

M-SERIES

INPUT: 120VAC

Constant Voltage Magnetic Phase Dimmable 12/24VDC LED Driver

The M-SERIES is the most compact magnetic core dimmable LED driver on the market, making it the perfect choice for tape lighting, tube lighting, linear lighting and multiple other residential and commercial lighting applications. Encased in a high-quality metal enclosure that includes multiple " knock-outs for easy installation, each unit is equipped with circuit breakers to protect both the driver and the LED load. All our magnetic LED drivers are phase dimmable with a standard leading edge MLV TRIAC dimmer.

P/N: M



100W/150W/200W
9.80" x 3.00" x 2.74"
300W
9.80" x 4.20" x 3.50"



CLASS 2 120VAC 12 / 24VDC

Installation: Integrated Junction Box with Multiple " Knock-Outs

Driver Types: Class 2 and Higher Power Single Channel Options

Dimming: Phase Dimmable with Leading (Forward) Edge MLV TRIAC Dimmer Only

Input Voltage: 120VAC, 50/60Hz

Output Voltage: 12VDC or 24VDC

Environmental: NEMA 3R

Listing: ETL Listed

Certifications: Conforms to UL8750, C22.2 NO. 223

Warranty: 5-Year Warranty

ORDERING GUIDES (120 VAC) — Auto & Manual Reset Breakers

Auto Reset Breakers

Example: M20L12DC-AR

M L DC-AR

| Type | Max Power | Listing | Output | Safety |
|--------------|--|----------------|--------------------------|-----------------|
| M – Magnetic | 20 ¹ – 20W (Class 2) 40 ¹ – 40W (Class 2) 50 ^{1,3} – 50W (Class 2) 60 ¹ – 60W (Class 2) 96 ^{1,2} – 96W (Class 2) 100 ³ – 100W 150 – 150W | L – ETL Listed | 12 – 12VDC 24 – 24VDC | AR – Auto Reset |

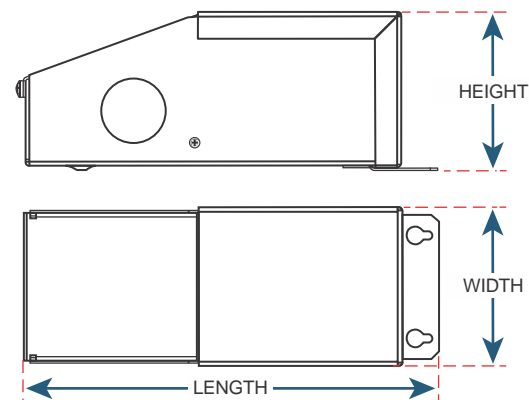
¹ Class 2
² 24VDC only
³ 12VDC only

Manual Reset Breakers

Example: M200L24DC

M L DC

| Type | Max Power | Listing | Output |
|--------------|-------------------|----------------|--------------------------|
| M – Magnetic | 200 300 – 300W | L – ETL Listed | 12 – 12VDC 24 – 24VDC |



| Dimensions | 20W / 40W | 50W / 60W / 96W | 100W / 150W / 200W | 300W |
|------------|--------------------|---------------------|--------------------|--------------------|
| Length | 5.60" (142.2mm) | 6.62" (168.00mm) | 9.80" (248.9mm) | 9.80" (248.9mm) |
| Width | 2.00" (50.8mm) | 2.33" (59.10mm) | 3.00" (76.2mm) | 4.20" (106.7mm) |
| Height | 2.14" (54.3mm) | 2.58" (65.60mm) | 2.74" (69.6mm) | 3.50" (88.9mm) |

* Parameters tolerance +/- 7%



M-SERIES

INPUT: 120VAC

Specifications

| Input | 20W | 40W | 50W | 60W | 96W |
|----------------------------|--------------------------------|--------------------------------|----------------------|--------------------------------|-------------|
| Input Voltage Range | 120VAC ± 5% | 120VAC ± 5% | 120VAC ± 5% | 120VAC ± 5% | 120VAC ± 5% |
| Input Frequency | 50 / 60Hz | 50 / 60Hz | 50 / 60Hz | 50 / 60Hz | 50 / 60Hz |
| Input Current | 0.21A (12VDC) 0.19A (24VDC) | 0.43A (12VDC) 0.38A (24VDC) | 0.52A (12VDC) --- | 0.64A (12VDC) 0.55A (24VDC) | --- |
| Efficiency | 69.73% (12VDC) 73% (24VDC) | 73.21% (12VDC) 77% (24VDC) | 73.5% (12VDC) --- | 74% (12VDC) 80% (24VDC) | --- |
| Power Factor | 0.92 (12VDC) 0.93 (24VDC) | 0.96 (12VDC) 0.93 (24VDC) | 0.96 (12VDC) --- | 0.96 (12VDC) 0.93 (24VDC) | --- |

