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Modeling of transient characteristics of an air source heat pump with vapor injection during reverse-cycle defrosting

Hongtao Qiao , Vikrant Aute , Reinhard Radermacher

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Highlights

- Dynamic responses of an FTVI heat pump during RCD are modeled.
- A five-stage hot-gas defrost model is developed.
- Smooth transition between different defrosting stages is guaranteed.
- The same system model can simulate both heating and cooling mode.
- Predicted defrosting efficiency is consistent with published experimental data.

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