

# HIU 2 Series

Indirect heat interface unit for hygienic domestic hot water (DHW) generation and heat distribution

## Technical Data Sheet



## Description



### HIU 2 HK for unmixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks.

Direct connection to unmixed heating circuits such as radiators.

Indirect, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper brazed).

Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12 or 17 l/min.

Includes a priority switch for domestic hot water generation.

Integrated adapters for heat and cold water meters.

Ready-to-fit, space-saving design with clear arrangement of all valves.

Uniform, modular design of connections and accessories.

Type	Part no.	DN	Model	Weight (kg)
HIU2 HK 12	10079852	20	Tap capacity 12 l/min, copper brazed	13
HIU2 HK 12	10079891	20	Tap capacity 12 l/min, stainless steel brazed	13
HIU2 HK 17	10078464	20	Tap capacity 17 l/min, copper brazed	14
HIU2 HK 17	10079893	20	Tap capacity 17 l/min, stainless steel brazed	14



### HIU 2 HKM for mixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks.

Direct connection to mixed heating circuits such as a radiant panel heating system.

Indirect, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper brazed).

Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12 or 17 l/min.

Includes a priority switch for domestic hot water generation.

Integrated adapters for heat and cold water meters.

Ready-to-fit, space-saving design with clear arrangement of all valves.

Uniform, modular design of connections and accessories.

Includes a domestic hot water and mixing unit with electronic fix-point control of the flow temperature.

Type	Part no.	DN	Model	Weight (kg)
HIU2 HKM 12	10079851	20	Tap capacity 12 l/min, copper brazed	16
HIU2 HKM 12	10079892	20	Tap capacity 12 l/min, stainless steel brazed	16
HIU2 HKM 17	10078463	20	Tap capacity 17 l/min, copper brazed	17
HIU2 HKM 17	10079894	20	Tap capacity 17 l/min, stainless steel brazed	17



### HIU 2 HK/HKM system cabinet

Includes a sturdy bracket for mounting the heat interface unit and a pre-installed connecting rail with ball valves for quick installation and easy removal at any time in the event of repair or exchange.

Insulated in accordance with EnEV (German Energy Saving Ordinance) regulations.

Type	Part no.	Model	Weight (kg)
HIU2U	10078499	Flush-mounted	13.8
HIU2A	10078486	Wall-mounted	15.6

## Technical features

Hydraulic data	HIU 2 HK / HIU 2 HKM
Max. operating pressure	10 bar (PN 10)
Max. ambient temperature	60 °C
Max. operating temperature	90 °C
Differential pressure	Preset: 200 mbar. Adjustable range: 100 - 300 mbar
Media	Water or water with glycol as per VDI (Association of German Engineers) 2035 / ÖNORM (Austrian standard) 5195
Actuator	
Power supply	230 V; +10 to -20 %; 50/60 Hz
Power consumption in operation	2.5 W
Power consumption at end positions	<1 W
Actuating force	100 N
IP rating	IP 54
Ambient temperature	0 - 60 °C
Dimensions	
Width x height x depth HK HKM	490 X 705 X 130 mm 500 x 705 x 140 mm
Weight	
Total weight without packaging HK12 / HK17 / HKM12 / HKM17	approx. 13 kg / 14 kg / 16 kg / 17 kg
Total weight including packaging HK12 / HK17 / HKM12 / HKM17	approx. 15 kg / 16 kg / 18 kg / 19 kg
Pipework connections	
Transfer unit	1" and 3/4" male thread, flat sealing
Meter connections	
Hot water meter connection	110 mm G 3/4"
Cold water meter connection	110 mm G 3/4"
Materials	
Pipework	Stainless steel, d = 22 mm & d = 27 mm
Fittings	Brass
Seals	AFM34/2 and EPDM
Plate heat exchanger	Stainless steel EN 1.4404/copper (brazed)   option: stainless steel/stainless steel (brazed) For further information on the media to be used please refer to the appropriate technical datasheet.
Circulating pump, actuator and other electrical components	For technical data please refer to the appropriate technical documentation.

## Technical data: DHW generation

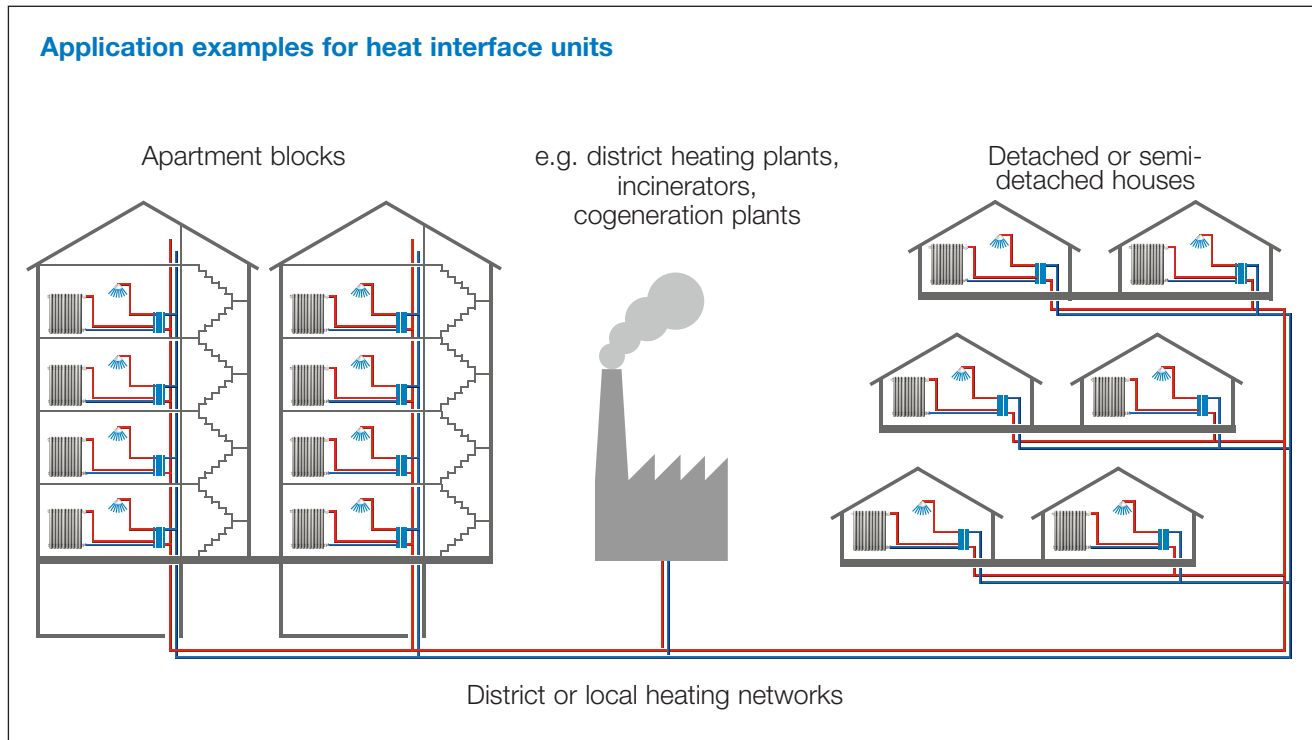
Heat exchanger	DHW capacity	Temperature (primary)		Temperature (secondary)		Pressure drop	Flow rate	
		Supply	Return	DCW	DHW		primary	secondary
26 plates	33 kW	65 °C	19 °C	9 °C	48 °C	19 kPa	11.2 l/min	12.0 l/min
36 plates	40 kW	65 °C	18 °C	11 °C	45 °C	19 kPa	13.4 l/min	17.1 l/min

