

EdgeEV™ Power Source

Operating Manual

Document Revision: A0-02
Date: 12 March 2024



Power Possibility.™

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All pertinent state, regional, and local safety regulations must be observed when installing and using this product.



MADE IN USA

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1. Introduction

1.1 About EdgeEnergy

As an edge-of-grid power infrastructure company, EdgeEnergy has developed unique and proprietary phase conversion technologies that support DC Fast Chargers. EdgeEnergy's transformative and patent pending technology helps business owners leverage existing infrastructure, eliminate costly and time-consuming power upgrades and realize enterprise-wide revenue enhancements. EdgeEnergy's core values of empowerment and innovation drive its mission to serve and connect communities throughout the world.

Our line of phase conversion technology provides our customers with solutions that eliminate the need for three-phase power infrastructure. Our products empower our customers to serve their communities.

1.2 About the EdgeEV™ Power Source

The EdgeEV™ Power Source converts single-phase AC power from an electric utility source to three-phase AC power for operation of three-phase DC Fast Charge (DCFC) Stations. The EdgeEV™ delivers a high-quality sinusoidal AC voltage output. This AC voltage output provides exceptional three-phase voltage balance and low harmonic content (compliant with IEEE 519 requirements) to connected DCFC stations, supporting the safe and reliable operation of electric vehicle charging infrastructure in locations where adequate three-phase AC utility service is either unavailable or cost-prohibitive to obtain. Greater than 98% operating efficiency at rated output and low no-load losses support lower utility costs for electric vehicle charging installations.

The advanced design converts power drawn from a conventional single-phase utility service to a three-phase output using power conversion technologies capable of supporting continuous operation of DCFC stations up to 150 kW. The equipment can support simultaneous operation of multiple DCFC stations up to its maximum output rating. The EdgeEV™ Power Source is compatible with three-phase DCFC stations from a wide variety of charging station manufacturers, maximizing product life cycle and protecting our customer's investment in both current and future electric vehicle charging station infrastructure.

The EdgeEV™ equipment enclosure meets the safety requirements of the National Electric Code and complies with the requirements of the UL 508A standard for industrial equipment.

Standard features include, but are not limited to, the following:

- **Utility Service Entrance Rated Enclosure**, lowering installation costs.
- **Standard Input and Output Disconnect Switches**, maximizing safety through their external accessibility and lockability.
- **Integrated Input and Output Overload Protection**; providing feeder protection for DCFC station(s).
- **Touch Screen Interface with Real-Time Monitoring Display**; maximizing ease of operation.
- **Cloud-Based Monitoring with Remote Access and Dashboards**; (requires subscription & launching soon) enhancing uptime and service responsiveness through cloud-pushed notifications and alarming.

Collectively, these standard features deliver the following benefits to our customers:

- **Cost Effectiveness:** **Reducing installation costs** by avoiding electrical infrastructure upgrades from single-phase to three phase or providing additional capabilities for capacity limited three-phase by potentially using a cheaper, single-phase build-out.
- **Faster Installation:** **Installing charging stations up to 6X faster** with little infrastructure upgrades and minimal permitting.
- **Any Network, Any Charger:** **Integrating with any DC fast charger** without affecting charger performance.
- **Continuous Power:** Delivering **continuous power** to meet charging demand directly or supplementing a battery enhanced solution to offer additional charging capability.
- **Location Transferability:** **Redeploying effortlessly** to new locations thereby eliminating stranded assets and maximizing one's investment.

The NEMA 3R equipment enclosure meets typical requirements for most outdoor and indoor locations and is suitable for installation in public-facing environments. Note that the touch screen interface and disconnect switches are behind lockable compartments of the enclosure.

The operational simplicity of the EdgeEV™ Power Source supports a “set it and forget it” solution that customers can rely on for meeting the power requirements for their three-phase DCFC stations in locations with constrained utility service. The EdgeEV™ is designed for automatic re-starts after unexpected utility outages, ensuring maximum uptime and availability without direct operator intervention. A continuous cloud-based monitoring system with automated notifications (requires subscription & launching soon) supports an immediate service response if performance issues are identified. This optional cloud-based system includes daily, weekly, and monthly reporting capabilities to aid customers in understanding the usage and performance of their charging infrastructure.

2. Safety Messages and Warnings

To ensure the safe and reliable operation of the EdgeEV™ Power Source, operators and owners are requested to carefully read this manual and observe all safety and warning labels attached to the unit before installing. It is important to follow all instructions exactly and keep this manual with the unit for quick and easy reference.

2.1 Definitions of Warning Signs and Symbols

SAFETY PRIORITY: Safety should always be a priority when installing, commissioning, operating, maintaining, or servicing the equipment. Operators and owners are requested to ensure they are properly trained and certified to perform the functions outlined in this operating manual.



CAUTION: Indicates a potentially hazardous situation that could result in injury to the operator or service technician or damage to the equipment if performed without due care and diligence.



WARNING: Indicates a potentially hazardous situation that could result in serious injury or death to the operator or service technician if ignored.



VOLTAGE HAZARD: Electrical voltages present that could result in serious injury or death if contacted while energized.

IMPORTANT: READ THESE WARNINGS BEFORE INSTALLING OR OPERATING EQUIPMENT

WARNING: Risk(s) of electric shock. An electrical disconnect switch may require operation to de-energize the equipment before servicing. De-energize the equipment by disconnecting incoming sources of power, then wait 30 minutes before servicing equipment.

HIGH VOLTAGE: This equipment is connected to AC line voltages that can create a potentially hazardous situation. Electric shock could result in serious injury or death. This device should be installed and serviced only by trained, licensed, and qualified personnel. Follow instructions carefully and observe all warnings.

WARNING: Ensure that equipment is installed in accordance with the instructions provided in the factory installation manual and requirements of the National Electric Code and all applicable local codes. Please consult with the factory if there are conflicts with local code requirements. Failure to observe and comply with these instructions and applicable codes could result in the risk of electric shock, fire, or damage to the equipment.

CAUTION: Supplied circuit breakers, fuses, proper grounding circuits, and other safety equipment is dependent on a proper electrical service connection with appropriate grounding for their intended operation. The provision of a suitable single-phase AC electrical supply and appropriate electrical connection to a three-phase DC Fast Charge station is the responsibility of the end user.

WARNING: Grounding electrodes must be installed such that earth resistance is 25 Ohms or less, as specified by the National Electric Code. If surge protection is installed, earth resistance must be 3 Ohms or less for full effect. Failure to meet these requirements could result in serious injury or death and will void the manufacturer's warranty.

