

USER GUIDANCE NOTES

SUBMISSION OF HEAT PUMP DATA FOR INCLUSION IN THE ENA HEAT PUMP DATABASE

Introduction

These Guidance Notes have been prepared to explain how to submit data to the Energy Networks Association (ENA) for inclusion in the ENA Heat Pump Database.

This document should be read in conjunction with the LCT Application Form and associated Process Flow Chart.

Scope

It is assumed that the equipment is intended for connection to a low voltage electricity distribution system; values quoted in Amperes (A) assume this.

Purpose of Database

The purpose of the ENA Heat Pump Database is to simplify the application process for the connection of heat pump systems to Distribution Network Operator (DNO) or Independent Distribution Network Operator (IDNO) electricity distribution networks. Heat pump systems are viewed as equipment that has the potential to disturb the quality of voltage provided to DNO/IDNO customers. The intention is to hold the technical information in a database that is necessary for DNOs/IDNOs to design connection to their networks. This allows for customers to use a simplified application form that simply refers to the make, model and model reference proposed, reducing the technical information that has to be submitted on the Application Form with each connection application.

Data Submission

Data shall be submitted electronically by email using a copy of the Microsoft Excel spreadsheet 'ENA Heat Pump Database Draft revXXX', with accompanying supporting information attached to the email. See Table 1.

Table 1 – Contact Information

Contact	Energy Networks Association
Email	innovation@energynetworks.org
Telephone	+44 (0) 20 7706 5100

'Heat Pump Data' Spreadsheet for Data Submissions

The spreadsheet for data submissions comprises the following Worksheets:

- A1 Summary Data worksheet
- A2 Data ≤16A worksheet
- A3 Data ≤75A – harmonics worksheet

- A4 Data $\leq 75A$ (d, e, f) – harmonics worksheet¹
- A5 Data $>75A$ – harmonics worksheet
- A6 Data $\leq 75A$ – fluctuations worksheet
- A7 Data $>75A$ – fluctuations worksheet
- A8 Data $>16A$ – harmonics worksheet².

Data descriptions for each data field are provided in Tables A1-A8 of Annex A.

