SPECIFICATIONS

# MDR-701P-1400-40-DD

Note-

1. UL pending

## ■ 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 low Ripple
- ✓ Hot Wire Protection
- ✓ Programmable

## ■ Mechanical and Thermal

Dimensions L 155 × 52 × H 20 mm

Max. Case Operation Temp. 80˚C

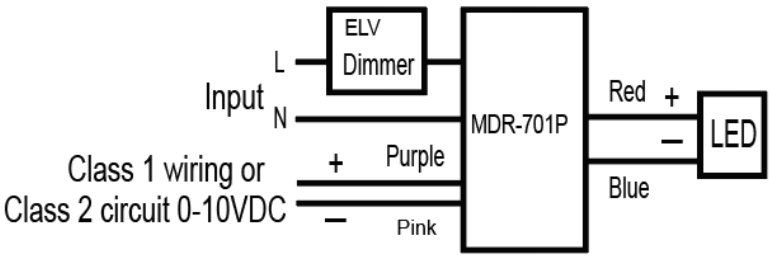
## ■ Protection

- 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

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## 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 | | 50 | | |
| Power Factor(PF) | | 0.9 | >0.9 | | Nominal LED voltage |
| Input Current | A | - | - | 0.42A@120VAC<br>0.18A@277VAC | |
| Inrush Current | A | | | 4 A peak | According to NEMA410 |
| 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

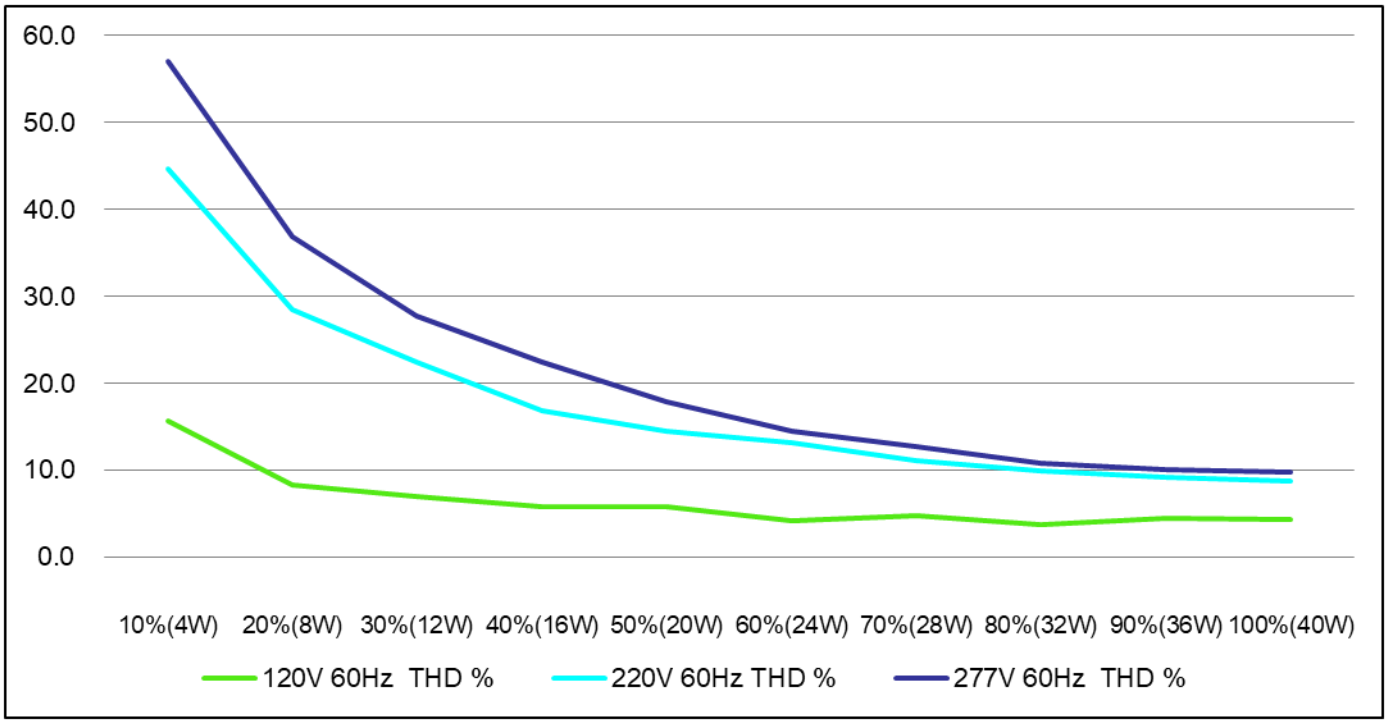
| | Units | Minimum | Typical | Maximum | Notes |
|---|---|---|---|---|---|
| Output Voltage(Volt) | Vdc | 6 | | 46 | Operating Envelopes see page 5 |
| Output Current(lout) | mA | | 300-1400 | | Adjustable current setting; please refer to the programming section |
| Output Current Tolerance | % | | ±3 | | |
| Output Ripple Current | < 20% peak-to-peak of 1400mA | | | | At nominal LED voltage and nominal input voltage without dimming |
| Dimming Range | % | 1% | | 100% | Please refer to Dimmer compatibility list |
| Star-up Time | ms | | 400 | | With nominal LED voltage and without dimmer attached |
| | | | 500 | | 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