## Technical data: heating

Temperature difference	Heat output
10K	Q = 13 kW
20K	Q = 26 kW

## Applications

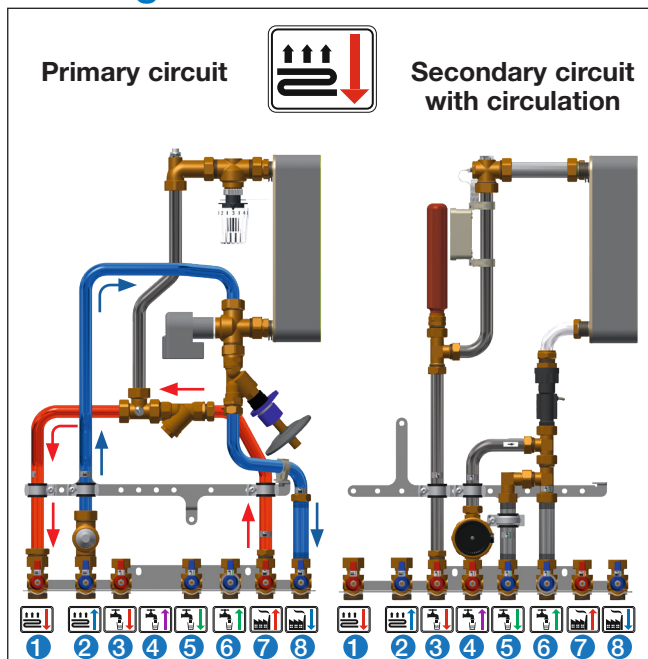
Ready-to-fit, compact heat interface unit for indirect, hygienic DHW generation with heat distribution in single-family homes, terraced housing and apartment blocks.



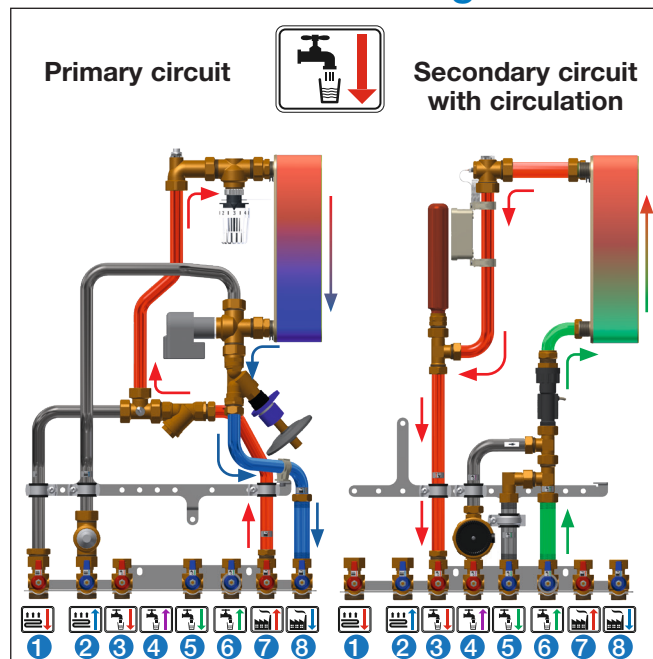
## Function

The HIU 2 heat interface unit uses heat from local and district networks to operate the heating and to hygienically heat domestic water. The heating network circuit is kept separate from the heating and domestic water circuit by a heat exchanger. The HIU2 heat interface unit is designed in such a way that domestic hot water generation takes priority over the heating circuit. When water is being drawn from a tap, a flow switch activates an actuator which closes the heating line temporarily. This ensures that the required domestic water temperature (adjustable using the thermostatic valve) is quickly reached. A circulation bridge may be needed to quickly achieve the pre-set domestic hot water temperature in standby mode (heating off). The circulation bridge is to be provided by the customer.

### Heating circuit



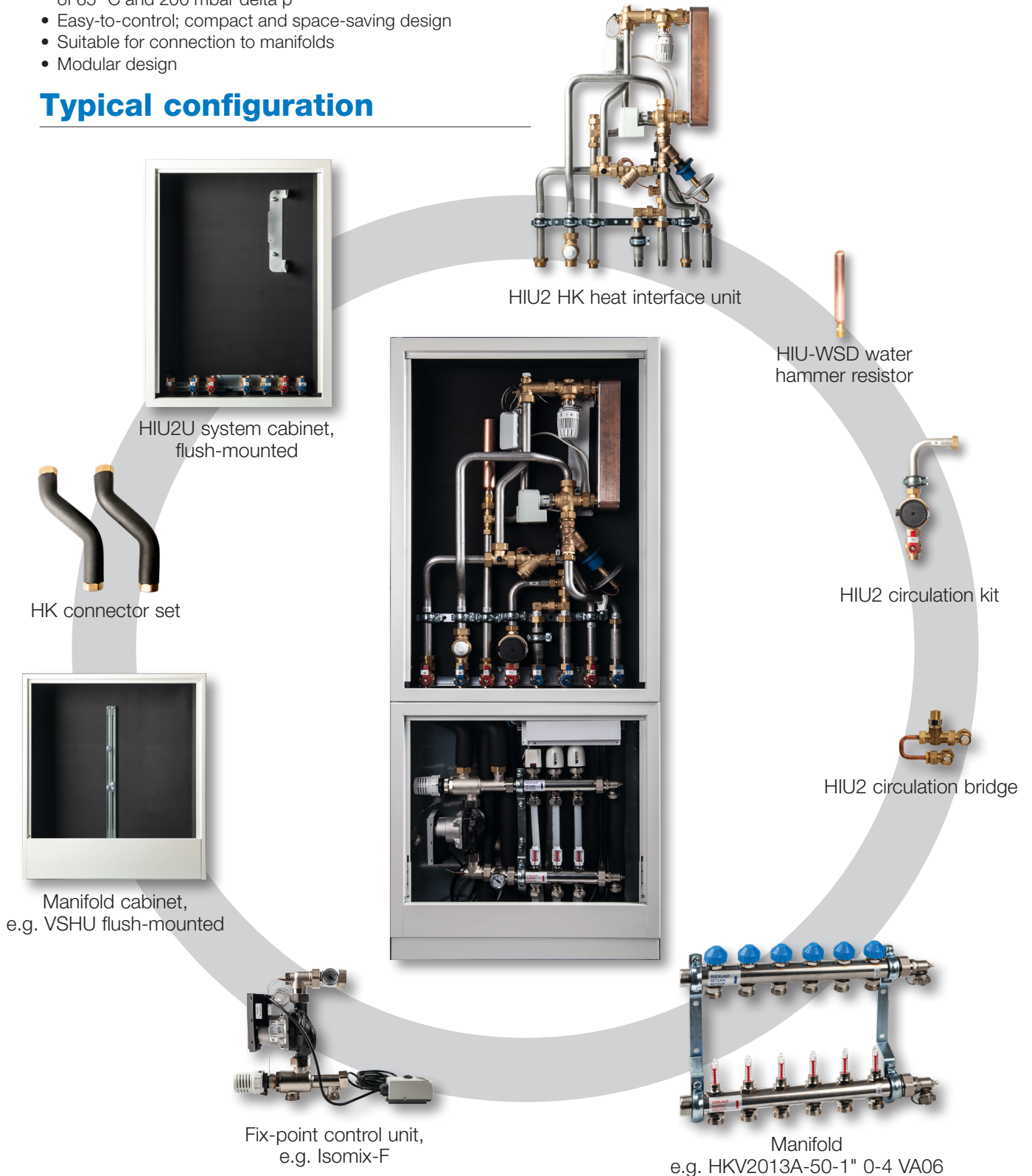
### Domestic water heating



## Product features

- For heating and DHW generation
- Hot water priority circuit
- Differential pressure adjustable from 100 to 300 mbar
- Pre-assembled adapters for heat and cold water meters
- Mixing module (HKM only)
- Designed to be installed in a system cabinet (wall- or flush-mounted)
- All system connections with 1" and 3/4" male thread, and flat sealing
- Adjustable tap temperature
- DHW tap capacity of 12 l/min and 17 l/min when heating the DHW from 10 to 45° C, with a primary flow temperature of 65° C and 200 mbar delta p
- Easy-to-control; compact and space-saving design
- Suitable for connection to manifolds
- Modular design

## Typical configuration



## HIU 2 thermally insulated system cabinets

Options for wall or flush mounting, suitable for all HIU 2 HK/ HKM heat interface units. Includes a pre-installed connecting rail and ball valves for connecting to the system and a sturdy bracket for mounting the heat interface unit to the connecting rail and easy connection to the system. Insulated in accordance with EnEV (German Energy Saving Ordinance) regulations.



