Energy Technology List
ECA SCHEME

CARBON TRUST

Product application checklist

Please complete in BLOCK CAPITALS

Heat Pumps: Air source gas engine driven: Split and multi-split (including variable refrigerant flow)

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 checklist 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	**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	**Has the product been tested in accordance with the procedures laid down in:**		
	a) BS EN 16905-3:2017, "Gas-fired endothermic engine driven heat pumps – Part 3: Test conditions"	☐	☐
	b) BS EN 16905-4:2017, "Gas-fired endothermic engine driven heat pumps – Part 4: Test methods"	☐	☐
	c) BS EN 16905-5:2017, "Gas-fired endothermic engine driven heat pumps – Part 5: Calculation of seasonal performances in heating and cooling mode"	☐	☐

1.	Product testing and certification (continued)	No	Yes

1.4 **Was the product tested in accordance with the test conditions set forth in the table below (Table 1)?** ☐ ☐

Table 1 Test conditions for air source: gas engine driven (GED) split and multi-split heat pumps

Heating Mode (SPERh)	Cooling mode (SPERc)
BS EN 16905-3:2017 Table 3	BS EN 16905-3:2017 Table 4

Please note the heating standard test requires an entering air temperature on the indoor side of 20°C (Dry-bulb), and an entering air temperature on the outdoor side of 7°C (Dry-bulb) and 6°C (Wet-bulb).

The cooling standard test requires an entering air temperature on the indoor side of 27°C (Dry-bulb) and 19°C (Wet-bulb), and an entering air temperature on the outdoor side of 35°C (Dry-bulb).

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

.....

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

.....

.....

1.7 **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)?

.....

1.8 **Is the application for:** *(please select one).*

a) A product that is a variant of the same basic design as other products listed on the ETPL, where performance test data for "Representative models" has already been submitted in a previous application. ☐

b) A product that is a variant of the same basic design as other products that are not yet on the ETPL, and where performance test data is being submitted for "Representative models" ☐

1.	Product testing and certification (continued)	No	Yes

1.9 **What are the "Representative models":**

ETL Product ID number	Product model numbers

Products will only be considered to be variants of the same basic design, if they:

- Use the same gas engine constructional design.
- Use the same refrigerant as the representative model.
- Have the same compressor type (i.e. manufacturer, method of compression (e.g. reciprocating or scroll) and type of enclosure (e.g. hermetic or semi-hermetic) as the representative model.
- Use the same defrosting method (e.g. hot gas defrost).
- Fit within the same product category (i.e. are all low temperature air to water heat pumps, or are all air to water heat pumps (except low temperature heat pumps).
- Use multiple indoor units with the same outdoor unit.

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.

As a minimum, at least one complete matched outdoor and indoor unit(s) model assembly shall be tested (as per the required test procedures listed above) in each range of products. Where other variants of indoor unit(s) are applied, the performance of each representative model assembly in the group may be calculated using a validated mathematical model.

2.	Product type	No	Yes

2.1 **What type of heat pump is your product?** *(Please select one).*

a) Air source: gas engine driven (GED), single split (non-VRF) heat pumps. ☐
b) Air source: gas engine driven (GED), dual split (non-VRF) heat pumps. ☐
c) Air source: gas engine driven (GED), multi-split (non-VRF) heat pumps. ☐
d) Air source: gas engine driven (GED), split or multi-split, variable refrigerant flow (VRF) heat pumps. ☐

3.	Product features	No	Yes

3.1 **Does the product incorporate a gas-fired internal combustion engine driven refrigeration system?** ☐ ☐

3.2 **Does the product consist of an 'outdoor' unit and one or more 'indoor' units that are:**

a) Factory–built sub-assemblies. ☐ ☐
b) Supplied as a matched set of units. ☐ ☐
c) Designed to be connected together during installation using refrigerant pipework. ☐ ☐

3.3 **Is the product designed for, and include fittings for, permanent installation?** ☐ ☐

4. Product performance	No	Yes

4.1 **Is the Seasonal Primary Energy Ratio of your product greater than or equal to the performance thresholds for the product category (as set out in Table 2 below), across the range of connected capacities, and including 100% (full) load in heating mode or in cooling mode where the product is designed to provide cooling?** ☐ ☐

Table 2 Performance requirements for air source: gas engine driven split and multi-split heat pumps.

Product category	Heating mode (SPERh)	Cooling mode (SPERc)
Air source: GED single split (non VRF) heat pumps	>=1.30	>=1.72
Air source: GED dual split (non VRF) heat pumps	>=1.30	>=1.72
Air source: GED multi-split (non VRF) heat pumps	>=1.30	>=1.72
Air source: GED split or multi-split, variable refrigerant flow (VRF) heat pumps	>=1.30	>=1.72

The performance requirements in Table 2 shall include all relevant energy inputs to the indoor unit(s) for the matched indoor and outdoor model assembly.

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_LOGIN/login.

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 two detailed test reports have been submitted per product range and per laboratory used.

"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: .....

For more information:

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Published in the UK: March 2018. **ECA750 v14**