

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
RICHMOND DIVISION**

SCHNEIDER ELECTRIC USA, INC.,

Plaintiff,

v.

ANORD MARDIX (IRELAND) LTD. and
ANORD MARDIX (USA) INC.,

Defendants.

Civil Action No.: _____

DEMAND FOR JURY TRIAL

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, Schneider Electric USA, Inc. (“Schneider USA”), by and through their undersigned counsel, hereby brings this Complaint to protect Schneider USA’s innovative technology from infringement by Defendants Anord Mardix (Ireland) Ltd. (“AM Ireland”), and Anord Mardix (USA) Inc. (“AM USA”) (collectively “Defendants”). Schneider USA alleges as follows:

NATURE OF THE ACTION

1. This is a civil action under 35 U.S.C. § 271 for infringement of the following four United States Patents: U.S. Patent No. 7,453,267, “Branch Circuit Monitoring System,” issued on November 18, 2008 (“the ’267 patent”); U.S. Patent No. 9,270,552, “Energy Monitoring System Using Network Management Protocols,” issued February 23, 2016 (“the ’552 patent”); U.S. Patent No. 9,329,659, “Power Monitoring System That Uses Frequency and Phase Relationship,” issued May 3, 2016 (“the ’659 patent”); and U.S. Patent No. 9,689,899, “Power Meter with Automatic Configuration,” issued June 27, 2017 (“the ’899 patent”) (collectively the “Asserted Patents”).

THE PARTIES

2. Plaintiff Schneider USA is a Delaware corporation having its principal place of business at 201 Washington Street, Suite 2700, One Boston Place, Boston, MA 02108.

3. Defendant AM Ireland is a corporation based in the Republic of Ireland, with its principal place of business at Unit 17, Northlink Business Park, Coes Road East, Dundalk, Co. Louth, Ireland A91 V9VX.

4. Defendant AM USA is a subsidiary of AM Ireland and is a Virginia corporation with its principal place of business at 2704 Seven Hills Blvd, Henrico, VA, 23231-6012.

JURISDICTION AND VENUE

5. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because it arises under United States Patent law.

6. This Court has personal jurisdiction over the Defendant AM USA because, *inter alia*, it resides in the State of Virginia, including in the Richmond Division of this court, regularly conducts business in the State of Virginia and in this judicial district, and continues to commit acts of patent infringement in the State of Virginia and in this judicial district by making, using, offering to sell, and/or selling products that infringe the Asserted Patents within the State of Virginia and this judicial district.

7. This Court has personal jurisdiction over the Defendant AM Ireland because, *inter alia*, it conducts business in the State of Virginia and in this judicial district, and continues to commit acts of patent infringement in the State of Virginia and in this judicial district by making, using, offering to sell, and/or selling products that infringe the Asserted Patents within the State of Virginia and this judicial district.

8. Venue for AM USA is proper in this district pursuant to 28 U.S.C. §1400(b) because, *inter alia*, Defendant AM USA has committed and continues to commit acts of patent infringement, including making, using, offering to sell, and/or selling infringing products, in this district, and/or importing infringing products into this district, and because Defendant has its principal place of business in this district.

9. Venue for AM Ireland is proper in this district pursuant to 28 U.S.C. §1391(b)(3), §1391(c)(3) and/or §1400(b). On information and belief, AM Ireland does not reside in the United States. Alternatively, to the extent AM Ireland does reside in the United States, it would be through its U.S. subsidiary, Defendant AM USA, which has its principal place of business in this judicial district as set forth above.

FACTS

I. BACKGROUND ON SCHNEIDER USA AND THE ASSERTED PATENTS

a) Schneider USA

10. Schneider USA, and its parent company Schneider Electric SE (“Schneider SE”), are world leaders in the development of innovative technologies in the energy and automation fields, with more than 135,000 employees across the globe, including more than 18,000 employees in the United States. Schneider USA has more than 100 facilities in the United States, including in this judicial district at 6800 Paragon PL, #470, Richmond, VA 23230.

11. Schneider USA and Schneider SE have a rich history of innovation that stretches back more than 180 years and have more than 18,000 patents and patent applications that are currently active.

b) The '267 Patent

12. The '267 patent was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on November 18, 2008. Schneider USA is the owner, by assignment, of the '267 patent, a copy of which is attached as Exhibit 1 hereto. The '267 patent is incorporated by reference into this complaint.

13. The '267 patent relates to the field of power monitoring and control. As the '267 patent explains:

In electrical systems electrical power is typically diverted from a utility source to one or more branch circuits via a panelboard. Each of the branch circuits supply power to one or more loads. Typically, protective devices, such as circuit breakers, are installed at the panelboard to reduce the risk of electrical overloads and short circuits. An overload occurs when too many loads draw power from a branch circuit, or when a single load draws more than the branch circuit was designed to carry.

Ex. 1 at col. 1, lines 16-24.

14. Embodiments of the inventions of the '267 patent facilitate, among other things, the monitoring of conditions in an electrical distribution network. As the '267 patent states:

The present invention relates to systems and methods for monitoring operating conditions on an electrical distribution network. At a facility such as an office building, factory or home, electrical power is delivered from a power source to one or more electrical distribution panelboards within the facility. The panelboard, or panelboards, distribute the incoming power amongst a plurality of individual branch circuits that supply power to the various loads within the facility.