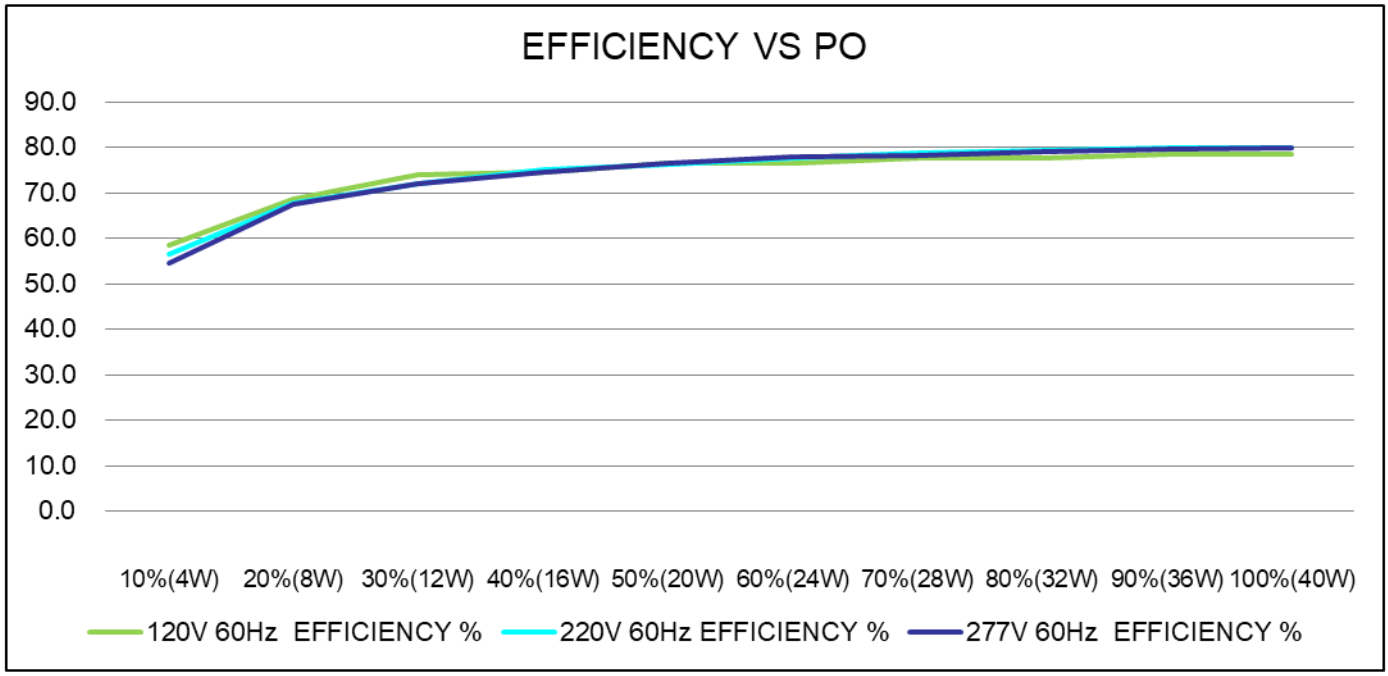
| Conducted and Radiated EMI | | FCC CFR Title 47 Part 15 Class B and EN55015(CISPR 15) Class B compliant | |
|---|---|---|---|
| Immunity Compliance | ESD (Electrostatic Discharge) | IEC61000-4-2 | 6 kV contact discharge, 8 kV air discharge, level 3 |
| | Electrical Fast Transient | IEC61000-4-4 | ±2 kV on AC power port for 1 minute, ±1kV on signal/control lines |
| | Surge | IEC61000-4-5 | ±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 |

