

Brine-to-water heat pump, Basic series

Order reference: SI 17TE

Installation location: Indoors
Flow temperature max 58 °C
Casing, powder-coated

Brine-to-water heat pump for flexible use with external temperature controlled heat pump manager and economiser for high COPs. Extremely quiet through one-piece plastic cover and double vibration-isolated compressor. Variable connection options for brine and heating system connections on the rear wall of the casing. External sensor, return flow sensor and dirt trap included in the scope of supply; load contactor for brine circulating pump and soft starter fitted as standard. Equipment for the brine circuit and brine circuit manifold must be ordered separately.

The heat pump complies with the valid standards and safety regulations as well as the Technical Specifications for Electrical Installations (TAB) of the electrical utility companies and is VDE certified.



Technical data SI 17TE

Dimplex Brine-to-water heat pump, Basic series (Low temperature)

Order reference	SI 17TE
Set-up / Colour	Indoors / White (similar to RAL 9003)
Temperature operating limits for heating water / Brine	58 °C / -5 °C
Temperature operating limits for brine	-5 °C to 25 °C
Heat output / COP at B0/W50*	kW/- 16,70 / 3,20
Heat output / COP at B0/W35*	kW/- 17,10 / 4,60
Electrical nominal power consumption at B0/W35	kW 3,72
Refrigerant R407C	kg 2,80
Flow rate (heat source) at ext. pressure differential	m ³ /h / Pa 3.8 / 9000
Heating water flow rate with an int. pressure differential of	m ³ /h / Pa 1.50 / 4000
Dimensions (W x D x H)**	mm 650 x 462 x 805
Weight (incl. packing)	kg 133
Control voltage	V 230
Supply voltage	3/PE~400V, 50 Hz
Starting current with soft starter	A 27 SA
Fuse	A 16
Device connections for heating	1 1/4"
Device connections for heat source	1 1/4"

* The specified values have the following meaning, e.g. B0/W35: heat source temperature 0 °C, heat outlet temperature 35 °C.

** Please note that additional space is required for pipe connections, operation and maintenance.

Description	Order ref.	Article number	Sample item	Item	Price
Heat pumps					
Brine-to-water heat pump, Basic series	SI 17TE	352900	1		
Elasticated sound insulation underlay strips	SYL 250	352260	1		
Heat source accessories					
Brine package for brine-to-water heat pumps	SZB 700	336700	1		
Brine circuit manifold connection package	AP SVT	348900	1		
2-way brine circuit manifold	SVT 200	348910			
3-way brine circuit manifold	SVT 300	348920	1		
4-way brine circuit manifold	SVT 400	348930	1		
Brine circuit low-pressure switch	SWPR 500	337500			
Brine circuit antifreeze (20 l)	AFN 825	328610	5		
Plate heat exchanger using water as heat source in case of pollution	WT 733	349010			
Hydraulic accessories					
Floor-mounted buffer tank (200 l)	PSW 200	339830	1		
2 kW immersion heater for back-up heating	CTHK 631	336180			
2.9 kW immersion heater for back-up heating	CTHK 632	335910			
4.5 kW immersion heater for back-up heating	CTHK 633	322140			
6 kW immersion heater for back-up heating	CTHK 634	322150			
Universal buffer tank (500 l)*	PSW 500	339210			
Immersion heater pipe assembly*	HDLR 450	337450			
Compact manifold with overflow valve	KPV 25	346590	1		
Differential pressureless manifold extension module	EB KPV	348650	1		
Circulating pump for main heat pump circuit	UP 60	340300	1		
Circulating pump for main heat pump circuit	UP 80	340310			
Dual differential pressureless manifold*	DDV 32	348450			
Brine-to-water heat pump heating connection set	VSH BS	347790			
Manifold bar for connecting two heating circuits	VTB 25	339870			
Unmixed heating circuit module	WWM 25	346600	1		
Circulating pump depending on heating system pressure drop	bauseits				
Mixed heating circuit with temperature sensor*	MMH 25	348640			
Mixer module for bivalent systems	MMB 25	348880			
Fan convector for heating/cooling with external thermostat*	HL 16SK	351780			
Fan convector for heating/cooling with external thermostat*	HL 26SK	351790			
Fan convector for heating/cooling with external thermostat*	HL 36SK	351800			
DHW preparation accessories					
Hot water cylinder (400 l) with temperature sensor*	WWSP 880	337880			
Design hot water cylinder (400 l)	WWSP 442E	353370	1		
6 kW flange heater for hot water cylinder	FLH 60	338060			
2/2.7/4 kW flange heater for hot water cylinder	FLHU 70	338070	1		
Flange heater for hot water cylinder 230 V/2.5 kW	FLH 25M	349430			
Hot water cylinder (500 l) with temperature sensor*	WWSP 900	339220			
Manifold bar for KPV 25 and HHM 25 connection	VTB 25	339870	1		
Hot water module	WWM 25	346600	1		
Circulating pump for main heat pump circuit	UP 80	340310	1		
Combi cylinder for heating and domestic hot water preparation with central flow*	PWD 750	349100			
Thermostat for heating and domestic hot water	KRRV 003	322070			
Accessories for passive cooling					
Passive cooling station with cooling controller*	PKS 14	342460			
Passive cooling controller*	WPM PK	348190			
Three-way distribution valve for passive cooling*	DWU 40	347770			
Hydraulic passive cooling accessories*	ZWU 32	348950			
Control accessories					
Swimming pool / remote fault indicator relay module	RBG WPM	339700			
Heat pump manager remote control*	FWPM 470	337470			
Remote diagnostics hardware package	RDS	353790			
Remote diagnostics hardware package (serial)	LDS	353770			
Remote diagnostics hardware package (USB)	LDS USB	353780			
Control accessories (cooling)					
Room climate control system for temperature and humidity measurement	RKS WPM	342220			

