



# TECHNICAL CERTIFICATION RULES OF THE EUROVENT CERTIFIED PERFORMANCE MARK



## HEAT INTERFACE UNITS

Identification: ECP - 26

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(This version cancels and replaces any previous versions)

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The purpose of this Technical Certification Rules is to prescribe procedures for the operation of the Eurovent Certified Performance (ECP) certification programme for HEAT INTERFACE UNITS (HEAT INTERFACE UNITS), in accordance with the Certification Manual.

**Modifications as against last version:**

<b>No.</b>	<b>Modifications</b>	<b>Section</b>	<b>Page</b>
1	New structure	all	all
2	New revision of the test standard	II and appendix A	9 and from 24 to 35

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# I. GENERAL INFORMATION

## I.1. Scope

### I.1.1. General

The programme scope covers Heat Interface Units (HIU), defined as a packaged unit including at least one Domestic Hot Water heat exchanger and control elements.

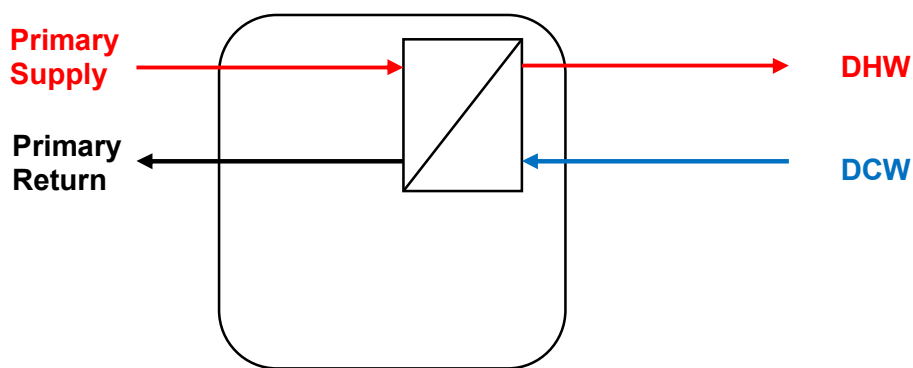
The HIU may contain:

- An additional heat exchanger for heating
- Balancing elements
- 1 heating pump
- Metering possibilities

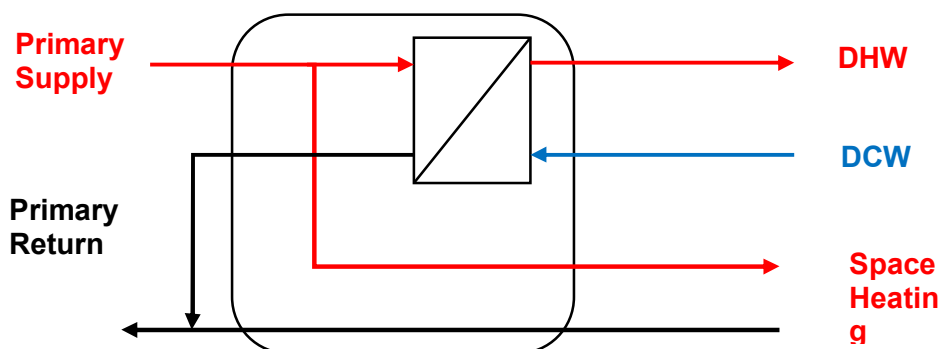
The HIU covered by the scheme are 3 pipes configurations. HIU with DHW capacity level above 70 kW are not covered by the certification scope. Only units for single family dwellings use are covered.

The covered technologies are:

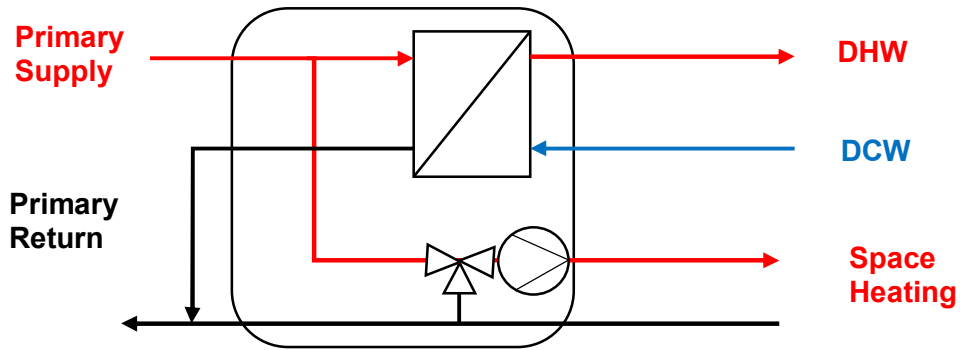
- Domestic Hot Water technology only: HIU/DHW



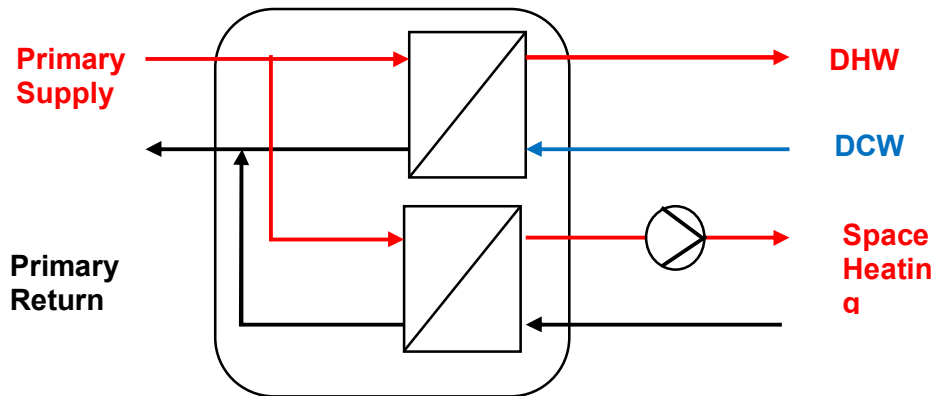
- DHW and direct heating technology: HIU/DHW/DH






- DHW and direct heating mixed technology: HIU/DHW/DHM



- DHW and indirect heating application: HIU/DHW/IH



Symbol	Signification
	Pump
	Heat Exchanger
	Mixing valve

### I.1.2. Certify-all principle

Whenever a company participates in the programme for HEAT INTERFACE UNITS, all heat interface units that are promoted by the applicant/participant to end-users, specifiers, trading companies, contractors by means of paper or electronic catalogue, price list or software within the scope of the programme, shall be certified, in accordance with this Technical Certification Rules. This includes all models in modular ranges. For the HEAT INTERFACE UNITS programme, the certify-all requirement as defined in the Certification Manual is applicable not only to the European market but worldwide.

