

(PHITLIGHTS

M-SERIES INPUT: 120VAC | Specification Sheet

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 ⁷/8" knockouts 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 ⁷/₈" Knockouts **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

















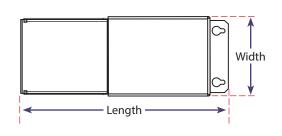
120VAC



	ORD	ERING GUI	IDES - AUTO) & MANUAL	R	
	AUTO RESET BREAKERS					
Туре	Max Power	Listing	Output	Safety		
M – Magnetic	40 _j – 40W (Class 2) 60 ¹ – 60W (Class 2)		12DC – 12VDC 24DC – 24VDC	AR – Auto Reset	M	
	96 ^{1,2} - 96W (Class 2) 100 ³ - 100W 150 - 150W	_				
	¹ Class 2 ² 24VDC only ³ 12VDC only	-				

ORDERING GUIDES - AUTO & MANUAL RESET BREAKERS								
AUTO RESET BREAKERS				MANUAL RESET BREAKERS				
Туре	Max Power	Listing	Output	Safety	Туре	Max Power	Listing	Output
M – Magnetic	40 - 40W (Class 2) 60 ¹ - 60W (Class 2) 96 ^{1,2} - 96W (Class 2) 100 ³ - 100W 150 - 150W ¹ Class 2 ² 24VDC only ³ 12VDC only	L – ETL Listed	12DC – 12VDC 24DC – 24VDC	AR – Auto Reset	M – Magnetic	300 – 300W	L – ETL Listed	12 – 12VDC 24 – 24VDC

DRIVER MEASUREMENTS				
Dimensions	40W	60W / 96W	100W / 150W	300W
Length	5.60"	6.62"	9.80"	10.07"
	(142.2mm)	(168.15mm)	(248.9mm)	(255.78mm)
Width	2.00"	2.58"	3.00"	4.20"
	(50.8mm)	(65.53mm)	(76.2mm)	(106.7mm)
Height	2.14"	2.33"	2.74"	3.50"
	(54.36mm)	(59.18mm)	(69.6mm)	(88.9mm)







Constant Voltage Magnetic Phase-Dimmable 12/24VDC LED Driver

SPECIFICATIONS					
Average voltage measurement required. Must be measured with Oscilloscope, Multimeters will give inaccurate voltage readings.					
INPUT	40W	60W	96W		
Input Voltage Range	120VAC ± 5%	120VAC ± 5%	120VAC ± 5%		
Input Frequency	50/60Hz	50/60Hz	50/60Hz		
Input Current	0.43A (12VDC) 0.38A (24VDC)	0.64A (12VDC) 0.55A (24VDC)	0.97A (24VDC)		
Efficiency	73.21 % (12VDC) 77% (24VDC)	74% (12VDC) 80% (24VDC)	 77% (24VDC)		
Power Factor	0.96 (12VDC) 0.93 (24VDC)	0.96 (12VDC) 0.93 (24VDC)	0.98 (24VDC)		
OUTPUT					
Max Load	40W	60W	96W		
Output Voltage @ Max Load	11.56 (12VDC) 22.90 (24VDC)	11.55 (12VDC) 22.40 (24VDC)	23.20 (24VDC)		
Output Current @ Max Load	3.10A (12VDC) 1.40A (24VDC)	4.70A (12VDC) 2.20A (24VDC)	3.80A (24VDC)		
Open Circuit Output Voltage	12.8VDC 25.7VDC	12.5VDC 25.0VDC	25.8VDC 		
ENVIRONMENTAL					
Operating Temperature	-30°C to +45°C (-22°F to 113°F)	-30°C to +45°C (-22°F to 113°F)	-30°C to +45°C (-22°F to 113°F)		
Min. Installation Spacing	5"	5"	5"		
Thermal Class	B130°C	B130°C	B130°C		
DIMMING					
Min. Dimming Level	1%	1%	1%		
PROTECTION					
Circuit Breaker	Primary & Secondary Auto Reset	Primary & Secondary Auto Reset	Primary & Secondary Auto Reset		
MECHANICAL HOUSING					
Primary Leads	18AWG	18AWG	18AWG		
Secondary Leads	16AWG (12VDC) 18AWG (24VDC)	14AWG (12VDC) 16AWG (24VDC)	14AWG (12VDC) 		
Length	5.60" (142.2mm)	6.55" (166.37mm)	6.55" (166.37mm)		
Width	2.00" (50.8mm)	2.55" (64.77mm)	2.55" (64.77mm)		
Height	2.14" (54.36mm)	2.55" (64.77mm)	2.55" (64.77mm)		
Weight	2.2 lbs.	3.1 lbs.	3.5 lbs.		
Housing Material	Coated Metal	Coated Metal	Coated Metal		
Housing Color	Black	Black	Black		
Junction Box	Yes	Yes	Yes		
Mounting	2-hole flange mount	2-hole flange mount	2-hole flange mount		
APPROVAL MARKINGS					
Certificates and/or Approval Signs	ETL Listed Conforms to UL 8750	ETL Listed Conforms to UL 8750	ETL Listed Conforms to UL 8750		