- 1 Heating flow circuit
- 2 Heating return circuit
- 3 DHW outlet
- 4 Domestic water circulation inlet
- 5 Domestic cold water outlet
- 6 Domestic cold water inlet
- 7 Primary flow
- 8 Primary return



Pre-installed connector block with ball valves



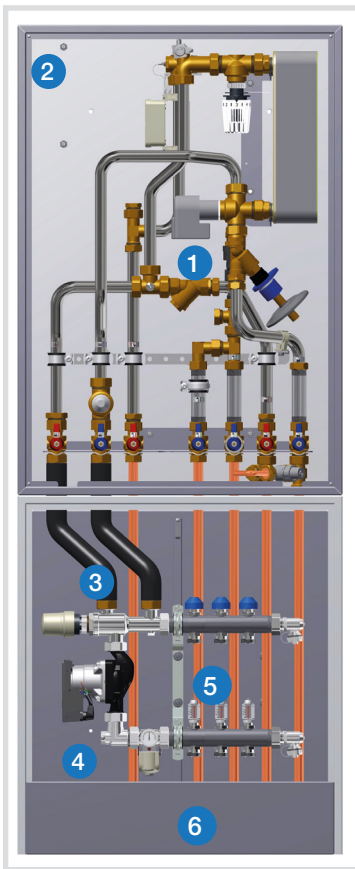
Connections to the underside of the housing

## System components for extension

Figure	Type	Description	Part no.
	HIU2U HIU2A	HIU 2 HTW HK/HKM system cabinet flush-mounted wall-mounted	10078499 10078486
	HIU-WSD	Water hammer resistor kit	10079166
	HIU2 circulation kit	HIU2 circulation kit with control thermostat	10080335
	HIU2 circulation bridge	Thermal circulation bridge	10079903
	HK connector set	Fully preconfigured pipework kit for connecting HIU 2 HK with the matching manifold cabinet modules (for flush or wall mounting)	10078466
	HK-HT connector set	As HK connector set but with high-temperature connection	10079904
	HKM connector set	Fully preconfigured pipework kit for connecting HIU 2 HKM with the matching manifold cabinet modules (for flush or wall mounting)	10078465
	HKM-HT connector set	As HKM connector set but with high-temperature connection	10079905

Figure	Type	Description	Part no.	
	WTC-ES	Contact thermostat, adjustment range 30 to 90 °C, with contact sensor for temperature control and temperature limiting.	10013409	
	WTC-IS	External setting	10013410	
		Internal setting		
	Flow limiter kit	12 l/min	10079906	
		17 l/min	10079907	
	VSHU-2	HIU2 manifold cabinet, width: 600 mm	10079156	
	VSHA-2	Flush-mounted	10079243	
	VSHU-3	HIU2 manifold cabinet, width: 750 mm	10079245	
	VSHA-3	Flush-mounted	10079244	
	VSHU-4	HIU2 manifold cabinet, width: 900 mm	10078488	
	VSHA-4	Flush-mounted	10078487	
	VSHU-5	HIU2 manifold cabinet, width: 1100 mm	10079247	
	VSHA-5	Flush-mounted	10079246	
		22CX	Actuator	10029674
		22CX	For HIU2 HK zone valve 230V/NO For heating manifold 230V/NC	10029671
		Standard heating manifold		
		Stainless steel round pipe – 1" M; flow meter 0 to 4 l/min with shut-off function, 50 mm outflow centre distance; heating circuit connections: 3/4" Eurocone, flow connection on the bottom side; fully pre-installed on the wall-mount bracket; incl. end set for flushing, filling and draining		
	HKV2013A-50-1" 0-4 VA02	2 heating circuits	10081934	
	HKV2013A-50-1" 0-4 VA03	3 heating circuits	10081935	
	HKV2013A-50-1" 0-4 VA04	4 heating circuits	10081936	
	HKV2013A-50-1" 0-4 VA05	5 heating circuits	10081937	
	HKV2013A-50-1" 0-4 VA06	6 heating circuits	10081938	
	HKV2013A-50-1" 0-4 VA07	7 heating circuits	10081939	
	HKV2013A-50-1" 0-4 VA08	8 heating circuits	10081940	
	HKV2013A-50-1" 0-4 VA09	9 heating circuits	10081941	
	HKV2013A-50-1" 0-4 VA10	10 heating circuits	10081942	
	HKV2013A-50-1" 0-4 VA11	11 heating circuits	10081943	
	HKV2013A-50-1" 0-4 VA12	12 heating circuits	10081944	
	Isomix-F	Ready-to-mount, compact fix-point control unit to control flow temperature in radiant panel heating systems up to 14 kW heat output requirement. Flow temperature adjustment range (with temperature limiter): 20 to 50 °C.	10070291	
		Factory-fitted cable connection between pump and temperature limiter. Can be mounted on the right or left side of the manifold. Suitable for all Watts heating manifolds with 1" M connectors. Nickel plated.		
		In addition, Watts offers a wide range of components for wireless and hard-wired room temperature control,		
		including the Watts Vision® smart home system, electrical connection boxes, room thermostats, timer thermostats, RF receiver and many more.		

## Selection of manifold cabinets



Selection of manifold cabinets for connecting the **HIU2 HK** heat interface unit with an underfloor heating system

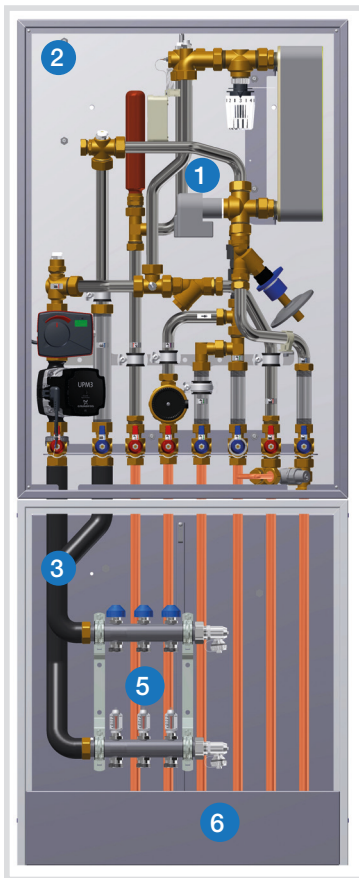
### Description

- 1** HIU 2 HK heat interface unit
- 2** Flush or wall-mounted cabinet for HIU 2 HK/HKM heat interface unit
- 3** HK or HK-T connector set
- 4** Isomix F control unit for manifolds
- 5** 2013A manifold
- 6** VSHU flush-mounted manifold cabinet or VSHA wall-mounted manifold cabinet

