United States District Court,
N.D. Illinois, Eastern Division.

Ole K. NILSSEN,
Plaintiff and Counterdefendant.
v.
MAGNETEK, INC,
Defendant and Counterplaintiff.

Oct. 26, 1999.

MEMORANDUM OPINION AND ORDER

KENNELLY**, District J.**

This is a patent infringement case involving seven patents held by plaintiff Ole K. Nilssen: United States Patent Nos. 5,432,409; B1 4,677,345; 4,954,754; 5,039,919; 5,047,690; 5,374,874; and 4,963,795. All of the patents involve technology for electronic ballasts, which are devices used to power fluorescent lamps. Nilssen claims that defendant MagneTek Inc., which manufactures electronic ballasts, has infringed each of the seven patents. MagneTek has counterclaimed for a declaration of non-infringement.

The case is before the Court for construction of the disputed terms in the claims of certain of Nilssen's patents. The parties have submitted extensive briefs in support of their respective positions. On September 29, 1999, the Court held a claim construction hearing at which both parties made arguments in support of their proposed interpretations of the disputed claim terms. The purpose of this Memorandum Opinion and Order is to set forth the Court's construction of these disputed terms.

INTRODUCTION

The parties agree what an electronic ballast does and, in general, how one is configured. A ballast converts electrical current into energy that a fluorescent lamp can use to create light. Because a fluorescent lamp requires greater voltage to start than it needs for continued operation, a ballast must provide a high voltage initially to ignite the lamp and then must reduce and maintain the voltage after ignition.

The patents in this case involve electronic ballasts (as contrasted with magnetic ballasts, which use an older technology that is less energy-efficient than that of electronic ballasts). An electronic ballast is powered by a conventional source for alternating current (AC) and has three basic parts: a rectifier, an inverter, and an output stage. The rectifier converts standard AC voltage, the frequency of which is 60 hertz (Hz) to direct current. The inverter converts the DC voltage to high frequency (30,000 Hz) AC voltage. The output stage takes the high frequency AC voltage and raises it to the level necessary to ignite the lamps.

The claim terms in issue here all concern the inverter and output sections of the ballast. There are several different types of inverters, including three which are pertinent here. A "full bridge" inverter includes four

transistors connected together in two parallel circuits, each of the parallel circuits including two transistors connected in series. A "half bridge" inverter includes two transistors connected in series. A "push-pull" inverter includes two transistors in parallel circuits. There is much more to an inverter than just the transistors, but these are the significant distinctions that account for the differences in terminology.

The disputed claim terms are the following:

Patent No.	Claim No.	Disputed claim term
'874 patent	claim 16	"inverter means"
'919 patent	claim 39	"inverter means"
'409 patent	claim 3	"inverter-type ballasting circuit"
	claim 35	"inverter circuit"
	claim 36	"inverter circuit"
		"inductor means"
		"output means"
'754 patent	claim 8	"inverter means"
		"circuit means"
'690 patent	claim 17	"circuit means"

In the Discussion section of this opinion, we will set forth the text of the claims containing the disputed terms.

The construction of the claims of a patent is a question of law to be determined by the court. Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). In determining the meaning of the terms of the claims, the court considers "intrinsic" evidence, which consists of the language of the claims, the specification of the patent, and the prosecution history. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995) (en banc); Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). If the meaning of the claim terms is not ambiguous and can be determined from the intrinsic evidence, the court may not rely on extrinsic evidence in rendering its claim construction. Vitronics, 90 F.3d at 1583.

In this case, the only evidence other than the claims and specifications and the prosecution history that the parties have presented consists of definitions taken from technical dictionaries. The Federal Circuit's cases are not entirely clear on whether dictionary definitions constitute extrinsic evidence. Karlin Technology, Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 971 (Fed.Cir.1999), appears to treat dictionary definitions as intrinsic evidence. FN1 On the other hand, *Markman* and several later decisions say unequivocally that such definitions are extrinsic evidence. *E.g.,* Markman, 52 F.3d at 980; Vitronics, 90 F.3d at 1584; Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed.Cir.1998). The distinction may be one without a practical difference. *Vitronics* teaches that dictionary definitions, though extrinsic, "are worthy of special note. Judges are free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the

dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." Vitronics, 90 F.3d at 1584. This is the sense in which we have used dictionary definitions in this case.

