Regudis W-HTE GT

Electronic dwelling station

For the supply of individual dwellings with heating water and hot potable water. The required heat is provided by a central heat supply. Hot potable water is prepared decentrally via a plate heat exchanger according to the continuous flow principle. When selecting the dwelling station, it is necessary to consider the water quality of the area of use.

The stations consist of a plate heat exchanger, a control valve with integrated differential pressure and volume flow control, an actuator with integrated potable water temperature control, a zone valve, a volume flow sensor, a temperature sensor, a filter insert, a strainer, a spacer for heat meter, ceramic disc valves, vent valves and drain valves.

The Regudis W-HTE GT stations are specially designed for gas boiler replacement due to their slim design and their junction-free connection configuration. A precisely fitting surface-mounted bonnet is included and conceals the station and connections. The well-known Regudis W-HTE concept is characterised by high draw-off capacities at low excess temperatures and a design that is optimised in terms of pressure loss.

Features

+ Slim design for gas boiler replacement
+ Junction-free connection sequence
+ Including precisely fitting surface-mounted bonnet
+ High draw-off capacity at low excess temperature
+ Optimised in terms of pressure loss

General data

Variants	Performance range 1 Performance range 2 With copper brazed heat exchanger or copper brazed heat exchanger with Sealix® protective layer
Empty weight of the station (without surface-mounted bonnet)	Performance range 1: 13.3 kg Performance range 2: 14.4 kg
Max. operating temperature	90 °C
Max. operating pressure	10 bar
Ambient temperature	2...35 °C
Medium	Heating water according to VDI 2035/Ö-Norm H 5195-1, fluid category ≤ 3 according to EN 1717. Observe the specifications of the Oventrop information sheet on corrosion protection.

Product Details

Technical Data

Dimensions and connections

Width x Height x Depth Surface-mounted bonnet	440 x 1050 x 150 mm
Connections	G ¾ IT
Centre distance of the connections	65 mm
Centre distance to wall	34 mm

Hydraulic data: Primary circuit (buffer storage cylinder)

Medium	Heating water according to VDI 2035/Ö-Norm H 5195-1, fluid category ≤ 3 according to EN 1717. Observe the specifications of the Oventrop information sheet on corrosion protection.
Min. differential pressure	150 mbar
Max. differential pressure	2.0 bar
Min. flow temperature	See charts in the appendix

Hydraulic data: Heating circuit (radiators)

Medium	Heating water according to VDI 2035/Ö-Norm H 5195-1, fluid category ≤ 3 according to EN 1717. Observe the specifications of the Oventrop information sheet on corrosion protection.
Max. volume flow	460 l/h
Differential pressure control	150 mbar

Hydraulic data: Potable water circuit

Medium	Potable water. Observe the specifications of the Oventrop information sheet on corrosion protection.
Min. cold water pressure	See charts in the appendix
Control range	40...70 °C
Max. hot water volume flow	See charts in the appendix

Electrical data: Power supply unit

Mains input voltage	100...240 V AC ±10 %
Mains input frequency	50...60 Hz
Output voltage	5 V DC +7.5 %, -5 %
Rated output current	max. 1200 mA
Protection type: connection box	IP65
Protection class	II
Overvoltage category	III
Ambient temperature	0...60 °C

Electrical data: Actuator

Input voltage	5 V DC +7.5 %, -5 %
Power consumption	0.15...3 W
Protection type	IP54
Ambient temperature	0...60 °C

Material

Heat exchanger copper brazed	Plate material: Stainless steel 1.4401 Connections: Stainless steel 1.4404 Brazing material: Copper
Heat exchanger copper brazed with Sealix® protective layer	Plate material: Stainless steel 1.4401 Connections: Stainless steel 1.4404 Brazing material: Copper Protective layer: SiO2 basis
Pipes	Stainless steel 1.4404
Valves and fittings	Brass
Temperature sensor	Stainless steel 1.4404
Volume flow sensor	Brass and plastic
Meter spacer	Plastic
Seals	EPDM and fibre material

Functions

The dwelling station is an electronically controlled product assembly with heat exchanger for use in domestic areas. The product assembly provides heated potable water (hot water) within a residential unit and distributes the heating water (max. 90° C) to radiators.

The decentralised hot water preparation of the station makes the storage of hot potable water unnecessary.

In the heat exchanger, potable water is heated according to the continuous flow principle only when it is needed. The demand for hot water is detected by the volume flow sensor.

The setpoint temperature for the hot water is adjusted with the rotary knob on the actuator. During operation, the temperature sensor continuously measures the temperature of the hot water at the hot water outlet of the heat exchanger. The temperature sensor forwards this information to the electronic control.

The information from the volume flow sensor and the temperature sensor is passed on to the actuator by the electronic control.

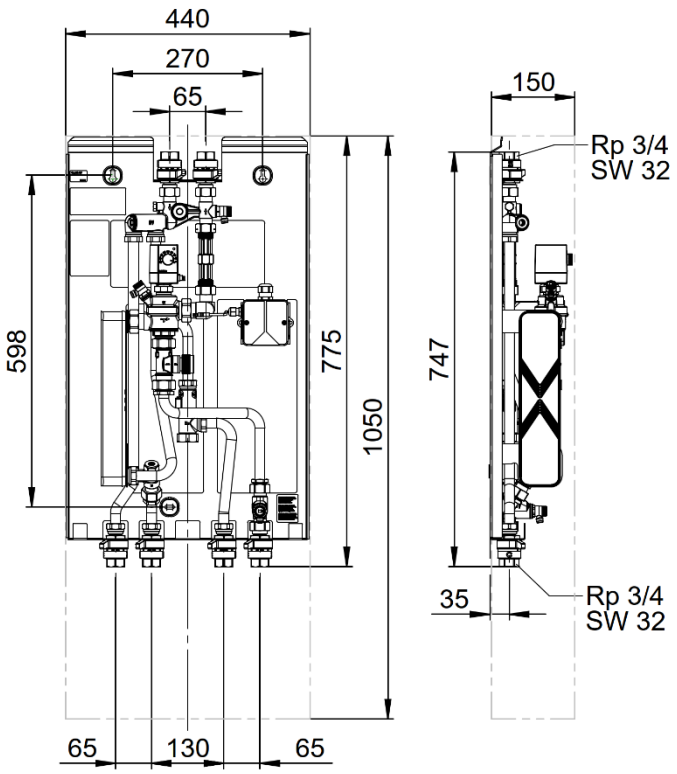
The actuator opens and closes the control valve. Depending on the position of the control valve, more or less hot heating water flows from the primary supply into the heat exchanger as required. In addition, the control valve keeps the necessary differential pressure in the system constant.

The heat output transferred to the potable water depends on the heating water quantity and the heating water temperature supplied to the heat exchanger. The control valve features a potable water priority function ensuring the supply of the required hot water quantity even in heating mode.

Optionally, an actuator can be mounted on the zone valve. This offers you the possibility to close the zone valve time-controlled.

The Regudis W-HTE GT dwelling station is available in different performance ranges. The performance ranges differ in the size of the heat exchanger (see charts in the appendix).

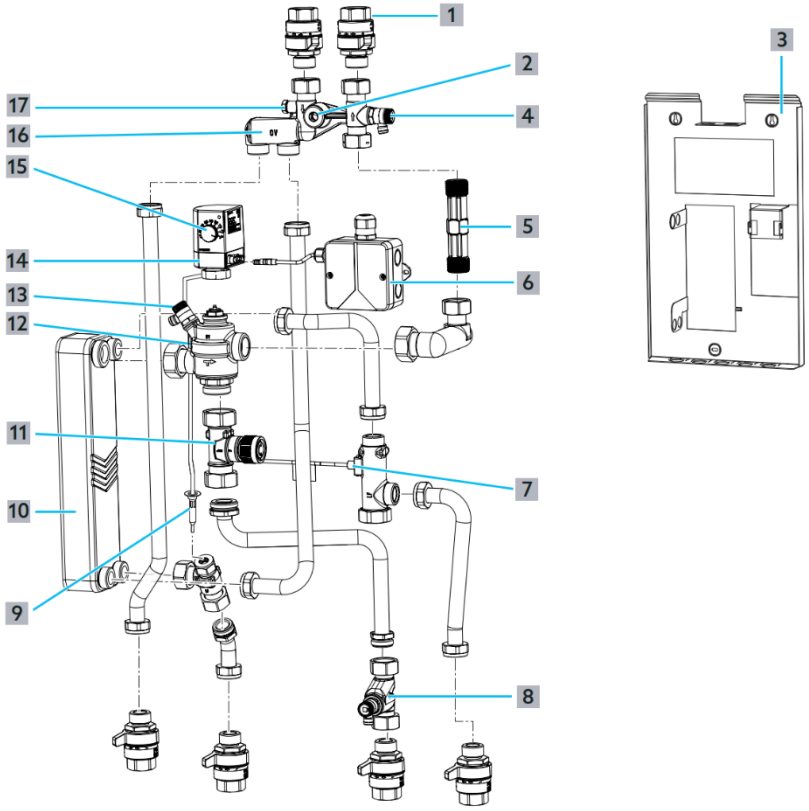
Dimensions



Connections

	Description
1	Primary supply from the buffer storage cylinder
2	Primary return to the buffer storage cylinder
3	Heating circuit supply
4	Hot water outlet
5	Cold water inlet from the house connection
6	Heating circuit return

Design



	Description
1	Ceramic disc valve
2	Connection for derivative temperature control set
3	Base plate
4	Vent valve in the primary circuit
5	Spacer for heat meter
6	Connection box for the power supply
7	Volume flow sensor
8	Drain valve in the heating circuit with strainer
9	Hot water temperature sensor
10	Heat exchanger
11	Zone valve for heating circuit control
12	Control valve with integrated differential pressure and volume flow control
13	Vent valve in the heating circuit
14	Actuator with integrated potable water temperature control
15	Rotary knob
16	Filter insert in the primary supply
17	Connection in the primary supply for the temperature sensor of the heat meter

Selection

Item Numbers

Regudis W-HTE GT

Station including shutoff valves and surface-mounted bonnet

	Performance range	Heat exchanger	Item no.
	Performance range 1	Copper brazed	1344230
	Performance range 2	Copper brazed	1344231
	Performance range 1	Copper brazed with Sealix® protective layer	1344250
	Performance range 2	Copper brazed with Sealix® protective layer	1344251

Accessories and Spare Parts

Accessories

Selected accessories for the Regudis W-HTE GT station. For a complete overview, see product catalogue.

