

M-SERIES

INPUT: 120VAC

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 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: 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



M-SERIES is also available in:

M-SERIES 277VAC

Refer to Magnitudeinc.com for more details.

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) 60 ¹ - 60W (Class 2) 96 ^{1,2} - 96W (Class 2) 150 - 150W	L - ETL Listed	12 - 12VDC 24 - 24VDC	AR - Auto Reset

¹Class 2, ²24VDC only

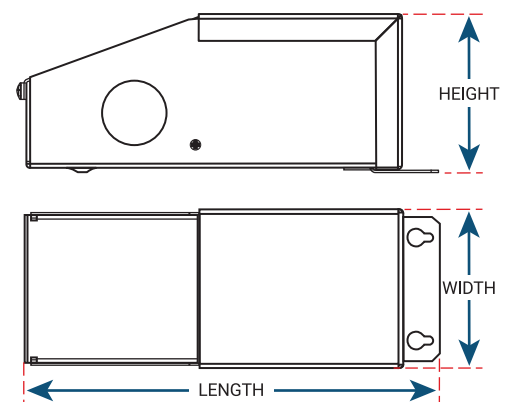
Manual Reset Breakers

Example: M200L24DC

M L DC

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

Dimensions	20W / 40W	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)



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Specifications

Input

Input Voltage Range	120VAC $\pm$ 5%							
Input Frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz
Input Current	0.21A (12VDC)	0.43A (12VDC)	0.64A (12VDC)	---	1.01A (12VDC)	1.38A (12VDC)	1.84A (12VDC)	2.20A (12VDC)
	0.19A (24VDC)	0.38A (24VDC)	0.55A (24VDC)	0.97A (24VDC)	---	1.28A (24VDC)	1.80A (24VDC)	2.87A (24VDC)
Efficiency	69.73% (12VDC)	73.21% (12VDC)	74% (12VDC)	---	77% (12VDC)	82% (12VDC)	88% (12VDC)	96% (12VDC)
	73% (24VDC)	77% (24VDC)	80% (24VDC)	77% (24VDC)	---	82% (24VDC)	83% (24VDC)	87% (24VDC)
Power Factor	0.92 (12VDC)	0.96 (12VDC)	0.96 (12VDC)	---	0.96 (12VDC)	0.96 (12VDC)	0.93 (12VDC)	0.88 (12VDC)
	0.93 (24VDC)	0.93 (24VDC)	0.93 (24VDC)	0.98 (24VDC)	---	0.98 (24VDC)	0.98 (24VDC)	---

Output

Max Load	20W	40W	60W	96W	100W	150W	200W	300W
Output Voltage @ Max Load	11.44 (12VDC)	11.56 (12VDC)	11.55 (12VDC)	---	11.73 (12VDC)	11.69A (12VDC)	11.8 (12VDC)	11.93 (12VDC)
	22.60 (24VDC)	22.90 (24VDC)	22.40 (24VDC)	23.20 (24VDC)	---	22.00A (24VDC)	22.8 (24VDC)	23.9 (24VDC)
Output Current @ Max Load	1.40A (12VDC)	3.10A (12VDC)	4.70A (12VDC)	---	7.70A (12VDC)	11.00A (12VDC)	15.00A (12VDC)	19.00A (12VDC)
	0.70A (24VDC)	1.40A (24VDC)	2.20A (24VDC)	3.80A (24VDC)	---	5.60A (24VDC)	7.70A (24VDC)	12.00A (24VDC)
Open Circuit Output Voltage	12.4VDC	12.8VDC	12.5VDC	25.8VDC		13.3VDC	12.9VDC	12.4VDC
	24.4VDC	25.7VDC	25.0VDC			25.6VDC	26.2VDC	25.5VDC

Environmental

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

Dimming

Minimum Dimming Level	1%
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Protection

Circuit Breaker	Primary & Secondary Auto-Reset / Primary & Secondary Manual Reset
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Mechanical Housing

