

Device information	SI 130TUR+
Design	
- Heat source	Brine
- Model	Universal design reversible
- Regulation	WPM EconR, integrated
- Thermal energy metering	Integrated
- Installation location	Indoors
- Performance levels	2
Operating limits	
- Max. flow temperature 7)	58 °C +/- 2
- Flow temperature cooling min. / Flow temperature cooling max.	7 / 20 °C
- Lower operating limit heat source (heating operation) / Upper operating limit heat source (heating operation)	-5 / 25 °C
- Lower operating limit heat source (cooling operation) / Upper operating limit heat source (cooling operation)	10 / 30 °C
- Antifreeze	Monoethylenglycol
- Minimum brine concentrate	25 %
Flow / sound	
- Max. heating water flow rate / Pressure drop	19 m³/h / 13000 Pa
- Minimum heating water flow rate / Pressure drop	9 m³/h / 2900 Pa
- Cooling water flow according to EN 14511 / Pressure drop 12)	19,0 m³/h / 13000 Pa
- Additional heat exchanger flow / Internal pressure drop of additional heat exchanger	6 m³/h / 24500 Pa
- Heat source flow (min.) / Pressure drop evaporator EN 14511	24,5 m³/h / 21500 Pa
- Sound power level device	76 dB (A)
- Sound pressure level in 1 m (indoors) 2)	60 dB (A)
Dimensions/weight and filling quantities	
- Dimensions (W x H x D) 3)	1350 x 1890 x 775 mm
- Weight	830 kg
- Thread type, heating connection / Connection heating	R / 3 inch
- Thread type, heat source connection / Heat source connection	R / 3 inch
- Thread type connection additional heat exchanger / Connections heating additional heat exchanger	G / 1 ½ inch
- Refrigerant / Amount of refrigerant	R410A / 16,9 kg
- Oil type / Oil quantity	Polyolester (POE) / 10 l
Electrical connection	
- Rated voltage / Fuse protection	3/N/PE ~400 V, 50 Hz / C 80 A
- Control voltage / Control voltage fuse protection	1/N/PE ~230 V, 50 Hz / C 16 A
- Degree of protection	IP 21
- Initial current limiter	Yes
- Starting current with soft starter	108 A
- Nominal power consumption according to EN 14511 at B0/W35 1)	25,83 kW
- Nominal current at B0/W35 / Nominal current cos phi	46,6 A / 0,8
- Power consumption of the compressor protection	120 W
Complies with the European safety regulations	
Additional model features	
- Water in device protected against freezing 4)	Yes
- 4-way valve for heating and cooling 9)	Yes

Heat output / coefficient of performance (COP) according to EN

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Heating compressor 1	W35	W45	W55
B-5	49,40 kW / 3,96	47,30 kW / 3,15	
B0	57,60 kW / 4,59	55,20 kW / 3,68	51,80 kW / 2,83
B25	105,00 kW / 7,88	98,90 kW / 6,29	90,50 kW / 4,88
Heating compressor 2	W35	W45	W55
B-5	92,80 kW / 3,75	92,80 kW / 3,12	89,80 kW / 2,45
B0	108,50 kW / 4,21	105,10 kW / 3,49	103,10 kW / 2,82
B25	191,20 kW / 7,07	184,20 kW / 5,85	177,70 kW / 4,81