Description	Item no.
Water meter installation set for Regudis W-HTE GT	1344772
Derivative temperature control set	1344490
Stainless steel spacer	1349052
Earthing clamp	1341092
ClimaCon F 210 room thermostat	1155021
Aktor T 2P thermal actuator	1012452

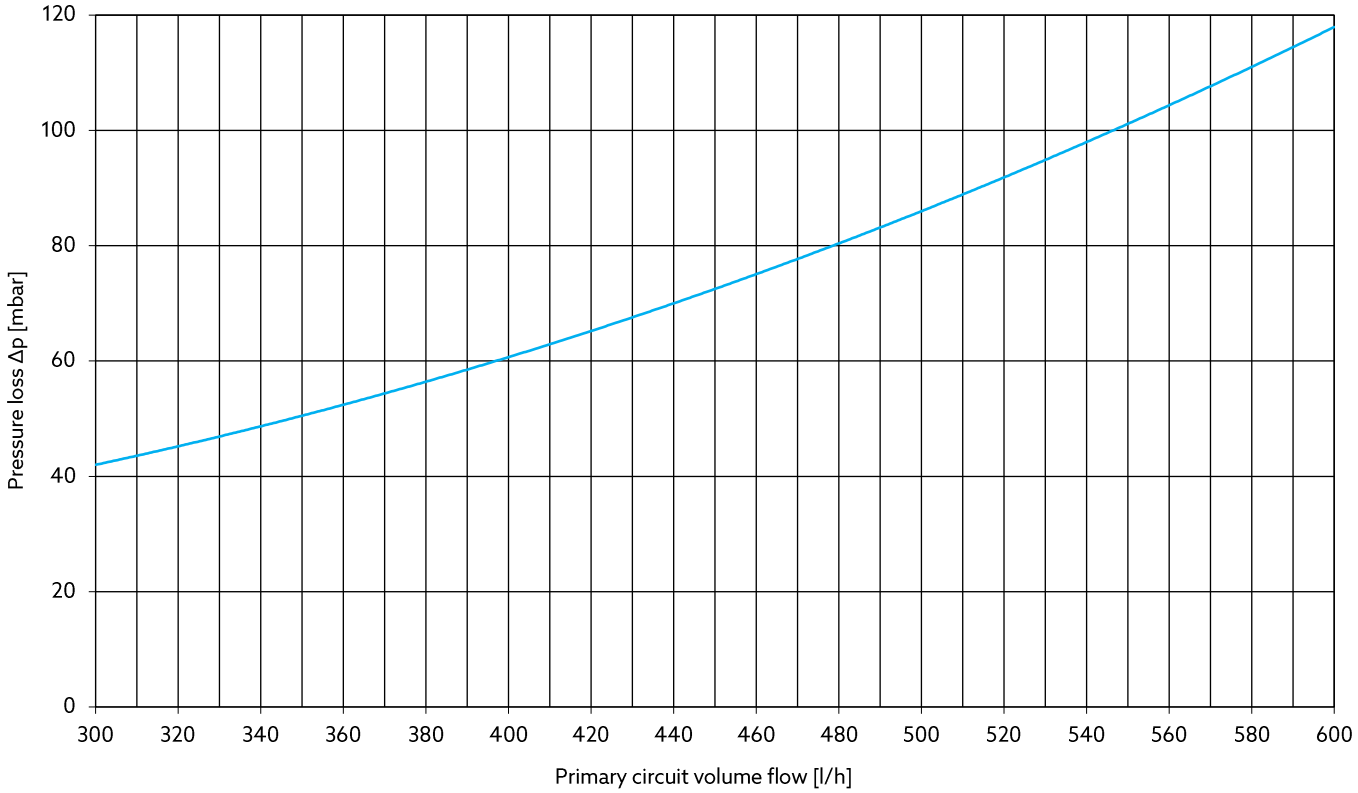
Spare parts

Selected spare parts for the Regudis W-HTE GT station. For a complete overview, see product catalogue.

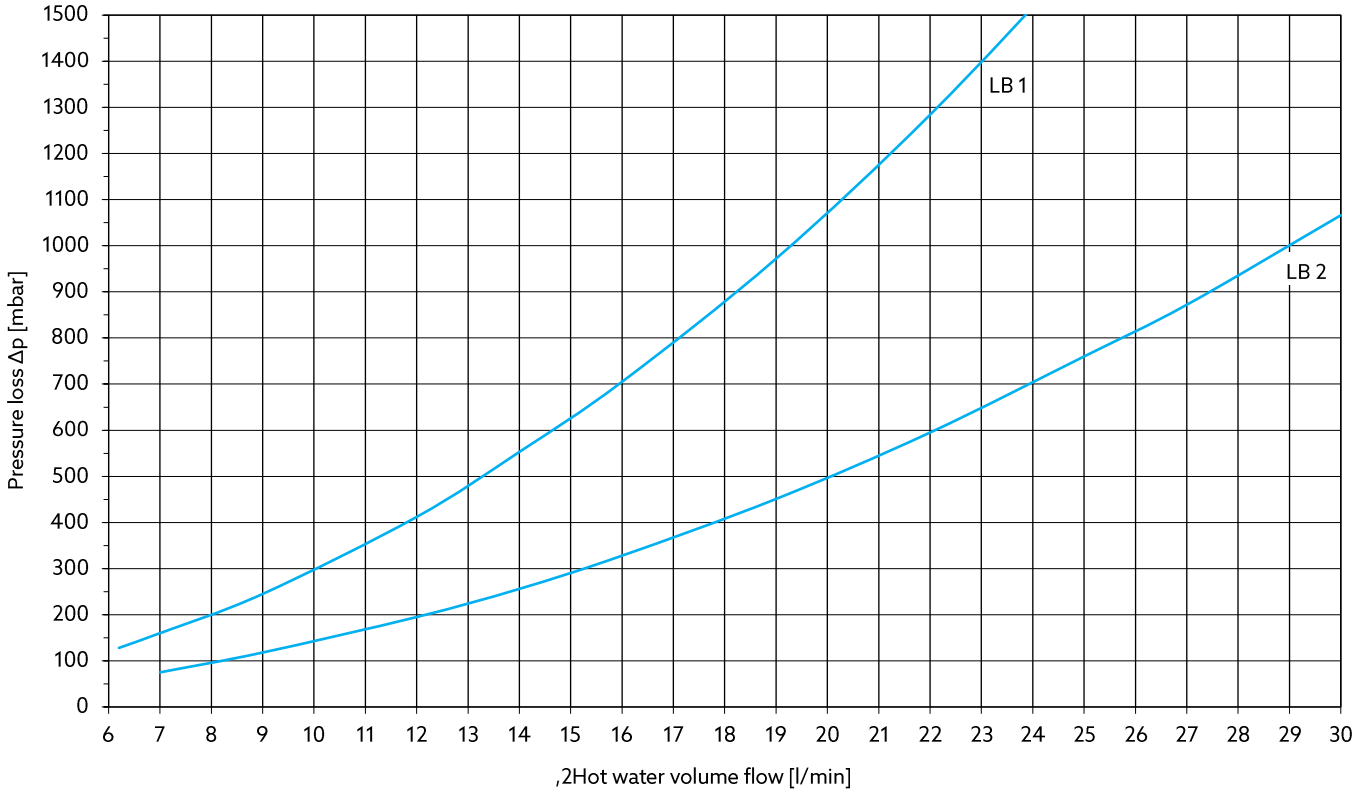
Description	Item no.
Actuator with integrated potable water temperature control	1344491
Power supply unit	1344496
Volume flow sensor	1344693
Sealing ring for junction G ¾	1344497
Sealing ring for junction G 1	1344498
Potable water temperature sensor	1344494
Heat exchanger copper brazed, performance range 1	1344083
Heat exchanger copper brazed, performance range 2	1344084
Heat exchanger copper brazed with Sealix® protective layer, performance range 1	1344093
Heat exchanger copper brazed with Sealix® protective layer, performance range 2	1344094
Control valve with integrated differential pressure and volume flow control	1344492

