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**Datasheet for the decision
of 10 April 2014**

Case Number: T 0607/10 - 3.4.03

Application Number: 95107060.6

Publication Number: 0683496

IPC: H01C7/12

Language of the proceedings: EN

Title of invention:

Surge arrester

Patent Proprietor:

ABB AB

Opponent:

Siemens Aktiengesellschaft

Headword:

Relevant legal provisions:

EPC 1973 Art. 54(1), 56, 100(a)
EPC 1973 R. 67, 71(2)
RPBA Art. 12, 13, 15(3), 15(5), 15(6)

Keyword:

Novelty - (yes)
Inventive step - (no)
New argument - admitted (yes)
Reimbursement of appeal fee - (no)

Decisions cited:

J 0010/07, T 1621/09

Catchword:

In deciding whether a new argument has the effect of amending a party's case within the meaning of Article 13(1) RPBA it must be established on a case-by-case basis whether the new argument is a departure from, or just a development of, the original arguments filed with the grounds of appeal or the reply thereto (see point 4.1.3 of the Reasons).



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Case Number: T 0607/10 - 3.4.03

**D E C I S I O N
of Technical Board of Appeal 3.4.03
of 10 April 2014**

Appellant: ABB AB
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 29 January 2010 revoking European patent No. 0683496 pursuant to Article 101(2) and Article 101(3)(b) EPC.**

Composition of the Board:

Chairman G. Eliasson
Members: S. Ward
T. Karamanli

Summary of Facts and Submissions

- I. This is an appeal by the patent proprietor against the decision of the Opposition Division to revoke the European patent No. 0 683 496 on the grounds that the claimed subject-matter according to the main request and the first, second and third auxiliary requests did not involve an inventive step within the meaning of Article 56 EPC.

The opposition had been filed against the patent as a whole. Grounds for the opposition were lack of novelty and lack of inventive step (Articles 100(a), 54 and 56 EPC).

- II. Oral proceedings before the Board were held in the absence of the appellant-proprietor (hereinafter referred to as the proprietor), the proprietor having previously stated in writing that "it has been decided that we will not attend the oral proceedings".

The proprietor requested in writing in the statement of grounds of appeal that the decision under appeal be set aside and the opposition rejected (main request), or subsidiarily that the patent be maintained on the basis of one of the first to third auxiliary requests, all filed with letter dated 10 November 2009.

The proprietor also requested in writing a "reimbursement of the appeal fee (Rule 103 EPC)" on the ground that the Opposition Division had "committed a substantial procedural violation".

The respondent-opponent (hereinafter referred to as the opponent) requested at the oral proceedings that the appeal be dismissed.

III. The opposition had been based *inter alia* on the following documents:

E4: EP 0 229 464 A1

E19: US 5 050 032

E26: US 4 812 944

IV. Claim 1 of the main request (claim 1 of the patent as granted) reads as follows (the feature labels (a)-(g) as set out under point 10.1 of the "Facts and Submissions" of the contested decision have been included):

A surge arrester comprising

- a) a stack of cylindrical varistor blocks (10) of metal oxide,
- b) said varistor blocks being arranged end-to-end in the axial direction of the varistor blocks between two end electrodes (11, 12)
- c) and surrounded by an elongated electrically insulating outer casing (23) of rubber or other polymeric material,
- d) said electrodes (11, 12) being interconnected by means of one or more compression members (14-17) of insulating material for providing the necessary axial contact pressure between the different elements (10, 11, 12) in the surge arrester,
- e) characterized in that the varistor stack (10) is radially surrounded by a bursting preventive

bandage with openings (22) said bandage consisting of

f1)-a plurality of bursting-preventive rings (21) of insulating material arranged in axially spaced relationship to each other along the varistor stack or

f2)-a bursting-preventive spiral (24, 25) of insulating material arranged in the form of a helical line around the varistor stack

g) thereby forming said openings (22) for pressure relief in case of internal short circuit in the surge arrester.

Claim 1 of the first auxiliary request is identical to claim 1 of the main request except that immediately before the full stop there is inserted a comma and the following phrase:

- "wherein the compression members (14-17) are also radially surrounded by said rings (21) or said spiral (24, 25)".

Claim 1 of the second auxiliary request is identical to claim 1 of the main request except that the feature labelled "f2" has been deleted.

Claim 1 of the third auxiliary request is identical to claim 1 of the main request except that the feature labelled "f2" has been deleted and immediately before the full stop there is inserted a comma and the following phrase:

- "wherein the compression members (14-17) are also radially surrounded by said rings (21)".

