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Datasheet for the decision of 24 April 2009

Case Number: T 0951/06 - 3.5.02

Application Number: 97204038.0

Publication Number: 0859387

IPC: H01H 9/02

Language of the proceedings: EN

Title of invention:
Low voltage circuit breaker

Patentee:
ABB Sace SpA

Opponent:
Siemens Aktiengesellschaft

Headword:
-

Relevant legal provisions:
EPC Art. 123(2), 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Added subject-matter (no)"
"Inventive step (no)"

Decisions cited:
-

Catchword:
See point 3 of the reasons.

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Case Number: T 0951/06 - 3.5.02

D E C I S I O N
of the Technical Board of Appeal 3.5.02
of 24 April 2009

Appellant: (Opponent)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 7 April 2006 rejecting the opposition filed against European patent No. 0859387 pursuant to Article 102(2) EPC 1973.

Composition of the Board:

Chairman: M. Ruggiu
Members: J.-M. Cannard
H. Preglau

Summary of Facts and Submissions

I. The opponent appealed against the decision of the opposition division rejecting the opposition filed against the European patent No. 0 859 387.

II. The following documents:

D1: DE 692 17 441 T2, translation in German of the European patent EP 0 538 149 B1, and

D9: EP 0 632 927 B1,

considered during the proceedings before the opposition division, are mentioned in the present decision.

III. In a communication dated 26 January 2009 and annexed to summons to oral proceedings, the Board pointed out, *inter alia*, that "Document D1 was apparently made available to the public on 10 July 1997 and thus does not seem to be part of the state of the art".

IV. Oral proceedings before the Board, in the course of which the appellant mentioned for the first time the A publication of the European patent application EP 0 538 149 A1, were held on 24 April 2009.

V. Claim 1 of the patent in suit as granted, maintained on appeal, reads as follows:

"Low-voltage circuit breaker (1) having poles (2) containing levers (24) for opening and closing contacts, with terminals (25, 26) protruding from the circuit breaker (1) and an electric arc extinction chamber (75),

where the levers (24), the terminals (25, 26) and the extinction chamber (75) of each pole are enclosed in a casing of insulating material, the rear wall of the casing exhibiting openings surrounding the protruding part of the terminals (25, 26), the front wall of the casing exhibiting an opening for the passage of means of connection of the levers (24) to a device (10) for controlling the circuit breaker (1), the poles (2) being housed in a supporting and stiffening frame (3, 4, 5, 6, 7, 8, 9), **characterized in that** the casing of each pole is formed by two insulating half-shells (20, 21) of containment which fit together, and **in that** the supporting and stiffening frame has a modular structure."

Claims 2 to 16 are dependent on claim 1.

VI. The arguments of the appellant opponent can be summarized as follows:

A frame having a modular structure was not disclosed in the application as originally filed. The frame of the breaker of the invention which was composed of flanks connected by transverse bars might be understood as a frame having a modular structure. However, the feature added to claim 1 of the patent in suit contravened Article 123(2) EPC because it covered other frames which had a modular structure, but were not disclosed in the originally filed application.

According to the appealed decision, the technical idea behind the expression "modular frame" was to provide a frame suitable for a certain number of poles in the breaker, i.e. having supports with a variable length

that could be chosen before the assembly. The decision was not correct in this respect because, in view of paragraph [0009] of the patent, the technical idea consisted in providing a modular structure of each pole as well as a modular construction of the circuit breaker in general. However, the application as originally filed did not disclose a frame having itself a modular construction.

Document D9 related to a low-voltage circuit breaker (column 6, lines 43 to 45) and was the closest prior art. The circuit breaker of D9 comprised a supporting and stiffening frame formed of flanks and transverse bars, i.e. having a "modular structure" with the meaning this term had in the patent in suit, and several poles which contained levers for opening and closing contacts, with terminals and an electric arc extinction chamber, the casing of each pole being formed by two insulating half-shells, as recited in claim 1. The circuit breaker of claim 1 differed from the breaker disclosed in D9 only in that both terminals specified in claim 1 protruded from the rear wall of the casing of the poles, while, in D9, one terminal protruded from the upper wall of the breaker and the other from the rear wall. The skilled person would have regarded as obvious to modify the locations of the terminals, in particular to arrange the terminals as specified in claim 1.

VII. The arguments of the respondent proprietor can be summarized as follows:

Specifying in the claims that the frame had a modular structure did not add any new matter to the content of the application as originally filed because it disclosed

the concept of a modular frame. It appeared from the application that the breaker and the poles contained in the breaker were modular because they were built by assembling different parts which were formed separately. According to column 7, lines 45 to 50 of the published application, the frame was formed by assembling transverse bars whose length was adapted to the number of poles contained in the circuit breaker. The frame thus was modular in the same way as the breaker and the poles were modular. It was sufficient for the patent in suit to disclose one embodiment of the breaker, and the scope of the patent had not to be limited to said embodiment.

The circuit breaker of claim 1 differed from the circuit breaker disclosed in D9, which now was considered as the closest prior art by the appellant, in three different respects: the circuit breaker of the invention had an air electric arc extinction chamber while the breaker of D9 had a vacuum interrupter; the terminals of the poles disclosed in D9 protruded from the upper and lower walls of the breaker; a supporting and stiffening frame having a modular structure was not disclosed in D9.