Design Charts

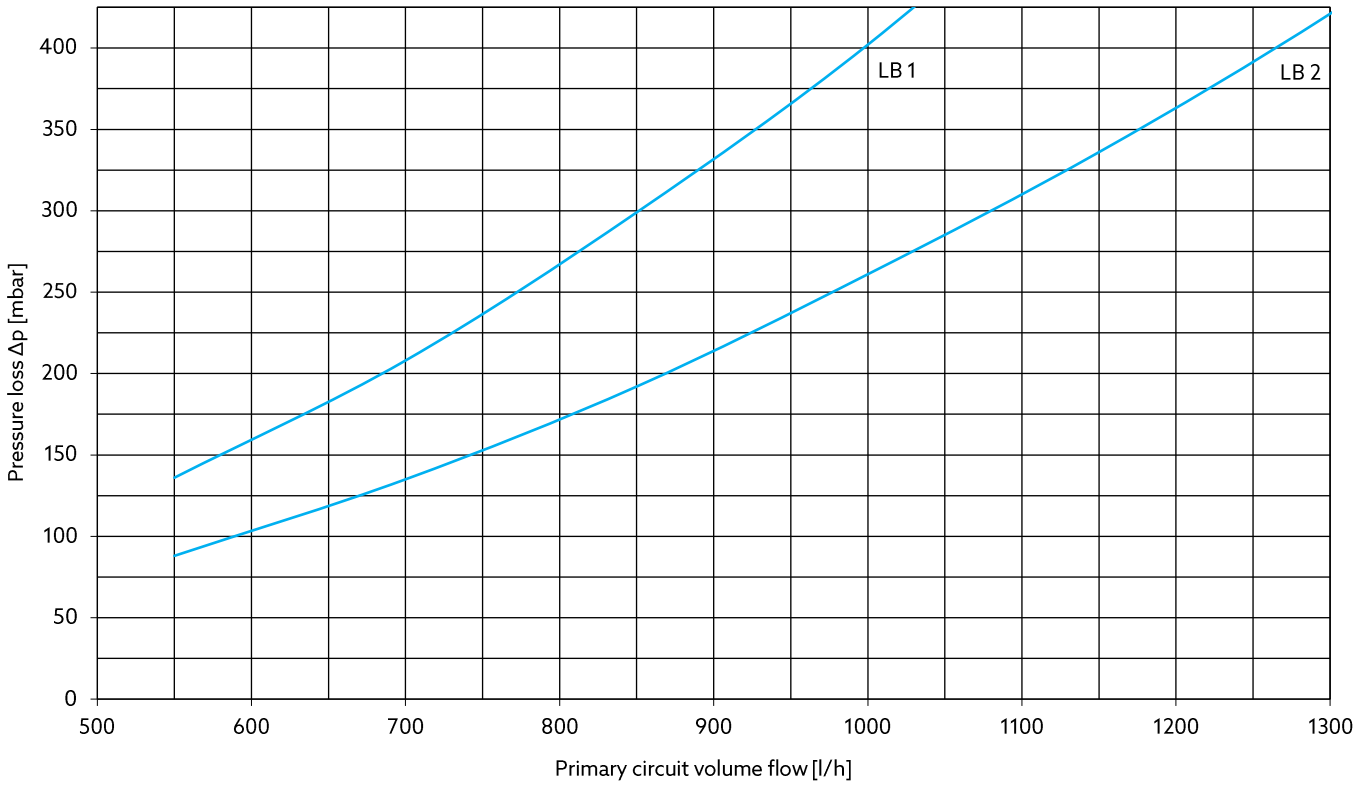
Pressure loss of the primary circuit during heating mode for performance ranges 1-2



Pressure loss of the potable water circuit for potable water heating for performance ranges (LB) 1-2



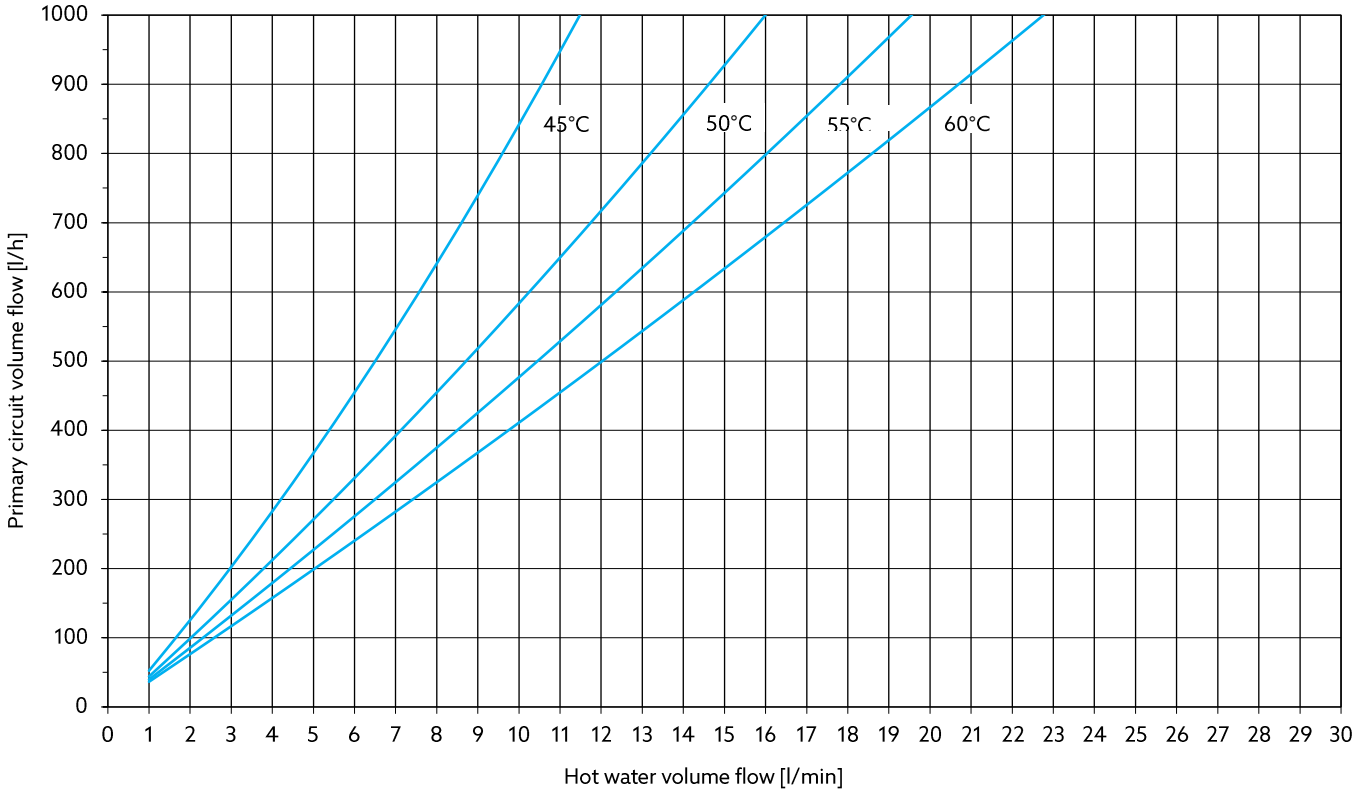
Pressure loss of the primary circuit for potable water heating for performance ranges (LB) 1-2



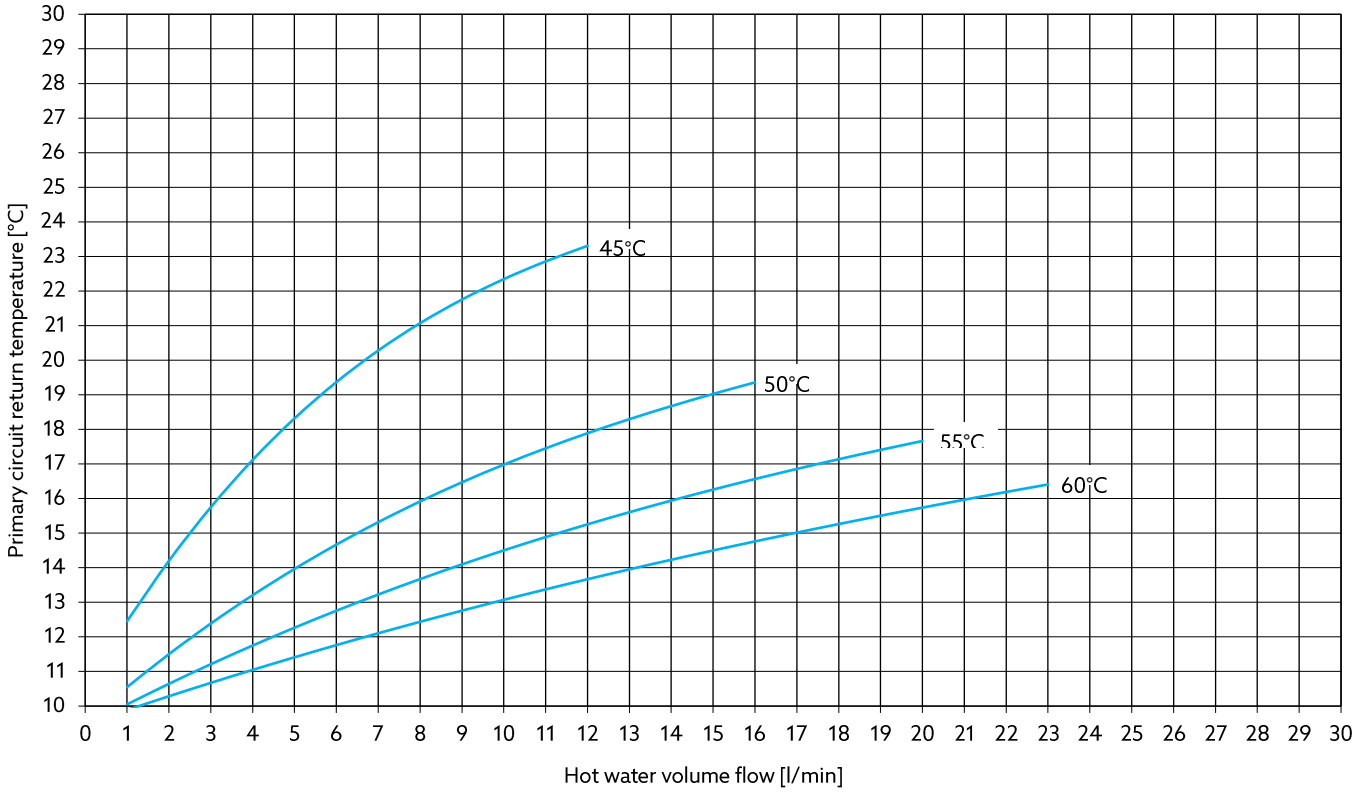
Performance range 1: Heating of potable water from 10 °C to 45 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