Manifold data			VSHU flush-mounted cabinet data			
Heating circuit	Part no.	Description	Frame width	Cabinet width	Part no.	Description
2 circuits	10081934	HKV2013A VA02	600 mm	548 mm	10079156	VSHU-2
3 circuits	10081935	HKV2013A VA03				
4 circuits	10081936	HKV2013A VA04				
5 circuits	10081937	HKV2013A VA05	750 mm	698 mm	10079245	VSHU-3
6 circuits	10081938	HKV2013A VA06				
7 circuits	10081939	HKV2013A VA07				
8 circuits	10081940	HKV2013A VA08	900 mm	848 mm	10078488	VSHU-4
9 circuits	10081941	HKV2013A VA09				
10 circuits	10081942	HKV2013A VA10				
11 circuits	10081943	HKV2013A VA11	1100 mm	1048 mm	10079247	VSHU-5
12 circuits	10081944	HKV2013A VA12				

Manifold data			VSHA wall-mounted cabinet data		
Heating circuit	Part no.	Description	Cabinet width	Part no.	Description
2 circuits	10081934	HKV2013A VA02	600 mm	10079243	VSHA-2
3 circuits	10081935	HKV2013A VA03			
4 circuits	10081936	HKV2013A VA04			
5 circuits	10081937	HKV2013A VA05	750 mm	10079244	VSHA-3
6 circuits	10081938	HKV2013A VA06			
7 circuits	10081939	HKV2013A VA07			
8 circuits	10081940	HKV2013A VA08	900 mm	10078487	VSHA-4
9 circuits	10081941	HKV2013A VA09			
10 circuits	10081942	HKV2013A VA10			
11 circuits	10081943	HKV2013A VA11	1100 mm	10079246	VSHA-5
12 circuits	10081944	HKV2013A VA12			





Selection of manifold cabinets for connecting the **HIU2 HKM** heat interface unit with an underfloor heating system

### Description

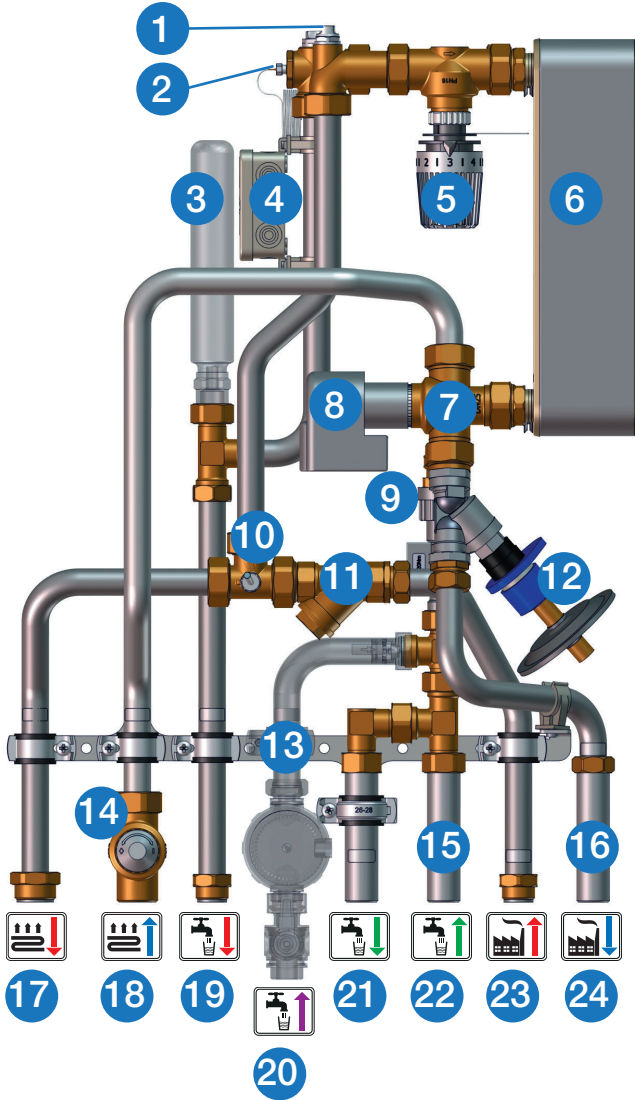
- 1 HIU2 HKM heat interface unit
- 2 Flush or wall-mounted cabinet for HIU2 HK/HKM heat interface unit
- 3 HKM-NT or HKM-HT connector set
- 5 2013A manifold
- 6 VSHU flush-mounted manifold cabinet or VSHA wall-mounted manifold cabinet

Manifold data			VSHU flush-mounted cabinet data			
Heating circuit	Part no.	Description	Frame width	Cabinet width	Part no.	Description
2 circuits	10081934	HKV2013A VA02	600 mm	548 mm	10079156	VSHU-2
3 circuits	10081935	HKV2013A VA03				
4 circuits	10081936	HKV2013A VA04				
5 circuits	10081937	HKV2013A VA05				
6 circuits	10081938	HKV2013A VA06				
7 circuits	10081939	HKV2013A VA07				
8 circuits	10081940	HKV2013A VA08	750 mm	698 mm	10079245	VSHU-3
9 circuits	10081941	HKV2013A VA09				
10 circuits	10081942	HKV2013A VA10				
11 circuits	10081943	HKV2013A VA11	900 mm	848 mm	10078488	VSHU-4
12 circuits	10081944	HKV2013A VA12				

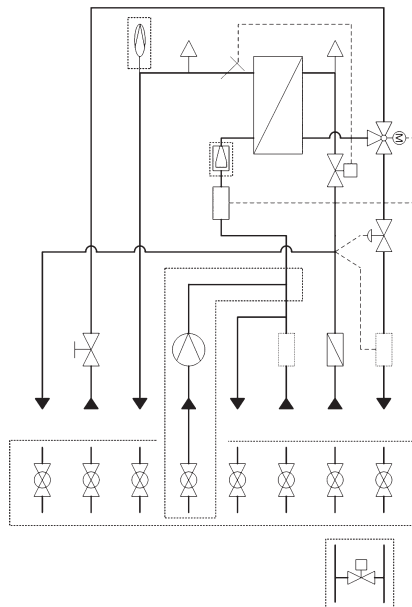
Manifold data			VSHA wall-mounted cabinet data		
Heating circuit	Part no.	Description	Cabinet width	Part no.	Description
2 circuits	10081934	HKV2013A VA02	600 mm	10079243	VSHA-2
3 circuits	10081935	HKV2013A VA03			
4 circuits	10081936	HKV2013A VA04			
5 circuits	10081937	HKV2013A VA05			
6 circuits	10081938	HKV2013A VA06			
7 circuits	10081939	HKV2013A VA07			
8 circuits	10081940	HKV2013A VA08	750 mm	10079244	VSHA-3
9 circuits	10081941	HKV2013A VA09			
10 circuits	10081942	HKV2013A VA10			
11 circuits	10081943	HKV2013A VA11	900 mm	10078487	VSHA-4
12 circuits	10081944	HKV2013A VA12			