WARNING: Utility power connections should be made by a qualified electrician to the requirements of the National Electric Code and applicable local code requirements. The voltage and current carrying capacity of the circuit supplying the equipment shall be adequate for the model and rating of the equipment.

CAUTION: Conductor sizes should be selected to meet the minimum ampacity requirements of applicable electrical codes and minimize voltage drop at the equipment. Voltage drop is dependent on wire length and gauge.

CAUTION: All conductors must be secured by terminal screws to the stated torque values in the installation manual.

CAUTION: Failure to maintain adequate clearances may lead to overheating of the equipment, causing damage or fire.

WARNING: Never connect AC single-phase supply power to the three-phase output terminals. Damage to the equipment will result if this occurs.

WARNING: Under certain conditions, the equipment may automatically restart after an automated shutdown or trip has stopped its operation. Make sure the power to the equipment has been disconnected before entering the equipment enclosure to service the equipment.

3. Installation Requirements

Proper installation helps to ensure that the EdgeEV™ Power Source will provide years of safe and reliable service. The EdgeEV™ Power Source should be installed by a qualified electrical contractor following the instructions provided in the EdgeEV™ Installation Manual. The manual provides instructions for a safe and reliable installation that meets the requirements of the National Electric Code and applicable local code requirements. Failure to install the EdgeEV™ in accordance with these factory instructions and local code requirements may create a dangerous condition for the operator and void the equipment warranty.

The EdgeEV™ Installation Manual may be downloaded at <http://www.edgeenergyev.com/manuals-and-guides>.

4. Operational Capabilities

The EdgeEV™ is designed for unattended operation, requiring no interaction or input from the operator of an electric vehicle seeking a charge at a supported DCFC station(s).

EdgeEV™ installations are designed to provide continuous three-phase AC power for industry-standard, three-phase, 480 Vac, DCFC station(s) using an available single-phase utility power source. The system automatically adjusts to the power demand of the DCFC station(s) ensuring maximum uptime and optimal power usage during all modes of DCFC operation. Power is restored automatically after a utility power interruption, eliminating the need for operator intervention during regular day-to-day operation.

The autonomous control system monitors the incoming single-phase utility supply and operating conditions on a continuous basis, automatically adjusting the three-phase output to meet the variable power requirements of the DCFC station as it adjusts to the variable charging demands of an electric vehicle under charge.

The EdgeEV™ Power Source will restart automatically and restore three-phase service to the DCFC station(s) after a utility outage or momentary power interruption, ensuring optimal uptime with minimal operator intervention during inclement weather or other conditions impacting the utility supply.

Real-time monitoring data is presented to the operator through a large interactive touch screen located on the front of the enclosure. Monitoring data may also be viewed remotely using a cloud-based data service (requires subscription & launching soon) that continually uploads critical operating and performance data to a data management system with customer-facing dashboards that can be accessed using a hand-held device or web browser.

The subscription-based EdgeAssure™ monitoring service provides automatic notifications via the cloud-based data service (requires subscription & launching soon), ensuring immediate visibility to both the customer and a managed service desk that will support the diagnosis and associated response to situations that may arise. Trained service personnel are then dispatched as needed to ensure the prompt restoration of service for maximum uptime and availability.

5. Safety Features

The EdgeEV™ Power Source complies with the electrical safety requirements specified under the National Electric Code (NEC 70) and UL 508A Standard for Industrial Equipment.

Important Safety Features, include:

- Highly visible and easily accessible **Emergency Stop Button**; providing immediate shutdown in the event of an emergency.
- **Safety Interlocks** and **Lockable Disconnect Switches**; restricting access to high voltage electrical components when the equipment is energized.
- External **Input and Output Disconnect Switches**; isolating single-phase input and/or three-phase output power during service and maintenance.
- **Continuous On-Board Monitoring**; maximizing uptime and ensuring safe operation through the reporting of critical operational parameters and temperatures.
- **Automatic Alarm Notifications** and **Controlled Shutdown**; ensuring safety in the event of an equipment malfunction or over-temperature.

5.1 Emergency Stop

An easily accessible Emergency Stop button is located on the front door of the EdgeEV™ enclosure, immediately beneath the user interface enclosure.

An emergency stop may be initiated by lifting the protective cover and pressing the red stop button. Initiating an emergency stop will immediately remove input power from the power conversion module and shut down the EdgeEV™ while dispatching a notification to our managed service desk (requires subscription & launching soon).

The front enclosure door will remain locked and secure until the Input Power Disconnect Switch on the left-hand side of the enclosure has been opened, disconnecting the incoming utility power from the equipment.



After the condition necessitating the emergency stop has been rectified, a qualified operator may reset the Emergency Stop by pulling the red button outwards and twisting the knob in a counterclockwise direction.

Initiating an Emergency Stop will require the operator to physically reset the equipment using the User Interface to ensure that the emergency condition has been rectified before the EdgeEV™ is re-energized. The EdgeEV™ may be re-started in either Auto or Manual Mode following the procedures outlined in this User's Manual after the Emergency Stop has been initiated.

5.2 Input and Output Disconnect Switches

The EdgeEV™ Power Source features an integrated overcurrent protection system that protects both the input electrical supply to the equipment and the output power source to a connected DCFC station(s). The system includes manually operated disconnect switches for isolating the incoming single-phase utility supply and/or outgoing three-phase power.

The molded-case circuit breakers and disconnect switches used for this purpose meet National Electric Code and UL508A requirements for overcurrent protection, safety isolation, and feeder protection.

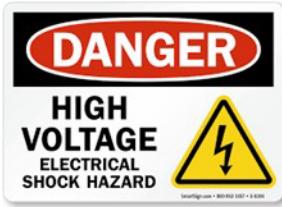
As a service entrance-rated enclosure, these features also eliminate the need for customer installation of separate disconnecting and over-current protection, reducing the on-site footprint and complexity of the installation. Factory integration of the disconnect switches and overcurrent protection also ensures proper equipment sizing and compliance with electric code requirements, while reducing on-site installation time and costs.

The externally accessible input and output disconnect handles do not require the front door of the enclosure to be opened. The switches are located inside an easily accessible and lockable compartment on the left-side of the EdgeEV™ enclosure, providing quick and safe access for isolation of power to and from the EdgeEV™ Power Source. The disconnect handles are lockable using a customer-supplied padlock, facilitating compliance with standard lockout procedures when servicing the connected DCFC station(s) or high voltage components inside the EdgeEV™ enclosure.



