



SPECIFICATIONS

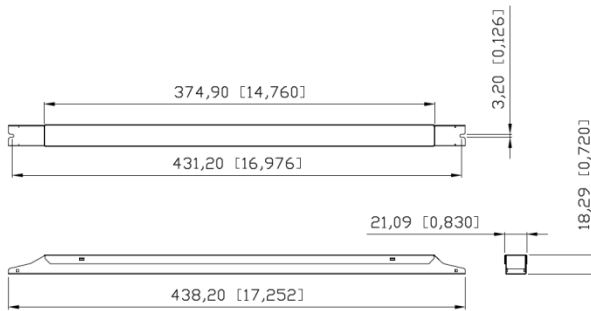
MDR-503-24-30-L8



Note-
1. UL file: E340871

Mechanical and Thermal

Dimensions	L16.976" X W0.83" X H0.72"
Weight	223g
Lead Wire Length	Terminals
Max. Case Operation Temp.	80°C



*Dimension in Metric(Inch)

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%)

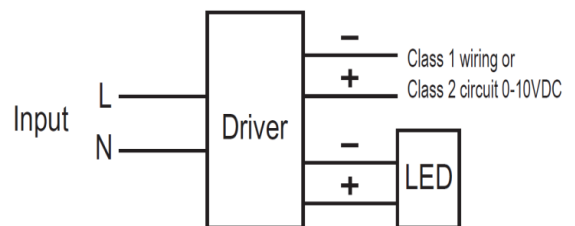
Protection

- Auto-reset electronic short circuit
- Overload protection
- Class 2

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		35		
Power Factor(PF)		0.9	>0.9		From 100% to 80% of rated power
Input Current	A	-	-	0.29A@120VAC 0.12A@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		-	>85%	-	Efficiency is measured after driver has thermally stabilized + full load
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

