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LCA case study for an air conditioning system

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Environmental impacts from domestic ventilation is causing increasing concerns in the latest years. This paper presents a Life-Cycle Assessment of an air/air monobloc domestic heat pump by the company Olimpia Splendid S.p.A, named UNICO EVO 20 HP PVAN. The study has been carried out following the PEP-ecopassport guidelines, ensuring a standardised and repeatable approach. Primary data are obtained from manufacturer and suppliers; the modelling activity is performed using the Ecoinvent 3.11 cutoff database and it is performed through the Brightway2/Activity Browser software. Results show that most of the impact is caused by the Use phase, followed by the Manufacturing phase: respectively 70% and 25% in the category “Climate Change - Total”.

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