Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 28 June 2022

Case Number: T 0919/18 - 3.2.03

Application Number: 09252462.8

Publication Number: 2180277

IPC: F25B49/02, F25D11/00, F25D29/00

Language of the proceedings: EN

Title of invention:
Controlling chilled state of a cargo

Patent Proprietors:
Thermo King Corporation
Emerson Climate Technologies- Transportation Solutions ApS

Opponent:
BITZER Electronics A/S

Headword:

Relevant legal provisions:
EPC Art. 100(a), 100(b), 54, 56

Keyword:

Sufficiency of disclosure - (yes) - clarity of disclosure
Claims - relationship between Article 83 and Article 84
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

T 1404/05, T 0681/02, T 0553/11, G 0003/14

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0919/18 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 28 June 2022

Appellant: (Opponent)	BITZER Electronics A/S Kærvej 77 6400 Sønderborg (DK)
Representative:	Hoeger, Stellrecht & Partner Patentanwälte mbB Uhlandstrasse 14c 70182 Stuttgart (DE)
Respondent: (Patent Proprietor 1)	Thermo King Corporation 314 West 90th Street Minneapolis, MN 55420 (US)
Respondent: (Patent Proprietor 2)	Emerson Climate Technologies- Transportation Solutions ApS 8000 West Florissant, Bldg. M, St. Louis, MO 63136 (US)
Representative:	Haseltine Lake Kempner LLP Redcliff Quay 120 Redcliff Street Bristol BS1 6HU (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 25 January 2018 rejecting the opposition filed against European patent No. 2180277 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	C. Herberhold
Members:	B. Goers
	D. Prietzel-Funk

Summary of Facts and Submissions

I. European patent No. 2 180 277 relates to a refrigeration system and a method for operating a refrigeration system for a container for refrigerating chilled cargo.

II. With the impugned decision, the opposition division rejected the opposition based on the grounds of Article 100(a) and (b) EPC.

III. Oral proceedings before the Board were held on 28 June 2022.

The final requests were as follows.

The opponent ("appellant") requested that the decision under appeal be set aside and that the patent be revoked.

The patent proprietors ("respondents") requested that the appeal be dismissed or that the patent be maintained in amended form on the basis of auxiliary requests 1 to 8 submitted with the reply to the statement setting out the grounds of appeal.

IV. The following documents submitted during the opposition proceedings are relevant for this decision:

E1: US 4,663,725 A
E2: US 5,711,159 A
E3: WO 02/090844 A1

V. Independent claims 1 and 8 and dependent claims 2 and 3 of the main request (patent as granted) read as follows

(feature numbering relevant for this decision added in "[]").

(a) Claim 1

"*A method for operating a refrigeration system for a container for refrigerating chilled cargo,*
the refrigeration system (100) including a compressor (110), a condenser (120), and an evaporator (140) connected in series,
an evaporator fan (150) associated with the evaporator (140),
and a heater (180),
the refrigeration system (100) operable to discharge supply air (SA) to the container (200) and to receive return air (RA) from the container (200); the method comprising:
[1.4] *determining the temperature of the supply air (SA); determining the temperature of the return air (RA);*
[1.5] *determining one of a requirement for heating and a requirement for cooling based on the temperature of the return air (T_{RA}) and the temperature of the supply air (T_{SA});*
[1.6a] *activating the evaporator fan (150) when a requirement for heating is determined*
[1.6b] *and increasing the speed of the evaporator fan (150) when increased heating is determined; and*
[1.7a] *activating the compressor (110) and the evaporator fan (150) when a requirement for cooling is determined*
[1.7b] *and increasing the power supplied to the compressor (110) and maintaining the evaporator fan (150) at a low first speed when increased cooling is determined.*"

(b) Claim 2 (the part relevant for the decision; corresponding features are present in claim 9)

"*The method of claim 1, wherein ...;*
or wherein the method further comprises deactivating the compressor (110) and the evaporator fan (150) when there is no requirement determined for at least one of heating and cooling; or ..."

