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**Datasheet for the decision  
of 1 August 2007**

**Case Number:** T 0383/05 - 3.5.02

**Application Number:** 99952131.3

**Publication Number:** 1080479

**IPC:** H01H 33/36

**Language of the proceedings:** EN

**Title of invention:**

Actuation and control device for electric switchgear

**Patentee:**

ABB Trasmissione & Distribuzione SpA

**Opponent:**

Siemens AG  
Alstom

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54(1), 56, 104(1)  
EPC R. 57a

**Keyword:**

"Admissibility of the appeal (yes)"  
"Admissibility of the first and second auxiliary requests -  
(yes)"  
"Main and first auxiliary requests - novelty - (no)"  
"Second auxiliary request - inventive step - (no)"  
"Apportionment of costs - refused (yes)"

**Decisions cited:**

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**Catchword:**

See points 1, 2 and 8 of the Reasons



Case Number: T 0383/05 - 3.5.02

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.02  
of 1 August 2007

**Appellant:** ABB Trasmissione & Distribuzione SpA  
(Patent Proprietor) P. le Lodi, 3  
I-20137 Milano (IT)

**Representative:** Giavarini, Francesco  
Zanoli & Giavarini S.r.l.  
Via Melchiorre Gioia, 64  
I-20125 Milano (IT)

**Respondent:** Siemens AG  
(Opponent 01) Abteilung: CT IP PTD  
Postfach 22 16 34  
D-80506 München (DE)

**Representative:** -

**Respondent:** Alstom  
(Opponent 02) 25, avenue Kléber  
F-75116 Paris (FR)

**Representative:** Moutard, Pascal Jean  
Brevatome  
22, Avenue du Doyen Louis Weil  
B.P. 1506  
F-38025 Grenoble Cedex 1 (FR)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 24 January 2005  
revoking European patent No. 1080479 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** M. Ruggiu  
**Members:** J.-M. Cannard  
P. Mühlens

## Summary of Facts and Submissions

I. This is an appeal of the proprietor against the decision of the opposition division to revoke European patent No. 1 080 479.

II. The following documents of the state of the art have been considered, among others, during the appeal proceedings:

D1: WO-A-96/36982, and

D2: DE-A-32 24 165.

III. All the parties to the appeal had filed auxiliary requests for oral proceedings and, on 4 May 2007, the Board issued summons to attend oral proceedings on 1 August 2007, with an annexed communication.

With a fax received on 24 July 2007, the appellant (proprietor of the patent in suit) withdrew his request for oral proceedings. As a reaction to that fax, the Board issued a communication stating that the Board felt it could reach a decision on all issues of the case without further discussion with the parties and asking whether the parties would be present at the oral proceedings. The opponents replied that they would be present. With a fax of 27 July 2007, the appellant proprietor confirmed that he would not be present at the oral proceedings.

IV. The oral proceedings before the Board took place on 1 August 2007. As announced before hand, the appellant did not attend.

The appellant had requested in writing that the decision under appeal be set aside and that the patent be maintained unamended (main request), or that the patent be maintained in amended form in accordance with the first or the second auxiliary request filed with the statement setting out the grounds of appeal dated 23 May 2005.

The opponent 01 (Siemens AG) requested that the appeal be dismissed.

The opponent 02 (Alstom) requested that the appeal be rejected as inadmissible or, auxiliarily, that the appeal be dismissed. Furthermore, he requested apportionment of costs under Article 104 EPC to the effect that the proprietor reimburses the costs for the whole appeal proceedings or, auxiliarily, only for the oral proceedings before the Board.

V. Claim 1 of the patent in suit as granted (main request of the appellant) reads as follows:

" An actuation and control device for opening and/or closing electric switching means having at least one fixed contact and at least one movable contact (103), comprising actuating means which are operatively connected to the movable contact (103) and supply the energy to perform opening/closing, **characterized in that** said actuating means comprise a position control motor (101) which is operatively connected to the movable contact (103), and a power and control electronic unit (100) which drives said motor (101) so **that** the movable contact (103) achieves a defined rule of motion."