## Electrical Specifications

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




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

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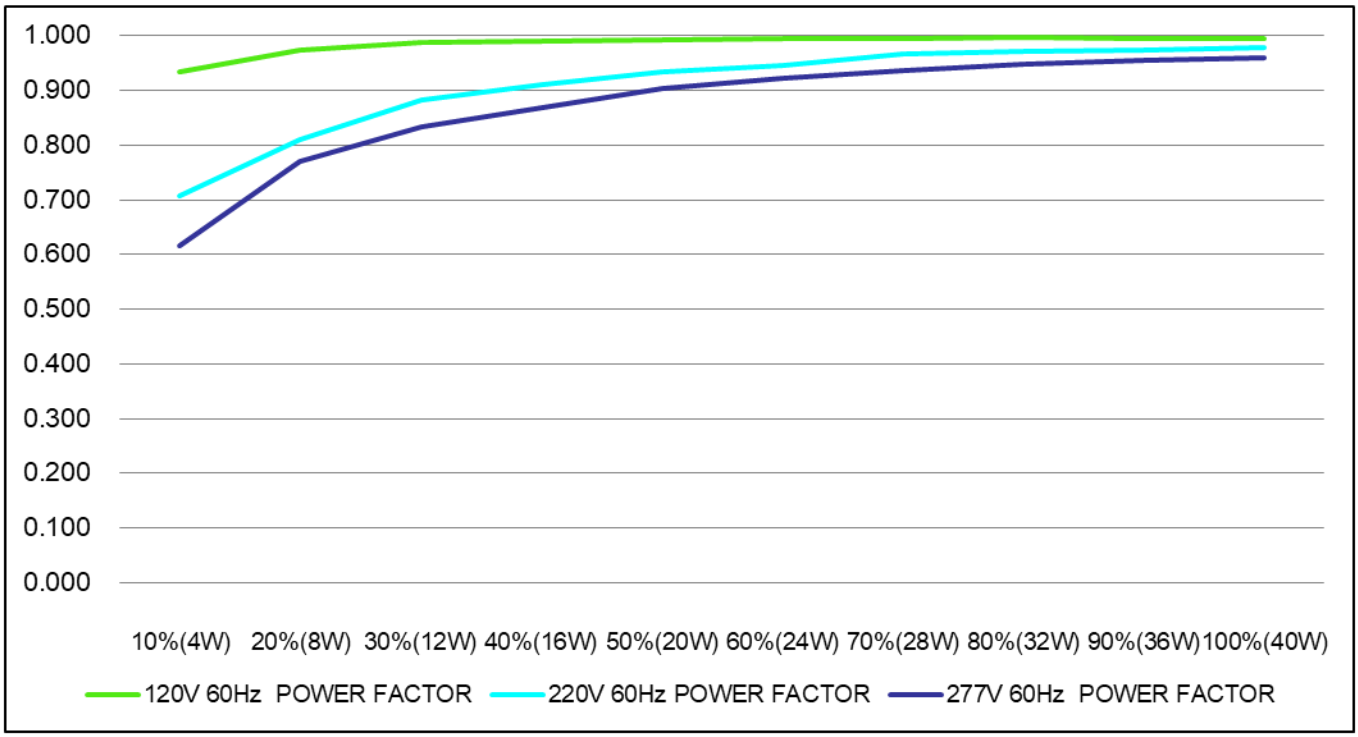
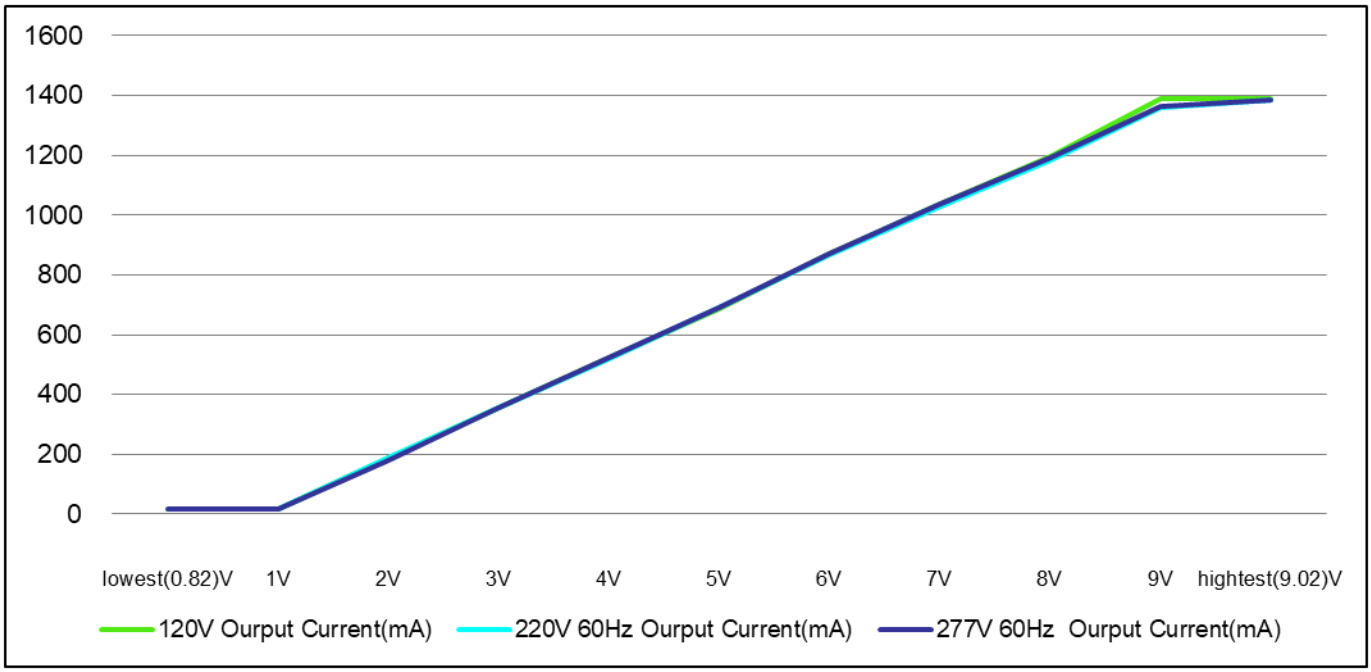
## Electrical Specifications