## I.2. Certified performances

Certified performance items:

Tableau 1: Certified performances

Certified Performances	Unit	Technology type concerned
Maximal DHW capacity	kW	All 4 technologies
Return temperature during normal DHW tapping	°C	
Minimal DHW flow rate	l/min	
DHW reaction time	s	
DHW Standby heat losses	kW	
Capacity on temperature delta of 20 K	kW	DH
Capacity on temperature delta of 10 K	kW	DHM
Difference between primary return temperature and secondary return temperature at 4kW	°C	IH
Heat losses	kW	DH, DHM, IH

## I.3. Definitions

In addition to the definitions specified in the Certification Manual, the following definitions apply:

### a. Technical definitions

#### **Heat Interface Unit**

Packaged unit including one or more heat exchangers, control elements transferring heat from a primary to a secondary system. The primary system may be a district or communal heating scheme. The secondary system is the space heating or domestic hot water system within the dwelling of other space.

#### **Direct Heating**

Primary system and secondary system for space heating are directly connected through the HIU without any heat exchanger. Primary and secondary system are supplied with the same water and pressure. Space heating temperature flow isn't controlled by mixing loop.

#### **Direct Heating Mixed**

Primary system and secondary system for space heating are directly connected through the HIU without any heat exchanger. Primary and secondary system are supplied with the same water and pressure. Space heating temperature flow is controlled by a mixing loop.

## Indirect Heating

Primary system and secondary system for space heating are indirectly connected through the HIU with a heat exchanger separating both systems. Primary and secondary system are not supplied with the same water and pressure.

### b. Codification

The following codification is adopted in the scheme:

*Tableau 2: Codification*

Definition	Code
Heat Interface Unit	HIU
Domestic Hot Water	DHW
Domestic Cold Water	DCW
Direct Heating	DH
Direct Heating Mixed	DHM
Indirect Heating	IH
Space Heating	SH
Mid Temperature conditions	MT
High Temperature conditions	HT
Pressure loss	DP

### c. Syntax

The following syntax is adopted in the scheme:

#### **Temperature Syntax for DHW: $T_a - T_b / T_c - T_d$**

With  $T_a$  = Primary Supply Temperature (°C)  
 $T_b$  = Primary Return Temperature (°C)  
 $T_c$  = DCW inlet temperature (°C)  
 $T_d$  = DHW set point temperature (°C)

When temperature is undefined, then temperature will be replaced by an X.

#### **Temperature Syntax for Heating: $T_a - T_b / T_c - T_d$**

With  $T_a$  = Primary Supply Temperature (°C)  
 $T_b$  = Primary Return Temperature (°C)  
 $T_c$  = Heating return temperature (°C)  
 $T_d$  = Heating set flow temperature (°C)

When temperature is undefined, then temperature will be replaced by an X.

**d. Model**

A **model** is a family of Heat Interface Unit references with the same:

- Technology type
- Same components, specifically components having effect on the controller behavior and efficiency. E.g heat exchanger, hydraulic components, thermostatic valves, electrical operating valves for DHW preparation, controller, and pumps if present.
- Same capacities (DHW and Heating)

Customized models or a project-based solution manufactured for a special demand of customer are not considered as a model.

**I.4. Contributors**

The lists of contributors are given for information and may be modified by EUROVENT CERTITA CERTIFICATION whenever necessary.

**Audit body**

**The audit functions are performed by the following body, called audit body:**

Eurovent Certita Certification SAS	48/50 rue de la Victoire 75009 – PARIS <a href="http://www.eurovent-certification.com">www.eurovent-certification.com</a>	Phone : + 33 1 75 44 71 71
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**Independant laboratory/test body**

When the checks carried out involve product tests, these are performed at the request of EUROVENT CERTITA CERTIFICATION by the following laboratory, known as Independent laboratory:

CETIAT	Domaine Scientifique de la Doua 25 av des Arts - BP 52042 69603, Villeurbanne Cedex France	Phone : + 33 4 72 44 49 67
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## **II. REQUIREMENTS OF THE REFERENCE DOCUMENT**

### **II.1 Reference documents**

#### **II.1.1. Product and test standards**

The test procedure is detailed in the technical appendix and in the product and test standards.

The applicable standards are as follow (non-exhaustive list):

. Test shall be conducted in accordance with the Test Regime Technical Specification, Rev-009 by BESA (Building Engineering Services Association).

#### **II.1.2. Quality management systems standards**

EN ISO 9001:2015, Quality management system – Requirements.

#### **II.1.3. Specific technical requirements**

The appendix A apply.

### **II.2 Specific requirements and quality management**

During the audit, the auditor will:

- check that the ECP mark is displayed on the production units and on the documentation in compliance with the requirements specified in paragraph II.3.1
- check that the products in the sales record and/or production line and/or stock are compliant with the declaration list HIU-1.
- verify that the raw material or incoming goods or basic components under common use in the factory are the same as that appearing in the declaration list HIU-1.
- check that the units selected by Eurovent Certita Certification for the laboratory tests are compliant with the declaration list HIU-1 and technical documentations. The auditor will mark the units, fill in the sampling file and append it on the unit.
- check that the corrective actions plan is completed or under implementation.

The auditor will also perform a complete review of the quality management system to check that:

- the suppliers are regularly evaluated and that the corresponding evaluations are recorded.
- the raw material or incoming goods or basic components are controlled at their reception.
- the products conformity with the bill of material (BOM) specifications is regularly evaluated and the corresponding evaluations are recorded.
- the factory personnel is qualified to perform the specific tasks if any;
- every product traceability is ensured.
- calibration of measuring devices is performed on a regular basis.

- production non-conformities are recorded, and corrective actions initiated.
- customer complaints are registered and treated.

### II.3. Marking

The provisions in the Certification Manual apply:

It is highly recommended that the participating company indicates participation in the EUROVENT CERTIFIED PERFORMANCE (ECP) programme for HEAT INTERFACE UNITS by the following means.

#### II.3.1 Display of Eurovent Certified Performance logo on production units

In addition of the provisions laid down in the certification manual, the following specific requirements apply:

The HIU ECP label is a 5 stars label that considers 2 types of criteria:

- Criteria on the performances and energy efficiency of the HIU
- Criteria on the comfort and quality of the HIU

The label presents a double grade of the units (see figure 1):

- a grade of the unit under High temperature conditions
- a grade of the unit under Mid temperature conditions

The label may present only 1 grade if the unit is sized and sold only for 1 temperature condition (see figures 2 and 3).

Each grade can have between 1 and 5 stars. Grade appears on the left part of the label.

The label shall be in line with relevant specifications in Certification Manual.

The elements taken in consideration in the label, labeling rules and calculation method of the grades are detailed in the appendix A.

Label overview of a HT and MT unit:

Figure 1: Overview label HT&MT



Label overview of a HT unit:

Figure 2: Overview label HT




Label overview of a MT unit:

Figure 3: Overview label MT



Elements on the label have the following significations:

Tableau 3: Signification of symbols

Symbol	Signification
	District heating network plant - representing heating application
<b>70°C</b>	High temperature condition
<b>55°C</b>	Mid temperature condition

### II.3.2 Display of Eurovent Certified Performance logo on technical documentation

In addition of the provisions laid down in the certification manual, the specific requirements described in the paragraph below apply.

