Energy Technology List

Department for Energy Security & Net Zero

Product application checklist

Please complete in BLOCK CAPITALS

Uninterruptible Power Supply (UPS)

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	**Does the product have an appropriate Conformity Assessment mark?**	☐	☐
	If so, to which directive?		
1.2	**Has your product been performance tested in accordance with BS EN 62040-3:2021 under sections 6.4.1.7, 6.4.1.8 and 6.4.1.9 to perform the tests for Harmonic distortion, input power factor and efficiency respectively?**	☐	☐
1.3	**Was the product tested in their least efficient normal operating mode from a standard 230/400 Volt AC (+/-10%), 50Hz (+/-2%) electrical power supply?**	☐	☐
1.4	**Did the package tested exclude additional isolation transformers that are not physically incorporated into the uninterruptible power supply unit or package, switchgear, low voltage switchboards, and generation sets?**	☐	☐
1.5	**Are the static bypass switches fitted in the 'open' position?**	☐	☐
1.6	**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	☐	☐
	Further information regarding the first four routes can be found in on the ETL Testing Framework.		

1. Product testing and certification (continued)

		No	Yes

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

.....

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

.....

1.9 **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)?

.....

1.10 **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.

2. Product type

		No	Yes

2.1 **What category of product are you applying for?** *(tick one)*

a) Static (installed) uninterruptible power supply units or packages as defined in BS EN 62040-3:2021 (or IEC 62040-3:2021) with a power range greater than or equal to 1kVA that use one or more electronic power converters, switches and energy storage devices (such as batteries) to generate their output voltage when operating without mains input power. ☐

b) Rotary uninterruptible power supply units or packages as defined in BS EN 88528-11:2004 (or IEC 88528-11:2004) with a power range greater than or equal to 200 kVA that use one or more rotating electrical machines (i.e. a.c. generators) to generate their output voltage when operating without mains input power. ☐

2.2 **If the product can be programmed to communicate directly with a remote monitoring and control station, does it meet the general principles and requirements for cybersecurity as set out in:**

a) The foundational requirements of the IEC 62443 series of standards and all relevant technical security requirements set out in IEC 62443-4-2, or: ☐ ☐

b) The security baseline requirements of ETSI EN 303 645 for IOT (Internet of Things) enabled products. ☐ ☐

3.	Product features and functionality (all product categories)	N/A	No	Yes
3.1	**Does the product include the following components (within the unit or package)?** *(tick all that apply)*			
	a) An electronic control system that controls the operation of the product.		☐	☐
	b) Voltage inverter and rectifier devices (required for static uninterruptible power supplies, optional for rotary uninterruptible power supplies).	☐	☐	☐
	c) One or more energy storage devices (for example: batteries, flywheels, etc) specified for use with the UPS.		☐	☐
	d) One or more power supply filters.		☐	☐
	e) A bypass switch.	☐	☐	☐
	f) A motor generator set or alternator (for rotary uninterruptible power supplies only).		☐	☐
3.2	**Is the product designed to be connected to, and to provide electrical power backup to, a three-phase or single phase electricity supply of nominally fixed frequency and voltage?**		☐	☐
3.3	**Does the product have an input total harmonic distortion (THD) of the current that is less than or equal to (i.e. <=) 3% at 100% of rated maximum power output?**		☐	☐
3.4	**For Static UPS with more than one operating: does the product include controls to automatically switch between modes favoring high efficiency operation as utility supply falls below acceptable tolerances?**		☐	☐
3.5	**For modular products: are controls incorporated to operate at higher load per module to favour higher efficiencies?**		☐	☐
3.6	**Can the product be programmed to communicate in any of the following ways?** *(tick all that apply)*			
	a) Communicates with a remote monitoring & control station.			☐
	b) Communicates across a computer network or fieldbus.			☐
	c) Communicates via the internet.			☐
3.7	**Is the product IOT (Internet of Things) enabled?**		☐	☐

4.	Product performance: Static uninterruptible power supply units or packages (≥ 1kVA)	No	Yes
4.1	**Does the product's efficiency meet or exceed the following values:**		
	a) ≥ 94.0% at 25% of full rated load?	☐	☐
	b) ≥ 95.5% at 50% of full rated load?	☐	☐
	c) ≥ 95.5% at 75% of full rated load?	☐	☐
	d) ≥ 95.5% at 100% of full rated load?	☐	☐

5.	Product performance: Rotary uninterruptible power supply units or packages Power range (≥ 200kVA)	No	Yes
5.1	**Does the product's efficiency meet or exceed the following values?**		
	a) ≥ 91.0% at 25% of full rated load?	☐	☐
	b) ≥ 95.0% at 50% of full rated load?	☐	☐
	c) ≥ 96.0% at 75% of full rated load?	☐	☐
	d) ≥ 96.5% at 100% of full rated load?	☐	☐

6.	Product performance: All Products	No	Yes
6.1	**During efficiency testing, did the product's power factor efficiency meet or exceed the following values at nominal input voltage:**		
	a) ≥ 0.95 at 25% of full rated load?	☐	☐
	b) ≥ 0.95 at 50% of full rated load?	☐	☐
	c) ≥ 0.95 at 75% of full rated load?	☐	☐
	d) ≥ 0.95 at 100% of full rated load?	☐	☐
6.2	**Which of the following modes was the product operating in during efficiency testing? *(Select one)***		
	a) VFD		☐
	b) VI		☐
	c) VFI		☐
	d) Other (please specify)		☐
	Please note that these operating modes are as defined in Section 5.3.4 of IEC 62040-3: 2021.		

7. 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 that the supplied documentation can evidence the conformity of the products against the requirements of 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 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 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 representative testing has been used, please include evidence that all products covered by the representative model(s) are constructed out of identical power supply modules. ☐

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.

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

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

- i) An appropriate Conformity Assessment mark ☐

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.

8. 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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ETL776 v18