The present invention provides current sensor modules that may be mounted in the electrical panelboards for monitoring various operating conditions on the individual branch circuits fed by the panelboards. The current sensor modules include circuitry for gathering power parameters related to power flow in the respective branch circuits, and communicating power parameter data to a monitoring device or to a digital network.

Ex. 1 at col. 1, line 55 – col. 2, line 4.

15. To facilitate the ability of the system to communicate power parameters to an external device, certain embodiments of the inventions enable communication in a plurality of protocols, such as a BACnet protocol, a Profibus protocol, an IEC 870 protocol, a Lonworks protocol, a simple network management protocol (SNMP), a distributed network protocol (DNP) or Modbus protocols. *See* Ex. 1 at col. 8, lines 49-65.

c) The '552 Patent

16. The '552 patent was duly and legally issued by the USPTO on February 23, 2016. Schneider USA is the owner, by assignment, of the '552 patent, a copy of which is attached as Exhibit 2 hereto. The '552 patent is incorporated by reference into this complaint.

17. The '552 patent relates to the field of energy monitoring and the integration of intelligent electronic devices (“IEDs”) that can monitor energy usage with a network management system. *See, e.g.*, Ex. 2 at col. 1, lines 6-24. A network management system can be a computer network that manages power delivery systems at facilities like commercial buildings.

18. The '552 patent includes an introduction to embodiments of the invention as follows:

By way of introduction, the embodiments described below include a system and method for the integration of Intelligent Electronic Devices (IED) into a network management system. The embodiments relate to IEDs that are configured to communicate with a network management system by utilizing the network management protocol of that system. The IEDs may be installed within a network management system to measure power system parameters, as well as to monitor power system equipment responsible for maintaining a reliable supply of power. The IED supports a network management protocol and can be configured to communicate power system parameters to a network management station. The IED may be configured to map the power system parameters to corresponding network protocol variables.

Ex. 2 at col. 1, line 63 – col. 2, line 9.

19. The mapping of IED variables with network management protocol variables facilitates certain functionality, including the communication of an alarm event generated by the IED to the network management system.

d) The '659 Patent

20. The '659 patent was duly and legally issued by the USPTO on May 3, 2016. Schneider USA is the owner, by assignment, of the '659 patent, a copy of which is attached as Exhibit 3 hereto. The '659 patent is incorporated by reference into this complaint.

21. The '659 patent relates to a power monitoring system that facilitates the provision of monitored variables to a microprocessor that may perform calculations using monitored data.

22. As described in the background section of the '659 patent:

Flexibility [in power monitoring systems] has favored adoption of digital current and power meters, known as branch circuit monitors, incorporating data processing systems typically comprising one or more microprocessors or digital signal processors (DSP) that periodically read the output of each of the voltage and current transducers, calculate the current or voltage at the respective transducer and display or store the results. In addition, the data processing unit periodically may calculate the power and other electrical parameters, such as active power, apparent power and reactive power that quantify electricity distribution and consumption. The calculated parameters are typically output to a display for immediate viewing and/or transmitted from a communications interface to another data processing system, such as a building management computer for remote display or further processing, for example formulating instructions to automated building equipment. Unfortunately, with increasingly more complicated power measurement systems, the processors are not suitable to receive a sufficient number of independent measurements through the limited number of pins available on the microprocessor chip.

Ex. 3 at col. 1, lines 41-60.

23. To address the problem of microprocessors not having enough inputs to receive all of the data necessary to perform the functions desired, the power monitoring system receives a signal that is simultaneously representative of multiple signals associated with the monitoring function, such as a signal from a current sensor and a signal from a conductor that senses a

voltage. By providing a signal that is simultaneously representative of multiple signals on the same input, the microprocessor can more effectively receive the information it needs to perform calculations. *See, e.g.*, Ex. 3 at col. 3, line 22 – col. 4, line 18.

e) **The '899 Patent**

24. The '899 patent was duly and legally issued by the USPTO on June 27, 2017. Schneider USA is the owner, by assignment, of the '899 patent, a copy of which is attached as Exhibit 4 hereto. The '899 patent is incorporated by reference into this complaint.

25. The '899 patent relates to a power monitoring system with a configuration of components, including current sensors and an elongated support board that includes electrical traces (conductors) to deliver signals received from the current sensors. The arrangement of the conductors and supporting electrical connectors is efficient and economical. *See, e.g.*, Ex. 4 at col. 7, lines 9-40.

II. BACKGROUND ON AM IRELAND AND AM USA

26. On information and belief, in approximately August of 2019, AM Ireland and/or AM USA acquired a company that had been doing business as Incusense. On information and belief, it was through this acquisition that Defendants acquired the infringing technology that is the subject of this action.

27. On information and belief, Incusense was formed in May of 2017 as Incusense LLC by two individuals, Marc. S. Bowman and Alan Katz. Incusense maintains a website at <https://www.incusense.com>, a copy of which is attached as Exhibit 5 hereto (printed on September 16, 2020). In September of 2019 Incusense LLC changed its name to Company B LLC.

28. Mr. Bowman and Mr. Katz were each employed by Schneider USA before the formation of Incusense. Mr. Bowman was with Veris Industries (“Veris”) from February 2004 until November 2015, when Veris was acquired by Schneider USA. Mr. Bowman remained with Schneider USA after the acquisition of Veris, ultimately leaving Schneider USA in January of 2017. Mr. Katz spent seven years with Schneider USA, from 1998-2005.

