



Job Name: _____

Type: _____

Part #: _____

Notes: _____



SPECIFICATIONS

The LSL Defender Plus maintains efficient AC Emergency Power to operate all emergency lighting fixtures at "full-light" output, providing superior dependability and security to commercial/industrial environments in a small footprint.

POWER RATING

- 2.4 KW - 4.2 KW (or 2,400 Watts - 4,200 Watts) single phase output unit uses the latest DSP/PWM technology to provide the most advanced performance and reliability features

INPUT

- 120V, 208V, 240V, 277V or 480V input 60Hz

OUTPUT

- 120V, 277V, 480V, 120/240 or 120/277VAC output 60Hz. True "on-line" design is $\geq 92\%$ efficient at 100% linear load

BATTERIES

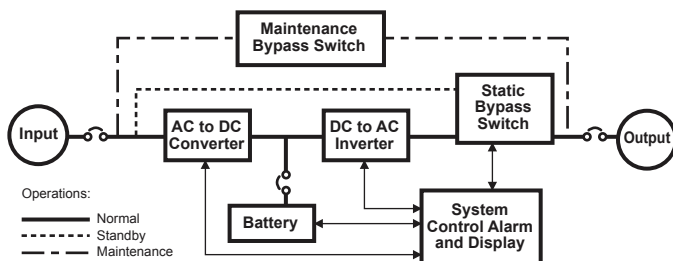
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- *Smart Battery Monitoring System* is **TEMPERATURE COMPENSATED** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP/PWM overcharge protection standard

LAMPS AND LOADS

- Emergency power provides **FULL LIGHT OUTPUT** from all lamps and fixtures for the entire runtime
- Operates fluorescent, compact fluorescent, incandescent, quartz, H.I.D., LED and other lamp types
- Standard or electronic ballasts, dimming devices or panels, sensors and most control equipment
- Standard or LED Exits and other safety equipment

CODES

- UL 924, UL 1778, meets NFPA 101, NFPA 70, NEC and OSHA standards
- Cities of Chicago and New York approved
- Complies with the Buy American Act



2.4 KW - 4.2 KW

Single Phase

Uninterrupted
Emergency
Lighting and
Power Systems



PROTECTION

- Provides overload, surge and undercurrent protection using technology and The *Watchdog*® Software to protect system performance and reliability
- Surge protection against load surges as defined in
- ANSI/IEEE C62.45 category A and B

DIAGNOSTICS AND MAINTENANCE

- Our technology and The *Watchdog*® Software provides complete self diagnostic capabilities and LED Monitoring
- Informative advanced Display and Alarms keep you in control of your emergency lighting environment 24/7
- Automatically performs periodic self-tests ensuring a safely lighted environment *prior* to an emergency
- Single point of testing instead of multiple testing points with battery packs

CABINET

- Space saving small footprint
- Modular design enables flexible installation

INSTALLATION

- Modular design and small footprint allow easy installation in electrical closet or other convenient locations
- Phone assisted factory start-up standard for all systems
- Extended warranty available

SPECIAL APPLICATIONS

- LSI 24/7 offers numerous UL924 optional devices to meet unusual or difficult application parameters
- ECM - Environmental Circuit Module allows fixtures and lamps on the emergency circuit(s) to be operated by normal switching and/ or dimming devices in NON-emergency conditions
- Dimming Panel Interface allows use with emergency lights controlled by common dimmer panel

WARRANTY

- 1-Year full warranty on system electronics
- Battery warranty 1-year with 9-years pro-rated
- System 1-year on-site warranty labor with MFG phone assisted start-up
- 5-Year power train warranty
- Maintenance contracts available



