

## Product application checklist

Please complete in BLOCK CAPITALS

### Refrigeration: Air blast coolers

Manufacturer/supplier name: .....

ETL licence number (if applicable): .....

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 certification		No	Yes
<b>Where type testing has been applied to demonstrate product performance ensure that the information supplied is sufficient to demonstrate the performance of all the products for which applications are being made.</b>			
1.1	<b>Does the product conform to the requirements of the EU Pressure Equipment Directive PED 2014/68/EU in respect of its design, manufacture and testing procedures?</b>		
1.2	<b>Is the product CE marked?</b>		
1.3	<b>Is the product a: (Please select one)</b> a) General air blast cooler (also known as dry coolers) b) Packaged air blast free cooler. (Proceed to question 2)		
1.4	<b>If the product is a general air blast cooler, has the product's performance been tested to EN 1048:2014, using Method A or B as set out in the Criteria?</b>		
1.5	<b>If the product is a general air blast cooler, how was the product(s) performance tested? (Please select one).</b> a) Tested in the manufacturers 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  <i>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.</i>		
1.6	<b>Where product testing has been done in accordance with a registered Quality Management System, what is its registration number?</b>		

1. Product testing and certification (continued)		No	Yes																						
1.7	<p><b>Where product testing has been witnessed by an independent body, what was the name of the witness?</b> (Please include contact details).</p> <p>.....</p>																								
1.8	<p><b>Where products have been tested by an independent laboratory:</b></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>																								
1.9	<p><b>Is the application for:</b> (Please select one).</p> <p>a) A single unique product – in this case go to 2.1</p> <p>b) A range of products, which are variants of the same basic design.</p> <p>c) One or more additional models to a range of products already on the ETPL.</p> <p><b>Products will only be considered to be variants of the same basic design, if they:</b></p> <ul style="list-style-type: none"> <li>• Use air to liquid heat exchangers of the same constructional design.</li> <li>• Have the same general arrangement of fans and heat exchangers.</li> <li>• Are constructed from materials with same heat transfer characteristics.</li> <li>• Have the same (+/- 5%) or better energy efficiency as the representative models.</li> </ul>																								
1.10	<p><b>If representative testing was used (option d in question 1.4) what are the "representative models"?</b></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> </tbody> </table> <p><i>* Evidence supporting representative models, including a description of the fan and heat exchanger configuration, tan area to coil area ratios, dimensions and orientation shall be provided (e.g. technical brochure)</i></p>	ETL Product ID number	Product name and model number	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
ETL Product ID number	Product name and model number																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
.....	.....																								
2. Product type		No	Yes																						
2.1	<p><b>Is the product sold as a stand-alone air blast cooler?</b></p> <p><i>Air blast coolers that are sold as an integral part of a chiller are covered by the Packaged Chiller sub-technology.</i></p>																								
2.2	<p><b>Does the product incorporate:</b></p> <p>a) A heat exchanger designed to cool water or other process liquids?</p> <p>b) A fan which forces air over the heat exchanger?</p> <p>c) A series of control valves (or "by-pass mechanism") that re-direct the water or other process liquid around the pre-cooler in response to a control signal?</p> <p>d) A controller that operates the by-pass mechanism and controls the fan at times when the ambient air temperature is higher than the water/process liquid inlet temperature?</p> <p>e) Does product contain a variable speed fan(s) with appropriate controller which reduces the duty of the cooling fan as the cooling demand decreases, or as the ambient air temperature decreases?</p>																								

3. Product performance	No	Yes
<p><b>3.1</b> If the product is a general air blast cooler, does the it have a minimum energy efficiency rating (EER) that is greater than or equal to (<math>\geq</math>) 100.0, at a 5K liquid temperature difference (i.e., difference between inlet and outlet liquid temperatures) and a 15K approach temperature difference (i.e. difference between inlet air and outlet leaving water temperature) and when operating at maximum cooling capacity (as stated on the datasheet)?</p> <p><i>Where <math>EER = \text{net cooling capacity (kW)} / \text{effective power input (kW)}</math>.</i></p> <p><i>This calculation must take account of the electricity used by both the fan(s) and the controller.</i></p>		