The Mode Switch at the user interface should be in the “Off” position prior to operating the input or output disconnect switches.





As a Service-Entrance Rated Enclosure, opening the input disconnect switch will not de-energize the utility supply conductors bringing power to the supply-side terminals of the input molded case circuit breaker. These conductors and terminal connections are shielded and marked as carrying 480 Volts AC when the input disconnect switch is open. Please contact the factory for service procedures that require the utility supply to be de-energized.

Operating either disconnect handle requires the front door of the enclosure to be fully closed and securely latched. This safety feature is intended to protect operators and field personnel servicing the equipment from exposure to high voltages inside the enclosure. The enclosure door remains locked and secure until the input and output disconnects have been opened, isolating the input and output power sources and de-energizing the high voltage components located inside the enclosure.

6. Operator Interface

The EdgeEV™ Power Source includes a convenient and easy to use operator interface located in a lockable compartment on the front door of the equipment enclosure.



The interface includes a three-position mode switch, with start and stop buttons, that is used to select the Operating Mode.

An interactive touch screen enables the operator to monitor the operational status and performance of the EdgeEV™ using a series of detailed information screens providing real-time information on the status and operational performance of the equipment.

An RJ45 plug provides a safe and secure data link to the on-board controller for maintenance and service personnel, eliminating the need for personnel to enter the energized high-voltage compartment when upgrading software or diagnosing equipment malfunctions.

The lockable interface compartment protects the touch screen and manual controls from vandalism or tampering when installed in publicly facing indoor or outdoor locations.

The three-position Mode Switch is used to initiate operation of the EdgeEV™ Power Source. **“Auto**

Mode” is the normal mode of operation when an EdgeEV™ is providing three-phase power to a connected DCFC station(s).

Selecting Auto Mode allows the onboard controller to automatically verify the status of the system, ensure that input and output power are within specified ranges, and verify temperatures are within safe limits before closing the output contactor that supplies three-phase power to the connected DCFC station(s).



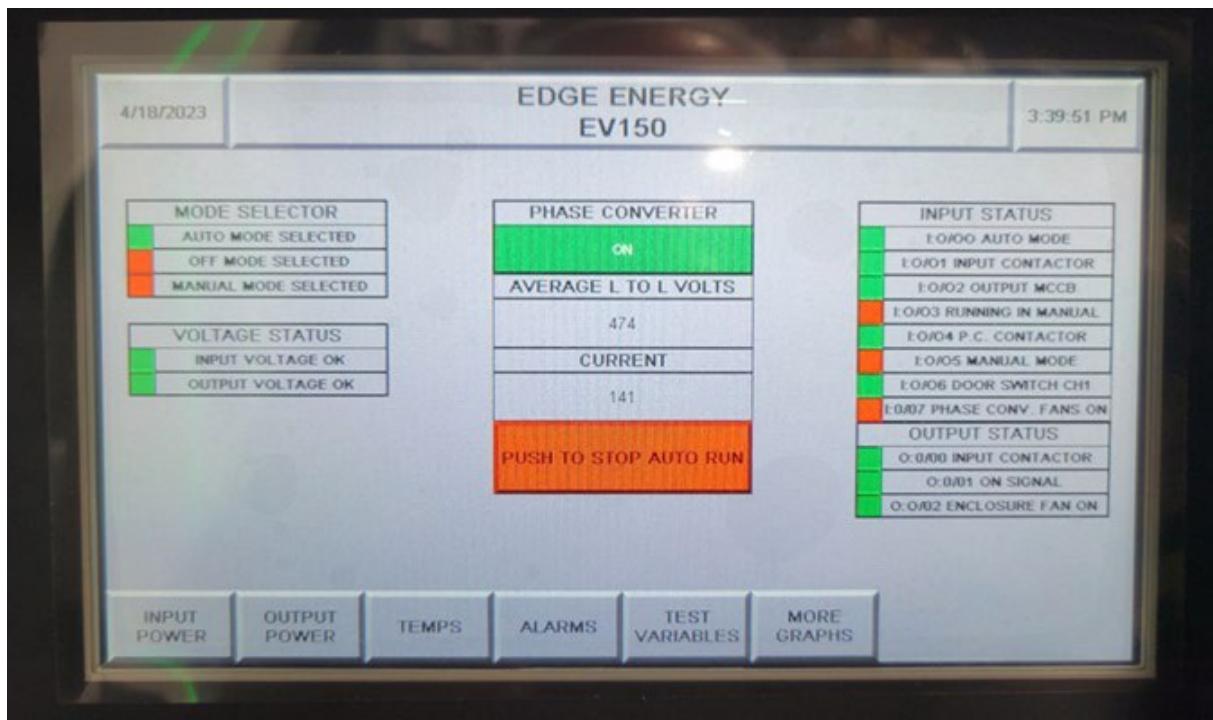
Manual Mode is generally only used for service and maintenance purposes. Several monitoring and control features are disabled when Manual Mode is engaged to facilitate service and maintenance functions. Customers should always operate their EdgeEV™ in Auto Mode when supporting a DCFC station(s).

6.1 Operator Display Screens

The touch screen interface provides operator access to several data monitoring screens that provide real-time information pertaining to system status, input single-phase power demand, output three-phase power demand (from connected DCFC station), operating temperatures, and multi-level alarm notifications.

The Status Display Screen is the initial screen presented to the operator on system startup. This screen

provides the real-time status of the system, including the operating mode, input and output voltage status, and the status of critical components within the system. The center display indicates the current status of the EdgeEV™ Power Source.