The skilled person starting from D9 would have no obvious reason to modify the locations of the terminals of the breaker because the arrangement of the terminals in D9 was a consequence of the use of poles comprising a vacuum interrupter. A supporting and stiffening frame having a modular structure was not described in the cited prior art. The skilled person would not have arrived at the claimed invention in an obvious way.

VIII. The appellant (opponent) requested that the decision under appeal be set aside and that the European patent No. 0 859 387 be revoked.

IX. The respondent (patentee) requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

Compliance with Article 123(2) EPC

2. Claim 1 of the patent in suit as granted differs in substance from claim 1 as originally filed in that it incorporates at the end of the claim the additional feature that "the supporting and stiffening structure has a modular structure". This added feature is not explicitly mentioned in the application as originally filed. It derives however directly and unambiguously from the content of the original application as a whole.

2.1 According to the application as originally filed (page 5, lines 18 to 20), each pole of the breaker has a "modular structure" and this modularity makes it possible to preassemble a pole using its various constitutive parts.

2.2 In a similar way, according to page 5, line 24 to page 6, line 2 of the original description, the circuit breaker itself is made in a modular manner and the "modularity of the circuit breaker is obtained by using groups of elementary poles which are all identical and metal stiffening supports of variable length".

2.3 The skilled person would thus understands on the basis of the original application that the breaker and each pole have a modularity of construction (page 6, line 3) because they are built from constitutive parts made separately and then joined together to form the corresponding entity, irrespective of the complexity of the constitutive parts. Accordingly, as the frame of the breaker is made by assembling metal stiffening supports of variable length to support the poles, the frame can be considered as having a "modularity of construction" or a "modular structure" with the meaning that these terms have in the application as originally filed.

2.4 The Board concludes therefore that, in view of the original description, the last feature of claim 1 of the patent means that the supporting and stiffening frame has a structure, in particular supports, having a length adapted to the number of elementary poles in the circuit breaker. The patent as granted thus does not extend beyond the content of the application as originally filed (Article 123(2) EPC).

Document D1

3. Document D1 (DE 692 17 441 T2), which is a translation in German of the European patent EP 0 538 149 B1, was made available to the public on 10 July 1997, i.e. after the date of filing of the patent in suit and thus is not part of the state of the art, as already observed in the communication annexed to the summons to oral proceedings. The A publication of the European patent application 0 538 149, which was referred to by the appellant for the first time during the course of the oral proceedings

before the Board, is not in the procedure and therefore will not be considered further.

Lack of inventive step

4. Document D9 discloses a low-voltage circuit breaker 1 (figures 1 to 3; column 3, line 47 to column 5, line 9; column 6, lines 43 to 45) which comprises:

- poles 2 containing levers 46 for opening and closing contacts, with terminals 14, 20 protruding from the circuit breaker 1; an electric arc extinction chamber is formed by an evacuated housing 11 enclosing the contacts,

- where the levers 46, the terminals 14, 20 and the extinction chamber 11 of each pole are enclosed in a casing of insulating material 23, the front wall of the casing exhibiting an opening for the passage of means of connection of the levers 46 to a device 6 controlling the circuit breaker 1, the poles 2 being housed in a supporting and stiffening frame (transverse bars 4 and flanks 5),

- wherein the casing of each pole is formed by two insulating half-shells 21, 22 of containment which fit together (column 4, lines 23 to 28), and

- the supporting and stiffening frame has a modular structure, with the meaning that these terms have in claim 1, because the frame of the circuit breaker of D9 is composed of flanks 5 connected together by transverse bars 4.

5. The casing of each pole of the breaker of D9 has an upper wall with an opening surrounding the protruding part of the terminal 20, while the terminal 14 protrudes from the casing at the junction of the lower and rear walls. Accordingly, D9 does not disclose a circuit breaker in which the rear wall of the casing exhibits openings surrounding the protruding part of the terminals, as the circuit breaker specified in claim 1 which only differs from the breaker disclosed in D9 in this respect (see Figures 2 and 3 of D9, and corresponding description).

6. Nevertheless, D9 (column 3, lines 31 to 33) makes clear that the figures 1 to 5 show examples of breakers and that other arrangements are possible. Moreover, it is apparent to the skilled person that, since the arc extinction chamber (evacuated housing 11) is closed, the locations for the terminals are not subject to particular restrictions. Therefore, in the judgment of the Board, it would be obvious to the skilled person looking for alternative locations for the terminals to arrange the terminals so that they both protrude through the rear wall of the casing of the poles. No substantial modification of the breaker is required to compensate for the change in location of the terminals. Accordingly, the claimed arrangement of the terminals results from a simple choice between several obvious possible solutions.

7. The Board concludes from the foregoing that the subject-matter of claim 1 of the patent in suit as granted does not involve an inventive step within the meaning of Article 56 EPC, so that the ground for opposition mentioned in Article 100a EPC prejudices the maintenance of the patent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

U. Bultmann M. Ruggiu