



SPECIFICATIONS



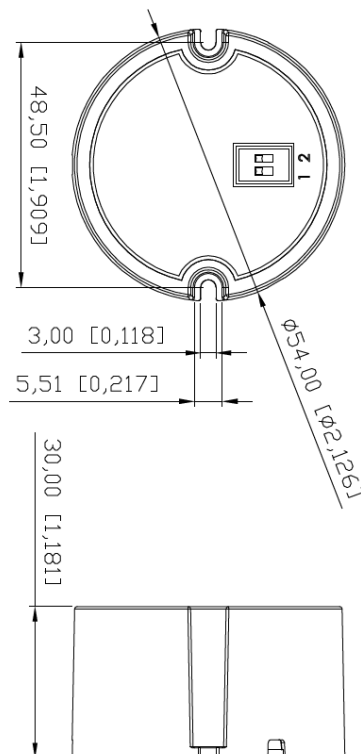
Note-

1. UL file: E340871



Mechanical and Thermal

| | |
|------------------|------------------------|
| Dimensions | $\Phi=2.126, H=1.181"$ |
| Weight | 60g |
| Lead Wire Length | 6.7" |



Dimension in Inch/ Metric

MDR-701-350-13-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

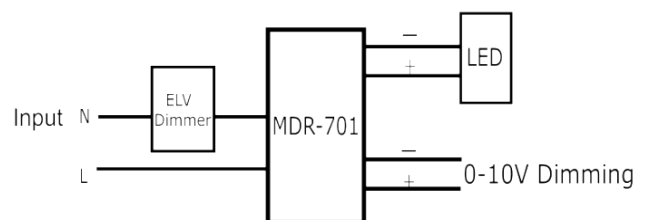
Protection

- 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(Max) | W | | 14 | | |
| Power Factor(PF) | | 0.9 | >0.9 | | Nominal LED voltage |
| Input Current | A | - | - | 0.12A@120VAC 0.05A@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 | | | | |

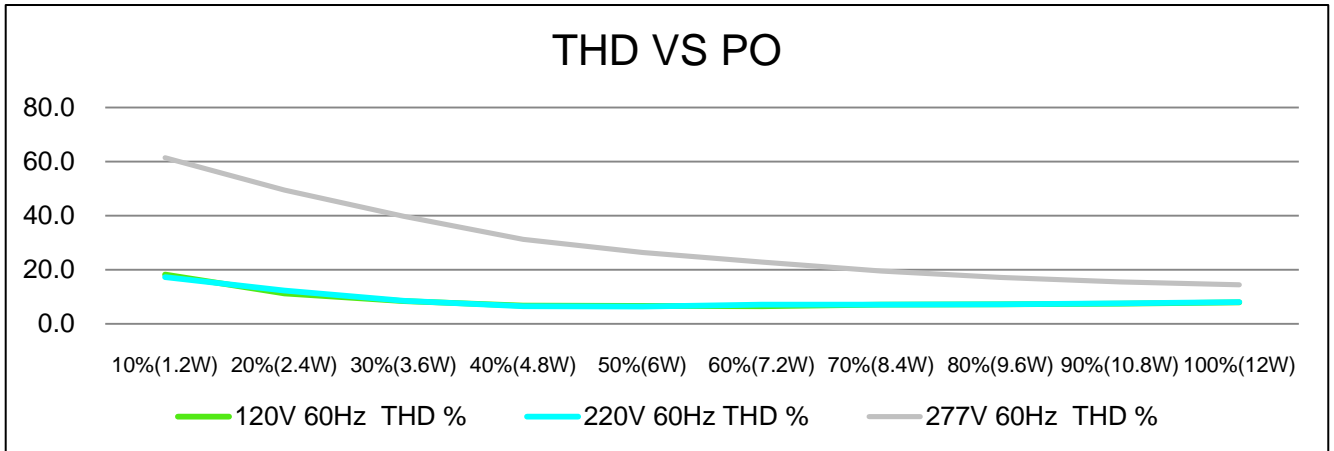
2. Output - specification

| | Units | Minimum | Typical | Maximum | Notes |
|----------------------------|---|---------|-----------------------|---------|---|
| Output Voltage(Volt) | Vdc | 26 | | 37 | |
| Output Current(Iout) | mA | | 100 / 175 / 275 / 350 | | Adjustable current setting; please refer to the current setting table |
| Output Current Tolerance | % | | ±3 | | |
| Output Ripple Current | < 20% peak-to-peak of 350mA | | | | ≤ 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 | | 300 | | With nominal LED voltage and without dimmer attached |
| | | | 350 | | 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 Temperature | °C | -30 | | 80C | |