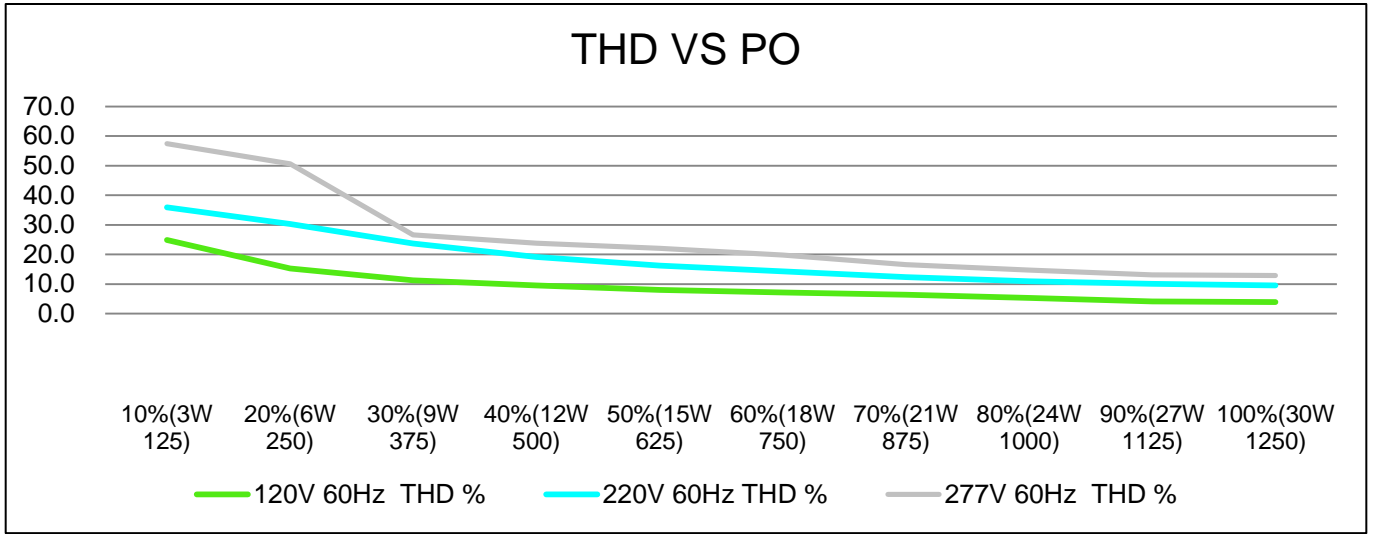
2. Output - specification

	Units	Minimum	Typical	Maximum	Notes
Output Voltage(Volt)	Vdc		24		
Output Current(Iout)	mA		1250		
Output Voltage Tolerance	%		±3		
Output Ripple Current	< 30% peak-to-peak of 1250 mA				<p>≤ 20% pk-to-pk of the rated output current for all models with Vout max ≥ 32V</p> <p>≤ 50% pk-to-pk of the rated output current for all models with Vout max ≤ 30V</p> <p>At nominal LED voltage and nominal input voltage without dimming</p>
Dimming Range	%	2%		100%	Please refer to Dimmer compatibility list
Star-up Time	ms		350-400		<ul style="list-style-type: none"> 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		80C	
Audible Noise	dB	< 24dB Class A			

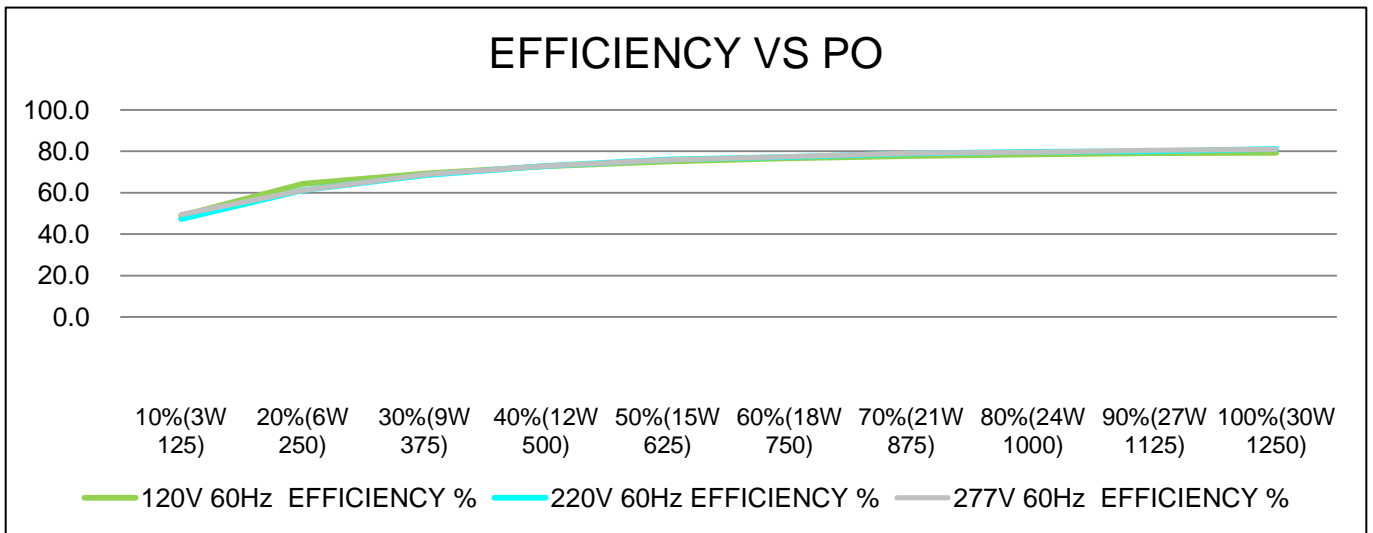
3. EMC / Protection / Compliance

Conducted and Radiated EMI		FCC CFR Title 47 Part 15 Class B and EN55022(CISPR 22) 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)

