



DEFENDER PLUS

2.4- 4.2KW SINGLE PHASE UNINTERRUPTED EMERGENCY LIGHTING & POWER SYSTEM

The Defender Plus maintains efficient AC Emergency Power to operate all emergency lighting fixtures at “full-light” output after the transfer is complete, providing superior dependability and security to commercial and industrial environments in a small footprint.

POWER RATING

- 2.4KW – 4.2KW (or 2,400W – 4,200W) single phase output unit uses the latest DSP/PWM technology to provide the most advanced performance and reliability features

INPUT

- 120, 208, 240, 277 or 480V AC input 60Hz

OUTPUT

- 120, 277, 480, 120/240, 120/277 V AC output 60Hz
 True “on-line” design is $\geq 92\%$ efficient at 100% linear load

BATTERIES

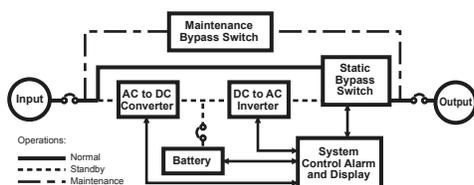
- Sealed, maintenance-free, lead calcium (AGM) batteries
- 10-Year pro-rated warranty
- Smart Battery Monitoring System is **Temperature Compensated** maintaining maximum runtime and battery life
- Microprocessor controlled recharge and DSP/PWM overcharge protection standard

LAMPS & 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

- UL924, UL1778, NFPA101, NFPA70, NEC & 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 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 & MAINTENANCE

- DSP/PWM technology and 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

CABINET

- Space saving small footprint
- Modular design enables flexible installation

INSTALLATION

- Modular design and small footprint allow easy installation in electrical closets or other convenient locations
- Phone assisted factory start-up standard for all systems
- Extended warranty available

SPECIAL APPLICATIONS

- 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

PLUS SERIES	POWER RATING	UPS			WEIGHT	BRITISH THERMAL UNITS	BATTERY TYPE	VOLTAGE (VAC)		OUTPUT PROTECTION	SAFETY APPROVALS
		CABINET DIMENSIONS						INPUT	OUTPUT		
USADPLUS	KVA/KW	W	H	D	(LBS)	BTUs	SEALED, MAINTENANCE FREE (AGM) LEAD CALCIUM	(select)	(select)	INPUT & OUTPUT CIRCUIT BREAKERS STANDARD	UL924 UL1778 NFPA101 NFPA70 NEC
	2.4	26"	44"	26"	700	652.8		120	120		
	2.6	26"	44"	26"	700	707.2		208	277		
	3.0	26"	44"	26"	800	816		240	480		
	3.4	26"	44"	26"	800	924.8		277	120/240		
	3.8	26"	44"	26"	800	1033.6		or 408	or 120/277		
4.2	26"	44"	26"	920	1142.4						

The Defender Plus provides the simplicity and reliability that is critical when providing an alternative source of power to any environment. Easy installation... "simplicity" ...connect the Defender Plus to the emergency circuit(s) and everything is backed up... "reliability" ...during a power outage. All lighting connections to the Defender Plus will simply continue to operate at "**FULL LIGHT OUTPUT**" once the transfer is complete. 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.

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 Plus 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:

USADPLUS-4.2-277/277-ECM277/3 OCB/277/3/20/1-45

Description of Example:

(4.2KW, 277 Voltage In, 277 Voltage Out, 3 277V Environmental Control Modules, 3 Output 277 Voltage Circuit Breakers at 20amps, 2 pole, 45 minute run time)

USACPLUS -

FAMILY	POWER RATING	VOLTAGE ¹		OPTIONS	TIME ³
		INPUT/OUTPUT	INPUT/OUTPUT		
	KW	INPUT/OUTPUT	INPUT/OUTPUT		Minutes
	2.4	120/120	240/120-240	ECM120 – 120V Environmental Control Module ² /qty	5
	2.6	120/277	240/120-277	ECM277 – 277V Environmental Control Module ² /qty	10
	3.0	120/480	277/120	NOF – Normally "OFF" output circuit/voltage/qty/pole	15
	3.4	120/120-240	277/277	NOH – Normally OFF "HOLD ON"/voltage/qty/pole	20
	3.8	120/120-277	277/480	OCB – Output Circuit Breakers/voltage/qty/amps/pole	25
	4.2	208/120	277/120-240	EPO – Emergency Power Off	30
		208/277	277/120-277	RSSP – Remote Indicator Panel	45
		208/480	480/120	SNMP – SNMP Card	60
		208/120-240	480/277	FC – Form "C" Contacts	90 (Standard)
		208/120-277	480/480	SRB – Seismic Rated Bracket	120
		240/120	480/120-277	STU1 – Onsite Start-up	180
		240/277	480/120-277	IDB – Internal Dimmer Bypass	240
		240/480		EMB – External Maintenance Bypass Switch	
				EW – Extended Warranty	

¹ Consult factory for other voltage requirements
² Special voltages may affect the weight, size and number of cabinets
³ One ECM is used per switching device or circuit
⁴ Consult factory for other run times