## Construction

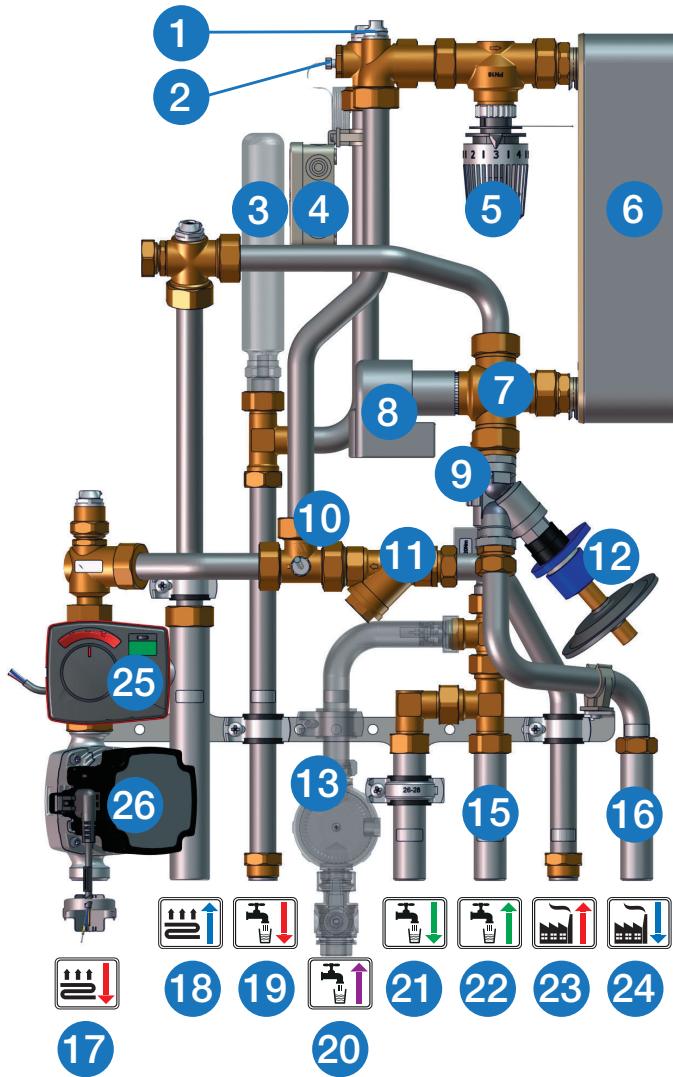
HIU2 HK



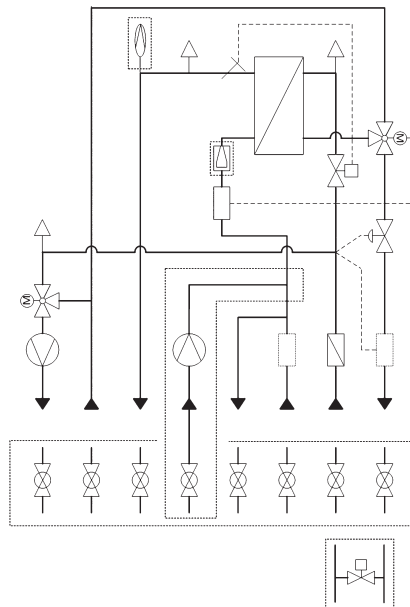
- 1 Air vent
- 2 Temperature sensor
- 3 Water hammer arrestor (optional)
- 4 Junction box
- 5 Thermostatic valve
- 6 Heat exchanger
- 7 Switch-over valve
- 8 Actuator
- 9 Flow monitor
- 10 Connection for flow temperature sensor on the heat meter
- 11 Strainer
- 12 Membrane regulator / Differential pressure regulator
- 13 Circulation set (optional)
- 14 Zone valve (heating circuit)
- 15 Adapter for cold water meter
- 16 Adapter for heat meter
- 17 Heating flow circuit
- 18 Heating return circuit
- 19 DHW outlet
- 20 Domestic water circulation inlet
- 21 Domestic cold water outlet
- 22 Domestic cold water inlet
- 23 Primary flow
- 24 Primary return



### HIU2 HKM

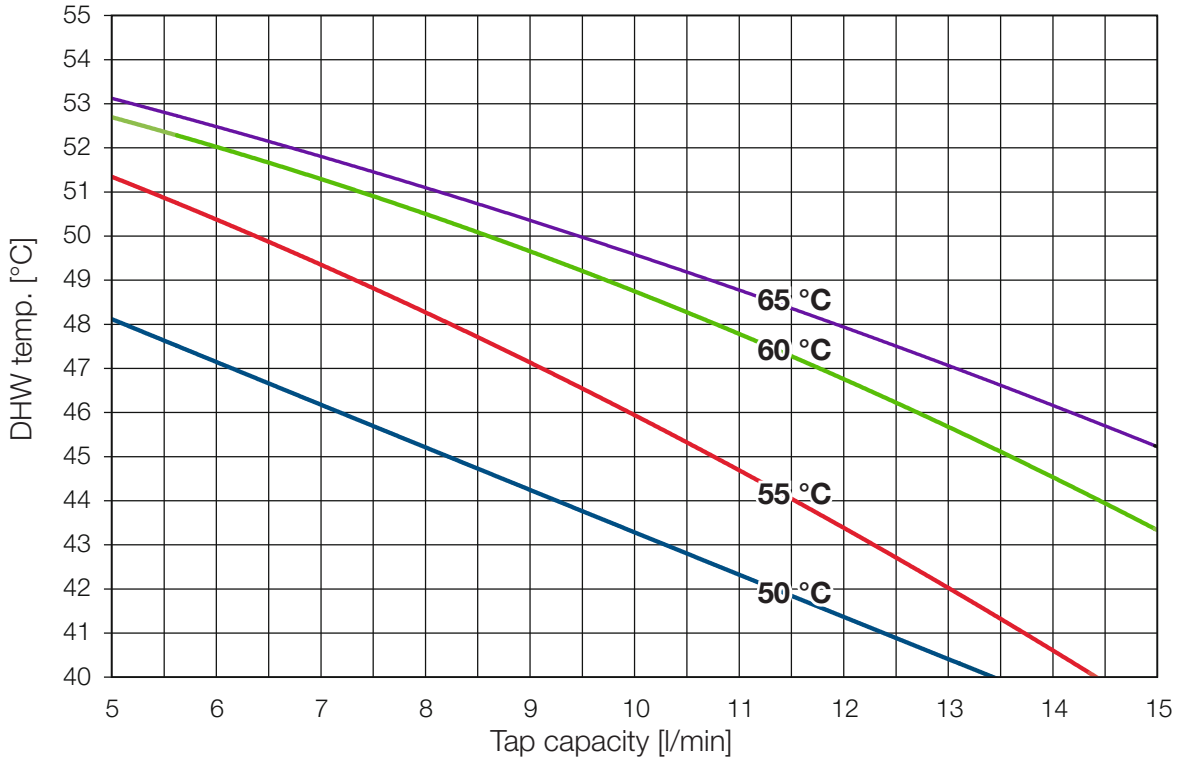


- 1 Air vent
- 2 Temperature sensor
- 3 Water hammer arrester (optional)
- 4 Junction box
- 5 Thermostatic valve
- 6 Heat exchanger
- 7 Switch-over valve
- 8 Actuator
- 9 Flow monitor
- 10 Connection for flow temperature sensor on the heat meter
- 11 Strainer
- 12 Membrane regulator / Differential pressure regulator
- 13 Circulation set (optional)
- 15 Adapter for cold water meter
- 16 Adapter for heat meter
- 17 Heating flow circuit
- 18 Heating return circuit
- 19 DHW outlet
- 20 Domestic water circulation inlet
- 21 Domestic cold water outlet
- 22 Domestic cold water inlet
- 23 Primary flow
- 24 Primary return
- 25 Servomotor including regulator
- 26 Heating circuit pump