## III. CERTIFICATION PROCESS

### III.1 Admission procedure

#### III.1.1 Declaration of data

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The Applicant, after signing the Certification Agreement, shall send to EUROVENT CERTITA CERTIFICATION all information required for the admission: declaration file and relevant literature.

All characteristics and performances shall be expressed in SI units. Maximum of 3 significant digits shall be used filling the declaration file.

Tableau 4: Declaration of performances

Declared Performances (unit)	Technology type concerned	Application	Declaration conditions	Published on ECC website
Maximal DHW capacity (kW)	All 4 technologies	Thermal	Both performances declared in High temperature and Mid temperature conditions	Yes
Return temperature during normal DHW tapping (°C)				Yes
Minimal DHW flow rate (l/min)				Yes
Range of DP: 1,5 bar and 0,1 bar (yes/no)				Yes
DHW reaction time (s)		Regulation		Yes
DHW stability time (s)				Yes
DHW Heat losses in Standby mode (kW)		Heat losses		Yes
Heat losses (kW)		DH, DHM, IH		
Capacity on temperature delta of 20 K (°C)	HIU/DHW/DH	Direct Heating	Only declared for one temperature condition: MT or HT	Yes
Capacity on temperature delta of 10 K (°C)	HIU/DHW/DHM	Direct Heating Mixed	Only declared for one temperature condition: MT or HT	Yes

Difference between primary return temperature and secondary return temperature at 4kW (°C)	HIU/DHW/IH	Indirect Heating	Both performances declared in High temperature and Mid temperature conditions	Yes
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Tableau 5: Declaration of characteristics

Characteristic	Technology type concerned	Published on ECC website	Controlled during factory audit
MT, HT or MT/HT product	All	Yes	Yes
Keep warm function adaptable to user's requirements (yes/no)	All	Yes	Yes
Remote communication ready to allow remote control for commissioning and monitoring (yes/no)	All	Yes	Yes
Remote communication ready to allow end-user remote control (yes/no)	All	Yes	Yes
Country of production factory	All	Yes	Yes
City of production factory	All	No	Yes
Dimensions with cover (H,W,D)	All	Yes	Yes
Weight Including packaging	All	Yes	No
MPS (V, Phase, Hz)	All	Yes	No
Weather compensation (yes/no)	DH, DHM, IH	Yes	Yes
Sanitary circulation	DH, DHM, IH	Yes	Yes
Test mode description (e.g eco mode, confort mode...)	All	Yes	Yes
DHW heat exchanger (nature and number of plates)	All	Yes	Yes
Heat meter ready (CW or HW or No)	All	Yes	Yes
DHW controller type	All	Yes	Yes
DHW controller product name	All	No	Yes
DHW Actuator type	All	Yes	Yes
Dynamical Control of return temperature (yes/no)	DH, DHM, IH	Yes	Yes
DP controller for heating loop (yes/no)	DH, DHM	Yes	Yes
DHW balancing element type	All	Yes	Yes
DH balancing element type	DH	Yes	Yes
DHM balancing element type	DHM	Yes	Yes
IH balancing element type	IH	Yes	Yes
DH zone valve (yes/no)	DH	Yes	Yes
Pump efficiency	DHM, IH	Yes	Yes
Pump type	DHM, IH	Yes	Yes
Mixing valve type (e.g 2 ways thermostatic...)	DHM	Yes	Yes
IH heat exchanger (nature and number of plates)	IH	Yes	Yes
IH valve type	IH	Yes	Yes
Expansion vessel type and volume	IH	Yes	Yes

Submittal of data shall be made by filling in the forms provided by EUROVENT CERTITA CERTIFICATION as .xls or .xlsx files. The forms shall be sent by e-mail to EUROVENT CERTITA CERTIFICATION within the time limits specified in Certification Schedule (see Appendix C).

Copies of the forms are part of this Technical Certification Rules (see Appendix B):

- Declaration file HEAT INTERFACE UNITS-1 will be used
  - for manufacturing companies (Original Equipment Manufacturer – OEM) to declare ranges, Basic Model Groups (BMG), performance ratings and technical data.
  - for Brand Name (BN) companies to identify the corresponding model's number of the original equipment manufacturer
- Technical data sheet HEAT INTERFACE UNITS-2 will be used to complete technical description of all raw material or incoming goods for the units selected.

Form HIU-3: Test result form

### **III.1.2 Admissibility of the application**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Once the application is completed, the admission procedure is articulated as follows:

- For Brand Name (BN) companies, applicable steps of the audit procedure shall be conducted (see § III.1.3.1).
- For Original Equipment Manufacturers (OEM), Eurovent Certita Certification proceeds to selection (see § III.1.3.2) based on the declaration file HIU-1. The independent laboratory staff proceeds to product performance testing on the selected units according to the procedure detailed in § III.1.3.3. In the meantime, an auditor appointed by Eurovent Certita Certification shall proceed to audit of manufacturing site according to audit procedure (see III.1.3.1).

### **III.1.3 Implementation of checking operations**

The provisions of the Certification Manual apply.

#### **III.1.3.1 Initial admission audit**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The audit will consist of the on-site verification that the applicable requirements specified in § II.2 are fulfilled.

The duration of the site audit is one day. This duration can be adjusted in the case of carrying out a joint audit with other certifications.

The number of audits per applicant is limited to one per year, no matter how many factories/facilities the applicant has. All factories/facilities of the OEM/Brand Name must be declared to Eurovent Certita Certification.

Eurovent Certita Certification has the liberty to choose in which Factory/Facility the audit will be performed. For Brand Names, Eurovent Certita Certification shall be allowed to perform the audit in the BN's facilities or in the OEM's factories.

Whenever necessary, Eurovent Certita Certification has the right to ask an auditor to conduct an additional audit to the applicant factory as well as to collect data directly from customer. If audits are not conducted within the time limitations specified in the notification received from Eurovent Certita Certification, it is considered as non-application of procedures (see certification manual).

In case of force majeure (e.g. accidents, labour disputes, natural events, acts of war) which would not allow Eurovent Certita Certification to perform a factory audit Eurovent Certita Certification can decide to replace it by another mean of verification, to postpone it within a reasonable deadline or to cancel it.

### **Audit non-conformity**

After evaluation, a non-conformity is classified as critical when, on the basis of objective evidence, the following cases are identified:

- there is a significant risk to the product conformity with respect to specified requirements.
- there is a significant risk regarding the quality management system ability to control the product conformity to specified requirements.
- there is systematic or repeated non-conformity to a specified requirement.

Otherwise, the non-conformity is classified as non-critical.

In case of non-conformity, the applicant/participant shall be requested to provide Eurovent Certita Certification with corrective actions plan within the deadline specified by the auditor.

The applicant shall resolve the non-conformity within the time limitation agreed in the corrective actions plan.

In case of critical non-conformity, the certification may be suspended/not granted until the critical non-conformity resolution and the corresponding verification.