Primary Leads	18 AWG	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	12 AWG (12VDC)	12 AWG	12 AWG
	18 AWG (24VDC)	18 AWG (24VDC)	16 AWG (24VDC)	---	---	14 AWG (24VDC)	---	---
Length	5.60"	5.60"	6.55"	6.55"	9.80"	9.80"	9.80"	9.80"
	(142.2mm)	(142.2mm)	(166.37mm)	(166.37mm)	(248.9mm)	(248.9mm)	(248.9mm)	(248.9mm)
Width	2.00"	2.00"	2.55"	2.55"	3.00"	3.00"	3.00"	4.20"
	(50.8mm)	(50.8mm)	(64.77mm)	(64.77mm)	(76.2mm)	(76.2mm)	(76.2mm)	(106.7mm)
Height	2.14"	2.14"	2.55"	2.55"	2.74"	2.74"	2.74"	3.50"
	(54.3mm)	(54.3mm)	(64.77mm)	(64.77mm)	(69.6mm)	(69.6mm)	(69.6mm)	(88.9mm)
Weight	2.2 lbs.	2.2 lbs.	3.1 lbs.	3.5 lbs.	4.8 lbs.	5.4 lbs.	5.4 lbs.	8.75 lbs.
Housing Material	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal	Coated Metal
Housing Color	Black	Black	Black	Black	Black	Black	Black	Black
Junction Box	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mounting	Two-hole flange mount							