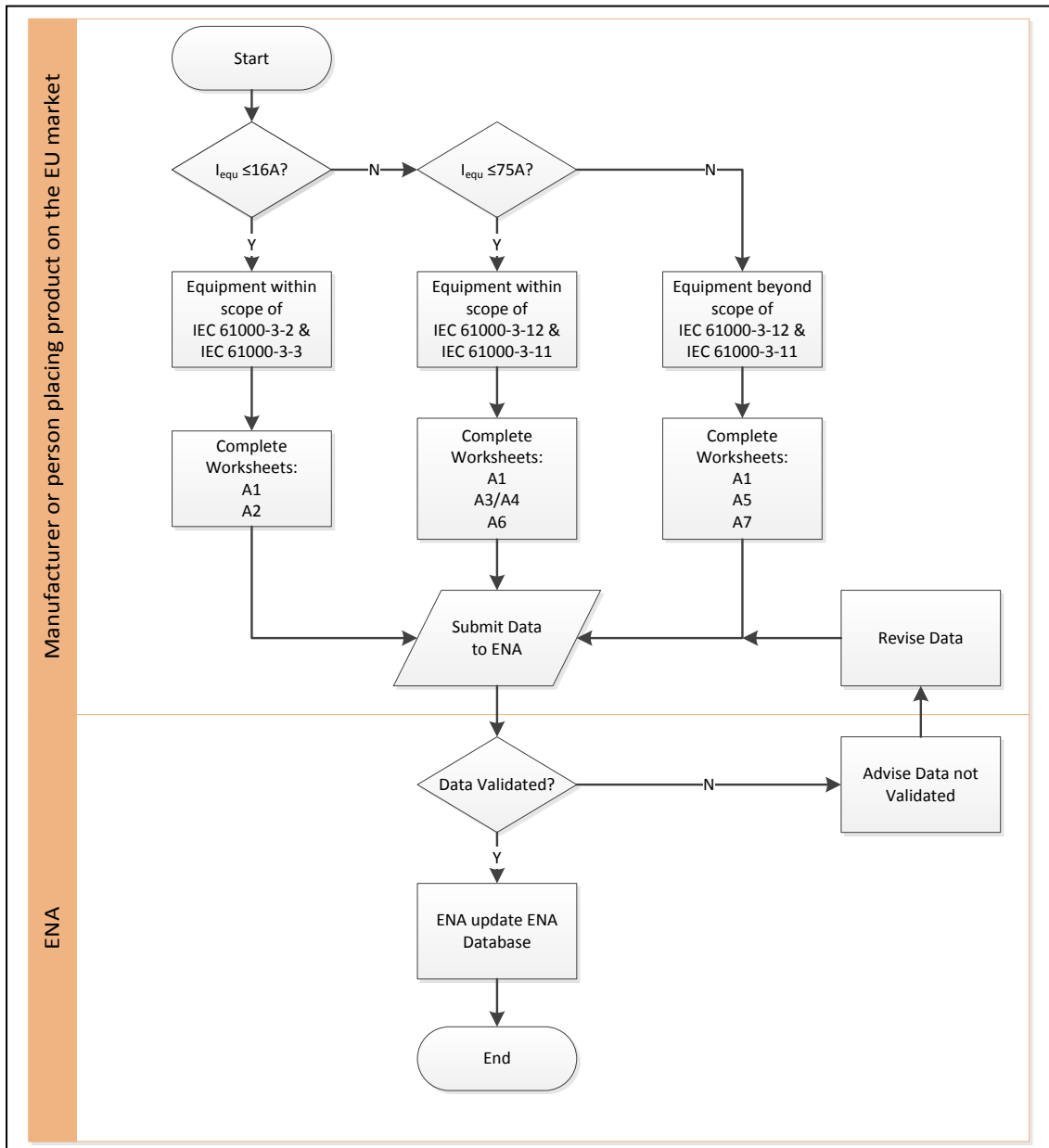
The flowchart in figure 1 illustrates which worksheets to complete based on equipment rating.

The data for heat pump systems provided by manufacturers may relate to the whole system or one or more parts/modules of the system. Worksheet A1 has a drop-down list in column O to enable summary data to be entered for each module in a separate row. Worksheets A2 to A8 are for provision of supporting data; it may be necessary to replicate one or more of these worksheets so that the supporting data for each module can be provided.

¹ This sheet is provided for equipment types meeting Table 5 specified conditions (d), (e) and (f) in IEC 61000-3-12.

² This sheet is provided for use in conjunction with sheet A3 and A4 to provide data in support of the claim for connection design purposes of compliance with the Class A emission limits of IEC 61000-3-2 despite the equipment being out of scope of that standard.

Figure 1 – Data Submission Process



NOTE: I_{equ} = equipment rated input current (A).

ANNEX A DATA DESCRIPTIONS

Table A1 – Summary Data Worksheet

	Attribute Name	Description	Values present
SUMMARY DATA	Heat Pump Type Register Number	First 2 numbers denote the make, second 2 numbers denote the model, both in ascending order – ENA TO POPULATE THIS FIELD, PLEASE LEAVE BLANK.	Alphanumeric
	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Function	Heating/Cooling function of system; enables different declaration for heating only arrangement versus heating and cooling arrangement for connection design purposes	Heating only/Heating & Cooling
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Total Heat Pump System Maximum Demand (A)	Maximum AC input current of entire heat pump system (Amps) (e.g. under extreme operating conditions)	0-500
	Total Heat Pump System Maximum Demand (kVA)	Maximum AC input apparent power of entire heat pump system (kVA) (e.g. under extreme operating conditions)	0-346
	Module Reference	Manufacturer’s reference code used to describe Module	Alphanumeric
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water

