

# DHW Stations

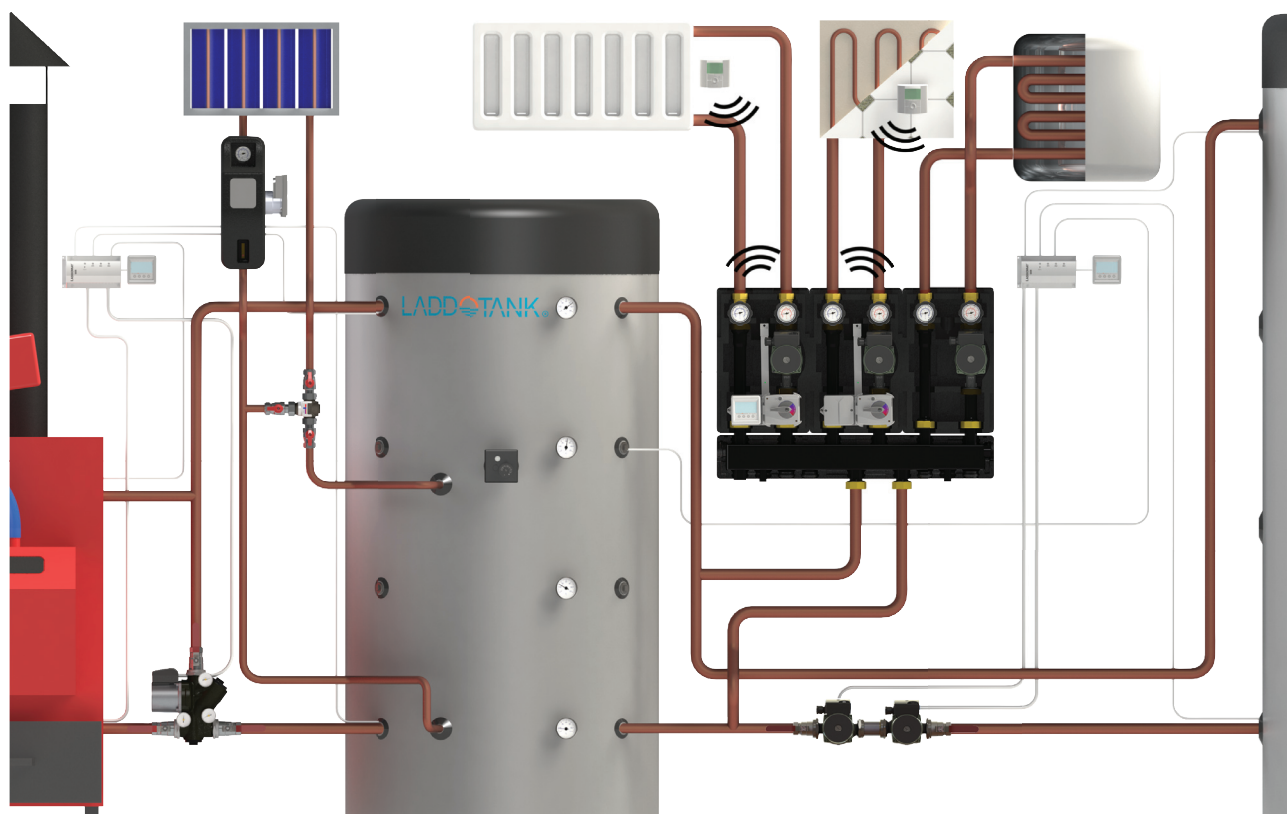
sustainable  
energy  
solutions



**Termoventiler**  
sustainable energy solutions

member of **debe**   
FLOW GROUP

T-FAST Mini	3-4
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# TERMOVENTILER T-FAST MINI

DHW Production module



Wall hung  
340x450x120 mm



Built-in  
400x500x110 mm

## Compact dimensions, maximum result

T-FAST MINI is a DHW production module that uses the working principle of a stainless steel plate heat exchanger. The temperature of the water is managed by a thermostatic mixing valve on the primary circuit.

The pump placed on the primary circuit is activated by the signal of the flowswitch that is placed on the secondary circuit.

A DHW recirculation pump kit is available.

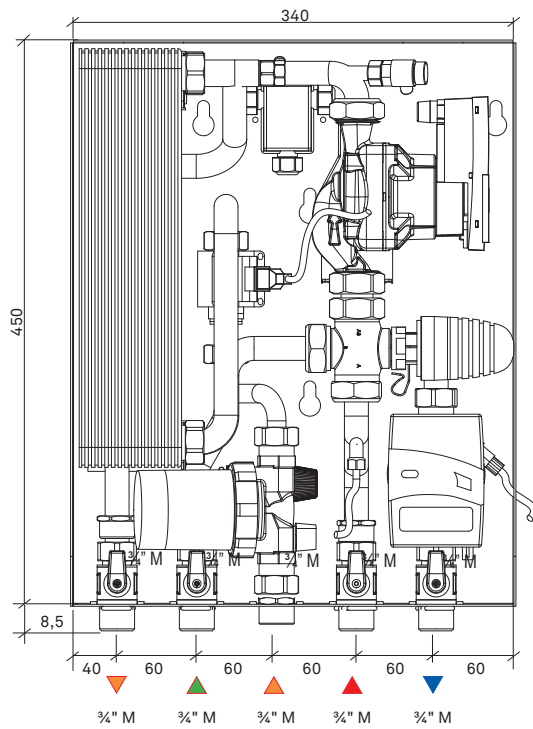
T-FAST MINI is designed for installation of a heat meter.

