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Datasheet for the decision of 24 March 2026

Case Number: T 0021/25 - 3.4.02

Application Number: 10816511.9

Publication Number: 2478610

IPC: H02J3/38, H02J3/01, H02J3/18, H02J3/40

Language of the proceedings: EN

Title of invention:
Utilization of distributed generator inverters as STATCOM

Patent Proprietor:
Varma, Rajiv Kumar

Opponents:
Vestas Wind Systems A/S
BOB Holding GmbH

Relevant legal provisions:
EPC Art. 100(c), 111(1)

Keyword:
Grounds for opposition - added subject-matter (no)
Appeal decision - remittal to the department of first instance (yes)

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Boards of Appeal

Chambres de recours

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

Case Number: T 0021/25 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 24 March 2026

Appellant: (Patent Proprietor)	Varma, Rajiv Kumar 511 Cottontail Crescent London, Ontario N5X 4M4 (CA)
Representative:	RGTH Patentanwälte PartGmbB Mönckebergstrasse 11 20095 Hamburg (DE)
Respondent: (Opponent 1)	Vestas Wind Systems A/S Hedeager 42 8200 Aarhus N (DK)
Representative:	Samson & Partner Patentanwälte mbB Widenmayerstraße 6 80538 München (DE)
Respondent: (Opponent 2)	BOB Holding GmbH Gerlachshausener Straße 1 97332 Volkach (DE)
Representative:	FDST Patentanwälte Nordostpark 16 90411 Nürnberg (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted/electronically transmitted on 4 November 2024 revoking European patent No. 2478610 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	G. Flyng
Members:	C.D. Vassoille
	W. Ungler

Summary of Facts and Submissions

I. The appeal of the patent proprietor is against the decision of the opposition division to revoke European patent No. 2 478 610.

II. The decision under appeal was based exclusively on the ground for opposition under Article 100(c) EPC. The opposition division concluded that claim 1 of the patent as granted contained subject-matter extending beyond the content of the application as filed, in particular because the combination of the features corresponding to feature 1.4 and feature 1.5 was considered to be not directly and unambiguously derivable from the application as filed.

III. In a communication pursuant to Article 15(1) RPBA annexed to the summons to oral proceedings, the Board informed the parties, *inter alia*, that it was minded to conclude that the ground for opposition under Article 100(c) EPC did not prejudice the maintenance of the patent as granted and that remittal of the case to the opposition division under Article 111(1) EPC appeared appropriate.

IV. Oral proceedings before the Board took place on 24 March 2026.

The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), or alternatively on the basis of one of auxiliary requests 1 to 28 filed during the opposition proceedings and maintained in appeal in the following order:

- Auxiliary requests 1, 2, 7 (all filed on 17 January 2023)
- Auxiliary request 26 (filed on 9 August 2024)
- Auxiliary requests 3 – 6, 8 – 23 (all filed on 17 January 2023)
- Auxiliary requests 24, 25, 27 and 28 (all filed on 9 August 2024)

The respondents (opponents 1 and 2) requested that the appeal be dismissed.

All parties requested that the case be remitted to the opposition division for further prosecution, should the Board conclude that the ground for opposition under Article 100(c) EPC did not prejudice the maintenance of the patent as granted.

V. Claim 1 of the main request reads as follows, with the feature analysis adopted in the decision under appeal and in the Board's communication under Article 15(1) RBPA:

1.1 A distributed power generation source, for operatively connecting to a distributed power generation network at a point of common coupling, said distributed power generation source comprising:

1.2 - a voltage inverter, characterized in that

1.2.1 said voltage inverter is provided within said distributed power generation source and

1.2.2 enables said distributed power generation source to perform at least one of a plurality of static synchronous compensator functions,

1.3 said distributed power generation source also including:
- a control means that operates said voltage inverter,

1.3.1 wherein a voltage at said point of common coupling is regulated by the control means, as a static synchronous compensator (STATCOM), when said distributed power generation source is providing less than its maximum rated active power to said network, and

1.4 - an auxiliary damping controller receiving auxiliary signals indicative of oscillations on said network and causing said voltage inverter as said STATCOM to damp said oscillations,

1.5 wherein said STATCOM prevents said voltage at said point of common coupling from exceeding a voltage rating when at least one more additional distributed power generation sources are operatively connected to said network.

Claims 2 to 6 are dependent on claim 1.