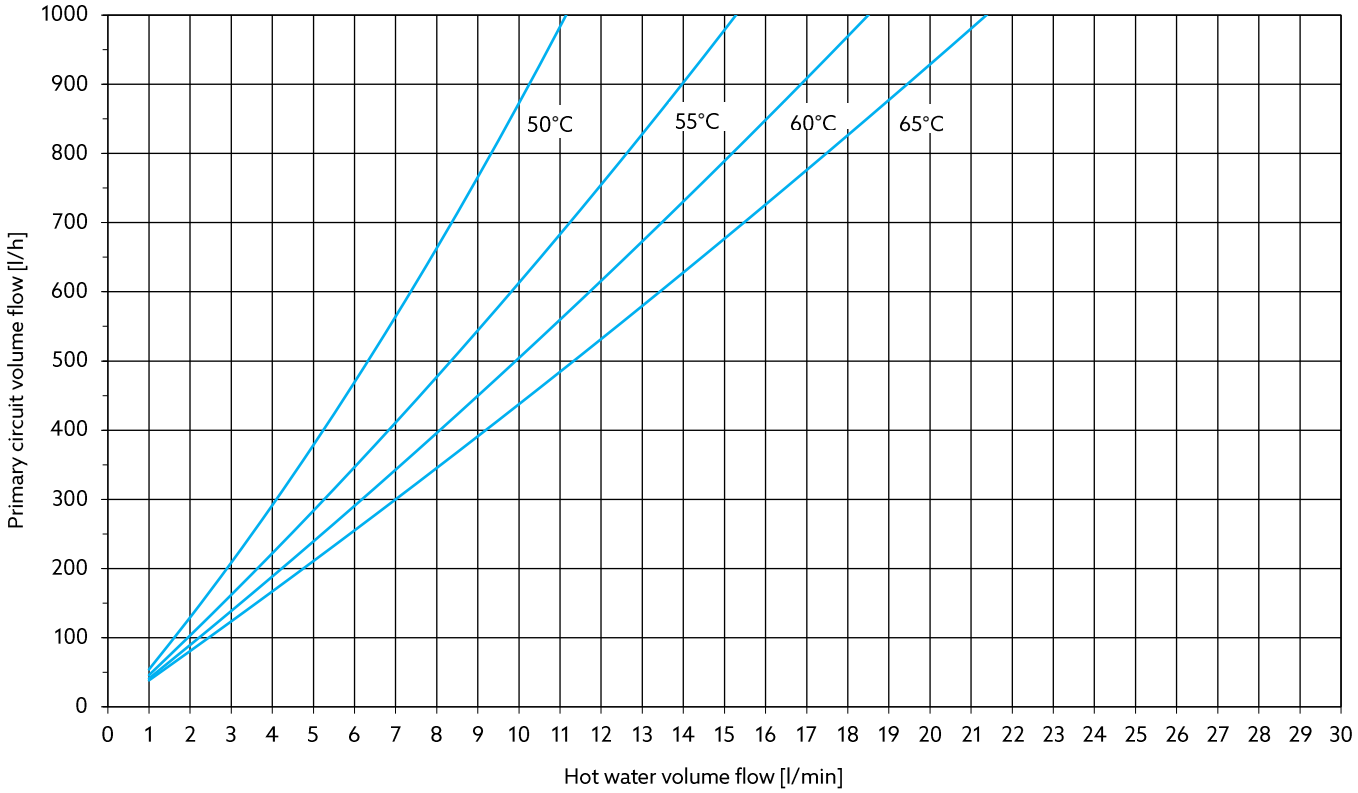
Return temperature of the primary circuit at different flow temperatures



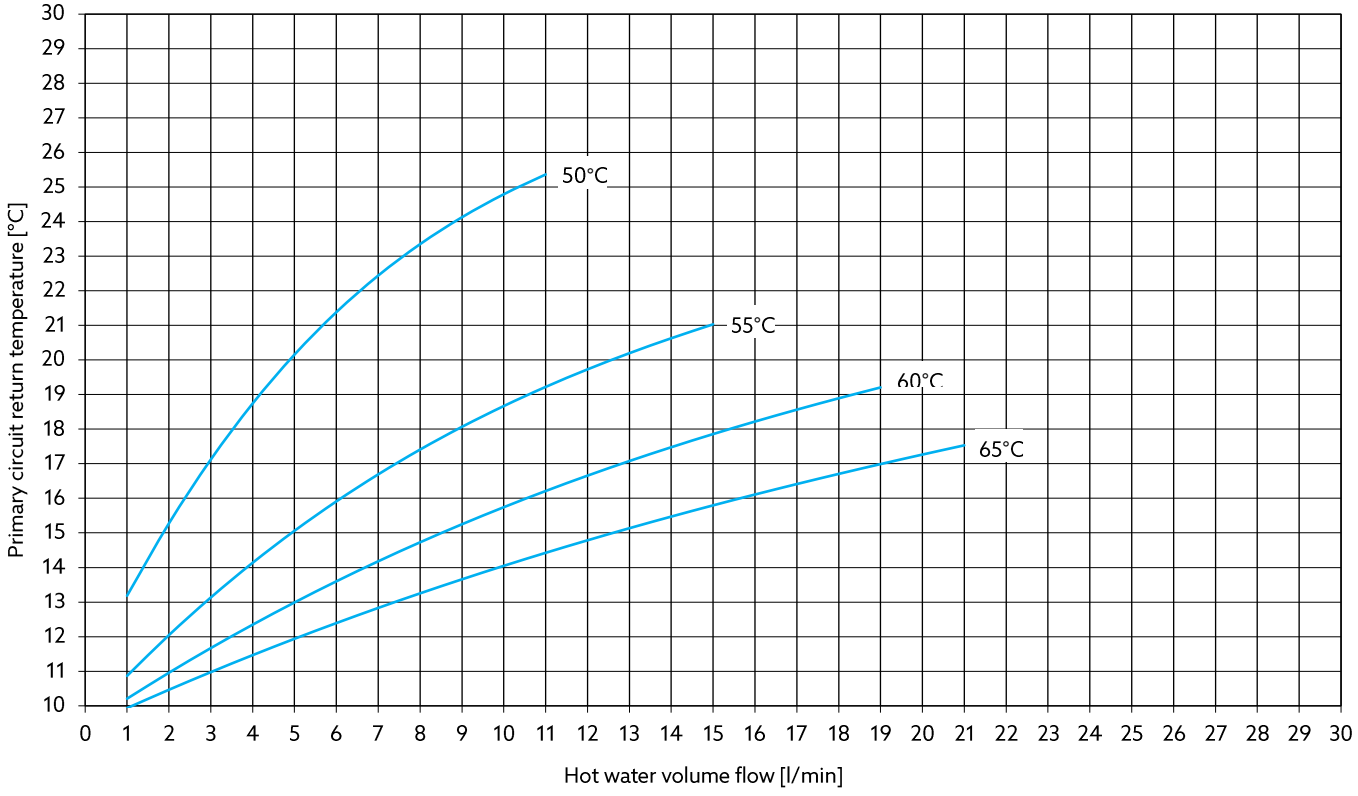
Performance range 1: Heating of potable water from 10 °C to 50 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



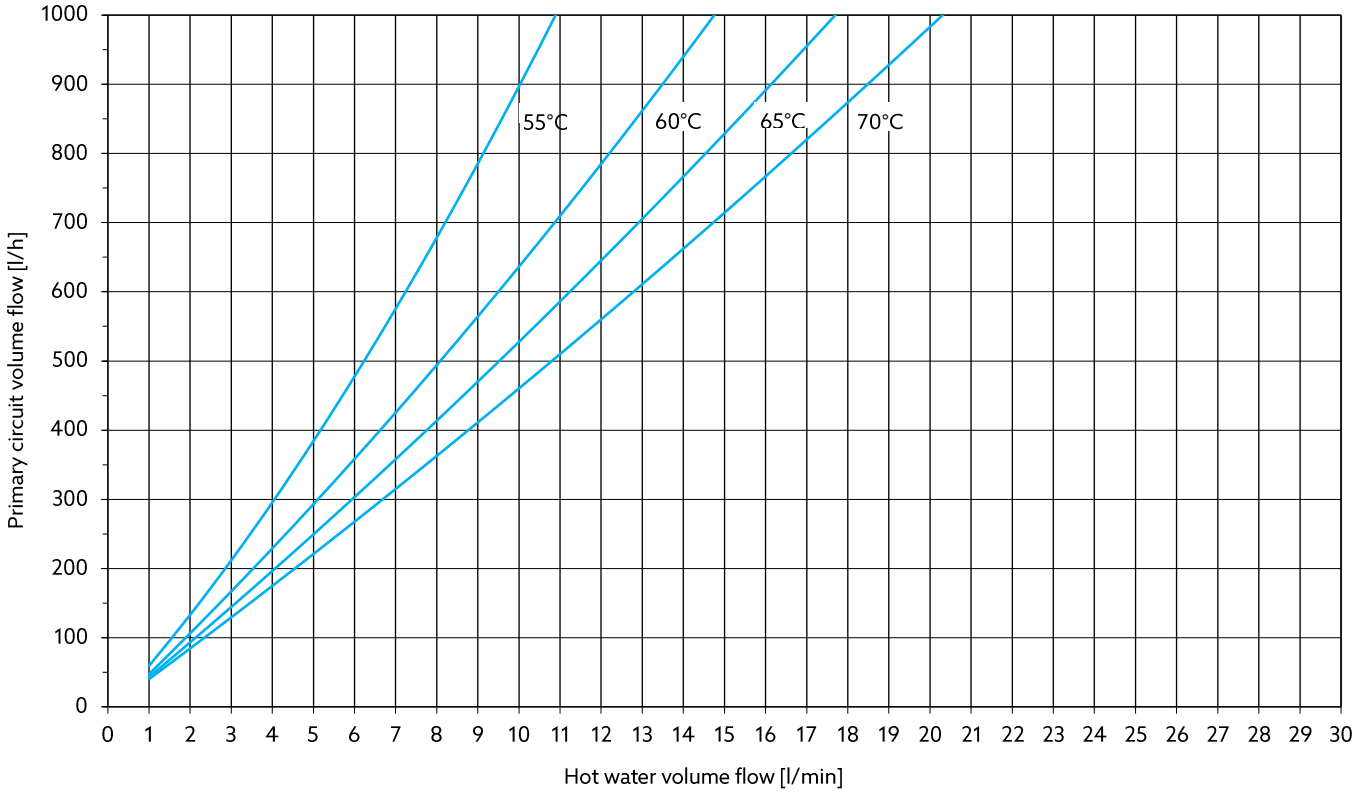
Return temperature of the primary circuit at different flow temperatures