29. On the Incusense website, Mr. Bowman describes his experience with Schneider USA and Veris as follows:

As the CTO of Veris Industries (Schneider), Marc Bowman’s 20 year tenure oversaw the development of products that took the company from a fledgling sensor manufacturer to a highly profitable industry leader with revenues in excess of \$100M.

Ex. 5 at 4.

30. On information and belief, Mr. Bowman and Mr. Katz founded Incusense within several months of Mr. Bowman’s leaving Schneider USA for the purpose of developing a competing product and directly competing with Schneider USA.

31. On information and belief, Incusense sold and/or continues to sell, a product known as a “Modular Circuit Monitoring System” to third parties in the United States. On July 20, 2020 Schneider USA filed a Complaint for Patent Infringement against Company B LLC D/B/A/ Incusense in the United States District Court for the District of Oregon, Portland Division (“Incusense Complaint”), asserting infringement of the same four patents asserted against Defendants in this action.

32. Since at least their acquisition of Incusense, AM Ireland and AM USA have sold this same “Modular Circuit Monitoring System” to third parties in the United States (hereinafter “Infringing Product”). Attached as Exhibit 6 hereto is a copy of a brochure of the Modular

Circuit Monitoring System as sold by Defendants (“Brochure”). As explained below, the Infringing Product infringes each of the Asserted Patents.

33. Defendants had actual notice of each of the Asserted Patents at least as early as July 30, 2020, when a copy of the Incusense Complaint was provided to Mr. James Peacock, CEO of AM Ireland.

III. INFRINGEMENT BY DEFENDANTS

a) Defendants Infringe The '267 Patent

34. On information and belief, and as alleged in detail below, Defendants have infringed and continue to infringe the '267 patent at least under 35 U.S.C. § 271(a) and (b) by making, using, importing, selling, and/or offering for sale the Infringing Product, in or to, the United States during the term of the '267 patent, and inducing infringement by others, including customers of Defendants. Discovery may show that Defendants have infringed and continue to infringe under additional sub-sections of 35 U.S.C. § 271 as well. For example, to the extent that Defendants make or have made the Infringing Product outside the United States, and induce its importation into the United States, Defendants are also liable for infringement under at least 35 U.S.C. § 271(b) on this additional basis. Furthermore, to the extent the Infringing Product is incorporated into a system of a third party, and the system as a whole is infringing, then the sale of the Infringing Product would be an infringement under 35 U.S.C. § 271(c).

35. As set forth above, the Infringing Product includes at least Defendants' Modular Circuit Monitoring System as shown in Exs. 5-6.

36. The Infringing Product infringes at least claim 18 of the '267 patent.

37. The preamble of claim 18 of the '267 patent recites a “branch circuit monitoring system” and the Infringing Product is “optimized for branch circuit and multi-circuit monitoring.” Ex. 6 at 2.

38. Claim 18 of the '267 patent next recites “a first current sensor module comprising: a first current sensor operative to measure at least one power parameter of a first branch circuit line.” Ex. 1 at col. 12, lines 28-30. The Infringing Product meets this claim language. For example, the Infringing Product uses multiple current sensors, such as “solid core panel CT Strip,” “Split core CT” and “Multi-Circuit CT Module.” Ex. 6 at 2. A “CT” is a current transformer, which measures current, one “power parameter.” *See* '267 patent at col. 2, lines 58-59 (“The current sensor modules are operable to sense and measure power parameters, such as current....”). In operation, each CT of the Infringing Product is placed to measure the current in a branch circuit line. *See* Ex. 6 at 1 (“Monitors up to 96 circuits.”).

39. Claim 18 of the '267 patent next recites “a first operating logic coupled with said first current sensor.” Ex. 1 at col. 12, line 31. The Infringing Product meets this requirement. For example, the Brochure shows that the current data is output to “RJ45 Ports.” Ex. 6 at 2. Although the operating logic is not explicitly shown in the Brochure, on information and belief there is logic on the green panels shown in the Brochure at page 2 in order to convert the current data to a format suitable to be output to the RJ45 ports.

40. Claim 18 of the '267 patent next recites “a first communication module operative to establish communications with an external device, said first communication module coupled with said first operating logic.” Ex. 1 at col. 12, lines 33-35. The Infringing Product meets this requirement. For example, the “first communication module” is met by the combination of the core module and an RJ45 port. The operating logic is, as noted above, contained within the

green panels, and, on information and belief, is coupled to the RJ45 port and the core module so that the data can be delivered to the core module. The first communication module is “operative to establish communications with an external device” as required by claim 18. The Brochure explains that the core module has “Easy Connectivity” to an external device where the user can “[s]elect from multiple connectivity options including Modbus, TCP/IP, RTU, BACnet, WiFi and cellular.” Ex. 6 at 1.

41. Claim 18 of the ’267 patent next recites “a second current sensor module comprising: a second current sensor operative to measure at least one power parameter of a second branch circuit line.” Ex. 1 at col. 12, lines 37-39. The Infringing Product meets this requirement. For example, as noted above, the Brochure shows multiple current sensors. Ex. 6 at 2. The “second current sensor module” is met by a CT other than the one that is used to meet the requirement for the first current sensor module. As also noted above, each CT measures current, which is a “power parameter” and, in operation, is placed on a second branch circuit line. *See* Ex. 6 at 1 (“Monitors up to 96 circuits.”).