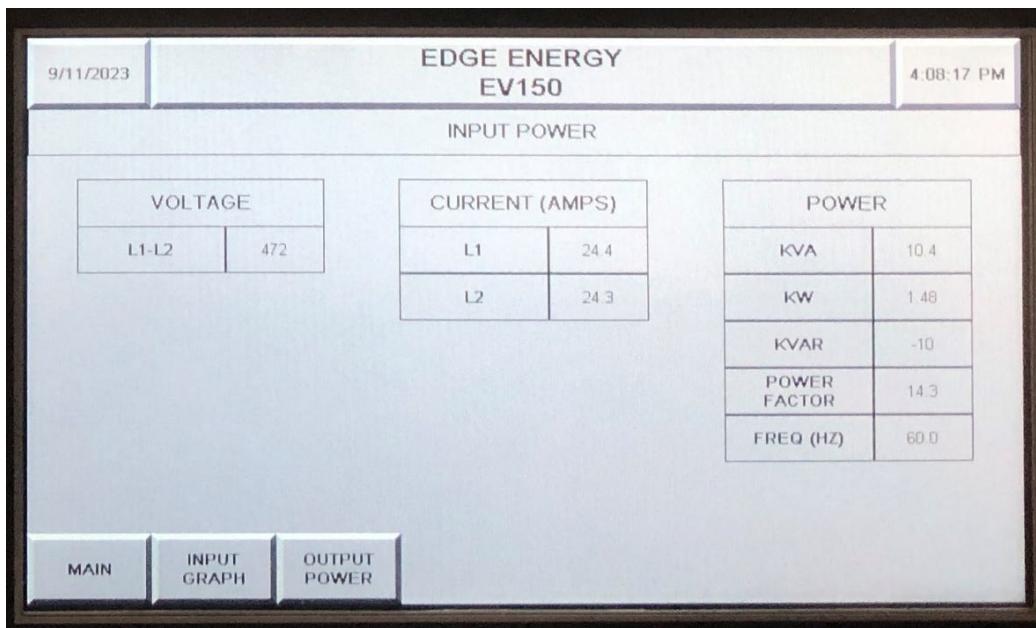


The operator may stop and start the system from the touch screen display once the system has been started using the three-position mode switch.

The operator can easily move to other screens using the touch screen. These screens provide detailed information related to input power consumption, output power delivered, operating temperatures, and alarm notification. The operator can acknowledge and clear alarm notifications from the display screen by moving to the Alarms Screen, providing a quick and easy way of identifying alarm conditions so that they can be rectified or addressed with service personnel.

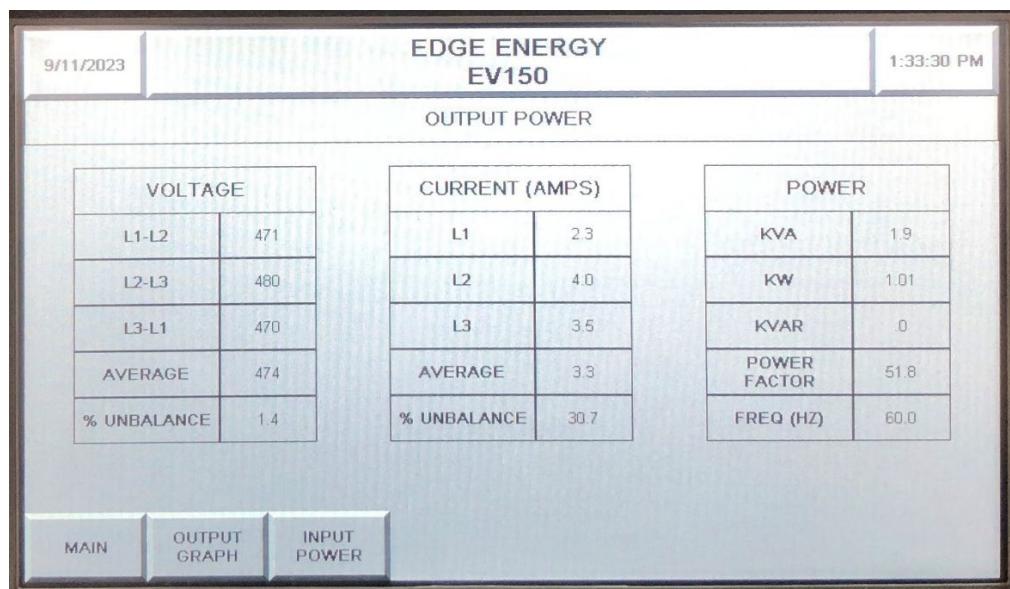
Illustrative examples of the information display screens and data provided by each screen are provided below. Display screen formats and content may be updated from time to time as Edge Energy implements further enhancements to the data monitoring system and obtains feedback from customers.

6.2 Input Power Screen



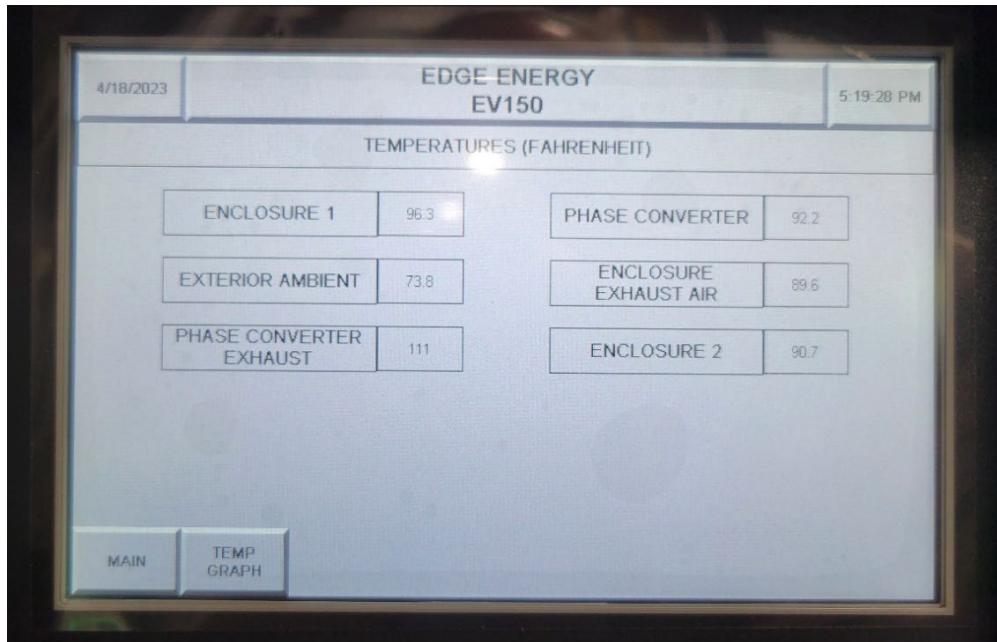
The Input Power Display provides information on the single-phase input voltage and amperage, as well as the power demand on the single-phase utility supply for the EdgeEV™ Power Source.

6.3 Output Power Screen



The Output Power Display provides information for the three-phase output voltage and amperage, voltage, and current balance, as well as the three-phase power demand placed on the EdgeEV™ Power Source by the connected DCFC Station(s).

