

Device information	LAW 9IMR
Design	
- Heat source	Outside air
- Model	
- Thermal energy metering	Optional (accessory)
- Installation location	Split
- Performance levels	2
Operating limits	
- Min. return temperature / Max. flow temperature 7)	18 / 55 °C +2 K
- Flow temperature cooling min. / Flow temperature cooling max.	7 / 25 °C
- Lower operating limit heat source (heating operation) / Upper operating limit heat source (heating operation)	-20 / 30 °C
- Lower operating limit heat source (cooling operation) / Upper operating limit heat source (cooling operation)	10 / 43 °C
- Free compression circulating pump heating (max. level)	38800 Pa
- Free compression circulating pump heating (min. heating water flow rate)	68500 Pa
Flow / sound	
- Max. heating water flow rate / Pressure drop	1,6 m³/h / 20000 Pa
- Minimum heating water flow rate / Pressure drop	0,75 m³/h / 8500 Pa
- Sound power level outdoor component / Sound power level indoor component	63 / 42 dB (A)
- Sound pressure level in 1 m / Sound pressure level in 1 m (outdoors)	35 / 51 dB (A)
Dimensions/weight and filling quantities	
- Dimensions, outdoor component (W x H x D)	950 x 834 x 330 mm
- Outdoor component weight	69 kg
- Indoor component weight	215 kg
- Thread type, heating connection / Connection heating	G / 1 ¼ inch
- Refrigerant / Amount of refrigerant	R410A / 1,9 kg
- Oil type	Polyvinylether (PVE)
- Water content	0 l
- Buffer tank volume	100 l
Electrical connection	
- Rated voltage / Fuse protection	1/N/PE ~230 V, 50 Hz / 3/N/PE ~400 V, 50 Hz / C 25 A
- Control voltage	1/N/PE ~230 V, 50 Hz
- Fuse protection HP with separate infeed / Fuse protection heat generator 2 with separate infeed	C 32 A / C 35 A
- Degree of protection (outdoor component)	IP X4
- Degree of protection (indoor component)	IP 20
- Initial current limiter	Inverter
- Starting current	1 A
- Rotary field monitoring	Yes
- Nominal power consumption A7/W35 / Maximum electric power consumption 1)	2,11 / 10,91 kW
- Nominal current at A7/W35 / Nominal current cos phi	9,3 A / 0,99
- Power consumption of the fan	124 W
- Output of electric heating element	6 kW
Complies with the European safety regulations	
Additional model features	
- Type of defrosting	Reverse circulation
- Water in device protected against freezing 4)	Yes
- Permissible operating overpressure	3 bar
Domestic hot water cylinders	
- Domestic hot water cylinder volume	300 l
- Heat exchange surface	3,15 m²

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

14511: 1)

Heating compressor 1	W35	W45	W55
A-20	4,00 kW / 1,65	3,20 kW / 1,31	3,09 kW / 1,04
A-15	5,20 kW / 2,26	4,23 kW / 1,83	4,17 kW / 1,45
A-7	6,3 kW / 2,76	6,43 kW / 2,24	4,19 kW / 1,72
A2	5,3 kW / 3,6	5,06 kW / 2,96	4,83 kW / 2,44
A7	5,6 kW / 4,8	5,40 kW / 3,40	5,12 kW / 2,86
A10	6,00 kW / 5,10	5,79 kW / 3,57	5,57 kW / 2,98
A20	7,30 kW / 6,24	6,98 kW / 4,42	6,57 kW / 3,44
Heating compressor 2	W35	W45	W55
A-7	6,3 kW / 2,4		
A2	6,2 kW / 3,2		
A7	9,0 kW / 4,30	8,3 kW / 3,3	
A10	9,6 kW / 4,5		

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

14511:

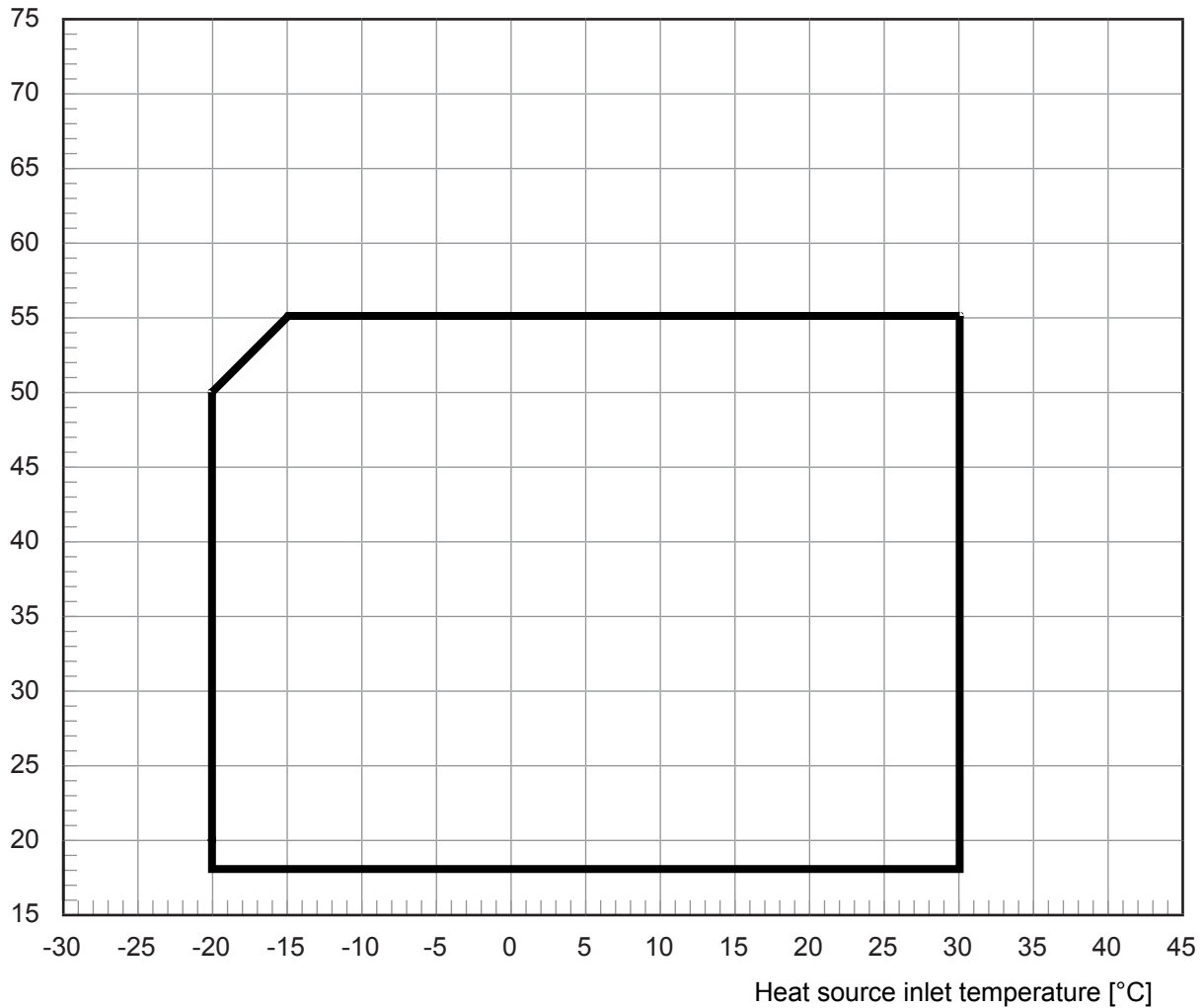
Cooling compressor 1	W7	W18
A27	6,50 kW / 3,30	8,7 kW / 4,2
A35	6,20 kW / 2,60	9,00 kW / 3,40