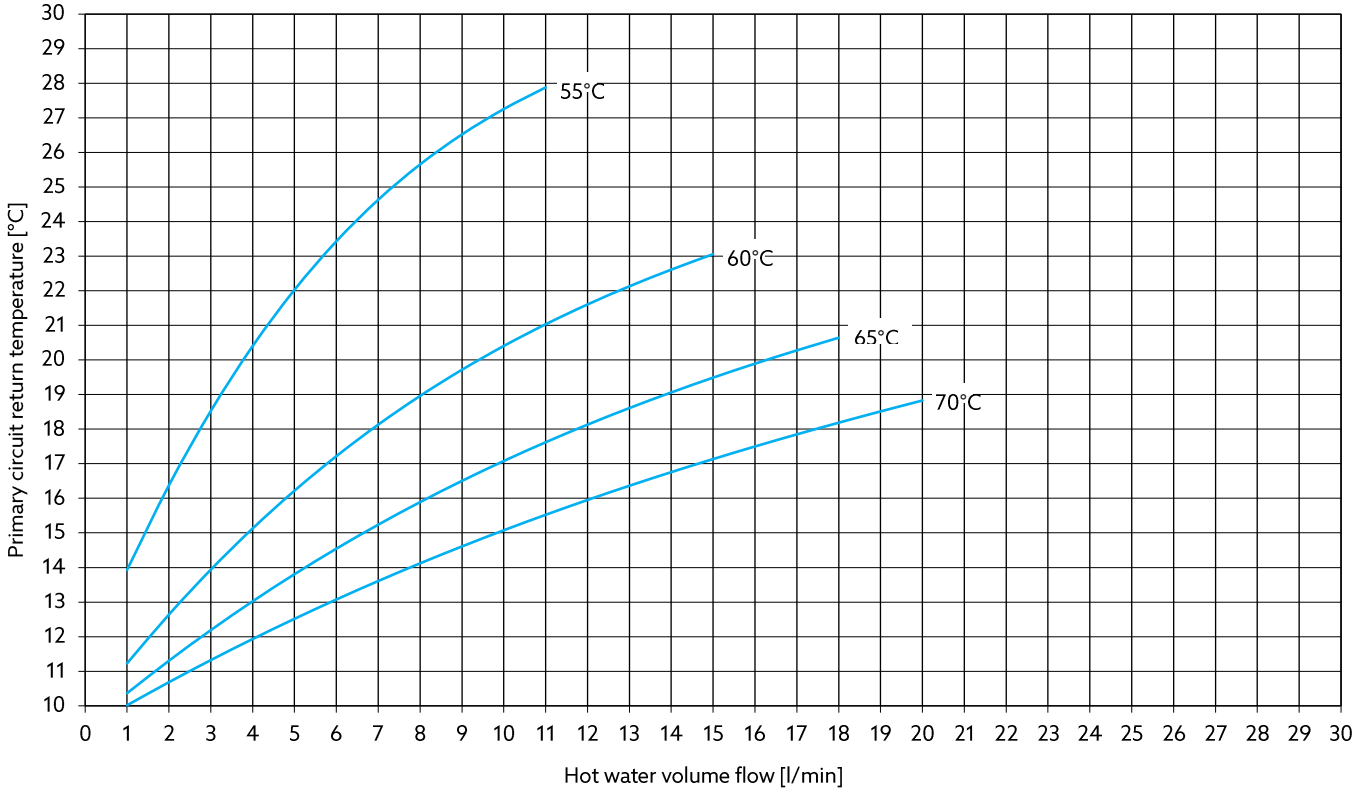
Performance range 1: Heating of potable water from 10 °C to 55 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



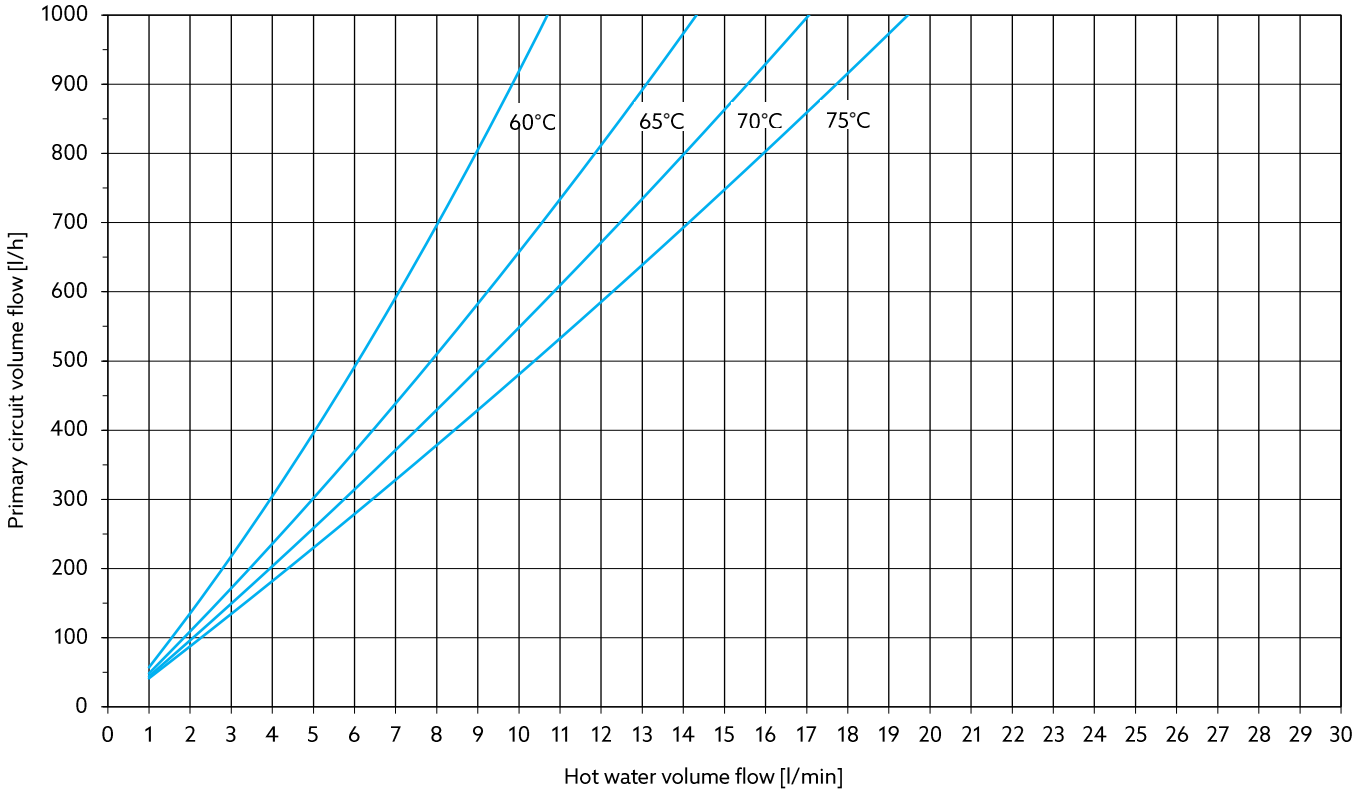
Return temperature of the primary circuit at different flow temperatures



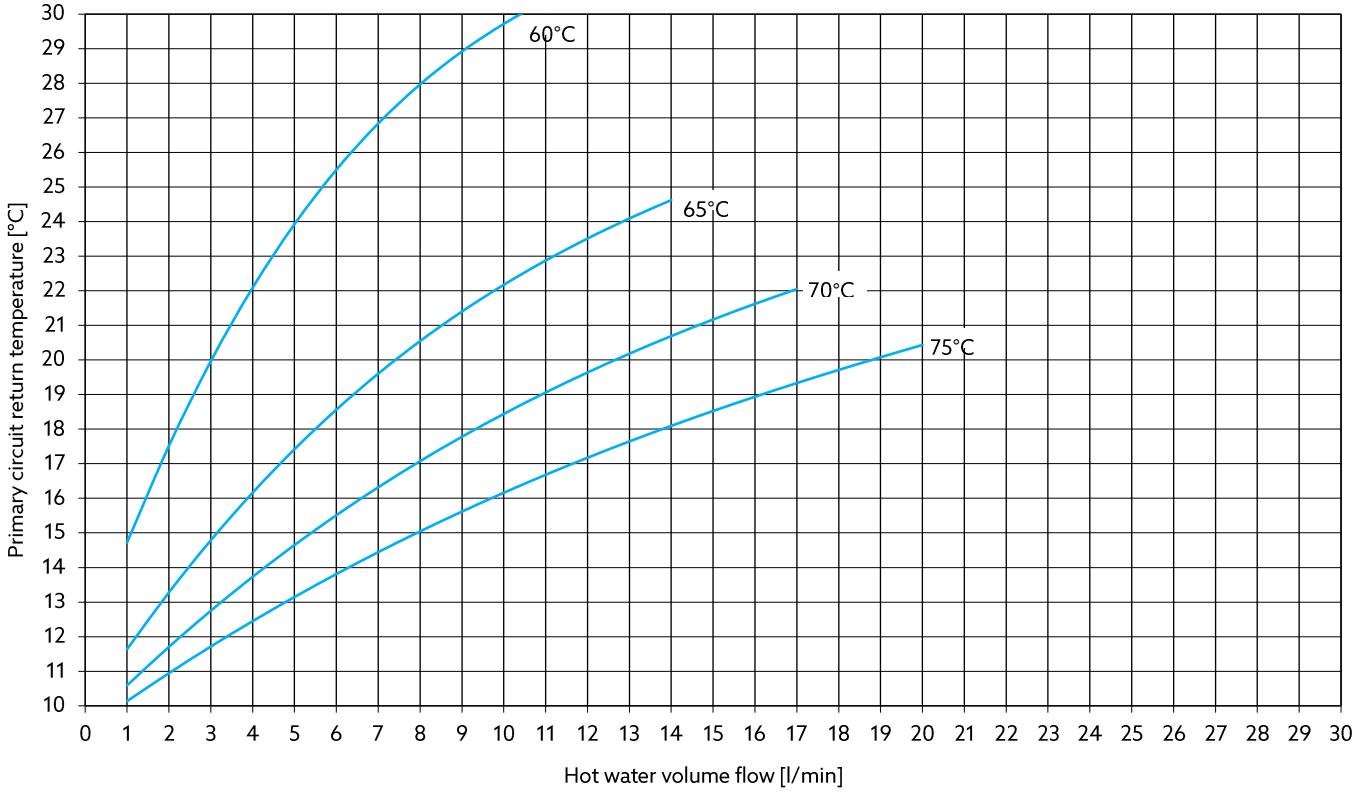
Performance range 1: Heating of potable water from 10 °C to 60 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