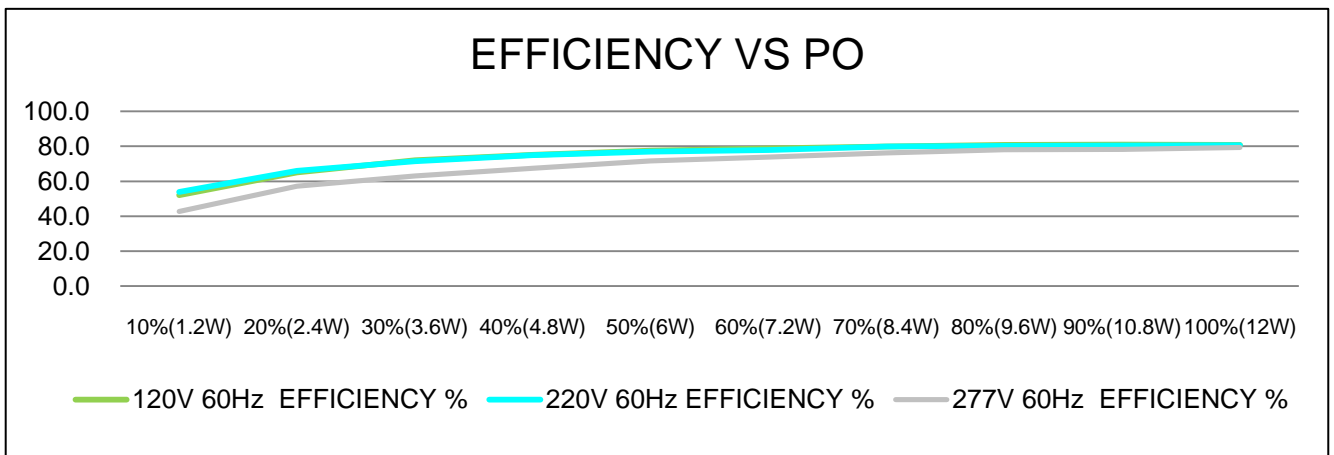
3. EMC / Protection / Compliance

| 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 | | |

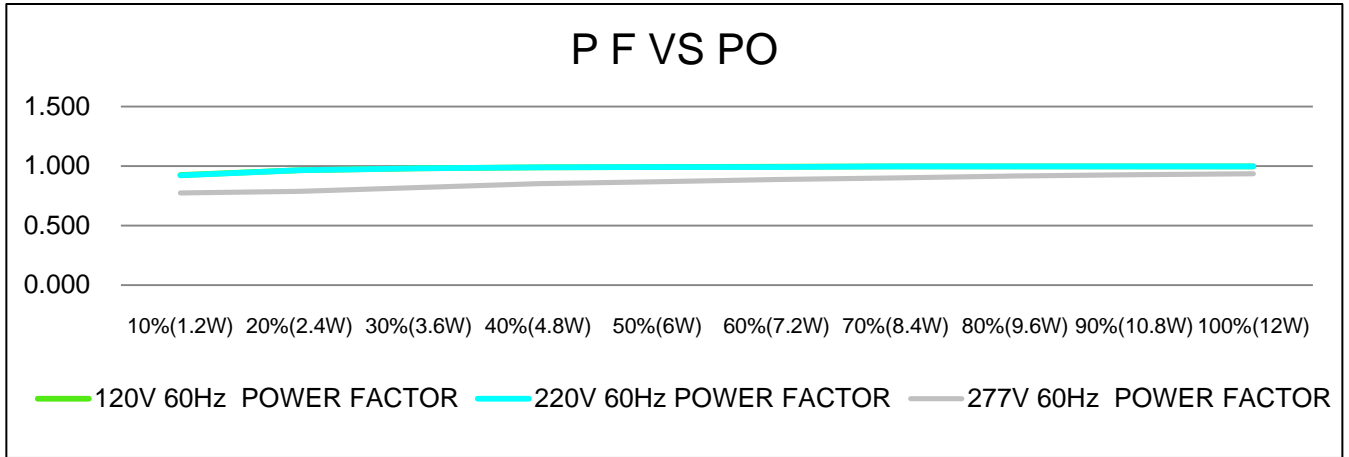
THD of the driver VS Power Output (W)



