Amendment to the model test report that defines the specifications and effective refrigerating capacity of refrigeration units resulting from the need to take account of technological developments brought about by new control systems

Transmitted by the Government of France

Summary

Executive summary: Modern refrigeration units come with built-in controllers. The units’ effective refrigerating capacity and associated power consumption, as measured by official testing stations, depend on the control strategy employed. The fact that these systems are fully configurable may, depending on the configuration used, affect the performance recorded in the test report. However, there is no requirement in model test report No. 12 to enter the hardware or software versions or the settings for the control system.

Given that the use of controllers can only increase over the coming years, it is necessary to ensure that the type of refrigeration unit is clearly defined by adding the minimum specifications of on-board control systems.

Action to be taken: Introduce the following amendments to model test report No. 12.

Related documents: None.

Introduction

1. For several years, information technology has been increasingly incorporated into refrigeration units through the addition of controllers. These controllers regulate the refrigeration unit’s actuators.
2. All controllers carried on refrigeration units allow for the settings to be changed.

3. Modern controllers also allow for the software installed in the refrigeration units to be upgraded. As with changes in the hardware version, such modifications have the potential to affect the refrigerating capacity and power consumption recorded by official testing stations.

4. For that reason, it is proposed in this document to clarify the ATP provisions on the registration of minimum specifications required for a particular type of refrigeration unit in respect of automatic devices.

5. The following proposed amendment is based on the text of ATP as amended on 6 January 2018.

I. Proposal

6. In model test report No. 12, add required descriptive fields under the item on automatic devices. Add the fields: “Make”, “Model”, “Hardware version” and “Software version”.

7. In model test report No. 12, add descriptive fields, to be filled in optionally by the test sponsor, to the item on automatic devices. Add the field “Configuration”.

II. Justification

8. The refrigerating capacity and power consumption of refrigeration units, as measured by official testing stations, depend on the installed software version. It is thus necessary to determine the properties of the automatic control system in model test report No. 12.

III. Cost

9. No additional cost is foreseen either for official ATP testing stations or for manufacturers, who should have the information required by this proposal in the context of their production management.

IV. Feasibility

10. No additional burden for official ATP testing stations.

V. Introduction of the amendment to ATP

11. No problems are expected in introducing the proposed amendments to model test report No. 12 of ATP.

12. Part of ATP concerned: annex 1, appendix 2, section 8, Test reports, Model No. 12.

Proposal No. 1

Model No. 12:
It is proposed to amend the following paragraph of ATP.

Original paragraph of ATP:
Automatic device: ........................................................................................................

Proposed amendment:
Automatic device (test applicant):
Make: ........................................................................
Model: ............................................................
Hardware version: ............................................
Software version: ..............................................
Proposal No. 2

Model No. 12:
It is proposed to amend the following paragraph of ATP.

Paragraph of ATP:
Automatic device: .................................................................

Proposed amendment:
Automatic device (test applicant):
Make: ..............................................................................
Model: .............................................................................
Hardware version: .........................................................
Software version: ............................................................

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