

FORTRESS 1 HARSH

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

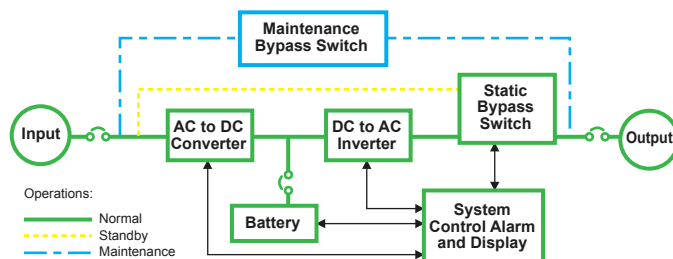
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- DSP/PWM Smart Battery Monitoring System is **TEMPERATURE COMPENSATED** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP/PWM overcharge protection standard

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



| | |
|----------------|-------|
| Catalog Number | |
| Project | Notes |
| Signature | Date |

0.075 KW - 21 KW

Single Phase

Uninterrupted Emergency Lighting and Power Systems



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

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

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)

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

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| 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 | | |
| FTH1 (Consult factory for others) | KVA/KW | W | H | D | W | H | D | (lbs) | BTU's | Sealed, Maintance free (AGM) lead calcium | Input | Output | Input and output circuit breakers standard | UL924 UL1778 NFPA 101 NFPA 70 NEC |
| | 0.35 | 41" | 52" | 32" | not required | | | 950 | 95.2 | | | | | |
| | 0.525 | 41" | 52" | 32" | not required | | | 1140 | 142.8 | | | | | |
| | 0.7 | 41" | 52" | 32" | not required | | | 1170 | 190.4 | | | | | |
| | 0.875 | 41" | 52" | 32" | not required | | | 1190 | 238 | | | | | |
| | 1.05 | 41" | 52" | 32" | not required | | | 1220 | 285.6 | | | | | |
| | 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 | | | | | | |

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

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.



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