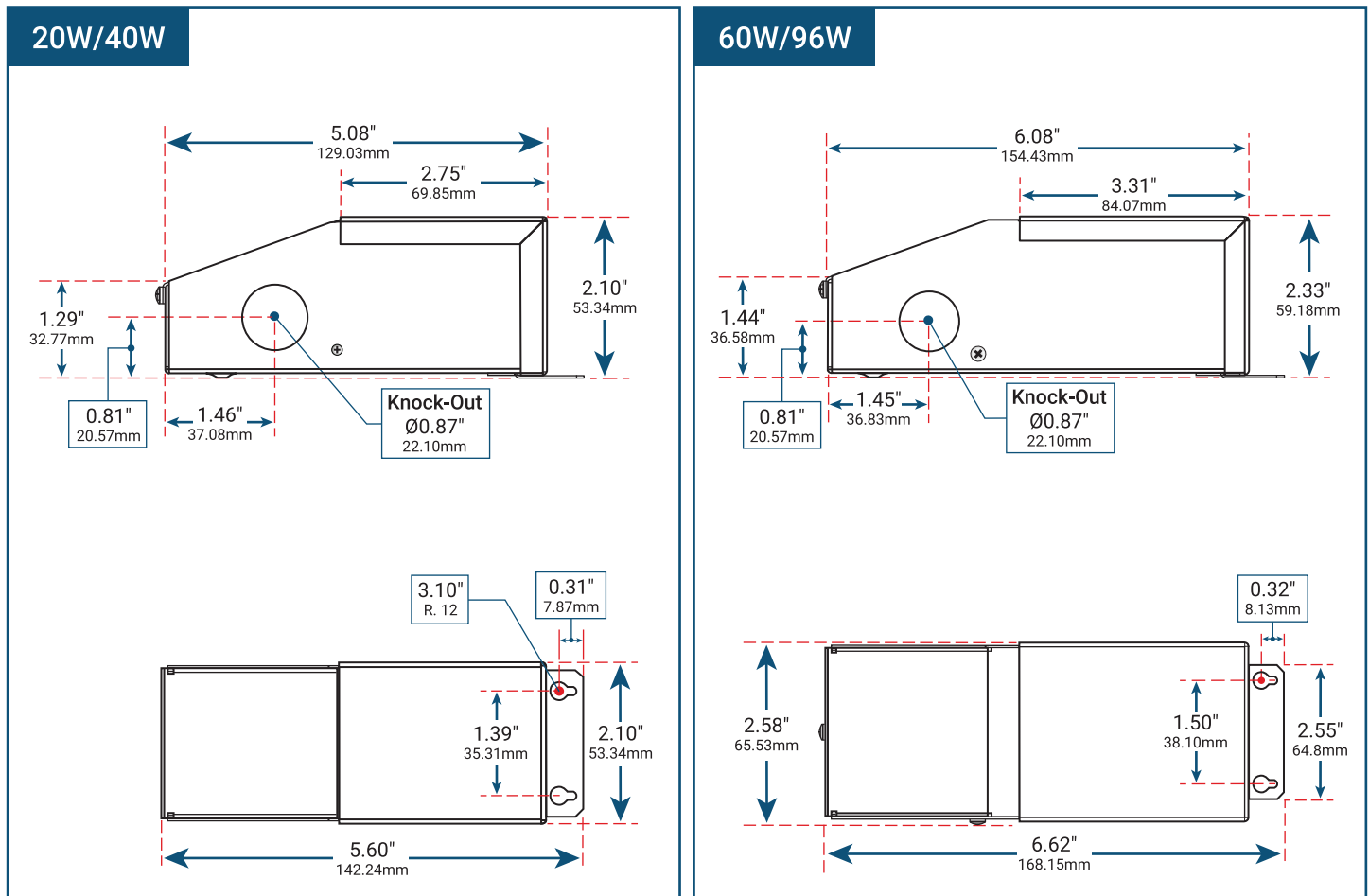
Approval Markings

Certificates/Approval Signs ETL Listed Conforms to UL8750

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Mechanical Diagrams

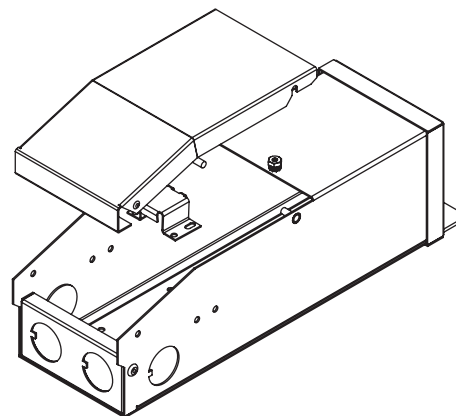
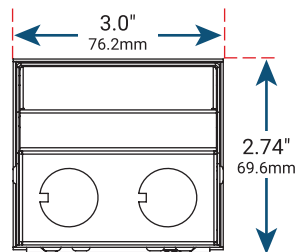
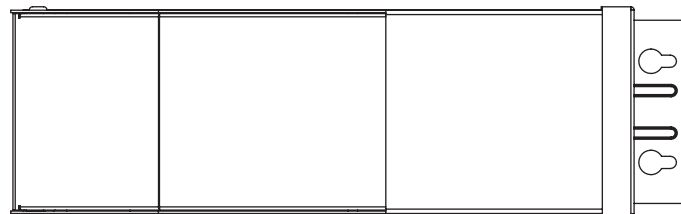
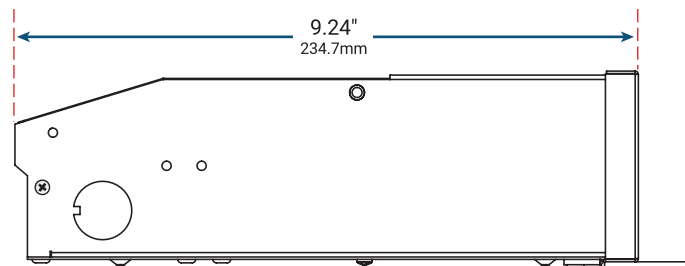


