

## EcoAdvance Indirect - Twin Plate Heat Interface Unit

### Application

The Frese EcoAdvance indirect is a wall mounted twin plate heat interface unit (HIU) for the generation of instantaneous domestic hot water and indirect space heating.

The HIU provides hydraulic separation between the domestic hot water (DHW) and the heating circuit and the primary centralised low temperature heating system via a pair of brazed stainless steel heat exchangers.

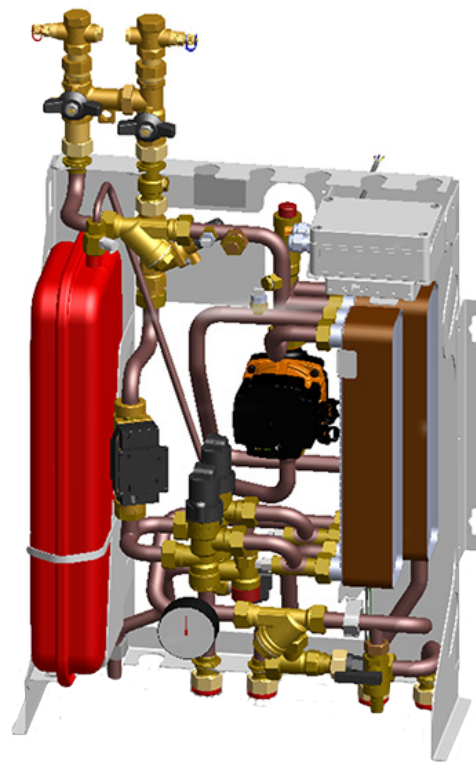
The HIU is suitable for radiator or underfloor heating and is complete with the EcoAdvanced electronic controller for precise and efficient water temperature control.

### Design

- The EcoAdvance electronic domestic hot water controller makes it possible to deliver water at the correct temperature, even in the event of lower supply temperatures and pressures on the primary heating system.
- Very short reaction time with accurate temperature control when there is a demand for DHW.
- Insulated cover minimises heat loss from the unit.
- Optional domestic hot water circulating pump can be mounted within the unit without impacting on the overall dimensions.
- Optional differential pressure controller can be mounted within the unit.
- Optional heat meter can be mounted within the unit simply by removing 110mm long spool piece.
- Optional weather compensated controller or room thermostat for direct connection to controller.

### Installation

- Compact and light weight design for easy handling.
- Pipework can be configured to provide top or bottom connections without impacting on overall dimensions.
- Primary connections are suitable for a flushing bypass assembly complete with test plugs or DN20 male x female ball valves.
- DHW and heating connections are suitable for DN20 male x female ball valves with or without a first fix bracket.



### Features and Benefits

- Compact design.
- EcoAdvanced programmable electronic controller.
- Electronic pressure independent control valve with 3 second runtime.
- Anti-legionella programme.
- Red, green and blue LED status indicators.
- Compact brazed stainless steel heat exchangers.
- 8 litre expansion vessel.
- Pre-insulated cover.
- Very low standby losses.
- Two DHW options, Comfort and Eco modes.
- Direct volt free connection to controller for programmable room thermostat
- Optional
  - ~ Domestic hot water return pump.
  - ~ Differential pressure controller - 450 kPa max.
  - ~ Flushing bypass assembly.
  - ~ Top or bottom pipework connections.
  - ~ Ultra sonic heat meter.
  - ~ First fix bracket
  - ~ Metal white enameled external cover
  - ~ Water hammer arrestor