| Output | | | | | |
|------------------------------------|--------------------------------|--------------------------------|----------------------|--------------------------------|----------------|
| Max Load | 20W | 40W | 50W | 60W | 96W |
| Output Voltage @ Max Load | 11.44 (12VDC) 22.60 (24VDC) | 11.56 (12VDC) 22.90 (24VDC) | 11.55 (12VDC) --- | 11.55 (12VDC) 22.40 (24VDC) | --- |
| Output Current @ Max Load | 1.40A (12VDC) 0.70A (24VDC) | 3.10A (12VDC) 1.40A (24VDC) | 4.33A (12VDC) --- | 4.70A (12VDC) 2.20A (24VDC) | --- |
| Open Circuit Output Voltage | 12.4VDC 24.4VDC | 12.8VDC 25.7VDC | 12.6VDC --- | 12.5VDC 25.0VDC | 25.8VDC --- |

| Environmental | | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Operating Temperature | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) |
| Min. Installation Spacing | 5" | 5" | 5" | 5" | 5" |
| Thermal Class | B130°C | B130°C | B130°C | B130°C | B130°C |

| Dimming | | | | | |
|------------------------------|----|----|----|----|----|
| Minimum Dimming Level | 1% | 1% | 1% | 1% | 1% |

| Protection | | | | | |
|------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Circuit Breaker | Primary & Secondary Auto Reset | Primary & Secondary Auto Reset | Primary & Secondary Auto Reset | Primary & Secondary Auto Reset | Primary & Secondary Auto Reset |

| Mechanical Housing | | | | | |
|-------------------------|----------------------------------|----------------------------------|-----------------------|----------------------------------|---------------------|
| Primary Leads | 18 AWG | 18 AWG | 18 AWG | 18 AWG | 18 AWG |
| Secondary Leads | 16 AWG (12VDC) 18 AWG (24VDC) | 16 AWG (12VDC) 18 AWG (24VDC) | 14 AWG (12VDC) --- | 14 AWG (12VDC) 16 AWG (24VDC) | 14 AWG --- |
| Length | 5.60" (142.2mm) | 5.60" (142.2mm) | 6.55" (166.37mm) | 6.55" (166.37mm) | 6.55" (166.37mm) |
| Width | 2.00" (50.8mm) | 2.00" (50.8mm) | 2.55" (64.77mm) | 2.55" (64.77mm) | 2.55" (64.77mm) |
| Height | 2.14" (54.3mm) | 2.14" (54.3mm) | 2.55" (64.77mm) | 2.55" (64.77mm) | 2.55" (64.77mm) |
| Weight | 2.2 lbs. | 2.2 lbs. | 3.1 lbs. | 3.1 lbs. | 3.5 lbs. |
| Housing Material | Coated Metal | Coated Metal | Coated Metal | Coated Metal | Coated Metal |
| Housing Color | Black | Black | Black | Black | Black |
| Junction Box | Yes | Yes | Yes | Yes | Yes |
| Mounting | 2-hole flange mount | 2-hole flange mount | 2-hole flange mount | 2-hole flange mount | 2-hole flange mount |

| Approval Markings | | | | | |
|------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Certificates/Approval Signs | ETL Listed Conforms to UL8750 | ETL Listed Conforms to UL8750 | ETL Listed Conforms to UL8750 | ETL Listed Conforms to UL8750 | ETL Listed Conforms to UL8750 |

* Parameters tolerance +/- 7%



M-SERIES

INPUT: 120VAC

Specifications

| Input | 100W | 150W | 200W | 300W |
|---------------------|---------------|---------------|---------------|---------------|
| Input Voltage Range | 120VAC ± 5% | 120VAC ± 5% | 120VAC ± 5% | 120VAC ± 5% |
| Input Frequency | 50 / 60Hz | 50 / 60Hz | 50 / 60Hz | 50 / 60Hz |
| Input Current | 1.01A (12VDC) | 1.38A (12VDC) | 1.84A (12VDC) | 2.20A (12VDC) |
| | --- | 1.28A (24VDC) | 1.80A (24VDC) | 2.87A (24VDC) |
| Efficiency | 77% (12VDC) | 82% (12VDC) | 88% (12VDC) | 96% (12VDC) |
| | --- | 82% (24VDC) | 83% (24VDC) | 87% (24VDC) |
| Power Factor | 0.96 (12VDC) | 0.96 (12VDC) | 0.93 (12VDC) | 0.88 (12VDC) |
| | --- | 0.98 (24VDC) | 0.98 (24VDC) | --- |

