



SPECIFICATIONS

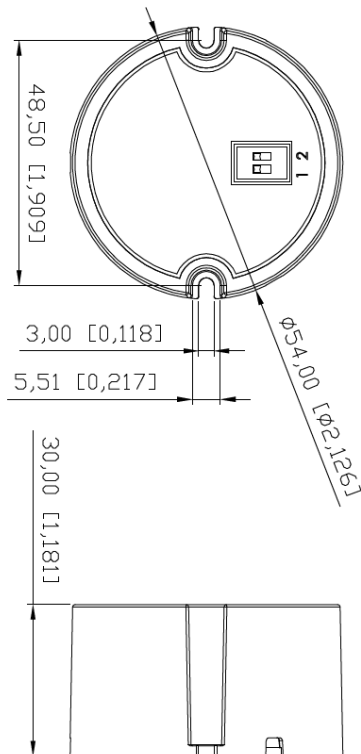


Note-

1. UL file: E340871

Mechanical and Thermal

Dimensions	Ø=2.126,H=1.181"
Weight	60g
Lead Wire Length	6.7"



Dimension in Inch/ Metric

MDR-701-500-13-R1

Features

- ✓ 0-10V & TRIAC/ELV Dimmable in 1
- ✓ Compact size
- ✓ Low profile
- ✓ Constant Current Output
- ✓ Active Power Factor
- ✓ Class 2 compliance
- ✓ 5 Year Warranty
- ✓ Universal Input (Dim on 120V For TRIAC/ELV & 120/277V For 0-10V)
- ✓ Ultra Slow Ripple
- ✓ Hot Wire Protection

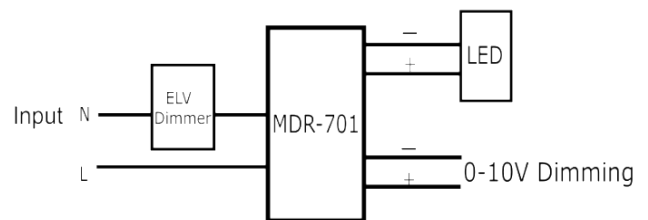
Protection

- Auto-reset electronic short circuit
- Overload protection
- Thermal 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		120-277		
Input Frequency Range	Hz	50	60	63	
Input Power	W		7		
Power Factor(PF)		0.9	>0.9		Nominal LED voltage
Input Current	A	-	-	0.3A@120VAC 0.13A@277VAC	
Inrush Current	A			4 A peak	According to IEC 60555
Total Harmonics Distortion (THD)				< 20%	At nominal input voltage and nominal LED voltage
Efficiency		-	> 80%	-	Efficiency is measured after driver has thermally stabilized + full load
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