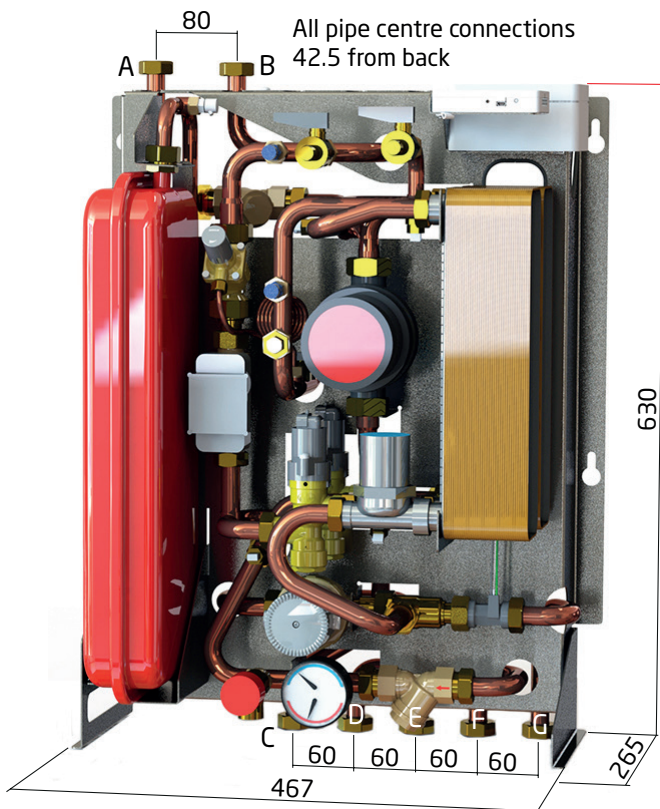
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### Operation

The EcoAdvance controller has two DHW options, Comfort and Eco modes.

- Comfort Mode - the heat exchanger and supply pipes can be kept hot for the fastest response time.
- Eco Mode - the water temperature is allowed to cool during stand by time, less energy is lost from the unit.
- Hot water priority within 3 seconds.
- Red, green and blue LEDs indicates operational status.
- Anti-legionella program - example 1 hour per 24 hours at >55°C.
- Eco mode with boost function.
- Self learning control valve and integral flow and temperature sensors optimise performance.

### Dimensions



#### Dimensions including cover

Height	640mm
Width	490mm
Depth	271mm
Weight	30 kg approx

### Connections

A	Primary supply flow	3/4" flat faced union
B	Primary supply return	3/4" flat faced union
C	Secondary heating supply	3/4" flat faced union
D	Domestic hot water	3/4" flat faced union
E	Domestic hot water recirculation	3/4" flat faced union
F	Domestic cold water	3/4" flat faced union
G	Heating return	3/4" flat faced union

### Technical Specification

#### Additional Connections

Relief valve drain:	15mm compression
Heat meter spool piece:	110mm x 3/4"
Heat meter temperature sensor pocket:	M10 x1 or G1/2
Security valve/dP spool piece:	110mm x 3/4"

#### Primary heat - centralised boiler plant

Max. supply temperature:	85°C
Min. supply temperature:	65°C
Nominal supply temperature:	80°C
Pressure class:	PN16
Max. differential pressure:	250 kPa
Max. Δp if differential pressure controller fitted:	450 kPa
Min. differential pressure:	50 kPa