Output

| | | | | |
|-----------------------------|---------------|----------------|----------------|----------------|
| Max Load | 100W | 150W | 200W | 300W |
| Output Voltage @ Max Load | 11.73 (12VDC) | 11.69A (12VDC) | 11.8 (12VDC) | 11.93 (12VDC) |
| | --- | 22.00A (24VDC) | 22.8 (24VDC) | 23.9 (24VDC) |
| Output Current @ Max Load | 7.70A (12VDC) | 11.00A (12VDC) | 15.00A (12VDC) | 19.00A (12VDC) |
| | --- | 5.60A (24VDC) | 7.70A (24VDC) | 12.00A (24VDC) |
| Open Circuit Output Voltage | --- | 13.3VDC | 12.9VDC | 12.4VDC |
| | --- | 25.6VDC | 26.2VDC | 25.5VDC |

Environmental

| | | | | |
|---------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Operating Temperature | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) | -30°C - +45°C (-22°F - 113°F) |
| Min. Installation Spacing | 5" | 5" | 5" | 5" |
| Thermal Class | B130°C | B130°C | B130°C | B130°C |

Dimming

| | | | | |
|-----------------------|----|----|----|----|
| Minimum Dimming Level | 1% | 1% | 1% | 1% |
|-----------------------|----|----|----|----|

Protection

| | | | | |
|-----------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Circuit Breaker | Primary & Secondary Manual Reset | Primary & Secondary Manual Reset | Primary & Secondary Manual Reset | Primary & Secondary Manual Reset |
|-----------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|

Mechanical Housing

| | | | | |
|------------------|---------------------|---------------------|---------------------|---------------------|
| Primary Leads | 18 AWG | 18 AWG | 18 AWG | 18 AWG |
| Secondary Leads | 12 AWG | 12 AWG (12VDC) | 12 AWG | 12 AWG |
| | --- | 14 AWG (24VDC) | --- | --- |
| Length | 9.80" (248.9mm) | 9.80" (248.9mm) | 9.80" (248.9mm) | 9.80" (248.9mm) |
| Width | 3.00" (76.2mm) | 3.00" (76.2mm) | 3.00" (76.2mm) | 4.20" (106.7mm) |
| Height | 2.74" (69.6mm) | 2.74" (69.6mm) | 2.74" (69.6mm) | 3.50" (88.9mm) |
| Weight | 4.8 lbs. | 5.4 lbs. | 5.4 lbs. | 8.75 lbs. |
| Housing Material | Coated Metal | Coated Metal | Coated Metal | Coated Metal |
| Housing Color | Black | Black | Black | Black |
| Junction Box | Yes | Yes | Yes | Yes |
| Mounting | 2-hole flange mount | 2-hole flange mount | 2-hole flange mount | 2-hole flange mount |

Approval Markings

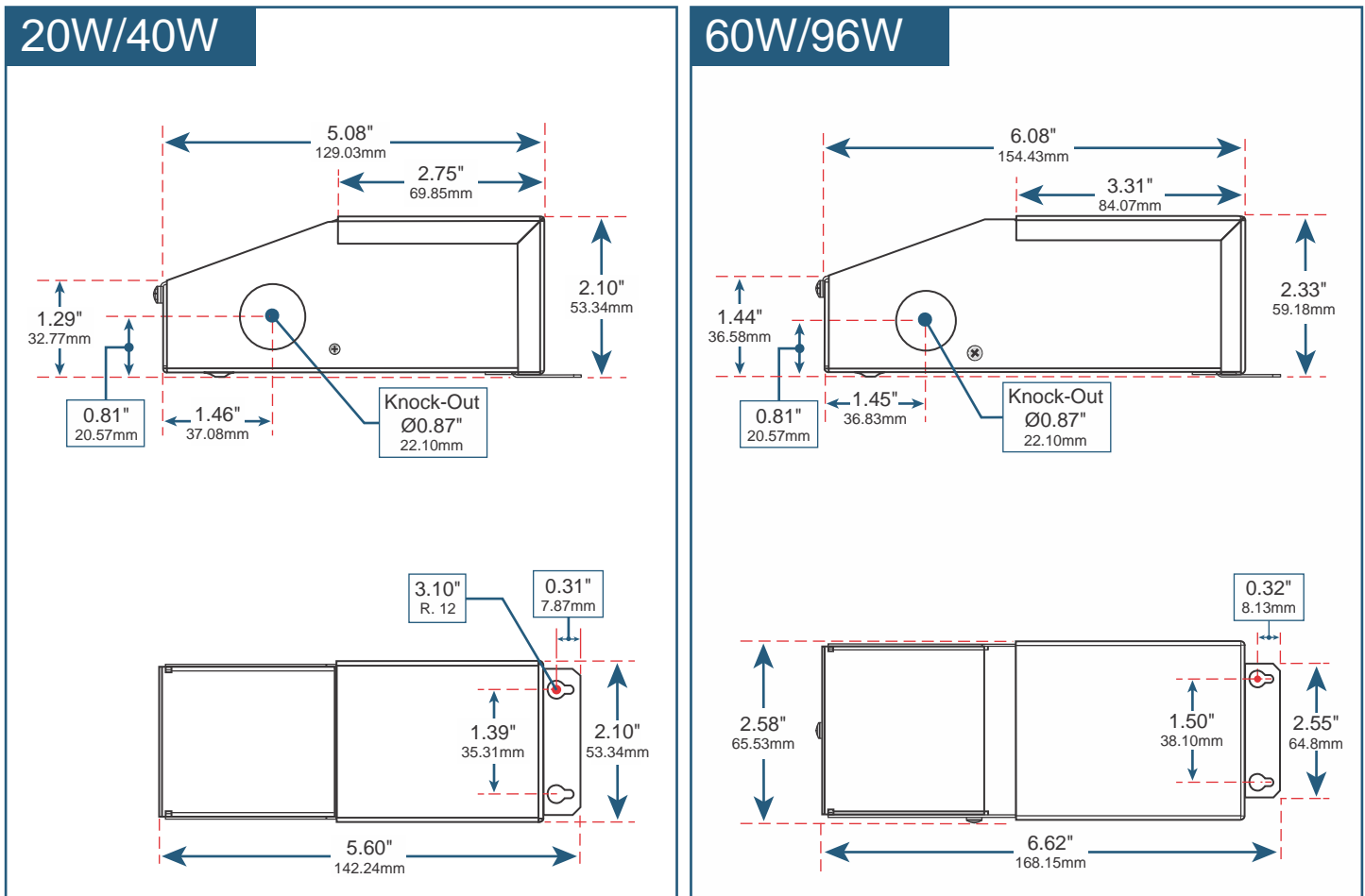
| | | | | |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Certificates/Approval Signs | ETL Listed Confirms to UL8750 | ETL Listed Confirms to UL8750 | ETL Listed Confirms to UL8750 | ETL Listed Confirms to UL8750 |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|

