



**Outdoor Inverters for  
Emergency Lighting  
Illuminator Series CR & DR**

# THE ILLUMINATOR SERIES CR & DR

The Illuminator Series CR & DR is an emergency lighting inverter available in single or three phase for installation outdoors. The inverter transfers to emergency mode within 2ms when utility power is lost which allows the system to support all types of lighting loads including HID. The outdoor rated cabinet allows installation in remote locations and where space is not available indoors. Combining more than thirty years of experience, this product uses the latest technologies to provide all of the features and benefits for a truly reliable emergency lighting system.

## Reliable Performance

The Illuminator CR & DR is designed to work with all types of lighting loads. The system will support HID, incandescent, fluorescent, quartz, LED, and halogen lamps. It is designed to work with both normally on and optional normally off circuits. The system incorporates 2X ratings on all critical components. The LVD (Low Voltage Disconnect) provision eliminates excessive battery drain during prolonged power outages.

## Diagnostics

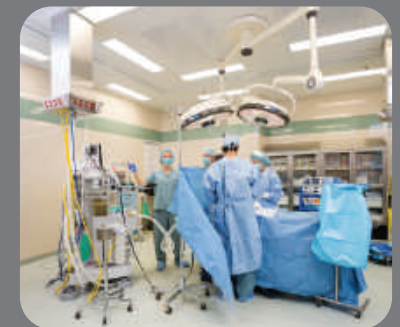
The self-diagnostic and self-testing features provide over 120 parameters. It also supports three separate logs for Test, Event, and Alarm. The features are designed to ensure that the system meets all current and pertinent NFPA codes.



# APPLICATIONS



- 911 Facilities
- Airports
- Apartment / Condominium Complexes
- Assisted Living Centers & Nursing Homes
- Banks & Financial Institutions
- Casinos
- Government Buildings & Data Centers
- Grocery Stores / Home Center Stores
- Hospitals
- Hotels / Motels
- Industrial & Commercial Spaces
- Medical & Other Office Buildings
- Military Complexes
- Theaters
- Parking Garages
- Prisons
- Race Tracks
- Transit Stations
- Religious Facilities
- Restaurants
- Retail Department Stores & Malls
- Schools, Colleges & Day Care Centers
- Sports Facilities
- Storm Shelters
- Toll Booths, Tunnels & Bridges
- Many More



# SYSTEM DISPLAY FUNCTIONS



## Meter Functions

- AC Voltage Input
- AC Voltage Output
- AC Current Output
- Battery Voltage
- System Days
- Battery Current
- VA Output
- Inverter Watts
- Ambient Temperature
- Inverter Minutes

## Program Functions

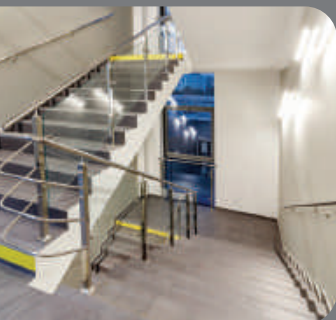
- Date
- Time
- Month Test Date / Time
- Yearly Test Date / Time
- Load Fault Reduction Setting
- Low Battery Alarm
- Near Low Battery Alarm
- Low AC Voltage Alarm
- High AC Voltage Alarm
- Ambient Temperature Alarm

## Control Functions

- Test Log & Event Log
  - 75 Logs Stored
  - Date, Time, Duration
  - Output Voltage
  - Output Current
  - Ambient Temperature
  - Alarms Preset
- Alarm Log
  - 50 Logs Stored
  - Date, Time, Alarm Type
  - Test
  - Buzzer On / Off

# AVAILABLE OPTIONS

- Internal Maintenance Bypass Switch (Included in Base Model)
- Fax Modem
- Time Delay
- Output Circuit Breakers
- Output Trip Alarm
- Heater
- External Maintenance Bypass Switch
- Remote Meter Panel
- Summary Alarm Contacts (Included in Base Model)
- Fast Charge
- Normally Off Output
- Remote Summary Alarm Panel
- Inverter on Form C Contact
- Seismic "Standard" Certified to Floor