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Mechanical Diagrams

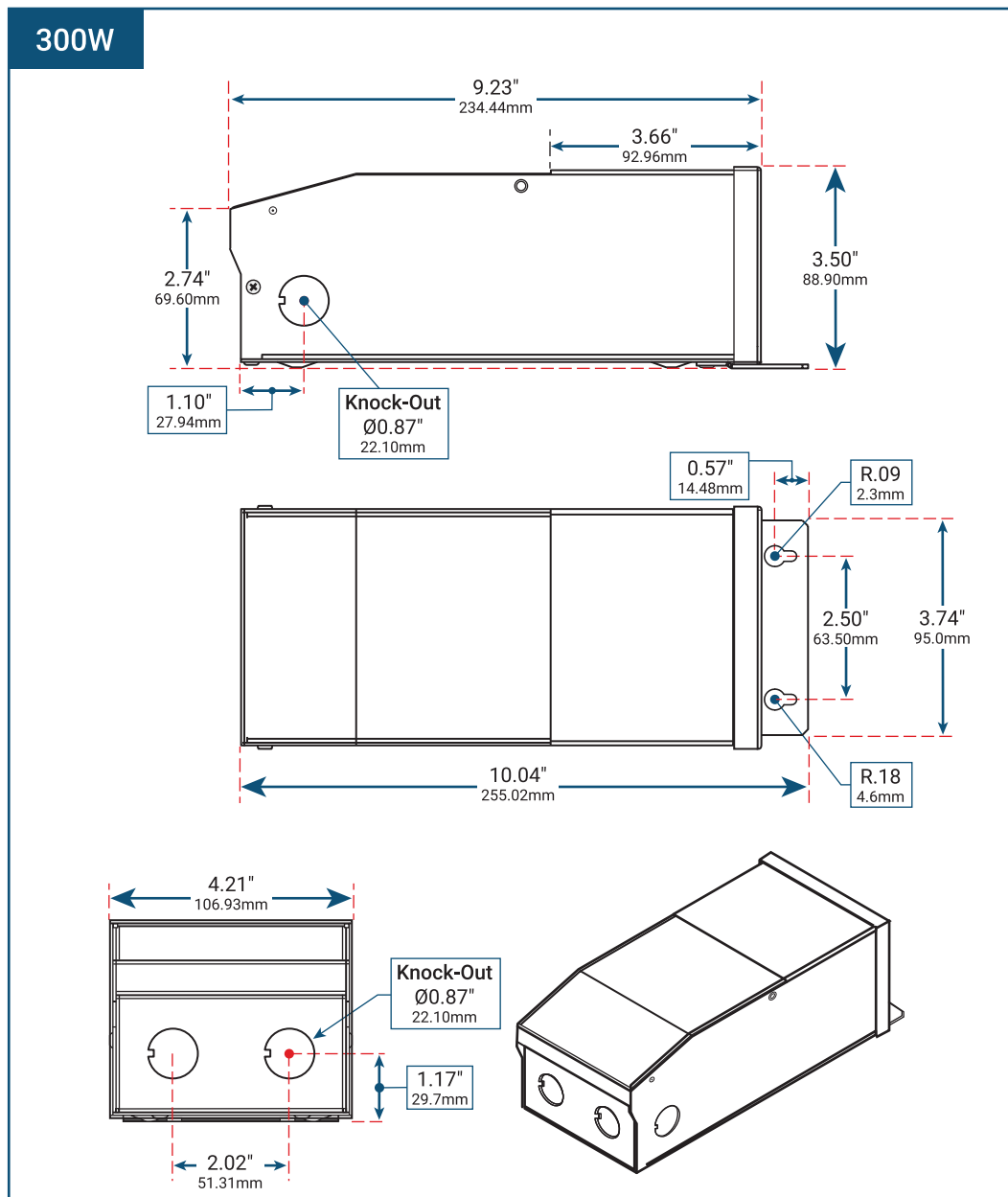
100W, 150W & 200W



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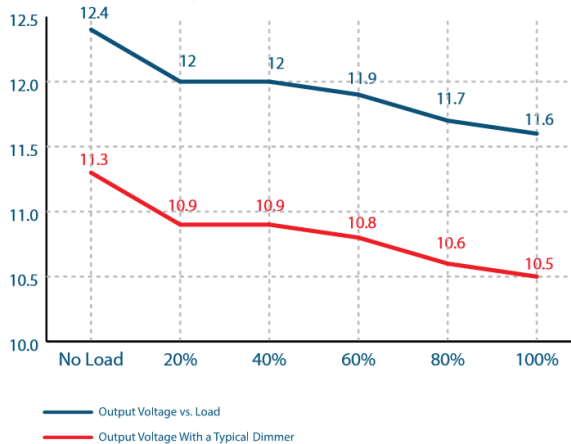
