DECISION
of 10 February 2005

Case Number: T 0562/02 - 3.5.2
Application Number: 91307670.9
Publication Number: 0472409
IPC: H02B 1/052

Language of the proceedings: EN

Title of invention:
Improvements relating to the mounting of circuit breakers

Patentee:
Electrium Sales Limited

Opponent:
ABB Patent GmbH

Headword:

Relevant legal provisions:
EPC Art. 56, 114(2)

Keyword:
"Admissibility of new documents filed with statement of grounds of appeal - (yes)"
"Inventive step - (yes)"

Decisions cited:
T 1002/92, T 0389/95, T 0855/96, T 0633/97

Catchword:
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DECISION
of the Technical Board of Appeal 3.5.2
of 10 February 2005

Appellant: ABB Patent GmbH
(Wallstadter Strasse 59
D-68526 Ladenburg (DE))

Representative: Fritsch, Klaus
(c/o ABB Patent GmbH
Postfach 1140
D-68520 Ladenburg (DE))

Respondent: Electrium Sales Limited
(Lichfield Road
Brownhills WS8 6JZ (DE))

Representative: Wardley, Diana Mary
Forrester & Boehmert
Pettenkoferstrasse 20-22
D-80336 München (DE)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 18 March 2002 rejecting the opposition filed against European patent No. 0472409 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: W. J. L. Wheeler
Members: R. G. O'Connell
E. Lachacinski
Summary of Facts and Submissions

I. This appeal is against the rejection of the opposition to European patent No. 472 409.

Claim 1, the sole independent claim of the patent as granted, reads as follows:

"An electricity supply assembly comprising a circuit breaker (2), a mounting rail (6) on which the circuit breaker (2) is in use, mounted, and a supply assembly (30, 130; 32, 132) for the supply of electricity to the circuit breaker (2), the mounting rail (6) having a flat mounting surface (9a, 9b) and the circuit breaker (2) comprising a mounting recess (4) in the underside thereof which in use is positioned over and engaged with said mounting surface (9a, 9b); the supply assembly (30, 130; 32, 132) comprising an elongate housing (30, 130) mounted adjacent to the mounting rail and an elongate supply member (32, 132) located in the housing, the housing being provided with an opening (38) and the supply member having a contact surface (33) extending in the longitudinal direction parallel to the length of the mounting rail (6), the circuit breaker (2) comprising a contact member (22, 122) for electrical engagement with the supply member (32, 132), characterised in that

(a) said contact member (22, 122) projects from the underside of the circuit breaker (2);
(b) when the circuit breaker is mounted on the mounting rail (6) the contact member (22, 122) passes through the opening (38) into the housing (30, 130),
(c) means (34, 134) is provided to urge the contact member transversely thereof into engagement with the contact surface (33) of the supply member (32, 132); and
(d) when the circuit breaker (2) is mounted on the mounting rail the circuit breaker extends over said opening (38)."

II. In the notice of opposition the opponent (now appellant) had requested revocation of the patent in its entirety on the grounds that the subject-matters of the claims of the patent did not involve an inventive step having regard to the following prior art documents:

D1: Manual of CMC Schaffhausen "Innovativ installieren mit smissline"

D2: DE 1 946 714 A.

III. In an annex to its summons to oral proceedings dated 2 November 2001 the opposition division had expressed its provisional opinion that the subject-matter of claim 1 did not involve an inventive step having regard to a combination of D2, as closest prior art, and D1. However, at the end of oral proceedings held before the opposition division on 23 January 2002 the latter came to the opposite conclusion and rejected the opposition.

IV. On appeal, the opponent cited in the statement of grounds of appeal, in addition to D2, which he still regarded as closest prior art, the following two new documents as replacement secondary documents, singly or in combination:
V. In a reasoned annex to its summons to oral proceedings the board indicated that it was minded to admit the new documents filed with the statement of grounds of appeal given that inter alia no legal or technical issues of great complexity were involved.

VI. Oral proceedings were held before the board on 10 February 2005.

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

VIII. The respondent proprietor requested that the appeal be dismissed and that the patent be maintained.

IX. The appellant opponent argued essentially as follows:

The introduction of prior art documents D3 and D4 on appeal was justified in view of the reformulation of the problem underlying the opposed patent. Whereas the problem mentioned at column 2, line 25ff, was one of ease of mounting, the problem on which the decision under appeal was based was one of electrical safety, cf point II.3 of the decision. The skilled person, starting from the undisputed closest prior art D2, and addressing the problem of improving electrical safety would be led to consider D4 in particular and by combining the teaching of these two documents would arrive at the subject-matter of claim 1 of the opposed
patent. Alternatively he would reach the same result by considering D3 or a combination of D3 and D4.