Description	Order ref.	Article number	Sample item	Item	Price
Heating/cooling on/off room temperature controller*	RTK 501	343080			
Heating/cooling on-off room temperature controller in flat switch mounting frame for flush mounting*	RTK 501 U	350960			
Extended dew point monitoring*	TPW WPM	350970			
Start-up (no discount available)					
Heat pump (heating only) start-up	IN 01 WP	341750	1		

* Other specific accessories available / required

Notes:
The heat source accessories are designed for ground heat collectors according to the project planning documentation. The free compression must be checked if the dimensions deviate or if borehole heat exchangers are used.

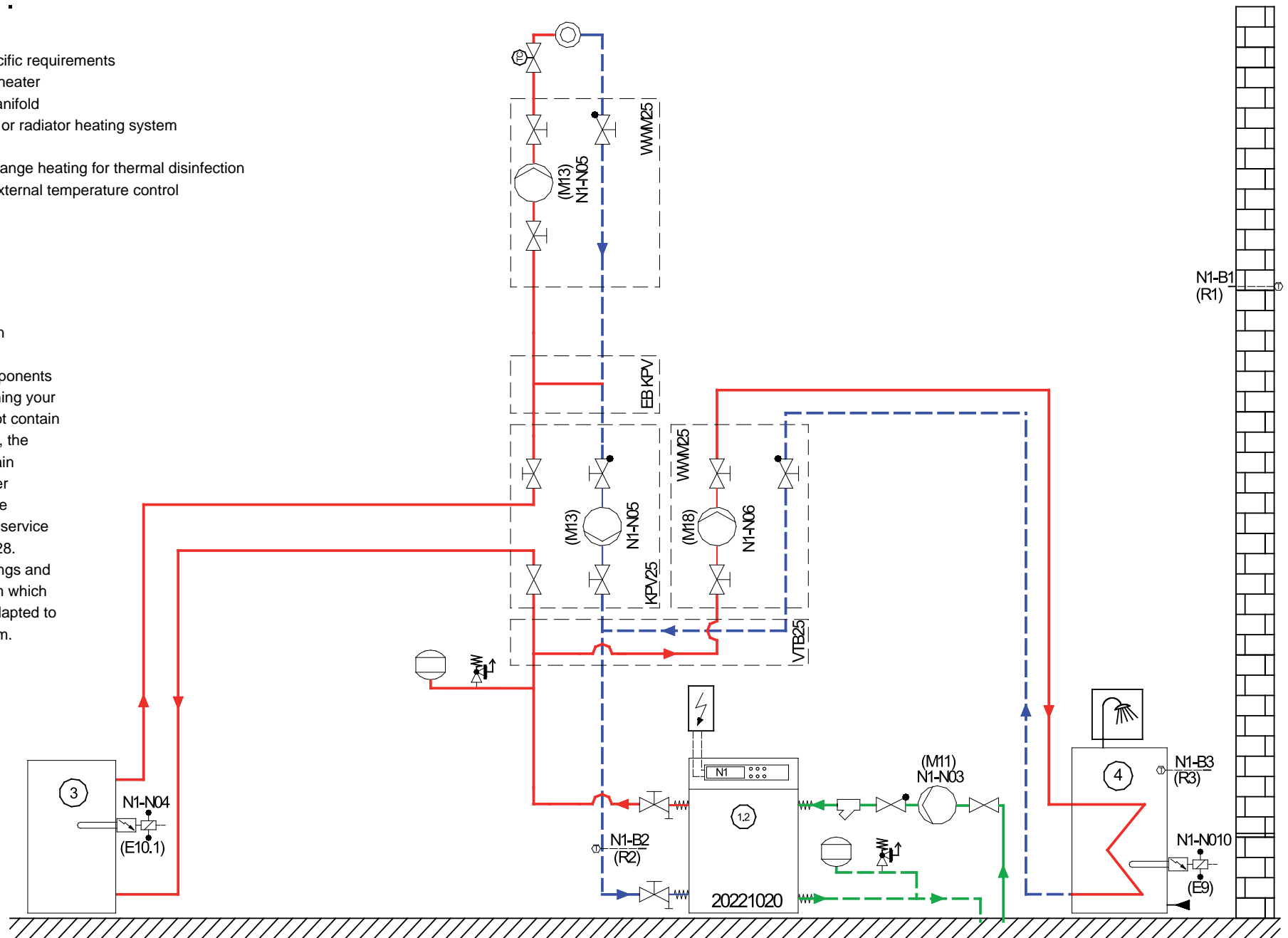
Important information:
The combination of the components and the quantities indicated represent a non-binding sample system, which needs to be tested and individually adapted as required. Pump dimensioning must be reviewed according to the pressure loss of the system and the minimum heating water flow rate of the heat pump.