Claims 2 to 12 are dependent on claim 1.

- VI. Claim 1 of the first auxiliary request of the appellant differs from claim 1 of the main request in that the following is added at the end of the claim:

", said position control motor (101) having a position sensor thereon".

- VII. Claim 1 of the second auxiliary request of the appellant differs from claim 1 of the main request in that the following is added at the end of the claim:

", said position control motor (101) being a rotary servomotor".

- VIII. The written arguments of the appellant can be summarized as follows:

The opposition division had considered that the subject matter of claim 1 as granted was not new in view of the prior art disclosed in document D1. In particular, the opposition division regarded the voice coil of D1 as a motor, i.e. a device transforming an arbitrary form of energy into mechanical energy. However, claim 1 as granted recited an actuation and control device with a position control motor, i.e. a motor with intrinsic control of the position. D1 disclosed a device for a switchgear actuator based on a voice coil. Even assuming that a voice coil was a motor, the actuator of D1 was not a position control motor because the voice coil was controlled indirectly through a control loop based on information (from a feedback device 14) about

the position of the operating rod 6 connecting one of the contacts of the current interrupter 4 to the voice coil actuator 8. Thus, in D1, there was no position control on the voice coil in itself, which therefore was not a position control motor. Consequently, the subject-matter of granted claim 1 was new in the sense of Article 54 EPC. In D1, the input from the feedback device 14 regarding the position of the operating rod 6 was sent to the control mechanism 12, which controlled the voice coil actuator 8. Thus, the voice coil actuator 8, i.e. the "motor", of D1 did not have a position sensor thereon so that the subject-matter of claim 1 of the first auxiliary request was new. A voice coil was a linear actuator with a fixed magnetic structure and a lightweight movable coil which, when energized, experienced a force perpendicular to the field generated by the magnetic structure and coil wire. Therefore, a voice coil actuator was not, and could not be, a rotary servomotor as specified in claim 1 of the second auxiliary request. In addition, a voice coil actuator was not a position control motor. Thus, the subject-matter of claim 1 of the second auxiliary request was new.

The appellant had received on 10 July 2007 the reasons of the decision of Board 3.5.02 in companion appeal case T 916/05, which in particular discussed the documents D1 and D2. Having considered the reasons given in case T 916/05, the appellant had reached the conclusion that it would not be expedient to re-discuss the same issues before the same Board and had withdrawn its request for oral proceedings. Therefore, this withdrawal was not an abuse of procedure.

IX. The arguments of the respondent opponent 01 (Siemens AG) that are relevant to the present decision can be summarized as follows:

Document D1 disclosed an actuation and control device for opening and/or closing electric switching means with a fixed contact 72 and a movable contact 71. An operating rod 6 connected the movable contact 71 to an actuator comprising a voice coil 8 controlled by a mechanism 12 which provided the current to the voice coil winding. The mechanism 12 was coupled to a position sensor 14 as a feedback device that provided input regarding the position of the operating rod 6. D1 suggested to implement mechanism 12 by means of a programmable logic controller and to use PWM for controlling the current applied to the voice coil and thereby the velocity of the movable contact. A particular motion profile was programmed in a memory of the controller of D1, so that the movable contact achieved a defined rule of motion. Since the voice coil actuator of D1 was controlled in accordance with the position of the movable contact 71, which was detected by sensor 14, the actuator of D1 had to be regarded as a "position control motor". Furthermore, the sensor 14 was placed on the voice coil. Thus, the subject-matter of claim 1 lacked novelty with respect to the prior art disclosed in D1, both in the version of the granted patent and in the version of the first auxiliary request. Document D2 disclosed switching means of the type specified in claim 1 of the patent in suit, in which the movable contact 13 was displaced by a rotating motor, in particular a squirrel cage motor shown in Figure 1, controlled by a control unit 27. The movement of contact 13 was detected by sensors 32, 33.