		(immersion) heater – external
Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
CE Declaration of Conformity: Filename	Name of electronic file for the EU/CE Declaration of Conformity document	filename.*
CE Declaration of Conformity: Document/Certificate Number	Document or certificate number of the EU/CE Declaration of Conformity document	Alphanumeric
Standards cited on CE Declaration of Conformity: Harmonic Standards	EN standard covering harmonic emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-12/ EN 61000-3-2/ EN 61000-6-3/ EN 61000-6-4
Standards cited on CE Declaration of Conformity: Voltage Fluctuations/Flicker Standards	EN standard covering voltage fluctuations/flicker emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-11/ EN 61000-3-3/ EN 61000-6-3/ EN 61000-6-4
Manufacturer’s EMC Test Report: Filename	Name of electronic file for the manufacturer’s test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	filename.*
Manufacturer’s EMC Test Report: Document Number	Document number of the manufacturer’s test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric
For Connection Design purposes, Compliant with: Class A Limits of IEC 61000-3-2	Declaration of compliance with the Class A current limits in IEC 61000-3-2 (despite being out of scope of that standard) to enable a Distribution Network Operator to treat the equipment as if it met that standard for connection electricity network design purposes	Yes/No/Unknown
For Connection Design purposes, Compliant with: Technical Requirements of IEC 61000-3-3	Declaration of compliance in accordance with ‘Comparison of calculated and measured emission values with clause 5 limits to enable a declaration of compliance with IEC 61000-3-3’ section of EN 61000-3-11	Yes/No/Unknown
For Connection Design purposes, Compliant with: Both Standards?	Logical statement of compliance of Module with both ‘Class A Limits of IEC 61000-3-2’ and ‘Technical Requirements of IEC 61000-3-3’.	Yes/No
For Connection Design purposes, Compliant with:	Logical statement of compliance of all Modules of heat pump system with	Yes/No

Both Standards for All Parts of System?	both 'Class A Limits of IEC 61000-3-2' and 'Technical Requirements of IEC 61000-3-3'	
Total Heat Pump System Maximum Demand $\leq 32A$?	Logical statement of compliance with 32A limit for Total System Maximum Demand (A)	Yes/No
Connect & Notify?	Logical statement that heat pump system is suitable for the 'Connect and Notify' ENA process based upon compliance of all Modules of heat pump system with both 'Class A Limits of IEC 61000-3-2' and 'Technical Requirements of IEC 61000-3-3' and compliance with 32A limit for Total Heat Pump System Maximum Demand (A)	Yes/No
Apply to Connect?	Logical statement is not suitable for the 'Connect and Notify' ENA process and is subject to the 'Apply to Connect' ENA process	Yes/No
Manufacturer's Documentation	Manufacturer's literature including statements in accordance with EN 61000-3-12 and/or EN 61000-3-11	Alphanumeric
Manufacturer's Documentation Declaration: In accordance with EN 61000-3-12	Statement in accordance with 'Product Documentation' section of EN 61000-3-12	Equipment complying with IEC 61000-3-12/ Equipment complying with IEC 61000-3-12 subject to minimum short-circuit power/ Not applicable
$S_{SC \text{ min}}$ 3-phase (kVA)	Minimum permissible 3-phase short-circuit level at the supply terminals determined in accordance with EN 61000-3-12	120-20000
$S_{SC \text{ min}}$ single-phase (kVA)	Minimum permissible single-phase short-circuit level at the supply terminals determined in accordance with EN 61000-3-12	40-6667
Manufacturer's Documentation Declaration: In accordance with EN 61000-3-11	Statement in accordance with 'Requirements' and 'Test, measurement and evaluation procedures' sections of EN 61000-3-11	Equipment complying with IEC 61000-3-3 technical requirements/ Requires $Z_{\text{source}} \leq Z_{\text{max}}$ / Requires Service Current Capacity $\geq 100A$ per phase/ Not applicable
Z_{max} (Ω)	Maximum permissible system impedance at the supply terminals determined in accordance with EN 61000-3-11	0.001-5.000

