

M-SERIES

INPUT: 277VAC

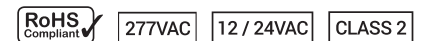
P/N: M

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 $\frac{7}{8}$ " knock-outs for easy installation, each unit is equipped with circuit breakers to protect both the driver and the LED load. All of our magnetic LED drivers are phase dimmable with a standard leading edge MLV TRIAC dimmer.



- Installation:** Integrated Junction Box with Multiple $\frac{7}{8}$ " 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:** 277VAC, 50/60Hz
- Output Voltage:** 12VDC or 24VDC
- Environmental:** Dry and Damp
- Listing:** ETL Listed
- Certifications:** Conforms to UL8750, C22.2 NO. 223
- Warranty:** 5-Year Warranty



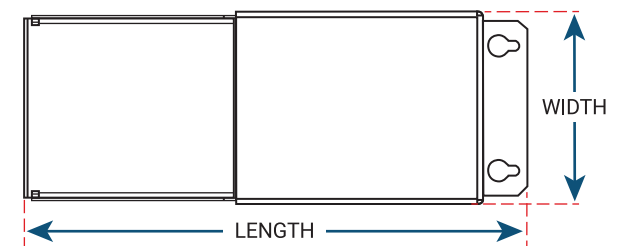
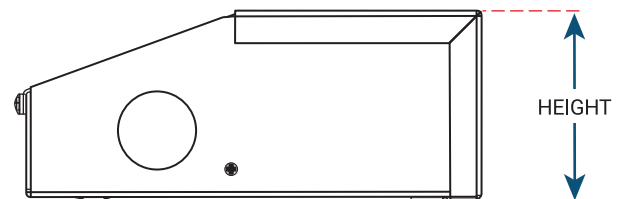
M-SERIES is also available in:
M-SERIES 120VAC
Refer to Magnitudeinc.com for more details.

Ordering Guide - 277VAC Manual Reset Breakers

M L DC 277 Example: M20L12DC277

Type	Max Power	Listing	Output	Input
M – Magnetic	20 ¹ – 20W (Class 2) 40 ¹ – 40W (Class 2) 60 ¹ – 60W (Class 2) 96 ^{1,2} – 96W (Class 2) 100 ³ – 100W 150 – 150W 200 – 200W 300 – 300W	L – ETL Listed	12 – 12VDC 24 – 24VDC	277 – 277VAC

¹Class 2
²24VDC Only
³12VDC Only



Dimensions	20W / 40W	60W	96W / 100W 150W / 200W	300W
Length	5.60" (142.2mm)	6.62" (168.00mm)	9.24" (234.8mm)	9.80" (248.9mm)
Width	2.10" (53.34mm)	2.33" (59.10mm)	3.11" (79.1mm)	4.20" (106.7mm)
Height	2.10" (53.34mm)	2.58" (65.60mm)	2.88" (73.4mm)	3.50" (88.9mm)

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Specifications

Input

Input Voltage Range	277VAC ± 5%						
Input Frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz
Input Current	0.31A (12VDC)	0.51A (12VDC)	0.76A (12VDC)	0.96A	1.95A (12VDC)	2.13A (12VDC)	2.86A (12VDC)
	0.32A (24VDC)	0.41A (24VDC)	0.95A (24VDC)		0.95A (24VDC)	2.51A (24VDC)	2.86A (24VDC)
Efficiency	76% (12VDC)	72.5% (12VDC)	78.8% (12VDC)	84.3%	80% (12VDC)	87% (12VDC)	90% (12VDC)
	78.4% (24VDC)	80% (24VDC)	84% (24VDC)		80% (24VDC)	81.9% (24VDC)	90% (24VDC)
Power Factor	0.81 (12VDC)	0.88 (12VDC)	0.84 (12VDC)	0.89	0.93 (12VDC)	0.92 (12VDC)	0.93 (12VDC)
	0.92 (24VDC)	0.89 (24VDC)	0.82 (24VDC)		0.93 (24VDC)	0.93 (24VDC)	0.93 (24VDC)