Thus, contact 13 moved according to a predetermined motion between two positions and the subject-matter of claim 1 according to any of the requests lacked novelty in view of D2. Furthermore, in addition to rotary actuators, D2 also disclosed linear actuators for moving the movable contact. D1 indicated at page 2, lines 10 to 13 that the object of the invention described therein was to provide a switchgear actuator mechanism capable of a range of motion profiles, thereby eliminating the need for many types of mechanical systems. D2 concerned a similar problem as appeared from page 5, last paragraph, of that document. It was therefore apparent to the skilled person that a rotating servo-motor was an obvious alternative to a linear actuator such as the voice coil actuator described in D1. Thus, the subject-matter of claim 1 of the second auxiliary request did not involve an inventive step.

- X. The arguments of the respondent opponent 02 (Alstom) that are relevant to the present decision can be summarized as follows:

The appeal referred to a motor with intrinsic control of the position, which was not a feature of any claim of the patent in suit. This alleged distinction, which was obscure, had no linguistic or technical basis and was inconsistent with paragraph [0020] and Figure 3 of the patent in suit. The appellant submitted this argument only to give an appearance of substance to the appeal. However, the appeal was in fact not substantiated. Therefore, the appeal did not meet the requirements of Article 108 EPC and had to be rejected as inadmissible.



The auxiliary requests submitted by the appellant with the statement of grounds of appeal had been filed late, as appeared in particular from decision G 9/91, which stated that the "purpose of the appeal procedure *inter partes* is mainly to give the losing party the possibility of challenging the decision of the Opposition Division on its merits". The appeal procedure was not a new opposition procedure. In the present case, in view of the annex accompanying the summons to oral proceedings before the opposition division, the proprietor could expect that the division would decide to revoke the patent. However, the proprietor did not file any auxiliary request within the term set out in the annex to that summons and of its own volition had renounced the possibility of presenting further arguments. It was therefore clear that the present auxiliary requests were late. It was apparent that the present requests of the appellant did not meet the requirements of the EPC. In particular, the opponent had already pointed out in the notice of opposition and in the letter dated 28 October 2004 that the subject-matter of claim 1 of the first and second auxiliary requests (which corresponded to claim 4 and 6 as granted respectively) lacked novelty or did not involve an inventive step. Thus, the auxiliary requests did not constitute a *bona fide* attempt to remove the objections that had led to the decision of the opposition division. They had been filed simply to delay the decision in the present case. This delaying tactic should be sanctioned by the Board and the auxiliary requests should not be admitted in the proceedings.

Opponent 02 agreed with opponent 01 as regarded documents D1 and D2. Furthermore, there were other documents in the proceedings that destroyed the novelty or showed lack of inventive step of the subject-matter of claim 1 in accordance with any requests of the appellant.

As regarded the apportionment of costs, opponent 02 submitted that the chronology of the present case clearly showed that the patent proprietor attempted to delay the final decision about the opposition. The arguments "provided" in the statement of grounds of appeal should have been provided for the oral proceedings before the first instance. Both before the first instance and before the Board of appeal, the patent proprietor had decided not to attend the oral proceedings. This delaying tactic generated little costs to the proprietor. However, the preparation of the oral proceedings had caused costs to the opponent and transport expenses had arisen. The late cancellation of the oral proceedings before the first instance (four days before the scheduled date, two of which falling on a week-end), the late indication that the proprietor would not attend the oral proceedings before the Board (seven days before the scheduled date), contesting the decision of the first instance by "arguments" that amounted to two lines of writing, presenting late auxiliary requests, all this constituted an abuse of procedure that justified an apportionment of costs under Article 104 EPC for the appeal procedure, at least for the oral proceedings of 1 August 2007.

## Reasons for the Decision

1. In the statement setting out the grounds of appeal, the appellant submits that claim 1 as granted relates to a device having actuating means which comprises, among others, "a position control motor, i.e. a motor with intrinsic control of the position". The statement of grounds of appeal further states that document D1 discloses a device based on a voice coil, which "is not a position control motor as specified in present claim 1" and that "contrary to what requested in the appealed patent, there is no position control on the voice coil in itself which therefore is not a position control motor" and then concludes that "the subject-matter of present claim 1 is new in the sense of Article 54 EPC". Thus, it appears that the statement of grounds of appeal specifies the legal and factual reasons on which the case for setting aside the decision under appeal is based. The Board considers this sufficient to make the appeal admissible.
  
