

# modaLIGHT<sup>®</sup>

## SPECIFICATION

# MP16 DRIVER

Specification grade 12V DC 132W LED driver. Universal input 100-277V AC for worldwide use. Durable anodized aluminum construction with heavy duty cables. Quality construction by MODA engineers ensures long life. Fully potted. Ergonomic design. Built-in Active PFC function. Fully protected from Over Current, Short Circuit, Over Voltage and Over Temperature. Cooling by free air convection. Wet location rated to IP67. Tested by UL.



### OUTPUT

DC Voltage	12V
Constant Current Region	9 ~ 12V
Rated Current	11A
Rated Power	132W
Efficiency at 230v AC (Typ.)	88.0%
Voltage Tolerance	- 1% ~ 5%
Set Up Time (Max.)	0.8s / 230V AC, 1.0s / 115V AC, at full load

### INPUT

Voltage Range	100-277V AC
Frequency Range	47 / 63 Hz
AC Current (Max.)	2A at 115V AC / 1A at 230V AC
Power Factor	> 0.98 at 115V AC / > 0.95 at 230V AC at Full Load. PF ≥ 0.9 at 75% Load
Inrush Current (Max.)	Cold Start 65A at 230V AC
Leakage Current	< 0.5mA / 240V AC

### STANDARDS & CERTIFICATIONS

Safety Standards	UL8750, UL60950, EN61347-2-1, EN61347-2-13, Independent
Withstand Voltage	I/P-O/P: 3.75Kv AC I/P-FG: 1.88Kv AC O/P-FG: 0.5Kv AC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100M ohms / 500v DC at 25°C
EMI Conduction & Radiation	Compliance to EN55015, FCC part 15
Harmonic Current	Compliance to EN61000-3-2 Class C (≥75% load), EN61000-3-3
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,11; EN61547, Light industry level, criteria A
Class	Class 1

Project Name:

Notes:

### PHYSICAL

Dimensions	Length 8 7/10" (222mm) Width 2 7/10" (68mm) Height 1 1/2" (39mm)
Weight	2.2 lbs (988g)
Construction	Anodized Aluminum Construction
Thermal Management	Free Air Convection

### ENVIRONMENT

Location	Wet Location Rated IP67 *Driver and exposed wires must be housed in enclosure.
Operation Temp.	- 30° C ~ 70° C ( Refer to Output Load Derating Curve)
Operation Humidity	20% ~ 95% RH Non Condensing
Storage Temp.	- 4° ~ +80° C
Storage Humidity	10% ~ 90% RH
Vibration	10 ~ 500Hz, 2G 10min. /1cycle, Period for 60min. Each Along X,Y,Z Axis.

Note: With constant development of LED technology please refer to our website for current technical data

### PROTECTIONS

Open Current	95 ~ 105% Rated Current. Type: Auto-Recovery After Fault Condition Disappeared
Short Circuit	Type: Hiccup Mode & Recovers After Fault Condition Disappeared. 14 ~ 20V
Over Voltage	Type: Latch Mode (Re-Power on to Recover)
Over Temperature	Case: 95°C ± 10°C Type: Shutdown Mode (Re-Power on to Recover)