## ADVANTAGES

- Compact module with white cover, ral 9010
- Preassembled and tested module
- Wall-hung or built-in version
- Shut-off valves both on primary and secondary circuit
- Reduced maintenance
- Easy temperature setting
- Large capacity of DHW
- No need to balance the flow rate of the primary circuit
- Modulating flow rate by the thermostatic mixing valve on the primary circuit
- Secondary return kit available, with return temperature setting
- Design for installation of heat meter (primary circuit)

Max flow rate of primary flow	1450 l/h
Max flow rate of secondary outlet (DHW)	28 l/min
Pressure loss DHW circuit (28 l/min)	0,48 bar
DHW temperature set	40-55°C
Min. flow rate DHW production ON/OFF	2,5 ± 0,3 l/m
Exchange surface of plates exchanger	0,708 m <sup>2</sup>
Power supply	230 V AC 50/60 Hz - 45 W
Max. working pressure	10 bar
Wall-hung box dimensions	340 x 450 x 120
Built-in box dimensions	400 x 500 x 110
Max. temperature	90°C
Connections	G 3/4"
Pump	Wilo YONOS PARA 5/1-6 iPWM
<b>COMPONENTS</b>	
Pump of DHW recirculation	Lowara/Xylem EB 15-1/94 R
EYRON ULTRA CFMUS ULTRASONIC M-BUS Qn 1,5 m3/h - 110 X 3/4"	1,5 m3/h - CL 2 - 110mm x 3/4"

## DIMENSIONS AND CONNECTIONS



MINI



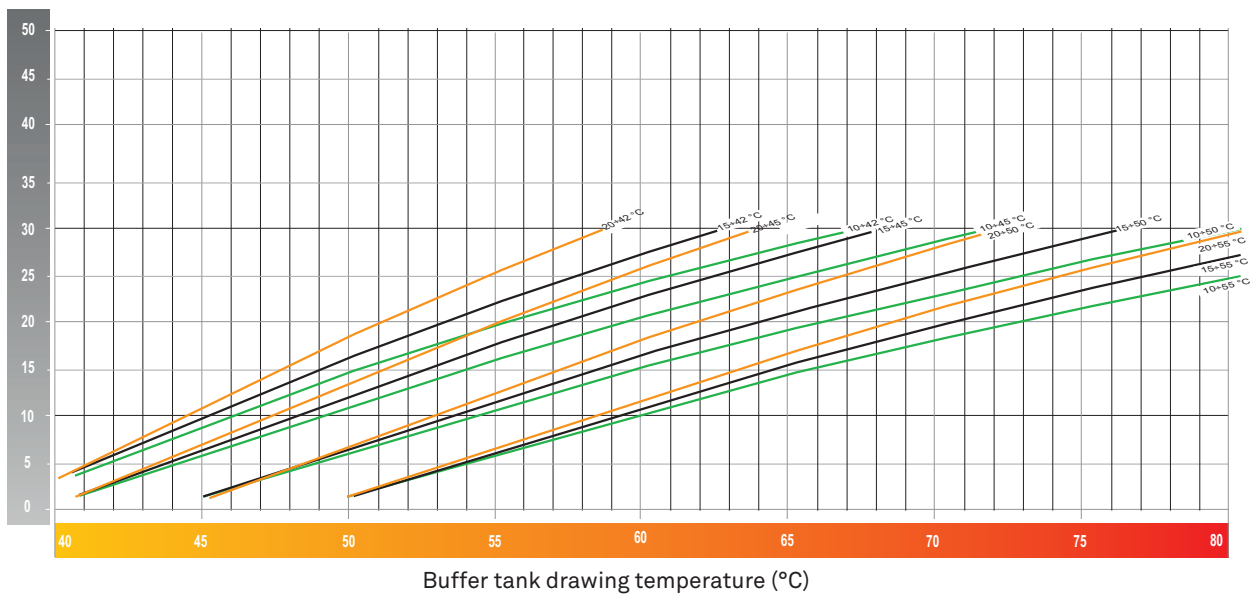
+ OPTIONAL



## DHW PRODUCTION

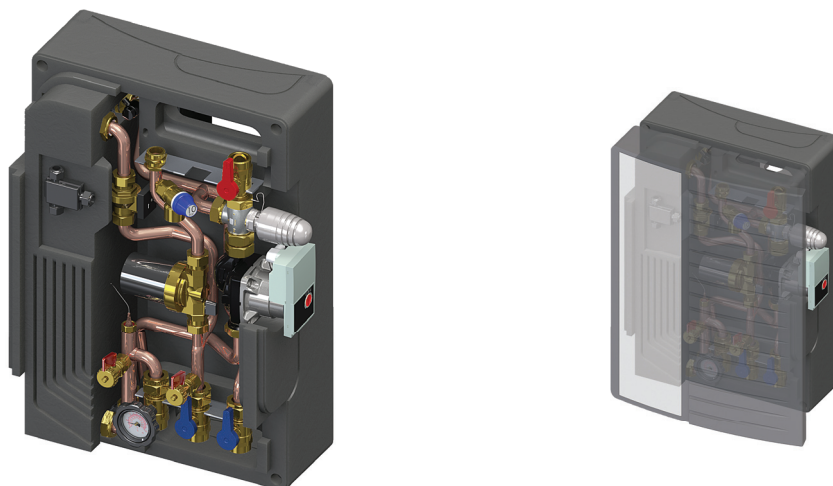
The proper function of the system is guaranteed if the temperature of the primary flow exceeds at least 5°C the temperature of the set DHW temperature.

DHW flow rate (l/min)



# TERMOVENTILER T-FAST i20

DHW Production module



## High reduction of water stagnation and legionella risk

T-FAST i20 is an instantaneous domestic hot water production module that uses the working principle of a stainless steel plates exchanger, that finds a wide use if coupled with buffer tanks.

The setting of the domestic hot water temperature is made through the regulation of the thermostatic actuator of the primary circuit mixing valve.

The primary circuit pump is controlled by means of a pressure switch electrically connected.

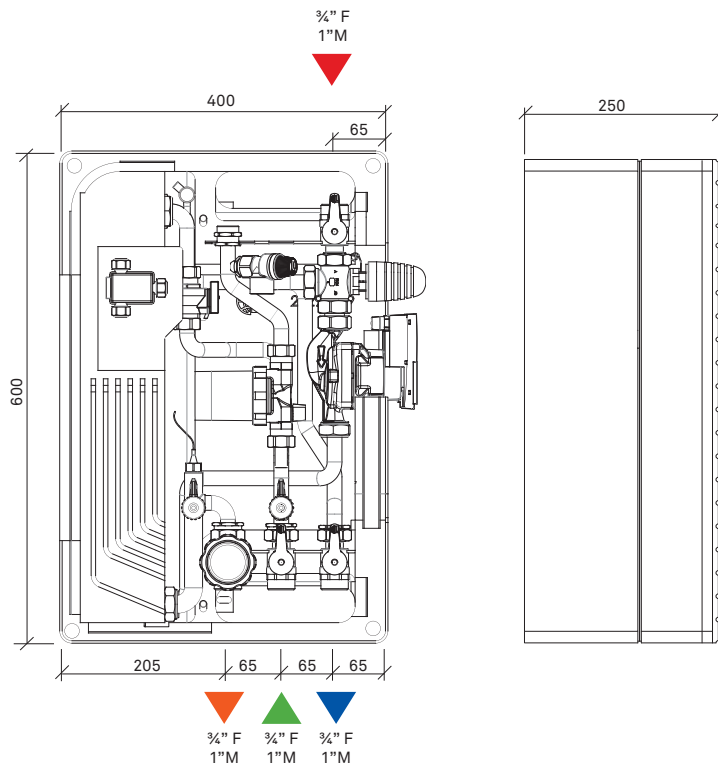
A DHW recirculation pump kit is available.

