

NOVA Energy & Automation



## Product Specifications

# MRI 120 VDC Lighting Controller

Model NEA1200DCLC

03 January 2012

# Product Description

## 1. Standard Applications of a DC Lighting Power Supply

The DC Lighting Control Unit is the ideal DC power supply to meet the hospital-grade lighting power requirements of RF-shielded MRI suites. The voltage regulation and performance characteristics of the DC Lighting Control Unit offer a significant advantage over competing products. As a single phase or 3-phase (optional), solid state DC power supply, the DC Lighting Control Unit assures a highly-filtered, regulated, dimmable, DC output, and provides illumination without image interference.

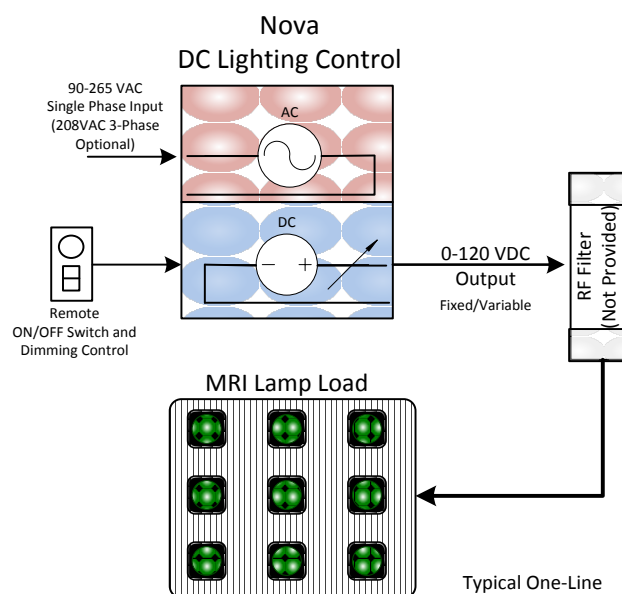


Figure 1 Typical DC LC One-Line

The Nova Energy & Automation DC Lighting Controller is 3<sup>rd</sup> generation design which provides superior regulation of 120 VDC required for hospital grade lighting applications.

## 2. System Compatibility

The Nova DC lighting controller is compatible with MRI systems requiring 120VDC Incandescent lighting. Including MRI systems from GE, Siemens, Philips, Toshiba, and Hitachi

### 3. Features/Benefits

#### Features

- UL and cUL listed to conform to NEC.
- Universal input, 90-265 VAC with Incoming Circuit Breaker protection
- Power Factor Correction
- Dimmer Switch Control, with On/Off switch
- Closed-loop, regulated DC output under all conditions, and at all times
- Compact size for easy installation
- Constant voltage and constant current modes
- Voltage and current monitor terminals
- Voltage and current programming capabilities
- Short circuit and overload protection
- Thermal protection
- No minimum load required
- Adjustable down to 0 volts on the Wide Adjust models
- Internal EMI Filter and RFI Shielding
- Pluggable connectors for input and control wiring
- Remote Sensing
- 'Soft start' operation
- Factory wired and tested.

#### Benefits

- Reduced weight- all components are within a small 60lb enclosure
- Most efficient 120VDC Lighting control on the market
- Eliminated the large inefficient out dated mechanical voltage transformers
- Durable Design- All voltage regulation is performed within state of the art rugged solid state power supplies; there are no additional components to fail
- Modular design can be configured to any load specification: 600W, 1200W, 1400W, please specify if not 1200W
- Modular Design can be configured for multiple lighting zones- please specify if not 1 zone
- Modular design can be configured to accept multiple input voltages (120 1Ph/208 3Ph) please specify if not 120V 1 Ph
- Reduces installation time and cost by eliminating delays in obtaining individually enclosed components and by eliminating on site assembly.
- Provides a standardized platform for other future modifications or upgrades.

## 4. Specifications

The DC Lighting Controller is provided in a steel enclosure suitable for surface or wall mounting. Install the controller in an area that is suitable for ventilated equipment and that provides unobstructed air flow to the bottom and upper right of the enclosure. Although the panel is louvered there are no filters installed so that air can freely circulate through the enclosure. It is recommended that the louvers be covered during finishing work of drywall surfaces.

<b>Model</b>	NEA1200DCLC
<b>Application</b>	The DC Lighting Control Unit is the ideal DC power supply to meet the hospital-grade lighting power requirements of RF-shielded MRI suites.
<b>Input Voltage</b>	90-265V AC, 49-420Hz, Single Phase or 110-350V DC.
<b>Input Current</b>	AC input (maximum): 12 A DC input (maximum): 8 A
<b>Output Voltage</b>	0-120 V DC Variable or 120V DC fixed.
<b>Power Factor</b>	0.99 is typical at 115 V AC, 60 Hz input and full load. Complies with EN61000-3-2
<b>Regulation</b>	Line Regulation: $\pm 0.2\%$ or 30 mA.
<b>Polarity</b>	Output is floating and may be used in either polarity
<b>Approvals</b>	UL/cUL



**Figure 2 Nova DC Lighting Controller**

## 5. Weights and Dimensions

The controller may be semi flush mounted within a 6" deep wall. This will leave exposed approximately 2.27" extending past the finish drywall surface.

<b>Model</b>	NEA1200DCLC
<b>Dimensions</b>	Height: 23.62" (600mm) Width:14.96" (380mm) Depth: 8.27" (210mm)
<b>Weight</b>	144 lbs. (65.32 kg)
<b>Mounting</b>	Rear wall mounting holes (4). Spaced 0.79" (20mm) from enclosure edge.  Optional mounting brackets are available
<b>Enclosure</b>	16 Gauge Carbon Steel, all rounded corners 1 gland plate in the enclosure base.
<b>Enclosure Sealing</b>	Foamed-in place polyurethane door gasket
<b>Finish</b>	Dip coat primed, powder coated in textured RAL 7035
<b>Latching Mechanism</b>	Two ¼ turn latches with double-bit inserts (cam lock). Door is hinged on left side but can be swapped if specified when order is placed.
<b>Interior Panel</b>	Zinc-Plated subpanel
<b>Protection Category</b>	IP 66 to EN60 529/09:2000, complies with NEMA 4  Enclosure Approvals: UL, CSA, TUV, GL, Lloyds, VDE, Bureau Veritas

## 6. 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.

## 7. Product Service and Technical Assistance

Nova Automation, LLC  
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Milwaukee WI 53210  
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Website: [www.NovaAutomation.net](http://www.NovaAutomation.net)

## 8. Approvals

**Prepared By** \_\_\_\_\_

([Job Title])

This document requires the following approvals

**Approved By** \_\_\_\_\_

([Job Title])

\_\_\_\_\_

([Job Title])

**Approval Date** \_\_\_\_\_