(c) Claim 3 (corresponding features are present in claim 10)

"*The method of claim 1, increasing the speed of the evaporator fan (150) to a second speed faster than the first and increasing the power supplied to the compressor (110) when increased cooling is determined.*"

(d) Claim 8

"*A refrigeration system for a container for refrigerating chilled cargo, the system (100) comprising:*
a compressor (110), a condenser (120), and an evaporator (140) connected in series;
an evaporator fan (150) associated with the evaporator (140) and operable to discharge supply air (SA) to the container (200) and to receive return air (RA) from the container (200):
a heater (180);
[8.2] *sensors configured to sense the temperature of the supply air (T_{SA}) and the temperature of the return air (T_{RA}), and*
[8.3] *a controller (170) programmed to determine one of a requirement for heating and a requirement for cooling based on the temperature of the return air (T_{RA}) and the temperature of the supply air (T_{SA}),*

wherein the controller (170) is programmed to
[8.4a] *activate the evaporator fan (150) when a requirement for heating is determined*
[8.4b] *and to increase the speed of the evaporator fan (150) when increased heating is determined,*
[8.5] *and wherein the controller (170) is programmed to*
[8.5a] *activate the compressor (110) and the evaporator fan (150) when a requirement for cooling is determined*
[8.5b] *and to increase the power supplied to the compressor (110) and maintain the evaporator fan (150) at a low first speed when increased cooling is determined*"

VI. The appellant's arguments relevant to the present decision may be summarised as follows.

(a) Article 100(b) EPC

The subject-matter of the claims was insufficiently disclosed. A general principle of claim construction as ruled in T 1404/05 required that a feature with a clear literal meaning could not be given a different meaning even in light of the whole specification. In granted claims 1 and 8, the wording "increasing ... when increased heating/cooling is determined" had the clear technical meaning of "determining an increasing/ decreasing temperature". The different interpretation according to the decision under appeal was therefore not correct. It was not allowable to give known terms in a claim a different meaning based on the description (see also T 681/02 and T 0553/11). Since the patent did not provide any disclosure of a control step of determining an "increased heating or cooling", the feature was not sufficiently disclosed. Even when considering for the sake of the argument the opposition division's construction of the feature, the fact that

one of the possible interpretations was insufficiently disclosed still resulted in non-allowability.

Furthermore, the deactivation of both the compressor and the evaporator fan according to claims 2 and 9 encompassed options in which there was still a requirement for heating or cooling. These options were in contradiction to the method of claim 1 and to the way the controller of claim 8 was programmed and could thus not be reduced to practice.

In addition, claims 3 and 10 included, like claims 1 and 8, a definition of a control action for the situation when "increased cooling" was determined. This control action was, however, different to that defined in the independent claims. This also led to an issue of insufficient disclosure.

(b) Main request - Novelty

The subject-matter of claims 1 and 8 was not novel in view of the disclosure of any of E1, E2 and E3.

E1 disclosed in the table of column 9 and Figure 4a the operation modes "Heat" and "Null" in which the evaporator fan was operated at two different speeds. When switching the set-point from above 24 °F to below 24 °F, features [1.6a] and [1.6b] as well as [8.4a] and [8.4b] were anticipated. Furthermore, the step from the "out of range" stage to the "heat" stage according to Figure 4a, left scheme, had to be considered an indication for "increased heating" as meant by features [1.6b] and [8.4b].

E2 disclosed a refrigeration system in which the evaporator fan was operated independently of the

compressor of the cooling cycle. In addition, E2 disclosed a defrosting/de-icing operation in which the compressor was off and the evaporator fan was at maximum speed (column 8, lines 47 to 60). This operation was triggered by a requirement for increased heating as in feature [1.6b] (column 5, lines 47 to 52).

E3 disclosed a chilled mode and a frozen mode with the evaporator fan operating at different speeds in the respective modes. When switching from frozen to chilled mode, features [1.6a] and [1.6b] were anticipated.

Main request - Inventive step

The subject-matter of claims 1 and 9 did not involve an inventive step in view of any combination of documents E1, E2 and E3.

In view of the conclusion of the Board on novelty during the oral proceedings, according to which all of E1, E2 and E3 at least failed to disclose features [1.6b] and [8.4b], the appellant referred to the inventive step arguments on file.

VII. The respondents' arguments relevant to the present decision may be summarised as follows.

(a) Article 100(b) EPC

The subject-matter of the claims was sufficiently disclosed. Features [1.6b]/[8.4b] and [1.7b]/[8.5b] had to be interpreted in the context of all claim features. This resulted in understanding feature [1.6b] as "when **a requirement** for increased heating/cooling is

determined". This interpretation was also supported by the whole patent specification.

