



MDR-503-12-60-LC



Note-

1. . UL file: E340871

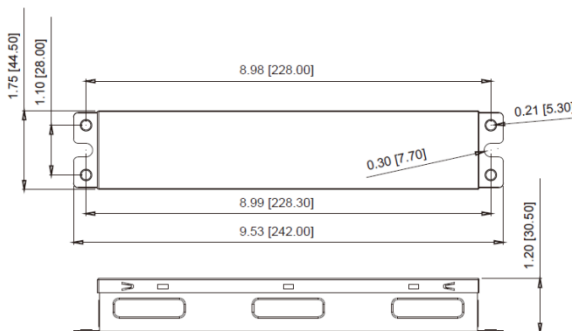
Mechanical and Thermal

Dimensions L9.53" X W1.75" X H1.20"

Weight 400g

•Lead Wire Length 6" (Standard)

Max. Case Operation Temp. 90°C



*Dimension in Inch(Metric)

Features

- 0-10V Dimming
- Constant Voltage Output
- UL1310 Class 2 Compliance
- Half Bridge Circuit Topology
- Low In-Rush Current
- 5 Year Warranty
- Precise output tolerance (+/-3%)
- UL Listed Class P

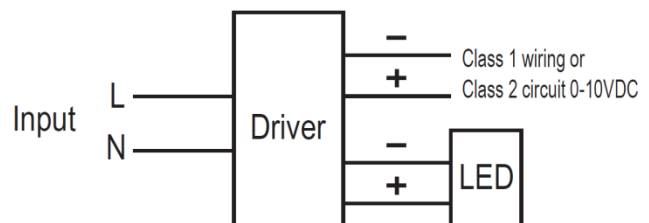
Protection

- Open circuit & Short circuit protection
- Overload protection
- Class 2
- Isolated 0-10V Dimming wires

Environmental Specifications

- Operating Temperature -20° to 60°C
- Storage Temperature -20° to 70°C
- MTBF >100,000 hrs
- -Lead Free SMT process

Wiring Diagram



1. Input – specification

	Units	Minimum	Typical	Maximum	Notes
Input Voltage Range(Vin)	Vac	108	120-277	304	
Input Frequency Range	Hz	50	60	63	
Input Power	W		60		
Power Factor(PF)		0.9	>0.9		From 100% to 80% of rated power
Input Current	A	-	-	0.5A@120VAC 0.22A@277VAC	
Inrush Current	A	Meet NEMA 410 requirements			See the inrush current information
Total Harmonics Distortion (THD)				20%	At nominal input voltage and nominal LED voltage
Efficiency		-	>84%	-	Efficiency is measured after driver has thermally stablized + full load
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

