

Modeling of dynamics of vapor compression cooling system

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Abstract

© Published under licence by IOP Publishing Ltd. A mathematical model of cooling system with a vapor-liquid compression unit is presented. The modeling of dynamics of the parameters of the vapor compression system during the system start-up in the cooling mode was carried out. It is noted that with the accepted assumptions the evaporation and condensation temperatures stabilize fast enough: in the evaporator - in 0.5 s, in the condenser - in 2 s.

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