V. In the decision under appeal, the Opposition Division found with regard to the granted patent and the proprietor's auxiliary requests filed with letter dated 10 November 2009 as follows:

None of the documents cited by the opponent as anticipating the subject-matter of claim 1 of the main request (i.e. granted claim 1) disclosed all of the claimed features, nor did any of the other cited documents. Hence the subject-matter of claim 1 of the main request was novel.

Claim 1 of the main request could not, however, be considered to involve an inventive step. The closest state of the art was considered to be disclosed in document E19, and claim 1 "is distinguished from document E19 solely by the feature d) in that document E19 fails to disclose interconnecting the electrodes by means of one or more compression members of insulating material for providing the necessary axial contact pressure between the different elements in the surge arrester". The objective technical problem to be solved was to hold the arrester elements in place during normal operation as well as in the event of an electrical/thermal failure.

A solution was known in document E26 in which it was "suggested that the problem can be solved by insulating fibres exerting a compressive force on the varistor blocks, this force ensuring that the blocks remain in contact with each other and with the electrodes in operation of the surge arrester". It would therefore be obvious to the person skilled in the art to incorporate this feature into the surge arrester according to document E19, and since the feature to be incorporated corresponded to the feature d) of claim 1 of the

granted patent, the skilled person would thereby arrive at the subject-matter of claim 1 of the main request.

Moreover, no functional interaction between the features d) and g) of claim 1 of the main request was seen, nor any synergetic effect. The subject-matter of claim 1 did not therefore involve an inventive step.

The subject-matter of claim 1 of the first auxiliary request - which added the feature that the compression members were also radially surrounded by said rings or said spiral - also did not involve an inventive step. In this case document E26 was regarded as the closest prior art, with claim 1 of the first auxiliary request differing "in that E26 does neither disclose a plurality of bursting preventive rings or spirals of insulating material arranged in axially spaced relationship to each other nor the feature that the compression members are also radially surrounded by said rings or spiral."

The objective technical problem was "to hold the arrester elements in place in the event of an electrical/thermal failure." The person skilled in the art would find a solution to this problem in either document E4 (column 7, lines 44-56) or document E19, (column 2, lines 56-64), and applying the teachings of either of these documents to the surge arrester according to document E26 would lead the skilled person in an obvious manner to the subject-matter of claim 1 of the first auxiliary request.

Again, no functional interaction was seen between the compression member and the bursting preventive rings or the spiral which would result in a synergetic effect.

The subject-matter of claim 1 of the second auxiliary request did not involve an inventive step for essentially the same reasons set out in relation to claim 1 of the first auxiliary request based on document E26 as closest prior art in combination with document E4. The same conclusion applied to claim 1 of the third auxiliary request.

VI. The case of the proprietor was based on the statement of grounds of appeal and two further letters dated 4 February 2011 and 10 March 2014. The proprietor argued essentially as follows:

The argument that the subject-matter of claim 1 of the main request was obvious starting from document E19 and combining with document E26 was not convincing. In the arrangement of document E19 the varistor blocks were spaced apart by means of spacers 2, and low force springs 7 were arranged in order to ensure electrical connection. There was no reason to provide the device of document E19 with a compression member as defined in feature d) of the contested patent.

Concerning a possible functional interaction between the compression members and the bursting preventive bandage, it was doubtful whether, in the context of an argument starting from document E19 as closest prior art, discussing such a functional interaction was of any importance. Nevertheless, there was a functional relationship in that the compression members held the surge arrester in the longitudinal direction and the bursting preventive bandage held the surge arrester in the transverse direction. Consequently, both these means were important in order to fulfil the function of holding the parts of the device safely together. The position of the compression members and the position of

the bursting preventive bandage might interfere with each other, and for this reason also there was a clear interaction between the different means.

Concerning claim 1 of the first auxiliary request, document E26, considered by the Opposition Division to be the closest prior art, disclosed only the preamble of claim 1, and therefore failed to disclose features e, f1, f2, g and the feature that the compression members were radially surrounded by the rings or the spiral.

The object of the invention was "quite well stated in paragraph 3 in the printed patent". The compression members would "prevent the surge arrester from exploding in the vertical direction, while the features e, f1, f2, g will in particular prevent a horizontal explosion." It was particularly advantageous if the compression members were surrounded by the rings or the spiral; this embodiment constituted "a particularly robust, safe and simple embodiment. Since the bursting preventive bandage radially surrounds the compression members, the compression members are safely held inside the bandage." In case of an explosion, the compression members might burst and cause damage, the risk of which could be minimized by radially surrounding the compression members by the bursting preventive bandage.