The most recent jurisprudence of the boards of appeal tended towards admitting late filed documents which were not unduly complex, cf T 855/96 and T 633/97.

As stated at point II.4c of the decision under appeal the subject-matter of claim 1 differs from the teaching of the closest prior art D2 in that:
(a) the contact member (22, 122) projects from the underside of the circuit breaker; and
(d) when the circuit breaker is mounted on the mounting rail (6) the circuit breaker extends over said opening (38).

As further stated in the decision under appeal at point II.3, the objective technical problem was to provide a supply assembly which was electrically safe in the sense of allowing manipulation of circuit breakers by persons who were not skilled electricians without a requirement for the power supply to be switched off.

The person skilled in the relevant art of consumer units for domestic electrical power and telecommunication wiring distribution addressing this problem would look at comparable problems in this art to see how the assembly of D2 might be modified to solve the problem. In this search he would not fail to consider document D4 which disclosed a multiple plug-in assembly for supplying one or more loads with electric power. Although it related particularly to telecommunication installations it was also obviously usable in the area of domestic electrical power.
distribution. At page 2 (typed numbering), paragraphs 2 and 3, the problem of exposed electrically live parts in prior art assemblies is explicitly indicated as the problem addressed by D4. The essential features of the solution were specified in features a) and d) of claim 1 of D4 and were exemplified in figure 1. In the latter figure the contact tongues 13, 40, 42, 81, 80 of the circuit breaker 3 were equivalent to the contacts on the underside of the circuit breaker in the opposed patent. In D4, just as in the opposed patent, these contacts projected from the underside of the circuit breaker and as could be clearly seen in figure 1 the latter extended over the housing opening through which the contacts engaged with the bus bars. Hence D4 disclosed the true characterising part of claim 1 of the opposed patent relative to the closest prior art D2, ie features (a) and (d) of the claim, as a solution to the identical problem of electrical safety. No inventive step was required for the skilled person to modify the assembly of D2 in accordance with the teaching of D4 and thus arrive at the electricity supply assembly claimed in the opposed patent.

The same conclusion would be arrived at by combining D2 and D3 or combining D2 with D3 and D4.

X. The respondent proprietor argued essentially as follows:

Contrary to the contention of the appellant opponent, the fact the invention of the opposed patent solved the problem of electrical safety was not first mentioned in the decision under appeal; it was pointed out by the respondent proprietor in his first response to the notice of opposition dated 30 November 1999 at
paragraphs 8 and 9. Hence the alleged late surfacing of this aspect of the invention was not a plausible excuse for the late submission of prior art documents D3 and D4. According to established jurisprudence of the EPO Boards of Appeal a new document should be admitted into the appeal procedure only if it was at least more relevant than the documents already on file. In the present case, D4, the appellant opponent’s present preferred alternative to D1, which had been previously relied on as the secondary document of the combination of two documents used to attack inventive step, was not more relevant than the latter. D1 was linked to the closest prior art D2 by the common use of a mounting rail. D4 did not have a mounting rail; it disclosed a plug-in system for use in a telecommunications system which happened to use circuit-breakers. To that extent, although it made explicit reference to the problem of electrical safety, it was not in the same narrow technical field of domestic or industrial power distribution units as the closest prior art and D1. The evidence was that the mounting rail technologies and the plug-in technologies had never before been combined. D1 was good evidence of the technical prejudice in the field against any combination of these approaches.

The same considerations applied a fortiori to prior art document D3 which was even less relevant than D4.