4. Summary of documents to be included	Yes	
<p><b>Please send ONE copy of each of the following documents:</b></p> <p><b>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 <a href="https://etl.beis.gov.uk/enget/fox/live/ETL_LOGIN/login">https://etl.beis.gov.uk/enget/fox/live/ETL_LOGIN/login</a></b></p> <p>a. A technical sales brochure or leaflet for the product clearly summarising:</p> <ol style="list-style-type: none"> <li>i) The key features of the product (ideally including photographs of the product's exterior).</li> <li>ii) The product's operation (i.e. in-built functionality) and intended applications (i.e. usage).</li> <li>iii) Any product selection options (including optional extras, alternative configurations etc.).</li> </ol> <p><i>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.</i></p> <p>b. A technical specification for the product, including:</p> <ol style="list-style-type: none"> <li>i) Details of the model numbers covered (including individual features of each model).</li> <li>ii) The product's design ratings (electrical, mechanical, thermal, flow rates, energy use etc.).</li> <li>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.</li> </ol> <p><i>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.</i></p> <p>c. Please ensure that this documentation includes details of:</p> <ol style="list-style-type: none"> <li>i) The product's automatic control strategies, mechanisms, and configuration settings.</li> </ol> <p>d. Evidence that the product meets the performance criteria, including:</p> <ol style="list-style-type: none"> <li>i) Test reports showing product performance at the standard rating/test conditions.</li> <li>ii) Details of the test procedures/standards used to determine product performance.</li> <li>iii) A declaration certifying the accuracy of the test reports and confirming that: <ul style="list-style-type: none"> <li>• The test facilities complied with the minimum specifications outlined in the test standard, and the required test conditions where applied during testing.</li> <li>• All measurement equipment used in testing was calibrated by an accredited laboratory, or its calibration is otherwise traceable back to national standards.</li> <li>• Appropriate quality assurance procedures have been used to verify or cross-check the accuracy and repeatability of the test procedures and test results.</li> </ul> </li> <li>iv) Where representative testing has been used, please include: <ul style="list-style-type: none"> <li>• Details of selection method used.</li> <li>• The heat exchanger test data or predictions using a validated mathematical model.</li> <li>• Evidence that the products covered by the representative model(s) are variants of the same basic design.</li> <li>• Evidence supporting representative models, including a description of the fan and heat exchanger configuration, fan area to coil area ratios, dimensions and orientation shall be provided</li> </ul> </li> </ol> <p><i>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 two detailed test reports have been submitted per product range.</i></p> <p><i>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.</i></p>		

#### 4 Summary of documents to be included (continued)

Yes

- e. A Declaration of Conformity with EU Directives on product safety, including one of the following:
  - i) CE Marking Directives.
  - ii) EU Pressure Equipment Directive PED 2014/68/EU.
- f. Evidence that a quality assurance system/procedures is/are in place to:
  - i) Control the specification, design, manufacturing and testing of the products.
- g. Signed application checklist.

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

#### 5. 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: .....

#### For more information:

**Web:**  
<https://www.gov.uk/guidance/energy-technology-list>

**Phone:**  
0300 3300657

**Email:**  
[ECAQuestions@carbontrust.co.uk](mailto:ECAQuestions@carbontrust.co.uk)

**Post:**  
Energy TL Coordinator,  
ICF,  
6th floor,  
Watling House,  
33 Cannon Street,  
London, EC4M 5SB

Whilst reasonable steps have been taken to ensure that the information contained within this publication is correct, the Carbon Trust, its agents, contractors and sub-contractors, and the Government give no warranty and make no representation as to its accuracy and accept no liability for any errors or omissions.

Any trademarks, service marks or logos used in this publication are the property of the Carbon Trust or Government. Nothing in this publication shall be construed as granting any licence or right to use or reproduce any of the trademarks, service marks, logos, copyright or any proprietary information in any way without the Carbon Trust's prior written permission. The Carbon Trust enforces infringements of its intellectual property rights to the full extent permitted by law.

The Carbon Trust is a company limited by guarantee and registered in England and Wales under Company Number 04190230 with its Registered Office at: 4th Floor, Dorset House, 27-45 Stamford Street, London SE1 9NT. The Enhanced Capital Allowance Scheme for energy saving equipment is run by the Carbon Trust on behalf of Government.

Published in the UK: March 2018.

ECA702 v17