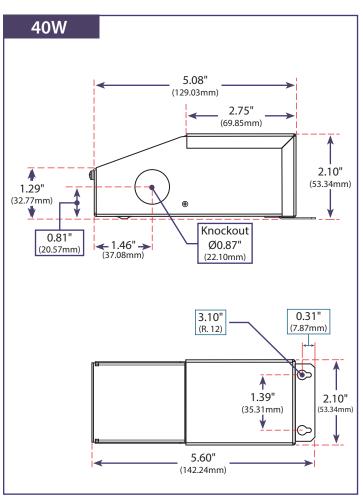
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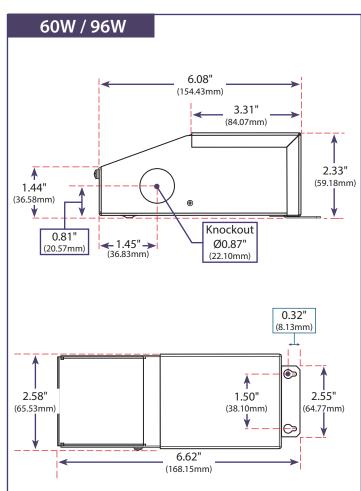
SPECIFICATIONS					
Average voltage measurement required. Must be measured with Oscilloscope, Multimeters will give inaccurate voltage readings.					
INPUT	100W	150W	300W		
Input Voltage Range	120VAC ± 5%	120VAC ± 5%	120VAC ± 5%		
Input Frequency	50/60Hz	50/60Hz	50/60Hz		
Input Current	1.01A (12VDC) 	1.38A (12VDC) 1.28A (24VDC)	2.20A (12VDC) 2.87A (24VDC)		
Efficiency	77% (12VDC) 	82% (12VDC) 82% (24VDC)	96% (12VDC) 87% (24VDC)		
Power Factor	0.96 (12VDC)	0.96 (12VDC) 0.98 (24VDC)	0.88 (12VDC) 		
OUTPUT					
Max Load	100W	150W	300W		
Output Voltage @ Max Load	11.73 (12VDC)	11.69 (12VDC) 22.00 (24VDC)	11.93 (12VDC) 23.50 (24VDC)		
Output Current @ Max Load	7.70A (12VDC)	11.00A (12VDC) 5.60A (24VDC)	19.00A (12VDC) 12.32A (24VDC)		
Open Circuit Output Voltage		13.3VDC 25.6VDC	12.4VDC 25.5VDC		
ENVIRONMENTAL		23.0700	23.5700		
Operating Temperature	-30°C to +45°C	-30°C to +45°C	-30°C to +45°C		
operating reinperature	(-22°F to 113°F)	(-22°F to 113°F)	(-22°F to 113°F)		
Min. Installation Spacing	5"	5"	5"		
Thermal Class	B130°C	B130°C	B130°C		
DIMMING					
Min. Dimming Level	1%	1%	1%		
PROTECTION					
Circuit Breaker	Primary & Secondary Auto Reset	Primary & Secondary Auto Reset	Primary & Secondary Manual Reset		
MECHANICAL HOUSING					
Primary Leads	18AWG	18AWG	18AWG		
Secondary Leads	12AWG (12VDC)	12AWG (12VDC) 14AWG (24VDC)	12AWG (12VDC)		
Length	6.62" (168.15mm)	6.62" (168.15mm)	10.07" (255.78mm)		
Width	2.58" (65.53mm)	2.58" (65.53mm)	4.20" (106.7mm)		
Height	2.33" (59.18mm)	2.33" (59.18mm)	3.50" (88.9mm)		
Weight	4.8 lbs.	5.4 lbs.	8.75 lbs.		
Housing Material	Coated Metal	Coated Metal	Coated Metal		
Housing Color	Black	Black	Black		
Junction Box	Yes	Yes	Yes		
Mounting	2-hole flange mount	2-hole flange mount	2-hole flange mount		
APPROVAL MARKINGS					
Certificates and/or Approval Signs	ETL Listed Conforms to UL 8750	ETL Listed Conforms to UL 8750	ETL Listed Conforms to UL 8750		