Reasons for the Decision

1. Main request - Amendments (Article 100(c) EPC)

1.1 Claim 1 of the main request does not extend beyond the content of the application as filed within the meaning of Article 100(c) EPC (reference is made in the following to WO 2011/032265 A1 as "the application as filed").

1.2 It is undisputed that the application as filed does not contain a single passage in which the exact combination of features 1.4 and 1.5 is set out in verbatim terms. However, this is not decisive. The relevant question is whether the person skilled in the art, reading the application as filed as a whole and using common general knowledge, would derive that specific combination directly and unambiguously from the original disclosure. The Board has arrived at the conclusion that this is the case.

1.3 In the decision under appeal, the opposition division concluded, *inter alia*, that the combination of features 1.4 and 1.5 was not directly and unambiguously derivable from the application as filed, because feature 1.5 ("... STATCOM prevents said voltage at said point of common coupling from exceeding a voltage rating ...") was treated as an autonomous stand-alone function and, hence, as not being a consequence of the voltage regulation of feature 1.3.1. The opposition division further held that the application as filed did not disclose that function in combination with the auxiliary damping controller of feature 1.4.

In particular, the opposition division considered that the passages invoked by the proprietor (appellant) in paragraphs [0018], [0019], [0021], [0046] to [0048], [0081], [0136], [0146] and [0151] of the application as filed were insufficient, because they disclosed at most general voltage regulation at the point of common coupling (PCC), but not necessarily the more specific function of preventing overvoltage as required by feature 1.5. The opposition division therefore held that these passages could not provide the missing basis for combining features 1.4 and 1.5 either.

Finally, the opposition division concluded that the application as filed lacked a clear pointer to the claimed combination of features 1.4 and 1.5.

1.4 Having regard to the application as filed as a whole and in light of the appellant's arguments, the Board has reached a different conclusion.

A key prerequisite for this conclusion is, first, that the application as filed does not disclose a plurality of distinct inventions, reflected in the various aspects described and in the corresponding groups of claims, as respondent 2 had argued.

Rather, the Board agrees with the appellant that the application as filed essentially relates to a single fundamental ("core") invention, namely the use of a distributed generator inverter as a static synchronous compensator ("STATCOM"). The question of whether this fundamental invention did not meet the requirement of Article 54 EPC, as argued by respondent 2, is irrelevant to the question of whether the claimed subject-matter has a basis in the application as filed.

In the Board's view, the individual aspects of this invention described in the application as filed do not describe independent individual inventions, as argued by respondent 2. Even though the application as filed uses the term "aspects" to describe individual functions of the invention, it is directly and unambiguously apparent from the application as filed as a whole that, in the present case, this is not to be interpreted in the sense of a mere menu of interchangeable options whose combination would lack a technical motivation. On the contrary, the appellant has rightly pointed to several passages in the description which clearly convey the teaching that these functional aspects can be present in the same distributed power generation source. Particularly relevant in this context are the appellant's references to paragraphs [0018] and [0088] of the application as filed.

Paragraph [0018] explicitly states that a solar farm inverter used as a STATCOM can perform the possible functions of a STATCOM. In particular, this paragraph mentions "mitigating the high voltages caused by the addition of wind farms to a DG system" as well as "all the possible functions of a STATCOM for improving the power system performance...".

Furthermore, paragraph [0088] states: "In the preceding discussion of the embodiments of the invention, the possible control approaches for the solar farm inverter to achieve individual functions at the distribution level have been presented. However, on a typical distribution network, a combination of these functions may need to be accomplished. In another preferred embodiment of the invention, the above discussed functions are coordinated simultaneously".

1.5 In the Board's view, a person skilled in the art therefore would directly and unambiguously understand that the application as filed does not disclose multiple separate inventions, but rather that the STATCOM functions described therein can be combined within a single distributed power generation source. Accordingly, paragraphs [0018] and [0088] make it directly and unambiguously apparent that the functions described can be combined and that the invention is generally directed to implementing STATCOM functions in a distributed power generation source comprising a voltage inverter.

1.6 Notwithstanding the above, the respondents were correct in arguing that neither paragraph [0018] nor paragraph [0088] provides, as such, a basis for the specific combination of features 1.4 and 1.5. In this respect, the opposition division also was correct in stating that, according to the established case law of the Boards of Appeal, there must normally be a pointer to the specific combination of claimed features (see points 3.6 to 3.8 of the reasons for the decision under appeal).