### Power Factor VS Power Output (W):




### Lout of the driver VS Dim Voltage

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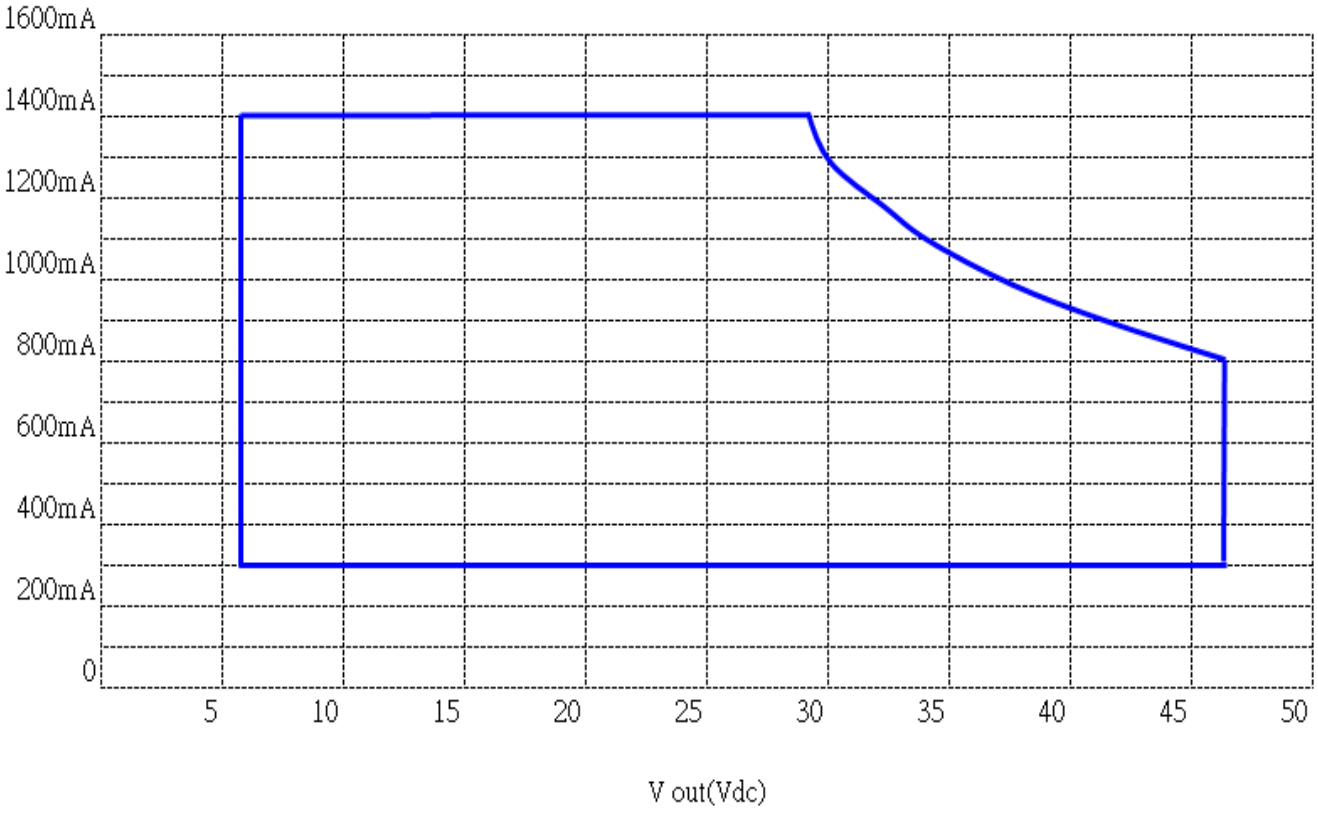
## Operating Envelopes




## Output Voltage & Output Current

| 輸出電壓(V) | 輸出電流(mA) |
|---|---|
| 6-46V | 300-800 |
| 6-42V | 900 |
| 6-37V | 1000 |
| 6-34V | 1100 |
| 6-32V | 1200 |
| 6-30V | 1300 |
| 6-29V | 1400 |

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# Programming：

The MDR-701P-1400-40-DD can be programmed by utilizing Macron programming cable, shown in figure 1 into the driver and plugging the USB to a computer/laptop.

The driver doe not need to be powered on during the programming process. Please make sure you order a programming cable and download the software. The part number for this cable is MDRPC-USB and contact Macron sale to get the software.

The default output current is set at the max. current, for example, the default output current is 1400mA.

You can find out the information below from our software interface

-Model number

-Manufacturing locations and date code

-Software version

-Dimming curve on 0-10V

-Output current setting

-Label printing options

Macron recommends to use Zibra GT or ZD series Printer and Label size at 1.2” x 0.8”(you can easily purchase from Amazon for any Zebra compatible thermal label), the link below is show one of the source:

https://www.amazon.com/gp/product/B098Z85MQB/ref=ppx_yo_dt_b_asin_title_o00_s01?ie=UTF8&th=1

For programming procedure, please refer to the channel at

https://youtu.be/kScoC3YPxGY


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