## ADVANTAGES

- Domestic hot water is produced on requests, so that big accumulations are not necessary
- DHW nominal supply 20 l/min
- High performances thanks to the oversized plate heat exchanger made of steel
- High reduction of water stagnation and legionella risk
- Possibility to install domestic recirculation
- Installation on wall or directly on a tank
- High efficiency circulating pump
- Quick installation and easy maintenance
- It may be combined with each heat generator
- Complete with thermal insulation

Max flow rate of primary flow	1200 l/h
Max flow rate of DHW	20 l/min, $\Delta P$ 0,5 bar
DHW temperature set	40-55°C
Min. flow rate DHW ON production	2,5 ± 0,3 l/m
Min. flow rate DHW OFF intervention	2,5 ± 0,3 l/m
Exchange surface of plates exchanger	0,882 m <sup>2</sup>
Power supply	230 V AC 50/60 Hz - 45 W
Max. working pressure	6 bar
Max. available dimensions (HxWxD)	400 x 600 x 250
Pump of DHW recirculation	Lowara/Xylem EB 15-1/94 R

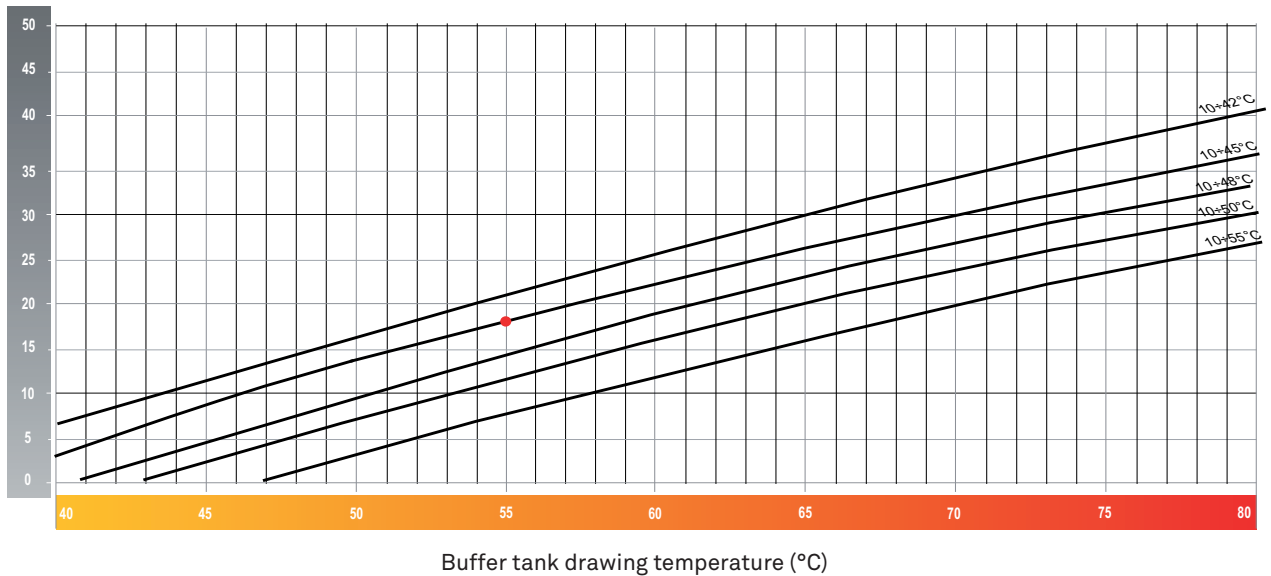
## DIMENSIONS AND CONNECTIONS



## DHW PRODUCTION

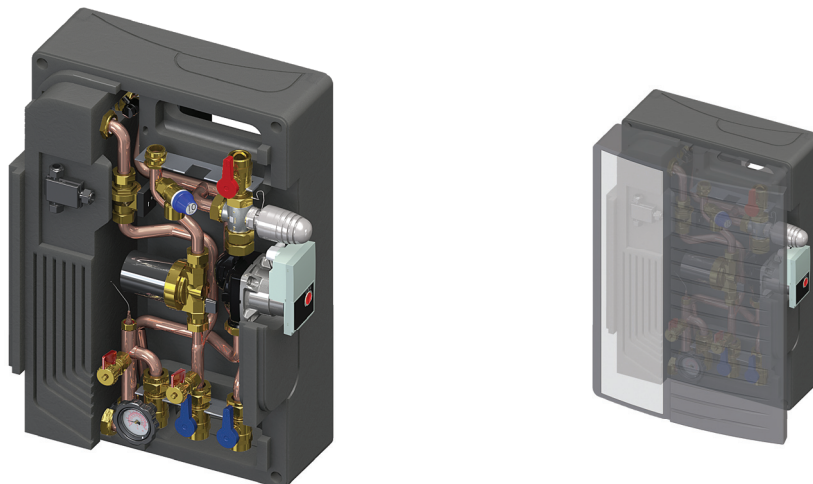
The proper function of the system is guaranteed if the temperature of the primary flow exceeds at least 5°C the temperature of the set DHW temperature.

DHW flow rate (l/min)



# TERMOVENTILER T-FAST i35

DHW Production module



## High reduction of water stagnation and legionella risk

T-FAST-i35 is an instantaneous domestic hot water production module that uses the working principle of a stainless steel plates exchanger, that finds a wide use if coupled with buffer tanks.

The setting of the domestic hot water temperature is made through the regulation of the thermostatic actuator of the primary circuit mixing valve.

The primary circuit pump is controlled by means of a pressure switch electrically connected.