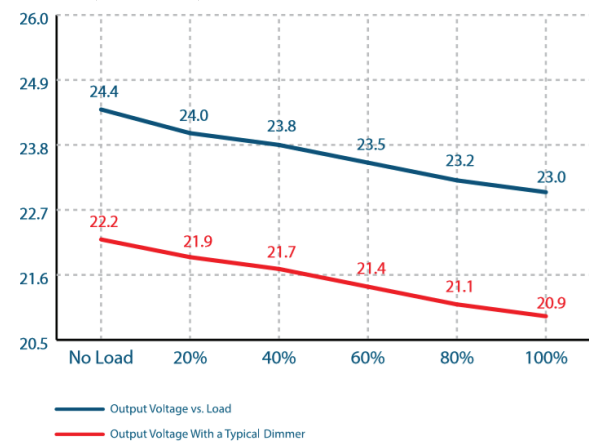
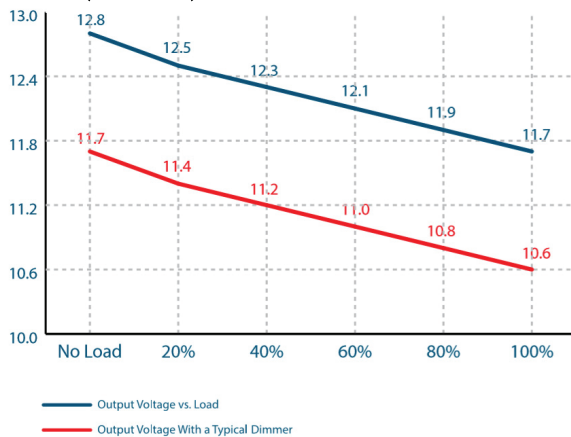
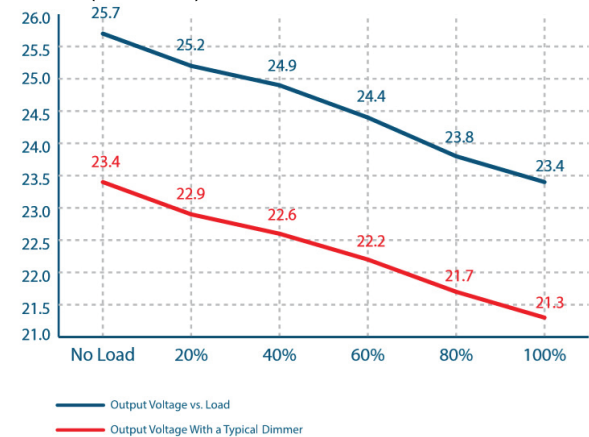
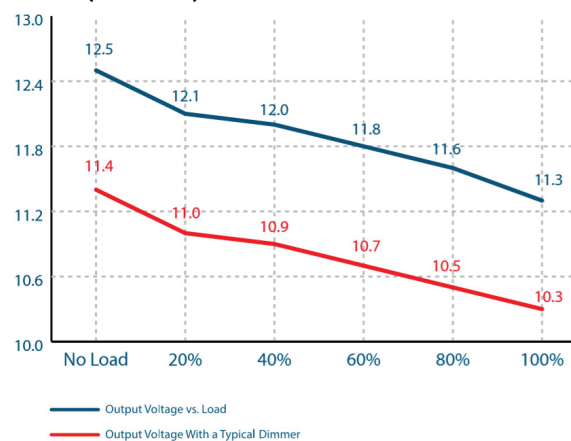
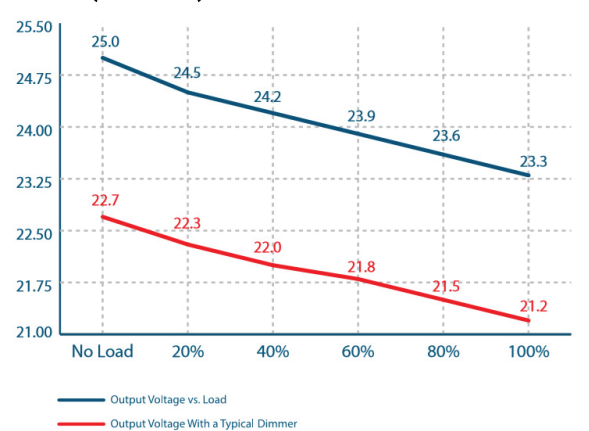
Mechanical Diagrams



