



Antron Electronics Co.,LTD
安雄電子股份有限公司

Emergency Lighting Inverter



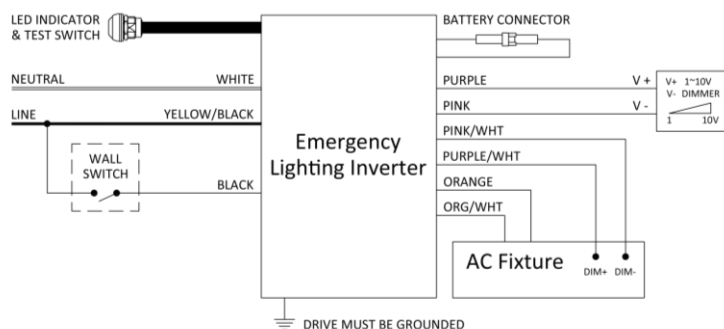
Model Name	IEMAP50-AC120/277
Output Mode	Pure Sine Wave
Input Voltage	120 - 277 Vac Universal Input
Input Frequency	50/60 Hz
Surge Immunity	6 kVpk for Ringwave, 6 kVpk for Combination Wave *Per ANSI/IEEE C62.41.2-2002
Features	Auto Dimming (0-10V) Auto Select Output Voltage (120 or 277 Vac)
Warranty	5 Years TC $\leq 60^{\circ}\text{C}$ 3 Years TC $\leq 70^{\circ}\text{C}$

Product Specification

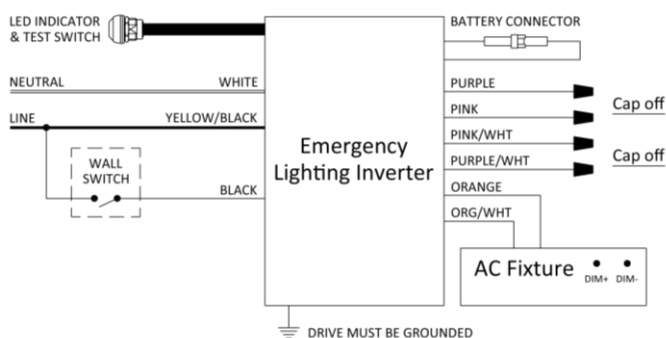


Output Power (W)	Output Voltage (V)	Operating Duration (Minutes)	Operating Temp. ($^{\circ}\text{C}$)	Battery Voltage (V)	Battery Charge Current (mA)	Battery Recharge Time	Input Power (W)	Input Current (mA)	Power Factor
50	120/277	Min. 90	0-50	12.8	Max. 500	24Hrs	Max. 14	Max. 120	>0.9

Wire Diagram



A. With 0-10V dimmer

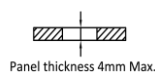


B. Without 0-10V dimmer

Maximum remote wiring distance : 1000ft (AWG#14) @full load or
600ft (AWG#18) @full load

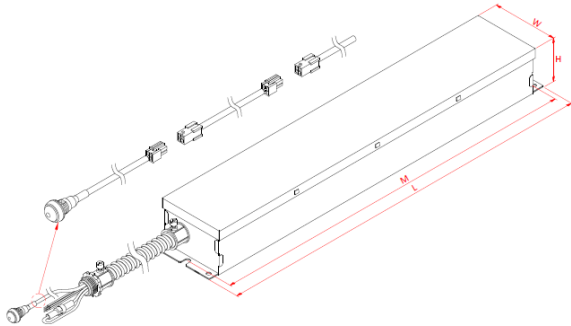
Lead Length	Inch	Cm
White	30.71	78
Yellow/Black	30.71	78
Black	30.71	78
Purple	30.71	78
Pink	30.71	78
Pink/White	30.71	78
Purple/White	30.71	78
Orange	30.71	78
Orange/White	30.71	78
Battery Connector	30.71	78
Test Switch	30.71	78
LED Indicator	23.62	60
Conduit	24	60.96

Mounting hole for test switch





Enclosure



AM250

Enclosure	Inch	Cm
Length(L)	20.67	52.5
Width(W)	2.24	5.7
Height(H)	2.05	5.2
Mounting(M)	20.28	51.5



