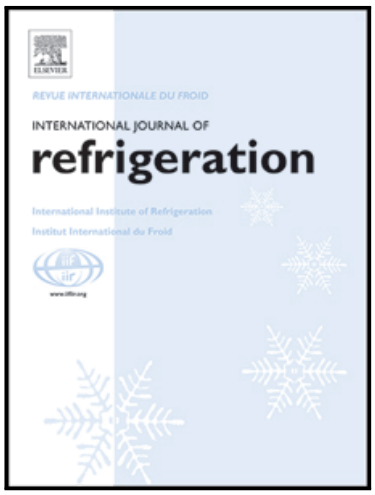

Variable speed liquid chiller drop-in modeling for predicting energy performance of R1234yf as low-GWP refrigerant

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Highlights

- The energy performance of liquid chiller is compared using R1234yf and R134a.
- The Buckingham π-theorem was applied to modeling drop-in.
- The predicted and experimental data are correlated in order to study the accuracy of the model.
- R1234yf shows that COP reduces about 2% -11.3% taking R134a as baseline.
- Indirect emissions are similar for R1234yf and R134a using several energy sources