**Reasons for the Decision**

1. The appeal is admissible.
2. **Admissibility of prior art documents D3 and D4.**

Although the respondent proprietor argued at length and with great erudition that these documents should not be admitted, the board is not persuaded that the principles that the respondent distilled from such decisions as T 1002/92 OJ EPO 1995,605 and T 389/95 of 15 October 1997 are applicable to the case to be decided here. Thus the latter two cited decisions related to allegations of prior use of complex telecommunications systems which were not fully substantiated even when the statement of grounds of appeal were filed, whereas the evidence adduced by the appellant opponent in the present case comprises two published printed documents filed with the statement of grounds of appeal, a patent specification and a utility model specification, both of which can be read and understood in less than an hour. The respondent proprietor's submission that the appellant opponent should not be permitted to substitute D4 for D1 in his attack on inventive step unless D4 is at least more relevant than D1 appears plausible, but the devil is in the detail of its practical application. The concept of relevance is useful at each extreme: a clearly irrelevant document is quickly disposed of and a clearly highly relevant document filed with the statement of grounds of appeal must normally be admitted. Between these extremes it is at least questionable whether time is well spent quantifying relevance rather than assessing inventive step. For these reasons the board has exercised its discretion in favour of admitting D3 and D4 as documents which are neither clearly irrelevant nor present any great procedural complication or technical complexity.
A further equitable consideration in this particular case tending to persuade the board to exercise its discretion in the appellant opponent's favour on the admission of D3 and D4 was the fact that the opposition division's provisional opinion expressed in advance of oral proceedings may have dissuaded him from considering sooner the implications of the reformulation of the relevant objective technical problem. This is, of course, no criticism of the action of the opposition division, which, by definition, is not bound by its provisional opinion. Given also that the closest prior art and the now undisputed objective technical problem remain the same as in the decision under appeal it can be said that the new documents are responsive to the decision under appeal and apt to promote convergence of the debate.

3. **Inventive step**

The board will concentrate its assessment of inventive step on what the appellant opponent himself put forward as his strongest argument, an attack based on D2 as undisputed closest prior art and D4 as secondary document which allegedly would lead the person of ordinary skill in the art addressing the problem of electrical hazard posed by D2 to the electricity supply assembly specified in claim 1 of the opposed patent.

The board agrees with the opposition division's undisputed view expressed at point II.3 of the decision under appeal that claim 1 is to be interpreted as including a hat-shaped mounting rail, known in the art as a din-rail, despite the latter term not being used
in the claim. It is also common ground that such din-rail circuit breaker assembly systems have been known for a long time in the art and are indeed essentially the standard system for domestic electrical power supply distribution units particularly in Germany. In other countries plug-in systems of the kind exemplified in D3 have been used for this purpose and also in Germany to a limited extent, eg for telecommunications equipment power supply as exemplified by D4. As the respondent proprietor pointed out, the opposition division confirmed, at point 5 of the decision under appeal, in its analysis of prior art document D1 that these distinct approaches had coexisted and were effectively treated in the art as incompatible, this being exemplified within D1 itself. The appellant opponent contests the idea that there was a technical prejudice inhibiting the skilled person from transferring an improvement from the plug-in subfield of this technology to the din-rail subfield. At least in Germany din-rail was simply the commercial standard but the skilled person was aware of plug-in systems despite their limited commercial use.

Although the board is inclined to agree with the appellant opponent that it is not appropriate to speak of a technical prejudice in this situation, the board is not convinced by the latter's view of the simple transferability of the alleged solution of the problem from a plug-in system such as D4 to a din-rail system as in D2. The problem solved in D4 is the same as that solved by the opposed patent only at the level of generality of electrical safety, but the specific problem solved by the opposed patent is to produce a din-rail system which is inherently safe. The appellant
The opponent's contention that the problem had already been solved in D4 is an assertion based on loose ex post facto analogies between the elements of the plug-in system of D4 and those of a din-rail system. Thus, the opening over which the circuit breaker 3 extends in Figure 1 of D4 is not, of course, an opening in an elongate housing mounted adjacent to a mounting rail since D4 does not have a mounting rail in the sense of claim 1 of the opposed patent. To put it more baldly, feature (d) of claim 1 of the opposed patent, which specifies a relationship which is to exist "when the circuit breaker is mounted on the mounting rail" cannot fairly be said to be disclosed in an assembly such as that of Figure 1 of D4 which does not have a mounting rail. This follows in turn from the fact that the circuit breakers shown there do not have "a mounting recess in the underside thereof" as specified in claim 1.

A plug-in circuit breaker is inherently safe in the same way that a conventional household electrical power plug is safe, it extends over the opening (socket holes) into which its pins or contact tongues are plugged. A din-rail circuit breaker is, however, mechanically "plugged" onto a mounting rail with no inherent protection for the electrical connection; a problem which simply does not arise in an assembly such as that shown in Figure 1 of D4. In that sense the skilled person would not so much be inhibited by a technical prejudice from deriving a solution from D4, he would simply regard it as irrelevant.
Although this may be regarded as confirming the respondent proprietor's contention from the beginning that D4 was irrelevant the board believes that the finding has significantly added value for the parties and the public when arrived at via the conventionary criterion of inventive step rather than by a discretionary procedural measure.

The above considerations apply also to arguments based on a combination of D2 and D3 or a combination of D2, D3 and D4.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:       The Chairman:

D. Sauter            W. J. L. Wheeler