Document E4 disclosed fibre reinforced cured tapes 8 positioned on the outside of a porcelain housing 2 in order to prevent this frangible housing from bursting. Document E4 therefore concerned a device with a frangible housing made of ceramic, in particular porcelain, whereas in document E26 a polymer housing was used. Indeed "E26 directly dissuades from using a porcelain housing (see column 1, lines 52-57). A person

skilled in the art would therefore not combine E4 with E26 as suggested by the Opposition Division."

Concerning the combination of document E26 as closest prior art with document E19, these two documents disclosed different kinds of devices: in document E19 the varistor elements were positioned spaced apart, and the axial contact pressure was produced by the springs 7; in document E26 the arrester elements are positioned against each other, and the axial contact pressure was produced by a compression member. "Because of this difference in construction, a person skilled in the art would not take the fibre winding 4 from the device of E19 and put this on the device of E26. Furthermore, even if somebody would try to do this, it is not clear where the fibre winding 4 in that case should be positioned on the device of E26. The fibre winding 4 from E19 would in this case interfere with the position of the compression member 8 in E26 (or the corresponding members 22 and 38 in figures 4 and 6 in E26)." In any case, "the fibre winding 4 from E19 would in that case presumably be positioned inside of the compression members (8, 22, 38) of E26, which means that the last feature of claim 1 would still not be fulfilled."

The combination of document E26 and document E4 was equally unconvincing in relation to the second and third auxiliary requests.

In relation to procedural matters, the Opposition Division decided that the subject matter of claim 1 of the main request did not involve an inventive step using the combination of documents E19 and E26. No substantiation based on these documents had been present in the notice of opposition, and during the

oral proceedings the opponent discussed E19 and E26 separately. However, in the decision the Opposition Division employed a problem-solution approach starting from E19 and combining this document with E26. There had been no indication of such an approach against the claimed subject matter before the decision was taken.

Also, when deciding against the first Auxiliary request, the Opposition Division started from document E26 and combined this document with either document E4 or document E19. Again, there had been no indication of this line of attack before the decision against the first Auxiliary request was announced during the oral proceedings. Consequently, Article 113(1) EPC had been violated, which justified the reimbursement of the Appeal fee (Rule 103 EPC).

VII. In its written submissions, the opponent agreed with the reasoning given and the conclusions drawn in the contested decision. In particular the opponent argued essentially as follows:

Starting from the arrangement of document E19, the skilled person would have good reason to include the compression members of document E26 if additional compressive force were required to hold the construction together.

Concerning the first auxiliary request, the features e and g were disclosed in the closest prior art document (E26) and the argumentation in the contested decision could in no way be objected to. In particular, the skilled person would combine the teachings of either document E4 or document E19 with the closest prior art as set out in the contested decision. Further arguments

in relation to the second and third auxiliary requests were unnecessary.

VIII. With the summons to oral proceedings, the Board sent the parties a communication under Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA) setting out the provisional view of the Board.

In this communication, *inter alia*, the Board expressed doubts whether, in relation to claim 1 of the main request, document E19 was a particularly appropriate choice as closest prior art, whether a skilled person would add the compression members of document E26 to the arrangement of document E19, and whether such a combination would actually lead to the features of claim 1 of the main request.

It was also noted that the argument of the opponent that the subject-matter of claim 1 of the first auxiliary request was obvious was based on document E26 (taken as closest prior art) in combination with either document E4 or document E19. However, as claim 1 of the first auxiliary request included all features of claim 1 of the main request (plus one extra feature), it would logically appear to follow that the opponent regarded claim 1 of the main request to be obvious also in relation to these combinations. However, the opponent had only substantiated an objection of obviousness against the subject-matter of claim 1 of the main request in relation to the document E19 as the closest prior art in combination with the document E26. It was noted that this matter might be discussed in oral proceedings.

IX. In oral proceedings before the Board, the opponent modified the arguments previously presented in writing as follows:

- a) For the main request the closest prior art was document E26 and not document E19. Document E26 disclosed the subject-matter of the preamble of claim 1 (features a-d), but did not disclose features e, f1, f2 or g. However, to achieve the technical effect set out in paragraph [0003] of the contested patent, the skilled person would turn to document E19 which would lead to the incorporation of features e, f2 and g into the device of document E26.

- b) For the second and third auxiliary requests, the combination of documents E26 and E19 could be used to demonstrate the obviousness of the respective versions of claim 1 as an alternative to the combination of documents E26 and E4 presented in writing.