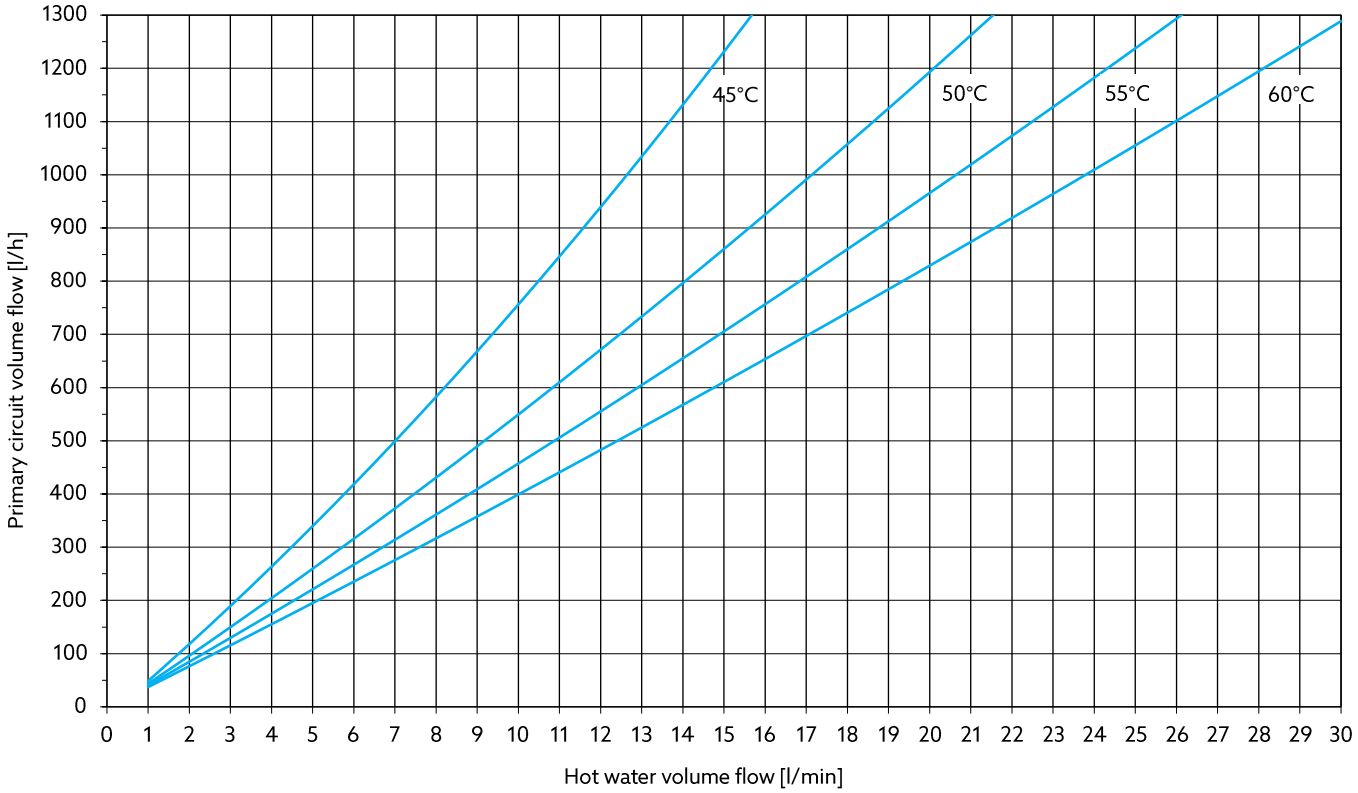
Return temperature of the primary circuit at different flow temperatures



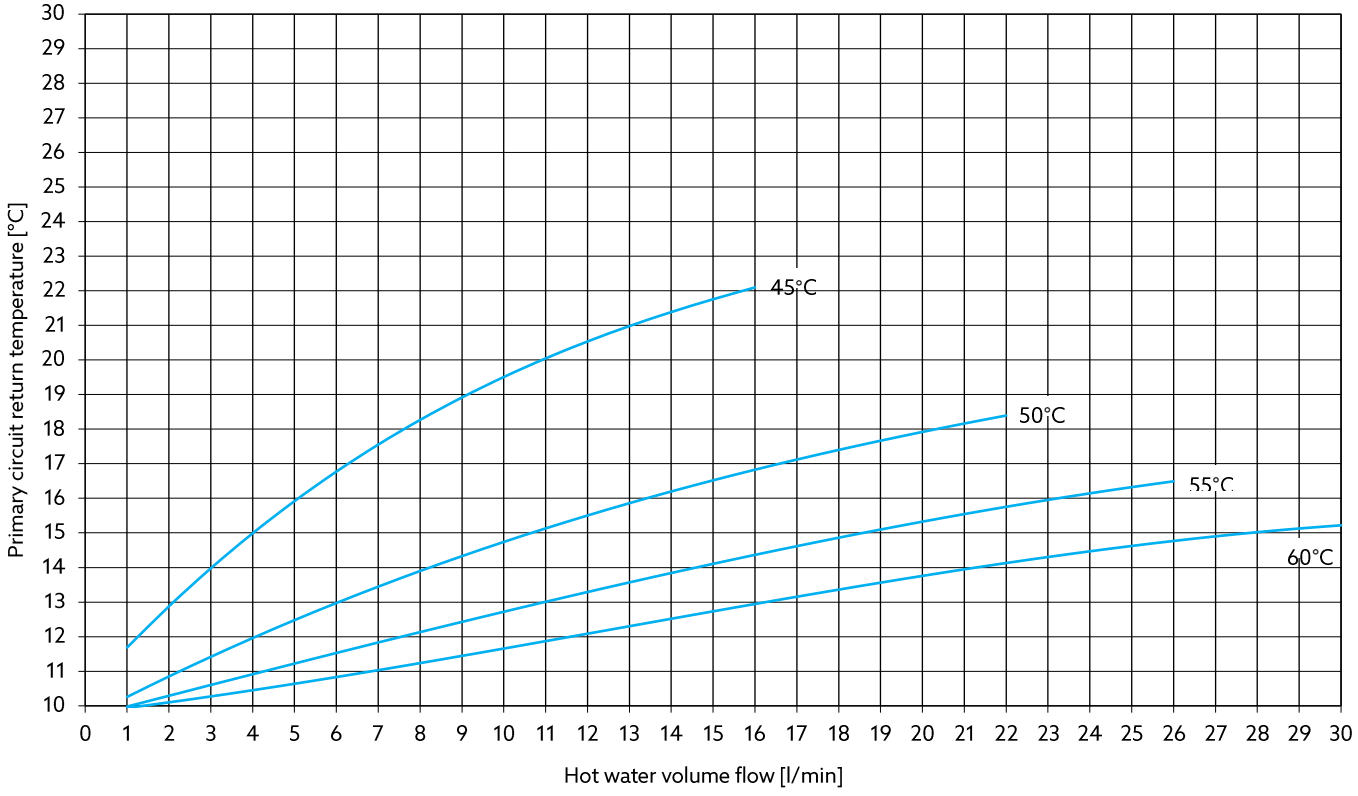
Performance range 2: Heating of potable water from 10 °C to 45 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



