



## Product application checklist

Please complete in BLOCK CAPITALS

### Radiant 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 the manufacturer's in-house laboratory, in accordance with a registered Quality Management System and a representative sample of the test data has been cross-checked and verified by an independent body (i.e. 'self-tested and verified or cross-checked by an independent body')
- c) Tested in a laboratory either in house or on-site, witnessed by an independent body (i.e. 'witnessed testing')
- d) Tested by an independent laboratory (i.e. 'independent testing')
- e) 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?**

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<b>1.</b>	<b>Product testing and certification (continued)</b>	<b>No</b>	<b>Yes</b>
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**1.3 Where a representative sample of the test data has been cross-checked and verified by an independent body:**

a) What is the name of the independent laboratory?

b) What is the laboratory’s registration number (where accredited)?

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

**1.5 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)?

**1.6 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
<b>2.1</b>	<b>What category of product are you applying for?</b>		
	a) Unitary radiant tube heater units and packages		
	b) Multi-burner radiant tube heater units and packages		
	c) Continuous radiant tube heater units and packages		
	d) Radiant plaque and cone heater units and packages		
	e) Optimising controllers for radiant heating systems (including both standalone unit and add-on module type products)		
<b>2.2</b>	<b>Does the product incorporate any radiant heaters?</b>		
	<i>If no, proceed to 2.6.</i>		
<b>2.3</b>	<b>Is the product:</b>		
	a) Gas fired		
	b) Oil fired		
	c) Designed to be permanently installed above head height		
	d) Certified with an appropriate Conformity Assessment mark		
<b>2.4</b>	<b>Does the product incorporate any radiant tube type heaters?</b>		
<b>2.5</b>	<b>Does the product incorporate a reflector (with end caps) that directs the radiated heat downwards?</b>		
<b>2.6</b>	<b>Does the product incorporate an optimising controller?</b>		
	<i>If no, proceed to 3.</i>		
<b>2.7</b>	<b>Does the product incorporate a microprocessor-based controller?</b>		
<b>2.8</b>	<b>Is the product pre-programmed to:</b>		
	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?		
<b>2.9</b>	<b>Does the product incorporate the following automatic control mechanisms:</b>		
	a) 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?		
	b) A building fabric protection mechanism that monitors external or internal temperatures and switches heating on to prevent condensation from occurring?		
	c) 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?		
<b>2.10</b>	<b>Does the product provide facilities that enable building managers to:</b>		
	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 $\pm 1^{\circ}\text{C}$ ?		
<b>2.11</b>	<b>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?</b>		
<b>2.12</b>	<b>Does the product incorporate, or is it packaged with, a black bulb sensor?</b>		
<b>2.13</b>	<b>Does the product conform with the requirements of the EU EMC Directive 2014/30/EU, or is it Certified with an appropriate Conformity Assessment mark?</b>		

<b>3. Product performance</b>	<b>No</b>	<b>Yes</b>
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**3.1 Does the product incorporate any radiant heaters?**

If no, proceed to 4.

**3.2 Has the product been tested in accordance with the relevant test procedures and test conditions in the following standards? (tick those which apply)**

- a) BS EN 17175:2019, "Gas-fired overhead radiant strip heaters and multi-burner continuous radiant tube heater systems for non-domestic use – Safety and energy efficiency"
- b) Commission Regulation (EU) 2015/1188 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for local space heaters
- c) BS EN 416:2019, "Gas fired overhead radiant tube heaters and radiant tube heater systems for non-domestic use. Safety and energy efficiency"
- d) BS EN 419:2019, "Gas-fired overhead luminous radiant heaters for non-domestic use. Safety and energy efficiency"

*Note: The product shall be tested with the minimum possible length of flue that is consistent with the product's design specification. Where the product is supplied in several parts that are to be connected together during installation, the product shall be tested with the minimum possible interconnecting pipework.*

**3.3 Does the product meet the performance thresholds set out in the table below?**

**Table 1** Performance thresholds for radiant heating equipment

	Product category	Seasonal space heating energy efficiency ( $\eta_s$ ) %
<b>1</b>	Unitary radiant tube heater units and packages.	$\geq 80.0\%$
<b>2</b>	Multi burner radiant tube heater units and packages.	$\geq 80.0\%$
<b>3</b>	Continuous radiant tube heater units and packages.	$\geq 90.0\%$
<b>4</b>	Radiant plaque and cone heater units and packages.	$\geq 88.0\%$

' $\geq$ ' means 'greater than, or equal to'.

*For the avoidance of doubt efficiency test data shall be presented to 1 decimal place. As an example, a unitary radiant tube heater with a 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). If the model names contain any 'wildcards' in respect of cosmetic variations please check with the ETL Team ([info@etl.energysecurity.gov.uk](mailto: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 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 products 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) Evidence that product testing was undertaken by or witnessed by an independent accredited laboratory (e.g. certificate of testing or schedule of accreditation).
- 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: .....

### For more information:

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