Reasons for the Decision

1. The appeal is admissible.

2. As announced in advance, the duly summoned proprietor did not attend the oral proceedings. According to Rule 71(2) EPC 1973, the proceedings could however continue without the appellant. In accordance with Article 15(3) RPBA, the Board relied for its decision only on the

appellant's written submissions. The Board was in a position to decide at the conclusion of the oral proceedings, since the case was ready for decision (Article 15(5) and (6) RPBA), and the voluntary absence of the appellant was not a reason for delaying a decision (Article 15(3) RPBA).

3. *Novelty*

3.1 Although one of the grounds cited in the notice of opposition was that the claimed subject-matter was not new within the meaning of Article 54 EPC, in the letter of reply to the statement of grounds of appeal the opponent did not challenge the finding of the Opposition Division that the subject-matter of the claims of all requests was novel (Article 54(1) EPC). The Board also sees no reason to question this finding.

4. *Inventive Step: Main Request*

4.1 *Admissibility of a new line of argument*

4.1.1 In the reply to the statement of grounds of appeal, the opponent argued that the subject-matter of claim 1 of the main request did not involve an inventive step having regard to document E19 (seen as the closest prior art) in combination with document E26. At oral proceedings before the Board the opponent stated that document E19 was not to be regarded as the closest prior art, and presented a different argument based on document E26 (seen as the closest prior art) in combination with document E19.

4.1.2 Article 12(2) RPBA requires that the reply to the statement of grounds of appeal shall contain a party's complete case, and should specify expressly all the

facts, arguments and evidence relied on. Article 13(1) RPBA provides that any amendment to a party's case after it has filed such a reply may be admitted and considered at the Board's discretion.

In decision T 1621/09 a detailed analysis of the implications of Articles 12 and 13 RPBA was set out, in which *inter alia* the following conclusion was reached:

- *"new arguments, even when based on facts and evidence already in the proceedings, can have the effect of altering a party's case: the facts and evidence relied on can be assembled in different ways using different arguments. On the other hand, there will clearly be many situations where a new argument does not change a party's case. For example, it may be just be a different way of looking at the same point."* (T 1621/09, point 9 of the Reasons.)

4.1.3 The present Board considers that in deciding whether a new argument has the effect of amending a party's case within the meaning of Article 13(1) RPBA it must be established on a case-by-case basis whether the new argument is a departure from, or just a development of, the original arguments filed with the grounds of appeal or the reply thereto. (See also T 1621/09, point 9 of the Reasons.)

4.1.4 In the present case, the new argument cannot be seen as merely a further development or elaboration of the opponent's previous position. The new analysis is based on a different choice of closest prior art (document E26 instead of E19), and this in turn means that, compared to the previous argument, it is necessary to consider a different set of distinguishing features, a

different objective problem to be solved and different reasons (based now on document E19) why the skilled person would find it obvious to arrive at the distinguishing features having regard to the prior art.

This new argument must therefore be seen as constituting an amendment to the opponent's case within the meaning of Article 13(1) RPBA, which may be admitted and considered only at the discretion of the Board.

- 4.1.5 A further complicating factor is that the proprietor was not present at the oral proceedings when the question of amendment arose, although duly summoned.

An analogous problem arose in T 1621/09 (see point 40 of the Reasons) which prompted the board in that case to analyse the relationship between Articles 13 and 15(3) RPBA, and in particular the issue of "the amendment to a party's case at oral proceedings in the absence of the party prejudiced." (See point 40 *et seq.* of the Reasons.)

The conclusion drawn, which is endorsed by the present Board, was the following:

- *"The Board therefore concludes that it remains a matter for the Board's discretion to allow an amendment to a party's case in the absence of the prejudiced party. The absence of the prejudiced party is a factor to be taken into account but does not prevent the board from allowing the amendment and proceeding to reach a decision on the basis of the case as now amended."* (See point 44 of the Reasons.)

4.1.6 In the present case, the Board, in the exercise of its discretion, decided to admit the new arguments put forward by the opponent. The reasons for this are as follows:

- a) In its communication under Article 15(1) RPBA (which also forms part of the appeal proceedings according to Article 12(1)(c) RPBA), the Board expressed doubts whether a convincing argument could be based on documents E19 plus E26, and indeed whether document E19 was a particularly appropriate choice as closest prior art. It was also noted that the opponent's argument based on the combination of documents E26 (seen as closest prior art) and E19 against claim 1 of the first auxiliary request would logically appear to apply to claim 1 of the main request also (as this claim included all features of claim 1 of the main request plus one extra feature). The new arguments of the opponent can therefore be seen as having been raised in response to the communication of the Board.