Output

Max Load	20W	40W	60W	96W	150W	200W	300W
Output Voltage @ Max Load	12.0 VDC	12.0 VDC	12.0 VDC	24.0 VDC	12.0 VDC	12.0 VDC	12.0 VDC
	24.0 VDC	24.0 VDC	24.0 VDC		24.0 VDC	24.0 VDC	24.0 VDC
Output Current @ Max Load	1.90A (12VDC)	3.96A (12VDC)	5.00A (12VDC)	4.00A	13.3A (12VDC)	15.6A (12VDC)	20.8A (12VDC)
	0.97A (24VDC)	1.72A (24VDC)	2.56A (24VDC)		13.3A (24VDC)	10.9A (24VDC)	20.8A (24VDC)

Environmental

Operating Temperature	-30°C - +50°C (-22°F - 122°F)
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Dimming

Minimum Dimming Level	1%
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Protection

Circuit Breaker	Secondary Manual Push to Reset
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Mechanical Housing

Primary Leads	18 AWG	18 AWG	18 AWG	18 AWG	18 AWG	18 AWG	18 AWG
Secondary Leads	16 AWG (12VDC)	16 AWG (12VDC)	14 AWG (12VDC)	14 AWG	12 AWG (12VDC)	12 AWG	12 AWG
	18 AWG (24VDC)	18 AWG (24VDC)	16 AWG (24VDC)		14 AWG (24VDC)		
Length	5.60" (142.2mm)	5.60" (142.2mm)	6.62" (168.00mm)	9.24" (234.8mm)	9.24" (234.8mm)	9.24" (234.8mm)	9.80" (248.9mm)
Width	2.10" (53.34mm)	2.10" (53.34mm)	2.58" (65.60mm)	3.11" (79.0mm)	3.11" (79.0mm)	3.11" (79.0mm)	4.20" (106.7mm)
Height	2.10" (53.34mm)	2.10" (53.34mm)	2.33" (59.10mm)	2.88" (73.15mm)	2.88" (73.15mm)	2.88" (73.15mm)	3.50" (88.9mm)
Weight	2 lbs.	2 lbs.	3 lbs.	7 lbs.	7 lbs.	8 lbs.	8 lbs.
Housing Material	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal
Housing Color	Black	Black	Black	Black	Black	Black	Black
Junction Box	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mounting	Two-hole flange mount						

