



Energy Technology List

Product application checklist

Please complete in BLOCK CAPITALS

Automated Permanent Refrigerant Leak Detection Systems

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 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 application for: (Please select one).

- a) A single unique product which has been tested in accordance with the criteria – in this case *go straight to 1.3.*
- b) A product which is based on the data for a 'representative model' which is not yet listed on the ETL (the representative model should be submitted at the same time as this application), *go straight to 1.2*
- c) A product which is based on the data for a 'representative model' which is already listed on the ETL – in this case *go to 1.2.*

1.2 If representative testing has been used, what are the 'representative models'?

ETL Product ID number	Product model numbers
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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 range of products and in each group.

1.	Product testing and certification (continued)	No	Yes
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1.3 Does the product have an appropriate Conformity Assessment mark?

1.4 What test procedure was used to determine product performance?

- a) BS EN 14624:2005, Section 11.2.
- b) BS EN 14624:2012
- c) Gas Detector Selection and Calibration Guide, SIRA, 2005.
- d) An equivalent test procedure.

Where an equivalent test procedure has been used, please include details with your test reports, including either a copy of the test procedure or a 'method statement', and evidence that the calibration is traceable back to national measurement standards.

1.5 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') or self-certified.
- 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 (see clause 1.5.1).

Please refer to Section 2 of ETL Guidance Note 5 "ETL 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.

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

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

1.8 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)?
-

1.9 Has a calibration certificate been issued that shows the product's sensitivity, accuracy and alarm setting when tested with calibration gases?

2.	Product type	No	Yes
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2.1 Is the system designed for permanent installation to monitor continuously refrigeration system for refrigerant leakage?

2.2 Does the product have fittings to allow fixing to the wall or floor?

ETL products must have floor and/or wall fixing.

2.3 Which of the following refrigerants does your system detect (tick all that apply):

- a) Hydrofluorolefin (HFO).
- b) Hydrochlorofluorocarbons (HCFC).
- c) Hydrofluorocarbons (HFC).
- d) Hydrocarbons (HC).
- e) Carbon Dioxide (CO₂).
- f) Ammonia (NH₃).
- g) Others *(Please specify)*.

2. Product type	No	Yes
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Products dedicated to ammonia detection are not eligible.

3. Product performance	No	Yes
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3.1 What is the product’s measurement sensitivity:

ETL products must be able to detect a change of 10ppm in the level of refrigerant in the atmosphere at refrigerant concentrations up to the relevant alarm threshold in Table 1 below.

3.2 Is the system capable of extracting air samples in conditions between -25 and 50°C and relative humidity up to 90%?

The control panels of these systems shall be able to operate in conditions of between 0 to 50°C and relative humidity levels of up to 80%.

3.3 What is the product’s measurement accuracy?

ETL products must have a measurement accuracy according to the refrigerant type, equal to or better than the levels set out in Table 1, at refrigerant concentrations up to the relevant alarm threshold in Table 1.

3.4 Does the system meet the relevant alarm signal threshold set out in Table 1 below?

Table 1 Performance thresholds for automated permanent refrigerant leak detection systems

Refrigerant	Alarm signal threshold (parts per million, ppm)	Measurement accuracy (ppm)	Measurement sensitivity (ppm)
HCFC, HCFC, HFC or HC	≥ 100	+20	10
CO ₂	≥ 5,000	+500	100
NH ₃	≥ 100	+20	10

‘≥’ means ‘greater than or equal to’

4. Summary of documents to be included	No	Yes
<p>Please send ONE copy of each of the following documents:</p> <p>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_LOGIN/login</p>		
<p>a) A technical sales brochure or leaflet for the product clearly summarising:</p> <ol style="list-style-type: none"> 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.). <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 ETL). If the model names contain any 'wildcards' in respect of cosmetic variations please check with ETL 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"> 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. <p><i>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.</i></p>		
<p>c) Evidence that the product meets the performance criteria, including:</p> <ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> • The test facilities complied 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. <p><i>Please refer to "ETL Guidance Note 5: Energy Technology List (ETL) Product Testing Framework" for further guidance on the submission of test results, and minimum information requirements.</i></p>		
<p>d) A Declaration of Conformity with UK/EU Directives on product safety, including:</p> <ol style="list-style-type: none"> i) An appropriate Conformity Assessment mark. 		
<p>e) Evidence that a quality assurance system/procedures is/are in place to:</p> <ol style="list-style-type: none"> i) Control the specification, design, manufacturing and testing of the products. 		
<p>f) Signed application checklist.</p> <p><i>Please note that all product documentation provided must be written in, or translated into, English.</i></p>		

7. 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 at www.gov.uk/guidance/energy-technology-list.

Signature: Date:

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