

HEAT PUMP AIR-WATER LWR-8kW



A component of HP type LWR-8kW is a digital regulator LCD panel on a connector.

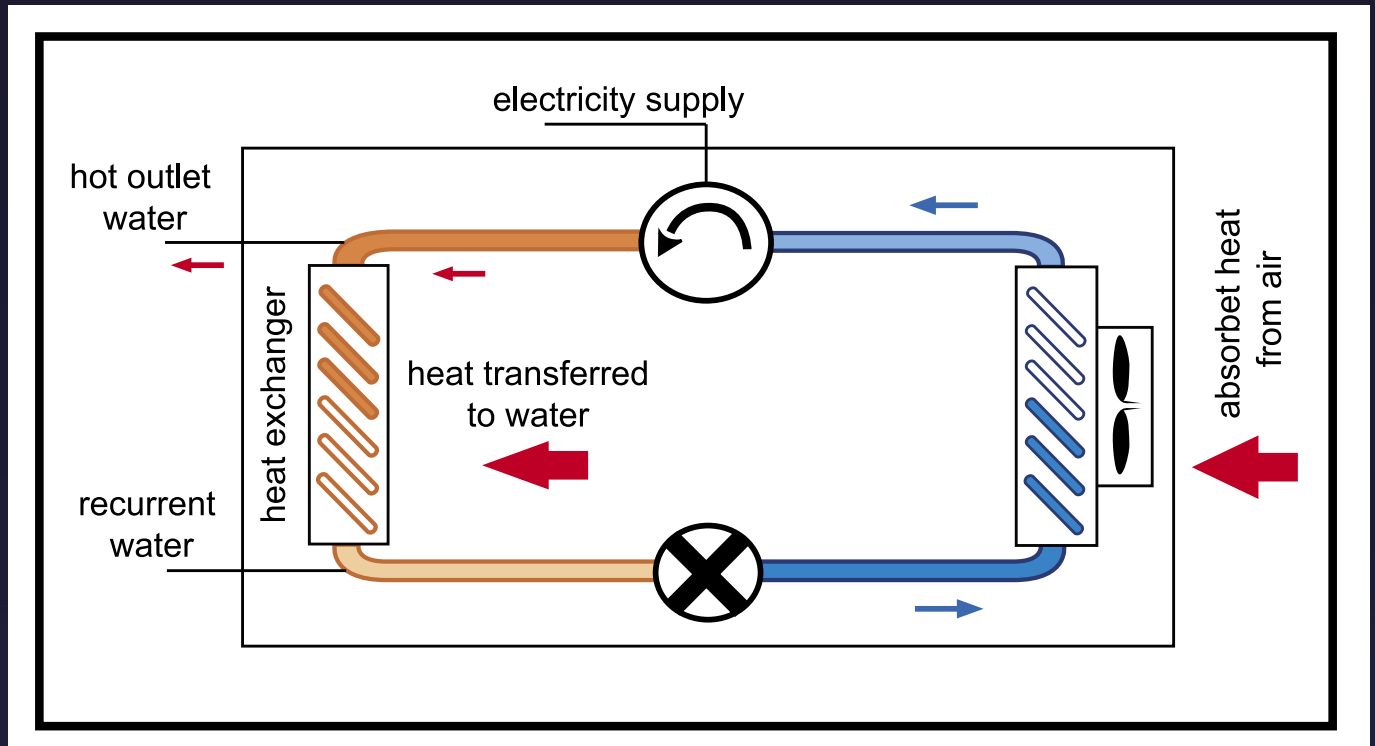
	UNIT	LWR-8kW
Nominal capacity	kW	8
Power supply	V	230
Input power	kW	2,1
Operating current	A	9,5
Compressor	type	Highly-rotary
Coolant medium		R407c
Coolant amount	kg	1,6
Water input and output	G	1" in
Noise level	dB	49/3m
Ventilator power input	W	50
Min. working temperature	°C	-15
Max. output temperature	°C	56
Proportions (length / width / height)	mm	1130/430/710
Weight	kg	69
Output at 0/+55°C	kW	6,1
Output at -5/+55°C	kW	5,0
Output at 10/+55°C	kW	4,1
Output at 0/+35°C	kW	7,6
Output at -5/+35°C	kW	6,5
Output at -10/+35°C	kW	5,6

**Together with our floor heating system 1.550 €
you can have the heating pump for only + VAT**



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Today, „heat pumps have a green light“. This statement represents the general perception of these low-temperature heat sources that are environmentally friendly and save the consumer's money at the same time.

The principle is rather old and simple; however, the present demand in the Czech Republic is evident today, when the price of energy for heating sharply rises. As it is obvious from its name, the heat pump re-pumps thermal energy from one space to another, while utilizing substances with low boiling points. Thus, energy is removed and transferred from one medium to another. In a sense, it is not an energy transfer because the transfer ratio would be worse than 1:1; however, if 1kWh is added for energy transfer by a heat pump, energy of 3kWh or more in form of heat is obtained. Why more? Because the ratio depends on the difference between temperatures of cooled and heated spaces. From the technical principle, the output temperature from the heat pump cannot be higher than 60°C; however, it is obvious that energy must be added via low-temperature system – preferably ground system, where the average medium temperature is approx. 35 °C. The use of collectors is not excluded. Use of convectors with forced-air circulation, or ventilators, is particularly suitable. On the other hand, the cooled space, the outside environment in this case, can reach variable temperature values. The ground temperature is stable, and according to the experience, the temperature in the area of the borehole usually stabilizes at -2°C. In most cases, air temperature ranges from -10°C to +10°C; however, the average temperature in the heating period is around +3°C. Here, the obvious temperature gain is 5°C different from the indoor and outdoor environment compared to the close area of the borehole. The use of heat pumps is also particularly suitable for water heating of the outdoor pool in the transitory period, when the air temperatures are around +15°C, and water temperatures are around +25°C. In these conditions, the heat pump reaches efficiency of 6:1.

The aforementioned text clearly demonstrates that the world trend leans towards the use of air-water heat pumps. The reason is ecological. The variable air temperature is a common condition in nature; however, the frozen ground is not.

Moreover, drilling together with borehole development and its filling are extremely costly. Heat pump delivered by our company benefits from the newest findings of the coolant research, and in comparison with the spiral compressors, HP LWR-8kW with the use of a rotary compressor achieves better parameters.

REVEL, s.r.o. is one of the most prominent and the biggest domestic manufacturer of plastic piping based on reticulated polyethylene (PE-X), which is the most suitable material for large-area heating systems. At the same time, the company supplies copper radiators with accessory ventilators and gradual regulation of output making the products suitable for utilization in low-temperature heating systems in conjunction with heat pumps. REVEL, s.r.o. offers unique and concrete type of a heat pump. In case of larger property size, two heat pumps are planted, and additional electrical and emergency sources are used.

REVEL, s.r.o. manages the project that designs the system including the source. Assembly division of the company is able to provide the whole system turnkey. However, this is not a requirement, and following the project documentation, any further decisions are up to you, or you can turn to another company to provide you with a price quote.

Even though the ventilators are low-noise, we do not recommend their placement under the bedroom window. Low-temperature floor system can be used around the whole house. Heating of the domestic hot water must be two-stage. In other words, the water must be preheated in one boiler, and the subsidiary heating occurs in the second boiler. When considering the summer mode, we recommend a boiler with larger temperature lining supplied by our company.