- b) In the same communication, the Board indicated that the issues mentioned in the previous paragraph might be discussed at oral proceedings, and hence the proprietor could have foreseen that the argument which the opponent is now relying on might well become a subject for discussion. In fact, the proprietor did submit further comments on the combination of documents E26 (seen as closest prior art) and E19 in the subsequent letter dated 10 March 2014, albeit in the context of the first auxiliary request.

- c) Moreover, even before the Board sent the communication under Article 15(1) RPBA, the proprietor had already commented extensively in the statement of grounds of appeal (see page 8, second paragraph) on the combination of documents E26 and E19 in relation to claim 1 of the first auxiliary request (which, as mentioned, comprises all features of claim 1 of the main request), and so the position of the proprietor in relation to this argument is part of the basis of the appeal proceedings.

- d) The new argument is not incompatible with, or contradictory to, the opponent's previous case, nor does it raise any complex issues.

4.2 *The combination of documents E26 plus E19*

- 4.2.1 At oral proceedings before the Board the opponent stated that document E19 was not the closest prior art, and argued that claim 1 of the main request was not inventive based on document E26 (taken as the closest prior art) in combination with document E19. The Board also believes that document E26 is the most appropriate choice as closest prior art.

- 4.2.2 In the written appeal procedure there was some disagreement between the parties concerning which of the claimed features were disclosed in document E26. Although the parties' submissions were made in the context of the discussion of claim 1 of the first auxiliary request, the Board takes the view that they also apply to claim 1 of the main request for the reasons stated above (see point 4.1.6a).

The proprietor argued that only the features of the preamble were disclosed, whereas the opponent argued that features (e) and (g) could also be considered to be disclosed in document E26. In the oral proceedings, however, the opponent appeared content to argue on the basis that document E26 discloses only the features of the preamble of claim 1 of the main request, and the Board also considers this to be the correct assessment (see figure 1 and accompanying text).

- 4.2.3 Both parties also take the view that the features of the characterizing part contribute to achieving the object set out in paragraph [0003] of the contested patent, i.e. to provide a surge arrester with better short-circuit performance by being able to withstand an electrical/thermal breakdown of the varistor stack without mechanically falling apart. The Board can also accept that this represents a reasonable summary of the objective problem.
- 4.2.4 Document E19 may be seen as addressing essentially the same problem (see column 1, lines 34-46; column 2, lines 56-64), and proposes a solution whereby the stack of varistor elements (zinc oxide pellets 1) is radially surrounded by a bursting preventive bandage ("tapes" - see column 2, lines 31-33; figures 1,2) with openings ("gap zones 16" - see column 2, lines 31-37; figures 1,2), the bandage consisting of a bursting-preventive spiral (figures 1,2) of insulating material (resin-impregnated glass fibres - see column 1, line 64 to column 2, line 3) arranged in the form of a helical line around the varistor stack (figures 1,2) thereby forming said openings (16) for pressure relief in case of internal short circuit in the surge arrester (column 2, lines 56-64).

A skilled person would therefore find in document E19 a solution to the objective problem involving the provision of features corresponding to those of the second alternative of the characterizing part of claim 1 of the main request (features e, f2 and g).

- 4.2.5 The Board is not persuaded by the argument of the proprietor that a skilled person would not combine these two documents as they relate to two different constructions: the varistor elements in document E19 being positioned spaced apart with the axial contact pressure being generated by the springs 7, and the arrester elements in document E26 being positioned against each other with the axial contact pressure being generated by a compression member.

Whatever relevance this point may have had for the argument starting from document E19, within the context of the present argument starting from document E26 it is unconvincing. As noted above, document E19 discloses a solution to the problem of withstanding a breakdown of the varistor stack without mechanically falling apart. There is no suggestion in document E19 that the proposed solution (i.e. the use of fibres 4 and gap zones 16) is only effective within the context of the particular configuration of varistor elements disclosed in the document, nor can any reason be seen why a skilled reader would arrive at that conclusion. The Board's view is that a skilled person would not hesitate to apply the solution suggested in document E19 to other types of varistor stacks, such as those of document E26, to solve the same problem.

The argument that the teachings of these two documents could not be combined as the "fibre winding 4 from E19 would in this case interfere with the position of the

compression member 8 in E26" is also unconvincing. The Board does not believe that a skilled person would find any particular difficulty in combining these two simple mechanical features in a single device.