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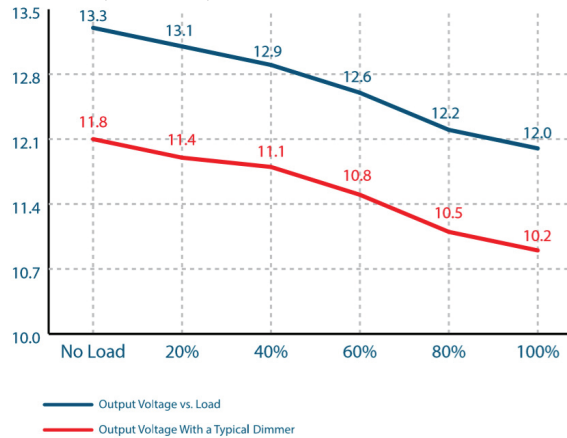
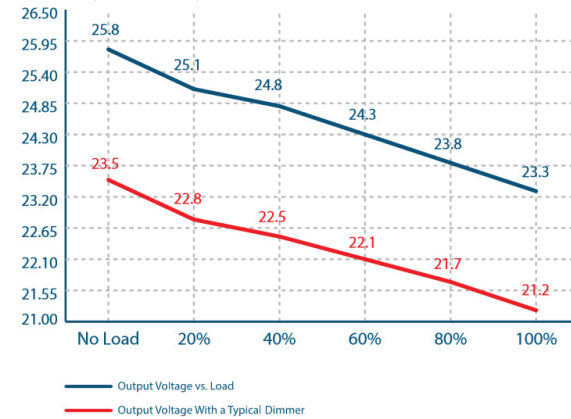
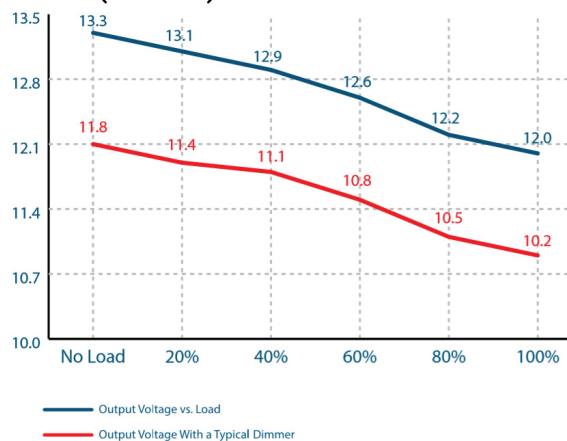
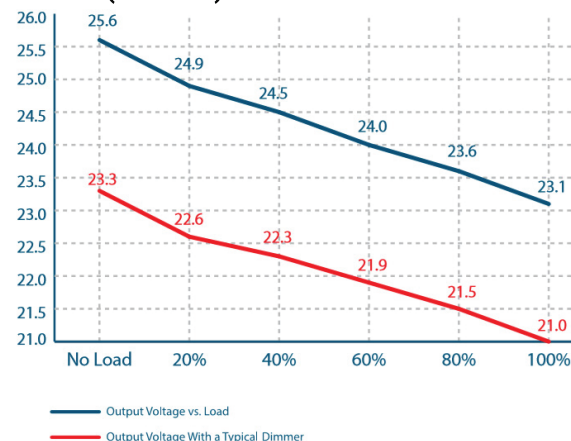
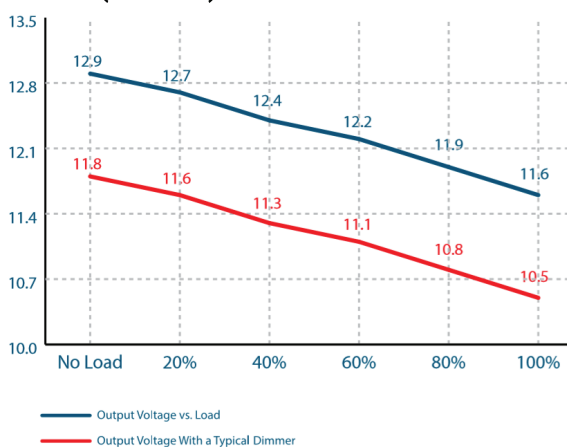
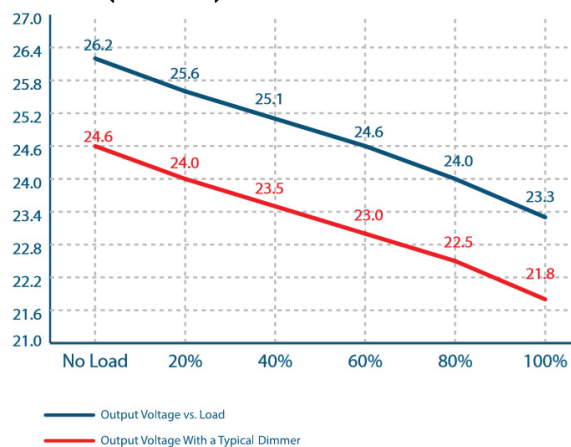
Output vs Load

