

عنوان مقاله:

Ground Coupled Heat Pump Design for Tafila Climate

محل انتشار:

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خلاصه مقاله:

This work represents a theoretical investigation of a ground coupled heat pump system that is used for domestic heating and cooling purposes of a typical residential house in Tafilah-Jordan. The system is designed to provide heating and cooling loads of ۷.۳۹, ۷.۲۷ KW respectively. The designed system consists of a ground buried heat exchanger (۱.۵m depth, ۶.۵m length, and ۲.۲cm diameter), indoor heat exchanger, and a ۲ HP compressor. The system has been analyzed economically and it was found that the ground coupled heat pump system reduces energy consumption and has a payback period for of ۱.۵ years.

کلمات کلیدی:

Heat Pump, Energy Saving, Economic Analyses, Residential Building, Heating and Cooling Loads

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