1.7 As explained during the oral proceedings, the Board sees such a pointer in paragraph [0021] of the application as filed. Paragraph [0021] discloses the combination of two particular STATCOM functions by stating: "In addition, the present invention includes a further embodiment of providing a voltage controller and an auxiliary damping controller". It thus discloses, at a general level, voltage control and auxiliary damping control in combination.

1.8 In the decision under appeal, the opposition division found that paragraph [0021] only disclosed voltage regulation, which in its view did not necessarily require the prevention of an overvoltage at the PCC as defined by feature 1.5. Paragraph [0021] was therefore considered not to provide a sufficient basis for the combination of features 1.4 and 1.5 (see points 3.9 and 3.10 of the reasons for the decision under appeal).

The Board does not agree with the opposition division on this point. In particular, the Board does not consider it a reasonable reading of the application as filed that "preventing said voltage at said point of common coupling from exceeding a voltage rating" as disclosed in paragraph [0022] and reflected in feature 1.5, refers to an autonomous "stand-alone" functionality going beyond the voltage control functionality of feature 1.3.1. Rather, the application as filed, read as a whole, points to these functionalities being linked: limiting the PCC voltage so that it does not exceed a rated value is presented as a particular technical effect (or result) of the inverter's voltage regulation when operated as a STATCOM, not as a technically distinct control concept implemented separately from, or in addition to, voltage control, as assumed in the decision under appeal and argued by the respondents.

1.9 In this context, the Board also rejects an interpretation of feature 1.5 suggested by respondent 1, namely this feature requires that an overvoltage is reliably prevented under all circumstances. In particular, respondent 1 argued in this context that voltage regulation by reactive power injection/ absorption did not necessarily entail that the PCC voltage cannot exceed a rated value. In particular, the

achievable voltage change at the PCC depended on the impedance/reactance between the inverter and the PCC (e.g. output transformer and filter inductors) and on the strength (impedance) of the external grid. In a strong grid and/or with low coupling reactance, even substantial reactive current injection may have only a limited impact on the PCC voltage, such that the rated value may still be exceeded. In support, respondent 1 referred to EON's Grid Code 2006 (document D2 in the proceedings), according to which transient PCC voltages may remain above the nominal value even where reactive current is injected in response to an overvoltage event.

The Board is also not persuaded by this objection. In the present case, the assessment under Article 100(c) EPC is not whether, under every conceivable grid condition, the controller will invariably succeed in keeping the voltage at the PCC strictly below the voltage rating. Rather, the relevant question is what technical teaching the person skilled in the art would derive from the application as filed. As set out above, the application as filed, among other things, repeatedly explains that the voltage at the PCC is regulated by controlled injection or absorption of reactive power, with the aim and effect of restoring the PCC voltage to acceptable levels (see, for example, paragraphs [0063], [0064], [0074], [0076] and [0127]). Against that background, the skilled person would understand the wording of paragraph [0022], and correspondingly feature 1.5, as expressing the intended effect of that voltage regulation, namely the limitation or mitigation of voltage rises at the PCC within the normal operating limits of the STATCOM and the inverter current or reactive power capability. The Board therefore finds it implausible that feature 1.5

("STATCOM prevents said voltage at said point of common coupling from exceeding a voltage rating") would be understood as referring to a separate protective mechanism, such as a surge arrester, or to some other function capable of guaranteeing the prevention of overvoltage irrespective of external grid conditions. Nor can such a separate technical function be inferred merely from the fact that paragraph [0022] (and the original claim 1 accordingly) first refers to control means for regulating the PCC voltage and then states that the STATCOM prevents that voltage from exceeding a voltage rating. In the Board's view, the person skilled in the art would understand the latter statement as describing the effect of the voltage regulation already mentioned, not as disclosing an additional function independent of it. The application as filed contains no indication to the contrary. Accordingly, respondent 1's reliance on document D2 does not show that the application as filed teaches a different or additional technical function of feature 1.5 beyond the voltage control effect inherently associated with STATCOM operation. The argument merely concerns the practical extent to which voltage compensation may be achieved under particular operating conditions.

