

FORTRESS 1 HARSH



SPECIFICATIONS

The LSL Fortress Harsh 1 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 an outdoor environment.

POWER RATING

- 0.075 KW - 21 KW (or 75 Watts - 21,000 Watts) single phase output unit uses the latest DSP/PWM technology to provide the most advanced performance and reliability features

INPUT

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

OUTPUT

- 120V, 208V, 240V, 277V, 480V, 120/240 or 120/277VAC
True "on-line" design is $\geq 92\%$ efficient at 100% linear load

BATTERIES

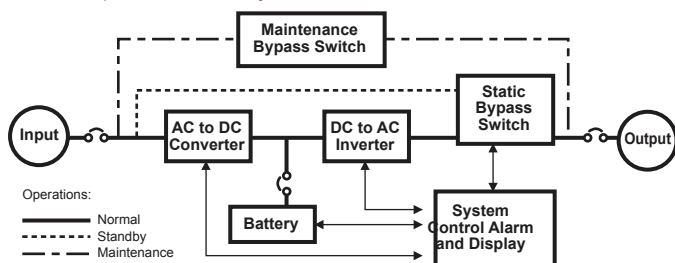
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- *Smart Battery Monitoring System* is **TEMPERATURE COMPENSATED** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP/PWM overcharge protection standard

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

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



0.075 KW - 21 KW

Single Phase

Uninterrupted
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

NEMA 4X or 12 CABINET

- Modular design enables flexible installation
- Forced air cooling for maximum reliability
- Systems up to 12 KW are self contained; larger systems require external battery cabinet(s)

INSTALLATION

- Modular design and small footprint allow easy installation in an outdoor environment
- 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 MFG phone assisted start-up
- 5-Year powertrain warranty
- Maintenance contracts available



Job Name: _____

Type: _____

Part #: _____

Notes: _____

Fortress Harsh 1	Power Rating	UPS			Battery			Weight (combined)	British Thermal Unit	Battery Type	Voltage (VAC)		Output Protection	Safety Approvals
		Cabinet Dimensions			Cabinet Dimensions						Input	Output		
LSFTH1 (Consult factory for others)	KVA/KW	W	H	D	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
	0.075	58"	72.8"	36"	not required			900	20.4					
	0.1	58"	72.8"	36"	not required			910	27.2					
	0.125	58"	72.8"	36"	not required			920	34					
	0.2	58"	72.8"	36"	not required			930	54.4					
	0.3	58"	72.8"	36"	not required			940	81.6					
	0.35	58"	72.8"	36"	not required			950	95.2					
	0.525	58"	72.8"	36"	not required			1140	142.8					
	0.7	58"	72.8"	36"	not required			1170	190.4					
	0.875	58"	72.8"	36"	not required			1190	238					
	1.05	58"	72.8"	36"	not required			1220	285.6					
	1.4	58"	72.8"	36"	not required			1350	380.8					
	2.0	58"	72.8"	36"	not required			1410	544					
	2.4	58"	72.8"	36"	not required			1460	652.8					
	2.6	58"	72.8"	36"	not required			1620	707.2					
	3.0	58"	72.8"	36"	not required			1730	816					
	3.4	58"	72.8"	36"	not required			1780	924.8					
	3.8	58"	72.8"	36"	not required			1830	1033.6					
	4.2	58"	72.8"	36"	not required			1980	1142.4					
	4.7	58"	72.8"	36"	not required			2350	1278.4					
5.25	58"	72.8"	36"	not required			2350	1428						
7.0	58"	72.8"	36"	not required			2600	1904						
8.0	58"	72.8"	36"	not required			2600	2176						
10.0	58"	72.8"	36"	not required			3050	2720						
12.0	58"	72.8"	36"	not required			3050	3264						
14.0	58"	72.8"	36"	58"	72.8"	36"	3700	3808						
18.0	58"	72.8"	36"	58"	72.8"	36"	4900	4896						
21.0	58"	72.8"	36"	58"	72.8"	36"	5300	5712						

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:

LSFTH1 - 8.0 - 120/277 - ECM277/3 OCB/277/3/20/1 - 180

Description of example:

(8.0 KW, 120 Voltage In, 277 Voltage Out, 3 277V Environmental Control Modules, 3 Output 277 Voltage Circuit Breakers at 20amps, 2 pole, 180 minute run time)

LSFTH1		POWER RATING		VOLTAGE ¹		OPTIONS		TIME ³	
FAMILY		KW		Input/Output	Input/Output	ECM120 - 120V Environmental control module ² /qty		Minutes	
		0.075	3.0	120/120	277/120	ECM277 - 277V Environmental control module ² /qty		5	
		0.1	3.4	120/277	277/277	NOF - Normally OFF output circuit/voltage / qty/pole		10	
		0.125	3.8	120/480	277/480	NOH - Normally OFF "Hold ON"/voltage/qty/pole		15	
		0.2	4.2	120/120-240	277/120-240	OCB - Output circuit breakers / voltage / quantity/amps/pole		20	
		0.3	4.7	120/120-277	277/120-277	EPO - Emergency power off		25	
		0.35	5.25	208/120	480/120	RSSP - Remote Indicator Panel		30	
		0.525	7.0	208/277	480/208	SNMP - SNMP Card		45	
		0.7	8.0	208/480	480/277	FC - Form C Contacts		60	
		0.875	10.0	208/120-240	480/480	STU1 - Onsite start-up		90 (Standard)	
		1.05	12.0	208/120-277	480/120-240	IDB - Internal dimmer bypass		120	
		1.4	14.0	240/120	480/120-277	EMB - External maintenance bypass switch		180	
		2.0	18.0	240/277		HTR - Heater		240	
		2.4	21.0	240/480		EW - Extended warranty			
		2.6		240/120-240					
				240/120-277					

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.