

SATK30

heat interface unit



 **CALEFFI**
Hydronic Solutions



altecnic
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SATK30 heat interface unit



Introduction

The SATK30 heat interface unit is the latest 'intelligent' range of HIU from Altecnic.

The SATK30 is the complete solution for instantaneous hot water production and space heating control.

Design

The twin plate design hydraulically separates both domestic and space heating from the central primary supply.

The internal electronic control unit ensures maximum efficiency and control but also incorporates other additional important features.

The standard unit can be set to hold a stable heating flow temperature, to suit the installation (radiators, UFH for example), but crucially, can also be set to vary the heating flow temperature automatically depending on the temperature of the heating return water.

This allows the unit to automatically compensate for changes due to external influences, such as outside temperature etc. thereby ensuring that the unit and the system operate at maximum efficiency

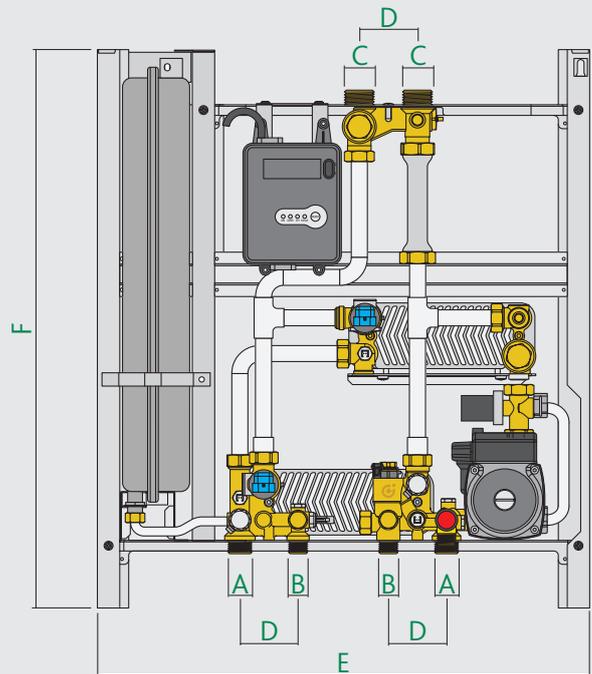
The unit also features a pump bypass to protect the pump, in case of complete radiator TRV shutdown.

The SATK30 is extremely compact in design and lightweight, benefitting both installers and architects.

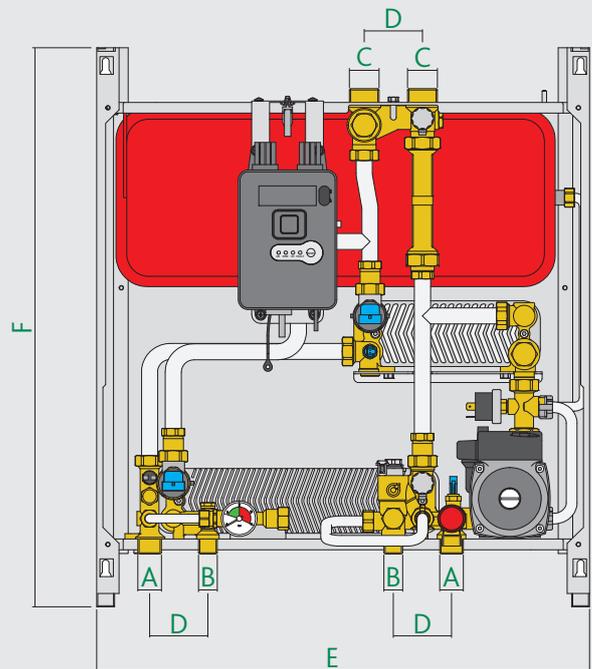
The unit has a fully insulated front cover, manufactured from expanded PPE, which includes a sliding window to allow the tenant to access the integral heat meter (if installed).

The unit can be fitted with an optional isolation module which allows the domestic hot water (DHW) and heating circuits to be remotely isolated by the building owner/landlord etc. via a computer with internet access.

Dimensions - SATK30103



Dimensions - SATK30105



Connection	A	B	C
Thread	G $\frac{3}{4}$ B	G $\frac{1}{2}$ B	G1B

D	E	F	Depth inc. Cover	kg
65	550	630	265	19

SATK30 heat interface unit

Technical Specification

Component

Frame:	Painted steel
Front cover:	PPE
Expansion vessel;	Steel
Connecting pipework:	Stainless steel
Pump:	UPS2 15/60
Electronic controller:	230 V -50 Hz

Performance

Maximum static working pressure:	16 bar - primary 3 bar - secondary
Primary differential pressure capability:	1.65 bar
Optionally available:	6 bar
Min. differential pressure:	0.35 bar
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.