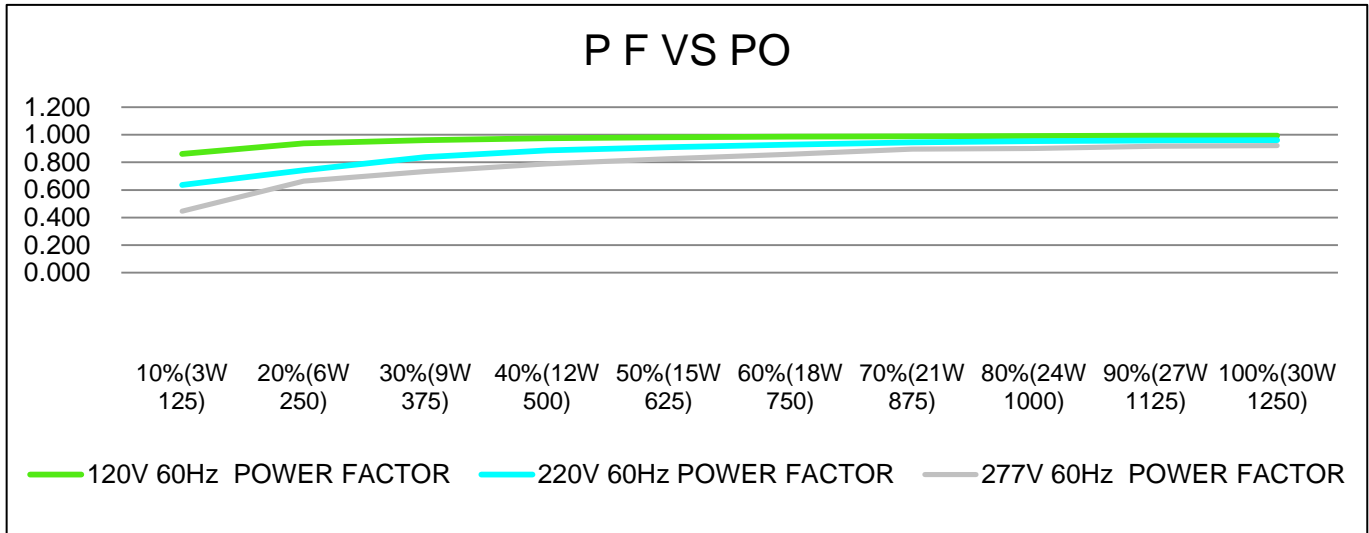


Macron Associate Co. – Power Supply Team

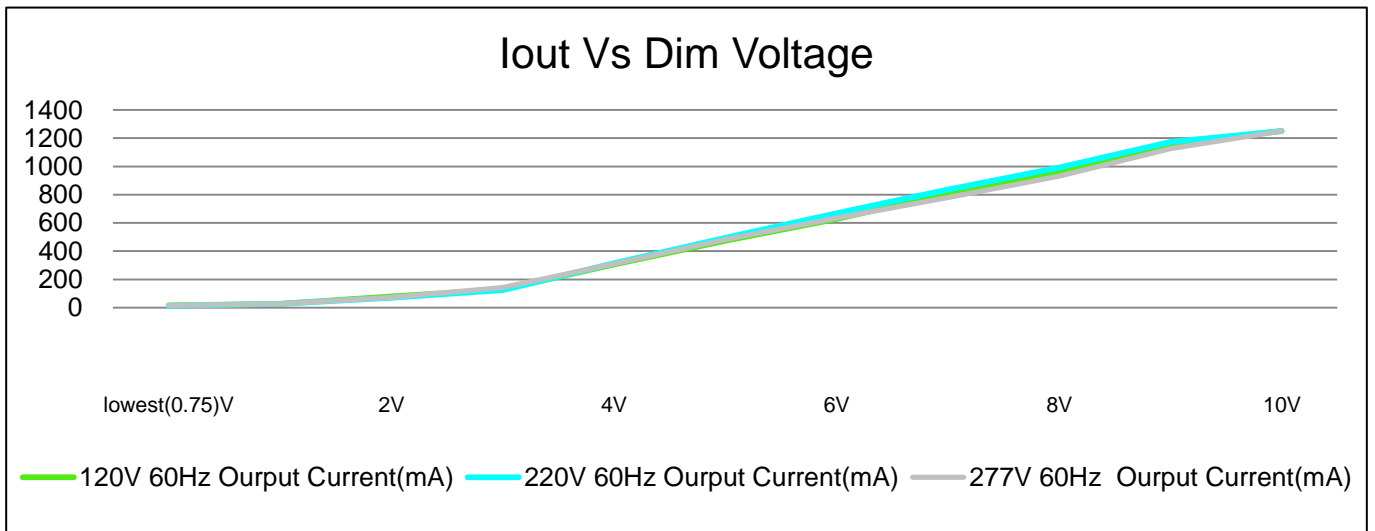
NO.352, Perng-Yi Road, Taiping, Taichung, Taiwan 411

TEL: 886-4-22708357 FAX: 886-4-22767307 Email: macron@macrongroup.com

Power Factor VS Power Output (W)



Lout of the driver VS Dim Voltage



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