#### Features

#### Wiring Diagram

- -Work for most 3-wire/2-wire dimmer
- -Compact size
- -Low profile /Metal Enclosure
- -Constant Current Output
- -Active Power Factor
- -Class 2 compliance
- -5 Year Warranty
- -Bottom Wire Exits
- -Programmable
- -Universal Input (120-277V, Dim on 120V)
- -Ultra Slow Ripple

# 120-277V N White MDR-602 Red+ LED

#### Mechanical and Thermal

Dimensions L3

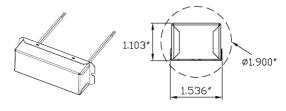
L3.74"XW1.536"XH1.103"

Lead Wire Length

6" (Standard)

Max. Case Operation Temp.

**80**℃



\* Dimension in Inch

#### **Protection**

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

# **Environmental Specifications**

-MTBF

>100,000 hrs

- -RoHS Compliant
- -Lead Free SMT process
- -Power Factor Correction / Low Load
- -FCC Part 15 Class B compliant



Note -

UL file No.:E340871



Macron Associate Co. - Power Supply Team

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# Input - specification1

	Units	Minimum	Typical	Maximum	Notes
Input Voltage Range(Vin)	Vac	108	120-277	304	
Input Frequency Range	Hz	50	60	63	
Input Power	W			11	
Power Factor(PF)		0.9	>0.9		>80% Load
Input Current	А	-	-	0.10A@120VAC 0.04A@277VAC	
Inrush Current	Α			4 A peak	According to IEC 60555 (120V)
Total Harmonics Distortion (THD)				20%	At nominal input voltage and nominal LED voltage
					2. Measure at full load
Efficiency		-	>80%	-	Efficiency is measured after driver has thermally stabilized + full load
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

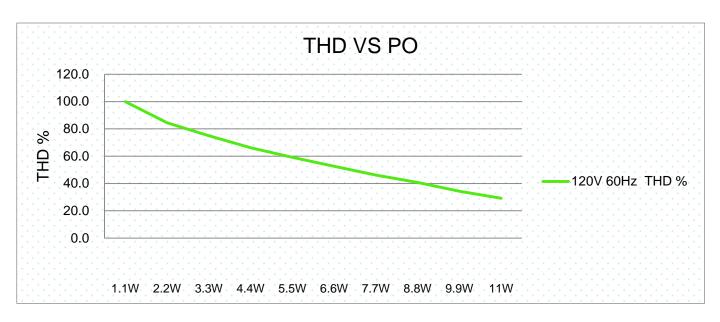
# **Output - specification**

	Units	Minimum	Typical	Maximum	Notes
Output Voltage(V out)	Vdc	30		42	
Output Current(I out)	mA		200/250		
Output Current Tolerance	%		±3		
				≤20% pk-to-pk of the rated output current for all models with Vout max≥32V	
Output Ripple Current		<20% peak	x-to-peak of 2	$\le$ 50% pk-to-pk of the rated output current for all models with Vout max $\le$ 30V	
				At nominal LED voltage and nominal input voltage without dimming	
Dimming Range	%	3%		100%	Please refer to Dimmer compatibility list
Start-up Time			200		With nominal LED voltage and without dimmer attached
	ms		250		With nominal LED voltage, with an recommended dimmer attached(see dimmer compatibility list) and at the full dimming conduction angle
Operation Case Temperature	°C	-30		80C	
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

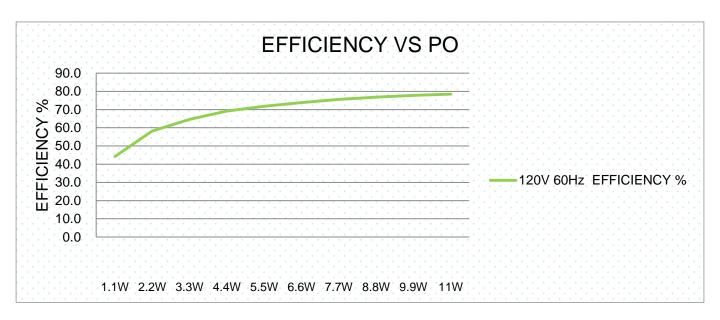
# **EMC / Protection / Compliance**

Conducted and Radiated EMI		FCC CFR Title 47 Part 15 Class B and EN55022(CISPR 22) Class B compliant			
	ESD (Electrostatic Discharge)	IEC61000-4-2	6 kV contact discharge, 8 kV air discharge, level 3		
Immunity Compliance	Electrical Fast Transient	IEC61000-4-4	$\pm 2$ kV on AC power port for 1 minute, $\pm 1$ kV 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		

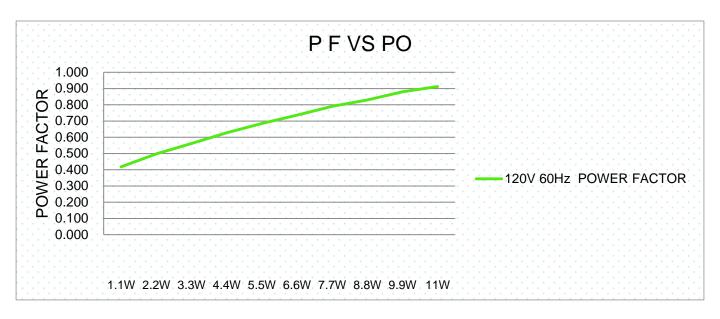
# THD of the driver VS Power Output (W):



# Efficiency of the driver VS Power Output (W):



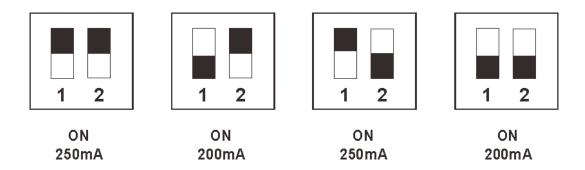
# Efficiency of the driver VS Power Output (W):



### **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 (250mA).