* Parameters tolerance +/- 7%

M-SERIES

INPUT: 120VAC

Mechanical Diagrams

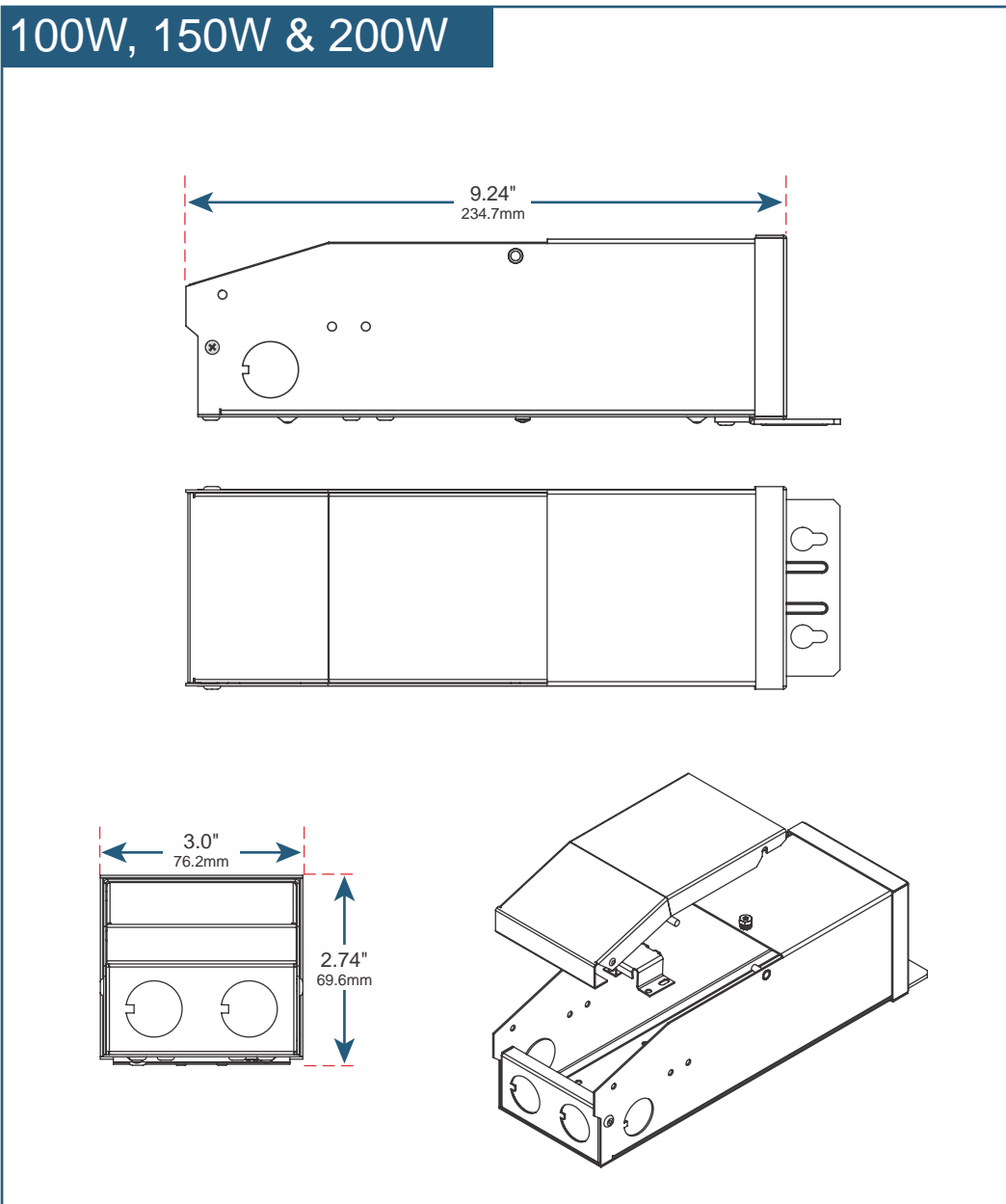


* Parameters tolerance +/- 7%

M-SERIES

INPUT: 120VAC

Mechanical Diagrams

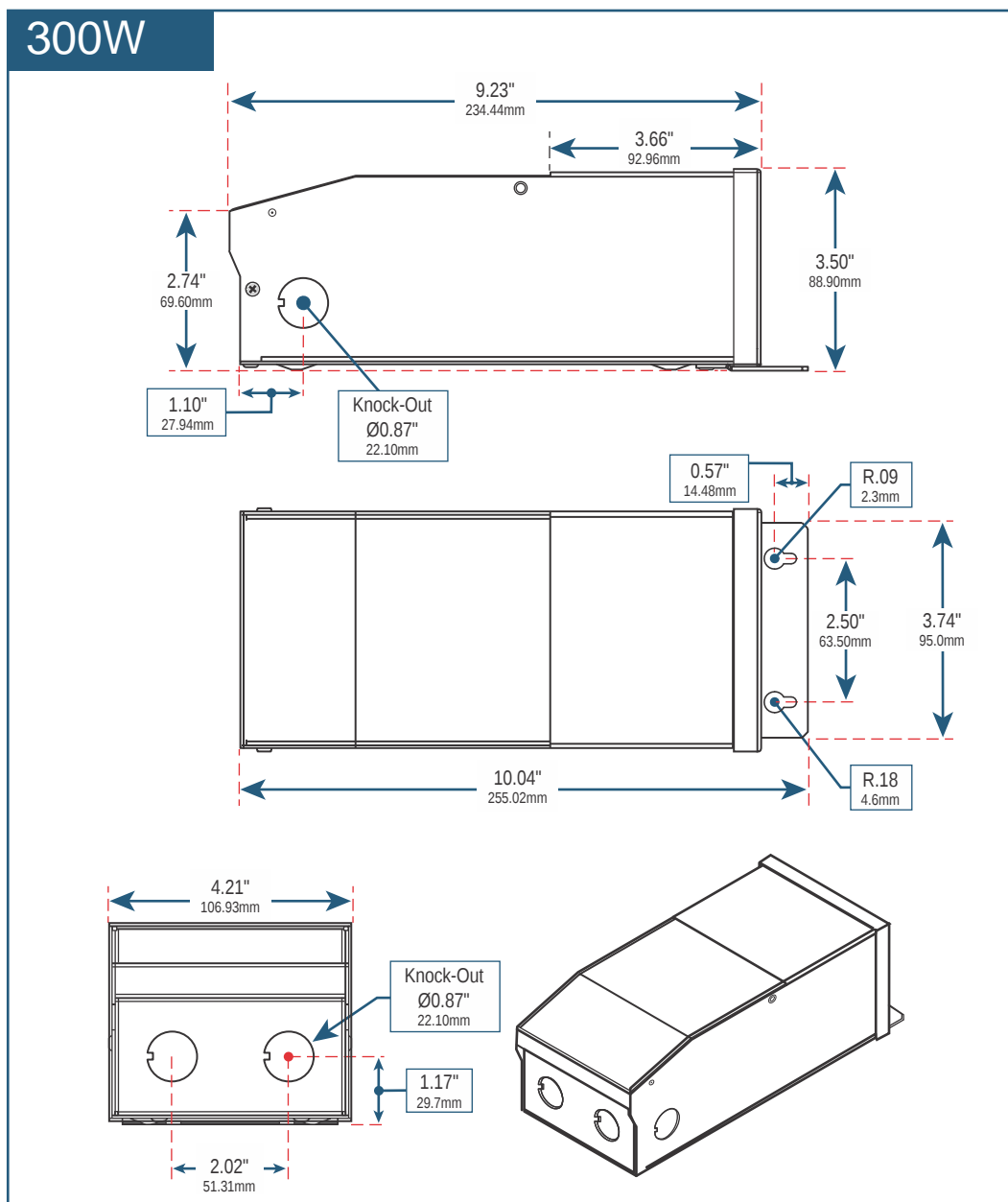


* Parameters tolerance +/- 7%

M-SERIES

INPUT: 120VAC

Mechanical Diagrams