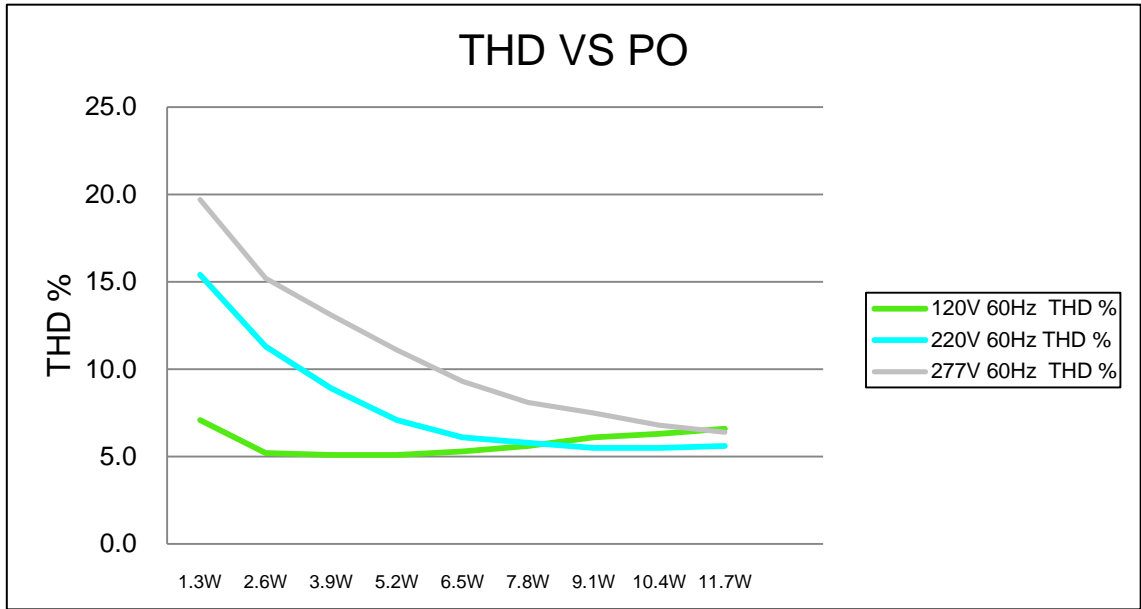
2. Output - specification

	Units	Minimum	Typical	Maximum	Notes
Output Voltage(Volt)	Vdc	17		28	
Output Current(Iout)	mA		500		Adjustable current setting; please refer to the current setting table
Output Current Tolerance	%		±3		
Output Ripple Current	< 20% peak-to-peak of 500mA				≤ 20% pk-to-pk of the rated output current for all models with Vout max ≥ 32V
					≤ 50% pk-to-pk of the rated output current for all models with Vout max ≤ 30V
					At nominal LED voltage and nominal input voltage without dimming
Dimming Range	%	3%		100%	Please refer to Dimmer compatibility list
Star-up Time	ms		100		With nominal LED voltage and without dimmer attached
			150		With nominal LED voltage, with an recommended dimmer attached(see dimmer compatibility list) and at the full dimming conduction angle
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				
Operation Case Temperation	°C	-30		80C	

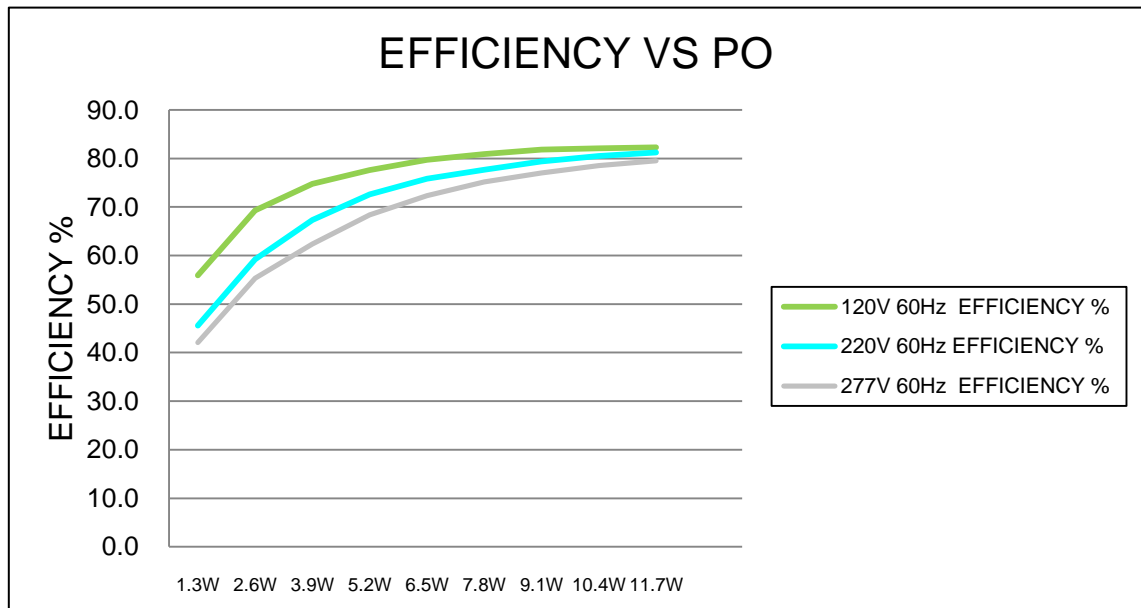
3. EMC / Protection / Compliance

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	±1kV 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		