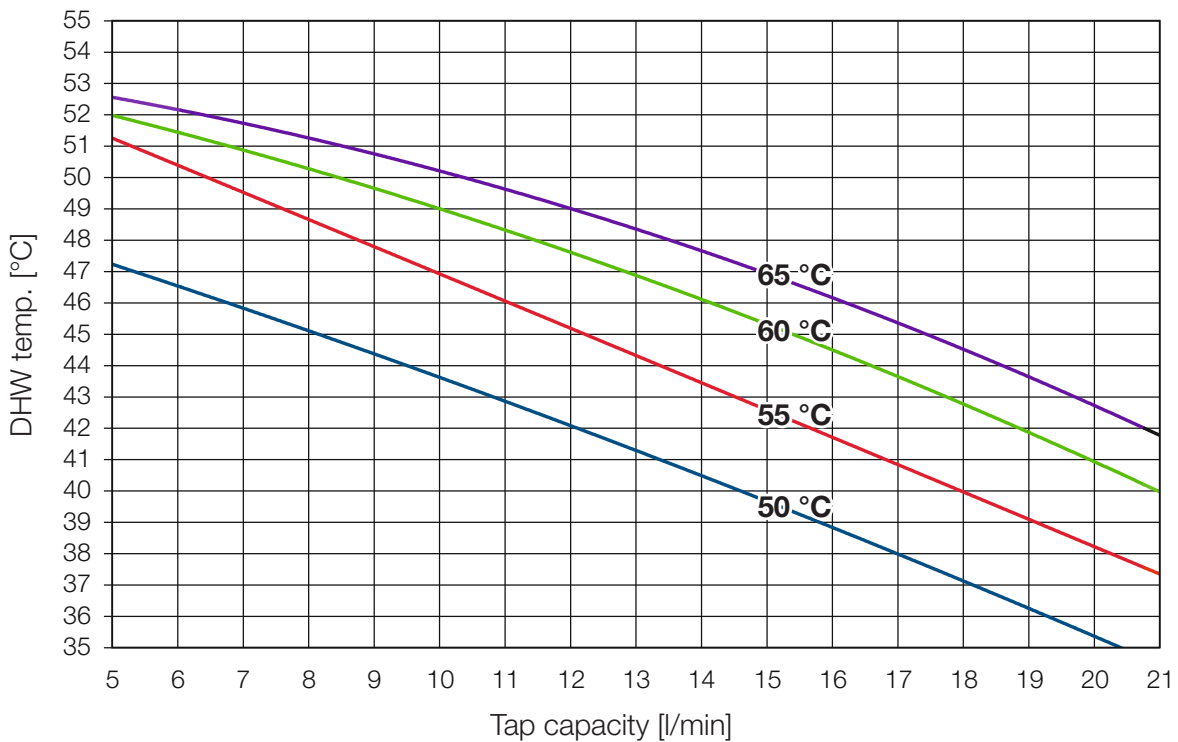


## Performance characteristics for HIU2 HK/HKM

**HIU 2 heat interface unit, 26 plates, 12 l/min., 200 mbar**  
**DHW temperature of secondary circuit, at various primary flow temperatures**



**HIU 2 heat interface unit, 36 plates, 17 l/min., 200 mbar**  
**DHW temperature of secondary circuit, at various primary flow temperatures**

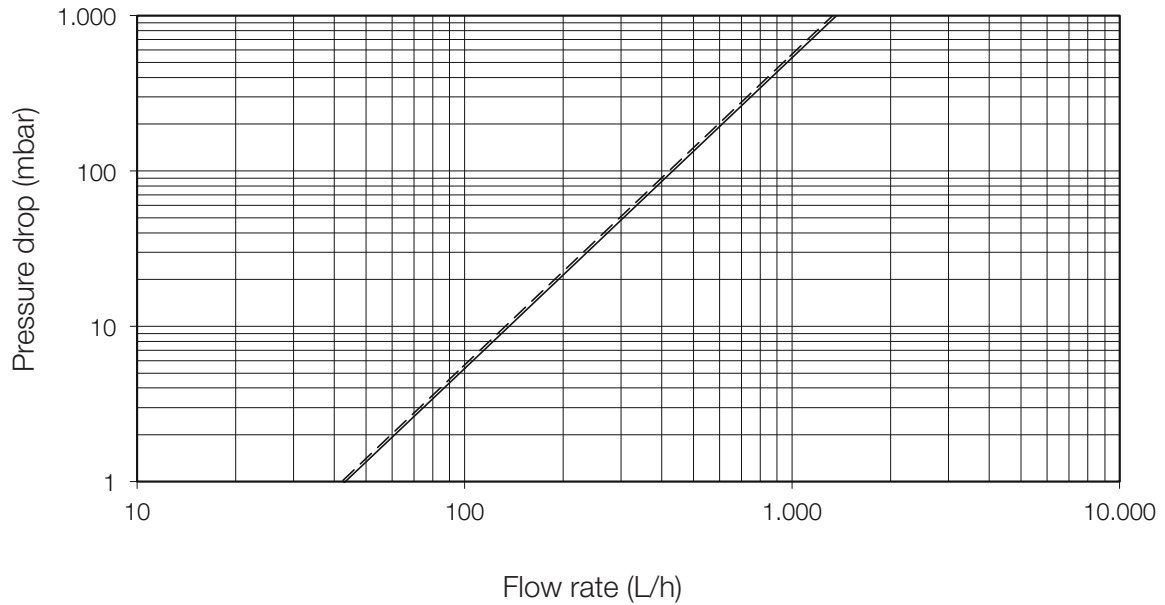


## Pressure drop for HIU2 HK/HKM

### Primary side, domestic hot water generation by means of a heat exchanger

26 plates, 12 l/min., Kvs value: 1.35 m<sup>3</sup>/h (dotted line)

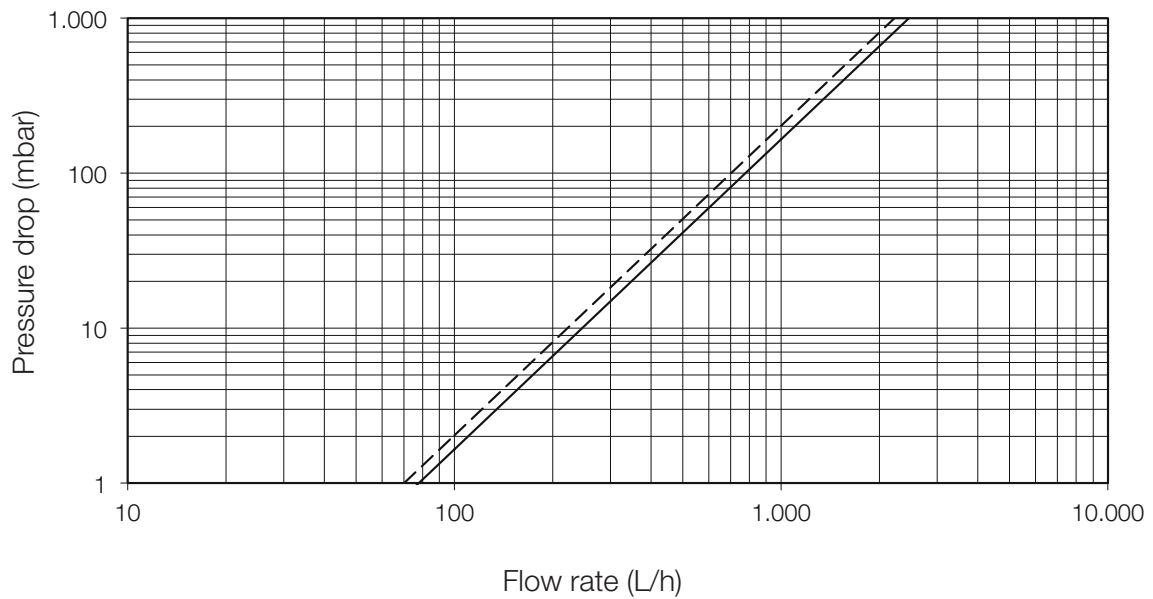
36 plates, 17 l/min., Kvs value: 1.42 m<sup>3</sup>/h (solid line)