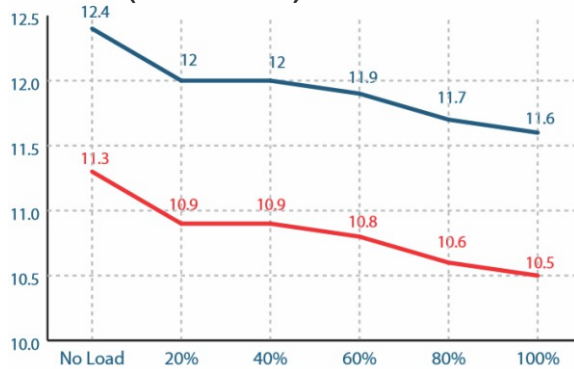
* Parameters tolerance +/- 7%

M-SERIES

INPUT: 120VAC

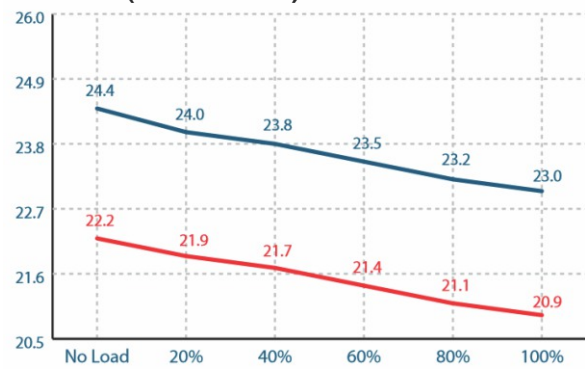
Output vs Load

20W (12VDC)



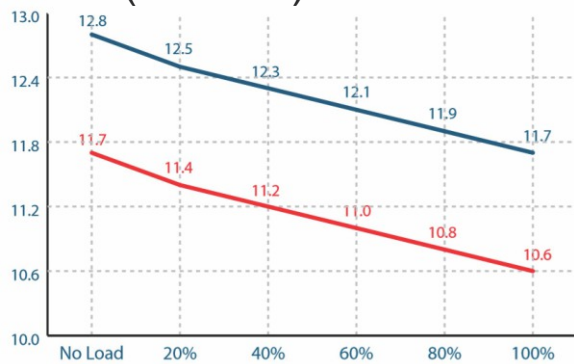
— Output Voltage vs. Load
 — Output Voltage With a Typical Dimmer

20W (24VDC)



