



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. However, the high investment costs for tapping this heat source stand in the way of reaping the benefits. Furthermore, the required space for the installation of borehole heat exchangers is often not available in cramped residential areas.

Energy from the air 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 lower 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, the outside air can be an attractive source of heat, whose costs are quickly amortised. The LA 60TU Dimplex air-to-water heat pump can supply a building with a heat consumption of up to approximately 60 kW. Several heat pumps are operated in parallel for buildings with higher heating loads.



LA 60TU high-efficiency air-to-water heat pump

- ✓ Maximum flow temperature 65 °C
Flow temperatures above 55 °C will still be achieved when the outdoor temperature is -10 °C
- ✓ Quiet operation thanks to slow-running EC-3D radial fan and thoroughly soundproofed compressor housing
- ✓ Two performance levels for high coefficients of performance (COPs) in both full-load and partial-load operation
- ✓ Refrigerating circuit monitored with sensors and an electronic expansion valve for increased operational safety
- ✓ WPM EconPlus with integrated thermal energy metering for heating and domestic hot water preparation

Heat pump manager WPM EconPlus

The thermal energy meter is integrated into the devices in this series. The thermal energy volumes generated by the heat pump for heating and domestic hot water preparation are measured by integrated sensors and shown on the display of the heat pump manager. The individual seasonal performance factor of the heat pump can be calculated from the energy consumption. The correct hydraulic integration of the heat pump is essential for achieving optimum seasonal performance factors. Standardised integration diagrams are available at www.dimplex.de/hydraulic-integrations.

LA 60 TU for free-standing installation or installation near walls

High-efficiency air-to-water heat pumps - device information

Order reference		LA 60TU
Design		universal
Connection voltage	V	400
Maximum flow temperature	°C	65
Heat output/coefficient of performance according to EN 14511 at A2/W35	1. Comp.	26,4 kW / 3,7
Heat output/coefficient of performance according to EN 14511 at A2/W35	2. Comp.	50,0 kW / 3,6
Heat output/coefficient of performance according to EN 14511 at A7/W35	1. Comp.	31,9 kW / 4,3
Heat output/coefficient of performance according to EN 14511 at A7/W35	2. Comp.	60,1 kW / 4,1
Width x Height x Depth	mm	1900 x 230 x 1000

High seasonal performance factor thanks to intelligent regulation

The operating costs of a heat generator significantly depend on efficiency during partial-load operation, as more than 70 % of the annual heat output does not require operation at full output. The high-efficiency LA 60 TU air-to-water heat pump therefore operates with two performance levels. At the first performance level the heat pump operates with only one compressor and achieves even higher coefficients of performance thanks to the over-dimensioned heat exchangers. In addition, the speed and power consumption of the EC-3D radial fans is reduced when less heat is required. When switching the performance level, the electronic expansion valve ensures that the refrigerating circuit is supplied with the perfect amount of refrigerant as quickly as possible.



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