Energy Technology List

Department for Energy Security & Net Zero

Product application checklist

Please complete in BLOCK CAPITALS

Variable Speed Drives

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 type	No	Yes
1.1	**Is the product specifically designed to drive a motor in a manner that rotates the motor's drive shaft at a variable speed indicated by an external signal?**	☐	☐
1.2	**What category of product are you applying for?** *(please tick one)*		
	a) Variable Speed Drives for line operated AC motor	☐	☐
	b) Variable Speed Drives for converter fed motors	☐	☐
	c) Variable Speed Drives that can control both line operated AC motors and converter fed motors. *Products which are able to control both line operated ac motors and converter-fed motors are also covered, as long as all of the eligibility criteria are met for both forms of control.*	☐	☐
1.3	**Does the product have an appropriate Conformity Assessment mark?** If so, to which directive?	☐	☐
1.4	**Does the product demonstrate conformity with the requirements of:**		
	a) The Electromagnetic Compatibility Regulations 2016?	☐	☐
	b) The Ecodesign for Energy-Related Products and Energy Information Regulations 2021 (where applicable)?	☐	☐
	c) IE2 efficiency level as defined by the Ecodesign for Energy-Related Products and Energy Information Regulations 2021 and IEC/ BS EN 61800-9-2:2017?	☐	☐

2.	Product features	No	Yes
2.1	**Does the product provide an adjustable variable-voltage, variable-frequency output that can be matched to the torque-speed characteristic of the load (being driven by the motor), including both loads with a quadratic torque-speed and linear torque-speed characteristics?**	☐	☐
2.2	**How is the relationship between the voltage and frequency of the product's output determined:** *(Select all that apply).*		
	a) Predefined prior to sale to match a number of specific motor loads, which can be selected during commissioning.		☐
	b) Programmed into the product during installation using a multi-point approximation or parametric motor model as part of a clearly defined commissioning procedure.		☐
	c) Determined during commissioning by a self-tuning algorithm or automatic model identification that automatically minimises the energy consumption of the drive.		☐
	d) Automatically adjusted during operation as part of a control algorithm in a manner that ensures the product's output matches the characteristics of the motor and its load and minimises energy consumption of the drive.		☐
2.3	**Is the product able to automatically vary, in response to an external control signal, the frequency of its output between 5% (or less) and 100% (or greater) of the frequency of its alternating current supply?**	☐	☐
2.4	**Is the product configured for direct connection to the UK public electricity supply system, or a private alternating current supply of nominally fixed frequency and voltage?**	☐	☐
2.5	**Is the product designed to make smooth controlled transitions between speed changes by the use of predefined, programmable or automatically adjusted, acceleration and deceleration ramps?**	☐	☐
2.6	**Where the relationship between the voltage and frequency of the products output is determined by a multi-point approximation, is the flux optimisation adjustable at a minimum of five points?**	☐	☐
2.7	**Does the product incorporate any type of mechanical apparatus that derives its motive force from the product's variable frequency output, including any form of electric motor or fluid movement mechanism, except for fans or pumps incorporated solely for the purposes of product cooling?** *(For example, the 'Product' MUST be a VSD and NOT a VSD/Motor/Pump combination. If the application is for a VSD product incorporated into another product in this way, only the VSD product can be listed and must be uniquely identifiable by its model number and there must be clear differentiation of the VSD model number (as it is listed on the ETL).*	☐	☐
2.8	**Please state the IE efficiency level of the product (where applicable i.e., multi-phase products, rated < 1,000 kW).**		

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3. 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.
The criteria stated above shall be clearly presented in the supporting documentation.

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.). ☐

For each product feature required in section 2, please specify below where in the submitted documentation the feature can be evidenced/verified (e.g. including page numbers where instruction manuals are submitted):

2.1 .....

2.2 .....

2.3 .....

2.4 .....

2.5 .....

2.6 .....

2.7 .....

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 that the supplied documentation can evidence the conformity of the products against the requirements the ETL eligibility criteria. 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.

b) A technical specification sheet 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.

c) 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) Other relevant operational instructions demonstrating the product´s functionality in accordance with the criteria listed in this document. ☐

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

- i) An appropriate Conformity Assessment mark. ☐
- ii) The Electromagnetic Compatibility Regulations 2016. ☐
- iii) The requirements of the Ecodesign for Energy-Related Products and Energy Information Regulations 2021(where applicable). ☐

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.

4. 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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