

عنوان مقاله:

Thermodynamic Analysis of working fluids for a Ground Source Heat Pump with Economizer

محل انتشار:

پنجمین کنفرانس ملی مهندسی مکانیک و هوافضا (سال: 1399)

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خلاصه مقاله:

Ground source heat pump, due to high coefficient of performance (COP) and use of low-temperature thermal energy source, is one of the best technologies to use renewable energy resources. In this work, at first, a geothermal heat pump for heating with economizer is simulated, and then the effects of the variations in different parameters on heatpump and total COP are analyzed. Initially, the thermodynamic simulation of the system is performed for different working fluids in the EES software programming environment. The COP and some thermodynamic parameters are calculated for different working fluids and obtained optimal values. According to the results, COP of the system iscalculated for different Refrigerants and the R-12 has the best performance among the studied working fluids

کلمات کلیدی:

Ground Source; Heat Pump for Heating; Thermodynamic Analysis; Working fluids

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