### MODA TECHNOLOGY

modaDRIVER™

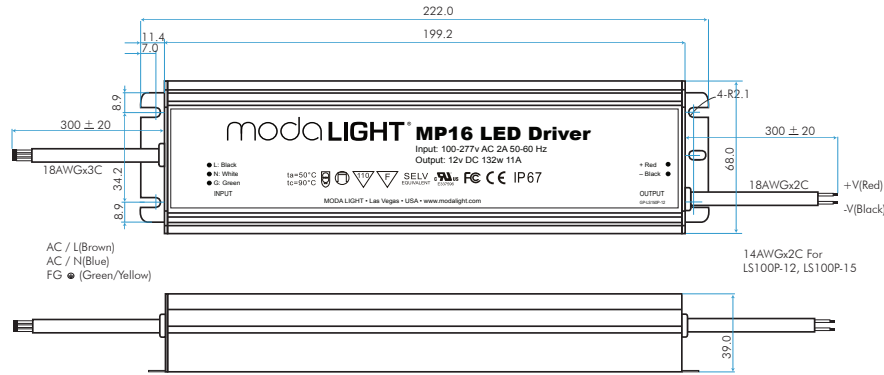
### STANDARDS & CERTIFICATIONS



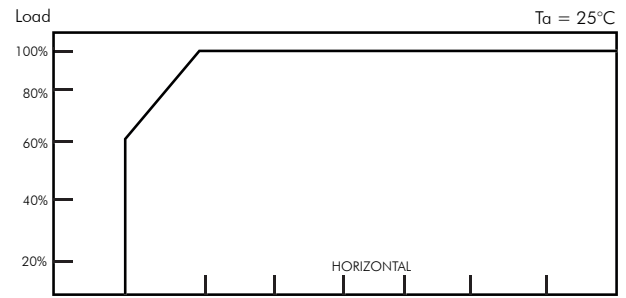
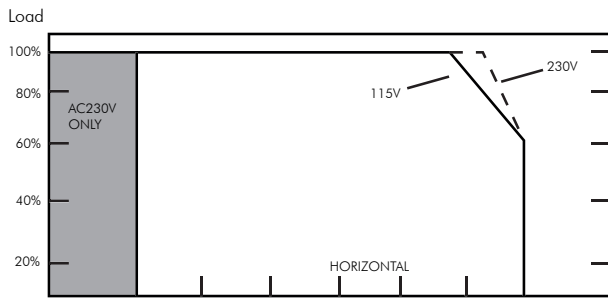
Due to continuous improvements and innovations, specifications may change without notice. Please refer to our website for current technical data. These figures are provided as a guideline only and may vary with differing power supplies and installations. All rights reserved. E&OE.

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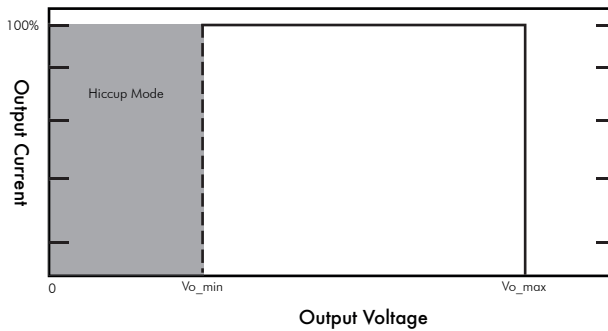
### MECHANICAL SPECIFICATION



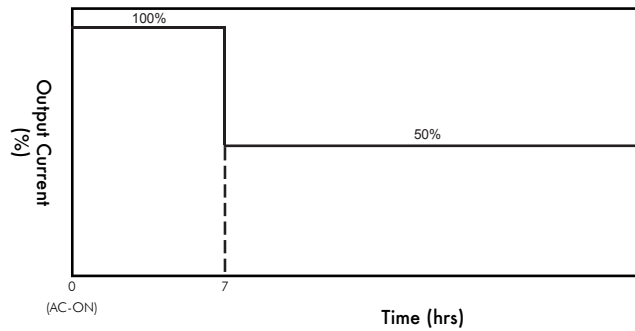
### DERATING CURVE



### CONSTANT VOLTAGE / CONSTANT CURRENT CURVE

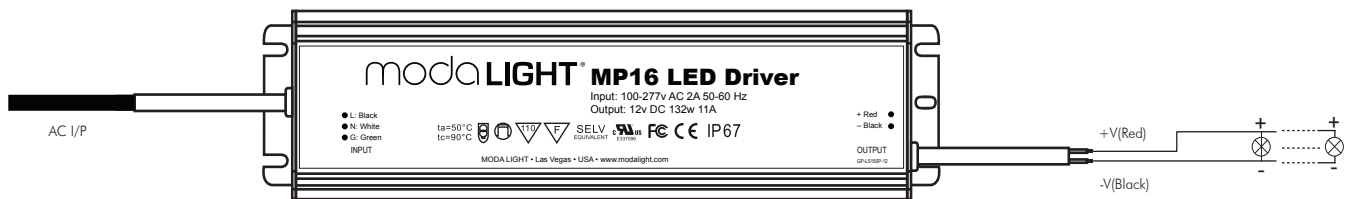


### TIMER DIMMING



Note: The output current will return to 100% after the AC voltage is removed for a while and ON again.

### WIRING DIAGRAM



#### Notes:

1. All specifications not specially mentioned are measured at 230v AC and 25°C ambient temperature.
2. Ripple & Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1uf & 47uf parallel capacitor
3. Voltage Tolerance: includes line regulation, load regulation and set-up tolerance.
4. Constant Current operation region is within 75%~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.
5. Please refer to derating curve.