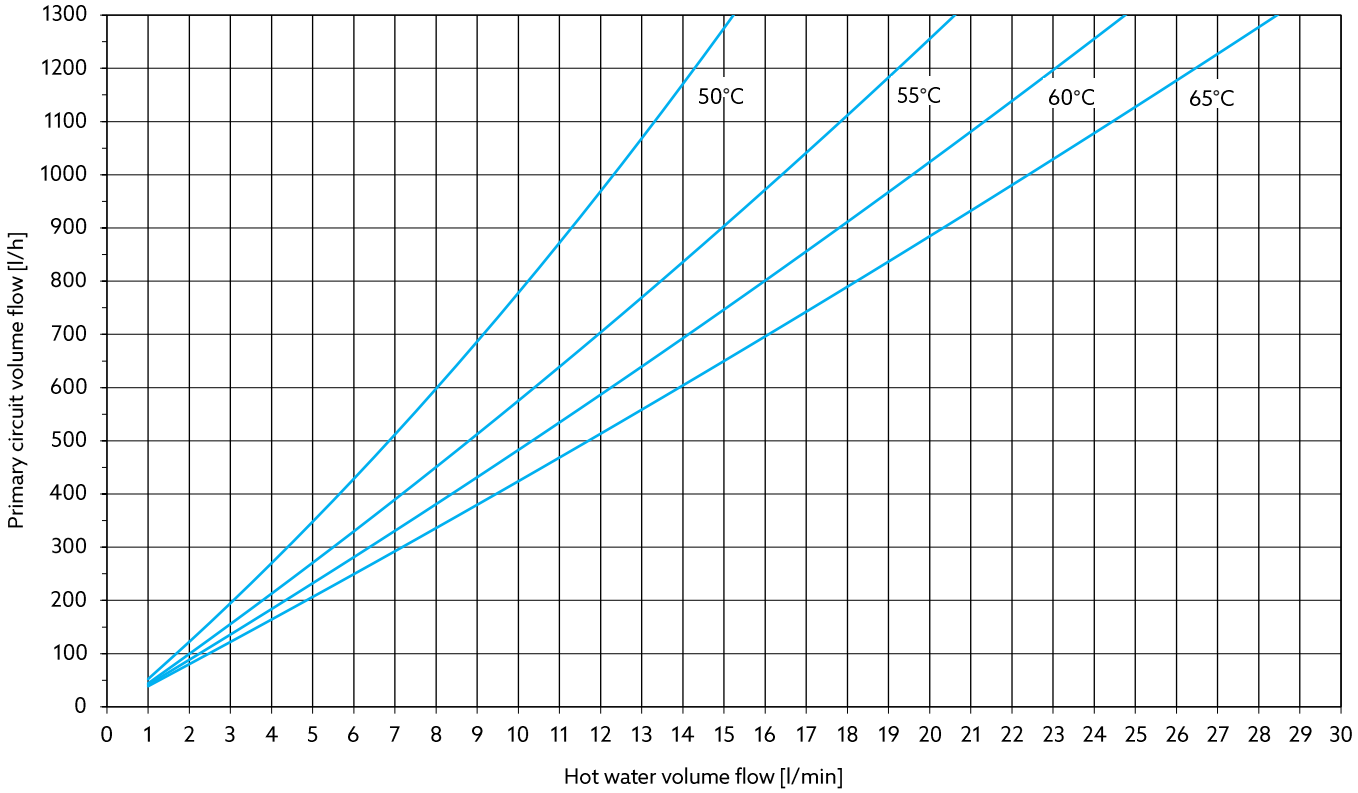
Return temperature of the primary circuit at different flow temperatures



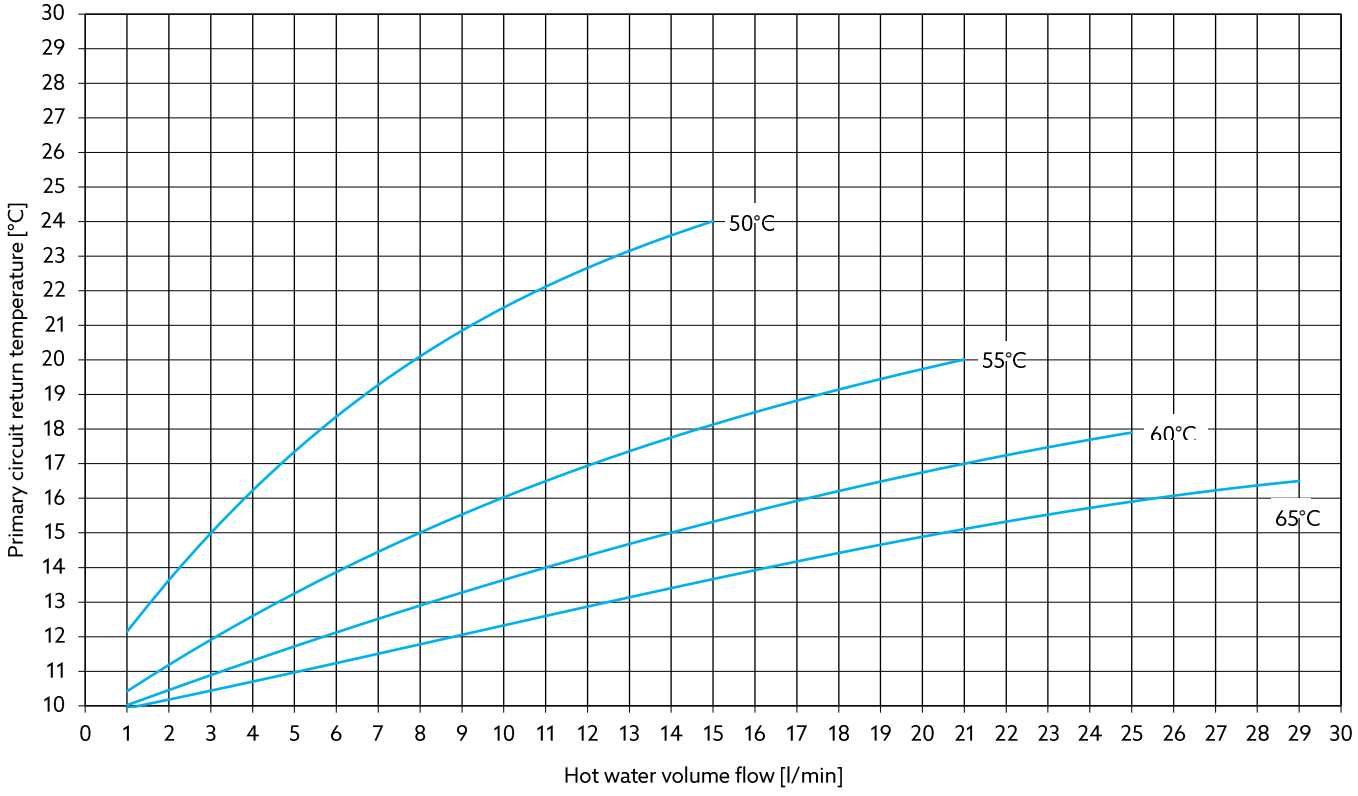
Performance range 2: Heating of potable water from 10 °C to 50 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



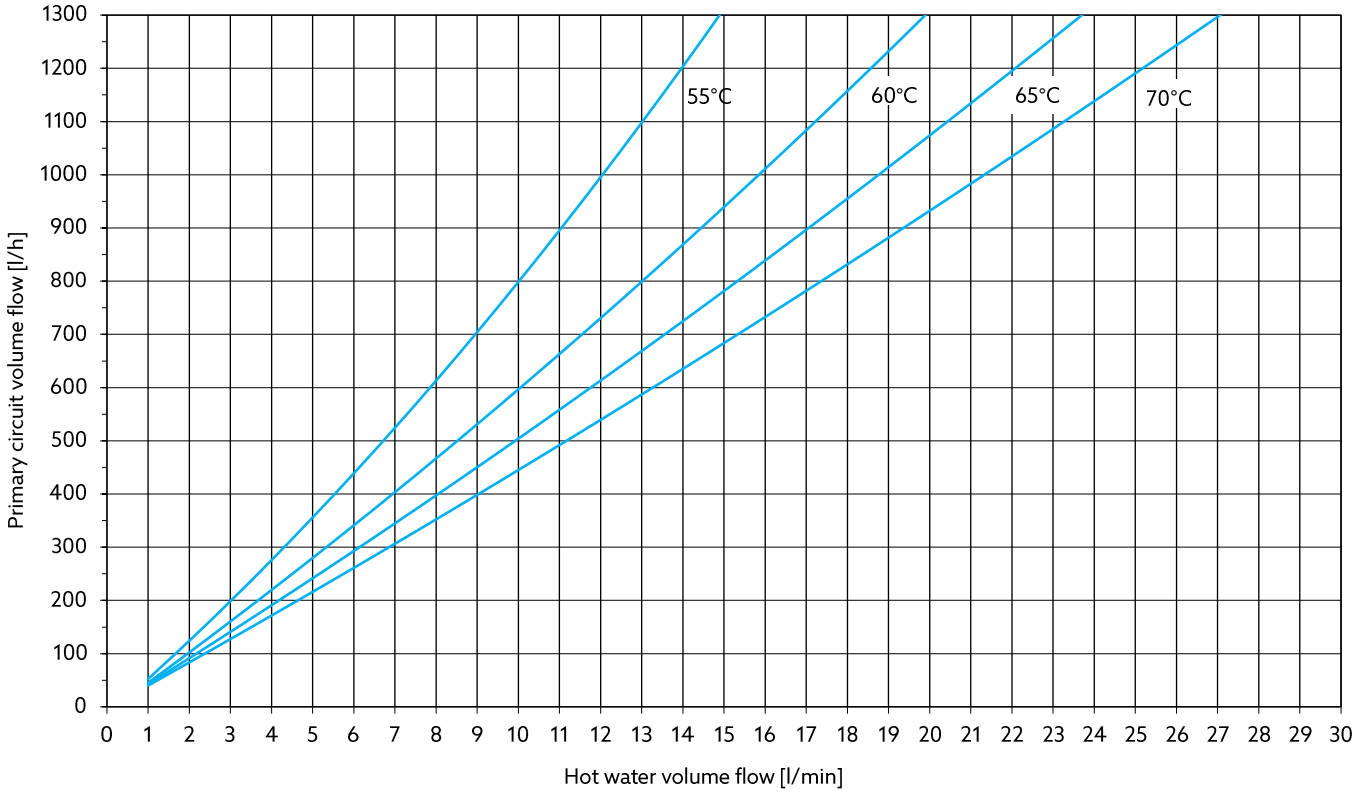
Return temperature of the primary circuit at different flow temperatures



