



Job Name: _____

Type: _____

Part #: _____

Notes: _____

DEFENDER 3



SPECIFICATIONS

The LSL Defender 3 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

- 3 KW - 125 KW (or 3,000 Watts - 125,000 Watts) three phase output unit uses the latest DSP/PWM technology to provide the most advanced performance and reliability features

INPUT

- 208Y/120, 480Y/277, 208 or 480VAC input 60Hz

OUTPUT

- 208Y/120 or 480Y/277VAC True "on-line" design is $\geq 92\%$ efficient at 100% linear load

BATTERIES

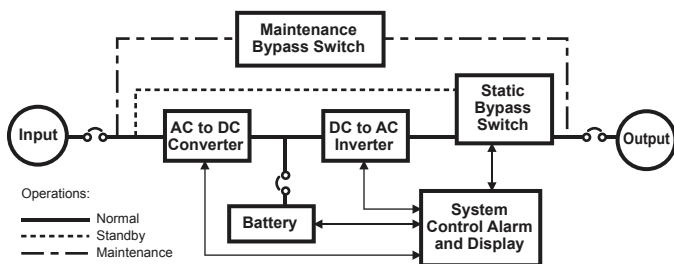
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- *Smart Battery Monitoring System* is **TEMPERATURE COMPENSATED** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP/PWM overcharge protection standard

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



3 KW - 125 KW

Three 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

- 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

- Modular design enables flexible installation
- Forced air cooling for maximum reliability
- All systems are self contained and require external battery cabinet(s)

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

- LSL 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 The phone assisted start-up
- 5-Year powertrain warranty
- Maintenance contracts available



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Defender 3 Series	Power Rating	UPS			Battery				Weight (combined)	British Thermal Unit	Battery Type	Voltage (VAC)		Output Protection	Safety Approvals
		Cabinet Dimensions			Cabinet Dimensions							Input	Output		
LSDE3	KVA/KW	W	H	D	No.	W	H	D	(lbs)	BTU's	Sealed, Maintenance free (AGM) lead calcium	208Y/120VAC, 480Y/277VAC, 208 or 480VAC (Consult factory for others)	Input and output circuit breakers standard	UL924 UL1778 NFPA 101 NFPA 70 NEC	
	3	42"	71"	22.5"	not required				980	816					
	4.5	42"	71"	22.5"	not required				1100	1224					
	6	42"	71"	22.5"	not required				1350	1632					
	8	42"	71"	22.5"	1	42"	71"	22.5"	1700	2176					
	10	42"	71"	22.5"	1	42"	71"	22.5"	2250	2720					
	12	42"	71"	22.5"	1	42"	71"	22.5"	2700	3264					
	16	42"	71"	22.5"	1	42"	71"	22.5"	2950	4352					
	20	42"	71"	22.5"	1	42"	71"	22.5"	3800	5440					
	24	42"	71"	22.5"	2	42"	71"	22.5"	4350	6528					
	30	42"	71"	22.5"	2	42"	71"	22.5"	5150	8160					
	40	42"	71"	22.5"	3	42"	71"	22.5"	6790	10880					
	50	42"	71"	22.5"	4	42"	71"	22.5"	8384	13600					
	60	50"	71"	32"	Consult Factory					16320					
	80	50"	71"	32"	Consult Factory					21760					
100	50"	71"	32"	Consult Factory					27200						
125	50"	71"	32"	Consult Factory					34000						

The LSL Defender 3 provides the simplicity and reliability that is critical when providing an alternative source of power to any environment. Easy installation ..."simplicity"...connect the LSDE3 to the emergency circuit(s) and everything is backed up..."reliability"...during a power outage. All lighting connected to the LSDE3 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 3 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:
LSLDE3 - 12.0 - 208Y/120 208Y/120- EMB OCB/120/3/20/1

Description of example:
 (12.0 KW, 208Y/120 Voltage In, 208Y/120 Voltage Out, External Maintenance Bypass Switch, 3 Output 120 Voltage Circuit Breakers at 20amps, 2 pole)

LSDE3	FAMILY	POWER RATING	VOLTAGE ¹	OPTIONS	TIME ³
		KW	Input - Output	ECM120 - 120V Environmental control module ² qty	Minutes
		3.0	208Y/120 - 208Y/120	ECM277 - 277V Environmental control module ² qty	5
		4.5	480Y/277 - 480Y/277	NOF - Normally OFF output circuit/voltage/ qty/pole	10
		6.0	208 - 208Y/120	NOH - Normally OFF "Hold ON"/voltage/qty/pole	15
		8.0	208 - 480Y/277	OCB - Output circuit breakers / voltage / quantity/amps/pole	20
		10.0	480 - 208Y/120	EPO - Emergency power off	25
		12.0	480 - 480Y/277	RSSP - Remote Indicator Panel	30
		16.0		SNMP - SNMP Card	45
		20.0		FC - Form C Contacts	60
		24.0		SRB - Seismic rated bracket	90 (Standard)
		30.0		STU3 - Onsite start-up	120
		40.0		IDB - Internal dimmer bypass	180
		50.0		EMB - External maintenance bypass switch	240
		60.0		EW - Extended warranty	
		80.0			
		100.0			
		125.0			

NOTES:
 1-Consult factory for other voltage requirements. Special voltages may effect the weight, size and number of cabinets.
 2-One ECM is used per switching device or circuit.
 3-Consult factory for other run times.