2. There are no special rules governing the filing of amendments in appeal proceedings. Under Rule 66(1) EPC, the Board therefore applies the EPC provisions which govern the filing of such claims before the department of first instance. According to Rule 57a EPC, the description, claims and drawings of a European patent may be amended during the opposition procedure, provided that the amendments are occasioned by grounds for opposition specified in Article 100 EPC. In the present case, the proprietor of the patent first submitted amendments to the patent with the statement of grounds of appeal, in the form of the first and second auxiliary requests. These auxiliary requests

incorporate features in the independent claim 1 that can be found in claim 4, respectively claim 6 of the patent in suit as granted. Since claims 4 and 6 had already been considered by the opponents in their respective notices of opposition, the auxiliary requests did not result in a substantially new situation which was likely to lead to an excessive delay in the proceedings or to cause an unreasonable amount of additional work for the respondents. Both auxiliary requests are regarded as an attempt to respond to the objections of the opposition division against claim 1 as granted. In view of these circumstances, the Board does not consider the filing of the auxiliary requests as an abuse of proceedings and has decided to admit the auxiliary requests into the procedure.

3. Prior art document D1 relates to a device for controlling electrical switchgear, in particular one that uses a voice coil actuator to open and close a current interrupter. In an embodiment described in D1, the current interrupter 4, i.e. the switching means, has a movable contact 71 and a fixed contact 72. The movable contact 71 is fastened to an operating rod 6. The other end of the operating rod 6 is operatively coupled to a voice coil actuator 8. The voice coil actuator directly acts upon the operating rod 6 in order to open or close the contacts of the current interrupter 4. A control mechanism 12 connected to the voice coil actuator 8 includes a PWM circuit 228 which supplies a controlled current to the voice coil actuator 8. Thus, the PWM circuit 228 supplies the energy to perform the opening/closing operations. The control mechanism 12 is coupled to a position sensor 14

that sends a position signal of the actuator 8, and thereby information regarding the position of the operating rod 6, to a motion control circuit 226 of control mechanism 12, which controls the voice coil actuator 8. It can be seen in particular on Figure 7 of D1 that the position sensor 14 is coupled to the motion control circuit 226. A particular motion profile is programmed in motion control circuit 226, which compares the actual position of the actuator 8 to the ideal motion profile pre-programmed therein. Based on the comparison of the actual position to the ideal motion profile, the voice coil actuator 8 is controlled by the PWM circuit 228 so that its motion closely approximates the ideal intended motion (D1, page 14, lines 1 to 18). Therefore, the control mechanism 12 includes a control electronic unit, which drives the voice coil actuator 8 so that the movable contact 71 achieves a defined rule of motion.

4. The Board has not found any basis either in the description or in the claims of the patent in suit to clarify or to support the appellant's view that claim 1 is restricted to "a motor with intrinsic control of the position". The statement of grounds of appeal (see page 2, third paragraph) also refers to a motor with a position control on the motor "in itself". These expressions are not contained in the patent specification. Nor are their meanings explained in the statement of grounds of appeal. Thus, granted claim 1 is not restricted to "a motor with intrinsic control of the position" or "a motor with a position control on the motor in itself". The voice coil actuator 8 of D1 acts to move the operating rod 6 and thereby the movable contact 71. Therefore, the Board regards the

voice coil actuator 8 as being a motor. The position of the voice coil actuator 8 is controlled by the position sensor 14 and the control mechanism 12. It is therefore apparent that the device of D1 includes actuating means that comprises a position control motor as specified in claim 1 of the main request.

Thus, the subject-matter of claim 1 of the patent in suit as granted is not considered to be new in the sense of Article 54(1) EPC.

