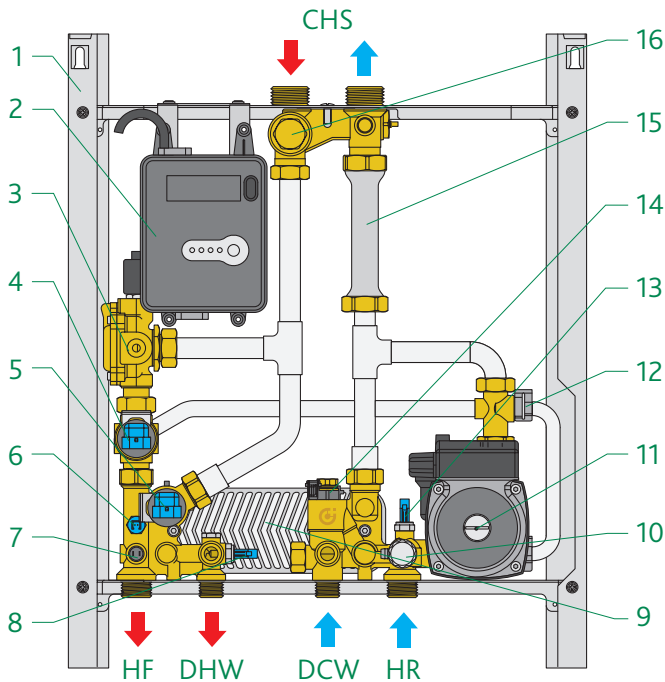
Domestic Hot Water - DHW

The DHW function takes priority over the heating function controlled by the DHW priority flow switch (component 14).

| | |
|---------------------------|----------------------------|
| Set Point - | DHW temperature 42 to 60°C |
| Heat exchanger capacity - | up to 50 kW |

SATK20 heat interface unit

Components



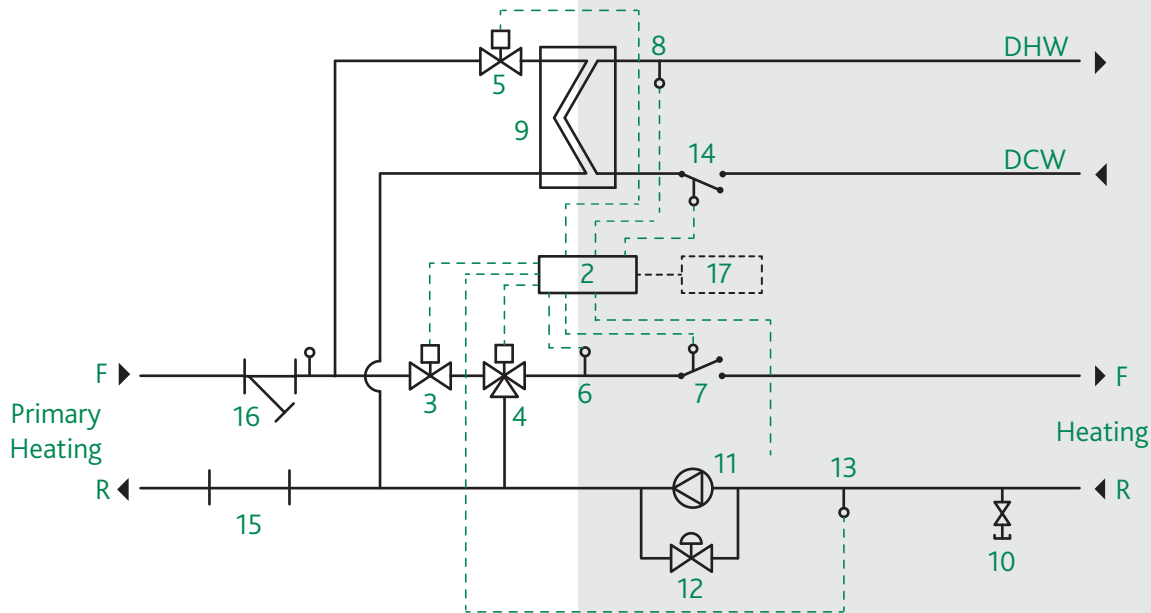
Products

| Product Code | Description |
|--------------|----------------------------|
| satK20 1 | Low temperature |
| satK20 2 | Medium temperature |
| satK20 3 | High temperature |
| satK20 4 | High temperature with pump |