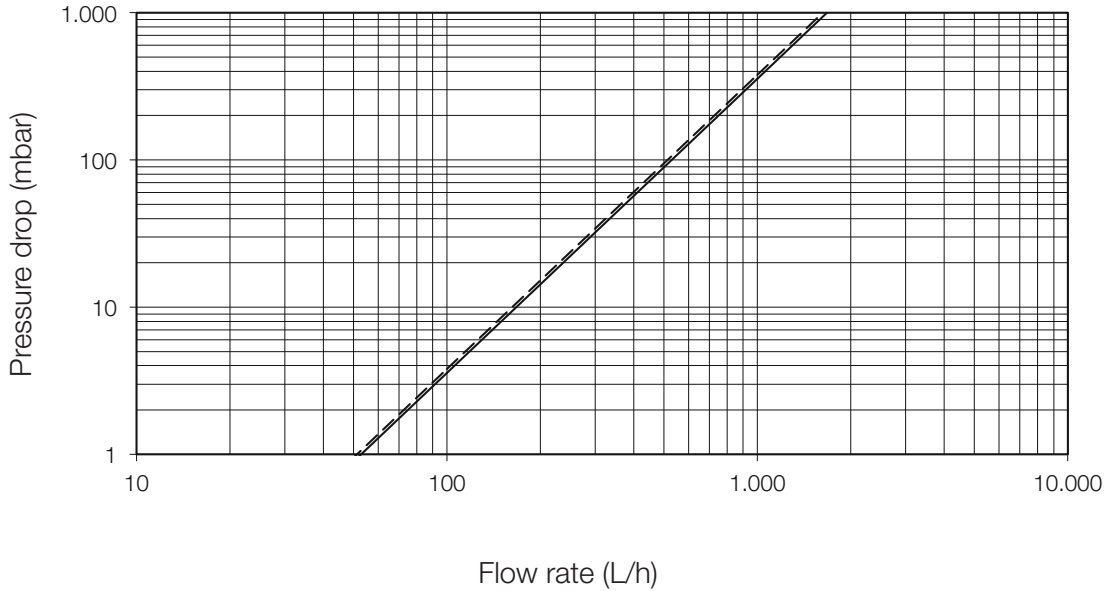
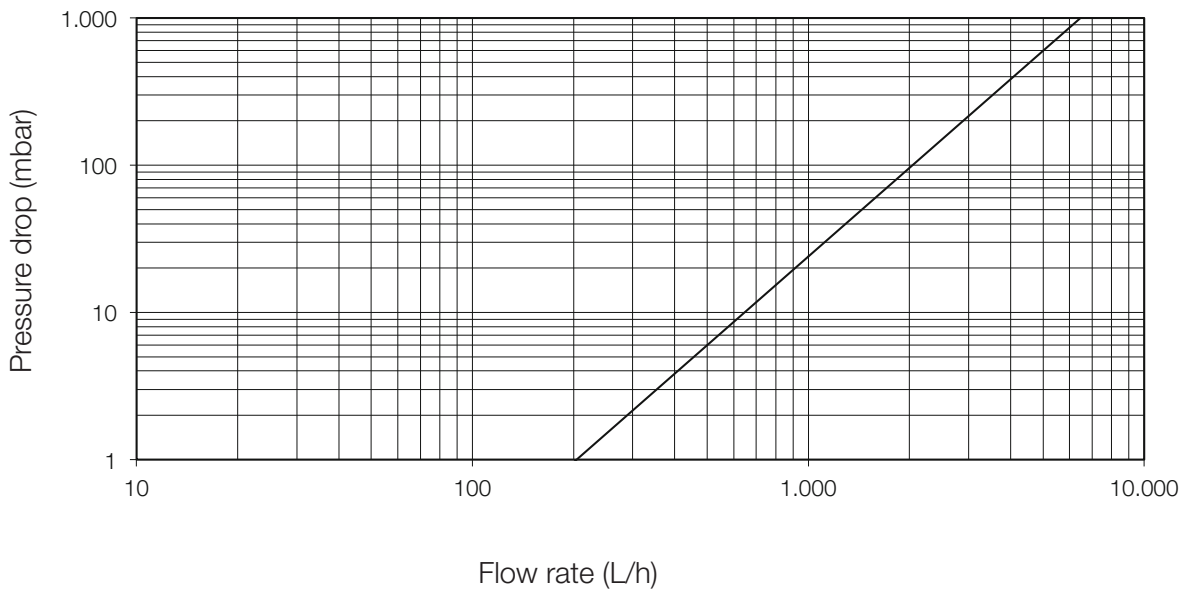