6.4 Operating Temperatures Screen



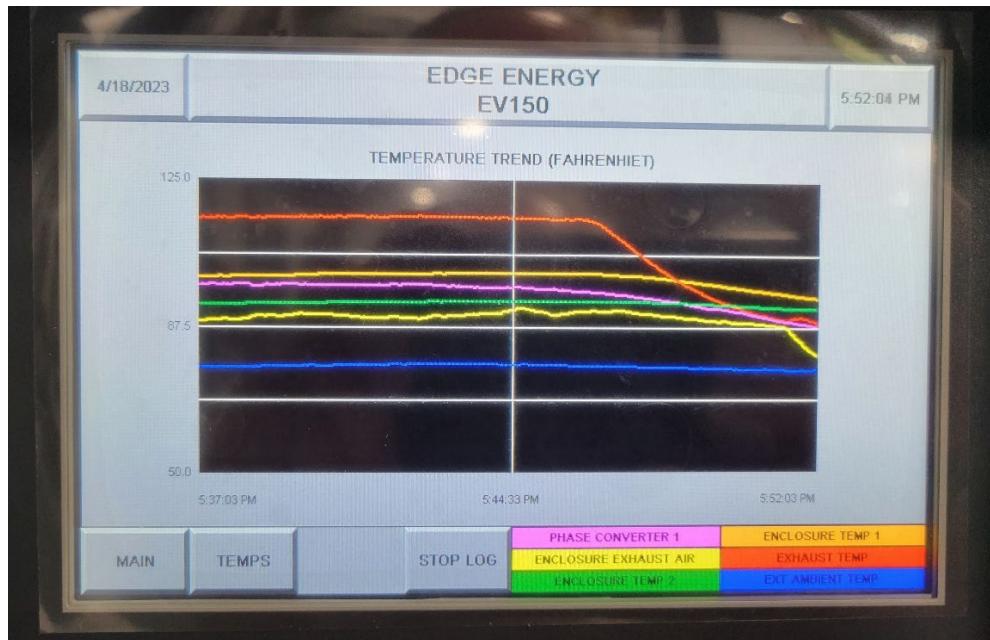
The Temperature Display provides information for operating temperatures, including the external ambient temperature around the EdgeEV™ enclosure and the internal temperature within the EdgeEV™ enclosure. These temperatures will vary with the external ambient temperature and three-phase output to the connected DCFC station(s).

6.5 Alarm Notifications Screen

Alarm Message	Ack Status	Occurrence Time	Occurrence Date
ENCLOSURE DOOR OPEN	Acked	8:47:38 AM	9/6/2023
ENCLOSURE DOOR OPEN	NotAcked	8:44:35 AM	9/6/2023
ENCLOSURE DOOR OPEN	Acked	8:29:27 AM	9/6/2023
ENCLOSURE DOOR OPEN	Acked	9:07:41 AM	9/7/2023
EMERGENCY STOP HAS BEEN ACTIVATED	NotAcked	9:03:04 AM	9/7/2023
INPUT SINGLE PHASE VOLTAGE BELOW LIMIT	Acked	10:20:35 AM	7/13/2023

The Alarm Notification Screen provides information about active and acknowledged alarms that have been recorded since the EdgeEV™ was last energized. The operator can acknowledge and clear alarms using this screen. These alarms are also uploaded to cloud-based data service used by the EdgeEV™ Assure monitoring service (requires subscription & launching soon), where they are recorded and monitored by Edge Energy.

6.6 Real-Time Trending Displays



Real-time 15-minute scrolling graphs, accessible through the touch screen menus, provide trending of key performance indicators via the on-board display. This data is also available through a cloud-based dashboard that can be accessed using a subscription-based mobile or web-based platform (requires subscription & launching soon). The cloud-based data monitoring and reporting system provides customer-facing dashboards and real-time displays to support comprehensive monitoring and service support.

The touch screen user interface module also supports local data collection with a Type A - USB port that will accept a standard USB storage device, which can be turned on and off from the touch screen display.



Installing a USB storage device into the USB port on the backside of the touch-screen display will require the operator to open the front door of the equipment enclosure. Opening the enclosure door requires the operator to shut down the EdgeEV™ and open the Input Disconnect Switch supplying power to the equipment. The operator should wait for 30 seconds prior to opening the enclosure door and entering the enclosure to allow for a full discharge.

7. Operating instructions

7.1 Auto Mode Operation

Auto Mode is the preferred mode of operational control for the EdgeEV™ power source under normal operating conditions. In this mode, operator intervention is not generally required as the power source automatically adjusts its three-phase output to match the connected DCFC station's power requirements.

A normal operating condition consists of a connected DCFC station operating in standby mode (often at a minimal load of less than 1 kW) until a charging session is initiated by an electric vehicle operator. At this point, the DCFC station communicates with the electric vehicle and responds to the charging demand placed on the DCFC station by the electric vehicle. The station's charging demand will vary over the course of a charging session based on the performance characteristics of the electric vehicle under charge and the connected DCFC station. The EdgeEV™ responds to this varying demand, seamlessly adjusting its three-phase output to meet the varying power requirements of the DCFC station.

7.2 Manual Mode Operation

Manual Mode is primarily used for maintenance, setup, and diagnostic operations. It is not intended for general operating use and should only be used by trained service personnel who have the appropriate tools and equipment to make use of the capabilities included in Manual Mode.

System startup should commence with the front door of the enclosure fully closed and securely latched, enabling the input power disconnect switch to become operable.

7.3 Initial Startup Procedure (Auto Mode)

System startup should commence with the front door of the enclosure fully closed and securely latched, enabling the input power disconnect switch to become operable.