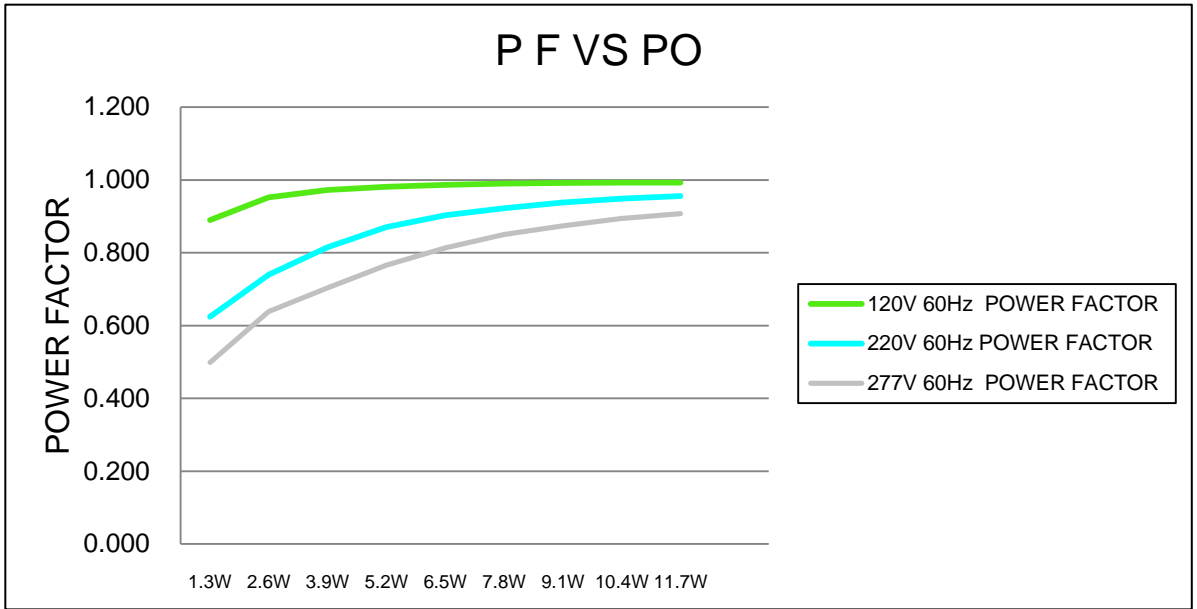
THD of the driver VS Power Output (W)



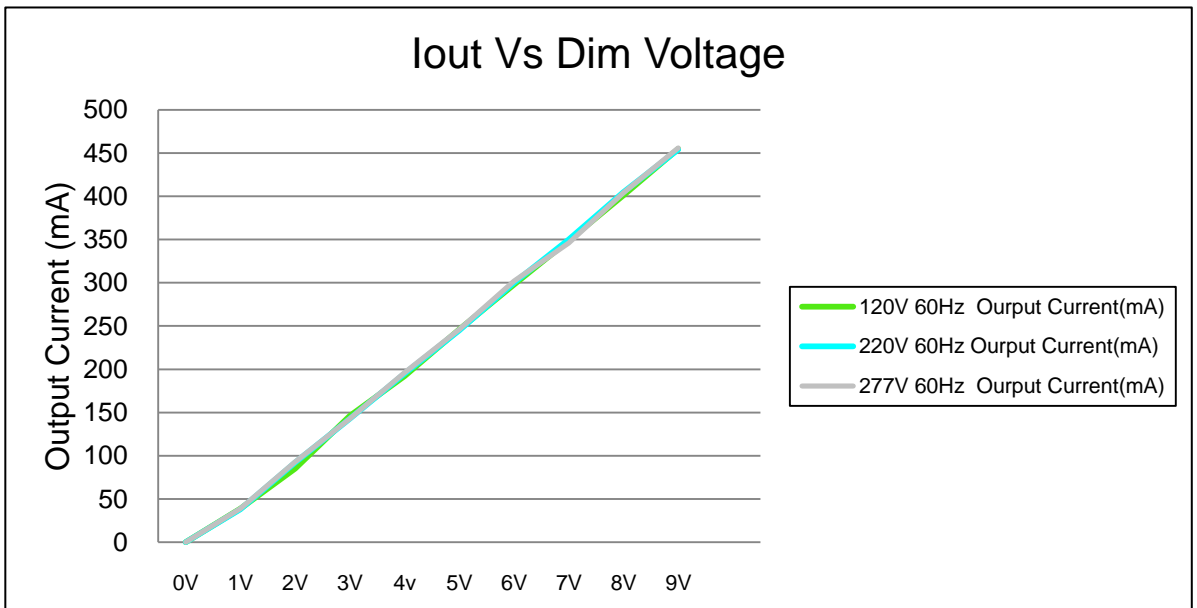
Efficiency of the driver VS Power Output (W)



Power Factor VS Power Output (W):



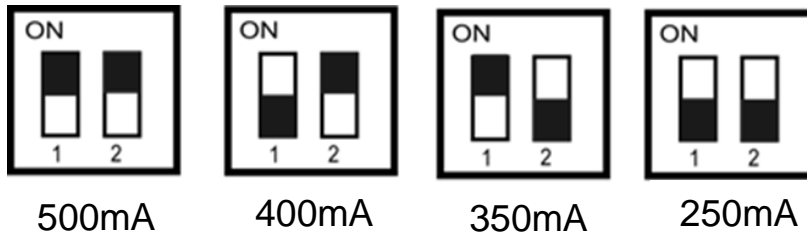
Out of the driver VS Dim Voltage



Current Settings :

LED Current Tolerance over temperature and component variations is $\leq 5\%$ at any level.

The output current of the driver can be adjusted using the two dip switches provided on the top of the driver. The below pictures shows the switch positions required to set the current to different levels.



The driver will be shipped out of factory with both switches set to ON (500mA).



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