Cooling capacity / energy efficiency ratio (EER) according to EN

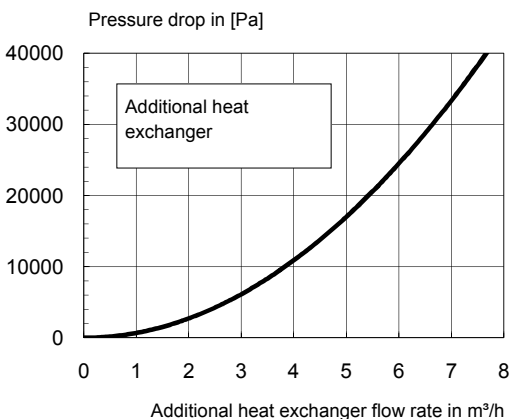
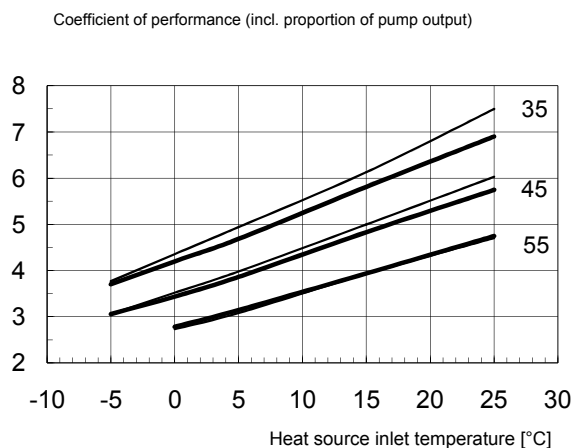
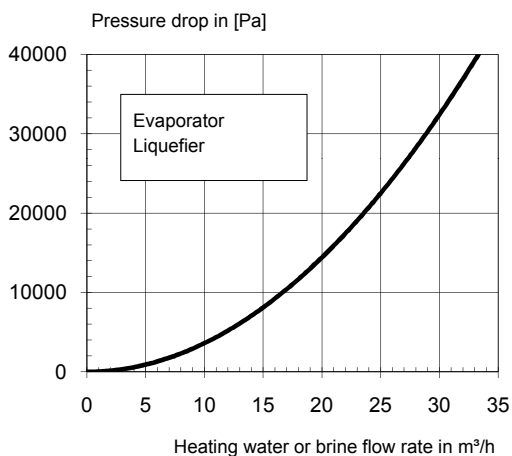
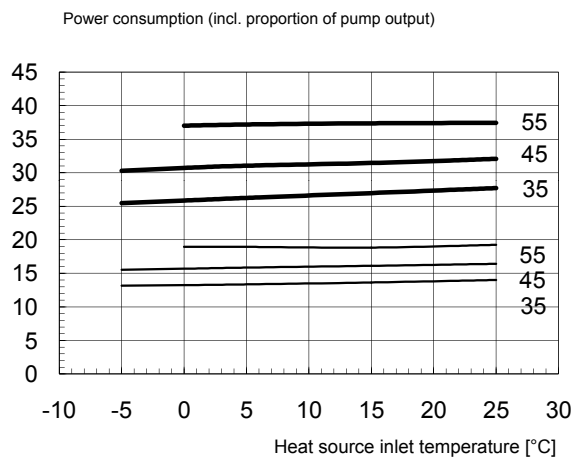
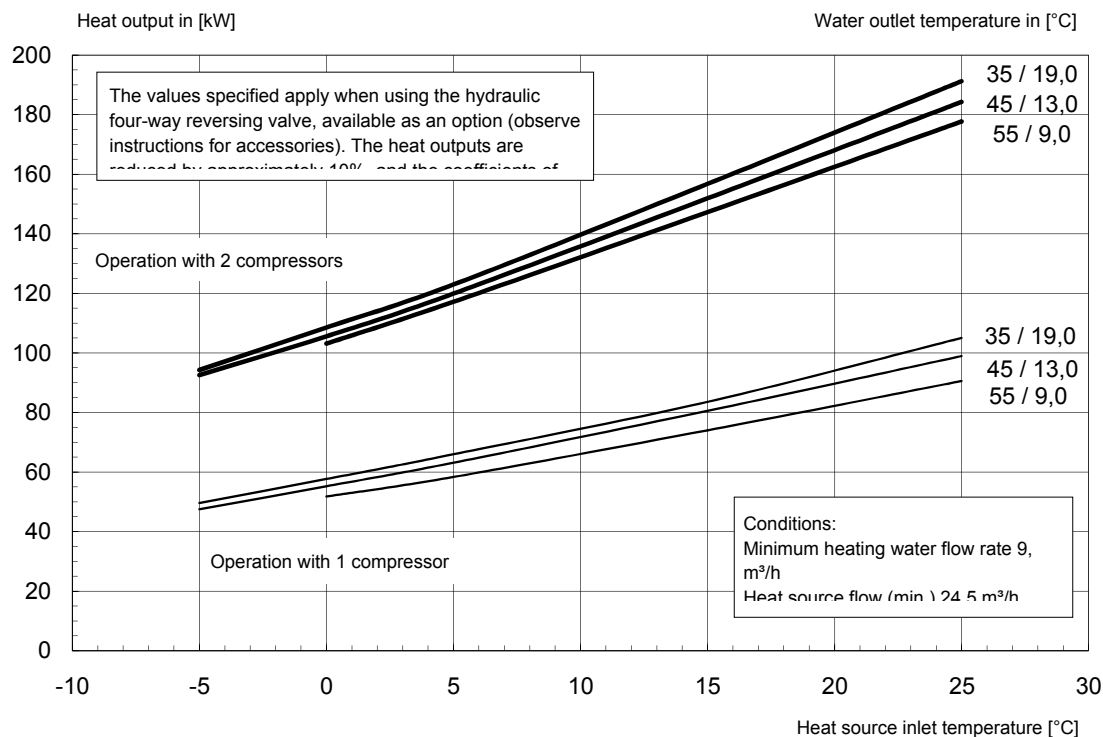
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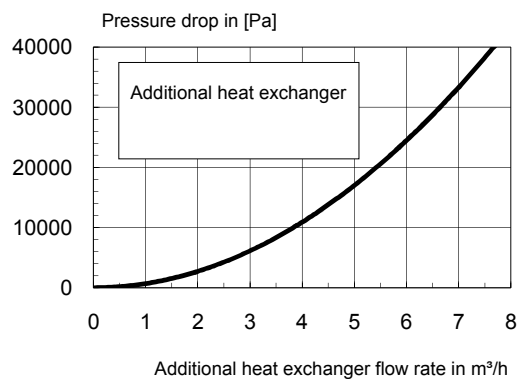