1.10 This understanding is further confirmed by the fact that the application as filed consistently presents the prevention of overvoltage at the PCC as an inherent effect of STATCOM voltage control, and not as a distinct stand-alone function. For example, the appellant referred to paragraph [0063] which states that when there is a rise or drop in voltage, a STATCOM should inject appropriate reactive power so as to restore the voltage close to the rated value. Paragraph [0064] explains that controlled reactive power injection/absorption in response to the measured PCC

voltage regulates the PCC voltage and maintains it constant at a desired preset value. Further passages likewise refer to mitigating high voltages or keeping the PCC voltage constant (see, for example, paragraphs [0018] and [0084]). Paragraph [0074] states, in relation to voltage rise compensation, that the control brings the excess overvoltage back within the acceptable voltage limit, and paragraph [0076] explains that the inverter is operated as a STATCOM to regulate the feeder voltage so that additional distributed power sources can be added without the line voltage exceeding rated limits. Paragraph [0127] states that the voltage regulation mode is activated only if the PCC voltage rises/drops beyond the set reference value of ±1% (1.01 pu or 0.99 pu). There can be no doubt in the Board's view that a deviation above the upper threshold value clearly indicates "exceeding a voltage rating" as defined in feature 1.5. Similarly, paragraphs [0107] and [0108] describe a feedback controller whose purpose is to keep the PCC voltage at the preset reference value.

In conclusion, the application as filed consistently teaches, albeit in different terms, that preventing the voltage at the point of common coupling from exceeding a voltage rating is inherent in the operation of the STATCOM's voltage control function, rather than reflecting an additional, distinct function. Conversely, nothing suggests that preventing the PCC voltage from exceeding a voltage rating constitutes an additional, separate functionality beyond voltage control within the meaning of feature 1.3.1. Therefore, a person skilled in the art would interpret paragraph [0021] of the application as filed as meaning that the term "voltage controller" necessarily encompasses the inherent characteristic of STATCOM as specified in

paragraph [0022] and claim 1 of the application as filed.

1.11 The respondents further argued that the specific combination of functions defined in features 1.4 and 1.5 was not directly and unambiguously derivable from the application as filed. In their view, these functions could not be performed simultaneously in the embodiment shown in figure 10(b), and such simultaneous execution had never been intended by the application as filed. They pointed in this regard to paragraph [0022], in which overvoltage prevention was described as a feature independent of damping control. By contrast, claim 1 could be read as encompassing an embodiment in which both functions were carried out at the same time, although, in the respondents' view, no basis for such an interpretation could be found in the application as filed.

The respondents also relied on further lines of objections based on alleged intermediate generalisations, submitting that claim 1 isolated individual functions from the specific implementation context in which they had originally been disclosed. In particular, they raised such objections in relation to the control-loop embodiments illustrated in figure 10(b) and figure 12 and described, *inter alia*, in paragraphs [0107], [0108] and [0127]. They further maintained that additional embodiment-specific features discussed in the description, including the signal selection and processing within the voltage regulation loop and the interaction with auxiliary control inputs, were inextricably linked to the alleged disclosure of the combination of features 1.4 and 1.5.

1.12 The Board is not persuaded by any of these objections. Claim 1 merely defines, *inter alia*, a distributed power generation source comprising control means for regulating the voltage at the PCC (feature 1.3.1), the stated prevention of the PCC voltage from exceeding a voltage rating in feature 1.5 expressing the intended effect of that voltage control, and an auxiliary damping controller as defined in feature 1.4.
The Board finds a basis for that general combination in paragraph [0021], read together with paragraphs [0022] and [0082] to [0084] of the application as filed. It is therefore not necessary to import into claim 1 the specific implementation details of figures 10 and 12, in particular day/night logic, priority logic, particular saturation arrangements, any signal-processing steps within the loop or any other embodiment-specific features.

1.13 Although paragraph [0021] specifically mentions a "solar DG" and a "wind DG", the Board is convinced that the person skilled in the art would understand, from the application as filed as a whole and in particular in view of paragraph [0052], that this functional combination is not limited to a particular type of distributed power generation source, but is applicable to any distributed power generation source having a voltage inverter.

In this context, respondent 1 further argued that the generalising statement in paragraph [0052] could not justify a blanket generalisation of the detailed embodiments. They submitted that many passages relied upon by the appellant and discussed in the decision under appeal were closely tied to a solar farm context (including operational assumptions such as night-time operation and day/night priority logic in the

embodiments of figures 10 and 12). In their view, the application as filed therefore did not directly and unambiguously disclose the relevant control concepts in a manner that was transferable, without further technical qualification, to any distributed power generation source in the broad sense of claim 1.