#### Secondary Heating

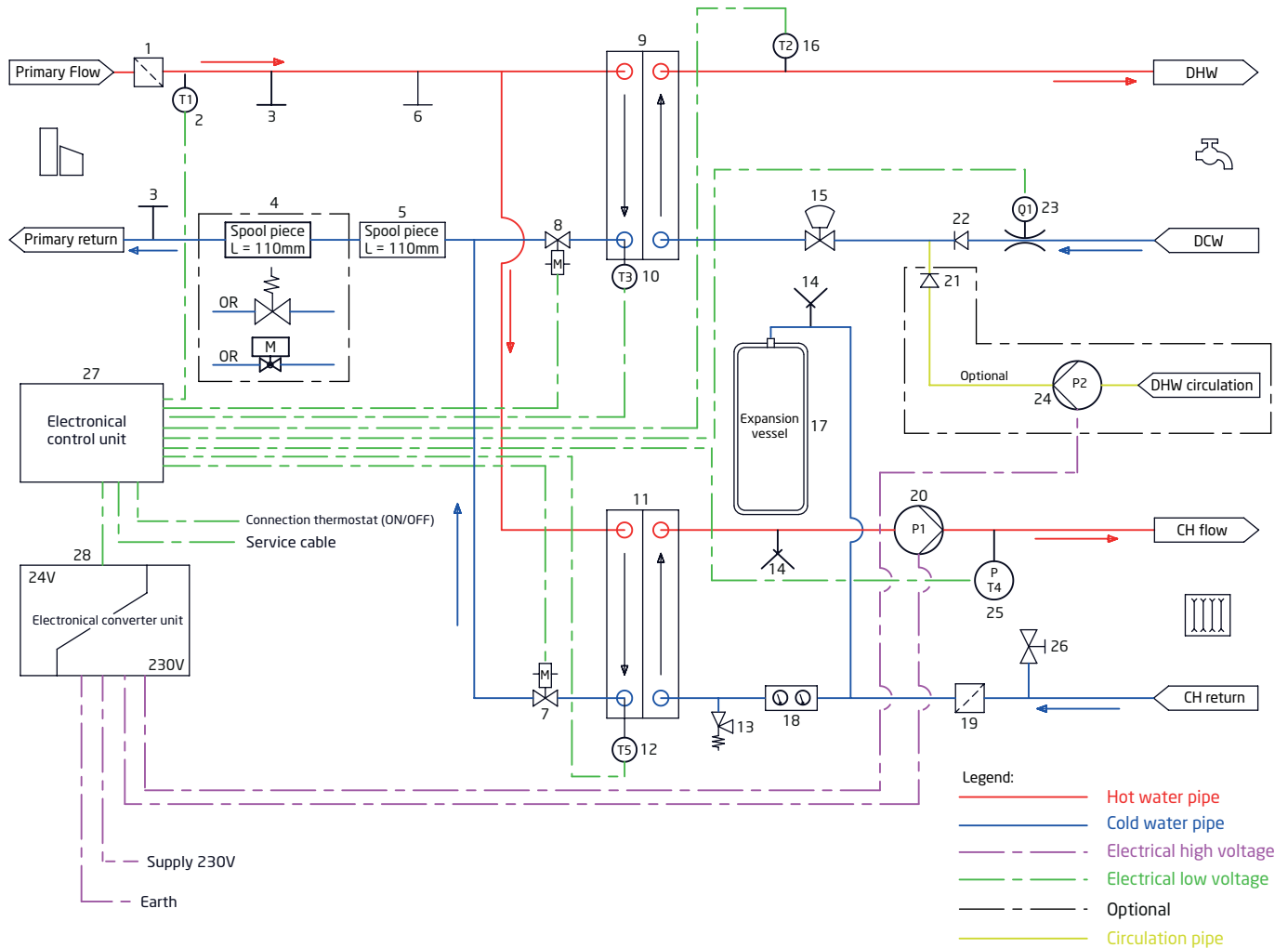
Controls:	Electronic
Max. temperature set point:	80°C
Heat exchanger:	SWEP E8ASx36
Circulation pump energy class:	A
Max. flow circulation pump:	600 l/h
Pump over run time:	15 minutes
Expansion vessel:	8 litres
Pressure relief valve setting:	3 bar

#### Domestic Hot Water Circuit

Controls:	Electronic
Pressure class:	10 bar
Max. output:	20 l/m
Max. output @ 10/60:	65 kW
Heat exchanger:	SWEP E8ASx24
Max. pressure loss @ 20 l/m:	60 kPa
Nominal cold water temperature:	10°C
Nominal DHW temperature:	60°C
DHW temperature set point range:	45 to 60°C