Heating Set Point - 25 to 75°C

Domestic Hot Water - DHW

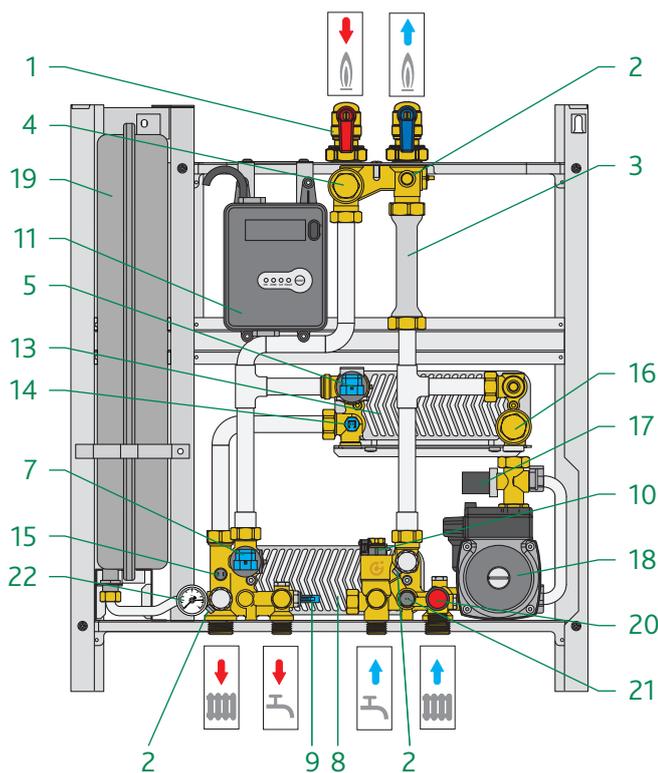
The DHW function takes priority over the heating function controlled by the DHW priority flow switch (component 10).

Set Point - DHW temperature 42 to 60°C

Heat exchanger capacity:

SATK30103	up to 50 kW
SATK30105	up to 75 kW

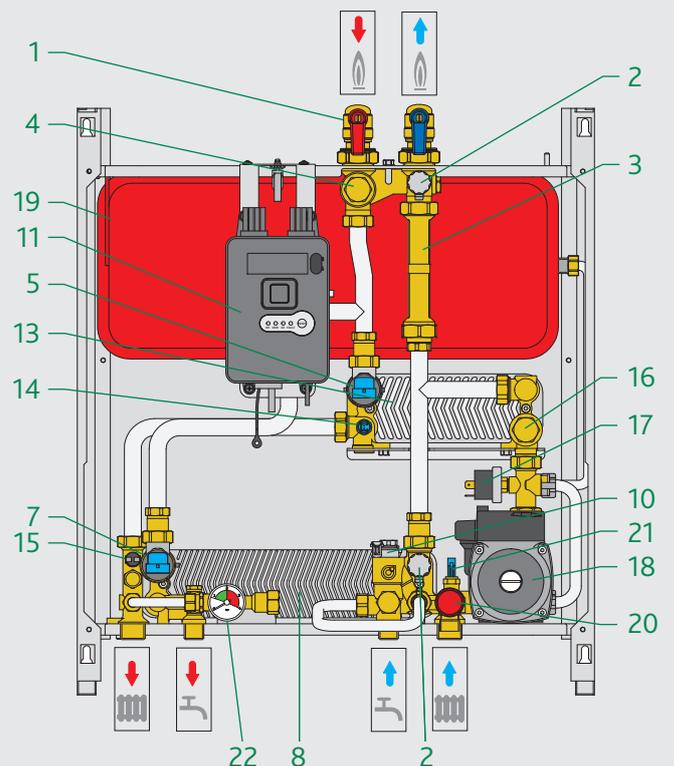
Components - SATK30103



Components

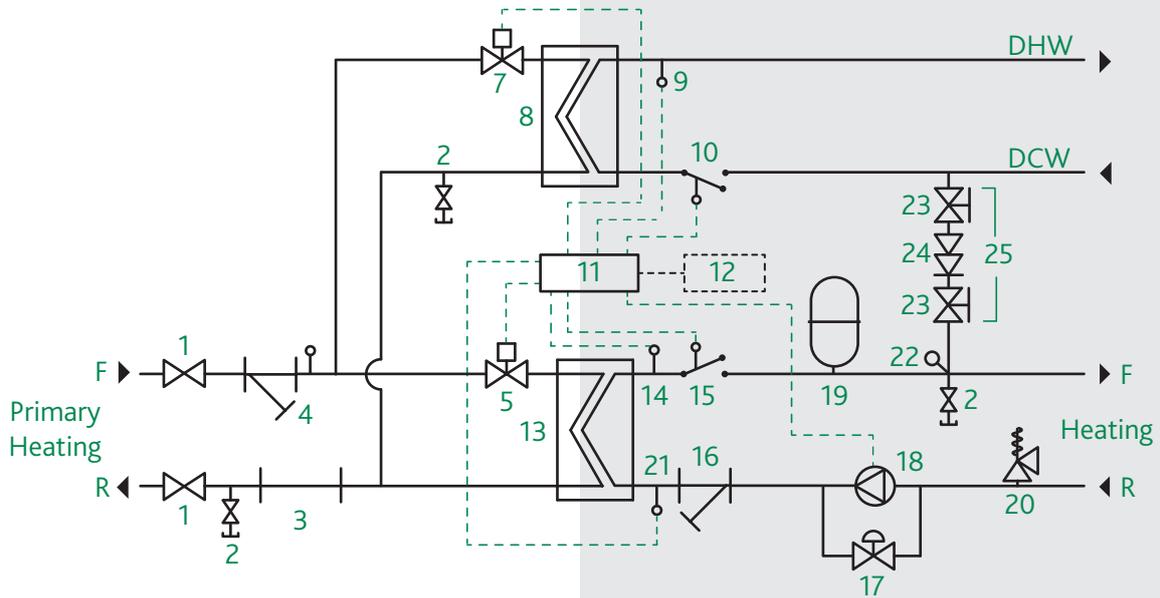
Item	Component
1	Primary isolation valve
2	Drain cock
3	Heat meter spool piece - replaced by heat meter when fitted
4	Primary filter and heat meter probe pocket
5	Heating circuit on/off valve
7	Modulating primary control valve (DHW)
8	Plate heat exchanger (DHW)
9	DHW temperature sensor
10	DHW flow switch
11	Electronic control unit
12	Room controller (not supplied)
13	Plate heat exchanger (space heating)
14	Heating flow temperature sensor
15	Temperature control stat
16	Strainer (heating circuit)
17	Pump safety bypass and DP switch
18	Pump
19	Expansion vessel
20	Safety relief valve - 3 bar
21	Heating return temperature sensor
22	Pressure gauge
23	Filling loop isolation valve*
24	Filling loop double check valve*
25	Filling loop*
*	Not shown on Components illustration

Components - SATK30105



SATK30 heat interface unit

Schematic - SATK30103 & SATK30105



Components

Item	Component
1	Primary isolation valve
2	Drain cock
3	Heat meter spool piece - replaced by heat meter when fitted
4	Primary filter and heat meter probe pocket
5	Heating circuit on/off valve
7	Modulating primary control valve (DHW)
8	Plate heat exchanger (DHW)
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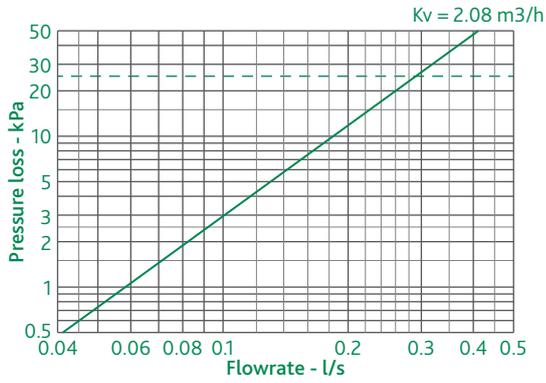
Key to Symbols

	Primary circuit flow
	Primary circuit return
	Domestic hot water outlet
	Domestic cold water inlet
	Heating circuit flow
	Heating circuit return

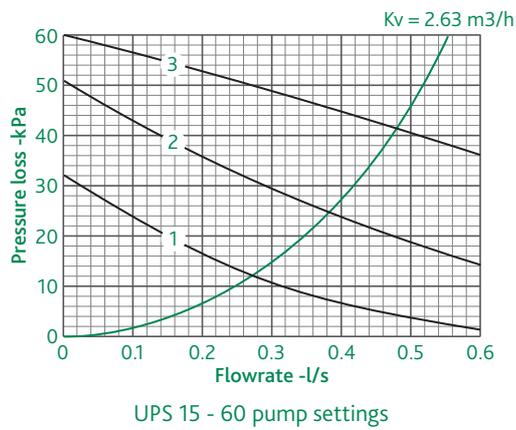
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Typical Hydraulic Characteristics and Flow Paths SATK30103 Shown