FN1. Antonious v. Spalding & Evenflo Companies, Inc., No. 98-1478, 1999 WL 777450 (Fed.Cir. Aug. 31, 1999), an unpublished decision, cites *Karlin* for the proposition that "[d]ictionary definitions are considered to be intrinsic evidence." *Id*. at *3.

DISCUSSION

A. '874 Patent, **Claim 16-"inverter means"**

Claim 16 of the '874 patent reads as follows:

An arrangement comprising:

rectifier means connected with the AC voltage of an ordinary electric utility power line and operative to provide a unidirectional current to a pair of DC terminals; there existing a DC voltage across the DC terminals; the instantaneous absolute magnitude of the DC voltage being substantially equal to the larger of: (i) the instantaneous absolute magnitude of the AC voltage, and (ii) a substantially constant absolute magnitude that is lower than the peak absolute magnitude of the AC voltage; the rectifier means including at least two energy-storing capacitors; the two energy-storing capacitors being: (i) during a part of each half-cycle of the AC voltage, charged in series by current supplied from the DC terminals; and (ii) during another part of each half-cycle of the AC voltage, discharged in parallel by supplying current to the DC terminals;

inverter means connected with the DC terminals and operative to provide a high-frequency voltage at an inverter output; the high-frequency voltage being of frequency substantially higher than that of the AC voltage and having a first amplitude-modulation; the first amplitude-modulation being characterized by having a first crest-factor; and

lamp means having lamp terminals.

U.S. Patent No. 5,373,874, Claim 16 (emphasis added). This claim does not describe any particular type of inverter. However, the specification of the '874 patent describes in detail the preferred embodiment of the patent, which includes a half-bridge inverter. MagneTek argues that claim 16 should be construed as limited to such an inverter.

The resolution of this issue turns mainly on whether the term "inverter means" as used in claim 16 is stated in means-plus-function form. This terminology comes from 35 U.S.C. s. 112, para. 6, which reads:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Under s. 112, para. 6, were we to conclude that the claim language were indeed in means-plus-function

form, then we would have to construe the term "inverter means" as covering only the particular type of inverter set forth in the specification, as well as any equivalent thereof. *See, e.g.,* Laitram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1536 (Fed.Cir.1991).

"The word 'means' is 'part of the classic template for functional claim elements." ' Rodime PLC v. Seagate Technology, Inc., 174 F.3d 1294, 1302 (Fed.Cir.1999) (quoting Sage Products, Inc. v. Devon Industries, Inc., 126 F.3d 1420, 1427 (Fed.Cir.1997)). If the applicant uses the word "means" in his claim, then it is presumed that he intended to invoke s. 112, para. 6. *Id*. There are at least two ways in which this presumption may be rebutted. First, if a claim element uses the word "means" but does not recite a corresponding function, s. 112, para. 6 is not invoked. *Id* . Second, if the element recites "sufficient structure or material for performing that function," s. 112, para. 6 does not apply. *Id.; see also, e.g.,* Personalized Media Communications, LLC v. International Trade Commission, 161 F.3d 696, 704 (Fed.Cir.1998) ("In deciding whether the presumption has been rebutted, the focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid the ambit of s. 112, para. 6"); Sage Products, 126 F.3d at 1427-28 ("[W]here a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format.").

There is no question that "inverter" is a term that describes a type of structure. The parties essentially agree what an inverter is, generically speaking: it is an electrical device that converts DC voltage to AC voltage. *See* D. Fink & H. Beaty, *Standard Handbook for Electrical Engineers* at 22-105 (13th ed.1993); *Academic Press Dictionary of Science and Technology* at 1138 (definition of "static inverter"). The issue is whether this is enough to remove the claim language from the scope of s. 112, para. 6.