## EcoAdvance Indirect - Twin Plate Heat Interface Unit

### Pipework and Wiring Schematic

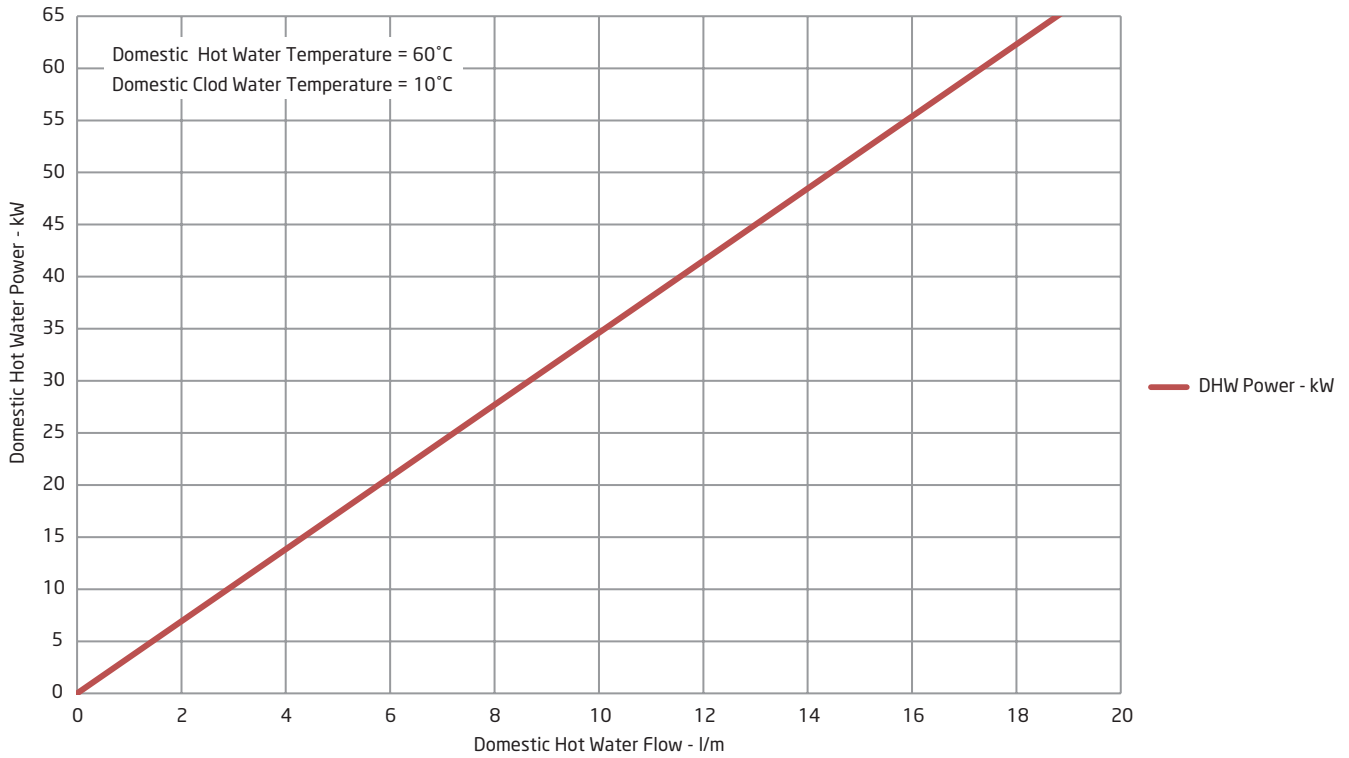


Item	Component	Item	Component
1	Strainer DN20	15	Water hammer arrestor
2	Temperature sensor	16	Temperature sensor
3	G <sup>1</sup> / <sub>8</sub> pocket	17	Expansion vessel - 8 litre
4	Spool piece*	18	Temperature gauge
5	Heat meter spool piece	19	Strainer DN20
6	Temperature sensor pocket	20	Pump - heating
7	Motorised valve - heating	21	Check valve
8	Motorised valve - domestic hot water	22	Check valve
9	Heat exchanger - domestic hot water	23	Flow sensor
10	Temperature sensor	24	Pump - recirculation
11	Heat exchanger - heating	25	Multi-functional sensor
12	Temperature sensor	26	Filling valve
13	Pressure relief valve	27	Electronic controller
14	Air vent	28	Electronic transformer