### Secondary side, domestic hot water

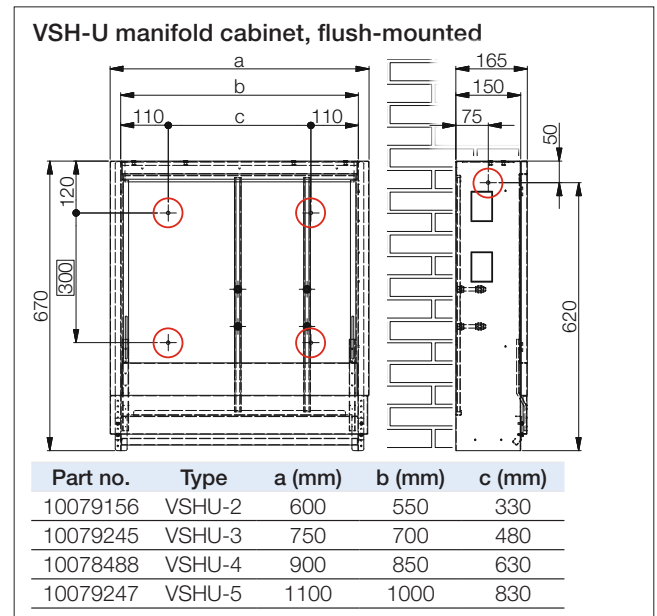
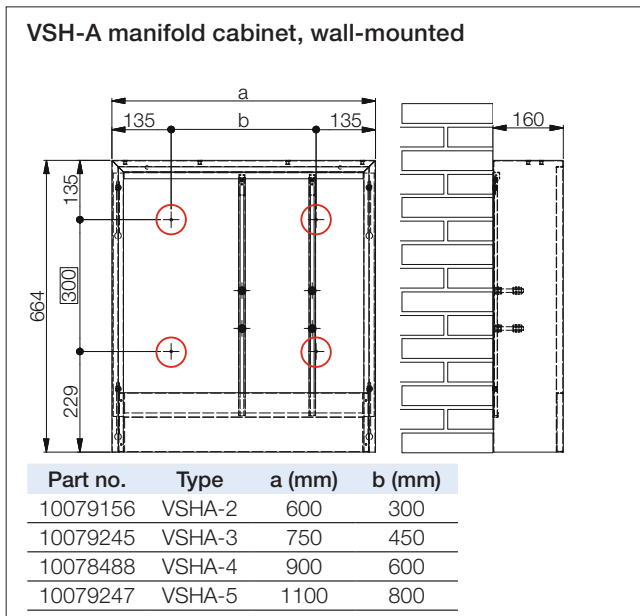
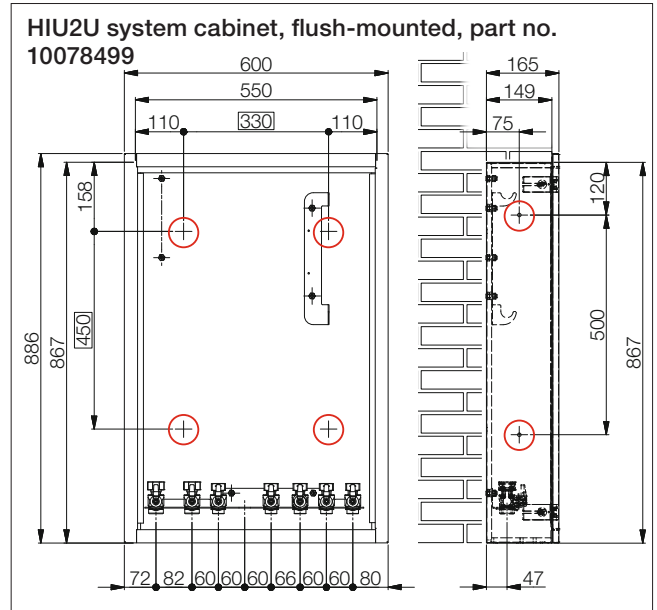
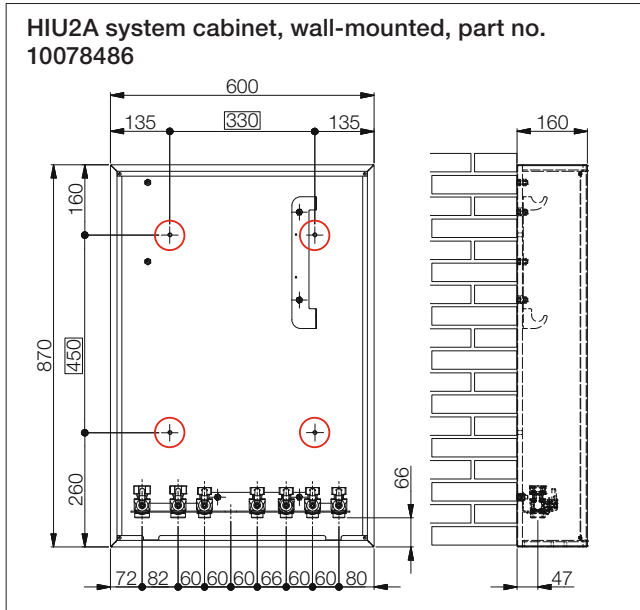
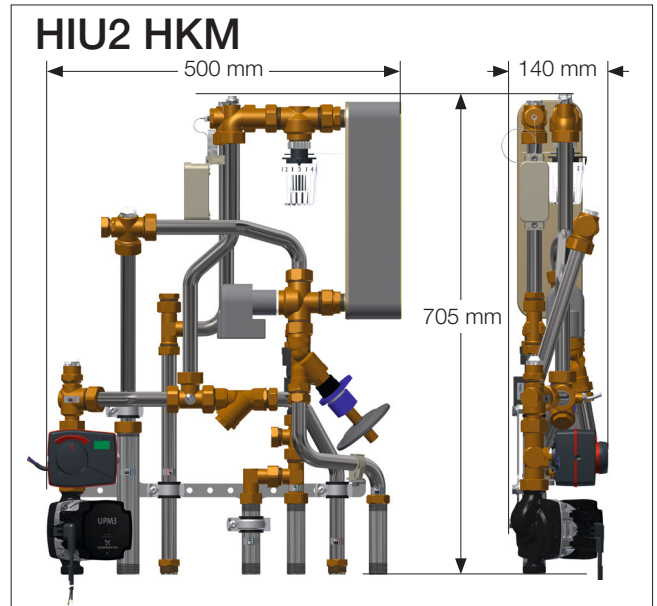
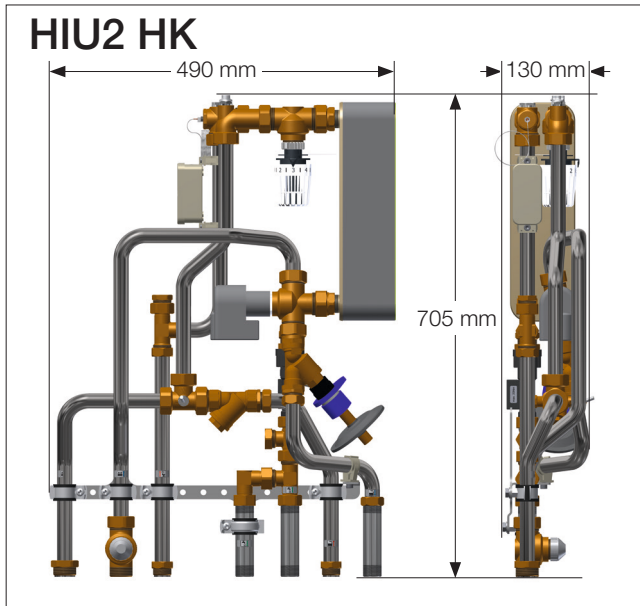
26 plates, 12 l/min. Kvs value: 2.2 m<sup>3</sup>/h (dotted line)

36 plates, 17 l/min. Kvs value: 2.5 m<sup>3</sup>/h (solid line)



**Primary side, heating requirement, heat interface unit**HIU 2 HKM, Kvs value: 1.6 m<sup>3</sup>/h (dotted line)HIU 2 HKM, Kvs value: 1.7 m<sup>3</sup>/h (solid line)**Secondary side, domestic cold water**Kvs value: 6.53 m<sup>3</sup>/h

## Dimensions [mm]



## Specification text

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### HIU 2 HK for unmixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks.

Direct connection to unmixed heating circuits such as radiators. Decentralised, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper soldering).

Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12 or 17 l/min.

Includes a priority switch for domestic hot water generation. Integrated adapters for heat and cold water meters. Ready-to-fit, space-saving design with clear arrangement of all valves. Uniform, modular design of connections and accessories.

### HIU 2 HKM for unmixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks. Direct connection to mixed heating circuits such as a radiant panel heating system. Decentralised, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper soldering). Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12 or 17 l/min.

Includes a priority switch for domestic hot water generation. Integrated adapters for heat and cold water meters. Ready-to-fit, space-saving design with clear arrangement of all valves. Uniform, modular design of connections and accessories.

Includes a pump mixer subassembly with electronic fixed set point control of the flow temperature.

### HIU2A system cabinet, wall-mounted

The robust housing is made of zinc-plated steel plate and has been designed to accommodate an HIU2 HK/HKM heat interface unit with all necessary components and accessories. The system cabinet consists of the body with front door, closure, a sturdy bracket for mounting the heat interface unit, and a pre-installed connecting rail with a shut-off unit comprising 7 ball valves. For quick removal at any time in the event of repair or exchange. The system cabinet and door are insulated in accordance with EnEV (German Energy Saving Ordinance). Body and front doors are painted white.

### HIU2U system cabinet, flush-mounted

The robust body is made of zinc-plated steel plate and has been designed to accommodate an HIU2 HK/HKM heat interface unit with all necessary components and accessories. The system cabinet consists of the body, a push-on frame with front door, closure, a sturdy bracket for mounting the heat interface unit and a pre-installed connecting rail with a shut-off unit comprising 7 ball valves. For quick removal at any time in the event of repair or exchange. The system cabinet and front door are insulated in accordance with EnEV (German Energy Saving Ordinance). Push-on frames and front doors are painted white.

**For detailed information on Watts heat interface units,  
please visit:**

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**WattsWater.eu**

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