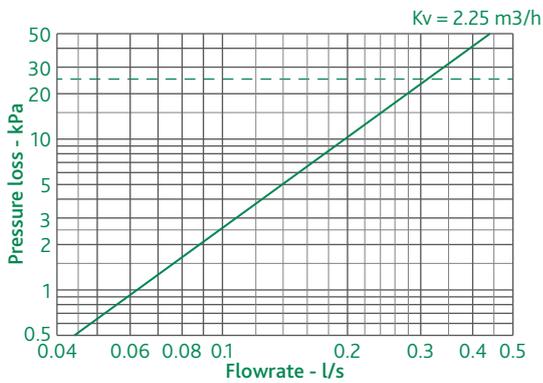
Hydraulic Characteristics Heating - primary side



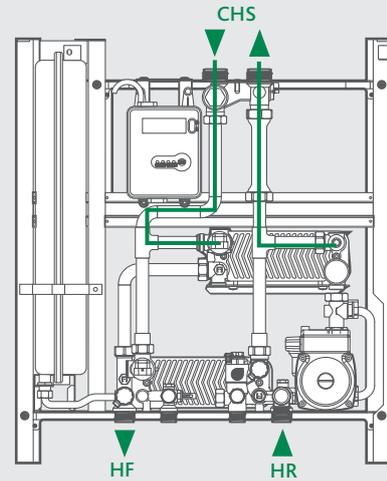
Hydraulic Characteristics Heating - secondary side