### **III.1.3.2 Selection of units to be tested**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Eurovent Certita Certification shall select units to be tested based on its evaluation of the declaration file HIU-1 communicated by the applicant.

Number of units to be tested

Number of units selected are indicated in table 6 below. Number of selected units depends on total number of declared models (all technology types included). Definition of a model is indicated in paragraph I.3.d

Tableau 6: Number of units to be selected

Number of models declared	Number of units selected
$x < 15$	1
$15 \leq x \leq 100$	2
$x > 100$	3

When number of tests > 1: All certified performances are tested at 1 temperature condition randomly chosen between MT and HT.

When number of tests = 1: All certified performances are both tested at HT and MT conditions, except for Heat losses, reaction and stability times and Space heating test at 4kW, which are randomly tested at HT or MT conditions.

The selection procedure shall follow the following steps:

1. Selection is done before the audit by Eurovent Certita Certification. The selected units are communicated by ECC to the participant/applicant.
2. The auditor schedules the audit date when the selected models are planned to be in stock. It is the OEM's responsibility to be sure that the selected models are in stock on audit day or that at least 1 model has been put aside if there are no stocks of the units.
3. Random selection of units is realized in stock by the auditor during the audit. If only 1 model has been put aside, preventing the selection to be fully random, then the auditor can decide to select another unit from stocks different then the initial one.
4. The auditor will check the units (II.2), mark the units, fill in the sampling file and append it on the unit.
5. The applicant/participant sends the selected units to the laboratory before the scheduled date of test. Technical and installation documentations of the units are both sent to the laboratory and to ECC.

### III.1.3.3. Tests at the independent laboratory

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

Tests shall be performed at the independent laboratory selected by Eurovent Certita Certification.

The laboratory shall have the responsibility of uncrating, handling, testing and recrating the unit for shipment.

Before testing, the laboratory shall check the product against the values declared in the declaration files and technical documentation to ensure that the unit corresponds to the selection.

The laboratory shall not perform the test and contact Eurovent Certita Certification who shall ask the applicant/participant to send a new unit in the following cases:

- One of the information is not compliant with the technical datasheet,
- Units are not compliant with the technical documentation or declaration list,
- One of the units appears damaged.



Units shall be assembled and installed in the test facility by the laboratory personnel in accordance with the manufacturer's published installation instructions. The applicant shall therefore provide the laboratory with full information about the installation.

Upon request the applicant's staff can be allowed by Eurovent Certita Certification to attend the preparation and installation of units but not the test itself.

No applicant's personnel shall be present in the laboratory test facility during the tests.

### **Report of the test results and test check**

Upon completion of the tests on each unit, the laboratory will send the complete report as a .pdf file to Eurovent Certita Certification.

For each test, a performance item fails when the declared value and the measurement differ by more than the allowable acceptance criterion (see appendix A).

When one or more performance items fail, the test status is considered FAILED and the failure treatment corresponding to unit failure (see §III.3) shall be applied.

A launching period, corresponding to the 2 first years of certification campaign, is put in place. During this launching period, applicant/participant shall declare the following performances, but acceptance criteria and high deviations will not be applicable:

- DHW standby heat losses
- Heat losses
- DHW reaction time
- DHW stability time

After launching period, acceptance criteria and high deviation will be applicable.

Eurovent Certita Certification will forward a copy of the report together the test report result sheet and the test rerate form (HIU-3) to the applicant/participant (see appendix B).

#### **a. Time limitation of acquisition and recovery of units**

Deadline for delivery of units to the laboratory, together with the technical documentation and the payment, is defined in the Certification Schedule (see appendix C). For the qualifying procedure the deadline is specified in the notification received from Eurovent Certita Certification.

If elements are not delivered within the time limitations, it is considered as non-application of procedures (see the relevant paragraph of the Certification Manual).

Eurovent Certita Certification has discretion not to discontinue the certification when the applicant/participant provides a definite and acceptable date of supply.

The applicant/participant has to recover the products maximum six working weeks after receiving the test reports and results. If the products are not recovered after this delay, the laboratory can destroy them and the corresponding invoice will be sent by Eurovent Certita Certification to the applicant.

### **b. Test conditions**

The tests shall be conducted at the conditions stated in Appendix A.

### **c. Failure treatment**

The tests shall be conducted at the conditions stated in Appendix A.

#### 1. Reasons of failure

The applicant/participant may examine the reasons of the failure.

#### 2. Initial test failure

Is considered as an initial test failure any situation where:

- the unit to be tested cannot be operated, or
- any functional component of the unit to be tested is out of order
- the unit to be tested, or any of its components is damaged, e.g. due to transportation.

The laboratory shall immediately inform Eurovent Certita Certification who will notify the applicant/participant. The complete test shall then be carried out on the repaired unit or a new unit from the same model. The new unit shall be delivered within four weeks from the notification of the failure.

#### 3. Unit failure

For each failed test, the applicant has four working weeks from the notification of failure to select between the following alternatives:

- Rerate: Re-rate all products in accordance with test results following the re-rating procedure described below. Penalty tests will be required as described below. The Participant shall correct his catalogues, website and software. ECC will continuously check Participant's technical documentation
  - Ask for a second test on the same unit (already tested and kept in the laboratory): If the second test is unsuccessful, the Participant/Applicant shall re-rate all products in line with the second test results according to the re-rating procedure and penalty tests will be required
4. Ask for a second test on a new copy of the same unit the manufacturer can ask for a second test on a new unit (same model), in specific cases, after analysis of the non-conformity and implementation of actions if applicable. When the second test is carried out on another unit than the one already tested, then one penalty test will be required during the next campaign, whatever the result of the second test is. A tested unit which comes back to the participant and is sent again for test is considered as a new unit.

General Rerating procedure requirements are stated in the dedicated paragraph of the Certification Manual.

For each failed performance, the model tested shall be rerated to the measured value.

All other models from the same range than the tested model shall be rerated as well by applying the same deviation measured on the failed unit.

### **III.1.4. Evaluation and decision**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The certification is granted on condition that:

- The aforementioned checks prove compliance with the requirements specified in Appendix A
- All the other requirements from the present Technical Certification Rules are fulfilled,
- All fees have been settled.

If not, the procedure for failure treatment shall be applied.

When certified, the ranges are published on the Eurovent Certified Performance (ECP) website ([www.eurovent-certification.com](http://www.eurovent-certification.com)). Once the certificate is received, the participant is entitled to use the certification mark according to applicable requirements (see §II.3).

### Penalty tests

For each failure above high deviation for the following performances a penalty test shall be scheduled for the next test campaign:

- Maximal DHW capacity
- Return temperature during a normal DHW tapping
- Minimum DHW flow rate
- Difference between primary return temperature and secondary return temperature at 4kW

High Failures on several performances in the same test lead to one penalty test. The penalty tests are full tests and shall be performed during the next surveillance test campaign, in addition to scheduled surveillance tests. The total number of penalty tests is limited to 1 (one) penalty test.