# SPECIFICATIONS

|                               |  | Illuminator CR   |           |           |           |           | Illuminator DR   |           |           |           |
|-------------------------------|--|--|-----------|-----------|-----------|-----------|--|-----------|-----------|-----------|
| POWER RATING                  |  | 3.0kVA   | 4.0kVA    | 5.0kVA    | 6.5kVA    | 8.0kVA    | 4.0kVA   | 5.0kVA    | 6.5kVA    | 8.0kVA    |
| DIMENSIONS                    |  | H: 76" W: 48" D: 30"   |           |           |           |           | H: 76" W: 48" D: 30"   |           |           |           |
| WEIGHT                        |  | 1,545 lbs  | 1,693 lbs | 1,990 lbs | 2,285 lbs | 2,580 lbs | 1,693 lbs  | 1,990 lbs | 2,285 lbs | 2,580 lbs |
| INPUT VOLTAGE                 |  | 120VAC or 277VAC 1-Phase, 2W+G+10/-15%<br>Contact factory for other voltages   |           |           |           |           | 120/208 VAC or 277/480VAC 3-Phase, 4W+G +10/-15%<br>Contact factory for other voltages |           |           |           |
| INPUT POWER WALK-IN           |  | Limiting inrush current to less than 125%, 10 times for 1 line cycle   |           |           |           |           |  |           |           |           |
| INPUT FREQUENCY               |  | 60Hz +/- 3%  |           |           |           |           |  |           |           |           |
| SYNCHRONIZING SLEW RATE       |  | 1Hz per second nominal   |           |           |           |           |  |           |           |           |
| PROTECTION                    |  | Input circuit breaker  |           |           |           |           |  |           |           |           |
| HARMONIC DISTORTION - VOLTAGE |  | < 5% from 50% to 100% Linear load  |           |           |           |           |  |           |           |           |
| SYSTEM SHORT CIRCUIT          |  | 65 kAIC  |           |           |           |           |  |           |           |           |
| OUTPUT VOLTAGE                |  | 120VAC or 277VAC 1-phase 2W+G<br>Contact factory for other voltages  |           |           |           |           | 120/208 VAC or 277/480VAC 3-Phase, 4W+G<br>Contact factory for other voltages          |           |           |           |
| STATIC VOLTAGE                |  | Load current change +/- 2%, battery discharge +/- 12.5%  |           |           |           |           |  |           |           |           |
| DYNAMIC VOLTAGE               |  | +/- 2% For a +/- 25% load step change, +/- 3% For a 50% load step change, recovery within 3 cycles   |           |           |           |           |  |           |           |           |
| HARMONIC DISTORTION - VOLTAGE |  | <3% THD for linear load  |           |           |           |           |  |           |           |           |
| OVERLOAD                      |  | Fuse protected   |           |           |           |           |  |           |           |           |
| OUTPUT FREQUENCY              |  | 60Hz +/- .05Hz During emergency mode   |           |           |           |           |  |           |           |           |
| LOAD POWER FACTOR             |  | .5 Lag to .5 lead  |           |           |           |           |  |           |           |           |
| INVERTER OVERLOAD             |  | 280% for 12 line cycles, 115% for 10 minutes, up to 125% for 5 minutes   |           |           |           |           |  |           |           |           |
| PROTECTION                    |  | Optional main circuit breaker and/or optional branch breakers  |           |           |           |           |  |           |           |           |
| CREST FACTOR                  |  | 2.8  |           |           |           |           |  |           |           |           |
| BATTERY TYPE                  |  | Front access valve-regulated sealed lead-calcium   |           |           |           |           |  |           |           |           |
| CHARGER                       |  | Microprocessor controlled for various battery types and temperature compensating (Recharge per UL-924 specification)   |           |           |           |           |  |           |           |           |
| PROTECTION                    |  | Automatic low-battery disconnect; Automatic restart upon utility return  |           |           |           |           |  |           |           |           |
| DISCONNECT                    |  | Fuse   |           |           |           |           |  |           |           |           |
| TRANSPORT                     |  | Built-in handles   |           |           |           |           |  |           |           |           |
| ALTITUDE                      |  | < 10,000 feet (above sea level) without derating   |           |           |           |           |  |           |           |           |
| OPERATING TEMPERATURE         |  | Inverter: 50° to 104°F (10° to 40°C); -4° to 104°F (-20° to 40°C) with optional heater (maintaining 90 minute run UL-924 rating)   |           |           |           |           |  |           |           |           |
| STORAGE TEMPERATURE           |  | -4° to 158°F (-20° to 70°C) (Electronics only)   |           |           |           |           |  |           |           |           |
| RELATIVE HUMIDITY             |  | < 95% (Non-condensing)   |           |           |           |           |  |           |           |           |
| DESIGN                        |  | Standby no break. PWM inverter type utilizing IGBT technology with 2ms transfer time; 98% efficiency   |           |           |           |           |  |           |           |           |
| GENERATOR INPUT               |  | Compatible with generators   |           |           |           |           |  |           |           |           |
| CONTROL PANEL                 |  | Microprocessor controlled 2 x 20-character LCD display with touch pad controls / functions, 5 LED indicators & alarm   |           |           |           |           |  |           |           |           |
| METERING                      |  | Input & output voltage, battery voltage, battery & output current, output VA, temperature, inverter wattage  |           |           |           |           |  |           |           |           |
| ALARMS                        |  | High / low battery charger fault, near low battery, low battery, load temperature, inverter fault, output fault, optional circuit breaker trip   |           |           |           |           |  |           |           |           |
| COMMUNICATIONS                |  | RS-232 port (DB9)  |           |           |           |           |  |           |           |           |
| MANUAL MAINTENANCE BYPASS     |  | Internal standard; External optional.  |           |           |           |           |  |           |           |           |
| ALARM CONTACTS                |  | Standard summary form "C" contacts; Optional: Inverter On Contact (IOC) and/or status monitoring contacts  |           |           |           |           |  |           |           |           |
| WARRANTY                      |  | Electronics: 1 year standard warranty includes all parts, labor & travel expenses within 48 contiguous states;<br>Battery: 1 year full / 5 years prorated (Optional extended warranties, start up and service plans available) |           |           |           |           |  |           |           |           |
| CABINET                       |  | NEMA 3R, Freestanding, two-door, powder coat CRS standard  |           |           |           |           |  |           |           |           |
| COOLING                       |  | Forced air; temperature controlled fans  |           |           |           |           |  |           |           |           |
| CABLE ENTRY                   |  | Sides and bottom   |           |           |           |           |  |           |           |           |
| ACCESS                        |  | Front only   |           |           |           |           |  |           |           |           |
| SEISMIC MOUNTING              |  | Meets 2015 IBC, ASCE 7-10 & ACI 3-11 Occupancy Category III / Site Class D   |           |           |           |           |  |           |           |           |
| LOCKING DEVICE                |  | 3-Point locking latch with Corbin 60 lock  |           |           |           |           |  |           |           |           |