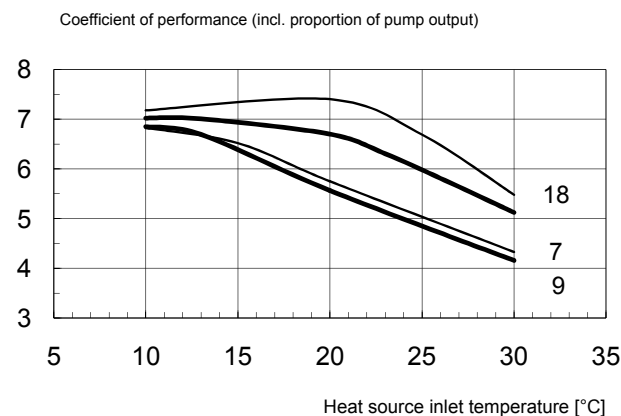
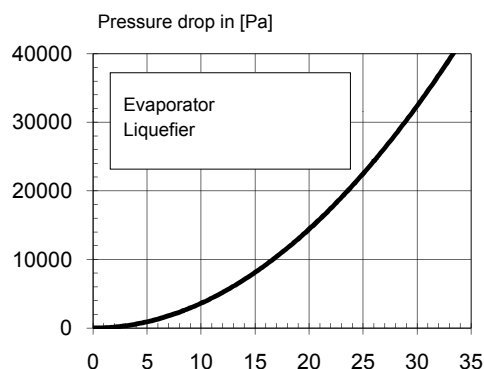
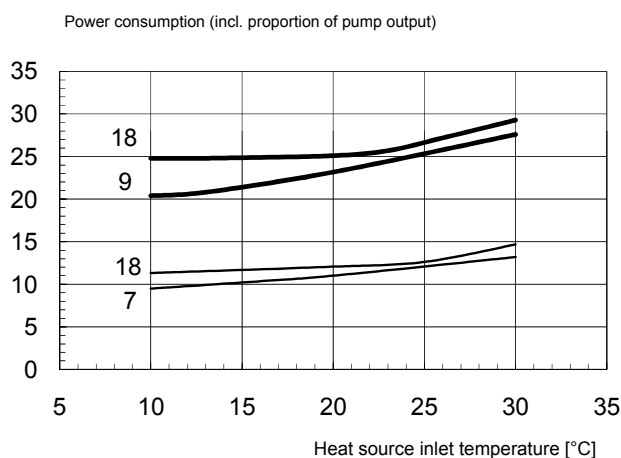
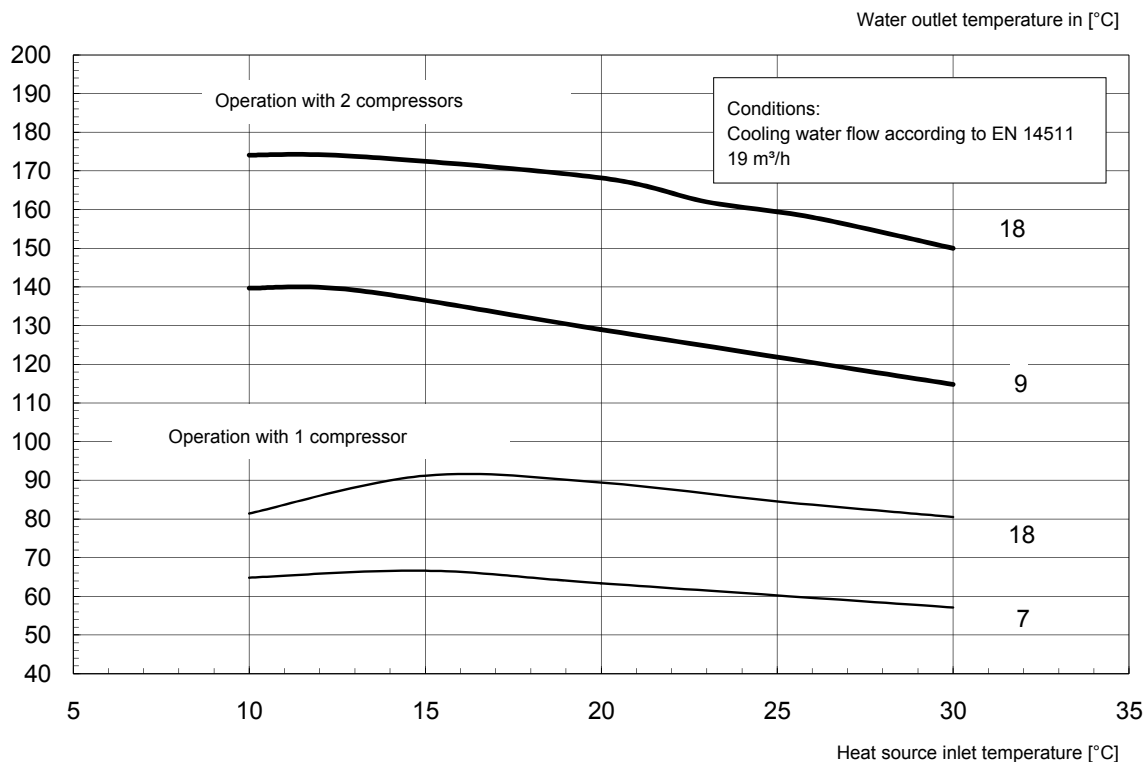
Cooling compressor 1	W7	W18	
B10	64,80 kW / 6,80	100,00 kW / 9,00	
B20	63,40 kW / 5,80	89,40 kW / 7,40	
Cooling compressor 2	W9	W10	W18
B10	139,70 kW / 6,90		174,10 kW / 7,00
B20	129,00 kW / 5,60	129,00 kW / 5,60	168,20 kW / 6,70