4.2.6 For the above reasons, the Board judges that claim 1 of the main request does not involve an inventive step within the meaning of Article 56 EPC 1973.

5. *Inventive Step: First Auxiliary Request*

5.1 In addition to the features of claim 1 of the main request, claim 1 of the first auxiliary request includes the features that "the compression members (14-17) are also radially surrounded by said rings (21) or said spiral (24, 25)."

5.2 The Board has already found that it would be obvious for a skilled person to incorporate the features of document E19 mentioned under point 4.2.4, above, into the device of document E26. The Board also takes the view that the skilled person would understand that there are, realistically, only two ways of implementing this: either the fibres 4 of E19 would be arranged outside the fibres 8 of document E26 or *vice versa*. This was also the view expressed by the opponent in oral proceedings before the Board, and it appears to be a tacit assumption in the argument of the proprietor that if a skilled person chose to combine documents E26 and E19, he would select the second option ("the fibre winding 4 from E19 would in that case presumably be positioned inside of the compression members (8, 22, 38) of E26").

It would therefore be apparent to the skilled person that a choice is to be made between just two clear

alternative possibilities. Under these circumstances the particular choice of one or the other can very rarely, in the view of the Board, be considered to involve an inventive step, for the simple reason that the technical consequences of either choice will generally be either foreseeable, or at least readily ascertainable by routine testing and experiment.

5.3 In the present case the proprietor states that in the case of an explosion the compression members "may burst and cause damage". This problem is solved thus:

- *"since the compression members are surrounded by the bursting preventive bandage (rings or spiral), as defined in claim 1 of the auxiliary request, it is clear to a person skilled in the art that the compression members will be prevented from moving in the radial direction. The risk for an explosion is therefore reduced."* (See the proprietor's letter dated 10 March 2014, page 3).

The proprietor acknowledges, however, that "this explanation is not explicitly stated in the patent", and in the opinion of the Board it is a matter of speculation which of the two options would be preferable in this regard.

Arranging for the compression members to be surrounded by the bursting preventive bandage would, presumably, radially constrain the fragments resulting from a rupture of the compression members, but it would also mean that the compression members would be placed directly adjacent the varistor elements which, it could be argued, would make such a rupture more likely.

Which of these two options would *actually* turn out to be preferable is irrelevant to the present decision. The important point is that under these circumstances a skilled person would conduct routine tests of both arrangements to determine their characteristics (both in relation to the compression members and to any other criteria considered important) and would select one or other option based on an assessment of the test results, without exercising any inventive activity.

For the above reasons, the Board judges that claim 1 of the first auxiliary request does not involve an inventive step within the meaning of Article 56 EPC 1973.

6. *Inventive Step: Second Auxiliary Request*

6.1 *Admissibility of a new line of argument*

6.1.1 In the contested decision the Opposition Division found that claim 1 of second auxiliary request did not involve an inventive step having regard to document E26 (seen as the closest prior art) in combination with document E4.

In the statement of grounds of appeal the proprietor stated that the argumentation of the Opposition Division was "wrong for the reasons that we have already stated above" (i.e. in relation to the first auxiliary request).

In the reply to the statement of grounds of appeal, the opponent did not discuss the second or third auxiliary requests on the grounds that no new arguments had been brought forward by the proprietor in this regard. The Board understands this statement to mean that the

opponent agreed with the conclusions and the reasoning contained in the contested decision in relation to the second and third auxiliary requests and had nothing further to add.

- 6.1.2 At oral proceedings before the Board the opponent stated that the obviousness of the subject-matter of claim 1 of the second auxiliary request could be demonstrated on the basis either of a combination of documents E26 and E4 (as in the contested decision) or alternatively on the basis of a combination of documents E26 and E19.

The attack based on this second combination of documents is clearly a new argument, and it must therefore be asked whether it amounts to an amendment of the opponent's case within the meaning of Article 13(1) RPBA (cf. paragraph 4.1.2, above).

If the relevant features disclosed in document E19 were essentially the same as those disclosed in document E4, then it would be reasonable to conclude that the opponent's case remained basically unamended by the introduction of the new combination.

However, this is not the case. For example, document E4 discloses a series of strips of tape 8 wrapped discretely around the outside surface of a housing 2 (see e.g. figure 1), whereas document E19 discloses a tape wound in a "trellis-work pattern" inside a housing. An argument that claim 1 of the second auxiliary request does not involve an inventive step based on the combination of documents E26 and E19 will necessarily involve a quite different set of considerations compared to a corresponding argument based on documents E26 and E4.