External Back-up Heater: Facility to control via heat pump?	Declaration of whether heat pump system controller has facility to control external back-up heater	Yes/No
External Back-up Heater: Capable of limiting maximum current?	Declaration of whether heat pump system controller has capability to limit maximum current of external back-up heater	Yes/No
External Back-up Heater: Maximum current limit (A)	Declaration of maximum current limit where heat pump system controller has capability to limit maximum current of external back-up heater	0-500
External Supplementary (boost) Heater: Facility to control via heat pump?	Declaration of whether heat pump system controller has facility to control external supplementary (boost) heater	Yes/No
External Supplementary (boost) Heater: Capable of limiting maximum current?	Declaration of whether heat pump system controller has capability to limit maximum current of external supplementary (boost) heater	Yes/No
External Supplementary (boost) Heater: Maximum current limit (A)	Declaration of maximum current limit where heat pump system controller has capability to limit maximum current of external supplementary (boost) heater	0-500
External Water (immersion) Heater: Facility to control via heat pump?	Declaration of whether heat pump system controller has facility to control external water (immersion) heater	Yes/No
External Water (immersion) Heater: Capable of limiting maximum current?	Declaration of whether heat pump system controller has capability to limit maximum current of external water (immersion) heater	Yes/No
External Water (immersion) Heater: Maximum current limit (A)	Declaration of maximum current limit where heat pump system controller has capability to limit maximum current of external water (immersion) heater	0-500

Table A2 – Data Entry Sheet - ≤16A Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - ≤16A	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Total Heat Pump System Maximum Demand (A)	Maximum AC input current of entire heat pump system (Amps) (e.g. under extreme operating conditions)	0-500
	Total Heat Pump System Maximum Demand (kVA)	Maximum AC input apparent power of entire heat pump system (kVA) (e.g. under extreme operating conditions)	0-346
	Module Reference	Manufacturer’s reference code used to describe Module	Alphanumeric
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
CE Declaration of Conformity: Filename	Name of electronic file for the EU/CE Declaration of Conformity document	filename.*	
CE Declaration of Conformity Document/Certificate Number	Document or certificate number of the EU/CE Declaration of Conformity document	Alphanumeric	

Standards cited on CE Declaration of Conformity: Harmonic Standards	EN standard covering harmonic emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-12/ EN 61000-3-2/ EN 61000-6-3/ EN 61000-6-4
Standards cited on CE Declaration of Conformity: Voltage Fluctuations/Flicker Standards	EN standard covering voltage fluctuations/flicker emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-11/ EN 61000-3-3/ EN 61000-6-3/ EN 61000-6-4
Manufacturer's EMC Test Report: Filename	Name of electronic file for the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	filename.*
Manufacturer's EMC Test Report Document Number	Document number of the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric

Table A3 – Data Entry Sheet - ≤75A [Harmonics] Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - ≤75A [Harmonics]	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
	I_{equ}	Equipment rated current (A) in accordance with EN 61000-3-12	0-500
	I_{ref}	Reference current (A) in accordance with EN 61000-3-12	0-500
	I_h	Harmonic current (A) for order h	0-500
	THC	Total Harmonic Current in accordance with EN 61000-3-12	Numeric
PWHC	Partial Weighted Harmonic Current in accordance with EN 61000-3-12	Numeric	
Manufacturer’s EMC Test Report:	Name of electronic file for the manufacturer’s test report which	filename.*	

Filename	underpins the standards compliance statement on the EU/CE Declaration of Conformity document	
Manufacturer's EMC Test Report Document Number	Document number of the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric
Manufacturer's Documentation Declaration: In accordance with EN 61000-3-12	Statement in accordance with 'Product Documentation' section of EN 61000-3-12	Equipment complying with IEC 61000-3-12/ Equipment complying with IEC 61000-3-12 subject to minimum short-circuit power/ Not applicable
Minimum short-circuit level, $S_{SC\ min}$ (kVA)	Minimum permissible short-circuit level at the supply terminals determined in accordance with EN 61000-3-12	120-20000
Declaration of Conformity - CE Declaration of Conformity: Filename	Name of electronic file for the EU/CE Declaration of Conformity document	filename.*
Declaration of Conformity - CE Declaration of Conformity Document/Certificate Number	Document or certificate number of the EU/CE Declaration of Conformity document	Alphanumeric
Standards cited on CE Declaration of Conformity: Harmonic Standards	EN standard covering harmonic emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-12/ EN 61000-3-2/ EN 61000-6-3/ EN 61000-6-4
Standards cited on CE Declaration of Conformity: Voltage Fluctuations/Flicker Standards	EN standard covering voltage fluctuations/flicker emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-11/ EN 61000-3-3/ EN 61000-6-3/ EN 61000-6-4
Manufacturer's Declaration for Connection Design Purposes	Declaration of compliance with the Class A current limits in IEC 61000-3-2 (despite being out of scope of that standard) to enable a Distribution Network Operator to treat the equipment as if it met that standard for connection electricity network design purposes	Emissions do not exceed Class A limits in IEC 61000-3-2