## **III.2. Surveillance procedure**

The provisions of the Certification Manual apply.

### **III.2.1. Implementation of surveillance operations**

#### **III.2.1.1. Surveillance audit**

The provisions laid down in the Certification Manual and in §III.1.3.1 (initial admission audit) apply.

#### **III.2.1.2. Selection of units to be tested**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

For the surveillance procedure, Eurovent Certita Certification shall select units following the same rules than for the admission procedure.

However, if there are no failed performances (on total number of tests) during previous test campaign N-1, then 1 test less will be performed on total amount of tests of campaign N (in the limit of a minimum of 1 test).

#### **Selection of the penalty tests**

Eurovent Certita Certification shall select units for penalty tests from the range which failed (see § III.1.3.3.C.4). If this range is no longer produced in year N+1 (status “deleted” or “obsolete”) then the selection will be made from the range which is the most similar to the one that failed.

#### **III.2.1.3. Surveillance tests**

Within the programme, tests may be conducted under the following procedures:

- Scheduled tests in surveillance procedure
- Penalty test in surveillance procedure
- Challenge procedure test

For the surveillance procedure, the surveillance tests follow the same rules as the admission tests (see § III.3.3).

#### **III.2.1.4. Technical and commercial documentation check**

The provisions laid down in the Certification Manual and in § II.3. apply.

### **III.2.2. Evaluation and decision**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

For the surveillance procedure, the certification is renewed at the date specified in the Certification Schedule (see appendix C) on condition that:

- The previous test campaign (N-1) has been successfully completed.
- The scheduled audits have been performed by the auditor and are successful or the corrective actions plan is considered satisfactory.
- The product delivery together with the technical documentation and the payment have been completed.

The company receives then a renewed certificate and the display of data is maintained on the Eurovent Certified Performance (ECP) website. If not, failure treatment shall be applied.

### **Failure treatment**

When a range fails to comply with the requirements of the appendix A, the failure treatment shall be applied.

### **Challenge procedure**

Under special conditions a challenge procedure may be carried out as described in the Certification Manual.

## **III.3 Declaration of modifications**

The provisions of the Certification Manual apply.

### **III.3.1. Changes concerning the participant**

The provisions of the Certification Manual apply.

### **III.3.2. Changes concerning production entities**

The provisions of the Certification Manual apply.

### **III.3.3. Changes concerning the quality organization of the manufacturing and/or marketing process**

The provisions of the Certification Manual apply.

### **III.3.4. Additional admission for a new model and/or new range**

The provisions of the Certification Manual apply.

### **III.3.5. Changes concerning the certified product**

In addition to the provisions laid down in the Certification Manual, the following requirements apply:

The applicant/participant shall inform Eurovent Certita Certification of any modification of the product portfolio by updating the declaration file (HEAT INTERFACE UNITS-1). Non-compliance of the applicant/participant is considered as non-application of procedures.

EUROVENT CERTITA CERTIFICATION decides whether the modification is significant for the certified performance data or not. In the case of significant modifications EUROVENT CERTITA CERTIFICATION is entitled to request adequate tests to check the influence on performance data. This test shall not be considered as a surveillance one.

### **III.3.6. Temporary or permanent cessation of production of a certified product**

The provisions of the Certification Manual apply.

### **III.4. Suspension/cessation conditions**

The provisions of the Certification Manual apply.

## APPENDIX A. TECHNICAL APPENDIXES

### A.1. Purpose

The purpose of this technical appendix is to establish definitions and specifications for testing and rating of Heat Interface Unit (HIU) for the related Eurovent Certita Certification Performance Programme.

### A.2. Testing requirements

Test shall be conducted in accordance with the Test Regime Technical Specification, REV-009 by BESA (Building Engineering Services Association)

### A.3 Rating requirements

#### A.3.2. Content of tests

Tableau 7:Content of tests

Technology type	Content of tests
DHW units	<b>7 performances in MT and HT conditions:</b> Maximum DHW capacity (kW), Return temperature during a normal DHW tapping (°C), Min DHW flow rate (l/min), DHW reaction time (s), DHW Standby losses (kW), range of DP (kPa), DHW stability time(s)
DHW/DH units	<b>9 performances in MT and HT conditions:</b> Maximum DHW capacity (kW), Return temperature during a normal DHW tapping (°C), Min DHW flow rate (l/min), DHW reaction time (s), DHW Standby losses (kW), range of DP (kPa), Heat losses (kW), Capacity on delta temperature of 20K (kW), DHW stability time(s)
DHW/DHM units	<b>9 performances in MT and HT conditions:</b> Maximum DHW capacity (kW), Return temperature during a normal DHW tapping (°C), Min DHW flow rate (l/min), DHW reaction time (s), DHW Standby losses (kW), range of DP (kPa), Heat losses (kW), Capacity on delta temperature of 10K (kW), DHW stability time(s)
DHW/IH units	<b>9 performances in MT and HT conditions:</b> Maximum DHW capacity (kW), Return temperature during a normal DHW tapping (°C), Min DHW flow rate (l/min), DHW reaction time, DHW Standby losses (kW), range of DP (kPa), Heat losses (kW), Space heating test at 4kW output (°C), DHW stability time (s)

With:

*High temperature condition (HT): 70°C on primary supply*

*Mid temperature condition (MT): 55°C on primary supply*

### Testing conditions and specifications

The following specifications are applicable for admission tests and surveillance tests.

Tableau 8: Test conditions and specifications

TEST TYPE	OPERATING MODE	DESCRIPTION OF TEST	MEASURED VALUES	TEST CONDITIONS	TEST SPECIFICATIONS
Static	DHW	DHW maximum capacity	<ul style="list-style-type: none"> <li>DHW Flow rate (l/min)</li> <li>DHW pressure loss (kPa)</li> <li>Primary return temperature (°C)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 10°C – 50°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 10°C – 45°C</li> <li>Primary circuit DP: 50 kPa</li> </ul>	<ul style="list-style-type: none"> <li>The DHW temperature can reach -3°C from set point both for High temperature and Low temperature conditions</li> <li>Maximal DP on DHW: circuit 150 kPa</li> <li>Test duration: 300s when stabilized</li> </ul>
Static	DHW	Average DHW tapping	<ul style="list-style-type: none"> <li>Primary return temperature (°C)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 10°C – 50°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 10°C – 45°C</li> <li>Primary circuit DP 50 kPa</li> <li>DHW Flow rate 0,15 l/s</li> </ul>	<ul style="list-style-type: none"> <li>Test duration: 300s when stabilized</li> </ul>
Static	DHW	Minimum DHW flow rate	<ul style="list-style-type: none"> <li>DHW Flow rate (l/min)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 10°C – 50°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 10°C – 45°C</li> <li>Primary circuit DP: 50 kPa</li> </ul>	For <b>HT</b> and <b>MT</b> conditions: <ul style="list-style-type: none"> <li>DHW temperature has to stay stable within +/-3 °C for 300 seconds and neither exceeds 60 °C nor drops below 42 °C</li> </ul>
Dynamic	DHW	DHW reaction time	<ul style="list-style-type: none"> <li>Reaction time (s)</li> <li>DHW outlet temperature (°C)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 10°C – 50°C</li> <li><b>MT Conditions:</b></li> </ul>	<ul style="list-style-type: none"> <li>Reaction time is reached when DHW temperature reaches 42°C and never goes back</li> </ul>