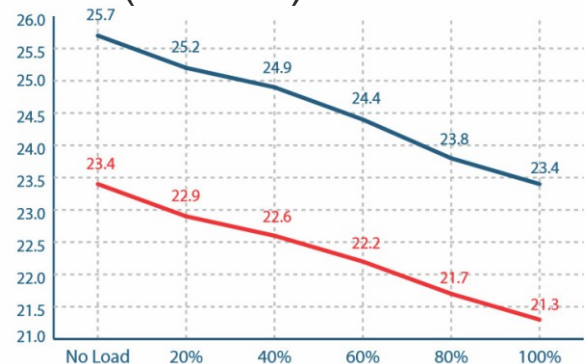
— Output Voltage vs. Load
 — Output Voltage With a Typical Dimmer

40W (12VDC)



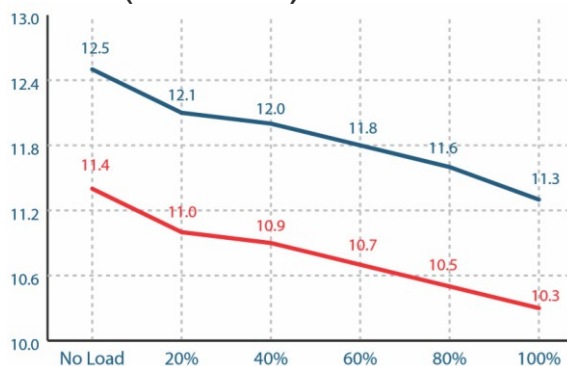
— Output Voltage vs. Load
 — Output Voltage With a Typical Dimmer

40W (24VDC)



— Output Voltage vs. Load
 — Output Voltage With a Typical Dimmer

50W (12VDC)