Components

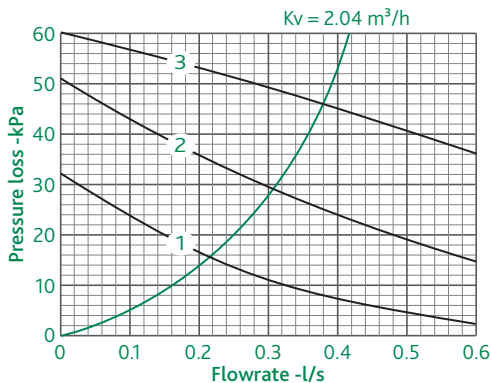
| Item | Component | 1 | 2 | 3 | 4 |
|------|---|---|---|---|---|
| 1 | Frame | . | . | . | . |
| 2 | Electronic controller | . | . | . | . |
| 3 | Temperature safety thermostat | . | . | . | . |
| 4 | Modulating heating control valve | . | . | . | . |
| 5 | Modulating DHW valve (primary) | . | . | . | . |
| 6 | Heating flow temperature sensor | . | . | . | . |
| 7 | Temperature safety sensor - low temp. | . | . | . | . |
| 8 | DHW sensor | . | . | . | . |
| 9 | DHW heat exchanger | . | . | . | . |
| 10 | Drain cock | . | . | . | . |
| 11 | UPS 15-60 pump | . | . | . | . |
| 12 | Protective bypass | . | . | . | . |
| 13 | Return temperature compensation sensor | . | . | . | . |
| 14 | DHW priority flow switch | . | . | . | . |
| 15 | Heat meter spool piece - replaced by heat meter when fitted | . | . | . | . |
| 16 | Filter and heat meter flow sensor pocket | . | . | . | . |
| 17 | Room controller/thermostat - not supplied | . | . | . | . |

Schematic

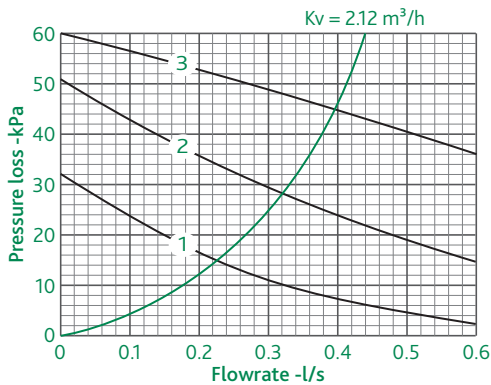


SATK20 heat interface unit

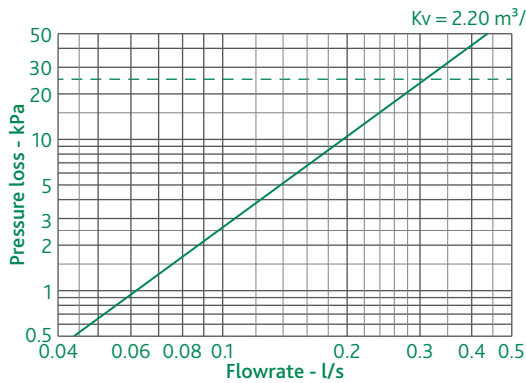
Hydraulic Characteristics - Heating Function
satK20 1 - low temperature unit - UPS 15-60 pump settings



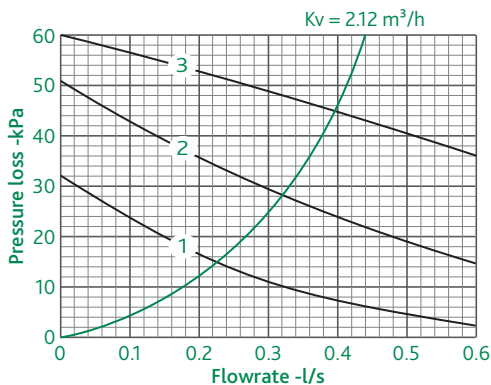
satK20 2 - medium temperature unit - UPS 15-60 pump settings



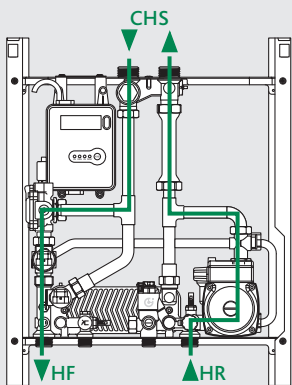
satK20 3 - high temperature unit



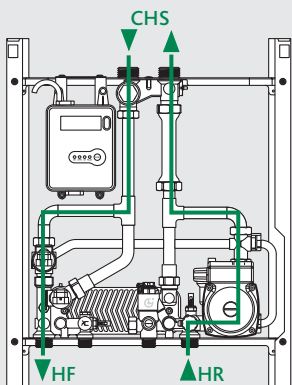
satK20 4 - high temperature unit - UPS 15-60 pump settings



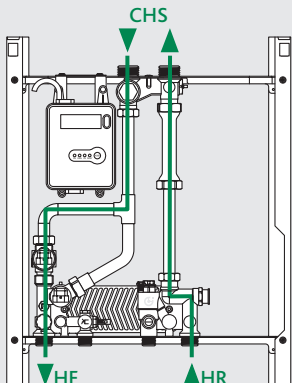
Flow Path
satK20 1 - low temperature unit



