

## FORTRESS 1 HARSH

0.075 KW - 21 KW Single Phase Uninterrupted Emergency Lighting and Power Systems

### SPECIFICATIONS

The 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 ≥92% efficient at 100% linear load

### DIAGNOSTICS AND MAINTENANCE

- DSP/PWM technology and DSPM *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



### 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

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

### ORDERING INFORMATION:

FTH1		VOLTAGE <sup>1</sup>		OPTIONS		TIME <sup>3</sup>
FAMILY	POWER RATING	Input/Output	Input/Output			Minutes
	KW			ECM120 - 120V Environmental control module <sup>2</sup> /qty		5
	0.075 3.0	120/120	277/120	ECM277 - 277V Environmental control module <sup>2</sup> /qty		10
	0.1 3.4	120/277	277/277	NOF - Normally OFF output circuit/voltage / qty/pole		15
	0.125 3.8	120/480	277/480	NOH - Normally OFF "Hold ON"/voltage/qty/pole		20
	0.2 4.2	120/120-240	277/120-240	OCB - Output circuit breakers / voltage / quantity/amps/pole		25
	0.3 4.7	120/120-277	277/120-277	EPO - Emergency power off		30
	0.35 5.25	208/120	480/120	RSSP - Remote Indicator Panel		45
	0.525 7.0	208/277	480/208	SNMP - SNMP Card		60
	0.7 8.0	208/480	480/277	FC - Form C Contacts		90 (Standard)
	0.875 10.0	208/120-240	480/480	STU1 - Onsite start-up		120
	1.05 12.0	208/120-277	480/120-240	IDB - Internal dimmer bypass		180
	1.4 14.0	240/120	480/120-277	EMB - External maintenance bypass switch		240
	2.0 18.0	240/277		HTR - Heater		
	2.4 21.0	240/480		EW - Extended warranty		
	2.6	240/120-240				
		240/120-277				

Fortress Harsh 1	Power Rating	UPS			Battery			Weight (combined)	British Thermal Unit	Battery Type	Voltage (VAC)		Output Protection	Safety Approvals
		W	H	D	W	H	D				Input	Output		
FTH1 (Consult factory for others)	KVA/KW	W	H	D	W	H	D	(lbs)	BTU's	Sealed, Maintenance free (AGM) lead calcium	<i>Select</i>	<i>Select</i>	Input and output circuit breakers standard	UL924 UL1778 NFPA 101 NFPA 70 NEC
	0.35	41"	52"	32"	not required			950	95.2		120,	120,		
	0.525	41"	52"	32"	not required			1140	142.8		208,	277,		
	0.7	41"	52"	32"	not required			1170	190.4		240,	480,		
	0.875	41"	52"	32"	not required			1190	238		277	120/240		
	1.05	41"	52"	32"	not required			1220	285.6		or 480	or 120/277		
	1.4	41"	52"	32"	not required			1350	380.8					
	2.0	41"	52"	32"	not required			1410	544					
	2.4	41"	52"	32"	not required			1460	652.8					
	2.6	41"	52"	32"	not required			1620	707.2					
	3.0	41"	52"	32"	not required			1730	816					
	3.4	41"	52"	32"	not required			1780	924.8					
	3.8	41"	52"	32"	not required			1830	1033.6					
	4.2	41"	52"	32"	not required			1980	1142.4					
	4.7	41"	73"	32"	not required			2350	1278.4					
	5.25	41"	73"	32"	not required			2350	1428					
	7.0	41"	73"	32"	not required			2600	1904					
	8.0	41"	73"	32"	not required			2600	2176					
	10.0	41"	73"	32"	not required			3050	2720					
12.0	41"	73"	32"	not required			3050	3264						
14.0	41"	73"	32"	41"	52"	32"	3700	3808						
18.0	41"	73"	32"	41"	52"	32"	4900	4896						
21.0	41"	73"	32"	41"	52"	32"	5300	5712						

## BATTERIES

- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- DSP/PWM 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

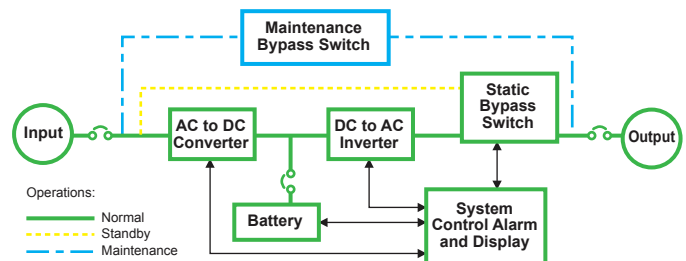
- Emergency power provides **FULL LIGHT OUTPUT** from all lamps and fixtures for the entire runtime
- Operates fluorescent, compact fluorescent, incandescent, quartz, H.I.D., LED and other lamp types
- Standard or electronic ballasts, dimming devices or panels, sensors and most control equipment
- Standard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

## NEMA 4 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)

## 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



## PROTECTION

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