SELECTED STEPS:

1. Brine-to-water heat pump
2. Universal for customer-specific requirements
3. Heat pump and immersion heater
4. Differential pressureless manifold
5. 1 heating circuit for a panel or radiator heating system
6. Without cooling
7. DHW with heat pump and flange heating for thermal disinfection
8. Heat pump manager with external temperature control

Note:

The given hydraulic integration schematic is a schematic representation of the key components and serves as an aid for planning your customized system. It does not contain all the required safety devices, the components needed to maintain constant pressure, or any other additional valves which may be required for maintenance and service work as stipulated by EN 12828. The heat pump manager settings and any external regulation system which may be connected must be adapted to the present integration diagram.



Legend:

1.	Heat Pump	E9	Flange heater, hot water
1.1	Air-to-water heat pump	E10	2nd heat generator (HG2)
1.2	Brine-to-water heat pump	E10.1	Immersion heater
1.3	Water-to-water heat pump	E10.2	Oil/gas boiler
1.4	Reversible air-to-water heat pump	E10.3	Solid fuel boiler
1.5	Reversible brine-to-water heat pump	E10.5	Solar energy system
1.6	Reversible water-to-water heat pump	F7	Safety temperature monitor
2.	Heat pump manager	K20	Contactora for 2nd heat generator
3.	Buffer tank	K21	Contactora for immersion heater hot water
3.1	Parallel buffer tank	M11	Primary pump for heating operation
4.	Hot water cylinder	M12	Primary pump for cooling operation
5.	Swimming pool heat exchanger	M13	Heat circulating pump for main circuit
6.	Passive cooling station with cooling controller N6	M14	Heat circulating pump for heating circuit 1
7.	Heating and silent or dynamic cooling	M15	Heat circulating pump for heating circuit 2
8.	Fan convector with 4-wire connection	M16	Auxiliary circulating pump
9.	Cooling circuit only	M17	Cooling circulating pump
10.	Heating circuit only	M18	Hot water circulating pump
13.	Heat source	M19	Swimming pool water circulating pump
		MA	Mixer open
		MZ	Mixer closed
		N1	Heating controller
		N2	Cooling controller for reversible heat pumps
		N3/N4	Room climate control stations
		N6	Cooling controller for passive cooling
		N12	Solar controller
		R1	External wall sensor
		R2	Return flow sensor
		R3	Hot water sensor
		R4	Return flow sensor for cooling water
		R5	Temperature sensor for heating circuit 2
		R9	Flow sensor (antifreeze)
		R11	Flow sensor for cooling water
		R13	Sensor for heating circuit 3 / bivalent-renewable
		TC	Room temperature controller
		Y5	Three-way distribution valve
		Y6	Two-way valve
		Y7	Three-way mixing valve
		Y8	Three-way valve (closing time max. 10 sec.)

Domestic hot water distribution system:

DDV 32	Dual differential pressureless manifold (up to 2.5 m ³ /h)*
EB KPV	Extension module for compact manifold (up to 2.0 m ³ /h)*
KPV 25	Compact manifold with overflow valve (up to 1.3 m ³ /h)* In combination with EB KPV (up to 2.0 m ³ /h)*
MMB 25	Mixer module, bivalent (up to 2.0 m ³ /h)*
MMH 25	Mixer module for heating circuit
SST 25	Solar station for hot water
VTB 25	Manifold bar (up to 2.5 m ³ /h)*
WWM 25	Hot water module / unmixed heating circuit (up to 2.5 m ³ /h)*

* Recommended max. heating waterflow