When the purportedly "structural" language really just describes what the device does-that is, when it "merely serves to further specify the function of the means"- s. 112, para. 6 may still apply. *See, e.g.,* Personalized Media, 161 F.3d at 704; Unidynamics Corp. v. Automatic Products International, Ltd., 157 F.3d 1311, 1319 (Fed.Cir.1998); Laitram, 939 F.2d at 1536. Illustrative is Signtech USA, Ltd. v. Vutek, Inc., 174 F.3d 1352 (Fed.Cir.1999), in which the court held that the phrase "ink delivery means" did not recite sufficient structure to prevent application of para. 6, "because 'ink delivery' is purely functional language." *Id*. at 1356. MagneTek does not argue, and we do not believe, that "inverter" is "functional language" in this sense-even though the function of an inverter is to "invert" electrical current. Rather, the term is well known in the art to be descriptive of a type of electrical device. As the Federal Circuit stated in holding that the term "detent mechanism" was not merely functional, "[m]any devices take their names from the functions they perform. The examples are innumerable, such as 'filter,' 'brake,' 'clamp,' 'screwdriver,' or 'lock.' ... What is important is not simply that a 'detent' or 'detent mechanism' is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art." Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.Cir.1996). The same is true of the term "inverter" as used here.

It is true, as MagneTek argues, that there is more than one type of inverter, and that the claim here does not say anything about what particular form the inverter is to take. MagneTek contends that the claim thus does not recite "sufficient structure to perform entirely the recited function" and that the use of the term "inverter" alone is not enough to avoid the application of s. 112, para. 6. *See* Sage Products, 126 F.3d at 1427-28 ("[W]here a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format."). However, the fact that the term "inverter" does not connote a *precise* physical structure in the

minds of those skilled in the art does not mean that insufficient structure has been stated. Personalized Media, 161 F.3d at 705. As was the case in *Personalized Media,* which concerned the use of the term "detector," even though the term "inverter" does not specifically evoke a particular structure, it does convey to one who is knowledgeable in the art a variety of structures that are known as "inverters." That being the case, the term "inverter" is a sufficiently definite structural term to preclude the application of s. 112, para. 6; the fact that it may not evoke a *particular* structure is of no moment. *See* Personalized Media, 161 F.3d at 705. We conclude for these reasons that the claim element is not stated in means-plus-function format.

MagneTek argues that even if the Court declines to read "inverter means" as a means-plus-function element, we should nonetheless construe the claim as limited to a half-bridge inverter, because that is the type of inverter described in the specification. It relies on, among other decisions, Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed.Cir.1998), in which the court stated that where the specification defines a term, there is no need to search for a further meaning. In this case, however, the specification does not contain a definition-it does not define the term "inverter" in any way other than its ordinary meaning. Rather, it describes a specific type of inverter as part of the preferred embodiment of the patent. The law is clear that limitations found in the specifications are not to be imported into the claims, Rodime, 174 F.3d at 1303; Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed.Cir.1998), yet that is precisely what MagneTek is asking us to do. As in *Comark,* rather than looking at the specification to ascertain the claims' meaning, MagneTek is asking us to look at the specification to limit the claim to the particular structure disclosed in the preferred embodiment. While the line between these two concepts may be a fine one, *see* Comark, 156 F.3d at 1186, it is one that we will not traverse in this case.

In sum, we conclude that as used in claim 16 of the '874 patent, the term "inverter means" has its commonly understood meaning, that is, an electrical device that converts DC voltage to AC voltage. We recognize that this is a broad reading of the claim, one that may perhaps be too broad to be upheld against a claim of invalidity as this case progresses. MagneTek has not, however, argued that the possibility of invalidity should lead us to construe the claim language narrowly, and we do not intend to address arguments the parties have not made.FN2 The only issue along those lines raised by MagneTek is that this claim and others, if construed as Nilssen proposes, raise issues of "enablement" under 35 U.S.C. s. 112, para. 1, which reads:

FN2. In addition, it is not clear where such an analysis would lead in this case. *See generally Rhine v. Casio, Inc.,* 183 F.2d 1342, 1345 (Fed.Cir.1999) (claims are to be construed to sustain their validity; but a court cannot rewrite a claim to preserve its validity). Without argument by either party on the subject, we are not willing to travel down that road.

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is more nearly connected, to make and use the same ....
In arguing that the claims (as construed by Nilssen) do not comport with the requirement of "enablement," MagneTek has misread s. 112, para. 1: the statutory provision on its face applies only to the specification of the patent, not to the claims. In short, we reject MagneTek's "enablement" argument.