5. Figures 4 and 5 of D1 show that the position sensor 14 is connected to a flange 34 mounted on the voice coil 10 of the voice coil actuator 8. Thus, the position sensor 14 can be regarded as being mounted on the voice coil actuator 8, i.e. on the motor of the device. Therefore, the subject-matter of claim 1 in accordance with the first auxiliary request of the appellant is not considered to be new with respect to the prior art disclosed in D1.
6. The voice coil actuator 8 of D1 is a linear actuator. Thus, the subject-matter of claim 1 in accordance with the appellant's second auxiliary request differs from the prior art disclosed in D1 in that the position control motor is a rotary servomotor.

D1 (see page 2, lines 10 to 13) indicates that the device disclosed therein eliminates the need for many types of mechanical systems. Like D1, document D2 relates to actuation and control devices for opening and/or closing electric switching means, which eliminate expensive mechanical transmission elements (see page 5, lines 29 to 35 of D2). D2 discloses

different embodiments for the actuating means operatively connected to the movable contact of the switching means. In particular, the embodiments shown in Figures 1 and 2 of D2 use rotary drives for moving the movable contact, while the embodiments shown in Figures 3 and 4 use linear drives (see in particular the abstract of D2 and page 11, lines 5 to 9, page 12, lines 20 to 24, page 13, lines 27, 28, page 15, lines 8 to 12 and page 16, lines 14 to 16). In the rotary as well as in the linear drives, the motor of D2 acts on an operating rod 12, 44, 58 or 68 that is connected with the movable contact. In view of D2, it is obvious to the skilled person that an alternative to the linear actuator connected to the operating rod 6 of D1 is formed by a rotary actuator, such as the one shown in Figure 1 of D2, which comprises a rotating squirrel cage motor (see page 10, lines 5 to 7 and page 11, lines 5 to 9 of D2). Thus, having regard to the state of the art and in particular to documents D1 and D2, the subject-matter of claim 1 in accordance with the second auxiliary request of the appellant is obvious to the person skilled in the art and therefore does not involve an inventive step in the sense of Article 56 EPC.

7. As none of the appellant's requests is suitable for maintaining the patent, the appeal has to be dismissed.
8. According to Article 104(1) EPC, each party to opposition proceedings "shall meet the costs he has incurred unless a decision of an Opposition Division or Board of Appeal, for reasons of equity, orders, in accordance with the Implementing Regulations, a different apportionment of costs incurred during taking

of evidence or in oral proceedings".

Thus, the general rule is that each party meets the costs he has incurred. It can be departed from that rule for reasons of equity only for costs incurred during taking of evidence or in oral proceedings. Therefore, the request that costs be reimbursed for the whole appeal proceedings is contrary to Article 104(1) EPC and must be refused for that reason already.

An appeal shall lie in particular from decisions of opposition divisions (Article 106(1) EPC) and any party adversely affected by a decision may appeal (Article 107 EPC). It is therefore clear that the proprietor was entitled to file an appeal against the decision of the opposition division to revoke the patent. Requesting oral proceedings is explicitly permitted by Article 116 EPC. Nothing in the EPC prevents a party from withdrawing a request for oral proceedings at any time. In the present case, the appellant withdrew its request for oral proceedings on 24 July 2007, i.e. one full week before the date scheduled for the oral proceedings. Having regard to this period of one full week, the Board judges that the proprietor announced withdrawal of its request for oral proceedings sufficiently early, so that his conduct is not considered culpable in the circumstances.

Moreover, the Board stated in a communication issued on 25 July 2007 as a reaction to the withdrawal by the appellant of his request for oral proceedings that it could reach a decision on all issues of the case without further discussion with the parties. The behaviour of the appellant, who replied that he would



not attend the oral proceedings and did not file any substantive reply to the Board's communications, neither forced the respondents to attend the oral proceedings, nor caused any additional work for its preparation. Opponent 02 is thus responsible for the costs that he incurred for preparing and attending the oral proceedings and there are no reasons of equity which would justify a different apportionment of costs. Therefore, the request for apportionment of costs for the oral proceedings before the Board is refused.

## **Order**

### **For these reasons it is decided that:**

1. The appeal is dismissed.
2. The request for apportionment of costs is refused.

The Registrar:

The Chairman:

U. Bultmann

M. Ruggiu