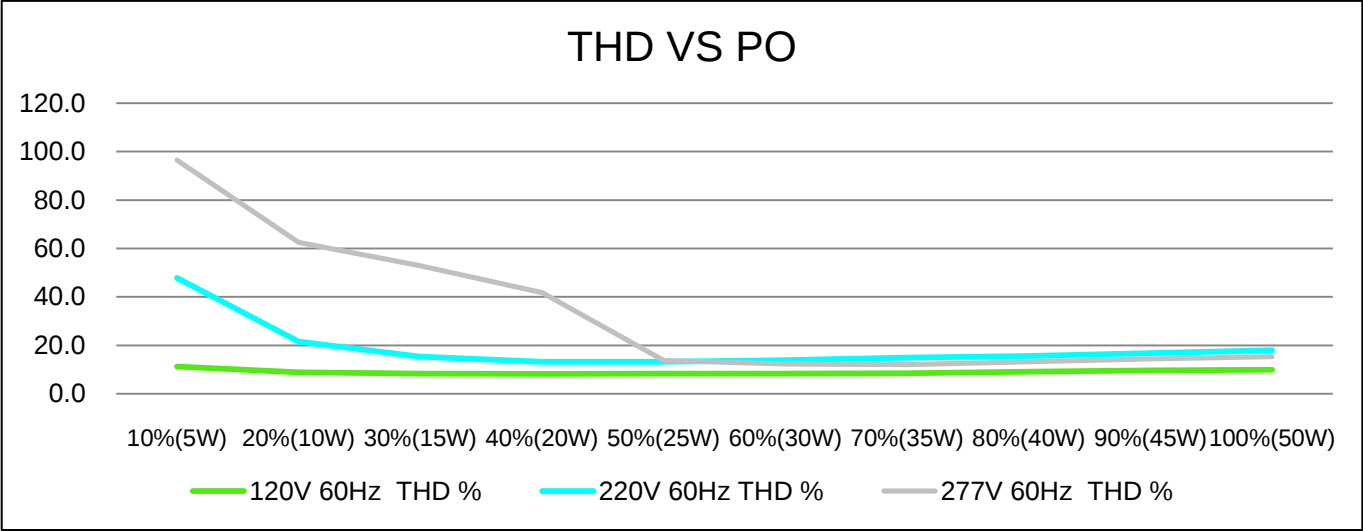
2. Output - specification

	Units	Minimum	Typical	Maximum	Notes
Output Voltage(Volt)	Vdc		12		
Output Current(Iout)	mA		5000		
Output Voltage Tolerance	%		±3		
Output Ripple Current	< 30% peak-to-peak of 5000 mA				≤ 20% pk-to-pk of the rated output current for all models with Vout max ≥ 24V ≤ 50% pk-to-pk of the rated output current for all models with Vout max ≤ 24V At nominal LED voltage and nominal input voltage without dimming
Dimming Range	%	4%		100%	Please refer to Dimmer compatibility list
Star-up Time	ms		200-300		- Measured at the Maximum load and normal input voltage. - Complies with California title 24 and Energy star® luminaire specification.
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				
Operation Case Temperature	°C	-30		90C	
Audible Noise	dB	< 24dB Class A			

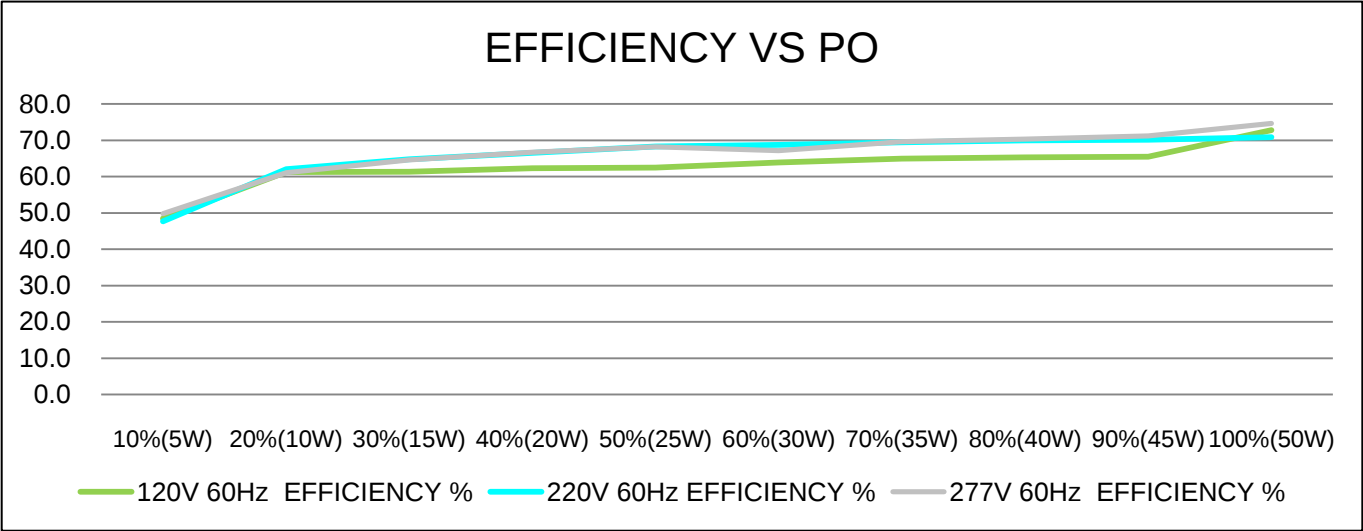
3. EMC / Protection / Compliance

Conducted and Radiated EMI		FCC CFR Title 47 Part 15 Class B and EN55015(CISPR 15) Class B compliant	
Immunity Compliance	ESD (Electrostatic Discharge)	IEC61000-4-2	6 kV contact discharge, 8 kV air discharge, level 3
	Electrical Fast Transient	IEC61000-4-4	±2 kV on AC power port for 1 minute, ±1kV on signal/control lines
	Surge	IEC61000-4-5	±2kV line to line/±2kV line to earth on AC power port, ±0.5kV for outdoor cables
Transient Protection	Ring Wave		ANSI/IEEE c62.41-1-2002 & c62.41-2-2002 category A, 2.5kV ring wave

THD of the driver VS Power Output (W)



Efficiency of the driver VS Power Output (W)