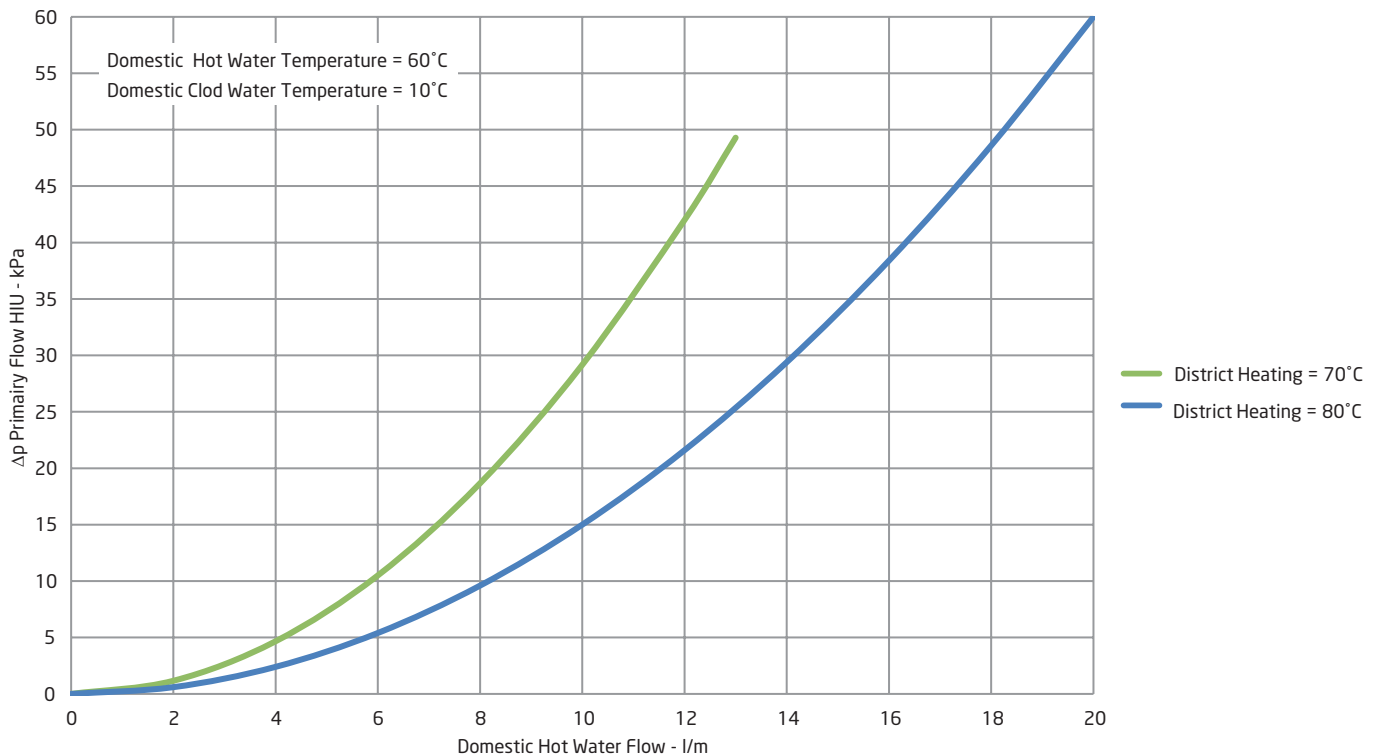
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### Domestic Hot Water Performance Curves