B. '919 Patent, **Claim 39-"inverter means"**

Claim 39 of the '919 patent reads as follows:

An arrangement comprising:

a DC voltage provided at a set of DC terminals; and

inverter means connected with the DC terminals and being operative to provide an AC voltage at an AC output; the inverter means having a first transistor means and a second transistor means; the first transistor means being operative to switch periodically between a first ON-state and a first OFF-state; the second transistor means being operative to switch periodically between a second ON-state and a second OFF-state; the first ON-state occurring only at times when the second transistor means is in its OFF-state; and second ON-state occurring only at times when the first transistor means is in its OFF-state; the inverter means having control means operative to permit control of the duration of the first ON-state without significantly affecting the duration of the second ON-state.

U.S. Patent No. 5,039,919, Claim 39 (emphasis added).

MagneTek argues, again, that the term "inverter means" is in means-plus-function form, without describing any specific structure sufficient to perform the function in question, and that the claim must be limited to a half-bridge inverter, as that is the type described in the specification of the '919 patent. We reject these arguments for the same reasons discussed with regard to the '874 patent. Indeed, the claim at issue here includes even more recital of structure than did claim 16 of the '874 patent. For these reasons, the term "inverter means," as used in claim 39, has the meaning that is commonly understood in the art, that is, an electrical device that converts DC voltage to AC voltage.

C. '409 Patent

1. Claim 3-"inverter-type ballasting circuit"

Claim 3 of the '409 patent describes:

An arrangement comprising:

an AC source functional to supply an AC power line voltage at a pair of AC power line terminals;

rectifying and filtering means connected with the AC power line terminals and functional to provide a DC supply voltage at a pair of DC supply terminals;

a gas discharge lamp having lamp terminals; and

an inverter-type ballasting circuit having DC input terminals connected with the DC supply terminals and AC output terminals connected with the lamp terminals; the inverter-type ballasting circuit being functional to power the gas discharge lamp and being otherwise characterized by: (i) having a first transistor with a first transistor terminal connected with a second transistor terminal of a second transistor; and (ii) causing a substantially sinusoidal AC voltage to exist between the first transistor terminal and one of the DC input terminals; the frequency of the substantially sinusoidal AC voltage being several times higher than that of the AC power line voltage.

U.S. Patent No. 5,432,409, Claim 3 (emphasis added).

For the reasons discussed with regard to the '874 and '919 patents, we conclude that the term "inverter" as used in this claim has its ordinary meaning, that is, an electrical device that converts DC voltage to AC voltage. Claim 3 also includes other language describing the type of inverter that is contemplated, and these will serve to further define the scope of the claim, but there is no basis to read into the term "inverter" itself any limitations from the specification.

2. Claims 35 & 36-"inverter circuit"

Claim 35 of the '409 patent describes:

An arrangement comprising:

a source operative to provide, between a first and a second DC terminal, a DC voltage of substantially constant magnitude;

an inverter circuit connected with the DC terminals and functional to provide an inverter AC voltage between a reference terminal and an inverter output terminal; the inverter AC voltage being of frequency several times higher than 60 Hz and otherwise characterized in having a waveshape consisting of sinusoidally-shaped voltage pulses of alternating polarity; the inverter circuit including a tuned L-C circuit connected in circuit with the inverter output terminal and the reference terminal; the L-C circuit having a tank capacitor parallel-connected with a tank inductor and being resonant at or near the frequency of the inverter AC voltage; the inverter circuit being further characterized in that it includes two alternatingly conducting transistors series-connected between two auxiliary terminals between which exists a unidirectional voltage consisting of sinusoidally-shaped unidirectional voltage pulses, and having an average magnitude substantially equal to that of the DC voltage.

U.S. Patent No. 5,432,409, Claim 35 (emphasis added).

Claim 36 of the '409 patent describes:

An arrangement comprising:

a source providing, between a first and a second DC supply terminal, a constant-magnitude DC supply voltage;

an inverter circuit having a pair of AC output terminals as well as a first and a second DC input terminal;

inductor means having a first winding and a second winding; the first winding being connected between the first DC supply terminal and the first DC input terminal; the second winding being connected between the second DC supply terminal and the second DC input terminal; and

output means connected with the AC output terminals; the output means having lamp output terminals adapted to connect with a gas discharge lamp.

U.S. Patent No. 5,432,409, Claim 36 (emphasis added).

Claims 35 and 36 each use the phrase "inverter circuit." Making essentially the same arguments as they did

concerning the patent claims discussed earlier, Nilssen argues that the term should be read in accordance with the commonly understood definition of the term "inverter," while MagneTek argues that the term should be read as limited to full bridge inverters, the type of inverter described in the specification of the '409 patent.