— Output Voltage vs. Load
 — Output Voltage With a Typical Dimmer

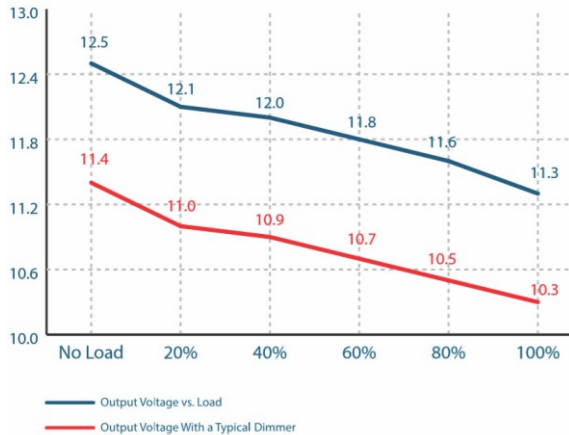
* Parameters tolerance +/- 7%

M-SERIES

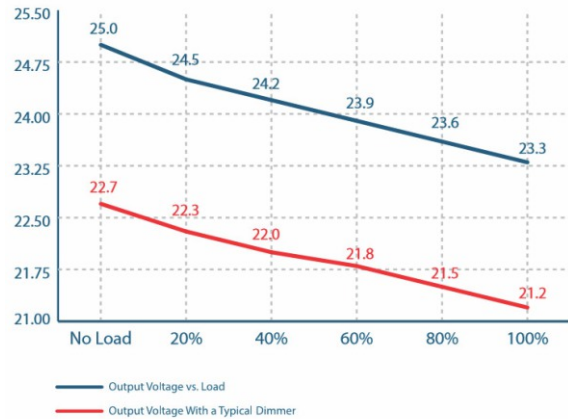
INPUT: 120VAC

Output vs Load

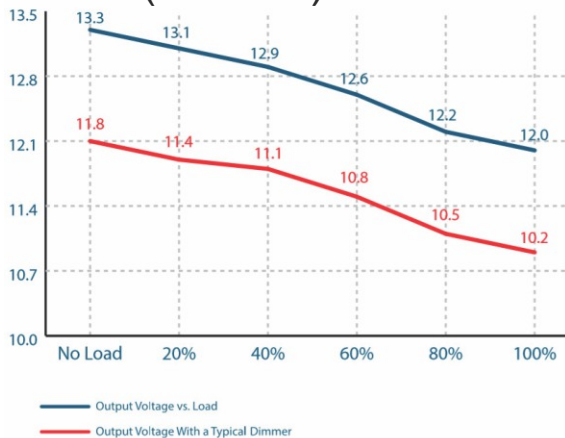
60W (12VDC)



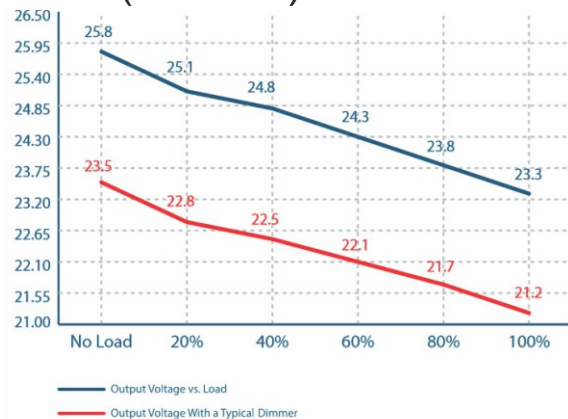
60W (24VDC)



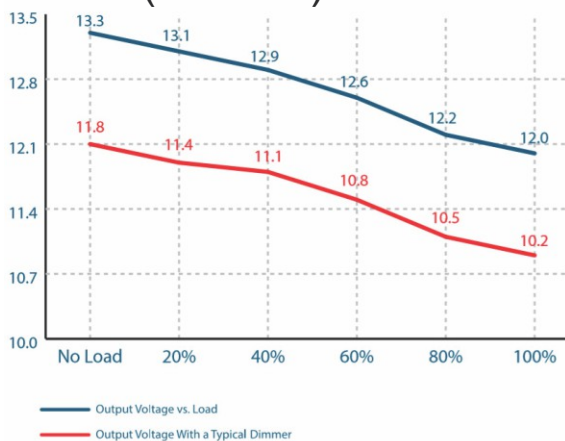
100W (12VDC)



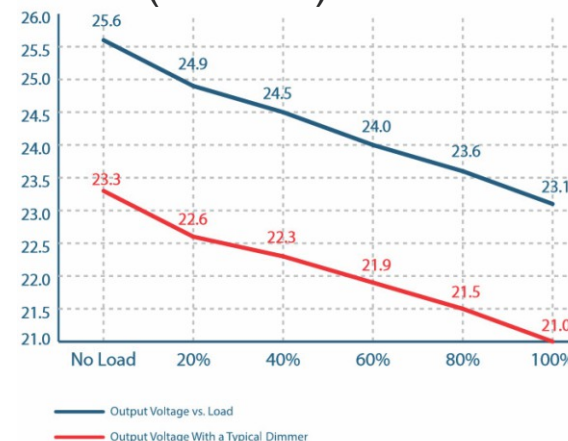
96W (24VDC)



150W (12VDC)



150W (24VDC)



