

HEAT PUMP SYSTEMS

Heat pump is a system that transfers heat from one place to another by using electric energy. This system is not new; on the contrary, refrigerators, air conditioners, hydrophilic systems, and deep freezers, we use in our homes, all work with the same principle. Nowadays, energy is of value, and costs of fossil fuels are too high to use in heating systems, so heat pump systems are accepted as alternative resources.

While the inside of refrigerators are cold, surface of the pipes behind of it are hot. These systems produce heat and cold at the same time and this is how heat pump systems work as well. There are different kinds of heat pump systems that use different resources as ground, water, and air. Heat pump systems do not depend on producing heat but transferring it. Therefore, they need a pool to transfer the heat and this pool can be ground, water, and air.

HEAT PUMP SYSTEMS AIR TO WATER

Since these systems use air in their pools, daily changes in temperature can affect the performance of the device and energy use. The most commonly used heat pump systems depend on air and they are more economical and environment friendly than fossil fuels. Installation and usage is quite easy.

HEAT PUMP SYSTEMS GROUND AND WATER SOURCE

Since these systems use ground and water in their pools, effects of daily changes in temperature are almost absent, so the performance of the device and energy use is not changeable. However, they have some disadvantages in terms of installation. In order to install these systems the areas filled with

ground or water are needed to be proper areas for digging. Although they perform better and save more energy than heat pump systems using air, cost of installation is higher.