Domestic Hot Water Power Output  
Heat Exchanger E8ASx24

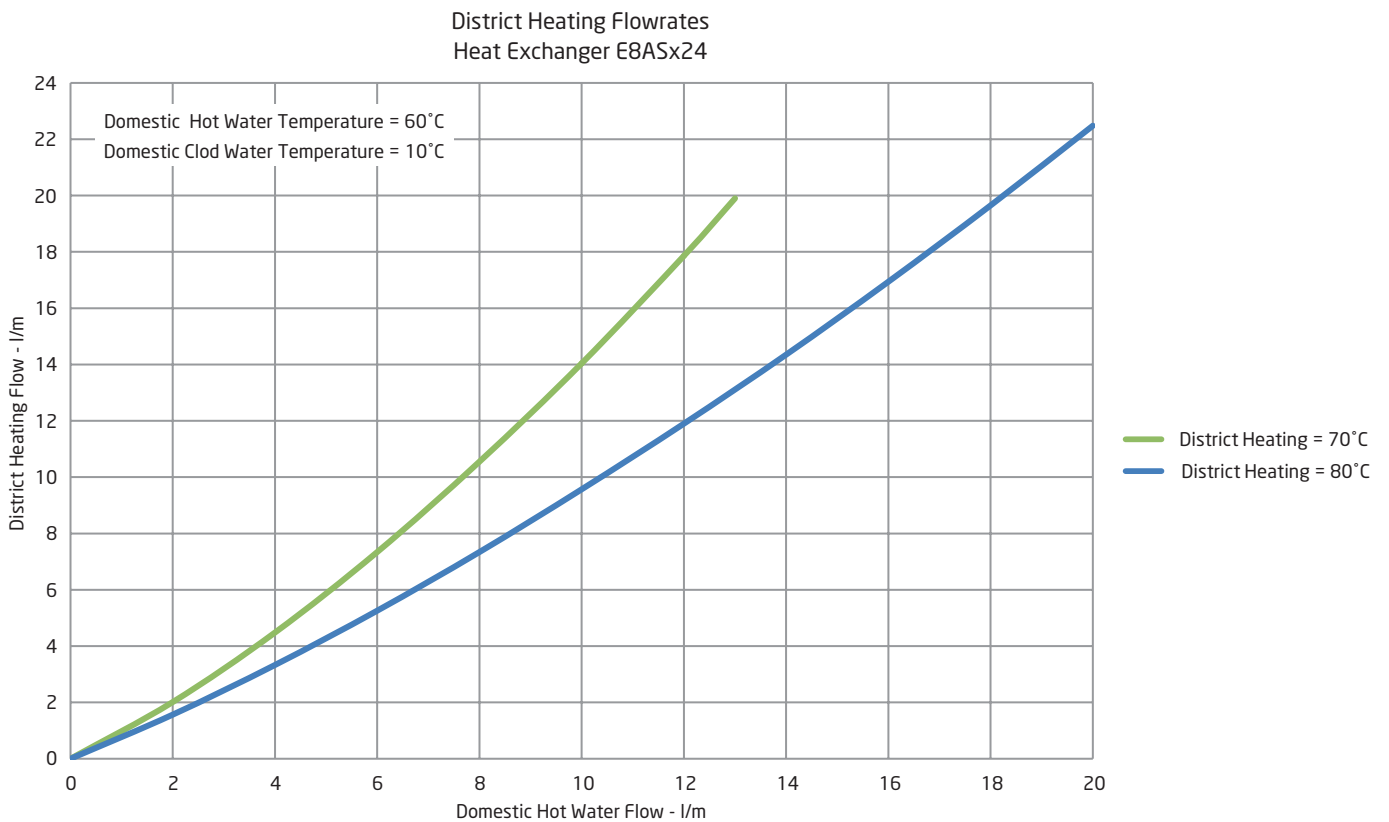
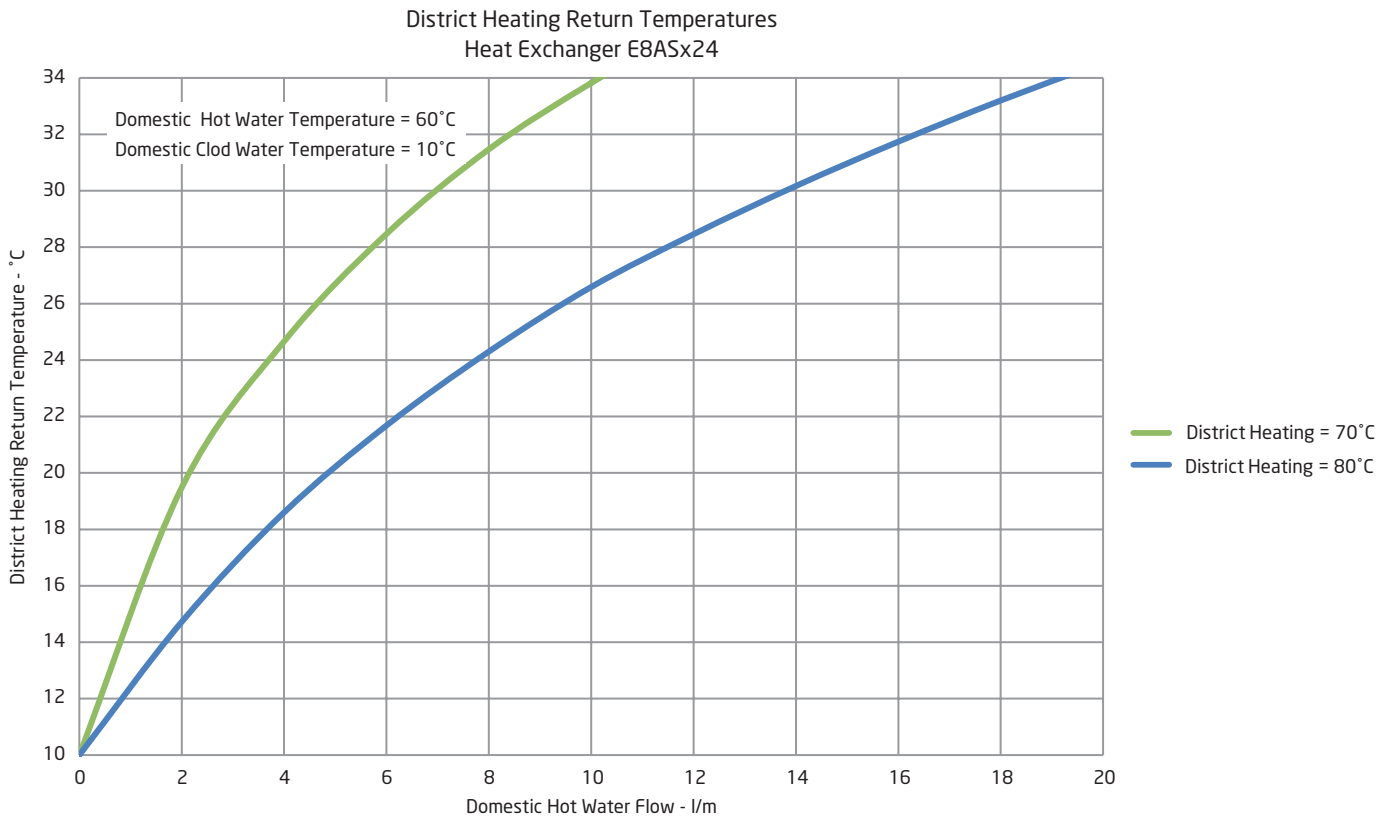