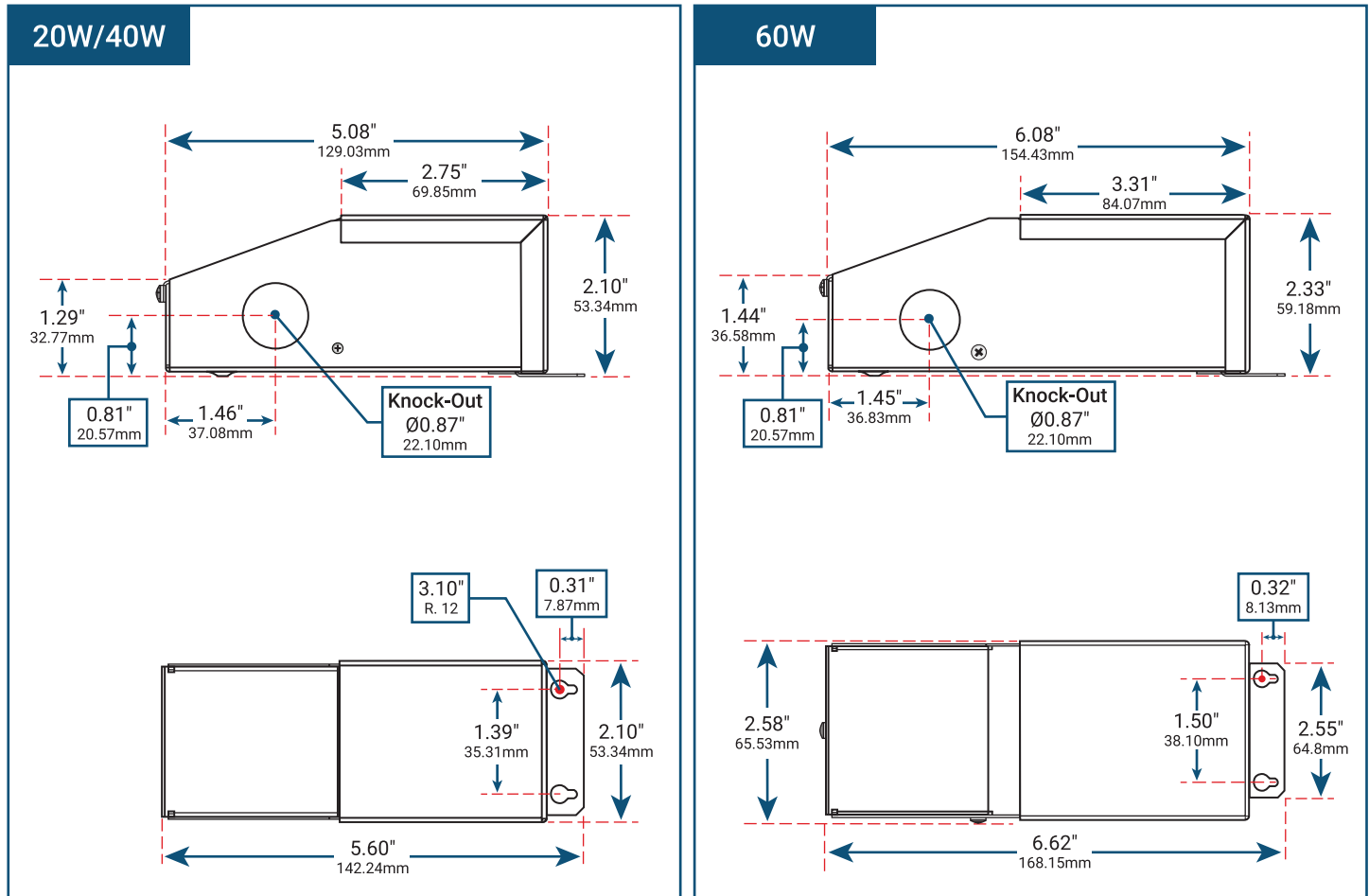
Approval Markings

Certificates/Approval Signs	ETL Listed Conforms to UL8750
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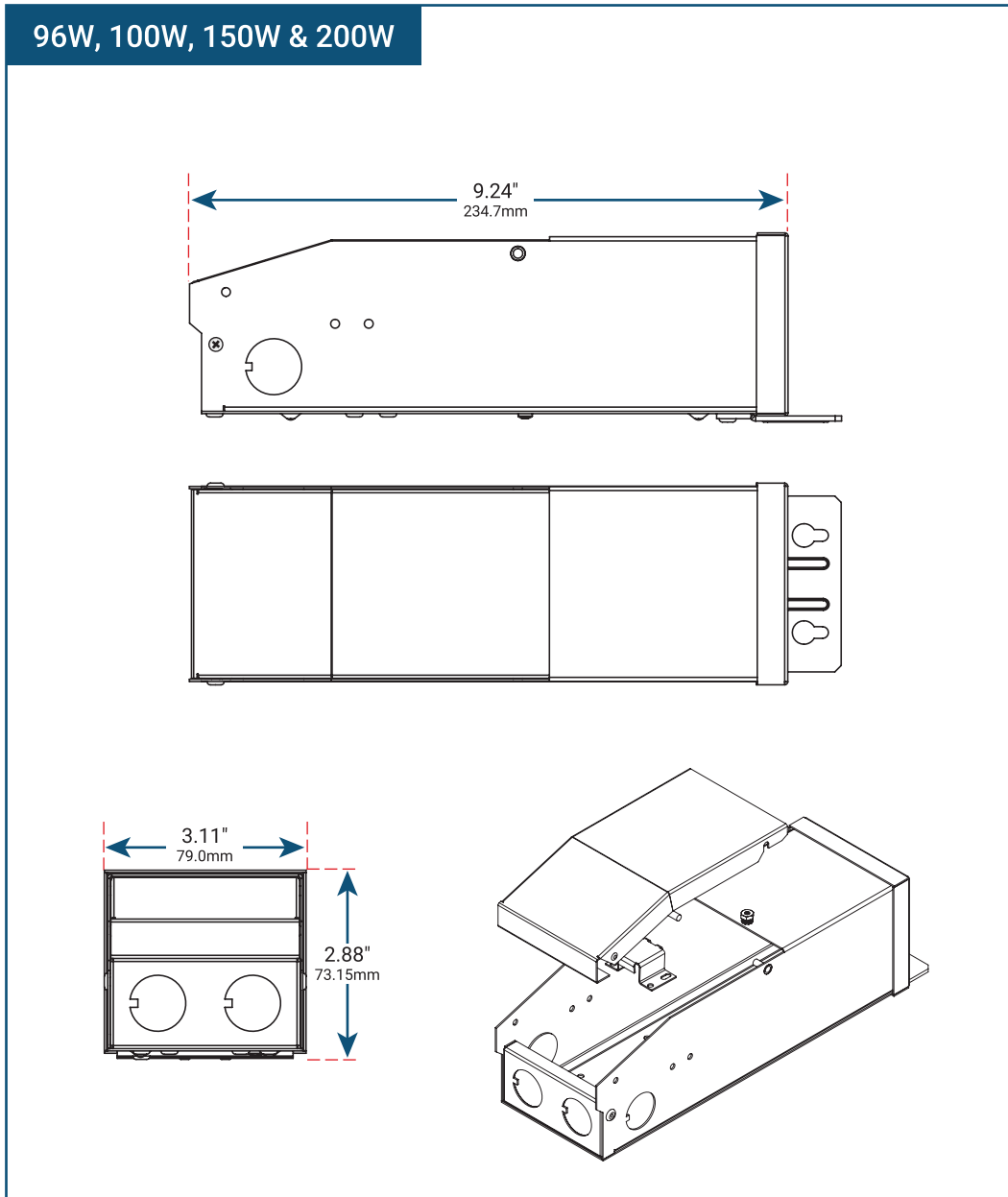
Mechanical Diagrams