MagneTek's primary argument is that the prosecution history of the '409 patent includes an admission by Nilssen that the patent language is in means plus function form. While Nilssen did make such a statement in prosecuting patent application number 06/787,692, that was not the application that led to the '409 patent. Nor was it a predecessor application of the one that led to the '409 patent. A chart introduced by Nilssen at the Markman hearing, the accuracy of which MagneTek has not contested, reveals that application number 06/787,692 may be best described as a cousin, once or twice removed, of the application that led to the '409 patent. We have attached the chart to this opinion as Appendix A for illustrative purposes. Our conclusion is that Nilssen's statement in prosecuting this separate patent application provides no support for MagneTek's position here.

We also conclude that claims 35 and 36 are not within the scope of s. 112, para. 6. As was the case with the patents previously discussed, these claims recite structure sufficient to take them out of the means-plus-function arena. This is particularly true of claim 35, which describes a number of the specific components of the inverter.

MagneTek also argues, as it did with the '874 and '919 patents, that because the specification of the '409 patent describes a full bridge inverter, we should construe the claims as limited to that particular type. We reject this argument for the same reasons previously discussed.

In sum, as used in claims 35 and 36, the term inverter means an electrical device that converts DC voltage to AC voltage.

3. Claim 36-"inductor means"

MagneTek does not contend that the term "inductor means" in claim 36 is in means-plus-function format but nonetheless argues that it must be construed as limited, as indicated in the specification of the '409 patent, to inductors that provide a total inductance large enough to keep the current flowing from the DC source into the inverter substantially constant. We reject this argument. As it did with regard to the term "inverter means," to accept MagneTek's argument would require us to ignore the Federal Circuit's "repeated statements that limitations from the specification are not to be read into the claims." Comark, 156 F.3d at 1186. We construe the term "inductor means" in claim 36 in accordance with its well known meaning to persons skilled in the art, that is, as denoting a coil of wire wound on magnetic material. *See* D. Fink & H. Beaty, *Standard Handbook for Electrical Engineers* at 2-10 (13th ed.1993).

4. Claim 36-"output means"

The term "output means" does not present any issue regarding the application of s. 112, para. 6, for the claim element does not include any language describing the function of the output means. Absent such language, s. 112, para. 6 does not apply. *See, e.g.,* Rodime, 174 F.3d at 1302; York Products, Inc. v. Central Tractor Farm & Family Center, 99 F.3d 1568, 1574 (Fed.Cir.1996) ("Without an identified function, the term 'means' in this claim cannot invoke 35 U.S.C. s. 112, para. 6.")

MagneTek again asks the Court to import into the claim limitations that are found in the specification: it

contends that "output means" should be construed as denoting an output circuit consisting of a capacitor connected between one AC input terminal of the inverter and the lamp. For the reasons we have previously discussed, we conclude that it is not proper to read this limitation into the claim. The term "output means" is sufficiently clear on its face and in the context of the claim. We construe it as defined in exactly the way it is described in the claim: as consisting of a means connected with the AC output terminals, having lamp output terminals adapted to connect with a gas discharge lamp.

D. '754 Patent, **Claim 8**

Claim 8 of the '754 patent describes:

An arrangement comprising:

inverter means connected with a source of DC voltage and operative to provide an inverter voltage at an inverter output; the inverter voltage having a frequency; the inverter means having a control input and being operative to control this frequency in response to a control signal received at the control output;

gas discharge lamp means having lamp terminals across which there exists a lamp voltage; the gas discharge lamp being characterized by requiring the lamp voltage to be of a relatively large magnitude for effective lamp ignition and to be of a relatively low magnitude for effecting proper lamp operation; a lamp current flowing through the gas discharge lamp means;

circuit means connected with the inverter output and operative to supply, from the inverter voltage, the lamp voltage and current to the lamp terminals; and

sensor means connected in circuit between the gas discharge lamp means and the control input; the sensor means being responsive only to the magnitude of the lamp current and operative to provide the control signal in response to this magnitude;

thereby to cause the frequency to change in response to a change in the magnitude of the lamp current.

U.S. Patent No. 4,954,754, Claim 8 (emphasis added).