Constant Voltage Magnetic
Phase-Dimmable 12/24VDC LED Driver

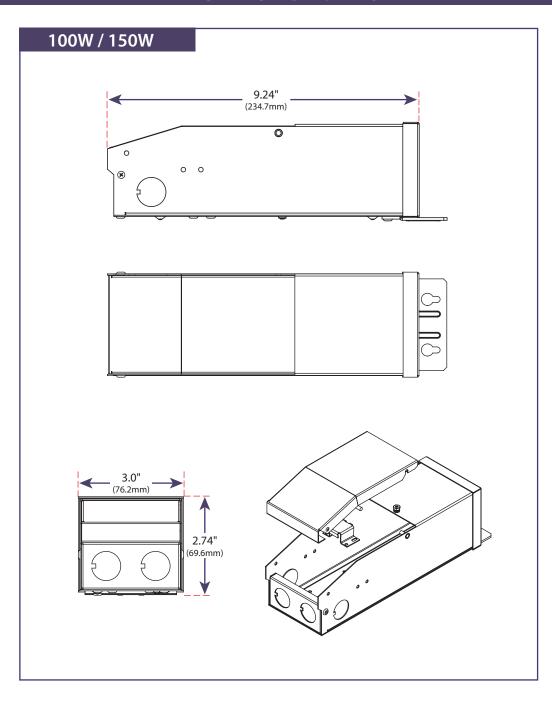
MECHANICAL DIAGRAMS





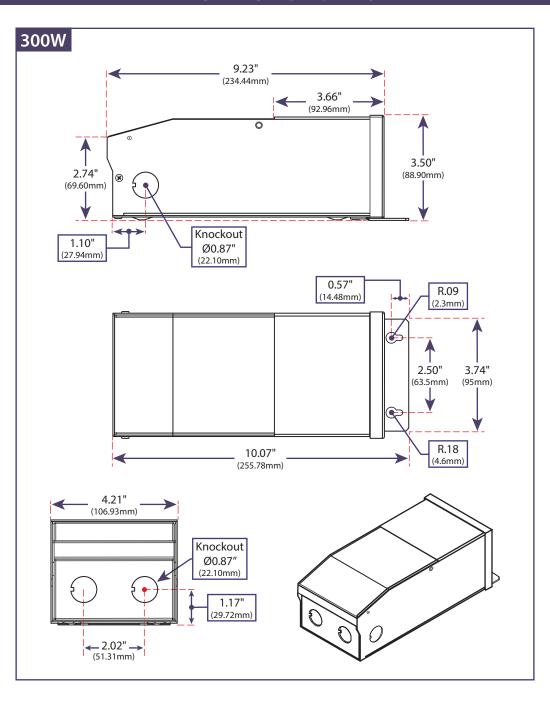


MECHANICAL DIAGRAMS



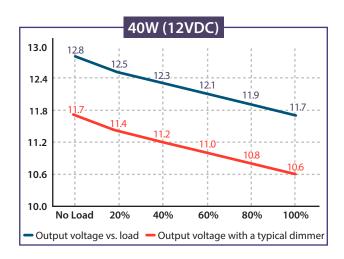


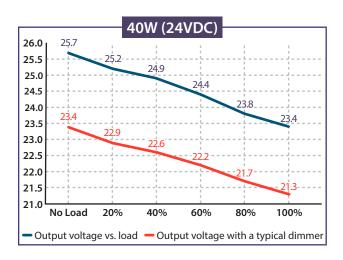
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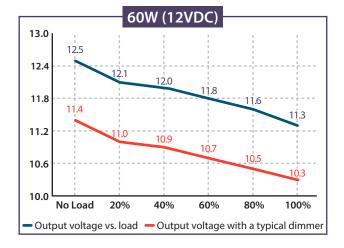


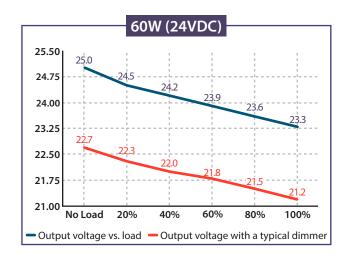


OUTPUT vs LOAD









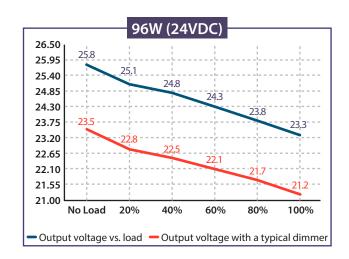


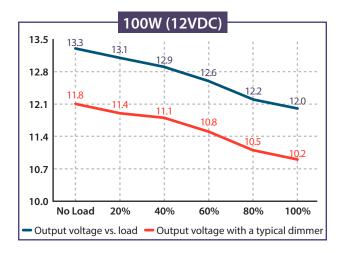