Table A4 – Data Entry Sheet - ≤75A (d/e/f) [Harmonics] Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - ≤75A (d/e/f) [Harmonics]	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
	I_{equ}	Equipment rated current (A) in accordance with EN 61000-3-12	0-500
	I_{ref}	Reference current (A) in accordance with EN 61000-3-12	0-500
	I_h	Harmonic current (A) for order h	0-500
THC	Total Harmonic Current in accordance with EN 61000-3-12	Numeric	
PWHC	Partial Weighted Harmonic Current in accordance with EN 61000-3-12	Numeric	
Manufacturer’s EMC Test Report: Filename	Name of electronic file for the manufacturer’s test report which underpins the standards compliance statement on the EU/CE Declaration	filename.*	

	of Conformity document	
Manufacturer's EMC Test Report Document	Document number of the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric
Manufacturer's Documentation Declaration: In accordance with EN 61000-3-12	Statement in accordance with 'Product Documentation' section of EN 61000-3-12	Equipment complying with IEC 61000-3-12/ Equipment complying with IEC 61000-3-12 subject to minimum short-circuit power/ Not applicable
Minimum short-circuit level, $S_{SC\ min}$ (kVA)	Minimum permissible short-circuit level at the supply terminals determined in accordance with EN 61000-3-12	120-20000
Declaration of Conformity - CE Declaration of Conformity: Filename	Name of electronic file for the EU/CE Declaration of Conformity document	filename.*
Declaration of Conformity - CE Declaration of Conformity Document/Certificate Number	Document or certificate number of the EU/CE Declaration of Conformity document	Alphanumeric
Standards cited on CE Declaration of Conformity: Harmonic Standards	EN standard covering harmonic emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-12/ EN 61000-3-2/ EN 61000-6-3/ EN 61000-6-4
Standards cited on CE Declaration of Conformity: Voltage Fluctuations/Flicker Standards	EN standard covering voltage fluctuations/flicker emissions stated on the EU/CE Declaration of Conformity document	EN 61000-3-11/ EN 61000-3-3/ EN 61000-6-3/ EN 61000-6-4
Manufacturer's Declaration for Connection Design Purposes	Declaration of compliance with the Class A current limits in IEC 61000-3-2 (despite being out of scope of that standard) to enable a Distribution Network Operator to treat the equipment as if it met that standard for connection electricity network design purposes	Emissions do not exceed Class A limits in IEC 61000-3-2

Table A5 – Data Entry Sheet - >75A [Harmonics] Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - >75A [Harmonics]	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) heater – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
	I_{rated}	Equipment rated input current (A) as declared by the manufacturer and marked as such on the rating plate or in product documentation	0-500
I_h	Harmonic current (A) for order h	0-500	
Manufacturer’s EMC Test Report: Filename	Name of electronic file for the manufacturer’s test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	filename.*	
Manufacturer’s EMC Test Report Document Number	Document number of the manufacturer’s test report which	Alphanumeric	