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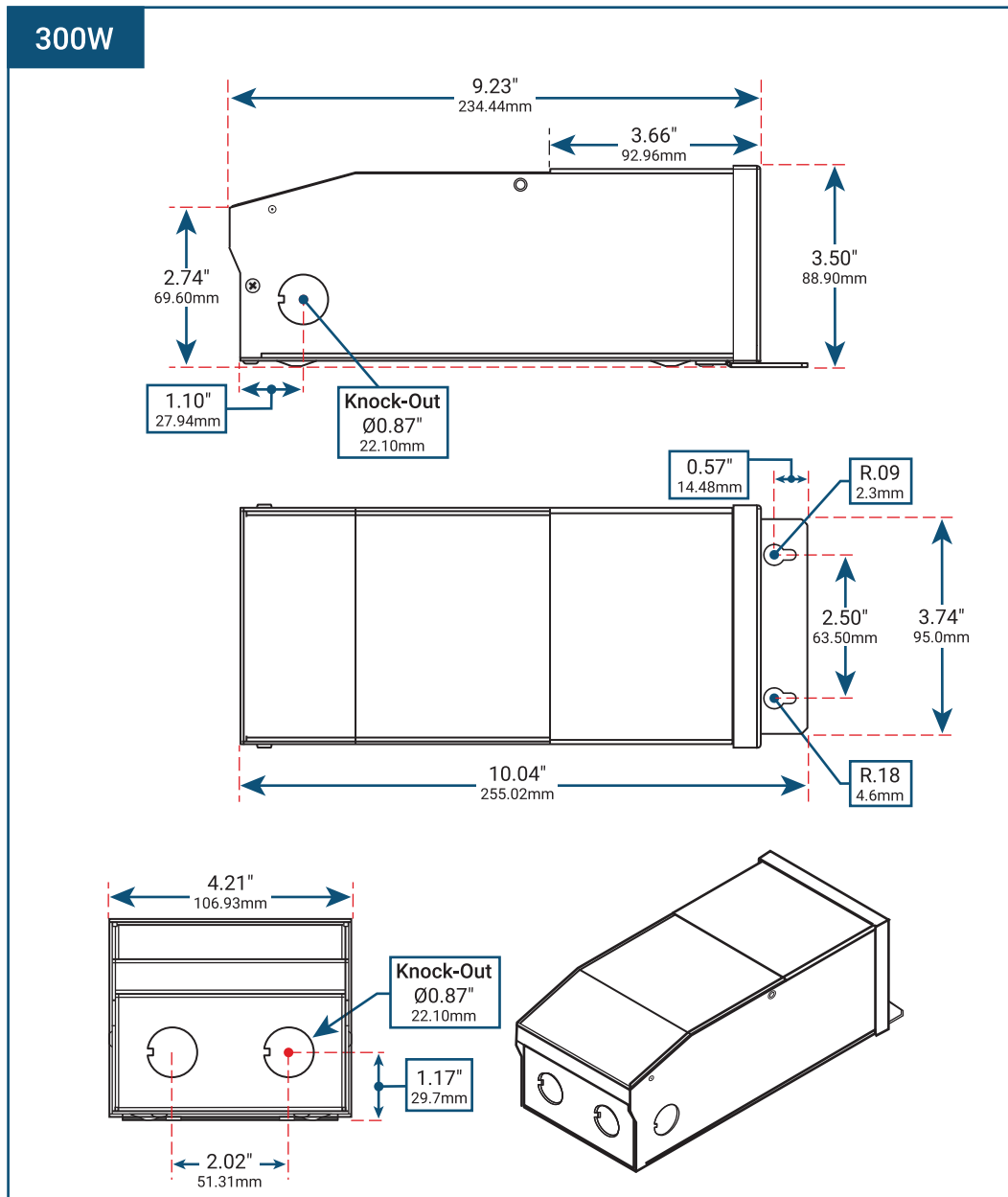
Mechanical Diagrams