Cooling compressor 2	W8	W18
A35	6,20 kW / 2,60	

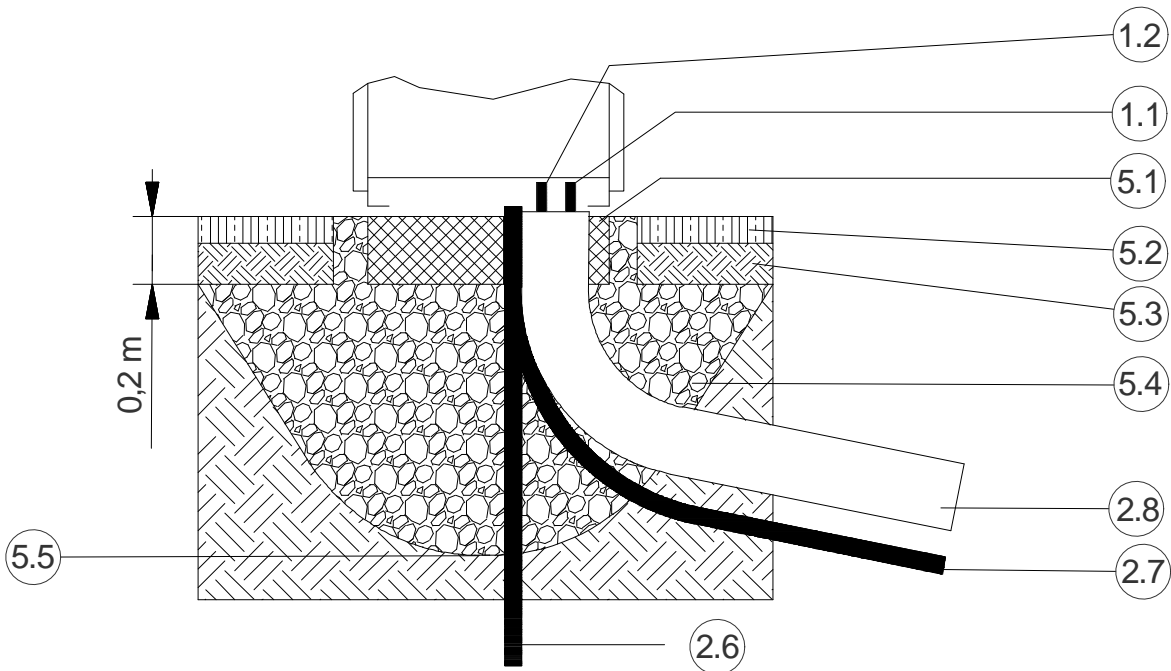
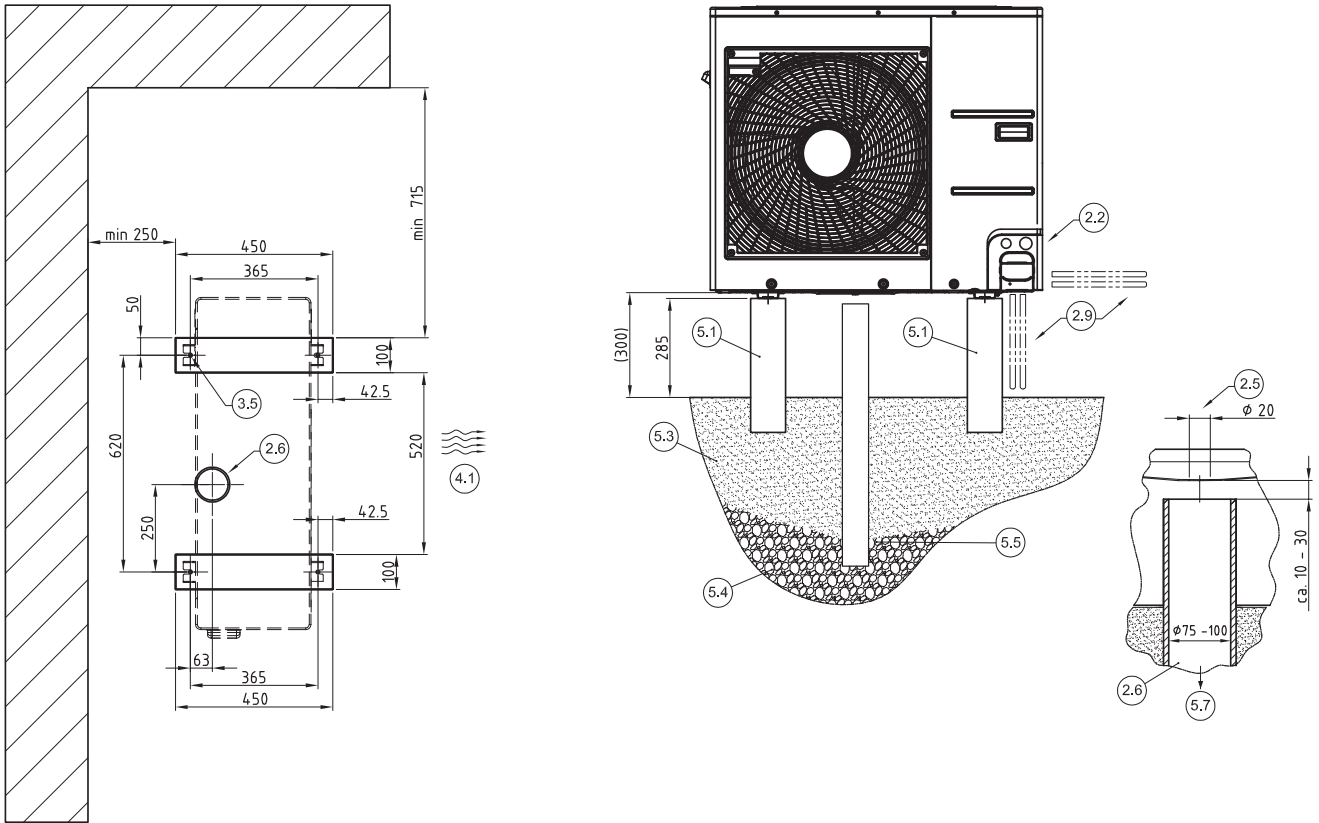
Note:

- 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.
- 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).

Heating water temperature [°C]



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.



1. Hydraulic connections
- 1.1 Flow
- 1.2 Return
- 1.11 Flow (optional)
- 1.21 Return (optional)
- 1.3 Domestic hot water flow
- 1.4 Hot water return
- 1.5 Heat source flow
- 1.6 Heat source return
- 1.7 Filling and drain cock
- 1.8 Combined heating/domestic hot water return
2. Feed-throughs/pipes
- 2.1 Feed-through - condensate pipe
- 2.2 Feed-through - electric wire
- 2.11 Feed-through condensate pipe (optional)
- 2.21 Feed-through electric wire (optional)
- 2.5 Condensate drain
- 2.6 Condensate pipe
- 2.7 Electric empty conduit
- 2.8 District heating pipe
3. Transport/operation
- 3.1 Ring bolt for crane transport
- 3.2 Transport tunnel
- 3.3 Transport opening for carrier pipe
- 3.4 Operator side
4. Air circuit
- 4.1 Direction of air flow
- 4.2 Main wind direction with free-standing installation
- 4.3 Air inlet
- 4.4 Air outlet
- 4.31 Air inlet (optional)
- 4.41 Air outlet (optional)
5. Foundation
- 5.1 Foundation
- 5.2 Green field
- 5.3 Earth
- 5.4 Layer of gravel
- 5.5 Frost line
- 5.6 Contact surface floor frame (all-round)

Notes:

The condensate pipe must lead to the drainage facilities. The frost line can vary according to the climatic region.

The regulations of the countries in question must be observed. For unprotected free-standing installation, heat pumps without deflector hoods must be installed at right angles to the main wind direction.

Depending on the heat pump type, not all points of the legend are included in the drawing.