Pressure Loss Over the HIU (Primary Flow)  
Heat Exchanger E8ASx24



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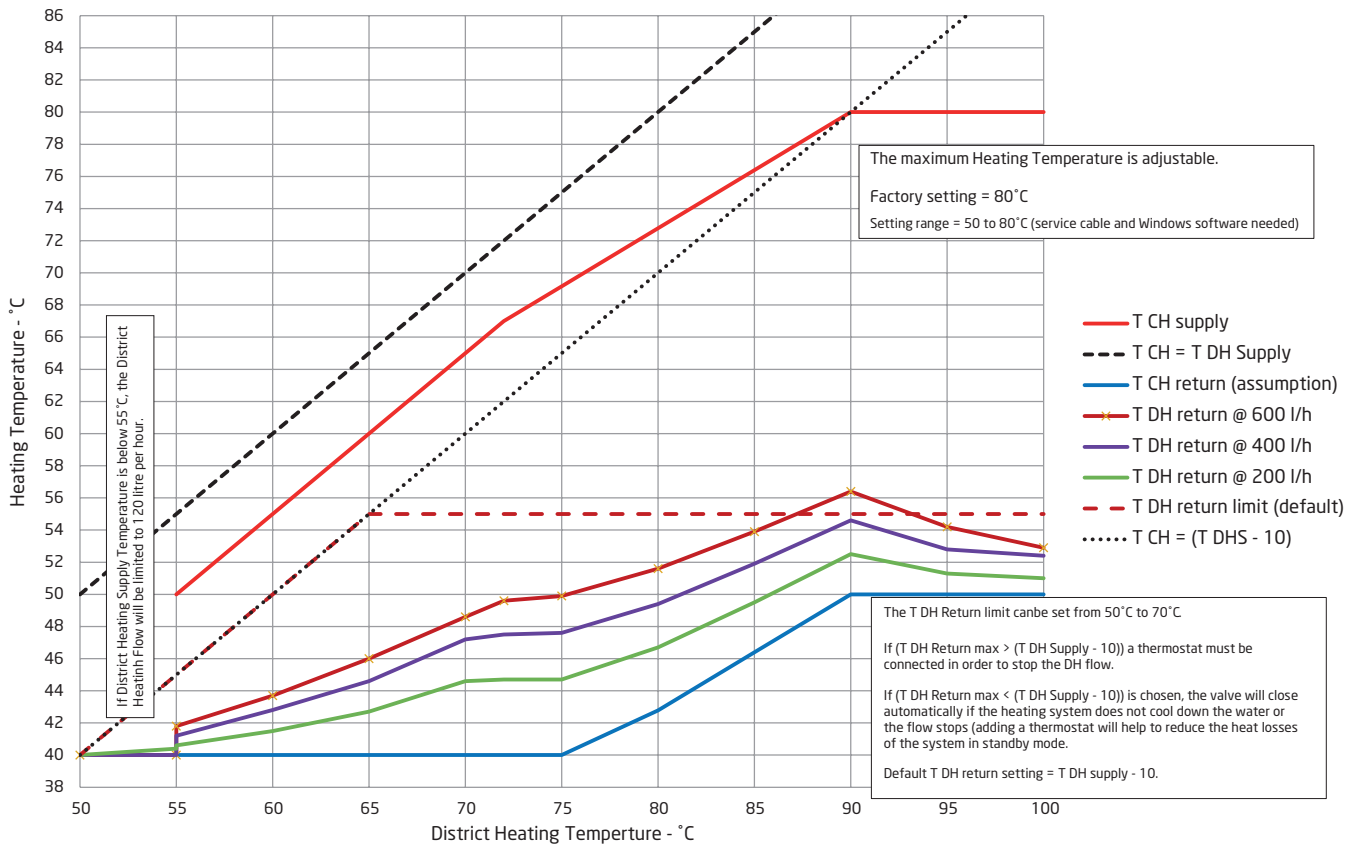
## Domestic Hot Water Performance Curves



# EcoAdvance Indirect - Twin Plate Heat Interface Unit

## Heating Temperature Curves

Heating Temperature Curves  
(with SWEP E8ASx36 Heat Exchanger)



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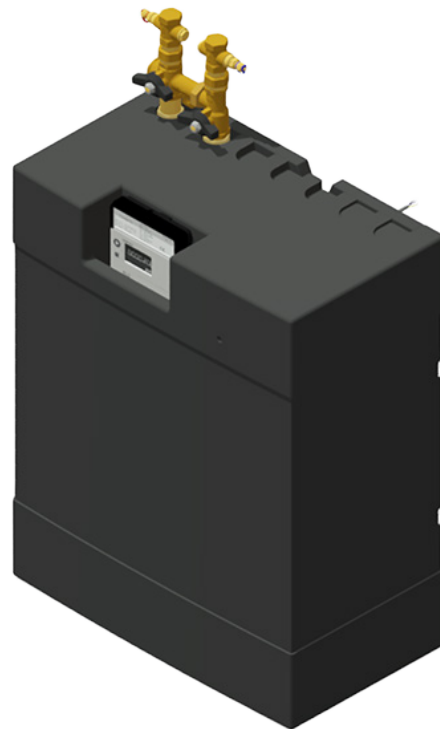
### Specification Text

Domestic hot water and space heating shall be provided by a twin plate heat interface unit with temperature control provided by a programmable EcoAdvance controller and a pair of electronic pressure independent control valves with a run time of 3 seconds.

Pipework can be configured for top or bottom entry to suit the application and the unit will be provided with a pre-insulated cover.



Rear View with Cover Fitted



Front View with Cover Fitted  
Showing Heat Meter