20W (12VDC)

20W (24VDC)

40W (12VDC)

40W (24VDC)

60W (12VDC)

60W (24VDC)


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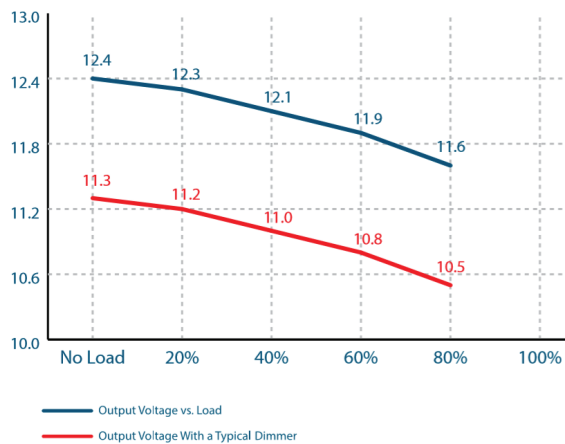
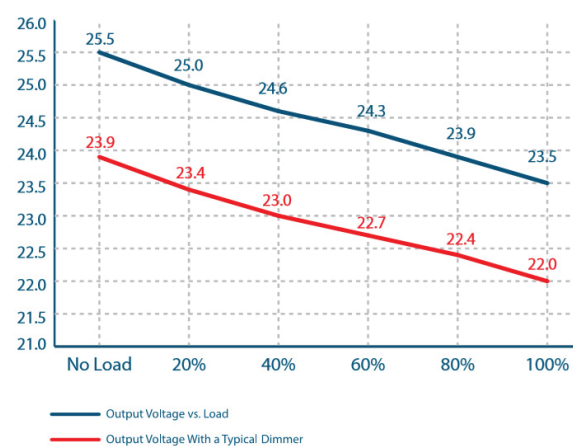
Output vs Load

100W (12VDC)

96W (24VDC)

150W (12VDC)

150W (24VDC)

200W (12VDC)

200W (24VDC)


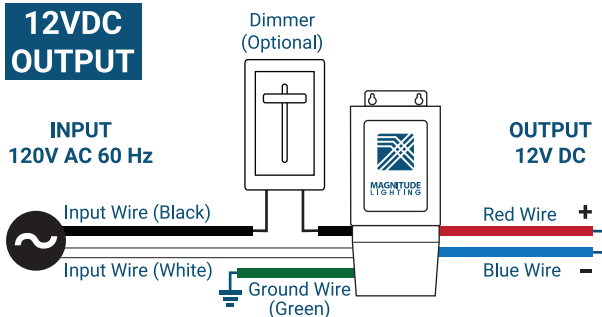
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Output vs Load

300W (12VDC)

300W (24VDC)


Wiring Diagrams

**12VDC
OUTPUT**

**24VDC
OUTPUT**