Input Wiring				
Standard		Isolated Pass Relay		Others
☐		☐		
Power Activate				
Yes ☐			No ☐	
Output Lead Type				
Standard		Single Conduit		Dual Conudits
☐		☐		☐
Test Switch				
Type	Black & Red	White & Red	White & Translucent	Metal
Image	 IP 67	 IP 67	 IP 67	 IP 67
	☐ Red Light	☐ Red Light	☐ Red Light	☐ Red Light
Type	PVC Wire	Fire-Resistant Wire	R-Mount	Customization
Image				
	☐	☐	☐	☐
Panel				
Type	White	Metal	No Need	Others
Image				
	☐	☐	☐	



Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	108V	120/277V	305V	Universal Input
Input Current	-	-	0.120A	@120Vac input with full load
Input Frequency	47Hz	60Hz	63Hz	
Transfer Time	-	-	2.0s	From loss of normal power to transfer to emergency mode
Power Factor		> 0.9		
Input Power	-	-	14W	
Inrush Current		<20A		

Output Specifications

Specification ID	Specification Value	Notes
Output Voltage	Nominal: 120 Vac (+/-5%) Nominal: 277 Vac (+/-5%)	Auto select
Frequency	60 Hz	
Related Output Power	50 W	@ 0.65 leading to 0.65 lagging
Load Power Factor Range	0.65 leading to 0.65 lagging	
Output Configuration Types	Normally on (always on) or, Normally off (emergency only) or, Switched	
Emergency Operation	90 Minutes minimum	@full load
Output Voltage Waveform	Pure sine wave	Resistive load
Output Current THD	Less than 3%	Resistive load

Load Capacity Characteristic

Specification ID	Without 0-10V Dimming	With 0-10V Dimming
Maximum Steady-State Load	≤ 77 VA	≤ 250 W
Emergency Mode Load	≤ 77 VA	Dimmed to ≤ 84.6 VA
Overload Capacity	84.6 VA for up to 100 minutes.	0-10V dimming prevents overload



Other Specifications

Specification ID	Specification Value	Notes
Battery Charge Current	500 mA	LiFePO4, 10,000 mAh
Battery Voltage	12.8 V	
Battery Recharge Time	24 h	
Compatible Lighting Loads	LED, Fluorescent, Incandescent	
Remote Distance	1000 ft. (AWG#14 Wire gage) or 600 ft. (AWG#18 Wire gage)	Remote distance from the inverter to the load is limited by the losses in the wire.
Weight	2.3 kg	
MTBF	100,000 h	@25°C ambient temperature
Lifespan	75,000 h	Under normal use @ Ta = 50°C

Test Switch

Test Switch Operation	
With AC power source alive	
1.	Push and Hold, the unit will transfer from charge mode to discharge mode, the indicator is OFF.
2.	Release the test switch, the unit will back to charge mode automatically, the indicator is ON.

Protection

Parameter	Description
Short Circuit	Auto recovery 10 seconds after the short ckt removed
Over Temperature	Overheat protection with auto recovery feature

Environmental Specifications

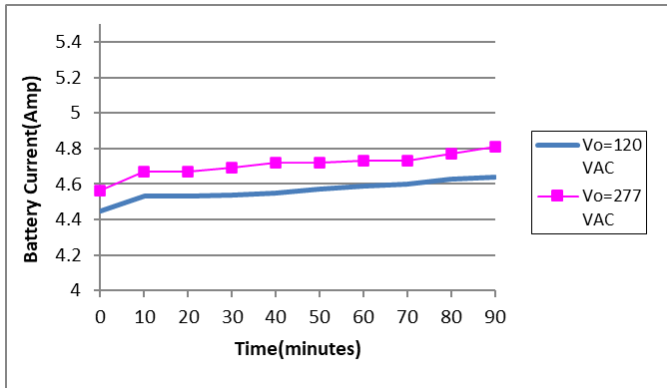
Parameter	Min.	Typ.	Max.	Notes
Operation Temperature	0°C	-	50°C	
Storage Temperature	-20°C	-	55°C	
Humidity	10%	-	90%	
T-Case Temperature	-	-	70°C	