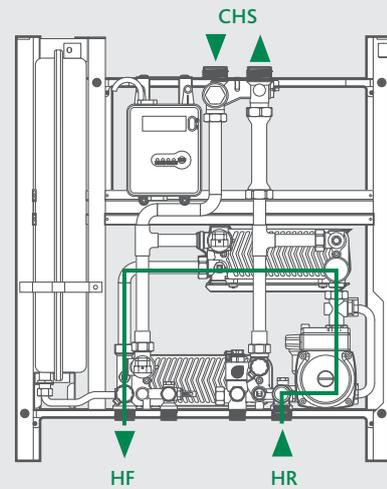
DHW - heat exchanger



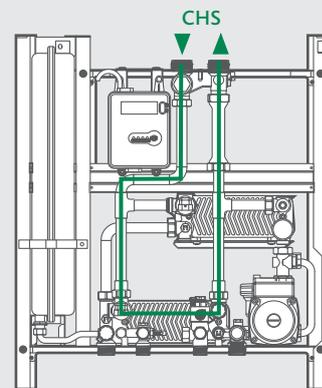
Flow Path Heating - primary side



Flow Path Heating - secondary side

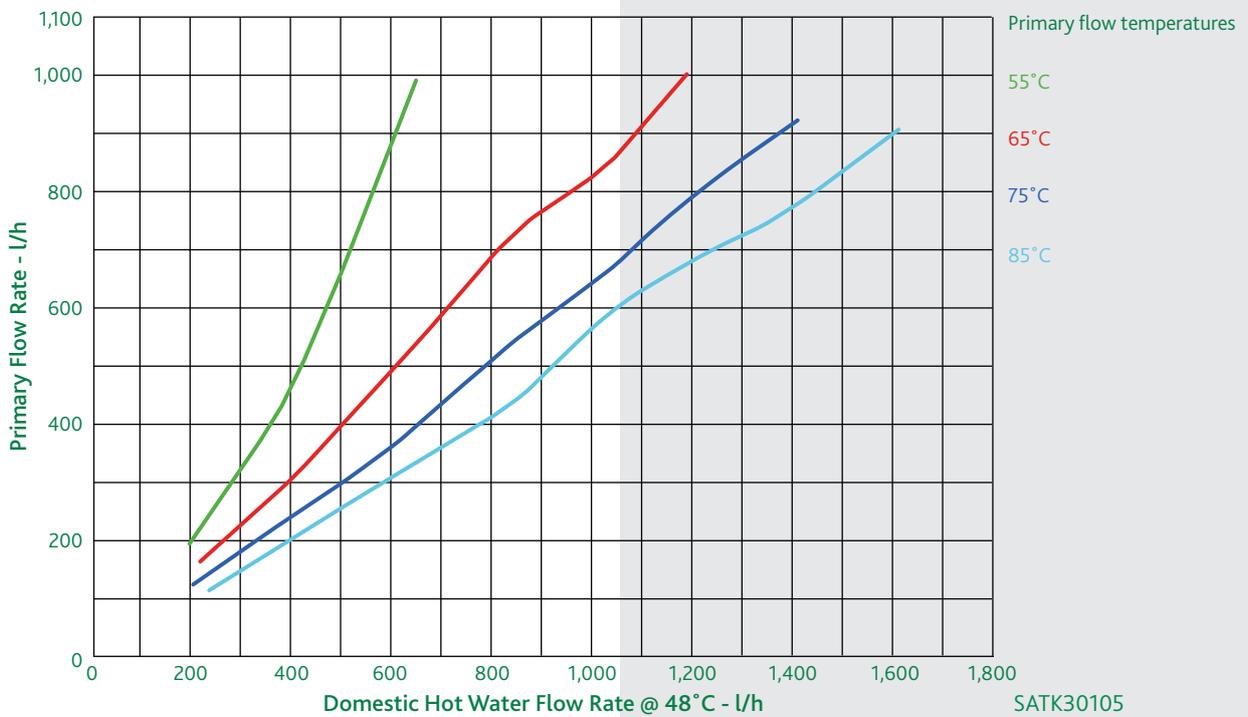
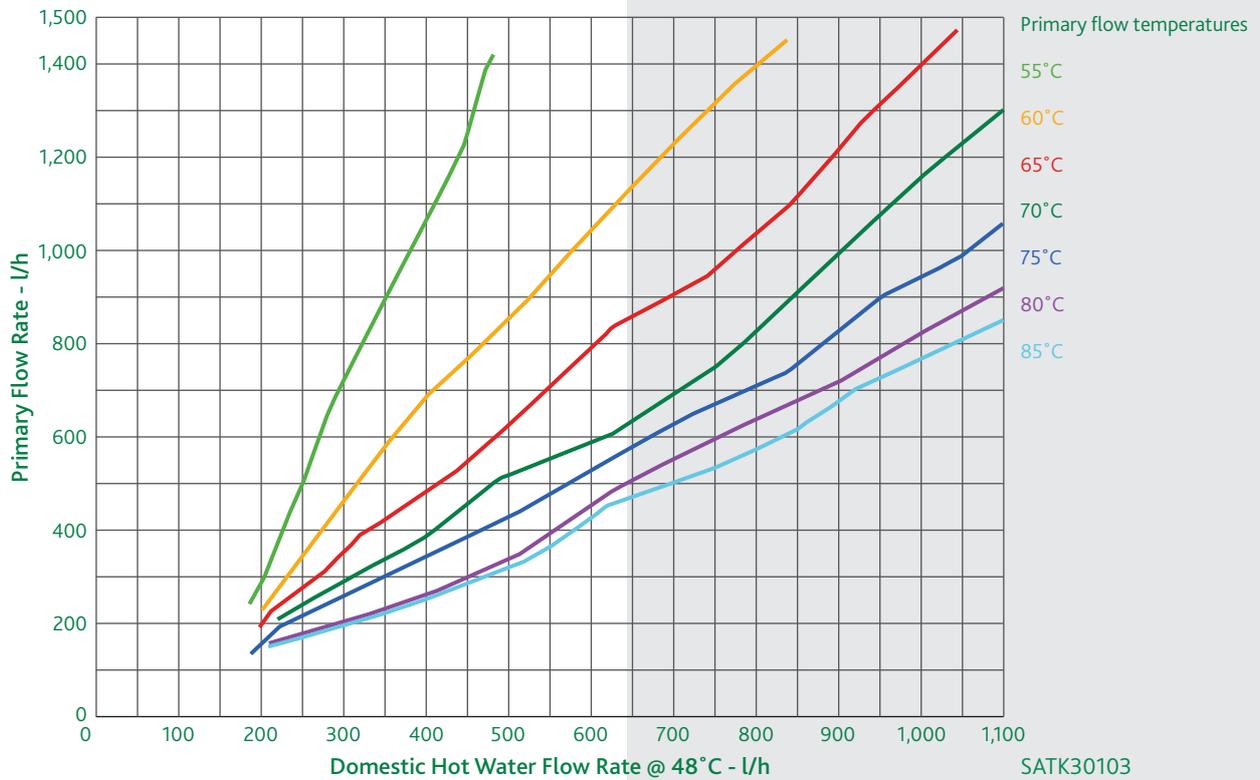


DHW - heat exchanger



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Domestic Hot Water Output



E & O.E
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