42. Claim 18 of the ’267 patent next recites “a second operating logic coupled with said second current sensor.” Ex. 1 at col. 12, lines 40-41. The Infringing Product meets this requirement. As discussed above regarding the “first operating logic,” the Brochure shows that the current data for each CT is output to an RJ45 Port. Ex. 6 at 2. On information and belief, and as noted above, there is logic on the green panels in order to convert the current data to a format suitable to be output to the RJ45 ports. *Id.*

43. Claim 18 of the ’267 patent next recites “a second communication module coupled with said second operating logic.” Ex. 1 at col. 12, lines 42-43. The Infringing Product meets this requirement. The “second communication module” is met by the core module

coupled with a different RJ45 port than the RJ45 port that forms part of the first communication module. As noted above, the operating logic is contained within the green panels and, on information and belief, is coupled to the RJ45 port and the core module in order to deliver data to the core module.

44. Claim 18 further recites “wherein said first communication module and said second communication module are operative with selective functionality to communicate in a plurality of protocols, comprising at least two of a BACnet protocol, a Profibus protocol, an IEC 870 protocol, a Lonworks protocol, a simple network management protocol, a distributed network protocol, or a Modbus protocol, or a combination thereof.” Ex. 1 at col. 12, lines 44-51. The Infringing Product meets this requirement. The Brochure is clear that the device is operative to selectively communicate in a plurality of protocols, including “**Modbus** TCP/IP, RTU, **BACnet**, WiFi and cellular” and therefore meets this language. Ex. 6 at 1 (emphasis added).

b) Defendants Infringe The '552 Patent

45. On information and belief, and as alleged in detail below, Defendants have infringed and continue to infringe the '552 patent at least under 35 U.S.C. § 271(a) and (b) by making, using, importing, selling, and/or offering for sale the Infringing Product, in or to, the United States during the term of the '552 patent, and inducing infringement by others, including customers of Defendants. Discovery may show that Defendants have infringed and continue to infringe under additional sub-sections of 35 U.S.C. § 271 as well. For example, to the extent that Defendants make or have made the Infringing Product outside the United States, and induce its importation into the United States, Defendants are also liable for infringement under at least 35 U.S.C. § 271(b) on this additional basis. Furthermore, to the extent the Infringing Product is

incorporated into a system of a third party, and the system as a whole is infringing, then the sale of the Infringing Product would be an infringement under 35 U.S.C. § 271(c).

46. As set forth above, the Infringing Product includes at least Defendants' Modular Circuit Monitoring System as shown in Exs. 5-6.

47. The Infringing Product infringes at least claims 10-13 of the '552 patent.

48. The preamble of claim 10 of the '552 patent recites an "intelligent electronic device (IED)." Ex. 2 at col. 15, line 15. The Infringing Product is an intelligent electronic device. This is confirmed by the various intelligent functions described in the Brochure. *See, e.g.,* Ex. 6 at 1 (describing "Intelligent Features" of the device).

49. Claim 10 of the '552 patent next recites "a sensor for measuring data." Ex. 2 at col. 15, lines 15-16. The Infringing Product has multiple sensors for measuring data. i.e., CTs for measuring current. *See* Ex. 6 at 1-2.

50. Claim 10 of the '552 patent next recites "a power management application coupled with the sensor and configured to record the data measured by the sensor, wherein the measured data comprises a plurality of IED variables." Ex. 2 at col. 15, lines 17-20. The Brochure does not explicitly describe an "application." However, on information and belief, the Infringing Product, as sold by Defendant, has an application that performs the tasks spelled out in the Brochure, including implementing the "Intelligent Features" described, such as the "Predictive Circuit Health Algorithm" and "Waveform capture." Ex. 6 at 1. On information and belief, these functions are performed by an application running on the device. There are a "plurality of IED variables" measured by the Infringing Product, as illustrated on page 10 of the Brochure, which lists 24 "Monitored Parameters." *See* Ex. 6 at 10.

51. Claim 10 of the '552 patent next recites “a management information base including a plurality of network management protocol variables, wherein the plurality of network management protocol variables are used for communication in a network management system.” Ex. 2 at col. 15, lines 17-20. On information and belief, a “management information base” is required on the IED in order to communicate with the system in which the Infringing Product is deployed in order to accomplish the functions spelled out in the Brochure. For example, the Brochure describes “customizable alarming features.” Ex. 6 at 1. In operation, a management system at the customer site has various network management protocol variables in order to implement such customizable alarms. On information and belief, these variables are stored on the IED to enable the IED to communicate the alarm condition to the customer management system.

52. Claim 10 of the '552 patent next recites “a map that associates the plurality of IED variables with the plurality of network management protocol variables.” Ex. 2 at col. 15, lines 24-26. On information and belief, the Infringing Product includes a “map that associates the plurality of IED variables with the plurality of network management protocol variables” because it is the most practical way to implement at least the customizable alarm features. On information and belief, an alarm condition in the Infringing Product is mapped to a corresponding management protocol variable in order to translate an alarm condition in the Infringing Product to an alarm condition in the customer management system, such as an overload condition in a specific branch line. *See* Ex. 6 at 1.

53. Claim 10 further recites “wherein at least one of the IED variables is associated with an alarm event generated by the IED and is mapped to at least one of the network management protocol variables with a trap command that notifies the network management

station of generation of the alarm event by the IED.” As noted above, the Brochure specifically describes “Customizable alarming features.” Ex. 6 at 1. On information and belief, these alarm features are mapped to a variable in the network management system as explained above. On information and belief, any functioning system using the Infringing Product will be configured such that an alarm condition will result in a trap command (also known as an exception or a fault) as the alarm, to be useful, will trigger some action in the system, such as sending a notification to the system operator. In fact, the Brochure indicates that the “Data Presentation” will include “Alarming.” Ex. 6 at 3. Thus, the Infringing Product is configured such that a presentation of an alarm will be implemented via a trap command.