610-868-3500

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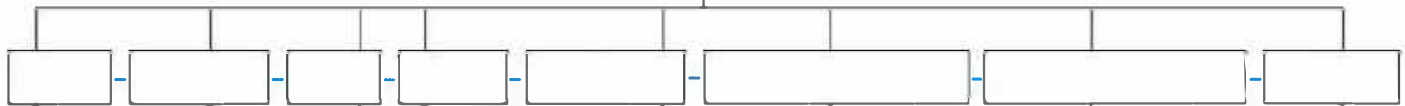
Specifications and dimensions are subject to change without notice.

Please contact your local Myers EPS representative for the most up-to-date information and product application support.

B-092020

# ORDERING GUIDE

Example Model Number:  
1-CR-4-S-BA2007-F-T-S-N-2YW



## SYSTEM TYPE

CR - Illuminator Series "CR"  
(1 Phase)  
DR - Illuminator Series "DR"  
(3 Phase)

## BATTERY TYPE

S - Standard (VRLA)

## OUTPUT BREAKERS<sup>6</sup>

Example: B A 20 07

## WARRANTY<sup>7</sup>

2YW - Factory Start-Up  
Extended 2-Year  
Warranty  
5YP - 5-Year Preventative  
Maintenance Plan,  
Start-Up Included  
5YW - 5-Year Extended  
Electronics Warranty

## VOLTAGE(INPUT-OUTPUT)<sup>1</sup>

1 - 120-120, 1PH  
2 - 120-120/277, 1PH  
3 - 208-120, 1PH  
4 - 240-120, 1PH  
5 - 277-120, 1PH  
6 - 277-277, 1PH  
7 - 277-277/120, 1PH  
8 - 120/208-120/208, 3PH  
9 - 277/480-277/480, 3PH  
Z - Other Voltages<sup>9</sup>

## KVA/KW<sup>2</sup>

3 - 3.0<sup>3</sup>  
4 - 4.0  
5 - 5.0  
6 - 6.5  
7 - 8.0

## RUNTIME<sup>4</sup>

(Other than 90 minutes)  
R120 - 120 Minutes<sup>8</sup>

## OUTPUT

B - Normally On  
N - Normally Off<sup>5</sup>

## VOLTAGE

A - 120, 1 pole  
B - 208, 2 pole  
C - 240, 2 pole  
D - 277, 1 pole  
E - 120/208, 3 pole  
F - 277/480, 3 pole

## AMP RATING

10, 15, 20, 25,  
30, 40, 50, 60

## QUANTITY

01 - 14<sup>6</sup>

(List all circuit breaker  
requirements separately  
ex: BA2007 - NA1001)

## OPTIONS

A - Remote Summary Alarm Panel  
H - Heater (Battery)<sup>10</sup>  
I - Inverter On Dry Contact  
R - Remote Meter Panel  
T - Output Trip<sup>6</sup>  
(Supervised) Alarm  
V - Time Delay (15 minute)  
(Requires "Normally Off" circuit)

- 1) Note: 1PH = 1 phase; 3PH = 3 phase
- 2) KVA = KW
- 3) Not available in 3 phase "DR" 90-minute run systems.
- 4) Standard battery run time is 90 minutes.
- 5) Normally off loads systems cannot exceed 20% of total KVA rating with any combination of H.I.D. loads.
- 6) Maximum output breakers available: 14 unsupervised (1-pole), 8 supervised (1-pole). Breakers provided are 20A unless specified unless specified otherwise. A 2-pole breaker occupies 2 positions. A three pole breaker occupies 3 positions.
- 7) One year warranty is standard.
- 8) 120 minute run NOT available on 8kVA system.
- 9) Requires external NEMA 3R transformer cabinet.
- 10) Heater is thermostatically controlled (factory set at 68 degrees F). Extends UL listed lower temperature limit to -4 degrees F.

## ACCESSORIES

MOD-Modem