

Data sheet SI 50TU



Highly efficient brine-to-water heat pump for indoor installation.

Installation location:

Max. flow temperature: 62 °C

Casing colour: White (similar to RAL 9003)

Heat pump for heating purposes with two performance levels for increased efficiency in partial load operation for indoor installation and integrated heat pump manager WPM Econ5Plus with standard display. Variable connection options for brine and heating connections on the back board of the casing. A sound-optimised metal casing and the integrated solid-borne sound insulation with free-swinging compressor base plate make direct connection with the heating system possible. Access for service work from the front, no minimum clearance required on the sides, accessible from underneath with a lift truck. High coefficient of performance through electronic expansion valve, COP booster and electronic pump control depending on the temperature spread in the brine and generator circuit. Sensor monitoring of the refrigeration circuit for a high degree of operational safety and integrated thermal energy metering (display of the calculated quantity of thermal energy for heating, domestic hot water and swimming pool water preparation). FWO function for more efficient domestic hot water preparation with increased domestic hot water temperatures and volumes of water to be drawn through optimised tank charging.

Universal design with two compressors for output regulation when operating at partial load, optional domestic hot water preparation and flexible expansion options for:

- Bivalent or bivalent-renewable operating mode
- Distribution systems with unmixed and mixed heating circuits
- Use of load-variable tariffs (SG Ready)

Soft starter, flow and return sensors for the brine and heating circuit integrated. Dirt trap for brine circuit, external sensor (standard NTC-2),

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circulating pumps for brine and heat generator circuit in the scope of supply (observe the free compression). Brine circulating pump 12 m delivery height at 6 m³/h, flange connection DN 40, installation length 250 mm; heat generator circuit pump 12 m delivery height at 5 m³/h (thread connection R 1 1/4", (pump thread 2"), inside micrometer 180 mm! Heat pump white textured (similar to RAL 9003). Brine package SZB must be ordered separately.

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Technical data

Dimplex Highly efficient brine-to-water heat pump for indoor installation. (Medium temperature)

Heat pump code	4018
Max. flow temperature	62 Grad
Lower operating limit heat source (heating operation) / Upper operating limit heat source (heating operation)	-5 Grad / 25 Grad
Sound power level	61 dB(A)
Refrigerant / Amount of refrigerant	R410A / 16,8 kg
Max. heating water flow rate / Pressure drop	8,8 m3 pro h / 5000 Pa
Heat source flow (min.)	9,6 m3 pro h
Width x Height x Depth **	1000 x 1665 x 805 mm
Weight	465 kg
Rated voltage	3/N/PE ~400 V, 50 Hz
Starting current	56 A
Fuse protection HP with separate infeed ***	C 40 A
Heat pump seal of approval (valid until)	Yes / 23.11.2022

*A water-to-water heat pump must be used if borehole heat exchangers are used which work using water as the heat transfer medium.

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

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Description	Order ref.	Article number	Sample item	Item
Heat pumps				
Elasticated sound insulation underlay strips	SYL 250	352260	0	
Connecting flange for heating and brine circuits	AF 40	351900	0	
DN 40 dirt trap	SMF 40	362150	0	
DN 40 double-sphere rubber expansion joint	KOMP 40	362070	0	
Hydraulic accessories				
Free-standing heating buffer tank 1000 litre	BTH 1000	382090	0	
Universal buffer tank (500 l)	PSW 500	339210	1	
Transport aid for Hydro-Tower / LAW indoor unit	TH 270	370430	0	
RWT 500 finned tube heat exchanger	RWT 500	339840		
Immersion heater 4.5 kW; ~230 V	CTHK 630	363610	0	
Immersion heater 2.0 kW; ~230 V	CTHK 631	336180	0	
Immersion heater 2.9 kW; ~400 V	CTHK 632	335910	0	
Immersion heater 4.5 kW; ~400 V	CTHK 633	322140	0	
Immersion heater 6.0 kW; ~400 V	CTHK 634	322150	0	
Immersion heater 7.5 kW	CTHK 635	322160	0	

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Description	Order ref.	Article number	Sample item	Item
Free-standing buffer tank 1000 l	PSW 1000	361640	0	
Manifold bar for DN 50 modules	VTB 50	367730	0	
Domestic hot water module/unmixed heating circuit module	WWM 50	364250	1	
Victaulic coupling on R 2"	VCC 50	367750	0	
Electronically controlled wet-running pump, self-regulating	UPE 120-32K	374740	1	
High-efficiency wet-running pump PWM with coupling relay	UPH 120-32PK	375750	0	
Electronically controlled circulating pump with coupling relay	UPH 80-40F	371800	0	
DN 50 double-sphere rubber expansion joint	KOMP 50	362080	0	
Heating accessories				
Heat pump heater heating/passive cooling, depth 16.5 cm	WPHK 165080	381210	72	
Heat pump heater heating/passive cooling, depth 16.5 cm	WPHK 1650100	381220	72	
Heat pump heater heating/passive cooling, depth 16.5 cm	WPHK 1650140	381230	72	
Heat pump heater heating/passive cooling, depth 16.5 cm	WPHK 1650180	381240	72	
Heat pump heater heating/passive cooling, depth 21.5 cm	WPHK 2150100	381250	72	
Heat pump heater heating/passive cooling, depth 21.5 cm	WPHK 2150140	381260	72	
Heat pump heater heating/passive cooling, depth 21.5 cm	WPHK 2150180	381270	72	
Heat pump heater vertical	WPHKV 1220053	381280	72	
DHW preparation accessories				

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Description	Order ref.	Article number	Sample item	Item
Domestic hot water cylinder (500l) with temperature sensor	WWSP 556	370080	1	
FLH 25M flange heater	FLH 25M	349430	0	
Flange heater for domestic hot water	FLH 60	338060	0	
Flange heater for domestic hot water	FLHU 70	338070	0	
Safety valve combination	SVK 852	326660	0	
Domestic hot water cylinder, 700 litres	WWSP 770	376730	0	
3-way reversing valve DN 50	DWV 50	374800	1	
Actuator for 3-way reversing valves DWV 25 - 50	EMA DWV	374760	1	
Pump unit DN 32 for direct connection of the domestic hot water cylinder	WPG 32	356040	0	
Control accessories				
Extension for an Ethernet network connection	NWPM Touch	378800	1	
Expansion module WPM for a KNX/EIB connection	KNX WPM	376350	0	
Extension for a Modbus RTU connection	LWPM 410	339410	0	
Outside temperature sensor with casing	FG 3115	336620	0	

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Description	Order ref.	Article number	Sample item	Item
Temperature sensor NTC-10 with metal sleeve	NTC-10M	363600	0	
Accessories for passive cooling				
Passive cooling station with cooling controller and 3-way reversing valve DN 40	PKS 25 Econ	362940	0	
Passive cooling controller	WPM Econ PK	360000	0	
Plate heat exchanger for SI 50	WTE 50	358440	0	
Plate heat exchanger, copper-soldered	WTU 50	362370	0	
Control accessories (cooling)				
Room climate station for temperature and humidity measurement	RKS WPM	342220	0	
Dew point monitor	TPW WPM	350970	0	
Solar thermal systems accessories				
400l solar cylinder for heat pump	WWSP 432 SOL	361080	0	
500 l solar cylinder for heat pump	WWSP 540 SOL	361090	0	

* Other specific accessories available / required

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.

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