The Board is therefore satisfied that the introduction of an argument based on the combination of documents E26 and E19 constitutes an amendment to the opponent's case within the meaning of Article 13(1) RPBA, which may therefore be admitted and considered only at the discretion of the Board.

6.1.3 However, having regard to the principles set out in decision T 1621/09 discussed above, the Board, in the exercise of its discretion, decided to admit the new arguments put forward by the opponent. The reasons for this are as follows:

- a) In its communication under Article 15(1) RPBA (which also forms part of the appeal proceedings according to Article 12(1)(c) RPBA), the Board expressed doubts about the combination of documents E26 and E4. The introduction of a new line of argument can therefore be seen as a response to the communication of the Board.
- b) The combination of documents E26 and E19 was one of the two combinations used by the Opposition Division in rejecting claim 1 of the first auxiliary request, and this attack was also used in the same context in the reply of the opponent to the statement of grounds of appeal. It was therefore foreseeable that if the opponent succeeded with this argument during the appeal proceedings in relation to the first auxiliary request, an attempt might well be made to continue this approach with the lower ranking requests.
- c) The proprietor had previously commented on this combination, at least in the context of the first

auxiliary request (see e.g. the statement of grounds of appeal, page 8, second paragraph).

- d) The new argument is not incompatible with, or contradictory to, the opponent's previous case, nor does it raise any complex issues.

6.2 *The combination of documents E26 and E19*

- 6.2.1 The text of claim 1 of the second auxiliary request is the same as that of claim 1 of the main request except that the second alternative (feature f2) has been omitted. The bandage is therefore defined as consisting of a plurality of bursting-preventive rings of insulating material arranged in axially spaced relationship to each other along the varistor stack.

The subject-matter of claim 1 of the second auxiliary request therefore differs from the device of document E26 by the features of the characterising part (hence: features e, f1 and g).

- 6.2.2 The Board has already found that it would be obvious for a skilled person to incorporate the spiral tapes comprising fibres 4 of document E19 into the arrangement of document E26. On this basis the skilled person would be led directly to the spiral alternative (features e, f2 and g) of claim 1 of the the main request.
- 6.2.3 The opponent stated in oral proceedings before the Board that a change from a spiral arrangement to one employing axially spaced rings would represent merely a trivial adaptation providing no additional technical effect, and that it would not be justifiable to

acknowledge an inventive step based on such a trivial alteration.

- 6.2.4 The Board can accept that such an adaptation could reasonably be regarded as a relatively minor constructional change, and also that it would be apparent to a skilled person that an arrangement comprising a plurality of rings arranged in axially spaced relationship with gaps between them would also be capable of providing radial restraint and pressure relief in a very similar manner to that of the spiral arrangement disclosed in document E19.

However, in the opinion of the Board, two further considerations need to be addressed before any definite conclusions can be reached in this regard:

Firstly, the opponent's contention regarding the non-existence of an additional technical effect needs to be considered. In other words, it is necessary to ask whether, in the light of the description, an arrangement in the form of a plurality of rings (feature f1) can be considered to provide an additional advantageous technical effect over a spiral arrangement (feature f2). If so, this would influence the definition of the technical problem solved by claim 1 of the second auxiliary request, which might lead to a different conclusion in relation to inventive step.

Secondly, it must be asked whether a skilled person would conclude from document E19 that the spiral aspect would be essential, or at least desirable.

- 6.2.5 In relation to the definition of the problem solved, the Board is unable to find in the description any indication of an additional purpose or advantage in

providing an arrangement of rings, as opposed to a spiral. The only relevant passage in the granted patent appears to be paragraph [0015], in which the following is stated:

- *"Instead of a bursting-preventive device in the form of rings, the device may consist of a spiral arranged in the form of a helical line around the varistor stack and the compression loops ... Compared with the rings, the spiral shape provides greater deflection in case of inner radially mechanical impact load. The deflection is prevented by the outer vulcanized elastomer casing by a greater part of the elastomer taking up the deformation energy."*

Thus, in the description of the granted patent the ring and spiral arrangements are presented merely as alternatives, with the spiral arrangement being seen as preferable.

Moreover, the Board is also unable to identify any passage in the submissions of the proprietor filed during the appeal proceedings indicating an additional advantage provided by configuring the bandage in the form of rings.

Limiting the bursting-preventive bandage to an arrangement of a plurality of rings does not therefore result in any identifiable additional technical effect, and hence does not justify a more limited or precisely defined problem to that identified in relation to the main request.