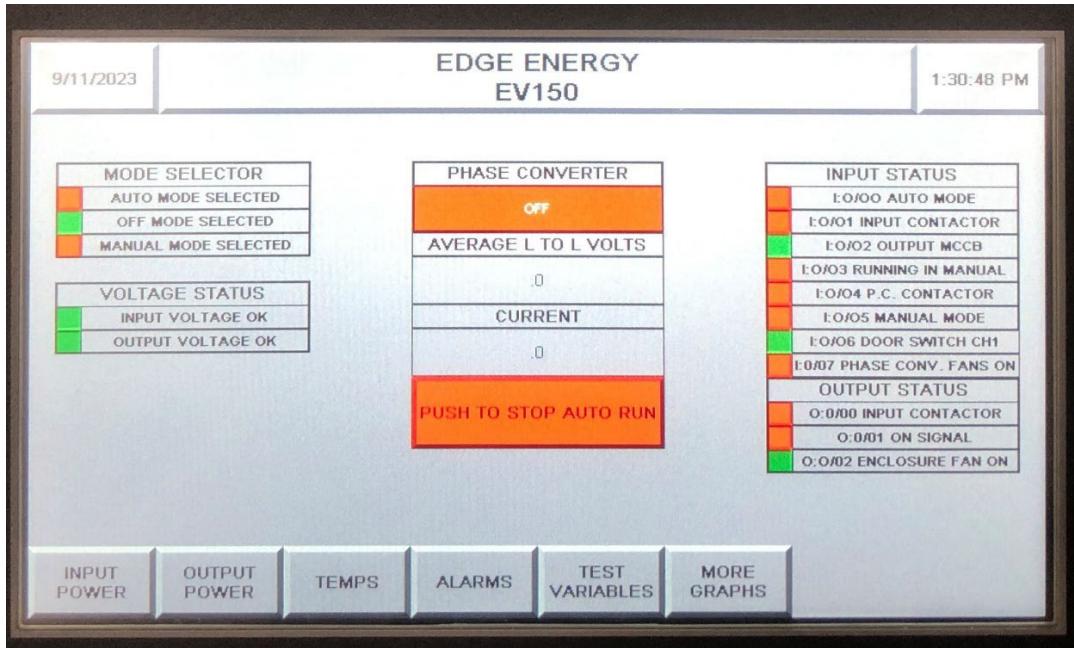
Step 1: The Mode Switch at the user interface, should be placed in the “Off” position prior to energizing the equipment with the input disconnect switch.



- Step 2:** Energize the EdgeEV™ enclosure by moving the left-hand input disconnect switch to the up (“on”) position, engaging the single-phase utility power supply.



- Step 3:** Once energized, the on-board controller and user display will enter a bootup sequence that requires approximately 50 - 60 seconds to complete, after which, the controller begins displaying status information on the user interface display.



Note: Due to the boot sequence error messages may occasionally appear on the HMI display screen.

These error messages should be acknowledged and cleared using the touch screen prior to proceeding.

Step 4: Select the Auto Mode using the Mode Switch.

The onboard controller will begin monitoring the incoming single-phase power source to ensure that voltage levels are within the rated specification for the equipment. Notifications will be sent to the service support desk and operator (if requested) if the input voltage conditions are out of range.

Note: *The EdgeEV™ specifies a rated single-phase input voltage of 480 V with a plus/minus tolerance of 35 volts (445 V – 515 V).*

Step 5: The single-phase input contactor to the power converter will engage when the controller has determined that the input voltage is within specification.

Applying input power to the power converter enables the converter to ramp up the output voltage to deliver the specified 480 V three-phase voltage required by the DCFC station. This process may require a period of about 5 – 10 seconds during which the controller will monitor the output voltage to ensure a stable and balanced three-phase output before closing the output contactor directing power to the connected DCFC station(s).

Step 6: The three-phase output contactor will engage when the controller has determined that the output voltage is within specification.

Step 7: Energize the three-phase service to the DCFC station by moving the right-hand input disconnect switch to the up (“on”) position.

Once energized, the DCFC station will boot in accordance with the station manufacturer’s procedures and become available for charging as described in the manufacturer’s literature.

A DCFC station powered by an EdgeEV™ Power Source will demonstrate the same operating behavior as a DCFC station powered by a conventional three-phase utility service. There is no requirement for the electric vehicle operator to engage the EdgeEV™ power source prior to, during, or after completion of the charging session. The EdgeEV™ will adjust its output automatically to meet the power requirements of the DCFC station.



The Input and Output Disconnect Switches do not need to be used for starting and stopping the EdgeEV™ Power Source after initial installation and commissioning. The EdgeEV™ Power Source may be started and stopped using the touch screen display or mode switch after installation and commissioning. The Disconnect Switches are used to isolate the input and output power for service and maintenance of the EdgeEV™ and connected DCFC station(s).

Step 8: The EdgeEV™ Power Source may be shut down in Auto Mode using the main screen on the touch display. The unit will remain in Auto Mode when shut down in this manner and will immediately restart if the single-phase input power is interrupted and restored or prompted

to restart from the touch screen.

Step 9: The EdgeEV™ Power Source may also be shut down using the three-position mode switch. When positioned in the “Off” position, the unit will no longer respond to start/stop inputs from the touch screen. The unit will also not restart when the single-phase utility power is interrupted and restored.

7.4 System Mode Selection

The EdgeEV™ Power Source provides for two modes of operation as outlined below:

7.4.1 Auto Mode - is the primary mode of operation when an EdgeEV™ power source is supporting the operation of an active DCFC station. The Auto Mode enables the system to restart automatically in the event of a utility power interruption, restoring power to the DCFC station and enabling the station to resume charging operations once it has rebooted.

7.4.1 Manual Mode - is intended for advanced setup, maintenance, and troubleshooting operations. This mode is not intended for use during regular operations where the EdgeEV™ power source is supporting the operation of a DCFC station.

8. Remote Monitoring and Diagnostics

The on-board controller in the EdgeEV™ power source controls and monitors all aspects of equipment performance, adjusting key parameters that enable the unit output to match the power requirements of the DCFC station.

An on-board data acquisition system monitors key status points, including functional state, voltage and current levels, power input/output, system temperatures, fault codes, etc. and records data at specified intervals.

Information gathered by the data acquisition unit is uploaded to a secure cloud platform via a cellular modem connection . If available, a customer-supplied Ethernet connection or wireless Wi-Fi connection may be used to upload data.

The cloud platform retains upload information for reference should a performance issue arise. Automatic notifications can be provided to the operator or service support desk, initiating a diagnostics process that allows for remote interrogation and intervention should the necessity arise (requires subscription & launching soon).

9. Limited Warranty

Model Type	Model	Warranty Period
Digital	EdgeEV50™	One Year
Digital	EdgeEV75™	One Year
Digital	EdgeEV100™	One Year
Digital	EdgeEV125™	One Year
Digital	EdgeEV150™	One Year

LIMITED WARRANTY: Subject to the exclusions from coverage under this limited warranty (this “Warranty”), as set forth below, One Three Energy, Inc., a Delaware corporation doing business as EdgeEnergy (“EdgeEnergy”) warrants that your Edge Energy model identified in the chart above (each a “Product”, and collectively the “Products”), will be free from any defects in materials or workmanship for a period of one (1) year, commencing as of the date that the Product is shipped by EdgeEnergy to the destination identified in your original purchase order (“Installation Site”) with EdgeEnergy (the “Warranty Period”), so long as the Product is installed and used correctly under normal operating conditions, in accordance with our applicable written documentation and specifications for such Product (the “Product Specifications”). If, during the Warranty Period, your Product fails to operate in accordance with its applicable Product Specifications due to a breach of this Warranty, EdgeEnergy will, upon receipt of written notice from you detailing the defect (which notice must be received by EdgeEnergy during the Warranty Period) either repair or replace, at EdgeEnergy’s sole discretion, the defective Product.