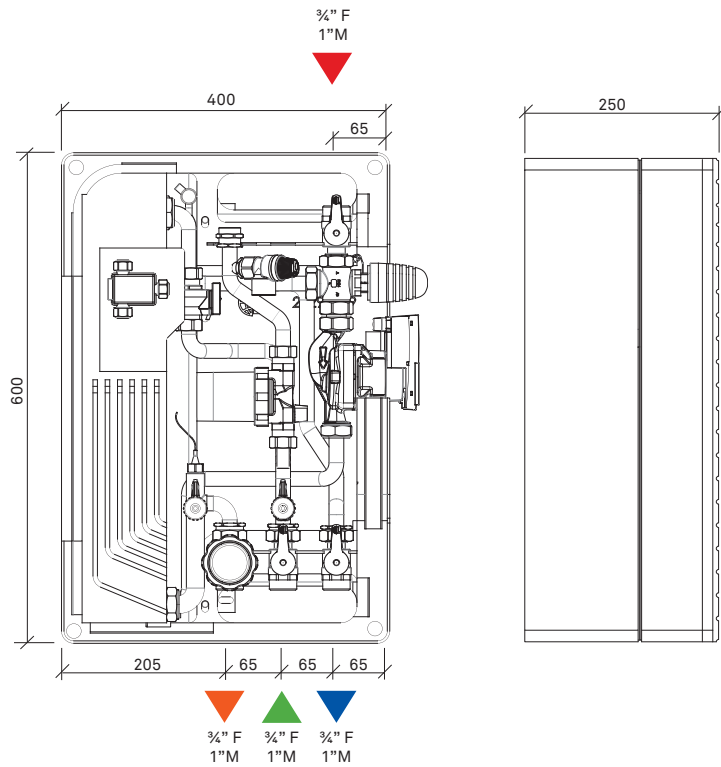
A DHW recirculation pump kit is available.

## ADVANTAGES

- Domestic hot water is produced on requests, so that big accumulations are not necessary
- DHW nominal supply 35 l/min
- High performances thanks to the oversized plate heat exchanger made of steel
- High reduction of water stagnation and legionella risk
- Possibility to install domestic recirculation
- Installation on wall or directly on a tank
- High efficiency circulating pump
- Quick installation and easy maintenance
- It may be combined with each heat generator
- Complete with thermal insulation

Max flow rate of primary flow	1700 l/h
Max flow rate of DHW	35 l/min, $\Delta P$ 0,5 bar
DHW temperature set	40-55°C
Min. flow rate DHW ON production	2,5 $\pm$ 0,3 l/m
Min. flow rate DHW OFF intervention	2,5 $\pm$ 0,3 l/m
Exchange surface of plates exchanger	1,76 m <sup>2</sup>
Power supply	230 V AC 50/60 Hz - 45 W
Max. working pressure	6 bar
Max. available dimensions (HxWxD)	400 x 600 x 250
Pump of DHW recirculation	Lowara/Xylem EB 15-1/94 R

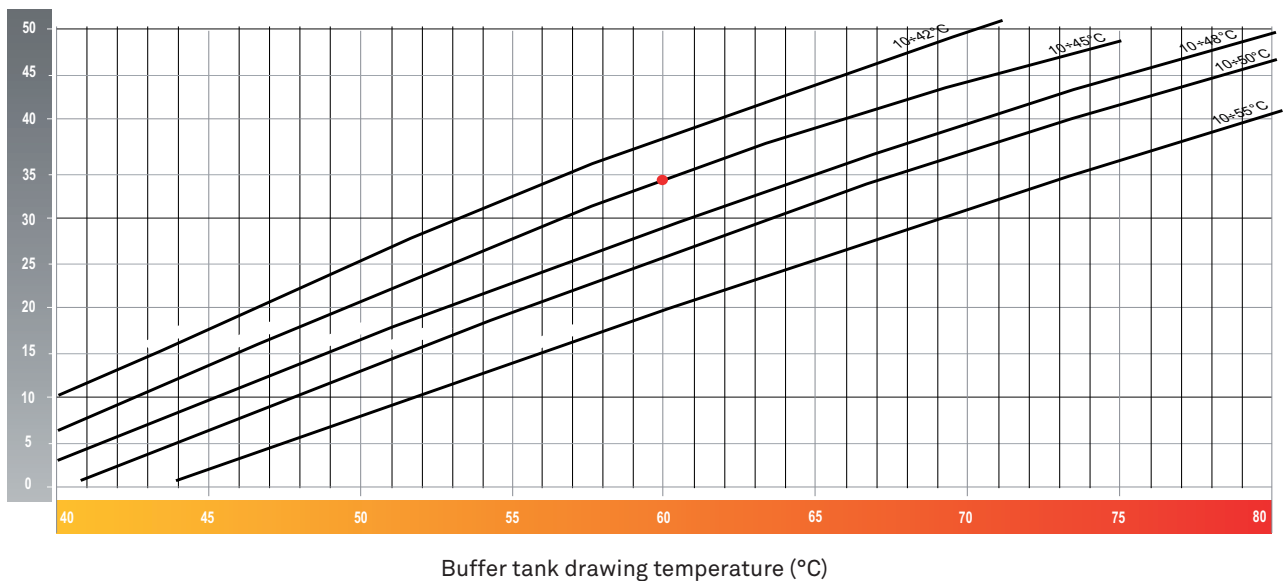
## DIMENSIONS AND CONNECTIONS



## DHW PRODUCTION

The proper function of the system is guaranteed if the temperature of the primary flow exceeds at least 5°C the temperature of the set DHW temperature.

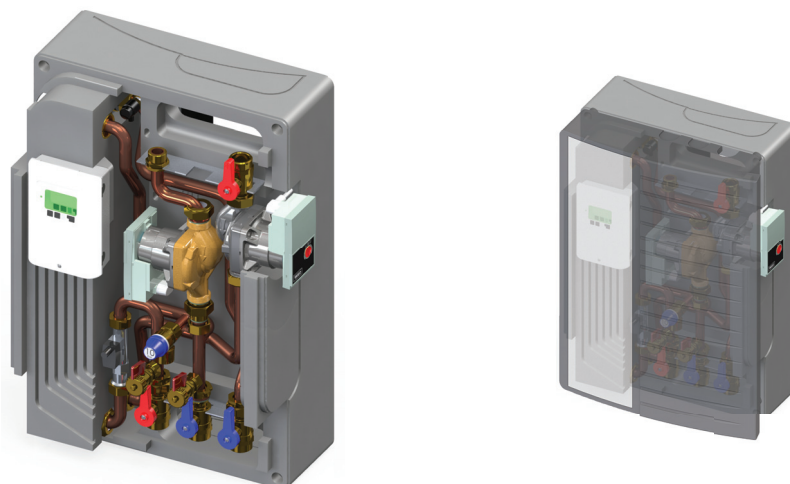
DHW flow rate (l/min)





# TERMOVENTILER T-FAST ie40 Compact

DHW Production module



## High reduction of water stagnation and legionella risk

T-FAST-ie40 is an instantaneous domestic hot water production module that uses the working principle of a stainless steel plates exchanger, that finds a wide use if coupled with buffer tanks.