M-SERIES

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Mechanical Diagrams

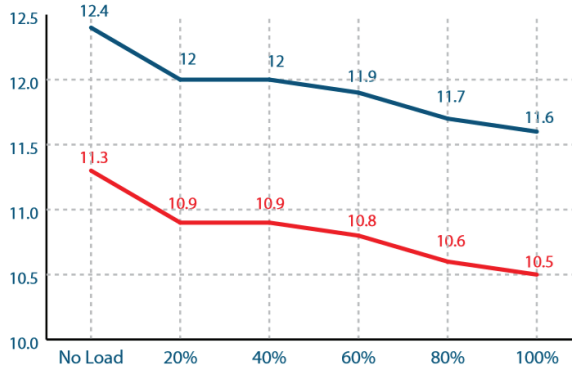


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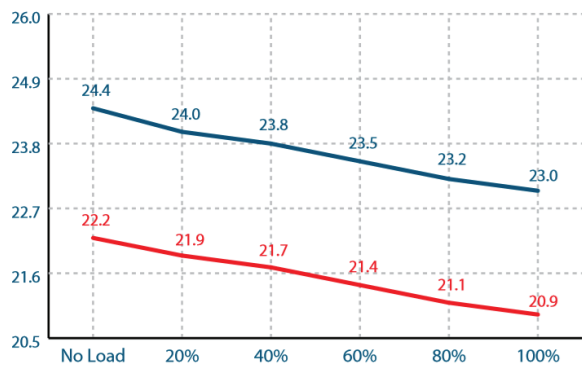
Output vs Load

20W (12VDC)



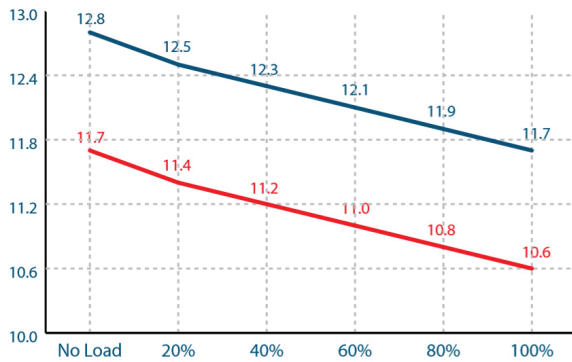
— Output Voltage vs. Load
— Output Voltage With a Typical Dimmer

20W (24VDC)



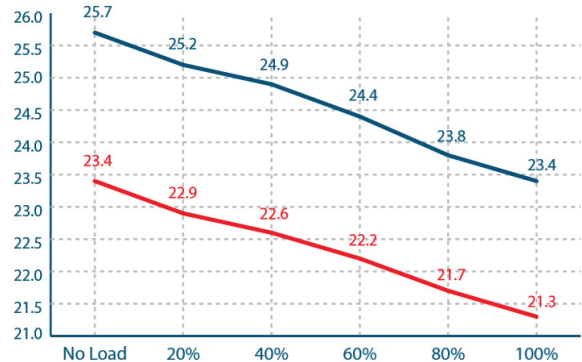
— Output Voltage vs. Load
— Output Voltage With a Typical Dimmer

