

NOVA Energy & Automation



Product Specifications

Fail Safe Emergency Power Off Control Panel 480V 3 Phase

Model UV-ESD

03 January 2014

Product Description

1. Standard Applications

The Nova Under Voltage Energy Storage Device (UV-ESD) Emergency System Control Panel serves as a standalone fail-safe emergency power off circuit with nuisance free and maintenance free energy storage.

The UV-ESD is Fail-safe and in the event of a failure (blown fuse, power disturbance, or an EPO is activated) - the system will always shut down. The UV-ESD mechanism is suited to “interlock” a number of other equipment safety checks, as all circuits would need to be satisfied for the system to engage. Any one of the contacts could open thereby tripping the power from the control panel.

The Energy Storage Device integral to the UV-ESD eliminates nuisance tripping by providing ride-through capability of up to 1 minute. The UV-ESD provides power to the emergency off circuit during Generator testing and typical mains faults allowing the system to maintain functionality without resetting the control system. Typical voltage sags are in the order of a few cycles and with the Nova design we have eliminated the nuisance tripping that other manufacturer's panel designs experience. This increases the reliability of the system as a whole.

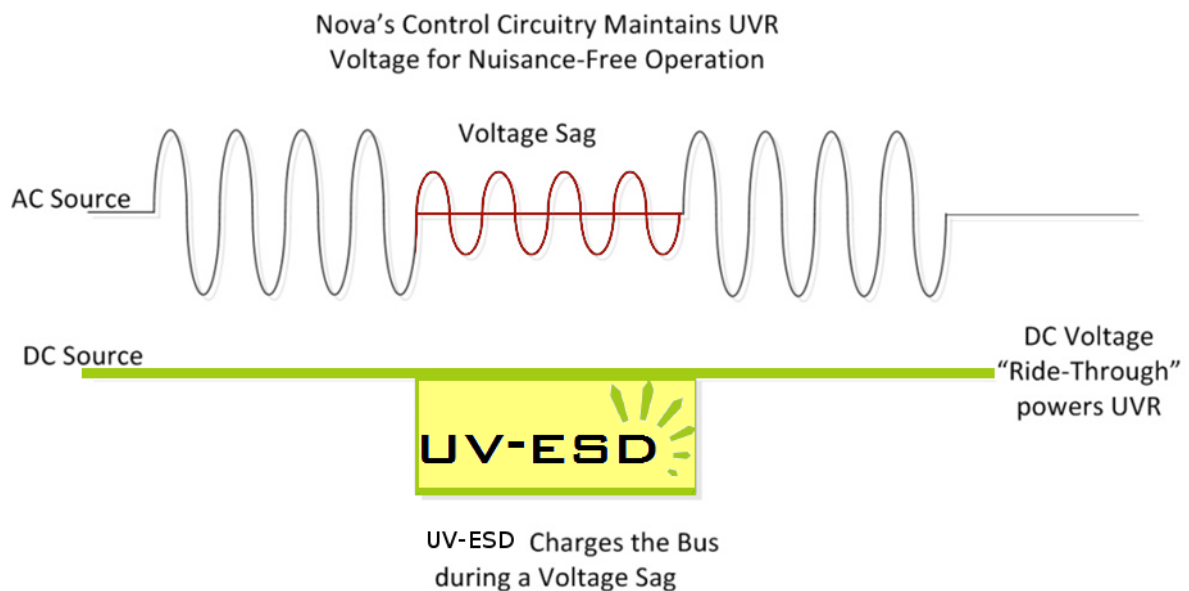


Figure 1 Under Voltage Energy Storage Device Operation

2. System Compatibility

The Nova UV-ESD is compatible with the following medical imaging equipment:

Siemens Medical Installations requiring fail-safe emergency power off design with an energy storage source. Luminos, Ysio, Uroscop, Somatom and other related projects

The Nova UV-ESD is also commonly used on existing installations (GE , Philips, Toshiba) as an upgrade to deter nuisance tripping.

The Nova UV-ESD is compatible with UPS Equipment.

3. Identification

Siemens Medical Systems: The Emergency Power Off Circuit Panel can be identified in the Siemens Constructions Drawings → sheet E-102 → Power Diagram requirements (Power Schedule)→ item EPO

The UV-ESD is a Fail-Safe Designed EPO Circuit with a Energy Storage Source compatible with optional UPS Equipment.



Figure 2 Nova UV-ESD

4. Features/ Benefits

Features

- UL and cUL listed to conform to NEC
- Labeled to conform with NFPA99, NFPA-70, NEC 100, NEC 110-3, NEC 660.5
- Fail Safe Design
- Nuisance Free Energy Storage Source
- Maintenance Free Energy Storage Source
- Door may be locked closed with customer provided padlock.
- ¼ turn slotted door latch provides additional security.
- Isolated Neutral lugs
- Oversized ground lugs for parity sizing of ground wire
- Compact size for easy installation
- Manufactured in the USA

Benefits

- Designed, tested, and installed on several projects worldwide
- In the event of a Failure the system will always shut down
- During Generator testing and typical mains faults, the UV-ESD allows the system to maintain functionality without resetting the control system
- Manufactured using the highest quality components for high reliability and long life
- Provides protection for sensitive electronic equipment
- Manufactured to a tolerance which exceeds the specifications of Medical Imaging equipment.
- Provides a standardized platform for other future modifications or upgrades

5. Specifications

Model	UV-ESD
Application	Fail Safe Emergency Power Off Circuit with integrated energy storage device
Input Voltage	480VAC
Control Voltage	Internally derived 24VDC for controls
Energy Storage Time	60 Seconds
Approvals	UL/cUL

6. Installation

The UV-ESD integrates with under voltage trip mechanisms integral to circuit breaker load centers and main disconnects. All control and EPO capabilities are controlled through the UV-ESD.