6.2.6 In relation to the teachings of document E19, the disclosed arrangement of fibres in the form of "tapes

forming a trellis-work pattern" (i.e. overlapping spirals) with "gap zones 16" provides the effect of radial restraint while allowing pressure relief.

However, both parties appear to consider that a further technical effect of the spiral arrangement is disclosed (at least implicitly) in the following passage of document E19:

- *"This provides radial binding without significant axial compression of the stack as a whole."*
(Column 2, lines 41-42.)

The meaning of this comment is not entirely clear to the Board. Certainly a significant axial compression is not *necessary* in the context of the arrangement of document E19, since the pellets 1 are separated by spacers 2, and electrical contact is ensured by the springs 7. However, it is not fully explained in document E19 why it is important to *avoid* significant axial compression.

Both parties have interpreted this feature as meaning that providing a spiral winding (with a winding angle of between 30° and 60° relative to the axis) serves to hold the varistor elements together in the axial direction (without significant compression, which would be unnecessary and, apparently, undesirable), whereas a plurality of rings arranged in axially spaced relationship would not appear to be capable of holding the elements together in the axial direction.

However, even if this interpretation is correct, it must be recalled that what is under consideration here is whether the spiral arrangement of document E19 provides any additional technical effects which would

prompt the skilled person to retain this spiral configuration when incorporating the fibres 4 of document E19 into the closest prior art.

The closest prior art (document E26) discloses an arrangement of varistor elements 4 held tightly in axial electrical contact by compressive members 8. It would therefore be obvious to the skilled person that importing a feature (the spiral arrangement) from document E19 which serves the purpose of holding the blocks together in the axial direction would be entirely superfluous, as this feature would provide no useful additional technical effect within the context of document E26.

6.2.7 The Board therefore concludes that, in relation to claim 1 of the second auxiliary request, the objective problem is the same as that referred to above in the context of the main request. The skilled person would find a solution to this problem in document E19, in which the windings provide radial restraint and the gaps provide pressure relief. However, the skilled person would understand that the spiral geometry disclosed is not essential to provide either of these effects, nor does document E19 disclose any other effect of a spiral arrangement which would have any relevance in the context of the device of document E26.

Hence, to solve the objective problem, it would be obvious for the skilled person to modify the device of document E26 by incorporating either the arrangement of spiral fibre tapes disclosed in document E19, or minor constructional adaptations thereof which would provide the same effects, such as a plurality of rings arranged in axially spaced relationship with gaps between them.

6.2.8 For the above reasons, the Board judges that claim 1 of the second auxiliary request does not involve an inventive step within the meaning of Article 56 EPC 1973.

7. *Inventive Step: Third Auxiliary Request*

7.1 *Admissibility of a new line of argument*

7.1.1 The arguments and the conclusions drawn are the same as those for the second auxiliary request, *mutatis mutandis*.

7.2 *The combination of documents E26 and E19*

7.2.1 The text of claim 1 of the third auxiliary request is the same as that of claim 1 of the main request except that the additional feature of claim 1 of the second auxiliary request (deletion of feature f2) and a feature similar to the additional feature of claim 1 of the first auxiliary request ("wherein the compression members (14-17) are also radially surrounded by said rings (21)") are included.

7.2.2 The Board has already found that neither the feature of radially surrounding the compression members by the bandage, nor the feature of restricting the bandage to a plurality of axially spaced rings can be considered inventive.

Moreover, the Board can see no technical interaction between these features which could possibly be considered non-obvious, nor has any such interaction been argued during the appeal proceedings.

7.2.3 Hence the Board judges that claim 1 of the third auxiliary request does not involve an inventive step within the meaning of Article 56 EPC 1973.

8. *Reimbursement of the Appeal Fee*

8.1 The proprietor requested "reimbursement of the appeal fee (Rule 103 EPC)" on the grounds of an alleged substantial procedural violation committed by the Opposition Division.

In the present case the relevant provision is actually Rule 67 EPC 1973 (see Article 1 of the Decision of the Administrative Council of 28 June 2001 on the transitional provisions under Article 7 of the Act revising the EPC of 29 November 2000 and J 10/07, OJ EPO 2008, 567, point 1.3 of the Reasons).

However, under Rule 67 EPC 1973 (and also under revised Rule 103 EPC) a precondition for granting such a request is that the appeal is deemed to be allowable. As that is not the case, no such refund is possible. It is therefore unnecessary for the Board to rule on the alleged procedural violation.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



S. Sánchez Chiquero

G. Eliasson

Decision electronically authenticated