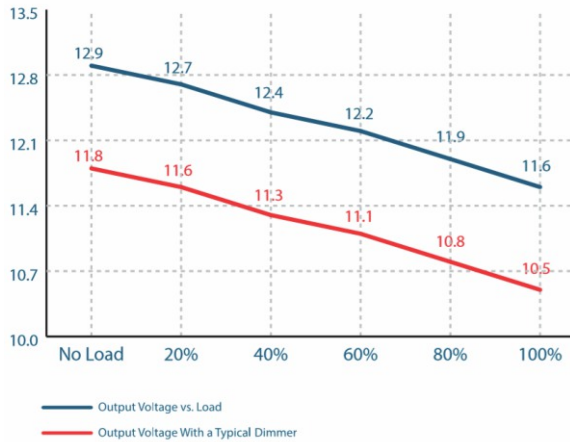
* Parameters tolerance +/- 7%

M-SERIES

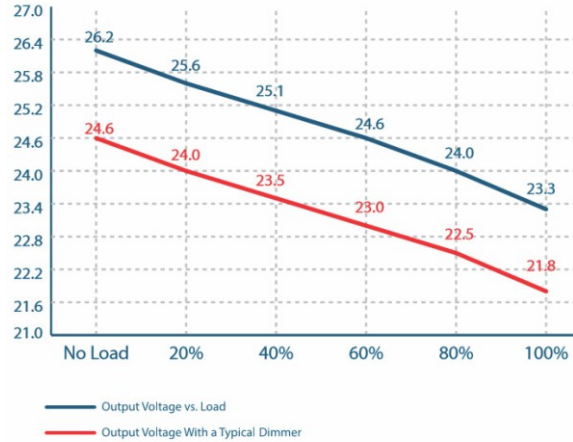
INPUT: 120VAC

Output vs Load

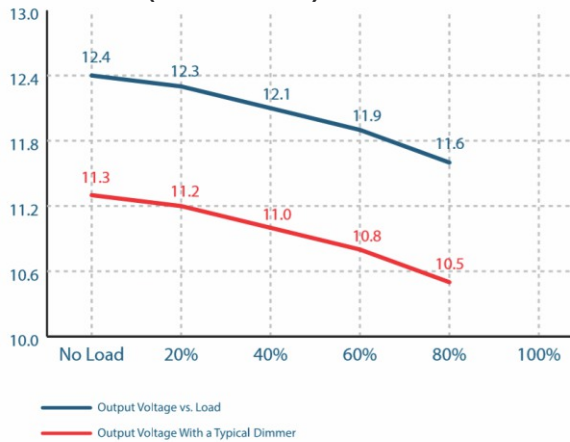
200W (12VDC)



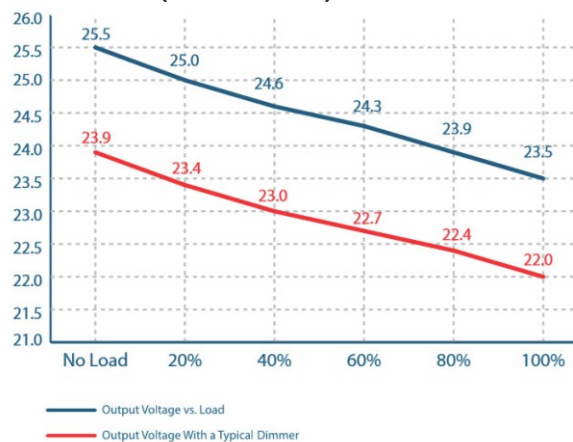
200W (24VDC)



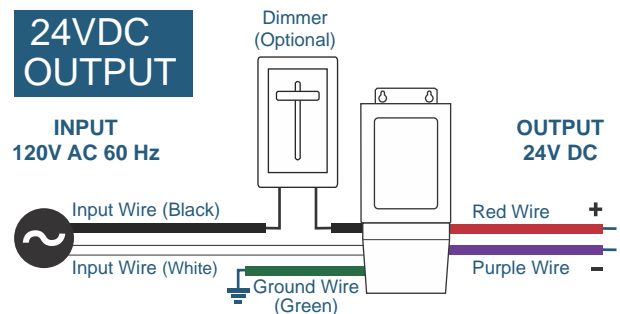
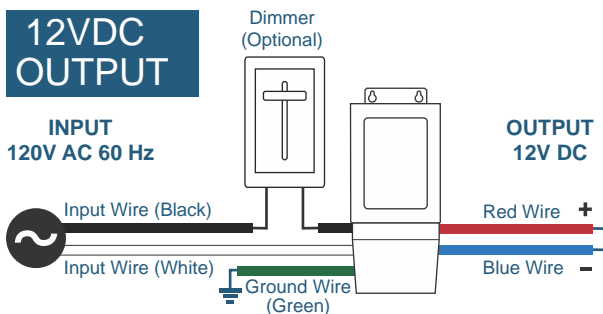
300W (12VDC)



300W (24VDC)



Wiring Diagrams



* Parameters tolerance +/- 7%