			<ul style="list-style-type: none"> <li>DHW flow rate (l/min)</li> </ul>	<p>55°C – X°C / 10°C – 45°C</p> <ul style="list-style-type: none"> <li>Primary circuit DP: 50 kPa</li> <li>DHW Flow rate 0,15 l/s</li> </ul>	<p>below 42°C and never above 60°C</p> <ul style="list-style-type: none"> <li>According to BESA method</li> <li>Test duration: 5 minutes of tapping after stabilization point</li> <li>Test is done immediately after DHW Standby losses</li> </ul>
Dyna mic	DHW	DHW stability time	<ul style="list-style-type: none"> <li>Stability time (s)</li> <li>DHW outlet temperature (°C)</li> <li>DHW flow rate (l/min)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 10°C – 50°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 10°C – 45°C</li> <li>Primary circuit DP: 50 kPa</li> <li>DHW Flow rate 0,15 l/s</li> </ul>	<ul style="list-style-type: none"> <li>Stability time is reached when DHW temperature stay stable within a +/-3°C band during 100s within the range 42°C-60°C.</li> <li>Stability conditions: According to BESA method</li> <li>Test is done immediately after DHW Standby losses</li> </ul>
Static	DHW	DHW Standby losses (summer conditions)	<ul style="list-style-type: none"> <li>Power (kW)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 10°C – 50°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 10°C – 45°C</li> </ul>	<ul style="list-style-type: none"> <li>After carrying tapping for 2 minutes (0.15 l/s), close the tap.</li> <li>Tap closure is the starting point for standby time.</li> <li>Unit remains in standby during 4 hours before measurements.</li> </ul>
Static	Direct Heating Mixed	Capacity on delta T of 10K	<ul style="list-style-type: none"> <li>Power (kW)</li> <li>Primary circuit DP (kPa)</li> <li>Secondary circuit DP (kPa)</li> <li>Secondary flow temperature (°C)</li> <li>Primary return Temperature (°C)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 30°C –40°C</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li><b>MT Conditions:</b> 55°C – X°C / 30°C –40°C</li> </ul>	<ul style="list-style-type: none"> <li>In the condition that the available pressure head to the secondary system is at least 15 kPa.</li> <li>Pump set up to maximum</li> </ul>

			<ul style="list-style-type: none"> <li>Available secondary DP (kPa)</li> </ul>		
Static	Direct Heating	Capacity on delta T of 20K	<ul style="list-style-type: none"> <li>Power (kW)</li> <li>Primary circuit DP (kPa)</li> <li>Secondary circuit DP (kPa)</li> <li>Secondary flow temperature (°C)</li> <li>Primary return Temperature (°C)</li> <li>Available secondary DP (kPa)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / X°C – X°C</li> <li><b>OR</b></li> <li><b>MT Conditions:</b> 55°C – X°C / X°C – X°C</li> <li>Unit DP loss of 20 kPa</li> </ul>	<ul style="list-style-type: none"> <li>In the condition that the available pressure head to the secondary system is at least 20 kPa.</li> <li>Adjust the flow rate until the unit produces a DP loss of 20 kPa.</li> </ul>
Static	Indirect Heating	Space heating test at 4kW output	<ul style="list-style-type: none"> <li>Difference between Primary return and secondary return Temperature (°C)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 40°C – 60°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 30°C – 35°C</li> <li>Primary circuit DP: 50 kPa</li> </ul>	<ul style="list-style-type: none"> <li>Test duration: 300s when stabilized</li> </ul>
Static	Heating (DH, DHM, IH)	Heat losses	<ul style="list-style-type: none"> <li>Power (W) (average value over 10 min after stabilization)</li> </ul>	<ul style="list-style-type: none"> <li><b>HT Conditions:</b> 70°C – X°C / 40°C – 60°C</li> <li><b>MT Conditions:</b> 55°C – X°C / 30°C – 35°C</li> </ul>	<ul style="list-style-type: none"> <li>Forcing the heating valve open in indirect units (installing a bypass between flow/return on direct units). Ambient temperature to be logged. Heat losses will have to be calculated at 20°C ambient temperature.</li> </ul>
Static	DHW	Range of DP	<ul style="list-style-type: none"> <li>DP (kPa)</li> <li>Temperature</li> </ul>	<ul style="list-style-type: none"> <li>Two tests performed: <ul style="list-style-type: none"> <li>At DP = 0,1 bar</li> <li>At DP = 1,5</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Temperature has to stay stable within +3°C for 300s around set temperature</li> </ul>

Complementary testing specifications:

In complement, the following testing specifications shall be applied:

- If the HIU unit can run under different mode or settings (e.g “Eco mode”, “Comfort mode”...), the test shall be run under the mode for which the performances have been declared. The applicant/participant has the choice of the mode on which he wants to declare his units. No mode change is allowed during the test.
- The minimum DHW flow rate test shall follow the following procedure:
  1. All parameters (temperatures, pressure losses...etc) are set and stabilized on the test rig
  2. Starting from 0 l/min the flow rate is progressively set to the declared value by the applicant/participant
  3. The declared value is accepted if DHW temperature stays stable within +/-3 °C for 300 seconds and neither exceeds 60 °C nor drops below 42 °C. This step of the test shall not last more than 360 seconds

If the test fails, the flow rate set value is increased until reaching the limit of the acceptance criterion “Declared value + 0,2 l/min”. If the test fails again, the flow rate set value is increased until reaching the limit of the high deviation criterion “Declared value + 0,4 l/min”.

- Keep-warm function must be activated for all tests
  
- For reaction time and stability time measurements, following specifications shall be respected:
  - Temperature sensor should be placed after connection point: Test lab shall measure the pressure drop on each circuit (DHW, space heating, primary). To measure it a 15\*D (tube Diameter) straight length shall be used (10\*D before Pstatic measurement + 5\*D after Pstatic measurement).  
Temperature measurement shall not be included in dP measurement. Temperature sensor will be placed at a minimum of 15\*D from the connection. Of course, pipes are insulated!
  - The time is counted once the flow rate has reached the set value  
The flow rate shall be obtained in less than 5 seconds after tap opening  
Accepted tolerances on flow rate are:
    - +/- 1 l/min for flows below 10l/min
    - +/- 10% for flows above 10l/min
 Accepted tolerance on the average value of flow rate during the test is: +/- 0.5 l/min

#### **A.4. Certified Performance Items**

The following performance data declared by the applicant/participant shall be verified by tests:

*Tableau 9: Certified performances*

<b>Certified Performances</b>	<b>Unit</b>	<b>Technology type concerned</b>
Maximal DHW capacity	kW	All 4 technologies
Return temperature during normal DHW tapping	°C	
Minimal DHW flow rate	l/min	
DHW reaction time	s	
DHW Standby heat losses	kW	
Capacity on temperature delta of 20 K	kW	DH
Capacity on temperature delta of 10 K	kW	DHM
Difference between primary return temperature and secondary return temperature at 4kW	°C	IH
Heat losses	kW	DH, DHM, IH

#### **A.5. Acceptance criteria**

When tested in the laboratory the obtained performance data shall not differ from the declared values by more than the following deviations:

*Tableau 10: Acceptance criterions and high deviation*

<b>Certified performances</b>	<b>Accepted deviation</b>	<b>High deviation failure</b>
Maximal DHW capacity (kW)	< -5%	< -20%
Return temperature during a normal DHW tapping (°C)	< 2°C	< 4°C
Minimum DHW flow rate (l/min)	< 0,2 l/min	< 0,4 l/min
DHW Standby heat losses (kW)	N/A during launching period	N/A during launching period
Heat losses (kW)	N/A during launching period	N/A during launching period

DHW reaction time (s)	+/- 2 sec (N/A during launching period)	+/- 10 sec (N/A during launching period)
DHW stability time (s)	+/- 2 sec (N/A during launching period)	+/- 10 sec (N/A during launching period)
Capacity on temperature delta (kW) 10K or 20K	< -5%	N/A
Difference between primary return temperature and secondary return temperature (at 4 kW)	< +/-1°C	< +/-3°C

**Launching period:** 2 first years of certification campaign

**High Failure:** When tested, if the performances obtained differ from the values claimed by the Manufacturer by more than the high deviation threshold, the high failure treatment shall be applied (see part IV.6 of the Operational Manual OM-26).

The relative deviation (in %) between the measured value  $X_{meas}$  and the declared value  $X_{decl}$  is calculated as follows:

$$\Delta_{rel} = (X_{meas} - X_{decl}) / X_{decl}$$

The absolute deviation between the measured value  $X_{meas}$  and the declared value  $X_{decl}$  is calculated as follows:

$$\Delta_{abs} = X_{meas} - X_{decl}$$

If any of individual points of measurement shows a deviation larger than the acceptable criterion, the failure shall be declared and the failure procedure applied.

## **A.6. HIU Labelling**

### **A.6.1. Performances and features considered in label**

*Tableau 11: Features and performances for labelling*

<b>Technology type</b>	<b>Performances</b>	<b>Features</b>
All 4	Return temperature during normal DHW tapping (K)	Keep warm function adaptable to user's requirements
	Minimal DHW flow rate (l/min)	Remote communication ready to allow remote control for commissioning and monitoring
	DHW reaction time (s)	Remote communication ready to allow end-user remote control
	DHW stability time (s)	
	Average Heat losses in Standby mode	
	Range of DP on primary side for the supply of DHW: pass or fail	
DH and DHM and IH	Heat losses in heating mode in HT conditions	Weather compensation
		Sanitary circulation

		Dynamical control of return temperature
IH	Difference between primary return temperature and secondary return temperature (at 4kW)	
DHM and IH		Pump efficiency EEI <= 0.20
DH and DHM		DP controller for heating loop

### A.6.2. Labelling rules

- The HIU ECP label relies on stars, granted according to the total amount of points (Tot) obtained by the unit. A unit can obtain between 1 and 5 stars.
- Maximum points obtained by the unit is 100 for each technology type.
- Stars are granted according to the following total amount of point thresholds:

Tableau 12: Total amount of point and star awarding

Grade	Total amount of points (Tot)
5 stars	Tot > 85 points
4 stars	85 points ≥ Tot > 70 points
3 stars	70 points ≥ Tot > 55 points
2 stars	55 points ≥ Tot > 40 points
1 star	40 points ≥ Tot

- Performances/features are gathered in the 5 following categories:
  - ✓ DHW control
  - ✓ Heat losses
  - ✓ Heat exchange
  - ✓ DP performances
  - ✓ Other features
- Each category has a maximum of points authorized defined in tables 8,9 and 10 of part VII.3. Features marked in grey in the tables are “Bonus points features”, awarded in the limit of maximal points of category.
- The calculation of total amount of points is realized according to the rules defined in tables of part VII.3.
- DHW standby and heating heat losses are not considered in the calculation of points during the launching period of 2 first years of certification campaigns.
- A progressive weight of the heat losses will then be added after launching period, to obtain in the end 10 points for DHW and IH technology types, 15 points for DH and DHM technology types.
- The missing 8 points (DHW and IH technology) and 13 points (DHM and DH technology) are automatically granted during the launching period of 2 first years of certification campaigns.

## A.6.2. Calculation method of total amount of points

Tot is calculated according to the following formula:

$$Tot = \sum_{Categories} \text{Number of points of category}$$

With

Categories = {DHW control performances, Heat losses, Heat exchange performances, DP performances, Other features}

And

*Number of points of category = Min( $\sum_{Performance/Features}$  (Number of points \* Weight); Maximum number of points of category)*

- Each performance/feature brings a number of points equal to the multiplication of a number of points (between 0 and 2 for performances) and its weight.
- In the formulas of calculation of points, the value of the performance concerned is named x.

Number of points and weights are detailed in the following tables:

### INDIRECT TECHNOLOGY

Tableau 13: Points for Indirect Heating technology

Categories	Maximum number of points of category	Performance / Feature (named x)	Rule		Weight
			Condition	Number of points	
DHW control performances	30 points	Minimal DHW flow rate (l/min)	$x < 1,5$ l/min	2 points	5
			$1,5$ l/min $\leq x \leq 2,5$ l/min	$-2*x + 5$ points	
			$x > 2,5$ l/min	0 point	
		DHW reaction time (s)	$x < 10$ s	2 points	5
			$10 \text{ s} \leq x \leq 20 \text{ s}$	$-0,2*x + 4$	
			$x > 20$ s	0 point	
		DHW stability time (s)	$x < 20$ s	2 points	5
			$20 \text{ s} \leq x \leq 40 \text{ s}$	$-0,1*x + 4$	
			$x > 40$ s	0 point	
Heat losses	2 points	Average Heat losses in Standby mode	N/A	N/A	N/A