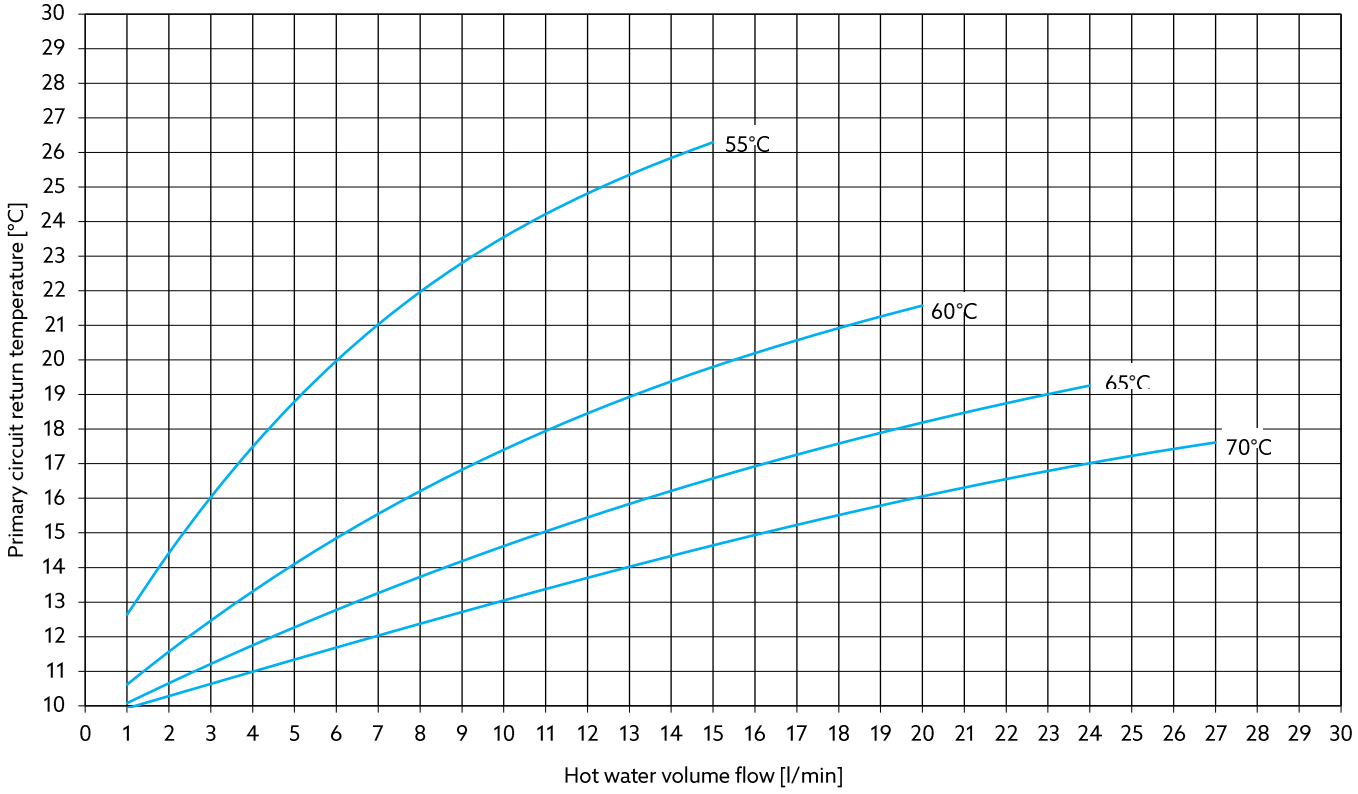
Performance range 2: Heating of potable water from 10 °C to 55 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



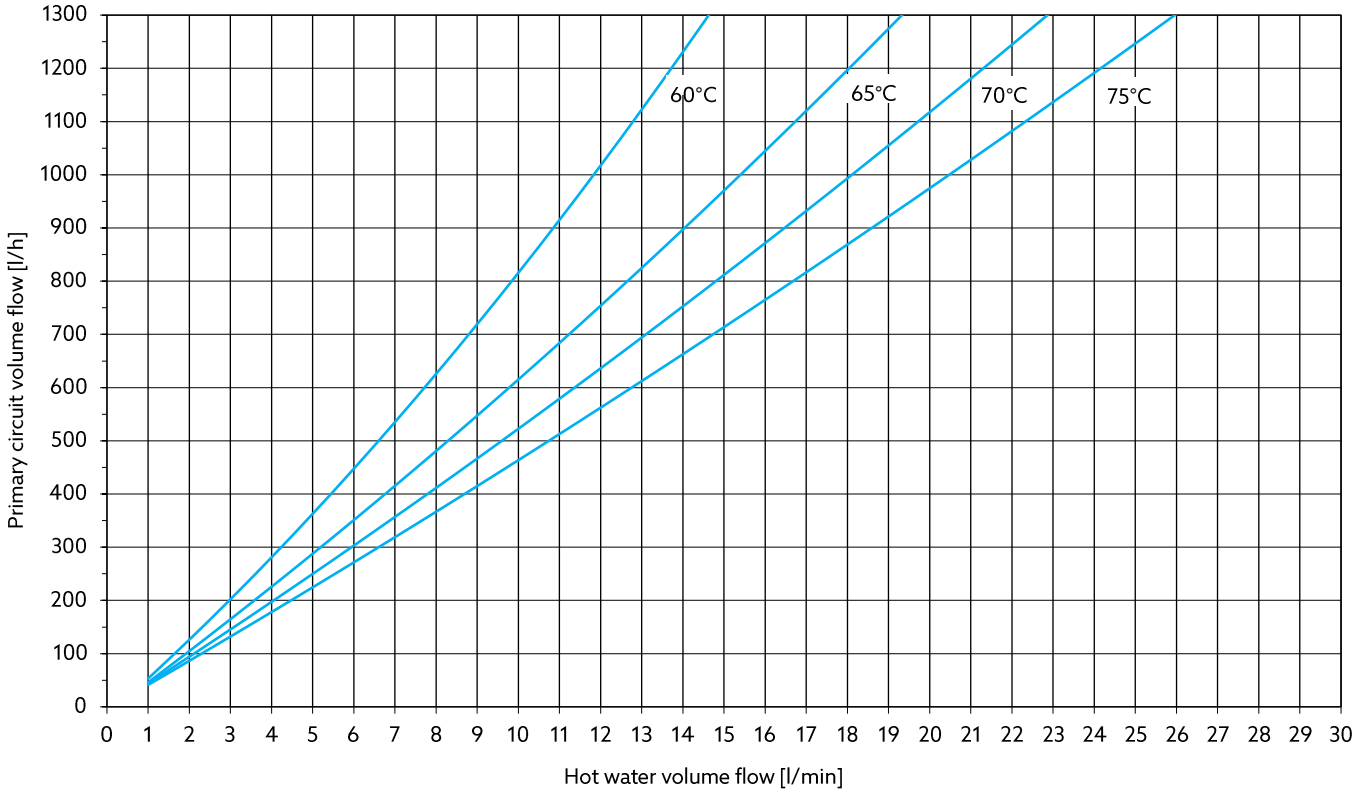
Return temperature of the primary circuit at different flow temperatures



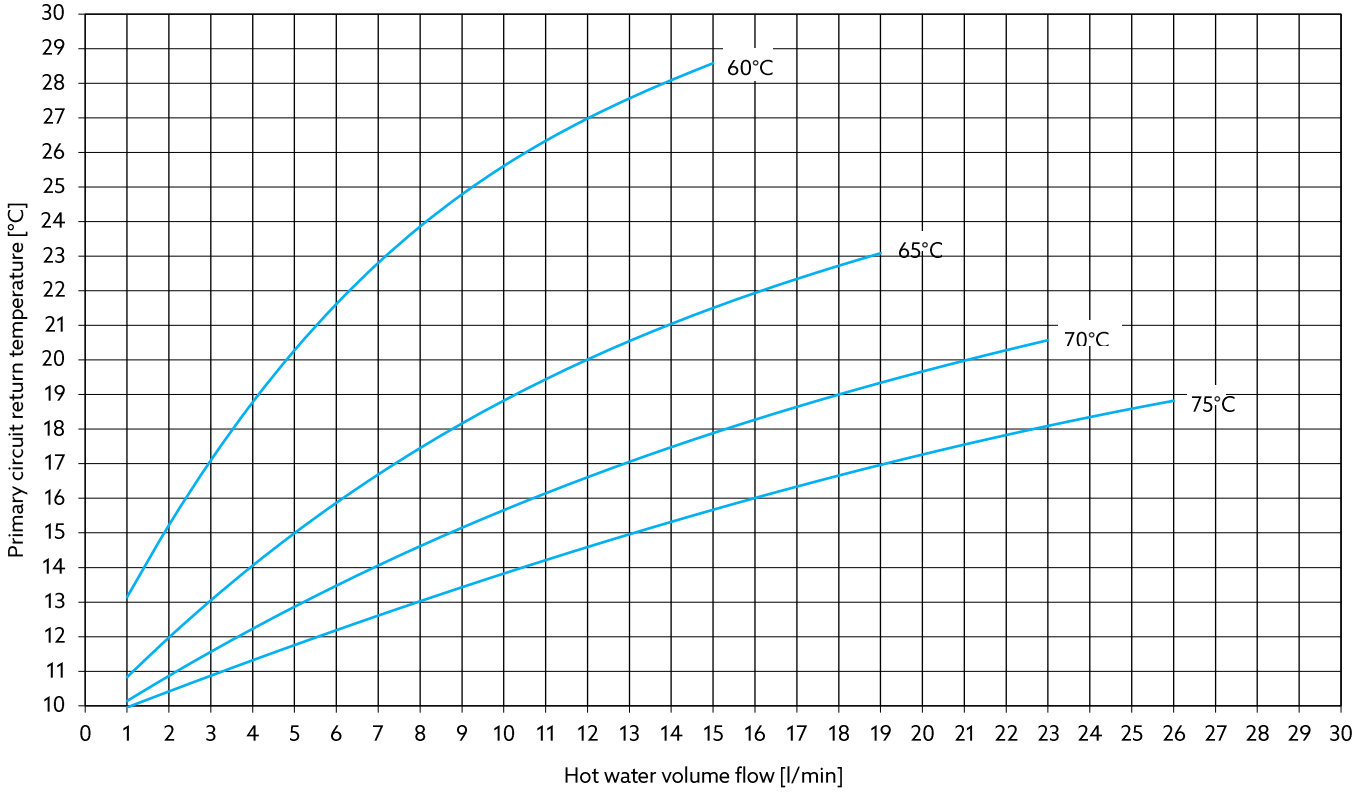
Performance range 2: Heating of potable water from 10 °C to 60 °C

(Performance data according to SPF test procedure)

Volume flow of the primary circuit at different flow temperatures



Return temperature of the primary circuit at different flow temperatures



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