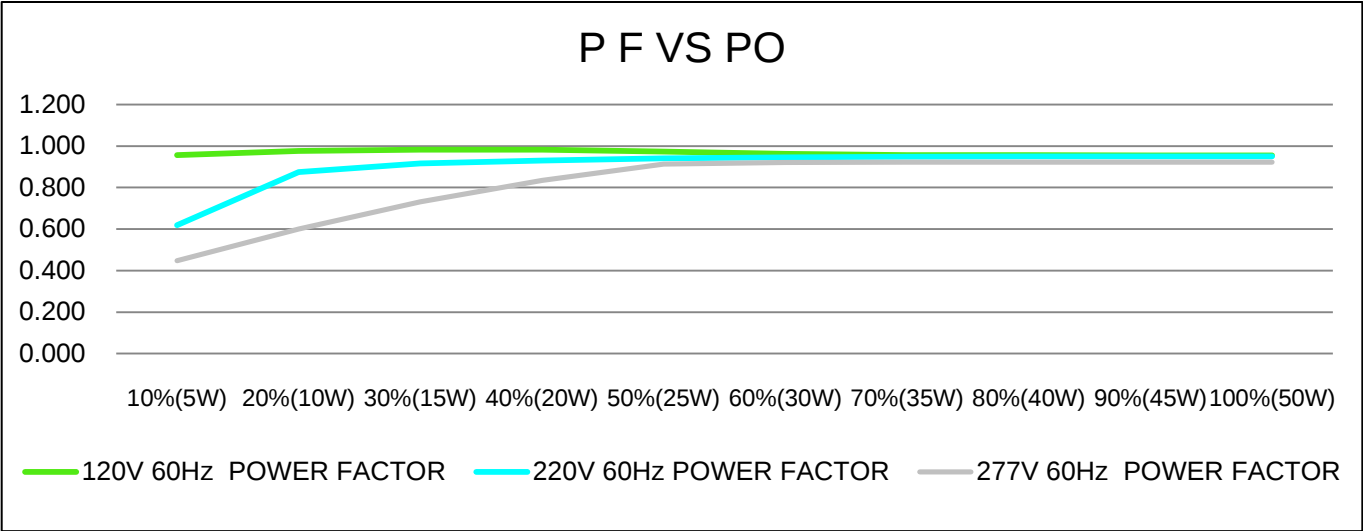


Macron Associate Co. – Power Supply Team

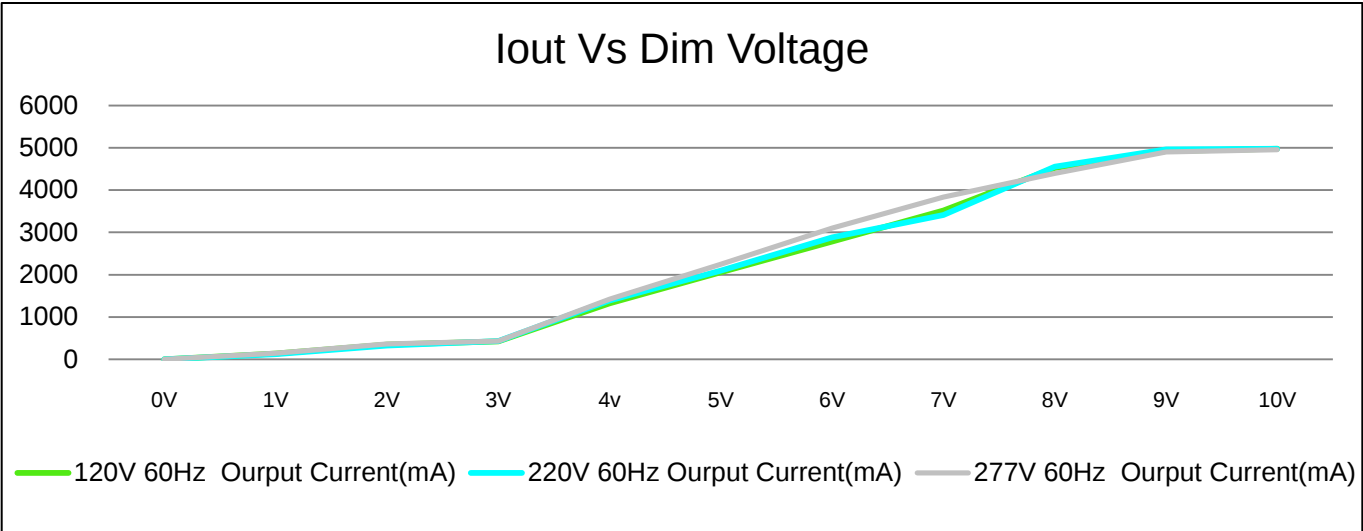
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Power Factor VS Power Output (W)



Lout of the driver VS Dim Voltage



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