	(+8 points granted during launching period)		during launching period of 2 first campaigns	during launching period of 2 first campaigns	
		Heat losses in heating mode HT	N/A	N/A	N/A
		Keep warm function adaptable to user's requirements	Available	2 points	1
Heat exchange	25 points	Return temperature during normal DHW tapping (°C)	$x < 22^{\circ}\text{C}$	2 points	6,25
			$22^{\circ}\text{C} \leq x \leq 27^{\circ}\text{C}$	$-0,4 \cdot x + 10,8$	
			$x > 27^{\circ}\text{C}$	0 point	
		Difference between primary return temperature and secondary return temperature (at 4kW)	$x < 4^{\circ}\text{C}$	2 points	6,25
			$4^{\circ}\text{C} \leq x \leq 7^{\circ}\text{C}$	$-2/3 \cdot x + 14/3$	
			$x > 7^{\circ}\text{C}$	0 point	
		Pump efficiency EEI $\leq 0.20$ (only for DHM)	Yes	5 points	1
Dynamical control of return temperature	Available	5 points	1		
DP performances	30 points	Range of DP	Pass DP test at 1,5 bar and 0,1 bar	2 points	15
			Pass DP test at 1,5 bar only	1,5 points	
			Pass DP test at 0,1 bar only	0,5 point	
			Fails both DP test	0 point	
Other features	5 points	Remote communication ready to allow remote control for commissioning and monitoring	Available	5	1
		Remote communication ready to allow end-user remote control	Available	1	1



		Weather compensation	Available	2	1
		Sanitary circulation	Available	1	1

## DIRECT AND DHM TECHNOLOGY

Tableau 14: Points for DH and DHM technologies

Categories	Maximum number of points of category	Performance / Feature (named x)	Rule		Weight
			Condition	Number of points	
DHW control	30 points	Minimal DHW flow rate (l/min)	$x < 1,5$ l/min	2 points	5
			$1,5$ l/min $\leq x \leq 2,5$ l/min	$-2 \cdot x + 5$ points	
			$x > 2,5$ l/min	0 point	
		DHW reaction time (s)	$x < 10$ s	2 points	5
			$10$ s $\leq x \leq 20$ s	$-0,2 \cdot x + 4$	
			$x > 20$ s	0 point	
		DHW stability time (s)	$x < 20$ s	2 points	5
			$20$ s $\leq x \leq 40$ s	$-0,1 \cdot x + 4$	
			$x > 40$ s	0 point	
Heat losses	2 points (+13 points granted during launching period)	Average Heat losses in Standby mode	N/A during launching period of 2 first campaigns		N/A
		Heat losses in heating mode HT	N/A during launching period of 2 first campaigns		N/A
		Keep warm function adaptable to user's requirements	2 points		1
Heat exchange	20 points	Return temperature during normal DHW tapping (K)	$x < 22^\circ\text{C}$	2 points	10
			$22^\circ\text{C} \leq x \leq 27^\circ\text{C}$	$-0,4 \cdot x + 10,8$	
			$x > 27^\circ\text{C}$	0 point	
		Pump efficiency EEI $\leq 0.20$ (only for DHM)	Yes	5 points	1

		Dynamical control of return temperature	Available	5 points	1
DP	30 points	Range of DP	Pass DP test at 1,5 bar and 0,1 bar	2 points	15
			Pass DP test at 1,5 bar only	1,5 points	
			Pass DP test at 0,1 bar only	0,5 point	
			Fails both DP test	0 point	
	DP controller for heating loop	Available	5 points	1	
Other features	5 points	Remote communication ready to allow remote control for commissioning and monitoring	Available	5 points	1
		Remote communication ready to allow end-user remote control	Available	1 point	1
		Weather compensation	Available	2 points	1
		Sanitary circulation	Available	1 point	1

## DHW TECHNOLOGY

Tableau 15: Points for DHW technologies

Categories	Maximum number of points of category	Performance / Feature (named x)	Rule		Weight
			Condition	Number of points	
DHW control	30 points	Minimal DHW flow rate (l/min)	$x < 1,5$ l/min	2 points	5
			$1,5$ l/min $\leq x \leq 2,5$ l/min	$-2 \cdot x + 5$ points	
			$x > 2,5$ l/min	0 point	
		DHW reaction time (s)	$x < 10$ s	2 points	5
			$10$ s $\leq x \leq 20$ s	$-0,2 \cdot x + 4$	
			$x > 20$ s	0 point	

		DHW stability time (s)	$x < 20$ s	2 points	5
			$20 \text{ s} \leq x \leq 40 \text{ s}$	$-0,1 \cdot x + 4$	
			$x > 40$ s	0 point	
Heat losses	2 points (+8 points granted during launching period)	Average Heat losses in Standby mode	N/A during launching period of 2 first campaigns		1
		Keep warm function adaptable to user's requirements	2 points		
Heat exchange	25 points	Return temperature during normal DHW tapping (°C)	$x < 22^\circ\text{C}$	2 points	12,5
			$22^\circ\text{C} \leq x \leq 27^\circ\text{C}$	$-0,4 \cdot x + 10,8$	
			$x > 27^\circ\text{C}$	0 point	
DP	30 points	Range of DP	Pass DP test at 1,5 bar and 0,1 bar	2 points	15
			Pass DP test at 1,5 bar only	1,5 points	
			Pass DP test at 0,1 bar only	0,5 point	
			Fails both DP test	0 point	
Other features	5 points	Remote communication ready to allow remote control for commissioning and monitoring	Available	5	1
		Remote communication ready to allow end-user remote control	Available	1	1

## **APPENDIX B. FORMS**

### **B.I. Form HIU 1: Product list declaration**

The form HIU -1 (declaration file) to be filled in shall be sent by Eurovent Certita Certification to:

- ✓ applicants who have signed the license agreement,
- ✓ participants on an annual basis before the deadline specified in the Certification schedule.

A template will be available for information and upon request.

### **B.II. Form HIU 2: Technical Data Sheet (TDS)**

The form HIU-2 (Technical Data Sheet) to be filled in shall be sent by Eurovent Certita Certification to applicants/participants who have returned the forms HIU-1 duly completed.

A template will be available for information and upon request.

### **B.III. Form HIU-3: Test result form**

The HIU-3 form is systematically sent together with the test reports.

## APPENDIX C. CAMPAIGN SCHEDULE

Surveillance procedure schedule is as followed:

Certification step	Deadline
Eurovent Certita Certification asks for update of declaration list from the participant	15/11/n-1
The participant sends the up-dated products declaration list	31/12/n-1
Eurovent Certita Certification selects the units that shall be tested and communicates them to the participant.	31/01/n
OEM manufactures the selected units	Factory Audit date
The auditor audits the participant's facility. The selected units are marked during audit.	01/06/n
The participant sends the audit non-conformity corrective actions plan when applicable	Deadline set up by auditor
Product delivery to laboratory with technical and installation documentations + payment are completed by the participant	15/06/n
The auditor evaluates the corrective actions plan relevance	31/07/n
All regular tests, and penalty tests when applicable, are completed and test reports sent by the laboratory to Eurovent Certita Certification	01/09/n
Eurovent Certita Certification forwards the test reports to the participant.	01/10/n
The participant can ask for second tests before	15/10/n
Product delivery with technical and installation documentations + payment are completed by the participant for second tests (when applicable).	01/11/n
Eurovent Certita Certification sends the diploma if all requirements are fulfilled:	30/09/n
Diploma validity	30/09/n+1
Second tests are completed and test reports sent by the laboratory to ECC (when applicable).	01/12/n
Eurovent Certita Certification forwards the second test report to the participant (when applicable).	15/12/n



Performances on line  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

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