Regulatory Compliance

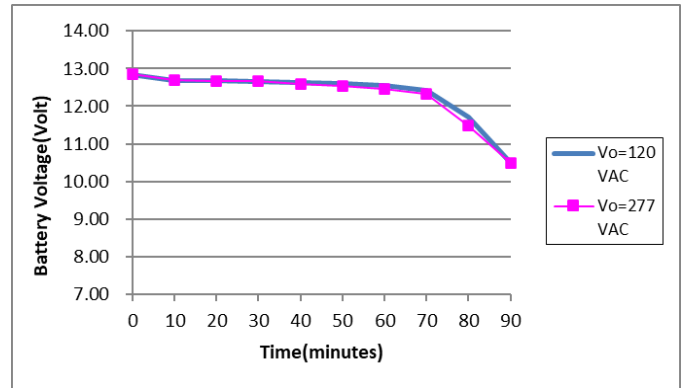
Standards
UL 924 Listed
cUL Listed to CSA C22 No. 141
CEC Title 20 approved
RoHS compliant
FCC Part 15 class A compliant



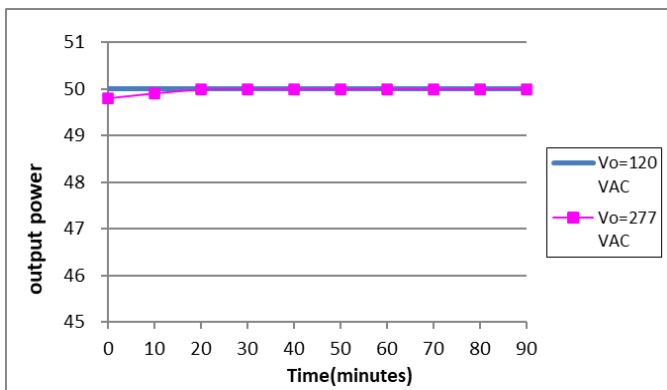
Battery Current V.S. Time



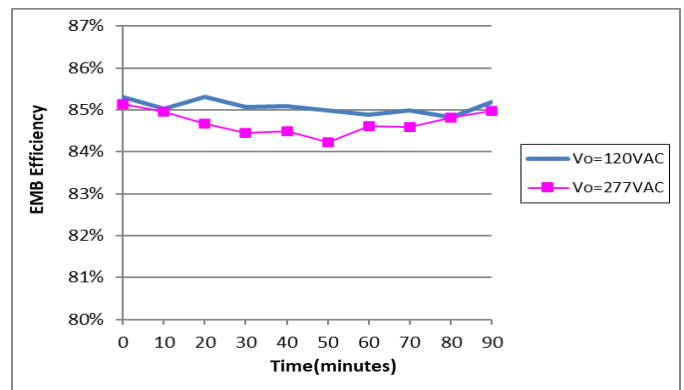
Battery Voltage V.S. Time



EMB Output Power V.S. Time



EMB Efficiency V.S. Time



Data is based upon tests performed by Antron Electronics in a controlled environment and representative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.



Revision History

Change date	Description of Change		
	Item	From	To
2023/12/08	Enclosure Drawing	/	Updated
2023/12/18	UL Certification	Pending	Approval
2023/12/19	1. Input Power 2. Input Current 3. Battery Charge Current in page 4	13.5W 115mA 400mA	14W 120mA 500mA
2023/12/20	1. Line Graph 2. Over Temperature	1. / 2. Shut down	1. Updated 2. Overheat protection with auto recovery feature
2024/06/28	Test Switch Operation	Push and Hold for 2 seconds	Push and Hold
2024/09/03	Battery Charge Current-Notes	9,200mAh	10,000mAh
2024/09/03	Description in page 2	The inverter's overload delivery capability is 115.4 VA for 10 minutes maximum.	Removed
2025/02/10	Lead Length	/	Updated
2025/03/11	The maximum normal-mode steady-state long-term load.	150 Watts	250 Watts
2025/04/22	1. Specification 2. Maximum remote wiring distance	1. Battery charge Time Min. 24Hrs 2. 300ft (AWG#18) @full load	1. Battery Recharge Time 24Hrs 2. 1000ft (AWG#14) @full load or 600ft (AWG#18) @full load
2025/08/28	Model name	EMLEDS50-AC120/277-12.8CHP-FTS	IEMAP50-AC120/277
2025/10/14	Transfer time	3.0s	2.0s