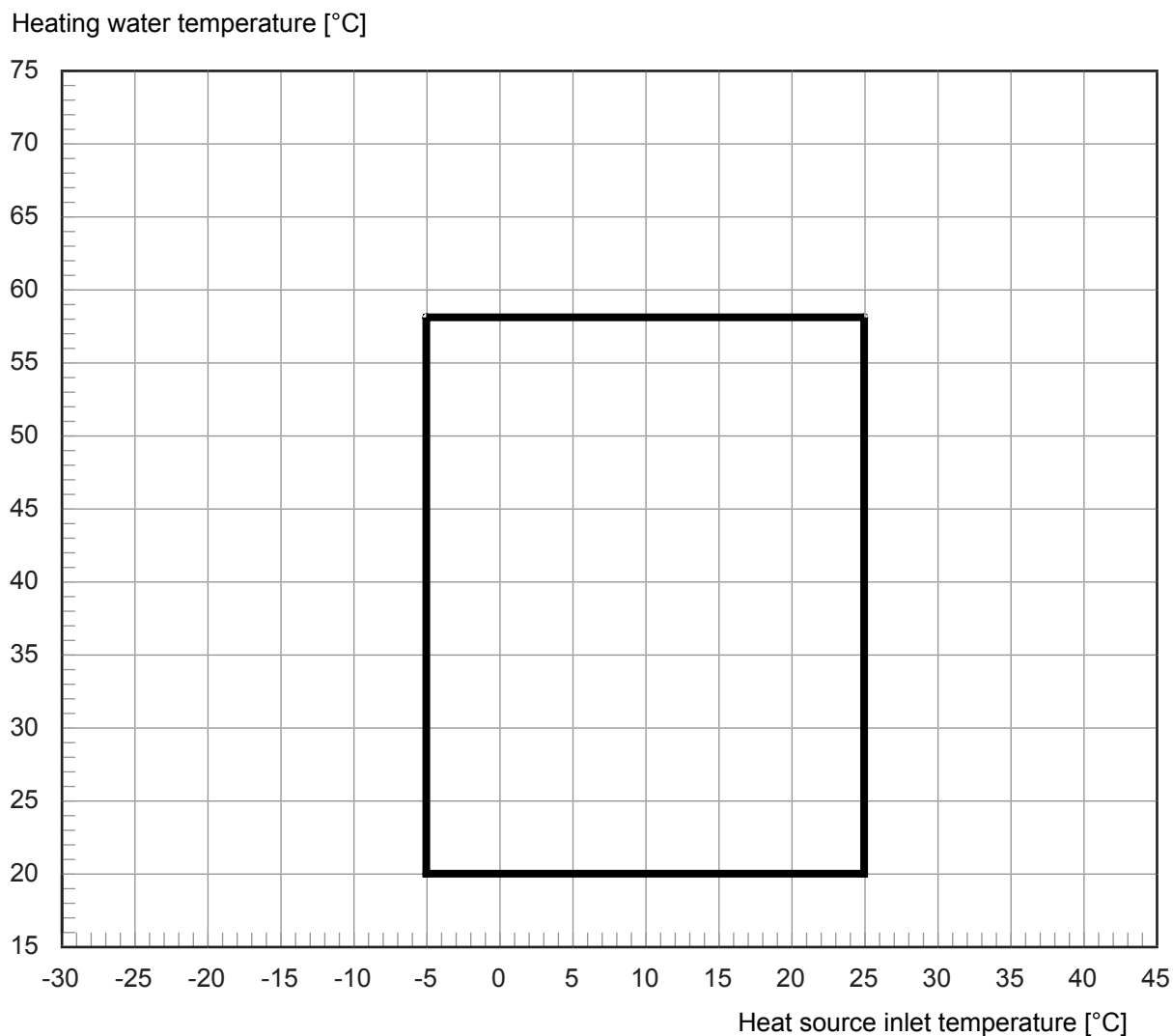
Note:

- This data indicates the size and capacity of the system according to EN 14511. For an analysis of the economic and energy efficiency of the system, the bivalence point and regulation should be taken into consideration. These specifications can only be achieved with clean heat exchangers. Information on maintenance, commissioning and operation can be found in the respective sections of the installation and operating instructions. The specified values have the following meaning, e.g. A7 / W35: Heat source temperature 7 °C and heating water flow temperature 35 °C.
- The specified sound pressure level corresponds to the operating noise of the heat pump in heating operation with a flow temperature of 35 °C. The specified sound pressure level represents the free sound area level. The measured value can deviate by up to 16 dB(A), depending on the installation location.
- Please note that additional space is required for pipe connections, operation and maintenance.
- The heat circulating pump and the heat pump manager must always be ready for operation.

- 7) Depending on the heat pump type and refrigerant used, the maximum flow temperatures in heating operation may be reduced when the outside temperature falls. Further information can be found in the operating limit diagram for the heat pump. If the supporting feet are used, the level can increase by up to 3 dB (A).
- 8) Domestic hot water preparation via additional heat exchanger operating in parallel: The waste heat output and/or the attainable cylinder temperature is dependent on the respective operating point (temperature level/performance level). The waste heat output falls as the cylinder temperature rises.
- 9) The specified coefficients of performance are also achieved in parallel domestic hot water preparation via additional heat exchangers.
- 10) The values specified apply when using the hydraulic 4-way reversing valve, available as an option (observe instructions for accessories). The heat outputs are reduced by approximately 10%, and the COPs by approximately 12%, when the 4-way reversing valve is not used.
- 11) Considerably higher COPs are achieved with cooling operation and waste heat recovery using additional heat exchangers.
- 12) This results in a cooling water temperature difference of 5K +/-1K for the A35/W18, B20/W18 or W20/W18 in 2 compressor operating mode. This is necessary for ensuring waste heat recovery in cooling operation.







Note:
 The maximum possible flow temperature and the operating limits vary by $\pm 2\text{K}$ due to component tolerances.
 The minimum volume flow specified in the device information must be ensured at the lower operating limit.
 In mono energy operating mode with the heating element activated, the maximum flow temperature increases by approximately 3K.