The setting of the domestic hot water outlet temperature (secondary side) happens with the modulation of the primary circuit flow rate through a variable flow pump controlled by the MFWC controller (PWM control).

The system, which works with a low primary temperature, finds a wide use in thermal solar systems and in underfloor heating.

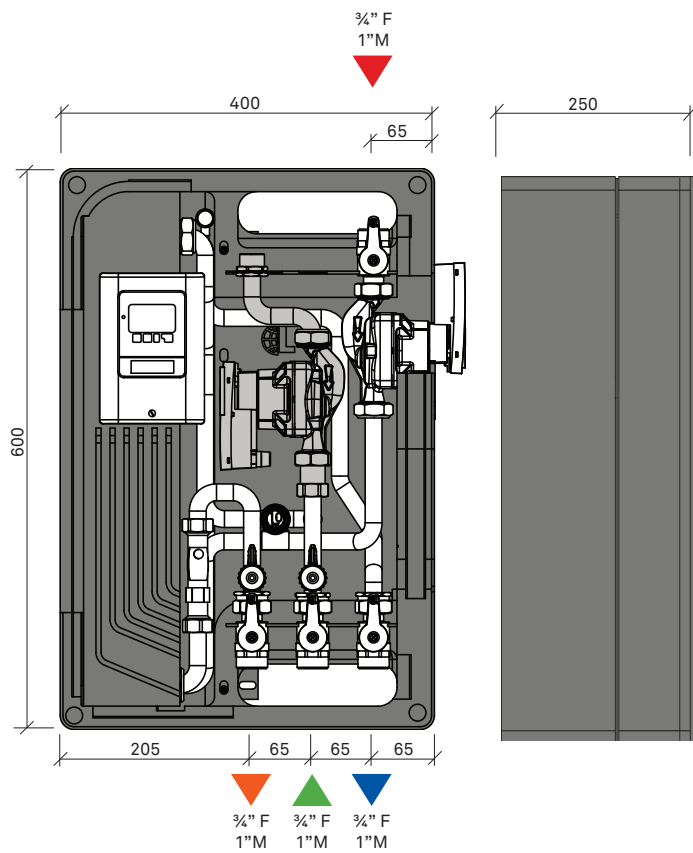
A DHW recirculation pump kit is available.

## ADVANTAGES

- Domestic hot water is produced on requests, so that big accumulations are not necessary
- DHW nominal supply 40 l/min
- High performances thanks to the oversized plate heat exchanger made of steel
- High reduction of water stagnation and legionella risk
- Possibility to install domestic recirculation
- High efficiency circulating pump
- Quick installation and easy maintenance
- It may be combined with every heat generator
- Complete with thermal insulation

Max flow rate of primary flow	1850 l/h
Max flow rate of secondary outlet (DHW)	40 l/min, $\Delta P$ 0,8 bar
DHW temperature set	30-90°C
Min. flow rate DHW ON production	2 ± 0,3 l/m
Min. flow rate DHW OFF intervention	2 ± 0,3 l/m
Flowmeter / Temperature DHW	VFS 2-40 l/min
Exchange surface of plates exchanger	1,76 m <sup>2</sup>
Power supply	230 V AC 50/60 Hz - 45 W
Max. working pressure	6 bar
Max. available dimensions (HxWxD)	400 x 600 x 250
Pump of DHW recirculation	WILO YONOS PARA Z 15/7 iPWM