This Warranty covers both parts and factory labor necessary to repair your Product, including any on-site labor costs related to un-installing or reinstalling the repaired or replacement parts or Product or any costs of crating, carriage and freight to return the Product. This Warranty **does not** provide you with any routine maintenance for your Product. We may, at our sole discretion, offer for you to purchase an optional maintenance and support services to cover your Product, which will provide improved service levels and support following the lapse of the Warranty Period.

In addition to the exclusions from this Warranty, as further discussed below in the section covering “Exclusions from Limited Product Warranty”, any improper maintenance, preparation, or installation of the Product will void this Warranty.

9.1 Warranty Transferability

This Warranty shall be freely transferable by you during the Warranty Period to a subsequent owner of the Product (each a “Transferee”), so long as: (i) the Product remains located, at all times, at the Installation Site; (ii) that you notify EdgeEnergy in writing no less than 10 days prior to the transfer of this Warranty; and (iii) the Transferee expressly agrees to be bound by all terms and provisions of this Warranty, as provided herein. Only upon the completion of the foregoing, shall such transfer be deemed a “Permitted Transfer” and shall the Product remain subject to this Warranty provided herein.

Following a Permitted Transfer, and during the remainder of the Warranty Period, all rights and obligations under this Warranty are assigned to the Transferee and you shall have no rights or entitlements under this Warranty for the Product that is the subject of the Permitted Transfer. Meaning, under no circumstance shall you be entitled to make any claims under this Warranty following a Permitted Transfer, whether such claim(s) is made simultaneously or at a later date from when made by the Transferee, or obtain services, recoveries and obtain any other remedies with respect to the same claim, defect or issue in connection with the Product that is

the subject of the Permitted Transfer. The ability to transfer this Warranty shall only be available during the Warranty Period.

9.2 Follow These Easy Steps to Obtain Warranty Service

1. If at any time during the Warranty Period, your Product fails to operate in accordance with the Product Specifications due to a breach of this Warranty, contact Customer Service with your request (the “Customer Service Request”) by emailing support@edgeenergyev.com. Upon receipt by EdgeEnergy, we will use commercially reasonable efforts to provide a response to your Customer Service Request during our normal business hours, Monday through Friday from 9:00 am – 5:00 pm Eastern Time, and based on the following targeted response times (the “Estimated Response Timeline”):

Initial Response to a Customer Service Request	Next Business Day.
Level 1 Response (Product not functioning)	5 Business Days to diagnose problem, and 5 Business Days from when the part or Non-Defective Product (as defined below) arrives at the Installation Site or the location of our designated local service provider for EdgeEnergy to resolve.
Level 2 Response (Product is functioning, but has intermittent issues causing inability of continuous use)	10 Business Days to diagnose problem, and 10 Business Days from when the part or Non-Defective Product (as defined below) arrived at the Installation Site or the location of our designated local service provider for EdgeEnergy to resolve.
Level 3 Response (Product is functioning and capable)	15 Business Days to diagnose problem, and 15 Business Days from when the part or Non-Defective Product (as defined below) arrives at the Installation Site or the location of our designated local service provider for EdgeEnergy to resolve

2. In connection with your Customer Service Request, you will be asked for each of the following:

- a. A detailed description of the problems or defects you are experiencing with the Product;
- b. The serial number of the Product;
- c. Installation Site information and any access restrictions limiting EdgeEnergy’s immediate access to the Product;
- d. Contact name, email and phone number;
- e. We may also ask that you:
 - a. Cycle the breaker to see if it resolves the issue;
 - b. Make, model and phone number to device connected to Product; and
 - c. Name and phone number to your power company.

3. During the term of this Warranty and while your Product is covered by this Warranty, you will receive certain input and output data in connection with Product and utility outages (the “Data”) through a dashboard or similar system (the “Dashboard”), that will provide necessary information related to the performance of your Product. Notwithstanding the forgoing, you acknowledge and understand that this Warranty shall cover, and hereby expressly excludes, any and all coverage for any hardware, software, technology, or any other program (whether provided by a third party or EdgeEnergy) that is related to or in any way associated with providing the Data to you or the continuous operation of the Dashboard. For avoidance of doubt and example purposes only, this Warranty shall not cover, and hereby expressly excludes, coverage of any towers, devices, and/or third party technology that may be required in order for (i) EdgeEnergy to supply the Data, (ii) EdgeEnergy to provide access to the Dashboard, and/or (iii) for you to receive the Data or for you to have continuous access to the Dashboard during the Warranty Period.

Additionally, if your Product is covered by this Warranty, EdgeEnergy will either repair or replace the defective Product or parts, as further described herein, at the discretion of EdgeEnergy, at no charge to you. To do so, EdgeEnergy will ship to you either a replacement Product, replacement part, or your original Product or part that has been repaired by EdgeEnergy (in each instance such shall be referred to as a “Non-Defective Product”) at the destination that is identified on your original purchase order, and EdgeEnergy will install the Non-Defective Product at no charge to you.

Important:

1. You are responsible for the proper installation of the Product and to ensure that the Product is maintained as required in the Product Specifications at all times during the Warranty Period, and failure to do so will void this Warranty.
2. Any service or repairs made by EdgeEnergy beyond the scope of this Warranty will be performed following your request and approval, and will be provided by EdgeEnergy at its then-prevailing labor rates plus any other applicable charges, of which shall be at the discretion of EdgeEnergy, related thereto.
3. Any Product, that is determined, at the discretion of EdgeEnergy, to be outside the scope of this Warranty or otherwise ineligible for coverage under this Warranty, will, pursuant to your approval, either be returned, repaired or replaced by EdgeEnergy and shipped to you; provided that any return shipping cost, repair or replacement cost, or any other cost incurred in connection therewith shall be your sole expense.
4. Please read carefully through the detailed descriptions of this Warranty, including, but not limited to, the sections titled “Exclusions from Limited Product Warranty” and “Limitations on Warranty and Liability” contained herein, to ensure that you understand this Warranty and that you understand whether your Product is eligible for coverage under this Warranty without additional cost being incurred by you.