		underpins the standards compliance statement on the EU/CE Declaration of Conformity document	
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Table A6 – Data Entry Sheet - ≤75A [Fluctuations] Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - ≤75A [Fluctuations]	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
	Manufacturer’s Documentation Declaration: In accordance with EN 61000-3-11	Statement in accordance with ‘Requirements’ and ‘Test, measurement and evaluation procedures’ sections of EN 61000-3-11	Equipment complying with IEC 61000-3-3 technical requirements/ Requires $Z_{source} \leq Z_{max}$ / Requires Service Current Capacity $\geq 100A$ per phase/ Not applicable
	Z_{max} (Ω)	Maximum permissible system impedance at the supply terminals	0.001-5.000

		determined in accordance with EN 61000-3-11	
	Manufacturer's EMC Test Report: Filename	Name of electronic file for the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	filename.*
	Manufacturer's EMC Test Report Document Number	Document number of the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric

Table A7 – Data Entry Sheet - >75A [Fluctuations] Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - >75A [Fluctuations]	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
	Maximum source impedance to comply with IEC 61000-3-11 Section 5 limits (Ω)	Maximum permissible system impedance at the supply terminals to satisfy the limits in Section 5 of IEC 61000-3-11	0.001-5.000
	Manufacturer’s EMC Test Report: Filename	Name of electronic file for the manufacturer’s test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	filename.*
Manufacturer’s EMC Test Report Document Number	Document number of the manufacturer’s test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric	

Table A8 – Data Entry Sheet - >16A [Harmonics] Worksheet

	Attribute Name	Description	Values present
DATA ENTRY SHEET - >16A [Harmonics]	Make	Manufacturer of heat pump equipment	Alphanumeric
	Model	Manufacturer’s model reference for the equipment	Alphanumeric
	Model Reference	Manufacturers reference code used to describe specific variants of a Model	Alphanumeric
	Heat Pump Type	Type of heat pump in terms of the source of heat energy	Air Source/ Ground Source/ Water Source
	Phases	AC port phase inputs: single-phase, split phase or three-phase.	1/Split/3
	Voltage (V)	AC input rated voltage (Volts)	230/400
	Total Heat Pump System (Input) Rated Current (A)	AC input rating of the entire heat pump system (Amps)	0-500
	Total Heat Pump System (Input) Rated Power (kVA)	AC input rating of the entire heat pump system (kVA)	0-346
	Module	Description of whole/part of heat pump system to allow individual declarations/statements if system is modular or, alternatively, declarations for whole system	Whole system/ Heat pump/ Back-up heater – on-board/ Back-up heater – external/ Supplementary (boost) heater – on-board/ Supplementary (boost) – external/ Water (immersion) heater – on-board/ Water (immersion) heater – external
	Module Input Rated Current (A)	AC input rating of the Module as declared by the manufacturer (Amps)	0-500
	Module Input Rated Power (kVA)	AC input rating of the Module as declared by the manufacturer (kVA)	0-346
		I_{rated}	Equipment rated current (A)
	I_{RMS}	RMS current (A) associated with harmonic emission data	0-500
	$I_{h\ max}$	Maximum harmonic current (A) for order h	0-500
	$I_{h\ ave}$	Average harmonic current (A) for order h	0-500
	Manufacturer’s EMC Test Report:	Name of electronic file for the manufacturer’s test report which	filename.*

	Filename	underpins the standards compliance statement on the EU/CE Declaration of Conformity document	
	Manufacturer's EMC Test Report Document Number	Document number of the manufacturer's test report which underpins the standards compliance statement on the EU/CE Declaration of Conformity document	Alphanumeric

ANNEX B REFERENCES

EN Standard	IEC Standard	Title
EN 61000-3-2	IEC 61000-3-2	Limits for harmonic current emissions (equipment input current $\leq 16A$ per phase)
EN 61000-3-3	IEC 61000-3-3	Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16 A$ per phase and not subject to conditional connection
EN 61000-3-11	IEC 61000-3-11	Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems – Equipment with rated current $\leq 75A$ and subject to conditional connection
EN 61000-3-12	IEC 61000-3-12	Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current $>16A$ and $\leq 75A$ per phase
EN 61000-6-3		Generic standards — Emission standard for residential, commercial and light-industrial environments
EN 61000-6-4		Generic standards — Emission standard for industrial environments