

Product application checklist

Please complete in BLOCK CAPITALS

Heat Pumps: Heat Pump driven air curtains

Manufacturer/supplier name:

Applicant's name:

Telephone number:

Product information

Product name:

Model number:

Please complete each section of this form based on your product's characteristics. Incomplete or incorrect data could affect the processing of your product application.

Each product application should be made on a separate form unless a product's design characteristics are common to all the products. In this instance a single application can be made for multiple products.

1. Product Testing and Certification

No Yes

Where type testing has been applied to demonstrate product performance please ensure that the information supplied is sufficient to demonstrate the performance of all the products for which applications are being made.

1.1 Is the product CE Marked?

1.2 How was the product(s) performance tested? *(Please select one).*

- a) Tested in the manufacturer's in-house laboratory, in accordance with a registered Quality Management System (i.e. 'self-tested')
- b) Tested in a laboratory either in house or on-site, witnessed by an independent body (i.e. 'witnessed testing')
- c) Tested by an independent laboratory (i.e. 'independent testing')
- d) Representative model/s used

Please refer to Section 2 of ECA Guidance Note 5 "ECA Testing Programme: Energy Technology List (ETL) Product Testing Framework" for details of the requirements that must be satisfied for each of these product testing options.

1.3 Where product testing has been done in accordance with a registered Quality Management System, what is its registration number?

1.4 Where product testing has been witnessed by an independent body, what was the name of the witness?
(Please include contact details).

| 1. Product testing and certification (continued) | | No | Yes | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| 1.5 | <p>Where products have been tested by an independent laboratory:</p> <p>a) What is the name of the independent laboratory?</p> <p>.....</p> <p>b) What is the laboratory's registration number (where accredited)?</p> <p>.....</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.6 | <p>If representative testing has been used, what are the "representative models"?</p> <table border="1"> <thead> <tr> <th>ETL Product ID number</th> <th>Product name and model number</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> </tbody> </table> <p><i>The representative models must be selected by dividing the range of products into groups of models with similar design characteristics, and testing a model in each group. The performance of each model in the group must be predicted using a validated mathematical model. As a minimum, at least one model must be tested in each group.</i></p> <p><i>A report documenting performed model calculations, showing all significant calculation steps, shall be submitted with the application..</i></p> | ETL Product ID number | Product name and model number | | | | | | | | | | | | | | | | | | | | | | |
| ETL Product ID number | Product name and model number | | | | | | | | | | | | | | | | | | | | | | | | |
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| 2. Product type | | No | Yes |
|-----------------|---|----|-----|
| 2.1 | <p>What type of heat pump is your product? (Please select one).</p> <p>a) Air Source: single-split heat pump driven air curtain</p> <p><i>n.b. Heat pump driven air curtain units for multisplit heat pumps, that consist of one air curtain unit that is specifically designed to replace one or more 'indoor' heat pump units are covered by the Air Source: Split and Multi-Split (including Variable Refrigerant Flow) Heat Pumps technology category.</i></p> | | |

| 3. Product features | | No | Yes |
|---------------------|---|----|-----|
| 3.1 | <p>Does the product include an air curtain unit or package that:</p> <p>a) Is specifically designed to be fitted above a doorway or similar opening?</p> <p>b) Is specifically designed to use a heat pump to heat and/or cool the air curtain expelled by it, and to use electrical air heaters (where fitted) only during defrosting or heat pump failure?</p> <p>c) Has been rated in terms of air curtain airflow rate, outlet air velocity uniformity and air curtain velocity projection in accordance with the procedures in BS ISO 27327-1:2009?</p> | | |
| 3.2 | <p>Is the product able to automatically modulate in response to changes in air inlet temperature and/or space temperature(s), the amount of heating and/or cooling applied to the air curtain between 40% and 100% of its nominal rated heating/cooling capacity output?</p> | | |
| 3.3 | <p>Is the product designed for, and include fittings for, permanent installation?</p> | | |

3.4 Is your product a single split heat pump heat pump driven air curtain?

If no, proceed to Section 4

If yes: 1) does it consist of one air curtain unit (or package) and one outdoor heat pump unit that:

a) Is a factory built sub-assembly

b) Is supplied as a match set of unity

c) Designed to be connected together during installation

2) Does it incorporate an electrically driven refrigeration system?

4. Product performance N/A No Yes

4.1 Is the Coefficient of Performance (COP) of your product greater than the performance thresholds for the product category (as set out in Table 1 below), across the range of connected capacities, including at 100% (full) load in heating mode?

Products should be tested in accordance with BS EN 14511:2013 at the rating conditions specified in Table 2

4.2 Is the Energy Efficiency Ratio (EER) of your product greater than the performance thresholds for the product category (as set out in Table 1 below), across the range of connected capacities, including at 100% (full) load in cooling mode?

Products should be tested in accordance with BS EN 14511:2013 at the rating conditions specified in Table 2.

