Catalog Number	
Project	Notes
Signature	Date

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

BATTERIES

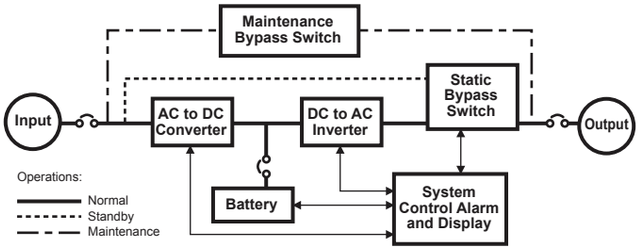
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- *DSP/PWM Smart Battery Monitoring System* is **TEMPERATURE COMPENSATED** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP/PWM overcharge protection standard

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

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 Envoy *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

- DSP/PWM technology and Envoy *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

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

083-0014-02 Rev. B

FORTRESS 1 HARSH

Fortress Harsh 1	Power Rating	UPS Cabinet Dimensions			Battery Cabinet Dimensions			Weight (com-bined)	British Thermal Unit	Battery Type	Voltage (VAC)		Output Protection	Safety Approvals
	KVA/KW	W	H	D	W	H	D	(lbs)	BTU's		Input	Output		
FTH1 (Consult factory for others)	0.075	58”	72.8”	36”	not required			900	20.4	Sealed, Maintance free (AGM) lead calcium	*Select* 120, 208, 240, 277 or 480	*Select* 120, 277, 480, 120/240 or 120/277	Input and output circuit breakers standard	UL924 UL1778 NFPA 101 NFPA 70 NEC
	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:

FTH1 - 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)

FTH1 — — — —

FAMILY

POWER RATING

KW	
0.075	3.0
0.1	3.4
0.125	3.8
0.2	4.2
0.3	4.7
0.35	5.25
0.525	7.0
0.7	8.0
0.875	10.0
1.05	12.0
1.4	14.0
2.0	18.0
2.4	21.0
2.6	

VOLTAGE[1]

Input/Output	Input/Output
120/120	277/120
120/277	277/277
120/480	277/480
120/120-240	277/120-240
120/120-277	277/120-277
208/120	480/120
208/277	480/208
208/480	480/277
208/120-240	480/480
208/120-277	480/120-240
240/120	480/120-277
240/277	
240/480	
240/120-240	
240/120-277	

OPTIONS

ECM120 - 120V Environmental control module[2]/ qty
ECM277 - 277V Environmental control module[2]/ qty
NOF - Normally OFF output circuit/voltage / qty/pole
NOH - Normally OFF “Hold ON”/voltage/qty/pole
OCB - Output circuit breakers / voltage / quantity/amps/pole
EPO - Emergency power off
RSSP - Remote Indicator Panel
SNMP - SNMP Card
FC - Form C Contacts
STU1 - Onsite start-up
IDB - Internal dimmer bypass
EMB - External maintenance bypass switch
HTR - Heater
EW - Extended warranty

TIME[3]

Minutes
5
10
15
20
25
30
45
60
90 (Standard)
120
180
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.

FME Lighting ILLUMINATING INDUSTRIAL APPLICATIONS