The feature in question in claims 2 and 9 had to be construed to mean "NOT A AND NOT B", thus excluding control actions contradictory to claims 1 and 8.

The reference in claims 3 and 10 to "increased cooling" was merely a clarity issue. In light of the application as a whole the skilled person understood that a reference to "**further** increased cooling" was meant.

(b) Main request - Novelty

The subject-matter of claims 1 and 8 was novel over any of documents E1, E2 and E3.

E1 solely disclosed a single heat mode with a single evaporator fan speed. A switch of the set-point was an operation not disclosed in E1 nor inherent to the control method disclosed in E1. In addition, such a switch was not triggered by a requirement for "increased heating" based on supply and return air temperature determination. Therefore, at least features [1.6b] and [8.4b] were not disclosed in E1.

E2 solely disclosed cooling operations. The defrost/de-icing mode was not part of the control method but an independent operation. It was also not triggered by a requirement for "increased heating". Therefore, at least features [1.6b] and [8.4b] were not disclosed in E2.

E3 did not disclose a method step including a change from the frozen to the chilled mode. Furthermore, in any operational stage including the heating stages, the

compressor was in operation. Therefore, at least features [1.6b] and [8.4b] were also not disclosed in E3.

(c) Main request - Inventive step

Since none of the documents E1, E2 and E3 disclosed at least feature [1.6b] and [8.4b], the subject-matter of claims 1 and 8 could not be made obvious from any combination of these documents.

The only objection of lack of inventive step dealt with in the decision under appeal was based on E1 as the starting point. The further objections starting from E2 and E3 could and should have been filed earlier and should thus not be admitted into the proceedings.

Reasons for the Decision

1. Article 100(b) EPC

1.1 The appellant raised objections of lack of sufficiency of disclosure to the following features:

- "when increased heating/cooling is determined" (features [1.6b] and [1.7b] of claim 1 and the corresponding features [8.4b] and [8.5b] of claim 8). This objection also applied for the respective wording in claims 3, 4, 10 and 11
- "deactivating/deactivate the compressor and the evaporator fan when there is no requirement determined for **at least one of** heating and cooling" (claims 2 and 9, emphasis added)
- "increasing/ to increase the power supplied to the compressor when **increased cooling** is determined" (claims 3 and 10, emphasis added)

The Board agrees with the conclusion in the decision under appeal that the subject-matter of the claims is sufficiently disclosed. As far as the above features in the granted claims appear not to comply with Article 84 EPC, in accordance with the decision of the Enlarged Board of Appeal G3/14, "such non-compliance must be lived with".

Furthermore, the following conclusions apply also to the dependent claims which include by their back-references any of these features in question.

1.2 Features "increased heating/cooling is determined" (features [1.6b], [1.7b], [8.4b] and [8.5b]) of claims 1 and 8

1.2.1 To establish insufficiency of disclosure, the appellant-opponent must prove that the patent as a whole does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. In the case at hand, sufficiency of disclosure of the features "activating ... when increased heating/cooling is determined" hinges on the construction of these features.

1.2.2 The appellant considered the features to be clear as such and construed them in accordance with what it considers to be their literal meaning:

- "increasing the speed of the evaporator fan when **it is determined that** increased heating **occurs**"
- "maintaining the evaporator fan at a first speed when **it is determined that** increased cooling **occurs**."

The respondents and the decision under appeal came to the conclusion that it was obvious to the skilled person that the features were not clearly drafted. Accordingly, they had to be construed in the context of the other claim features and the whole specification. This would lead the skilled person inevitably to the following understanding:

- "increasing the speed of the evaporator fan when **a requirement for** increased heating is determined",

- "maintaining the evaporator fan at a first speed when **a requirement for** increased cooling is determined."

1.2.3 In accordance with established case law, the interpretation of the claims in light of the description has limits in that a discrepancy between the claims and the description is not a valid reason to ignore the clear linguistic structure of a claim and to interpret it differently. However, a prerequisite for this approach is that the features of the claims be clear as such and that no further need for their interpretation arise (see Case Law of the Boards of Appeal, 9th edn. 2019, II.A.6.3.1).

In the case at hand, contrary to the appellant's view, the wording "activating ... when increased heating/ cooling is determined" is not clear in itself and also not when seen in context with the other claim features. Therefore, the "general principle of construction" referred to by the appellant from T 1404/05 (Reasons 2.3), "that the use of different words indicates that something different is meant" is not applicable here.