The Board is also not persuaded be this objection. The decisive pointer to the combination of voltage control and auxiliary damping control is provided already at a general level in paragraph [0021], which explicitly mentions both inverter-based "solar DG" and inverter-based "wind DG". Moreover, paragraph [0052] contains an explicit general statement that the invention is not limited to a particular type of distributed generator (DG) system, but can be used with any distributed power generation source having a voltage inverter. Accordingly, the original claim 1 is directed to a "distributed power generation source". Given these circumstances, the person skilled in the art would not understand the disclosure of a voltage controller in combination with an auxiliary damping controller as being inextricably tied to solar-specific or wind-specific operating conditions. Consequently, the generalisation in claim 1 to a distributed power generation source having a voltage inverter does not provide the person skilled in the art with new technical information beyond what is disclosed in the application as filed.

1.14 Respondent 2 further argued that the disclosure of paragraphs [0082] to [0084] was limited to damping of specific types of power oscillations (electromechanical oscillations of synchronous generators and inter-area oscillations, with the frequency ranges indicated in the application as filed), and that this disclosure

therefore did not support feature 1.4 in the broader wording of claim 1, which did not specify any type or frequency range of oscillation to be damped. It was also argued in this context that the application as filed referred to various controllers and that the damping controller was disclosed only in specific embodiments (e.g. figures 10 and 12) with further details such as signal selection, summation and saturation.

The Board does not agree with the respondents' arguments. Paragraph [0021] already describes, in general terms, the use of an auxiliary damping controller in conjunction with PCC voltage control. Paragraphs [0082] to [0084] then describe an auxiliary controller that damps oscillations via "auxiliary damping control". The Board has no doubt that a person skilled in the art would understand these paragraphs to relate to the auxiliary damping controller referred to in paragraph [0021], and not to a separate controller limited to a particular embodiment or to a particular type of oscillation.

1.15 The respondents also argued that claim 1 as filed and paragraph [0022] of the application as filed disclosed overvoltage prevention only in the specific situation where at least one additional distributed power generation source produced an excess amount of power relative to the load on the network, and that this causal condition had been omitted from feature 1.5 of the patent as granted. In their view, this omission resulted in a technical teaching that had no basis in the application as filed.

In this respect, the Board considers that the omitted wording is not suitable to limit the claimed

distributed power generation source, because it relates to external operating circumstances on the network rather than to a structural or functional feature of the claimed device. In particular, the omitted condition is unclear within the meaning of Article 84 EPC, since it is not apparent how, and by reference to which parameters, an "excess amount of power relative to the load" is to be determined in the context of claim 1. In these circumstances, its deletion does not present the person skilled in the art with additional technical information about the claimed distributed power generation source. Consequently, the deletion of this non-limiting and unclear condition does not add subject-matter to claim 1.

1.16 In summary, the Board considers that the respondents' objections essentially rely on an unduly fragmented analysis and on an isolated reading of individual paragraphs and embodiments of the application as filed. However, what is decisive is the assessment of the application as filed as a whole from the perspective of the person skilled in the art. On that basis, it is directly and unambiguously derivable for a person skilled in the art that a distributed power generation source according to the invention may comprise the specific combination of voltage control and auxiliary damping control as defined in features 1.4 and 1.5 of claim 1 (see paragraph [0021] in conjunction with paragraph [0022] and paragraphs [0082] to [0084]).

1.17 The ground for opposition under Article 100(c) EPC therefore does not prejudice the maintenance of the patent as granted.

2. Remittal (Article 111(1) EPC)

2.1 All parties requested that the case be remitted to the opposition division for further prosecution, should the Board conclude that the ground for opposition under Article 100(c) EPC did not prejudice the maintenance of the patent as granted.

2.2 Since the condition is satisfied, and in accordance with the parties' request, the Board decided to remit the case to the opposition division for further prosecution pursuant to Article 111(1) EPC. The reason for such remittal is that the decision under appeal was based exclusively on objections under Article 100(c) EPC and the issues of novelty and inventive step under Articles 54 and 56 EPC were not sufficiently discussed during the opposition proceedings. In the interest of procedural fairness and to allow the parties the opportunity to present their arguments on these substantive matters before two instances, the Board considers that a remittal is appropriate.

The case is therefore remitted to the opposition division for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division for further prosecution.

The Registrar: The Chairman:

L. Gabor G. Flyng

Decision electronically authenticated