40W (12VDC)



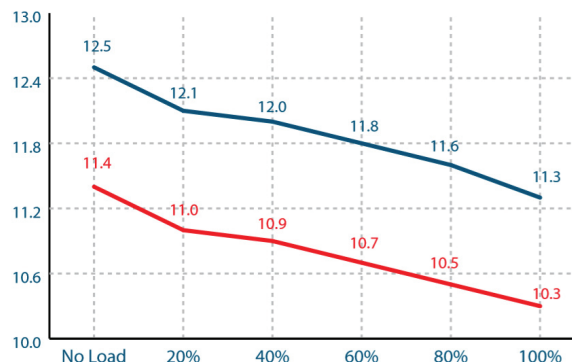
— Output Voltage vs. Load
— Output Voltage With a Typical Dimmer

40W (24VDC)



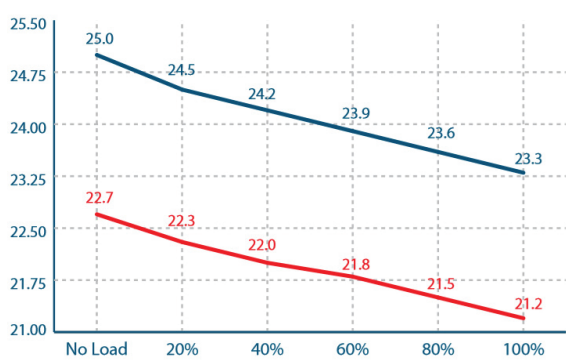
— Output Voltage vs. Load
— Output Voltage With a Typical Dimmer

60W (12VDC)



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

60W (24VDC)



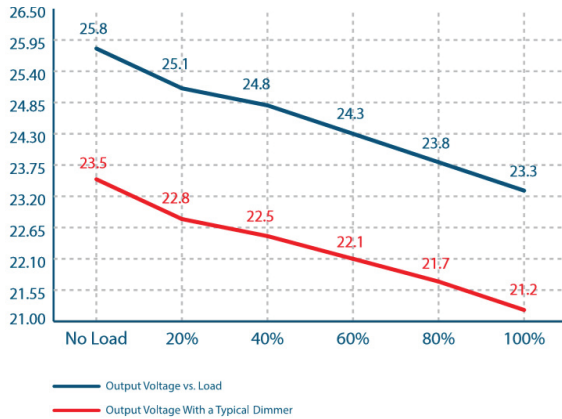
— Output Voltage vs. Load
— Output Voltage With a Typical Dimmer

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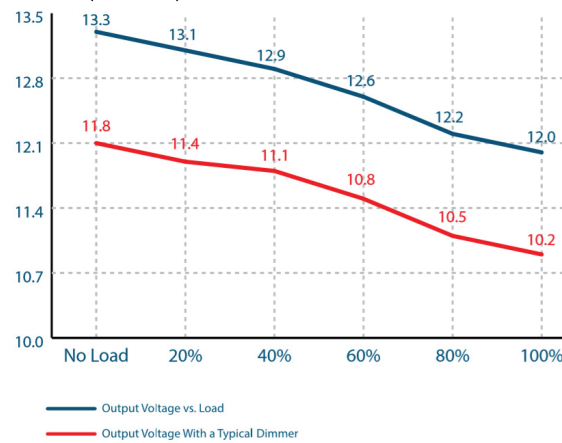
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Output vs Load

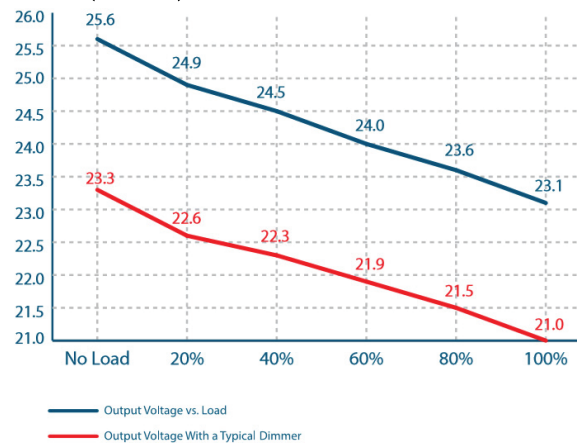
96W (24VDC)



