



SPECIFICATIONS

The Defender 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 a small footprint.

POWER RATING

- 4.7 KW - 21 KW (or 4,700 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, 208V, 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

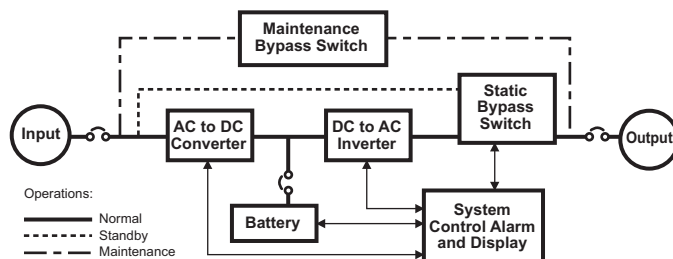
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year prorated warranty
- DSP Smart Battery Monitoring System is **TEMPERATURE COMPENSATED** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP overcharge protection standard

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

- Listed to UL 924, 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

4.7 KW - 21 KW

Single Phase

Uninterrupted Emergency Lighting and Power Systems



PROTECTION

- Provides overload, surge and undercurrent protection using DSP/PWM "Watchdog Monitoring" Protection System performance and reliability features
- Surge protection against load surges as defined in ANSI/IEEE C62.45 category A and B

DIAGNOSTICS AND MAINTENANCE

- DSP/PWM Watchdog Monitoring System provides complete self diagnostic capabilities and LED Monitor
- Informative advanced DSP 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
- Systems up to 14 KW are self contained; larger systems 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

- 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



Defender 1 Series	Power Rating	UPS			Battery			Weight (combined)	British Thermal Unit	Battery Type	Voltage (VAC)		Output Protection	Safety Approvals
		Cabinet Dimensions			Cabinet Dimensions						Input	Output		
DE1	KVA/KW	W	H	D	W	H	D	(lbs)	BTU's	Sealed, Maintenance free (AGM) lead calcium	Input	Output	Input and output circuit breakers standard	UL924 NFPA 101 NFPA 70 NEC
	4.7	42"	71"	22.5"	not required			1200	1278.4		<i>Select</i>	<i>Select</i>		
	5.25	42"	71"	22.5"	not required			1200	1428		120, 208, 240, 277 or 480 120/240 or 120/277			
	7.0	42"	71"	22.5"	not required			1450	1904					
	8.0	42"	71"	22.5"	not required			1450	2176					
	10.0	42"	71"	22.5"	not required			1820	2720					
	12.0	42"	71"	22.5"	not required			2210	3264					
	14.0	42"	71"	22.5"	not required			2550	3808					
	18.0	42"	71"	22.5"	42"	71"	22.5"	3750	4896					
21.0	42"	71"	22.5"	42"	71"	22.5"	4375	5712						

The Defender 1 provides the simplicity and reliability that is critical when providing an alternative source of power to any environment. Easy installation ..."simplicity"...connect the DE1 to the emergency circuit(s) and everything is backed up..."reliability"...during a power outage. All lighting connected to the DE1 will simply continue to operate at "full light output". DSPM 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 1 from **DSPM** 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:

DE1 - 8.0 - 120/277 - ECM277/3 OCB/277/3 - 30

Description of example:

(8.0 KW, 120 Voltage In, 277 Voltage Out, 3 277V Environmental Control Modules, 3 Output 277 Voltage Circuit Breakers, 30 minute run time)

DE1		VOLTAGE ¹		OPTIONS		TIME ³
FAMILY	POWER RATING	Input/Output	Input/Output			Minutes
	KW			ECM120 - 120V Environmental control module ² /qty		5
	4.7	120/120	240/120-240	ECM277 - 277V Environmental control module ² /qty		10
	5.25	120/208	240/120-277	NOF120 - Normally OFF output circuit / qty		15
	7.0	120/277	277/120	NOF277 - Normally OFF output circuit / qty		20
	8.0	120/480	277/208	NOH120 - Normally OFF "Hold ON"/qty		25
	10.0	120/120-240	277/277	NOH277 - Normally OFF "Hold ON"/qty		30
	12.0	120/120-277	277/480	OCB - 20 Amps output circuit breakers / voltage / quantity		45
	14.0	208/120	277/120-240	EPO - Emergency power off		60
	18.0	208/208	277/120-277	RSSP - Remote Indicator Panel		90 (Standard)
	21.0	208/277	480/120	SNMP - SNMP Card		120
		208/480	480/208	FAX - Fax Modem		180
		208/120-240	480/277	FC - Form C Contacts		240
		208/120-277	480/480	SRB - Seismic rated bracket		
		240/120	480/120-240	STU1 - Onsite start-up		
		240/208	480/120-277	IDB - Internal dimmer bypass		
		240/277		EMB - External maintenance bypass switch		
		240/480		EW - Extended warranty		

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.

Specifications subject to change without notice.



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