9.3 Replacement Parts or Products

You acknowledge that the Non-Defective Product provided to you under this Warranty may be or consist of remanufactured or reconditioned parts or a Product; and you further acknowledge that in the event your exact original Product(s) is no longer manufactured by EdgeEnergy, or the exact part(s) is no longer manufactured by its original manufacturer, EdgeEnergy may supply you with a Non-Defective Product that is substantially similar in functionality to your original Product.

Any Non-Defective Product furnished by EdgeEnergy will be subject to this Warranty for the remainder of the original Warranty Period or ninety (90) days from the date of delivery of such Non-Defective Product to the destination listed on your original purchase order, whichever is later. Should EdgeEnergy be unable to provide you with a Non-Defective Product within 30 days after EdgeEnergy receives your defective Product by EdgeEnergy, EdgeEnergy will refund you within approximately thirty (30) Business Days thereafter a prorated

amount of the original purchase price for your Product, which is calculated by dividing the original purchase price of your Product by the remaining days of the Warranty Period, commencing as of the date listed on your original purchase order.

9.4 Exclusions from Limited Product Warranty

IMPORTANT: EdgeEnergy's shipping terms for its Products are Ex Works Factory (Incoterms 2023). This means that delivery of the Product to a commercial carrier by EdgeEnergy at its facility or other origin loading point shall constitute delivery to you, and any risk of loss and further cost and responsibility thereafter for claims, delivery, loss or damage, including, if applicable, placement and storage shall be borne by you. As provided above, this Warranty shall commence once the Product is shipped by EdgeEnergy to the Installation Site, and thus, this Warranty shall not apply to defects or service repairs resulting from the following:

- Improper Installation Site preparation or maintenance, or improper installation of the Product;
- Movement of the Product to any location away from the Installation Site;
- Damage to the Product caused by the Product being operated in excess of the rated capacity of the Product or operated in a manner not otherwise in accordance with the applicable Product Specifications;
- Damage to the Product caused by software, interfacing, parts, supplies or any other product not supplied by, installed by, or expressly approved for use by EdgeEnergy in connection with the Product;
- Damage to the Product caused by alterations, modifications, maintenance, or installations by any individual, entity or anyone other than EdgeEnergy or its authorized service team members;
- Damage to the Product as a result of extreme power surge, extreme electromagnetic field, water intrusion or other environmental factors, any act of nature, or any other causes that are beyond the control of EdgeEnergy;
- Damage to the Product caused by any product, component or part contained or installed within the Product that is not manufactured by or for EdgeEnergy;
- Cosmetic damage to the Product, including but not limited to, scratches and dents, or normal aging of the Product; and/or
- Abuse, vandalism, damage or other problems caused by accidents, misuse or any negligence (including but not limited to physical damage from being struck by a vehicle), or any use of the Product that in a way differs from the specified intended or normal use of the Product, as identified in the applicable Product Specifications.

IN ADDITION: This Warranty on your Product shall not apply if the original identification markings (including, but not limited to, the serial numbers and trademarks) have been defaced, altered, or removed from the Product, whether by you, a Transferee, or any third party.

EDGEENERGY SPECIFICALLY DOES NOT WARRANT THAT ANY EDGEENERGY SERVICES WILL BE ERROR FREE OR WILL RESULT IN THE PRODUCT OR REPLACEMENT PRODUCT OPERATING WITHOUT INTERRUPTION.

9.5 Limitations on Warranty and Liability

NO AGENT OF EDGEENERGY IS AUTHORIZED TO ALTER OR EXCEED THIS WARRANTY OBLIGATIONS OF EDGEENERGY, AND THE REMEDIES IN THIS WARRANTY ARE YOUR SOLE AND EXCLUSIVE REMEDIES RELATED TO THE PURCHASE, USE OF, OR INABILITY TO USE, THE PRODUCT. EDGEENERGY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES OTHER THAN THIS WARRANTY AS SET FORTH HEREIN RELATED TO THE PRODUCT. ALL OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY

WARRANTY OF DESIGN, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EDGEENERGY HAS BEEN INFORMED OR SHOULD HAVE BEEN INFORMED OF SUCH PURPOSE), OR WARRANTY AGAINST INFRINGEMENT, ARE EXCLUDED FROM THIS WARRANTY, TO THE EXTENT PERMITTED BY LAW. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED UNDER APPLICABLE LAW, SUCH IMPLIED WARRANTY SHALL BE LIMITED IN DURATION TO THE WARRANTY PERIOD DESCRIBED HEREIN. NO WARRANTIES, INCLUDING AN IMPLIED WARRANTY, APPLY AFTER EXPIRATION OF THE WARRANTY PERIOD.

SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF EXPRESS OR IMPLIED WARRANTIES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO IF APPLICABLE, A PORTION OR ALL OF THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

EDGEENERGY IS NOT LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS, LOST BUSINESS, LOST DATA, LOSS OF USE, OR COST OF COVER INCURRED BY YOU OR ANY TRANSFeree ARISING OUT OF OR RELATED TO THE PURCHASE OR USE OF, OR INABILITY TO USE, THE PRODUCT, UNDER ANY THEORY OF LIABILITY, WHETHER IN AN ACTION IN CONTRACT, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL OR EQUITABLE THEORY, EVEN IF EDGEENERGY KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY EVENT, THE CUMULATIVE LIABILITY OF EDGEENERGY FOR ALL CLAIMS WHATSOEVER RELATED TO THE PRODUCT WILL NOT EXCEED THE PURCHASE PRICE ORIGINALLY PAID FOR THE PRODUCT BY ITS ORIGINAL PURCHASER. THE LIMITATIONS SET FORTH HEREIN ARE INTENDED TO LIMIT THE LIABILITY OF EDGEENERGY AND SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO IF APPLICABLE, A PORTION OR ALL OF THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

10. Additional Information

This Warranty shall be governed by and construed in accordance with the laws of the State of Delaware, U.S.A., exclusive of its conflict of laws principles. The U.N. Convention on Contracts for the International Sale of Goods shall not apply.

This Warranty is the entire and exclusive agreement between you, including any Transferee, and EdgeEnergy with respect to its subject matter and the Products. Any modification or waiver of any provision of this Warranty shall not be effective unless expressly set forth in writing and signed by an authorized representative of EdgeEnergy.

NOTE: This document supersedes all previous publications.

Contact

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