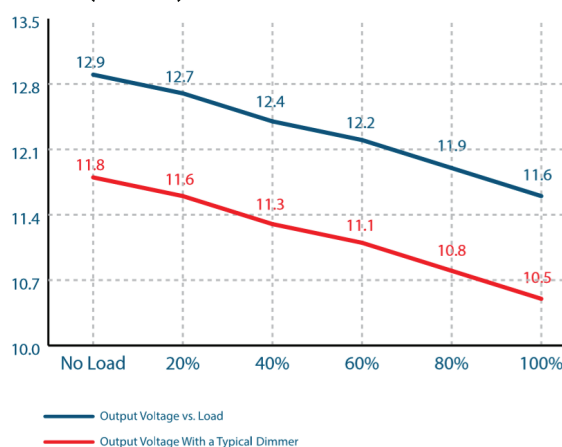
150W (12VDC)



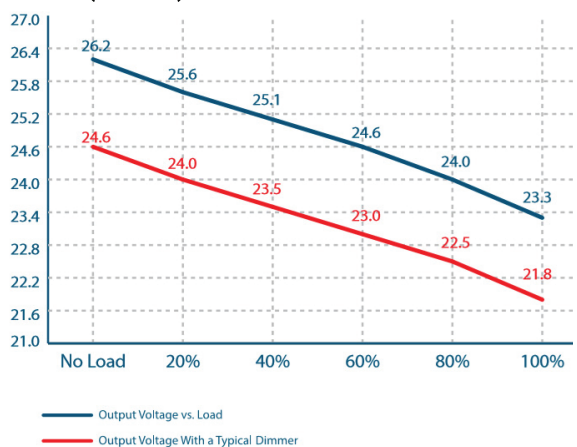
150W (24VDC)



200W (12VDC)



200W (24VDC)

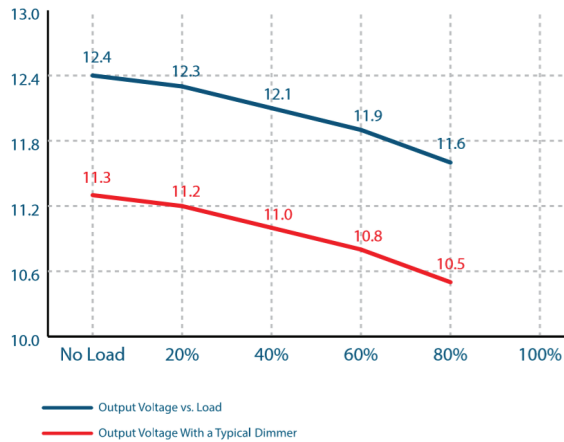


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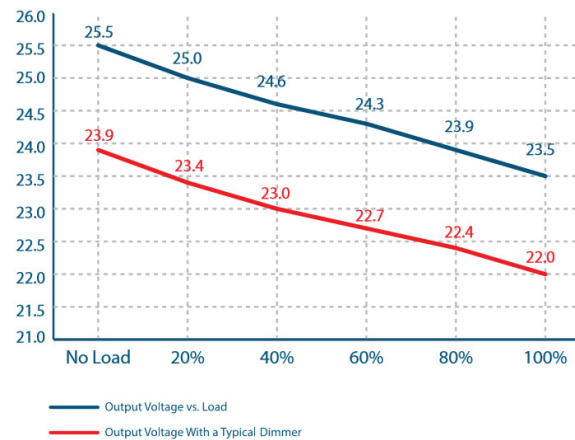
INPUT: 277VAC

Output vs Load

300W (12VDC)

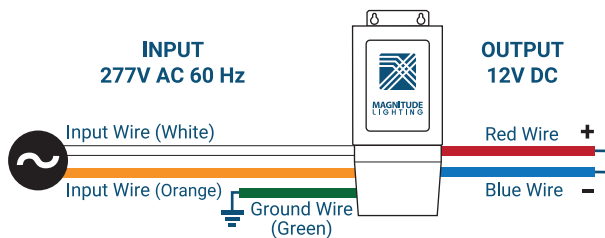


300W (24VDC)



Wiring Diagrams

12VDC OUTPUT



24VDC OUTPUT