1. "Inverter means"

With regard to the term "inverter means," the parties have made the same arguments as those they made with regard to the use of this term in the '874 and '919 patents. We reject MagneTek's arguments for the reasons previously discussed and construe the term "inverter means" as denoting an electrical device that converts DC voltage to AC voltage.

2. "Circuit means"

The "circuit means" element of the claim is stated in means-plus-function form; it uses the term "means" and describes the function that the means is to perform. MagneTek argues that this requires this claim element to be limited to the particular type of circuit described in the specification, namely a circuit with a tank capacitor and leakage reactance transformer, as well as the equivalents thereof. Nilssen argues that the term "circuit" by itself recites sufficient structure to avoid the application of s. 112, para. 6. MagneTek essentially argues that the term is far too generic to remove the claim language from s. 112, para. 6.

In CellNet Data Systems, Inc. v. Itron, Inc., 17 F.Supp.2d 1100 (N.D.Cal.1998), the court was required to construe the term "circuit means" in the context of a patent for a utility meter of the type used by electric companies. Specifically, the parties disputed the meaning of a claim element described as a "circuit means for recording energy use." Id. at 1106. The court concluded that this could not be considered a "means plus function" element, because those skilled in the art would understand the term "circuit means" as a structural element denoting "the combination of a number of electrical devices and conductors that, when connected together to form a conducting path, fulfill a desired function ...." Id. at 1107 (quoting *Penguin Dictionary of Electronics* (2d ed.1988)).

The only significant difference between *CellNet* and this case is that there the specification did not describe any particular sort of circuitry, whereas here it does. *See id.* at 1107. The distinction is immaterial. In this case as in *CellNet,* the question is whether the claim recites sufficient structure to avoid the application of s. 112, para. 6. And in this case as in *CellNet,* the fact that the claim specifies the precise location of the circuit, in addition to the fact that the term "circuit" has a commonly known meaning in the art, are enough to show that the claim is not in means-plus-function format. *Id.* We construe the term "circuit means" as denoting the combination of a number of electrical devices and conductors that, when connected together to form a conducting path, fulfill a desired function-in this instance, the function of supplying lamp voltage and current from the inverter to the lamp terminals.

E. '690 Patent, **Claim 17-"circuit means"**

Claim 17 of the '690 patent reads as follows:

An arrangement comprising:

power input terminals across which is provided an ordinary AC power line voltage;

rectifier means connected with the power input terminals and operative to provide a DC voltage at a set of DC terminals;

gas discharge lamp having a pair of lamp terminals as well as a pair of thermionic cathodes; such lamp terminal being connected with one of the thermionic cathodes; each thermionic cathode having a pair of cathode terminals;

inverter means connected with the DC terminals and operative to provide an alternating inverter output voltage at a set of inverter output terminals; and

circuit means connected between the inverter output terminals and the lamp terminals, thereby to provide lamp operating voltage to the lamp terminals; the circuit means having a pair of auxiliary output terminals at which is provided a cathode heating voltage; the pair of auxiliary output terminals being connected with one of the pairs of cathode terminals, thereby to provide a cathode heating voltage thereacross; the cathode heating voltage having a magnitude that is substantially higher before lamp ignition than it is after lamp ignition.

U.S. Patent No. 5,047,690, Claim 17 (emphasis added).

MagneTek argues that the "circuit means" part of the claim is stated in means-plus-function form, thus requiring the circuit means to be defined as limited to the particular type of circuit described in the specification. While it is true that the claim uses the term "means" and also describes a function for the circuit, we do not agree that s. 112, para. 6 applies. The claim language clearly includes a particularized description of a specific structure, which is more than enough to remove this element from the scope of s. 112, para. 6. We decline to read any limitations from the specifications into the claim language, for these reasons and those previously discussed. The particular language of the claim serves to describe the nature and specifics of the circuit means, but no other limitations are appropriate. We again construe the term "circuit means" as denoting the combination of a number of electrical devices and conductors that, when connected together to form a conducting path, fulfill a desired function-in this instance, the function of supplying lamp voltage and current from the inverter to the lamp terminals-with, of course, the other particulars spelled out in the claim element.

CONCLUSION

The disputed claim terms are construed in accordance with the conclusions set forth in this Memorandum Opinion and Order. This case is set for a status hearing on November 8, 1999 at 9:30 a.m.

N.D.Ill.,1999.
Nilssen v. Magnetek, Inc.