1.2.4 The appellant's view that features [1.6b] and [1.7b] clearly convey the meaning "determining an increase/ decrease of the temperature" is not persuasive. The terms "heating" and "cooling" refer to a process of heat transfer in general. Heat transfer processes include, *inter alia,* the transfer of latent heat (during phase transitions) and do not necessarily result in a temperature change (e.g. in de-icing, see point 2.4 below, or when a phase change of the refrigerant is involved).

It is moreover not clear how an "increase" of heating/cooling is to be determined in the context of features [1.4]/[1.5] and [8.2]/[8.3] and to what reference the "increase" relates to.

1.2.5 Finally, when following the interpretation of the appellant (see point 1.2.2), a contradiction with features [1.6a] and [1.7a] arises. It is undisputed that features [1.6a] and [1.7a] refer to a "requirement for heating/cooling", i.e. the opposite to a determined heating or cooling. When following the appellant's interpretation, the control actions of features [1.6b] and [1.7b] would not allow for stable operation. Rather, it would result in a positive feedback response with increased heating/cooling at determined increased/decreased temperatures. This is technically not reasonable and is in obvious contradiction to what should be achieved with features [1.6a] and [1.7a]. The appellant's argument that features [1.6b] would not exclude the use of the compressor to compensate for the excess heating by the fan is, in view of the definition of the states of both the compressor and evaporator fan in the feature groups [1.6a] to [1.7b], not convincing either.

1.2.6 Since the claims have to be construed with a mind willing to understand, the skilled person would in view of the above ambiguities consult the specification to clarify the meaning of the features. The situation in the case at hand also differs to that in cases T 681/01 and T 553/11 cited by the appellant. In these cases, the boards did not see the need to construe the claim features based on the description since these features were considered to be clear as such.

1.2.7 The whole patent specification solely describes the determination of the supply and return air temperatures (or their difference) as the measured input into the controller. This is consistent with the determination of one of a requirement for heating and a requirement for cooling as defined in features [1.5]/[8.3] and the use of these criteria in features [1.6a]/[8.4a] and [1.7a]/[8.5a]. The determination of "heating" or "cooling" (requiring an energy balance including mass flow and temperature difference data) is disclosed neither as a direct nor an indirect measurement. In contradiction, paragraphs [0024] and [0026] and Figure 3 disclose that for moderate heating requirements (interval H1) - as determined from the measured temperatures - such heating can be performed merely by variations of the evaporator fan speed and the resulting friction heat. The patent thus discloses that the speed of the fan will be increased if an increased **requirement** for heating is determined, thus supporting the interpretation in line with the decision under appeal. This understanding does, in view of the embodiment described, not allow justified objections against sufficiency of disclosure.

1.2.8 To conclude, features [1.6b] and [1.7b] and the corresponding features of claim 8, while being not clear as such, are considered sufficiently disclosed when construed in light of the whole specification. The above reasoning applies likewise to claims 2, 4, 10 and 11, which according to the appellant are affected by the same problem.

1.3 Claims 2 and 9

1.3.1 With respect to the objection against the features "deactivating/deactivate the compressor and the

evaporator fan when there is no requirement determined for **at least one of** heating and cooling" (emphasis added) of claims 2 and 9 the Board also agrees with the reasoning in the appealed decision.

1.3.2 It is true that these features introduce a contradiction into parts of the claims. The respondents' view that the claim wording would be limited to NOT A AND NOT B is in view of the term "*at least one of*" not convincing. As a result, the claim wording of claim 2 encompasses, contrary to claim 1, the options that both the compressor and the evaporator fan are deactivated even if a requirement either for heating or cooling were determined, which - according to claim 1 or 8 - would require them to be activated.

1.3.3 However, this obvious contradiction between claims 1 and 2 (as well as between claims 8 and 9) merely gives rise to a question of the definition of the "forbidden area" of the claims. In accordance with established case law, this is a matter of Article 84 EPC rather than sufficiency of disclosure (see Case Law of the Boards of Appeal, 9th edn. 2019, II.C.6.6.4). The whole specification and the embodiment of Figure 3 in combination with paragraph [0025] sufficiently enable the "NOT A and NOT B" option encompassed by the feature in question.