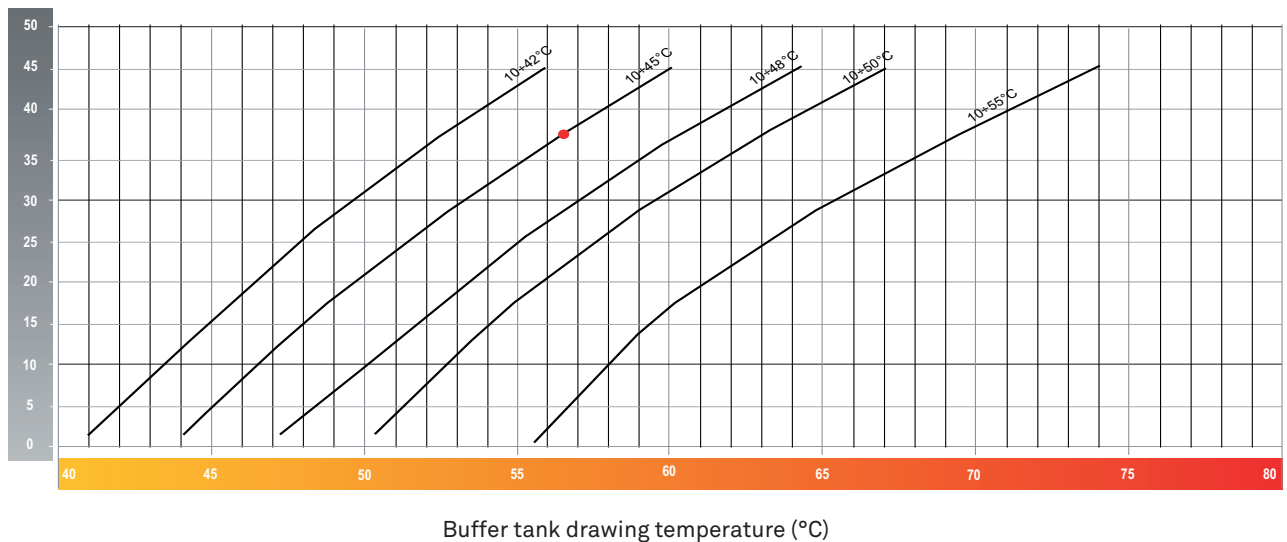
## DIMENSIONS AND CONNECTIONS



## DHW PRODUCTION

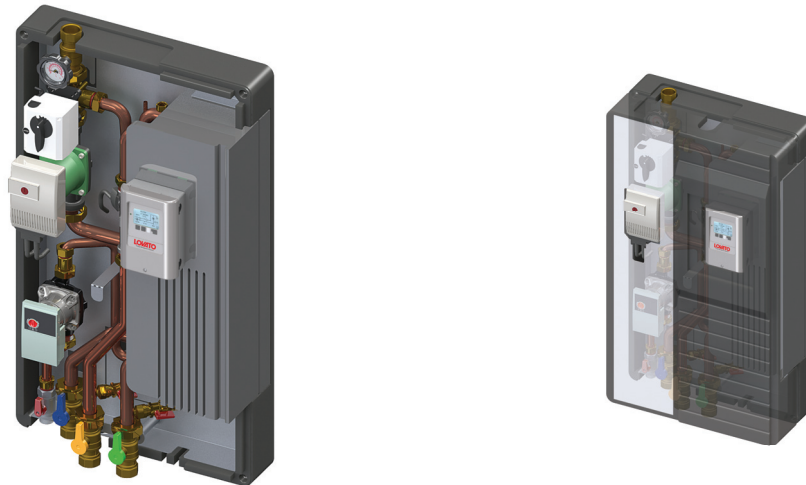
The proper function of the system is guaranteed if the temperature of the primary flow exceeds at least 5°C the temperature of the set DHW temperature.

DHW flow rate (l/min)



# TERMOVENTILER T-FAST ie60

DHW Production module



## High reduction of water stagnation and legionella risk

T-FAST-IE 60 is an instantaneous domestic hot water production module that uses the working principle of a stainless steel plates exchanger, that finds a wide use if coupled with buffer tanks.

The setting of the domestic hot water outlet temperature (secondary side) happens with the modulation of the primary circuit flow rate through a variable flow pump controlled by the MFWC controller (PWM control).

The system, which works with a low primary temperature, finds a wide use in thermal solar systems and in underfloor heating.

3-way mixing valve establishes the inlet water temperature (ideal function for the summer, in which the system exploits solar thermal panels)

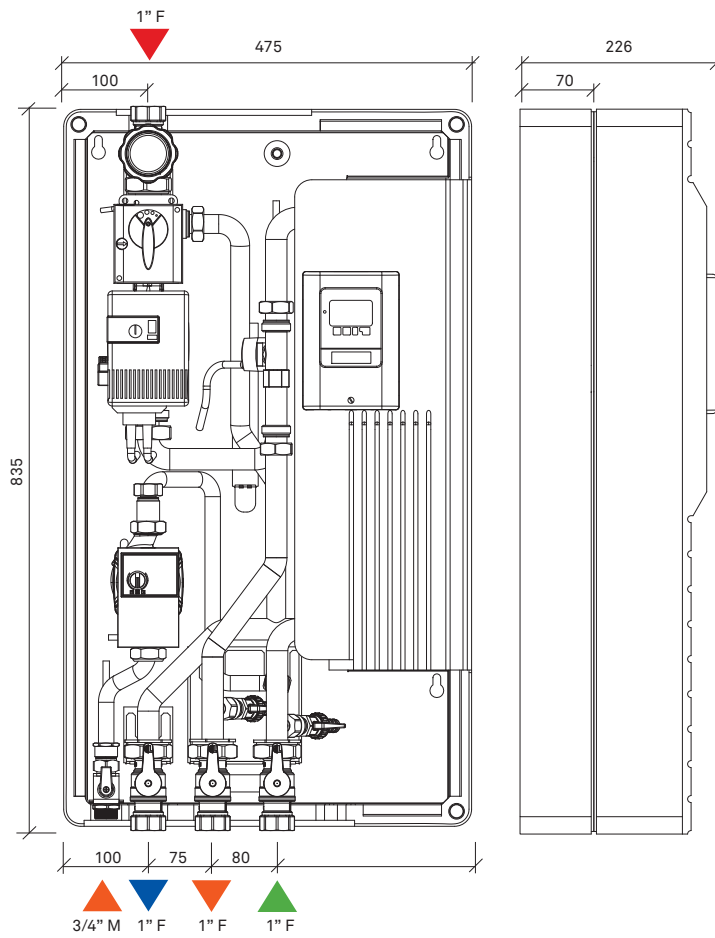
A DHW recirculation pump kit is available.

## ADVANTAGES

- Domestic hot water is produced on requests, so that big accumulations are not necessary
- DHW nominal supply 60 l/min
- High performances thanks to the oversized plate heat exchanger made of steel
- High reduction of water stagnation and legionella risk
- Possibility to install domestic recirculation
- High efficiency circulating pump
- Quick installation and easy maintenance
- It may be combined with every heat generator
- Complete with thermal insulation

Max flow rate of primary flow	3600 l/h
Max flow rate of secondary outlet (DHW)	110 l/min, $\Delta P$ 0,8 bar
DHW temperature set	30-90°C
Min. flow rate DHW ON production	5 $\pm$ 0,3 l/m
Min. flow rate DHW OFF intervention	5 $\pm$ 0,3 l/m
Flowmeter / Temperature DHW	VFS 5-100 l/min
Exchange surface of plates exchanger	3,0 m <sup>2</sup>
Power supply	230 V AC 50/60 Hz - 140 W
Max. working pressure	6 bar
Max. available dimensions (HxWxD)	475 x 835 x 226
Pump of DHW recirculation	WILO YONOS PARA Z 15/7 iPWM