54. Claim 11 recites “a communication port configured to connect with the network management system and a network management station in the network management system.” Ex. 2 at col. 15, lines 32-35. On information and belief, the Infringing Product includes a communication port configured to connect with a network management system and a network management station in the network management system in order to communicate the alarm condition, as noted in the Brochure. *See* Ex. 6 at 3.

55. Claim 12 recites “an agent that communicates at least one of the plurality of IED variables to the network management station upon receiving a request for the at least one of the plurality of network management protocol variables that is associated with the at least one of the plurality of IED variables according to the map.” Ex. 2 at col. 15, lines 37-42. On information and belief, the Infringing Product includes such an agent in order to communicate the alarm condition, as noted in the Brochure. *See* Ex. 6 at 3.

56. Claim 13 recites that the “the network management station includes at least one management information base describing a set of the network management protocol variables

offered by the IED.” Ex. 2 at col. 16, lines 1-4. On information and belief, the network management station includes at least one management information base describing a set of the network management protocol variables offered by the IED in order to communicate the alarm condition, as noted in the Brochure. *See* Ex. 6 at 3.

c) Defendants Infringe The '659 Patent

57. On information and belief, and as alleged in detail below, Defendants have infringed and continue to infringe the '659 patent at least under 35 U.S.C. § 271(a) and (b) by making, using, importing, selling, and/or offering for sale the Infringing Product, in or to, the United States during the term of the '659 patent, and inducing infringement by others, including customers of Defendants. Discovery may show that Defendants have infringed and continue to infringe under additional sub-sections of 35 U.S.C. § 271 as well. For example, to the extent that Defendants make or have made the Infringing Product outside the United States, and induce its importation into the United States, Defendants are also liable for infringement under at least 35 U.S.C. § 271(b) on this additional basis. Furthermore, to the extent the Infringing Product is incorporated into a system of a third party, and the system as a whole is infringing, then the sale of the Infringing Product would be an infringement under 35 U.S.C. § 271(c).

58. As set forth above, the Infringing Product includes at least Defendants' Modular Circuit Monitoring System as shown in Exs. 5-6.

59. The Infringing Product infringes at least claims 1-5, 9 and 13 of the '659 patent.

60. The preamble of claim 1 of the '659 patent recites a “power monitoring system.” Ex. 3 at col. 9, line 23. The Infringing Product is a power monitoring system. *See, e.g.*, Ex. 6 at 10 (describing “monitored parameters”).

61. The next requirement of claim 1 is “(a) a plurality of current sensors suitable to sense respective changing electrical current within a respective conductor to at least one load.” Ex. 3 at col. 9, lines 24-26. The Infringing Product has a plurality of current sensors, i.e., CTs. *See* Ex. 6 at 1-2. The basic function of a CT is to monitor changing electrical current provided to a load. *Id.* at 10 (multiple changing current parameters being monitored).

62. The next requirement of claim 1 is “(b) at least one conductor sensing a respective voltage potential provided to said at least one load.” Ex. 3 at col. 9, lines 27-28. The Infringing Product has a conductor that will sense a voltage potential provided to at least one load. The Brochure is clear that voltages are included in monitored parameters. *See* Ex. 6 at 10. Although the specific structure used to sense voltage is not described in the Brochure, on information and belief, the voltage sensor is connected to the device via a conductor.

63. The next requirement of claim 1 is “(c) a power monitor that determines a power of said at least one load based upon a signal from at least one of said current sensors and a signal from at least one said conductor.” Ex. 3 at col. 9, lines 29-32. The Infringing Product has a power monitor, including the Core Module, as the Brochure specifies that various power parameters are monitored, i.e., “Real Power (kW) per phase,” “Real Power (kW) demand per phase,” and “Real Power (kW) demand max.” Ex. 6 at 10. The way that power is determined is not specifically described in the Brochure. However, as the Infringing Product is monitoring current and voltage, as noted above, on information and belief power is calculated from these parameters. Further evidence that the power is calculated from the measured current and voltage parameters is the high accuracy reported in the Brochure, i.e., 0.5%. Ex. 6 at 9. This level of accuracy strongly indicates a calculation based on measured current and voltage.

64. The next requirement of claim 1 is “(d) said power monitor receiving at a single input to a microprocessor a signal including data simultaneously representative of at least one of (i) a signal from a first one of said current sensors and a second one of said current sensors, and (ii) a signal from a first one of said at least one conductor and a signal from a second one of said at least one conductor.” Ex. 3 at col. 9, lines 33-39. On information and belief, the Infringing Product has a microprocessor to perform the functions described in the Brochure. Further on information and belief, the microprocessor is configured to receive a signal “simultaneously representative of ... a signal from a first one of said current sensors and a second one of said current sensors” because each RJ45 Port is shown as delivering data from multiple current sensors. *See* Ex. 6 at 2. Thus, each panel will receive data from multiple current sensors. The same applies regarding “a signal from a first one of said at least one conductor and a signal from a second one of said at least one conductor.” As for the “at a single input” language, on information and belief the data signal from a given RJ45 Port is input into the microprocessor as a single input, as the signal from a single RJ45 Port is input to the microprocessor as one signal.