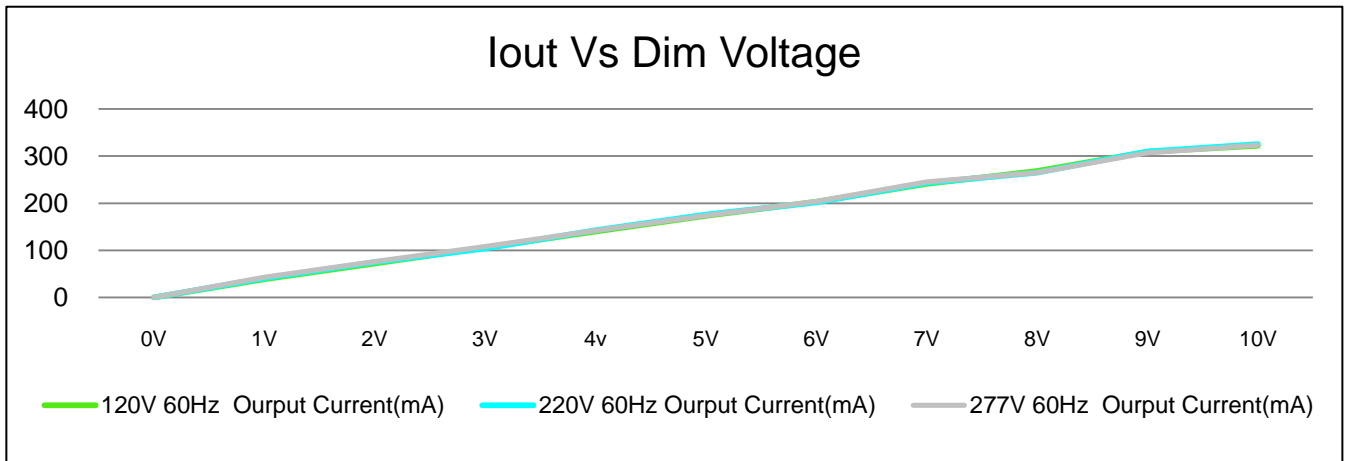
Efficiency of the driver VS Power Output (W)



Power Factor VS Power Output (W):



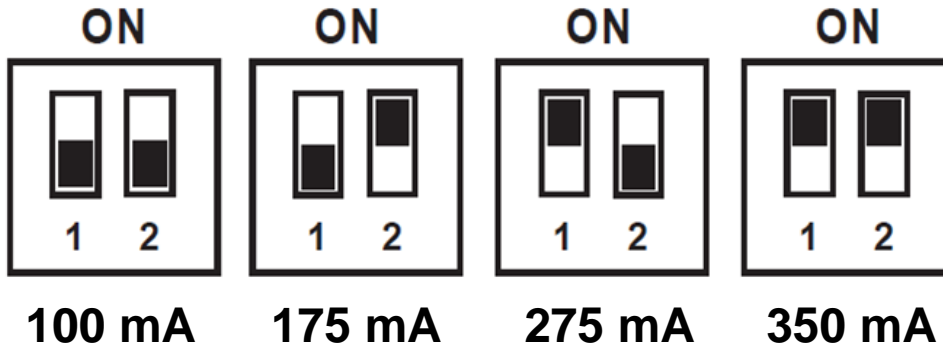
Lout of the driver VS Dim Voltage



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 (350mA).



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