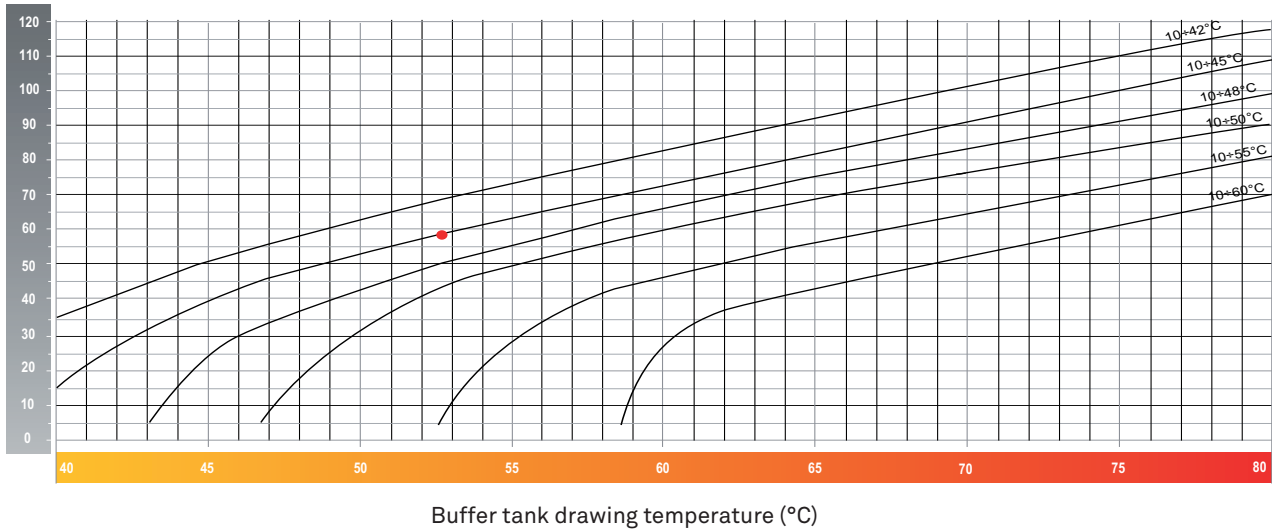
## DIMENSIONS AND CONNECTIONS



## DHW PRODUCTION

The proper function of the system is guaranteed if the temperature of the primary flow exceeds at least 5°C the temperature of the set DHW temperature.

DHW flow rate (l/min)



# TERMOVENTILER BIG T-FAST ie

DHW Production module



High production of instantaneous DHW.  
High reduction of water stagnation and legionella risk

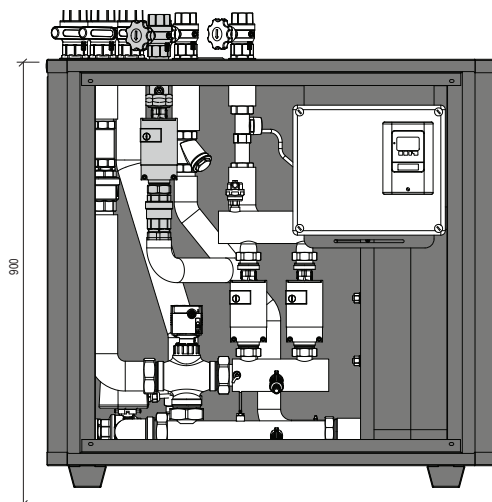
BIG T-FAST-IE guarantees large volumes production of instantaneous domestic hot water (80/100/150 l/min) using as primary a buffer tank with a temperature of 50°C.

## APPLICATIONS

Traditional heating, biomass, solar, heat pump systems in contexts such as block of flats, apartments, sport buildings, public authorities etc.

## ADVANTAGES

- Pre-assembled module, tested and ready-for-use;
- Complete range;
- Easiness of installation;
- It may be combined with different kind of heat;
- Compact dimensions;
- High reduction of water stagnation and legionella risk;
- It is proper for several applications, in which the drinkable water quality has to be guaranteed and where it is necessary to use bacteriologically pure hot water;
- It is easily adjustable into an already existing domestic system.



CONNECTIONS	Rp1	MP	RP2	RS*	EAFS	UACS
BIG T-FAST ie 80	1¼"	1¼"	1¼"	1"	1"	1"
BIG T-FAST ie 100	1½"	1½"	1½"	1¼"	1¼"	1¼"
BIG T-FAST ie 150	1½"	1½"	1½"	1¼"	1¼"	1¼"

## Main components description and functions

### PRIMARY SIDE

- 3-way mixing valve: stabilised the flow water temperature (ideal function for the summer, when the system is integrated with solar thermal panels);
- 2 parallel modulating pumps 0-10V; the second pump is activated in support to the first one when the controller requires its functioning, in order to satisfy the performance required in terms of flow rate and DHW temperature;
- Sound/light warning device: in case of a pump malfunctioning, with a simple function it is possible to work in reducing mode (60 %);
- Diverting valve on return: it works on the return of the buffer tanks 1 or 2 or on the low-medium connections of one buffer.

### SECONDARY SIDE (DHW)

- Electronic flow rate sensor (Vortex Flow Sensor) which measures the temperature and the volume of the DHW produced, and transfers the data to the controller. It is possible to meter the energy consumption transferred from the primary side and to display the graphics of the DHW operation.
- Circulation pump (OPTIONAL): managed from the controller depending on the set temperature (preregulated), operating hours and set periods (user can arrange them).

### CONTROLLER

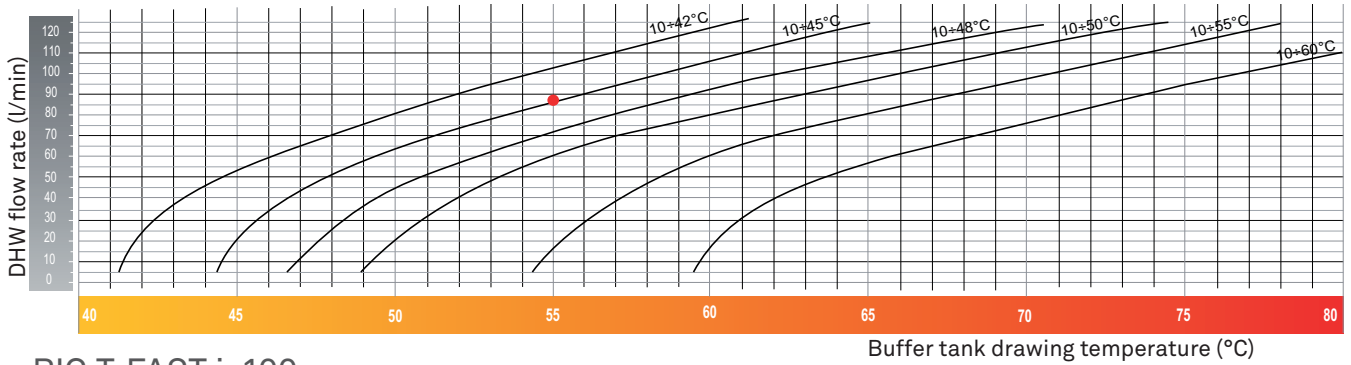
- The controller acts on the mixing valve depending on the parameters set, changing the pumps speed and consequently the primary circuit flow rate (0-10 V mode).
- Equipped with backlit pictograms display;
- Manages the pump circulation function (set periods programming);
- Anti-legionella function;
- Visualisation of DHW and circulation pump consumption;
- Energy metering function.