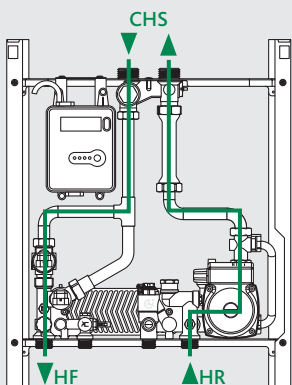
satK20 2 - medium temperature unit



satK20 3 - high temperature unit

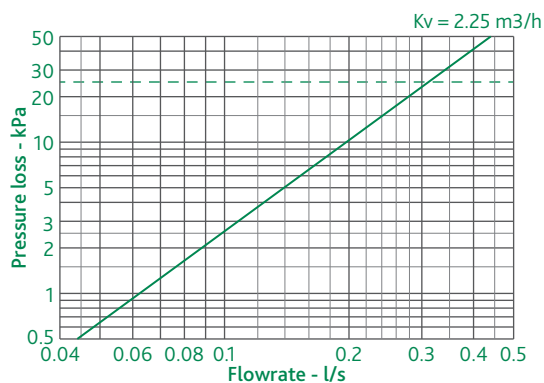


satK20 4 - high temperature unit

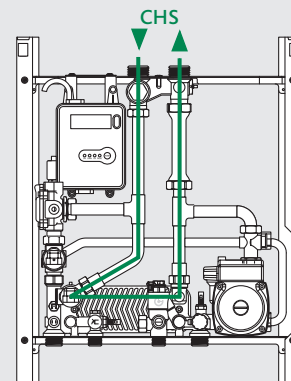


SATK20 heat interface unit

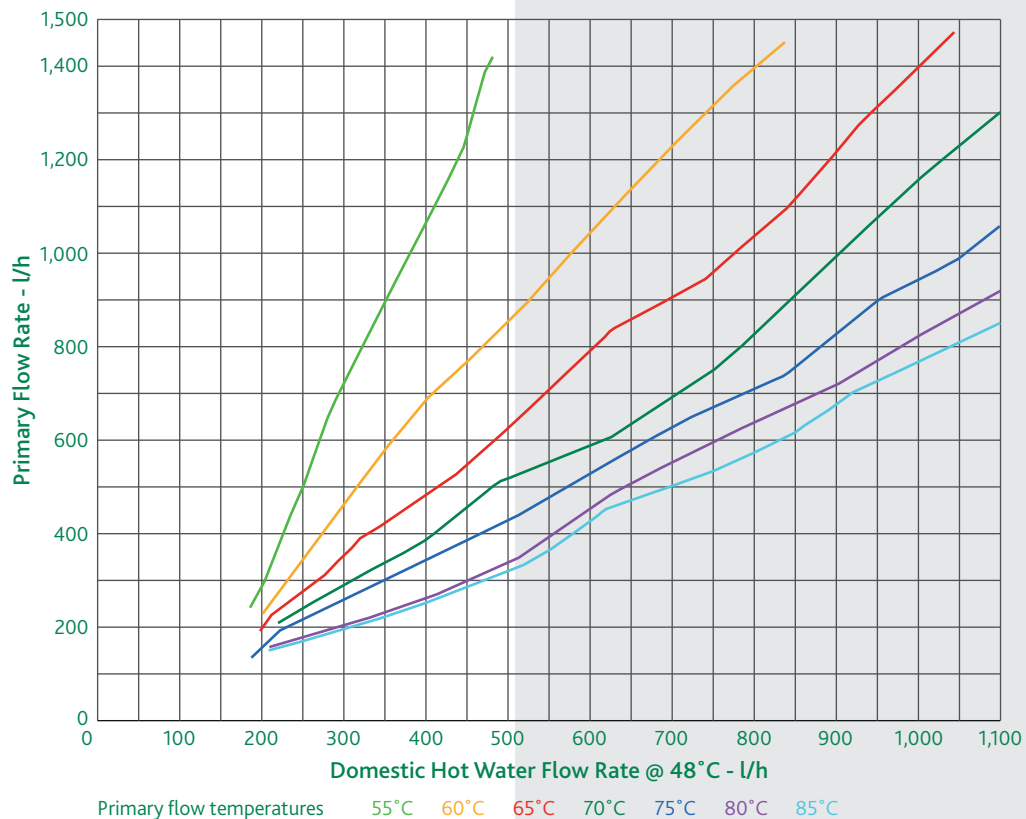
Hydraulic Characteristics DHW - heat exchanger



Flow Path DHW - heat exchanger



Domestic Hot Water Output



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