Energy Technology List

Department for Energy Security & Net Zero

Product application checklist

Please complete in BLOCK CAPITALS

Warm Air Heating Equipment

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 testing and certification	No	Yes

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

1.1 **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 testing ☐

Please refer to the ETL Testing Framework for details of the requirements that must be satisfied for each of these product testing options.

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

.....

1.3 **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
1.4	**Where products have been tested by an independent laboratory:**		
	a) What is the name of the independent laboratory?		
	b) What is the laboratory's registration number (where accredited)?		
1.5	**If representative testing has been used, what are the "representative models"?**		

ETL Product ID number	Product name and model number

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 the lowest quartile of predicted performance in each group. The performance of each model in the group must be predicted using a validated mathematical model. As a minimum, at least two models must be tested in each range of products and in each laboratory used for product testing.

2. Product type and features

		No	Yes
2.1	**What category of product are you applying for?**		
	a) Indirect fired condensing packaged warm air heater units		☐
	b) Indirect fired condensing packaged air heater modules		☐
	c) Optimising controllers for warm air heating systems		☐
2.2	**Does the product incorporate any warm air heaters?**	☐	☐
	If no, proceed to 2.7.		
2.3	**Is the product:**		
	a) Gas fired.		☐
	b) Oil fired.		☐
	c) Designed to be permanently installed:		☐
	i. As a suspended, wall mounted or floor-standing unit.		☐
	ii. As a heating module within an air handling unit.	☐	☐
	d) Certified with an appropriate Conformity Assessment mark.		
2.4	**Is the product specifically designed to be installed in an air handling unit?**	☐	☐
	If yes, proceed to 2.6.		
2.5	**Does the product incorporate a fan to distribute warm air within the heated space?**	☐	☐
2.6	**What type of burner controls is the product fitted with?**		
	a) On/off controls?		☐
	b) High/low controls?		☐
	c) Fully modulating controls?		☐

2.	Product type and features (continued)	No	Yes
2.7	**Does the product incorporate an optimising controller?**	☐	☐
	If no, proceed to 3.		
2.8	**Does the product incorporate a microprocessor-based controller?**	☐	☐
2.9	**Is the product pre-programmed to:**		
	a) Automatically control the air temperature in one or more zones within a building in an energy efficient manner that reflects predefined zone occupation schedules?	☐	☐
	b) Automatically switch warm air heating equipment on and off in accordance with the predefined occupation schedule for each of the zones being controlled?	☐	☐
2.10	**Does the product incorporate the following automatic control mechanisms:**		
	a) An optimum start mechanism that monitors external and/or internal temperatures, and calculates when the warm air heating equipment needs to be switched on in order to just reach pre-set temperatures by the start of the next occupancy period.	☐	☐
	b) A 'self-learning' algorithm that automatically monitors the accuracy of the optimum start mechanism and periodically updates the heating curve that the mechanism uses, to reflect changes in building characteristics.	☐	☐
	c) A frost protection mechanism that monitors internal air temperature, and switches on the warm air heaters to prevent equipment and/or pipework from freezing up?	☐	☐
	d) A building fabric protection mechanism that monitors external or internal temperatures and switches heating on to prevent condensation from occurring?	☐	☐
	e) An anti-tampering mechanism that prevents the product's control strategy from being modified, and the specified automatic control mechanisms from being disabled, except during commissioning, maintenance or testing?	☐	☐
2.11	**Does the product provide facilities that enable building managers to:**		
	a) Define the normal occupation times for the building and for each zone controlled (in intervals of five minutes or less), for each day of the week, including at least two periods of occupation per day (i.e. at least 14 different occupation periods per week)?	☐	☐
	b) Define the temperature set-points for each zone to ±1 °C?	☐	☐
	c) Define future dates (e.g. holidays) when the warm air heating equipment should be completely switched off, or operated at frost, fabric or equipment protection levels?	☐	☐
2.12	**Does the product provide facilities that enable building users to "temporarily override" the pre-set times when the warm air heating is scheduled to be switched off within an individual zone?**	☐	☐
2.13	**Conform to the requirements of the EU EMC Directive 2014/30/EU, or is it Certified with an appropriate Conformity Assessment mark?**	☐	☐

3.	Product performance	No	Yes
3.1	**Select the standard that was used to determine the products seasonal space heating energy efficiency (SSHEE):**		
	a) Commission Regulation (EU) No 2016/2281 implementing Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of Ecodesign requirements for energy-related products, with regard to Ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coil units.	☐	☐
	b) BS EN 17082:2019 Domestic and non-domestic gas-fired forced convection air heaters for space heating not exceeding a net heat input of 300 kW.	☐	☐
3.2	**Please state the seasonal space heating energy efficiency of your products (SSHEE) (%)**		

.....

For the avoidance of doubt seasonal space heating efficiency test data shall be presented to 1 decimal place. As an example, a warm air heater unit with seasonal space heating energy efficiency of 79.9% would be deemed to not meet the performance requirements.

4. 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.

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 ETL Scheme). If the model names contain any 'wildcards' in respect of cosmetic variations please check with the ETL Team (info@etl.energysecurity.gov.uk) 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) Where the product is or incorporates an optimising controller, please ensure that this documentation includes details of:

- i) The product's control input/output signals, and requirements for sensors or control valves. ☐
- ii) The product's automatic control strategies, mechanisms, and configuration settings. ☐
- iii) The anti-tampering mechanism used to prevent automatic control from being disabled. ☐

d) A Declaration of Conformity with UK/EU Directives on product safety, including:

- i) An appropriate Conformity Assessment mark. ☐
- ii) Where relevant: EMC Directive 2014/30/EU. ☐

e) Where the product includes a heater, 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 where 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. ☐
- iv) Where the test reports have not been prepared by an independent body, evidence that the accuracy of product performance data has been independently verified or cross-checked by an independent body. ☐
- v) Where representative testing has been used, please include details of selection method used, and evidence that the products covered by the representative model(s) are variants of the same basic design. ☐

Please refer to the ETL Testing Framework for further guidance on the submission of test results, and minimum information requirements.

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 Energy Technology List.
A copy of the terms and conditions can be found **here**.

Signature: ..... Date: .....

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