65. The final requirement of claim 1 is “(e) said power monitor determining at least one of (i) a frequency of at least one of said signals from said current sensors, (ii) a frequency of at least one of said signals from said conductors, (iii) a phase relationship between at least two of said signals from said current sensors, (ii) a phase relationship between at least two signals from said conductors.” Ex. 3 at col. 9, lines 40-46. The Core Module of the Infringing Product determines all four of the items recited here. The Brochure specifies that the monitored parameters are measured with an accuracy of 0.5%. *See* Ex. 6 at 9. On information and belief, in order to achieve such an accuracy, the Infringing Product determines the phase relationship

between the different signals for both current and voltage. Furthermore, for the same reason, the frequencies of both current and voltage are determined.

66. Claim 2 recites “wherein said power monitor determining said frequency of said at least one of said signals from said current sensors.” Ex. 3 at col. 9, lines 47-49. As noted above in connection with claim 1(e), the Infringing Product meets this requirement.

67. Claim 3 recites “wherein said power monitor determining said frequency of said at least one of said signals from said conductors.” Ex. 3 at col. 9, lines 50-52. As noted above in connection with claim 1(e), the Infringing Product meets this requirement.

68. Claim 4 recites “wherein said power monitor determining said phase relationship between said at least two of said signals from said current sensors.” Ex. 3 at col. 9, lines 53-55. As noted above in connection with claim 1(e), the Infringing Product meets this requirement.

69. Claim 5 recites “wherein said power monitor determining said phase relationship between said at least two signals from said conductors.” Ex. 3 at col. 9, lines 56-58. As noted above in connection with claim 1(e), the Infringing Product meets this requirement.

70. Claim 9 is dependent on claim 4 and further recites “wherein said power monitor determining said phase relationship between said at least two signals from said conductors.” Ex. 3 at col. 10, lines 5-7. As noted above in connection with claim 1(e), the Infringing Product meets this requirement.

71. Claim 13 is dependent on claim 2 and further recites “wherein said power monitor determining said phase relationship between said at least two signals from said conductors.” Ex. 3 at col. 10, lines 19-21. As noted above in connection with claim 1(e), the Infringing Product meets this language.

d) Defendants Infringe The '899 Patent

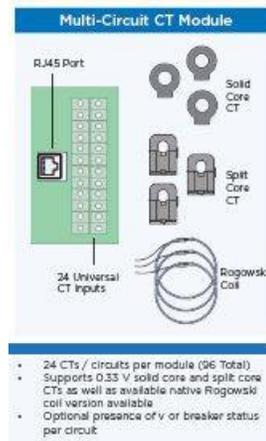
72. On information and belief, and as alleged in detail below, Defendants have infringed and continue to infringe the '899 patent at least under 35 U.S.C. § 271(a) and (b) by making, using, importing, selling, and/or offering for sale the Infringing Product, in or to, the United States during the term of the '899 patent, and inducing infringement by others, including customers of Defendants. Discovery may show that Defendants have infringed and continue to infringe under additional sub-sections of 35 U.S.C. § 271 as well. For example, to the extent that Defendants make or have made the Infringing Product outside the United States, and induce its importation into the United States, Defendants are also liable for infringement under at least 35 U.S.C. § 271(b) on this additional basis. Furthermore, to the extent the Infringing Product is incorporated into a system of a third party, and the system as a whole is infringing, then the sale of the Infringing Product would be an infringement under 35 U.S.C. § 271(c).

73. As set forth above, the Infringing Product includes at least Defendants' Modular Circuit Monitoring System as shown in Exs. 5-6.

74. The Infringing Product infringes claims 1-2 of the '899 patent.

75. The preamble of claim 1 of the '899 patent recites a "system." Ex. 4 at col. 10, line 43. The Infringing Product is a system. *See* Ex. 6 at 1 (describing the "Circuit Monitoring System").

76. Claim 1 next recites "an elongate support board." Ex. 4 at col. 10, line 44. The Infringing Product includes an elongated support board at least including the green board shown in the Brochure, copied below.



Ex. 6 at 2.

77. Claim 1 next recites “(b) said elongate board electrically interconnected to at least four current sensors by a respective flexible wire between said elongate circuit board and respective ones of said at least four current sensors.” Ex. 4 at col. 10, lines 45-48. On information and belief, the elongate support board of the Infringing Product is connected to at least four current sensors (split core CTs) via flexible wires that connect each current sensor to the support board. Although the flexible wires are not shown in the Brochure, on information and belief they are used in operation to connect the CTs to the support board so that the CTs can be placed around the wires being monitored.

78. Claim 1 next recites “(c) each of said current sensors spaced apart along a length of said elongate support board, and spaced apart from said elongate support board, suitable that wires from respective circuit breakers pass through a respective said current sensor.” Ex. 4 at col. 10, lines 49-53. On information and belief, in order to use the Infringing Product this configuration would be highly likely, if not necessary. In order for the CTs to function they must be placed around the wires from the circuit breakers, and this placement would result in the claimed spacing.

79. Claim 1 next recites “(d) a set of electrical traces are supported by said elongate support board and electrically interconnected to a respective said current sensors.” Ex. 4 at col. 10, lines 54-56. On information and belief, the elongate support board of the Infringing Product has electrical traces that are connected to the current sensors so that the data can be delivered from the universal CT inputs to the RJ45 port.