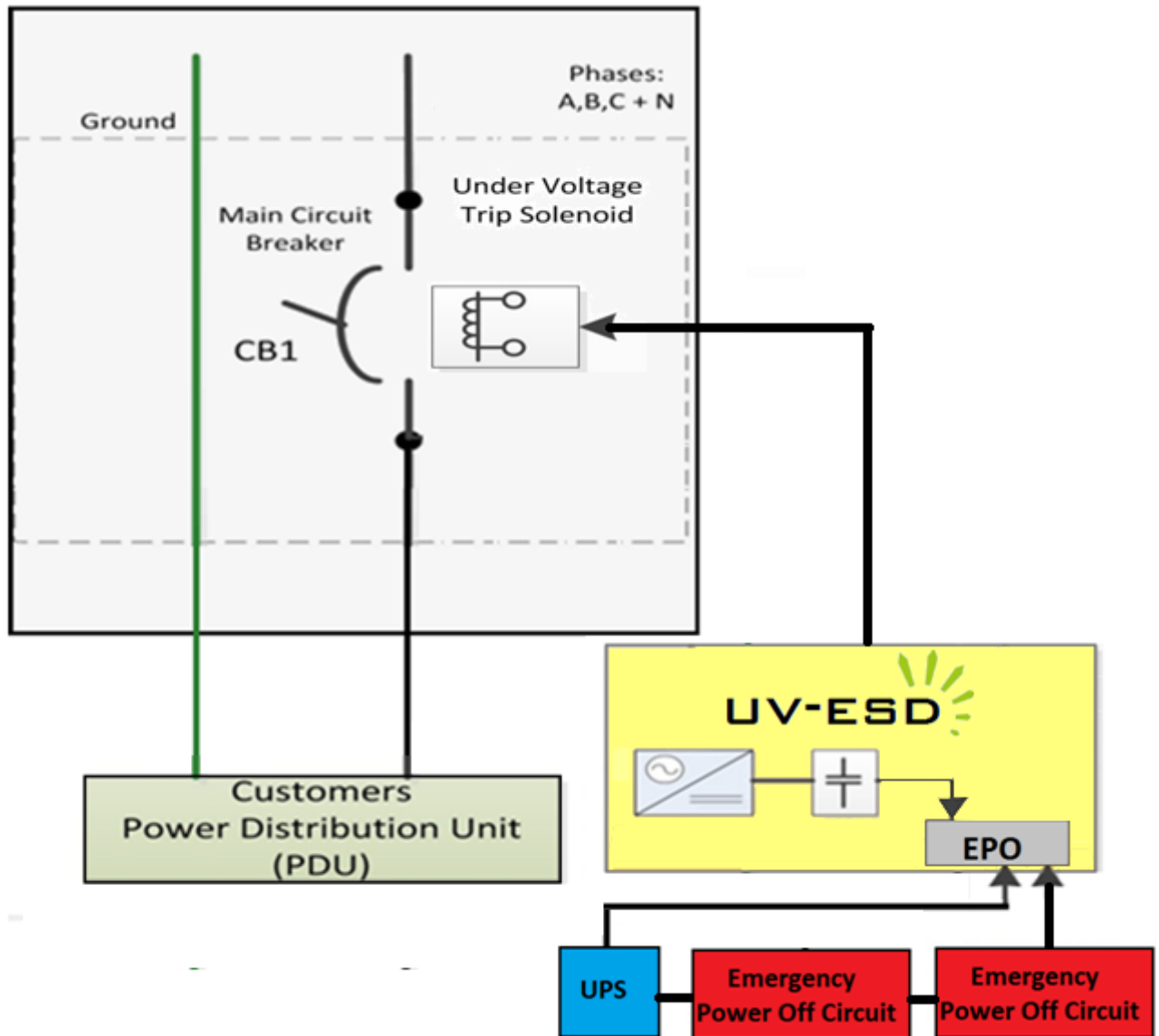


Figure 3 Under Voltage Energy Storage Device Block Diagram

7. Weights and Dimensions

Mounting	UV-ESD is provided in a steel enclosure suitable for surface or semi flush installations.
Dimensions	Height: 16" Width: 16" Depth: 6"
Weight	35 lbs.

8. Warranty

This limited warranty set forth below is given by Nova Automation ("Seller") with respect to the electrical equipment ("Product") packaged with this limited warranty. The Product, when delivered to you in new condition in its original packaging, is warranted against defects in materials or workmanship as follows: For a period of one (1) year from the date of original purchase, defective parts or a defective Product returned to a Seller, or its authorized service providers, as applicable, and proven to be defective upon inspection, will be repaired, or exchanged for a new Product, as determined by the Seller, or the authorized service provider.

This limited warranty covers all defects encountered in normal use of the Product, and does not apply in the following cases: Loss of or damage to the Product due to abuse, mishandling, alteration, accident, electrical current fluctuations, failure to follow operating, maintenance or environmental instructions prescribed by Seller, failure to follow Sellers installation instructions, or service performed by someone other than Seller or its authorized service provider.

Nova assumes no responsibility for labor or freight costs incurred in connection with the installation, removal, or replacement of products determined to be defective or any consequential or incidental damages arising from the use of the product. Nova Automations entire liability on any claim of loss or damage resulting from a defective product is limited to the replacement of the product.

WARRANTY IS VOID IF PRODUCT IS NOT USED FOR THE PURPOSE FOR WHICH IT WAS MANUFACTURED.

9. Product Service and Technical Assistance

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