1.3.4 Therefore, sufficiency of disclosure cannot be denied. The contradiction between the granted claims is a clarity issue and is not objectionable under Article 100(b) EPC. As a consequence, the contradictory options have to be disregarded when construing claims 2 and 9.

1.4 Claims 3 and 10

1.4.1 A further objection was directed to the features of claims 3 and 10 "increasing/ to increase the power supplied to the compressor when **increased cooling** is determined" (emphasis added). These features refer to a condition addressed with the same term "increased cooling" as in features [1.7b] and [8.5b], defining, however, different responses to it ("increasing the power supplied to the compressor **and maintain** the evaporator fan at a low first speed" - see claims 1 and 8 - versus "increasing the power supplied to the compressor" **and "increasing** the speed of the evaporator fan to a second speed **faster than** the first" - see claims 3 and 10).

1.4.2 Again, this contradiction is immediately obvious. From the specification as a whole, the skilled person can only conclude that the "increased cooling" in claim 3 refers in fact to cooling increased beyond the increased cooling of claim 1, i.e. it refers to a requirement of "further increased cooling" in relation to the "increased cooling" requirement in claims 1 and 8. In the description, increasing the power of the compressor **and** the evaporator fan speed is disclosed for the switch from state R1 to R2 (Figure 3). The contradiction is thus merely a clarity deficiency and not a matter of sufficiency of disclosure.

1.5 To conclude, the deficiencies addressed by the appellant do not fall under the ground for opposition under Article 100(b) EPC but are instead clarity deficiencies. In accordance with the principles set out in decision G 3/14, the disputed features - which are part of the claims as granted - are not open to objections under Article 84 EPC. The construction of

the features as concluded in the above paragraphs is, however, to be applied in the assessment of patentability.

2. Main request - Novelty

2.1 The appellant challenged the novelty of claims 1 and 8 on the basis of the disclosure of any of the documents E1 to E3.

The Board agrees with the conclusion in the decision under appeal that the subject-matter of claims 1 and 8 is novel. Documents E1 to E3 at least fail to disclose features [1.6b] of claim 1 and [8.4b] of claim 8.

2.2 Novelty in view of E1

2.2.1 The Board agrees with the conclusion in the decision under appeal that E1 fails to disclose feature [1.6b]. An overview of the heating and cooling modes disclosed in E1 is found in the table of column 9. Here, only a single mode of heating ("Heat") is disclosed in which the evaporator fan is operated at a "high speed". The "Heat" mode is further exclusively disclosed for a set-point at or above 24 °F (see also Figures 4a to 4d). There is no disclosure of a second heating state of a (further) increasing of the speed of the evaporator fan in response to a demand for increased heating. A step of simply switching the compressor on as disclosed for the change from "Out of range" to the "Heat" mode is not considered to be encompassed by the wording "increasing the speed" of the already activated evaporator fan (see feature [1.6a]/[8.4a]).

2.2.2 For different set-points, different control schemes are suggested within one algorithm in E1, an example being shown in Figure 4a. While it is true that the table also discloses a "Null" step (see the table in column 9) in which the evaporator fan is operated at a "low speed" and without the compressor of the cooling cycle being turned on, this state is defined only for a control scheme for set-points of below 24° F (see Figure 4a, left and right scheme). Above the set-point of 24 °F, the evaporator is at "high speed" in the "Null" mode.

2.2.3 The appellant argued that for the embodiment of Figure 4a when operating in the "Heat" mode (set-point at or above 24 °F, left control scheme), a switch of the set-point to below 24 °F (as according to the right control scheme) would inevitably bring the system to operate in the "Null" mode at a lower evaporator fan speed and vice versa. However, such a change of the set-point is not considered a step triggered by the "determination of an increased heating requirement" in response to a requirement for increased heating determined from temperature measurements as per features [1.6b] and [8.4b]. Furthermore, it cannot unambiguously be derived from the schemes shown in Figure 4a that such a switch inevitably brings the system, for example, from the right "Null" mode (set-point <24 °F) to the left "Heat" mode (set-point >= 24 °F) - the only sequence in which the evaporator fan speed is increased as required by feature [1.6b] since the two operation modes shown in Figure 4a are normalised to their respective set-point temperatures. When increasing the set-point temperature, it is thus well possible (and even more likely) that the system switches from the "Null" to the "Out of range" mode. Finally, even though the left and right scheme of Figure 4a are parts of one algorithm,

E1 fails to disclose that a change of the set-point is envisaged or even possible during operation.