80. Claim 1 next recites “(e) a first set of at least four board connectors supported by said elongate support board that receives signals based upon signals from a respective one of said at least four current sensors.” Ex. 4 at col. 10, lines 57-60. The board connectors are shown in the Brochure as the “24 universal CT inputs” on the support board. Ex. 6 at 2. These connectors receive signals from the split core CTs, and, on information and belief, there are at least four split core CTs in any commercial application.

81. Claim 1 next recites “(f) each of said four current sensors is a split core current sensor that is suitable to be opened with a respective said conductor to be inserted therein and suitable to be closed with said respective said conductor maintained therein.” Ex. 4 at col. 10, lines 61-65. The Brochure specifically identifies the current sensors as “split core” current sensors. Ex. 6 at 2. Split core current sensors are opened and the conductor to be monitored is placed inside, with the split core CT being closed around the conductor.

82. Claim 1 next recites “(g) each of said four current sensors interconnected with said respective flexible wire to a respective one of a second set of at least four current sensor connectors at a respective terminal portion thereof, where a respective one of said second set of current sensor connectors detachably interconnect with a respective one of said first set of board connectors supported by said elongate support board, such that the spacing between each said respective flexible wire connected to said circuit board are spaced apart to match a respective

said conductor extending out from a respective circuit breaker of an electrical distribution panel.” Ex. 4 at col. 10, line 66 – col. 11, line 10. On information and belief, a second set of at least four current sensor connectors will appear at one end of the flexible wires that are used to connect the split core CTs to the board. These connectors plug into the “universal CT inputs” on the board. Ex. 6 at 2. While the exact nature of the connectors is not disclosed in the Brochure, on information and belief there is a connector used to allow the connection to the universal CT inputs. As for the spacing requirements, on information and belief this spacing is highly likely, if not required, given the arrangement of wires on a circuit breaker.

83. Claim 2 recites “wherein said elongate support board extends along a length of said circuit breakers.” Ex. 4, col. 11, lines 11-12.

84. On information and belief, the elongate support board is configured to extend along a length of the circuit breakers as this is the practical implementation of the Infringing Product. *See* Exs. 5-6.

CAUSES OF ACTION

I. INFRINGEMENT OF THE '267 PATENT PURSUANT TO 35 U.S.C. §§ 271 AND 281-285

85. Plaintiff re-alleges all of the above allegations as though fully set forth herein.

86. Plaintiff is the owner of the '267 patent and, without limitation, has the rights to sue and collect damages for all past, present or future infringement thereof.

87. As set forth in detail above, in violation of 35 U.S.C. § 271(a), and on information and belief, Defendants have and are making, using, importing, offering to sell, and/or selling Infringing Products that practice the '267 patent without Plaintiff's authorization, in the United States, during the term of the '267 patent.

88. As set forth in detail above, Defendants, in violation of 35 U.S.C. § 271(b), and on information and belief, have and are inducing others, including Defendants' customers, to use the Infringing Products that practice the '267 patent without Plaintiff's authorization, in the United States, during the term of the '267 patent.

89. On information and belief, Defendants have and continue to directly and indirectly infringe the '267 patent as detailed above, literally and/or under the doctrine of equivalents, through the Infringing Products.

90. Defendants may have infringed or continue to infringe the '267 patent, literally and/or under the doctrine of equivalents, through other versions of Modular Circuit Monitoring Systems, utilizing the same or reasonably similar functionality. Plaintiff reserves the right to discover and pursue claims of infringement regarding all such additionally infringing products.

91. Plaintiff has been and continues to be damaged by Defendants' infringement of the '267 patent.

II. INFRINGEMENT OF THE '552 PATENT PURSUANT TO 35 U.S.C. §§ 271 AND 281-285

92. Plaintiff re-alleges all of the above allegations as though fully set forth herein.

93. Plaintiff is the owner of the '552 patent and, without limitation, has the rights to sue and collect damages for all past, present or future infringement thereof.

94. As set forth in detail above, in violation of 35 U.S.C. § 271(a), and on information and belief, Defendants have and are making, using, importing, offering to sell, and/or selling Infringing Products that practice the '552 patent without Plaintiff's authorization, in the United States, during the term of the '552 patent.

95. As set forth in detail above, Defendants, in violation of 35 U.S.C. § 271(b), and on information and belief, have and are inducing others, including Defendants' customers, to use

the Infringing Products that practice the '552 patent without Plaintiff's authorization, in the United States, during the term of the '552 patent.

96. On information and belief, Defendants have and continue to directly and indirectly infringe the '552 patent as detailed above, literally and/or under the doctrine of equivalents, through the Infringing Products.

97. Defendants may have infringed or continue to infringe the '552 patent, literally and/or under the doctrine of equivalents, through other versions of Modular Circuit Monitoring Systems, utilizing the same or reasonably similar functionality. Plaintiff reserves the right to discover and pursue claims of infringement regarding all such additionally infringing products.

98. Plaintiff has been and continues to be damaged by Defendants' infringement of the '552 patent.

**III. INFRINGEMENT OF THE
'659 PATENT PURSUANT TO 35 U.S.C. §§ 271 AND 281-285**

99. Plaintiff re-alleges all of the above allegations as though fully set forth herein.

100. Plaintiff is the owner of the '659 patent and, without limitation, has the rights to sue and collect damages for all past, present or future infringement thereof.