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| Defender Plus Series | Power Rating | UPS | | | Weight | British Thermal Unit | Battery Type | Voltage (VAC) | | Output Protection | Safety Approvals |
|----------------------|--------------|--------------------|-----|-----|--------|----------------------|---|---------------|---------------|--|---|
| | | Cabinet Dimensions | | | | | | Input | Output | | |
| LSDPLUS | KVA/KW | W | H | D | (lbs) | BTU's | Sealed, Maintenance free (AGM) lead calcium | <u>Select</u> | <u>Select</u> | Input and output circuit breakers standard | UL924 UL1778 NFPA 101 NFPA 70 NEC |
| | 2.4 | 26" | 44" | 26" | 700 | 652.8 | | 120, | 120, | | |
| | 2.6 | 26" | 44" | 26" | 700 | 707.2 | | 208, | 277, 480, | | |
| | 3.0 | 26" | 44" | 26" | 800 | 816 | | 240, | 120/240 | | |
| | 3.4 | 26" | 44" | 26" | 800 | 924.8 | | 277 | or | | |
| | 3.8 | 26" | 44" | 26" | 800 | 1033.6 | | or | 120/277 | | |
| 4.2 | 26" | 44" | 26" | 920 | 1142.4 | 480 | | | | | |

The LSL Defender Plus provides the simplicity and reliability that is critical when providing an alternative source of power to any environment. Easy installation ...”simplicity”...connect the Plus to the emergency circuit(s) and everything is backed up...”reliability”...during a power outage. All lighting connected to the Plus will simply continue to operate at “full light output”. The Watchdog© software keeps your environment safe while self-diagnostics help maintain equipment to a high standard. Superior surge suppression assures the highest quality of power being delivered to all loads, all the time. Equipment and lamp life are maximized.

We sincerely hope you never experience a real emergency, but if you do, you deserve the **security, safety and peace of mind** that the Defender Plus from **LSL 24/7** ensures.

ORDERING INFORMATION

Choose the bold face catalog nomenclature that best suites your needs.

Write them on the appropriate line. Order accessories as separate catalog number.

Example:

LSDPLUS - 4.2 - 277/277 - ECM277/3 OCB/277/3/20/1 - 45

Description of example:

(4.2 KW, 277 Voltage In, 277 Voltage Out, 3 277V Environmental Control Modules, 3 Output 277 Voltage Circuit Breakers at 20amps, 2 pole, 45 minute run time)

LSDPLUS

| FAMILY | POWER RATING | VOLTAGE ¹ | | OPTIONS | TIME ³ |
|--------|--------------|----------------------|--------------|--|-------------------|
| | KW | Input/Output | Input/Output | ECM120 - 120V Environmental control module ² qty | Minutes |
| | 2.4 | 120/120 | 240/120-240 | ECM277 - 277V Environmental control module ² qty | 5 |
| | 2.6 | 120/277 | 240/120-277 | NOF - Normally OFF output circuit/voltage / qty/pole | 10 |
| | 3.0 | 120/480 | 277/120 | NOH - Normally OFF "Hold ON"/voltage/qty/pole | 15 |
| | 3.4 | 120/120-240 | 277/277 | OCB - Output circuit breakers / voltage / quantity/amps/pole | 20 |
| | 3.8 | 120/120-277 | 277/480 | EPO - Emergency power off | 25 |
| | 4.2 | 208/120 | 277/120-240 | RSSP - Remote Indicator Panel | 30 |
| | | 208/277 | 277/120-277 | SNMP - SNMP Card | 45 |
| | | 208/480 | 480/120 | FC - Form C Contacts | 60 |
| | | 208/120-240 | 480/277 | SRB - Seismic rated bracket | 90 (Standard) |
| | | 208/120-277 | 480/480 | STU1 - Onsite start-up | 120 |
| | | 240/120 | 480/120-240 | IDB - Internal dimmer bypass | 180 |
| | | 240/277 | 480/120-277 | EMB - External maintenance bypass switch | 180 |
| | | 240/480 | | EW - Extended warranty | 240 |

NOTES:

1-Consult factory for other voltage requirements.

Special voltages may effect the weight, size and number or cabinets.

2-One ECM is used per switching device or circuit.

3-Consult factory for other run times.

Specifications subject to change without notice.