



Air-to-Water Heat Pump for High Heat Outputs

Using the air as a heat source

High heat consumption at low external temperatures

During the last couple of years heat pumps have become the standard heat generator in detached and semi-detached houses. Heat pumps for heating purposes using the air or ground as a heat source are most often installed. For the heating of larger residential and industrial buildings, planners and architects prefer the utilisation of ground heat. The high investment costs for the tapping of this heat source, however, scare off many customers. Furthermore, the required space for the installation of borehole heat exchangers is often not available in cramped residential areas.

The air as a heat source with high coefficients of performance

When it comes to development costs and efficiency, outside air is often underestimated as a potential energy source.

Air-to-water heat pumps have the lowest investment costs as the costs for tapping the heat source are minimal. Year after year, installed systems have proven that even in the coldest areas in Germany, for example, the outside air can be an attractive source of heat, whose costs are amortised.

The LA 40AS Dimplex air-to-water heat pump can supply a building with a heat consumption of up to approximately 40 kW. Several heat pumps are operated in parallel for buildings with higher heating loads.

Dimplex

INNOVATIVE HEATING AND COOLING



Low-temperature air-to-water heat pump

- ✓ Flow temperature of up to 58 °C
- ✓ High COPs due to high-performance evaporator
- ✓ Horizontal air circuit for low minimum wall clearances
- ✓ Sound-optimised through low-speed axial-flow fan and encapsulated compressor housing
- ✓ Output reduction when operating at partial load due to two compressors

The heat pump manager has everything under control

The heat pump manager monitors the operation of the heat pump and offers all the functions of a modern heating regulation system, such as a remote diagnostics system and timer programs for heating and domestic hot water preparation. Furthermore, it meets all heating requirements when it comes to optimized heating, domestic hot water preparation and swimming pool water preparation. When combining a heat pump with an existing boiler, the heat pump manager regulates the boiler according to need and ensures that no excessive temperatures can enter the heating system. The “bivalent-renewable” operating mode is available for optimal integration of renewable energies.

Order reference		LA 40AS
Connection voltage	V	400
Maximum flow temperature	°C	58
Heat output / coefficient of performance in accordance with EN 14511 at A2/W35:	1. Comp.	16,8 kW / 3,9
	2. Comp.	30,0 kW / 3,8
Heat output / coefficient of performance in accordance with EN 14511 at A7/W35:	1. Comp.	20,0 kW / 4,6
	2. Comp.	35,7 kW / 4,4
Heat output / coefficient of performance in accordance with EN 14511 at A7/W55:	1. Comp.	17,6 kW / 2,7
	2. Comp.	33,1 kW / 2,7
Required minimum heating water flow:	m³/h	4,0
Device connection for heating:	inch	1 1/2
Weight	kg	585
Width	mm	1735
Height	mm	2100
Depth	mm	890 (750)

On its own or in combination with other heat generators – the heat pump manager makes it possible

Air-to-water heat pumps installed outdoors are universally applicable. Normally they are combined with a second heat generator, which supplements the heat pump at extremely low external temperatures. Air-to-water heat pumps should be dimensioned to cover over 95 % of the annual heat output by heat pump operation alone. The remaining amount can easily be provided by a supplementary electric heating system or by combining the heat pump with an existing boiler. The heat pump manager switches the additional heat generators on and off according to need, thus minimising operating costs.