2.2.4 Therefore, at least feature [1.6b] is not disclosed in E1.

2.3 Novelty in view of E2

2.3.1 The disclosure of E2 is focused on cooling steps and does not explicitly address any requirement for heating. The same conclusion was arrived at in the decision under appeal. The passage in column 2, lines 50 to 56 of E2 discloses that the cooling demand is controlled by the speed of the compressor. The statement that the evaporator fan can be controlled "independently" from the compressor is not unambiguous disclosure that the fan is operated while the compressor is turned off. Accordingly, there is no disclosure of activating the evaporator fan in response to the detection of a requirement for either heating or increased heating. It is true that in the "defrost/de-icing option" (column 8, lines 47 to 60) an operation state is disclosed in which the evaporator fan is on (at "maximum speed") and the compressor is off. However, this mode is not disclosed as being triggered by a requirement for increased heating determined by the temperature sensors but by a "need for defrost" not further specified, which is listed as an alternative to temperature measurements (see column 5, line 47 to 52). Furthermore, in the defrost option, the refrigerator compartments are still cooled using the energy stored in the evaporator ice (column 8, lines 58 to 60).

2.3.2 To conclude, at least features [1.6a] and [1.6b] are not disclosed in E2.

2.4 Novelty in view of E3

2.4.1 E3 discloses the operation of the evaporator fan at different speeds in different operation modes (page 28, second and fourth paragraph). The "chilled mode" and the "freeze mode" disclosed here represent two distinct operation modes, each with a different set-point and each with heating and cooling requirements for controlling the temperature close to the respective set-points. Contrary to the appellant's view, E3 discloses neither that a switch between the two modes during operation is envisaged or enabled nor that the switch from the frozen to the chilled mode would follow a "requirement of increased heating" determined by the temperature sensors as required by feature [1.6b]. While no details are disclosed in E3, the selection of the mode is done in line with a pre-selection of a desired cargo space temperature set-point (see page 28).

2.4.2 According to the control scheme disclosed in E3, Figure 5, heating control is achieved by switching the condenser between an operable and inoperable mode by a control valve in a condenser bypass line, such that the net energy balance causes net heating via the evaporator (page 20, paragraph 3 to page 21, paragraph 2). In a first stage (Figure 5, "0" to "-A"), the evaporator fan is operated at low speed and the compressor is operated at low power (page 27, last paragraph to page 28, paragraph 1) with a bypass valve (hot gas valve) of the condenser being adjusted according to the heating power demand. When an increased heating demand is present (stage "-1"), the speed of the compressor is increased with the bypass valve being fully open. At stage "-2", an additional

heater is used. The speed of the evaporator fan is held constant during all these heating stages. The appellant's argument that when changing from the "frozen mode" at below -10 °C to the "chilled mode" the evaporator fan would switch from a speed below the maximum speed to the maximum speed which would correspond to steps [1.6a] and [1.6b] is not persuasive. E3 does not disclose that the control system allows for switching from the frozen mode to the chilled mode program during operation. Nor is it inevitable that the switch, even when starting from a heating stage in the frozen mode would result in a heating stage at a different set-point (see also the arguments for E1 above). Furthermore, the switch between modes or the change of the set-point would not be triggered by a determination of an increased heating requirement.

Therefore, at least feature [1.6b] is not disclosed in E3.

2.5 To conclude, the ground for opposition under Article 100(a) EPC in conjunction with Article 54 EPC does not prejudice the maintenance of the patent.

3. Main request - Inventive step

3.1 The appellant raised objections of lack of inventive step based on various combinations of documents E1, E2 and E3. However, since none of these documents discloses at least feature [1.6b] of claim 1 and [8.4b] of claim 8 (see the novelty discussion above), the subject-matter of claims 1 and 8 cannot be made obvious by any of these combinations. Therefore, also the ground for opposition under Article 100(a) EPC in

conjunction with Article 56 EPC does not prejudice the maintenance of the patent.

3.2 In view of this, the question of admittance under Article 12(4) RPBA 2007 of the objections of lack of inventive step based on E2 or E3 as the starting point can remain undecided.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Chavinier-Tomsic C. Herberhold

Decision electronically authenticated