4.3 Is the outlet air velocity uniformity (uACU) of your product greater than or equal to the performance thresholds for the product category (as set out in Table 2 below) over the range of doorway/opening heights that they are designed to be fitted above?

The outlet air velocity uniformity should be tested in accordance with Section 5.4.4 of BS ISO 27327-1: 2009.

Table 1 Performance thresholds for heat pump driven air curtains

| Product Category | Heating mode (COP) | Cooling mode (EER) | Outlet air velocity uniformity (uACU) |
|--|--------------------|--------------------|---------------------------------------|
| 1 Single-split heat pump driven air curtains | ≥3.00 | ≥3.00 | ≥70% |

"≥" means "greater than or equal to"

Table 2 Required test conditions for heat pump driven air curtains from BS EN 14511-2:2011

| Product Category | Heating mode (COP) | Cooling mode (EER) |
|--|--|---|
| 1 Single-split heat pump driven air curtains | Air source BS EN 14511:2018 Table 3 Standard rating conditions, Outdoor air/recycled air. | BS EN 14511:2018 Table 4 Standard rating conditions: Comfort (outdoor air/recycled air) |

Please note that:

- Performance data obtained in accordance with the corresponding procedures and standard rating conditions laid down in BS EN 14511:2011 and BS EN 14511:2013 will be accepted as an alternative to testing in accordance with BS EN 14511:2018 until further notice. Outlet air velocity uniformity shall be tested in accordance with BS EN 27327-1:2009.

For the avoidance of doubt test data should be presented to 2 decimal places. As an example, a single split heat pump driven air curtain with a heating mode COP of 3.194 would be deemed to be a fail.

5. Summary of documents to be included

No

Yes

Please send ONE copy of each of the following documents:

If the relevant information in support of the questions above is contained within a larger document, please indicate the location of the relevant information. Note that all documentation submitted must directly refer to the model numbers for which you are making this application. Documentation should be added to your online application at https://etl.beis.gov.uk/engetl/fox/live/ETL_PUBLIC_PRODUCT_SEARCH.

- a. A technical sales brochure or leaflet for the product clearly summarising:
- i) The key features of the product (ideally including photographs of the product's exterior).
 - ii) The product's operation (i.e. in-built functionality) and intended applications (i.e. usage).
 - iii) Any product selection options (including optional extras, alternative configurations etc.).

This documentation should contain sufficient detail to enable the assessor to confirm that the proposed entry on the Energy Technology Product List (ETPL) is correct, and uniquely represents a single product of fixed design (as defined by the rules of the ECA Scheme). If the model names contain any 'wildcards' in respect of cosmetic variations please check with ECA Questions that this is permitted before submitting your application.

- b. A technical specification for the product, including:
- i) Details of the model numbers covered (including individual features of each model).
 - ii) The product's design ratings (electrical, mechanical, thermal, flow rates, energy use etc.).
 - iii) A description of how to install the product including connection/wiring diagrams. Where the product must be assembled, configured and/or commissioned on site before use, please include instructions.

This documentation should contain sufficient detail to enable the assessor to confirm that each product entry on the Energy Technology Product List (ETPL) has the design features specified in the eligibility criteria for that category of product. Please indicate on the checklist where information on specific design features is located in the documentation.

- c. Evidence that the product meets the performance criteria, including:
- i) Test reports showing product performance at the standard rating/test conditions.
 - ii) Details of the test procedures/standards used to determine product performance.
 - iii) A declaration certifying the accuracy of the test reports and confirming that:
 - The test facilities used comply with the minimum specifications outlined in the test standard, and the required test conditions were applied during testing.
 - All measurement equipment used in testing was calibrated by an accredited laboratory, or its calibration is otherwise traceable back to national standards.
 - Appropriate quality assurance procedures have been used to verify or cross-check the accuracy and repeatability of the test procedures and test results.

Please note that summary test reports will only be accepted, where the accuracy of the test reports has been certified by a recognised independent body, or where one detailed test report has been submitted per product range.

Please refer to Section 4 of ECA Guidance Note 5 "ECA Testing Programme: Energy Technology List (ETL) Product Testing Framework" for further guidance on the submission of test results, and minimum information requirements.

- d. A Declaration of Conformity with EU Directives on product safety, including:
- i) CE Marking Directives.
- e. Evidence that a quality assurance system/procedures is/are in place to:
- i) Control the specification, design, manufacturing and testing of the products.
- f. Signed application checklist.

Please note that all product documentation provided must be written in, or translated into, English.

6. Declaration

I confirm that the information given above is correct to the best of my knowledge and that I have read and agree to the terms and conditions governing the management of the Enhanced Capital Allowance Energy Technology List (ETL).
A copy of the terms and conditions can be found at <https://www.gov.uk/guidance/energy-technology-list>

Signature: _____ Date: _____

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