

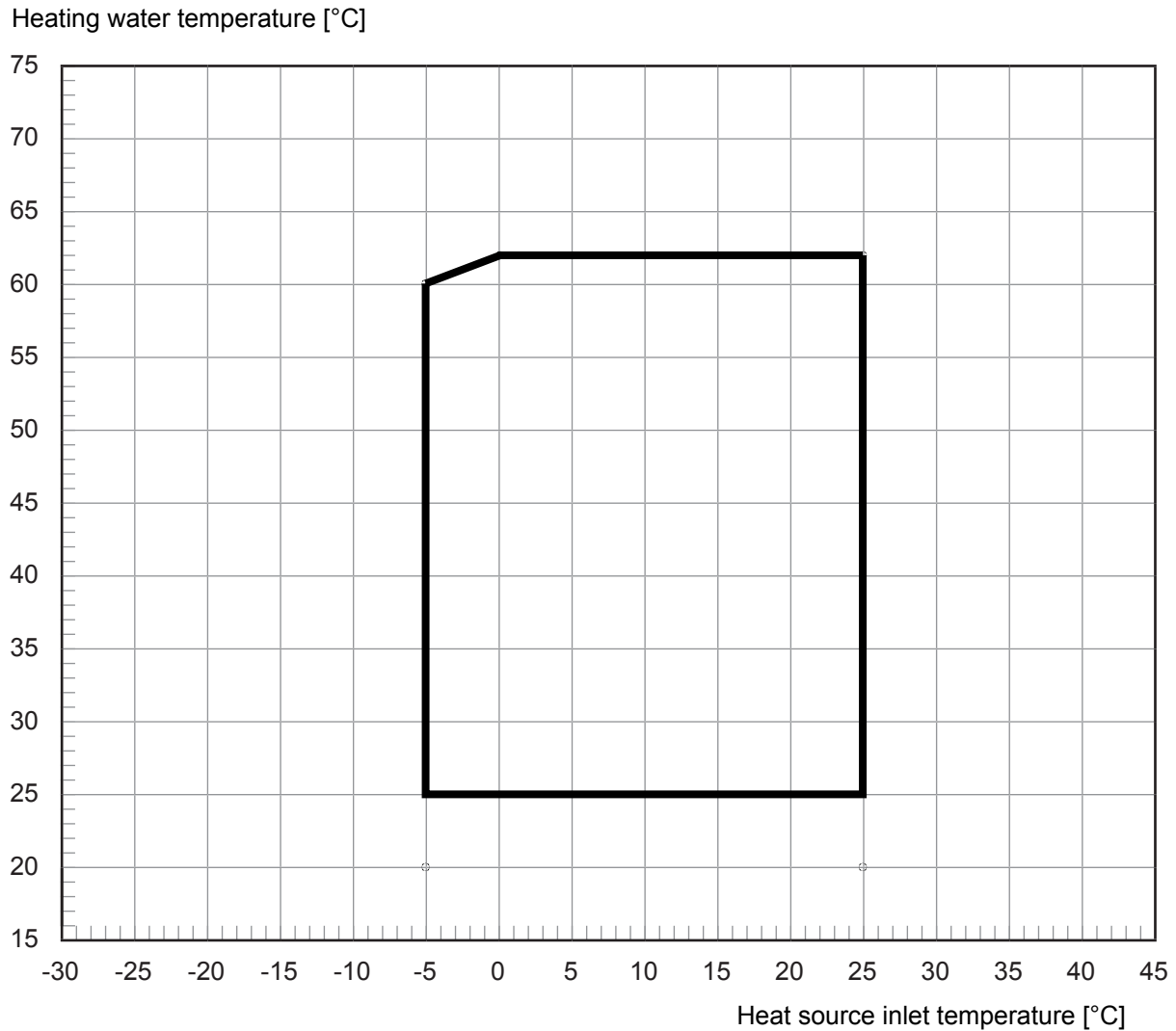
Device information	SI 90TU
<b>Design</b>	
- Heat source	Brine
- Model	Universal design
- Regulation	WPM Econ5Plus integrated
- Thermal energy metering	Integrated
- Installation location	Indoors
- Performance levels	2
<b>Operating limits</b>	
- Max. flow temperature <b>7)</b>	62 °C +/- 2
- Lower operating limit heat source (heating operation) / Upper operating limit heat source (heating operation)	-5 / 25 °C
- Antifreeze	Monoethylenglycol
- Minimum brine concentrate	25 %
- Free compression circulating pump heating (max. level)	61000 Pa
- Free compression of circulating pump for brine (max. level)	57000 Pa
<b>Flow / sound</b>	
- Max. heating water flow rate / Pressure drop	15,1 m³/h / Pa
- Minimum heating water flow rate / Pressure drop	8,6 m³/h / Pa
- Heat source flow (min.) / Pressure drop evaporator EN 14511	17,1 m³/h / Pa
- Sound power level device	66 dB (A)
- Sound pressure level in 1 m (indoors) <b>2)</b>	53 dB (A)
<b>Dimensions/weight and filling quantities</b>	
- Dimensions (W x H x D) <b>3)</b>	1350 x 1900 x 805 mm
- Weight	604 kg
- Thread type, heating connection / Connection heating	Rp / 2 ½ inch
- Thread type, heat source connection / Heat source connection	Rp / 2 ½ inch
- Refrigerant / Amount of refrigerant	R410A / 23 kg
- Oil type / Oil quantity	Polyolester (POE) / 7,3 l
- Water content	21 l
- Contains heat transfer medium	21 l
<b>Electrical connection</b>	
- Rated voltage / Fuse protection	3/PE ~400 V, 50 Hz / C 80 A
- Control voltage / Control voltage fuse protection	1/N/PE ~230 V, 50 Hz / C 13 A
- Degree of protection	IP 21
- Initial current limiter	Yes
- Starting current with soft starter	53 A
- Nominal power consumption according to EN 14511 at B0/W35 / Maximum electric power consumption <b>1)</b>	18,5 / 35,3 kW
- Nominal current at B0/W35 / Nominal current cos phi	42 A / 0,63
- Power consumption of the compressor protection	90 W
<b>Complies with the European safety regulations</b>	
<b>Additional model features</b>	
- Water in device protected against freezing <b>4)</b>	Yes

**Heat output / coefficient of performance (COP) according to EN 14511: 1)**

Heating compressor 1	W35	W45	W55
B-5		37,30 kW / 3,40	
B0	45,50 kW / 5,00	42,50 kW / 3,80	40,90 kW / 3,10
Heating compressor 2	W35	W45	W55
B-5		71,60 kW / 3,20	
B0	86,00 kW / 4,70	81,70 kW / 3,60	78,90 kW / 3,00

**Note:**

- 1) 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.
- 2) 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.
- 3) Please note that additional space is required for pipe connections, operation and maintenance.
- 4) 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).



Note:  
 The maximum possible flow temperature and the operating limits vary by +/- 2K 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.