	BIG T-FAST ie 80	BIG T-FAST ie 100	BIG T-FAST ie 150
Max. drawing from the buffer	6.300 l/h	8.000 l/h	10.500 l/h
Min./max. flow rate DHW	5/100 l/min	10/200 l/min	10/200 l/min
Primary circuit residual capacity	2,7 w.c.m.	2,5 w.c.m.	3,3 w.c.m.
DHW production - (T prim. 55°C - ΔT sec. 10÷45°C)	80 l/min	100 l/min	150 l/min
DHW production - (T prim. 60°C - ΔT sec. 10÷45°C)	105 l/min	135 l/min	187 l/min
DHW production - (T prim. 65°C - ΔT sec. 10÷45°C)	105 l/min	165 l/min	220 l/min
DHW max. Δp	0,58 bar	0,20 bar	0,44 bar
Max. power	370 W / 1,5 A	420 W / 3,9 A	780 W / 4,35 A
Power supply	230 V	230 V	230 V
Max. working temperature	90 °C	90 °C	90 °C
Primary circuit max. pressure	6 bar	6 bar	6 bar
Secondary circuit max. pressure	8 bar	8 bar	8 bar
Degree of protection	IP 40	IP 40	IP 40

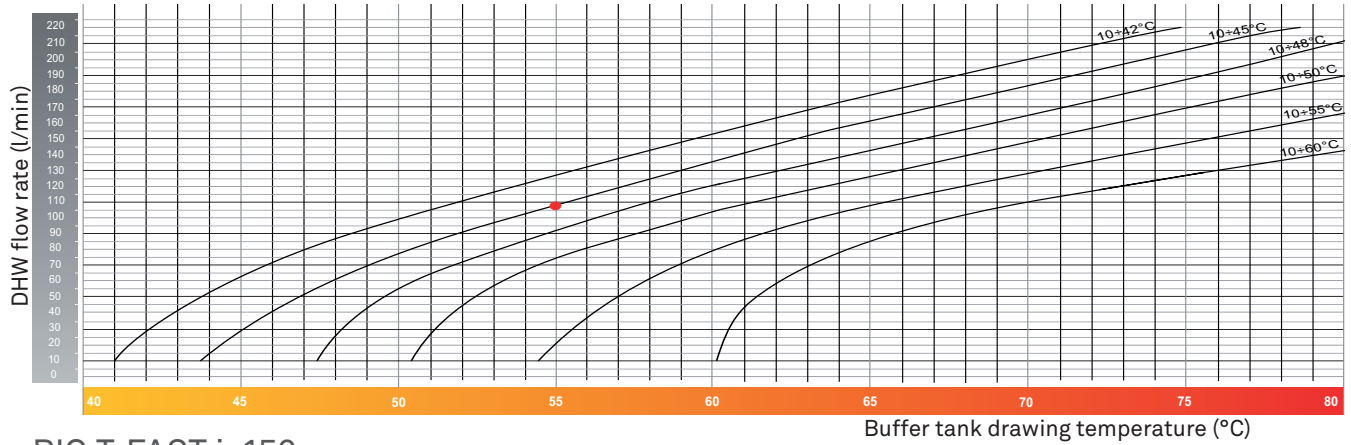
# DHW PRODUCTION

The proper function of the system is guaranteed if the temperature of the primary flow exceeds at least 5°C the temperature of the set DHW temperature.

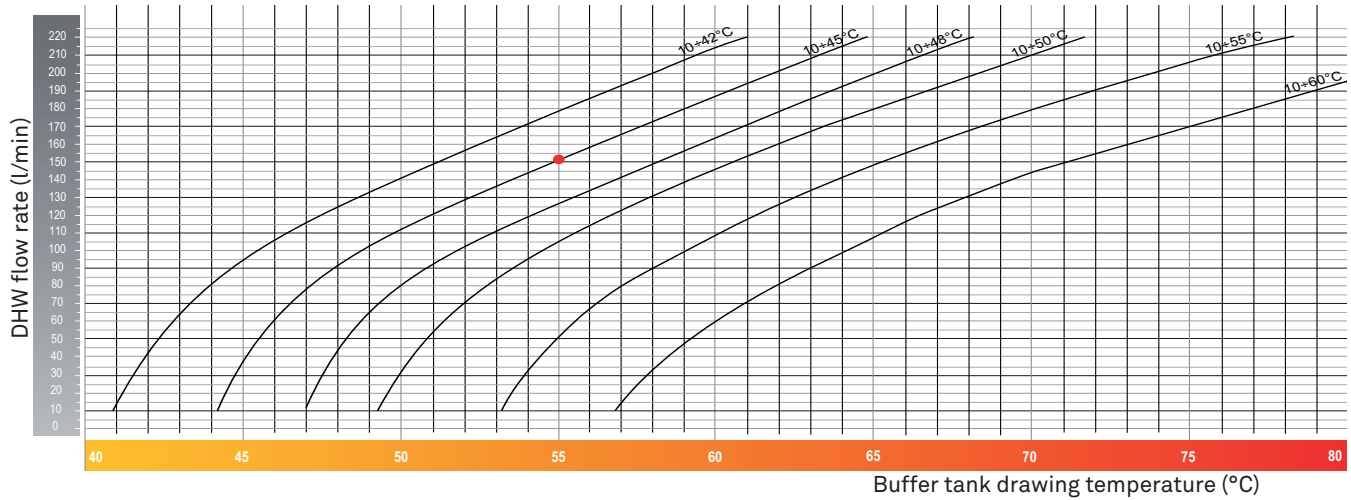
## BIG T-FAST ie80



## BIG T-FAST ie100



## BIG T-FAST ie150





Termoventiler AB  
Nolhagavägen 12  
SE-523 93 Marbäck  
Sweden

Tel. +46 (0) 321 261 80  
info@termoventiler.se

TV Termoventiler GmbH  
Chemnitzer Straße 71  
DE-09212 Limbach-Oberfrohna  
Germany

Tel. +49 (0) 3722 50 57 00  
info@termoventiler.de  
190625



termoventiler.se