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OUTPUT vs LOAD

96W (12VDC)

96W 12VDC is not available in the M-Series.





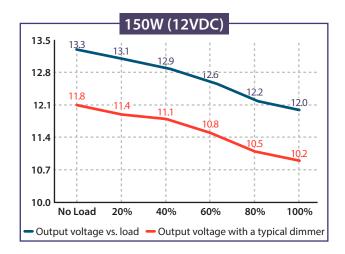
100W (24VDC)

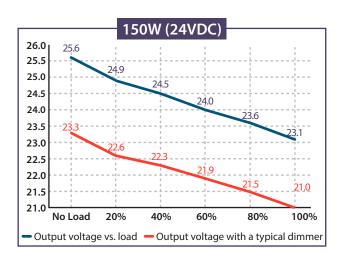
100W 24VDC is not available in the M-Series.

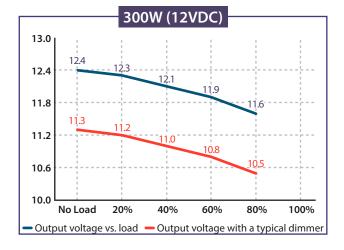


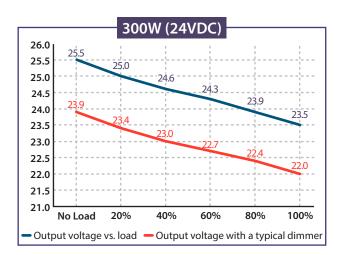
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Phase-Dimmable 12/24VDC LED Driver

OUTPUT vs LOAD











WIRING DIAGRAMS