101. As set forth in detail above, in violation of 35 U.S.C. § 271(a), and on information and belief, Defendants have and are making, using, importing, offering to sell, and/or selling Infringing Products that practice the '659 patent without Plaintiff's authorization, in the United States, during the term of the '659 patent.

102. As set forth in detail above, Defendants, in violation of 35 U.S.C. § 271(b), and on information and belief, have and are inducing others, including Defendants' customers, to use the Infringing Products that practice the '659 patent without Plaintiff's authorization, in the United States, during the term of the '659 patent.

103. On information and belief, Defendants have and continue to directly and indirectly infringe the '659 patent as detailed above, literally and/or under the doctrine of equivalents, through the Infringing Products.

104. Defendants may have infringed or continue to infringe the '659 patent, literally and/or under the doctrine of equivalents, through other versions of Modular Circuit Monitoring Systems, utilizing the same or reasonably similar functionality. Plaintiff reserves the right to discover and pursue claims of infringement regarding all such additionally infringing products.

105. Plaintiff has been and continues to be damaged by Defendants' infringement of the '659 patent.

IV. INFRINGEMENT OF THE '899 PATENT PURSUANT TO 35 U.S.C. §§ 271 AND 281-285

106. Plaintiff re-alleges all of the above allegations as though fully set forth herein.

107. Plaintiff is the owner of the '899 patent and, without limitation, has the rights to sue and collect damages for all past, present or future infringement thereof.

108. As set forth in detail above, in violation of 35 U.S.C. § 271(a), and on information and belief, Defendants have and are making, using, importing, offering to sell, and/or selling Infringing Products that practice the '899 patent without Plaintiff's authorization, in the United States, during the term of the '899 patent.

109. As set forth in detail above, Defendants, in violation of 35 U.S.C. § 271(b), and on information and belief, have and are inducing others, including Defendants' customers, to use the Infringing Products that practice the '899 patent without Plaintiff's authorization, in the United States, during the term of the '899 patent.

110. On information and belief, Defendants have and continue to directly and indirectly infringe the '899 patent as detailed above, literally and/or under the doctrine of equivalents, through the Infringing Products.

111. Defendants may have infringed or continue to infringe the '899 patent, literally and/or under the doctrine of equivalents, through other versions of Modular Circuit Monitoring Systems, utilizing the same or reasonably similar functionality. Plaintiff reserves the right to discover and pursue claims of infringement regarding all such additionally infringing products.

112. Plaintiff has been and continues to be damaged by Defendants' infringement of the '899 patent.

PRAYER FOR DAMAGES AND OTHER RELIEF

113. Plaintiff Schneider USA seeks all available damages and other relief against Defendants to which Plaintiff is entitled, including but not limited to:

- A. Entry of judgment in favor of Schneider USA and against AM Ireland;
- B. Entry of judgment in favor of Schneider USA and against AM USA;
- C. An award of damages against AM Ireland and AM USA, and each of them, jointly and severally, adequate to compensate Schneider USA for the infringement, but in no event less than a reasonable royalty, together with interest and costs, pursuant to 35 U.S.C. § 284;
- D. A finding that Schneider USA is entitled to enhanced damages and an award against AM Ireland and AM USA, and each of them, jointly and severally, pursuant to 35 U.S.C. § 284 increasing damages up to three times the amount found or assessed;

- E. An injunction permanently enjoining AM Ireland, its officers, directors, agents, servants, affiliates, employees, subsidiaries, divisions, branches, parents, attorneys, representatives, and all others acting in concert or privity with any of them, from infringing the Asserted Patents, and from inducing others to infringe or contributing to infringement of the Asserted Patents;
- F. An injunction permanently enjoining AM USA, its officers, directors, agents, servants, affiliates, employees, subsidiaries, divisions, branches, parents, attorneys, representatives, and all others acting in concert or privity with any of them, from infringing the Asserted Patents, and from inducing others to infringe or contributing to infringement of the Asserted Patents;
- G. A determination that this case is exceptional and an award of attorney fees, costs and expenses to Schneider USA as authorized by 35 U.S.C. § 285;
- H. A judgment and order requiring AM Ireland and AM USA, and each of them, jointly and severally, to pay supplemental damages for any continuing infringement, with an accounting as needed; and
- I. Such other relief to which Schneider USA is entitled and any additional relief that this Court deems just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38, Plaintiff demands a trial by jury on all issues triable of right by a jury in this case.

DATED September 24, 2020

SCHNEIDER ELECTRIC USA, INC.

By: /s/ Dana D. McDaniel

Dana D. McDaniel (VSB No. 25419)

Email: dmcdaniel@spottsfain.com

Hugh M. Fain, III (VSB No. 26494)

Email: hfain@spottsfain.com

M. F. Connell Mullins, Jr. (VSB No. 47213)

Email: cmullins@spottsfain.com

Clay S. Hester (VSB No. 93051)

Email: chester@spottsfain.com

Kasey L. Hoare (VSB No. 92289)

Email: khoare@spottsfain.com

SPOTTS FAIN, P.C.

411 East Franklin Street, Suite 600

Richmond, Virginia 23219

Tel.: (804) 697-2000

Fax: (804) 697-2100

Michael M. Murray, *pro hac vice* forthcoming

michael.murray@fisherbroyles.com

FisherBroyles, LLP

445 Park Avenue, 9th Floor

New York, NY 10022

Telephone: 203 542-5711

Mobile: 646 267-2597

Counsel for Plaintiff Schneider Electric USA, Inc.