specifications:

LED Driver

50W - 150W Programmable

Overview

Metrolight LED driver technology offers highly efficient, proven and programmable solution that drives and controls LEDs.
The driver offers complete adaptability to the LED design and user's needs. Once selecting the required output power (which can be re-programmed at any time) the driver automatically applies the adequate current and voltage to the LEDs. Any LED design change which may be required in the future, involves mere programming of the LED driver to the newly required power. The LED driver incorporates unique control capabilities including: 0-10V analog dimming, full digital control with real time feedback and on-board dimming profile. The LED driver is field proven with more than 800,000 installed light points worldwide and is approved by leading OEM's being part of their Approval Vendor List.

Benefits

High power: up to 150W
Proven: >800,000 installations worldwide
LED control: constant current, adaptive current control, power control
Programmable: current, voltage and power software adjustable
Control: analog, digital and on-board dimming scheduler
Connectivity: wired and wireless
Efficiency: up to 93% (Wattage dependent)
Protection: on-board surge, input & output
Thermal management: on-board
Remote installation: unlimited distance

Operating Specifications

General Input Specifications	
Frequency	50/60Hz
Inrush current	<25A
Harmonics (at nominal conditions)	Fully complies with EN61000-3-2
Total harmonic distortion	<10% at 120V, <10% at 208V, <15% at 277V.
Input current protection	Fuse (Internal)
Continuous full range dimming	• 100% - 10% of full power (standard configuration), minimum 40W • Analog dimming current draw 1.5mA per fixture. Maximum number of fixtures =sensor current / 1.5mA
Dimming options	• 0-10V analog dimming by relay, ambient sensor, daylight sensor or any other compatible sensor • Bi level dimming by relay or dry contact closure • Digital dimming - with individual light point control and real-time feedback

* Additional wattages are available upon request.

General Specifications	
Operating temperature range	-40°C to +65°C / -40°F to 149°F
Operating humidity	0 to 95% RH non-condensing
Maximum case temperature (Tc)	85°C / 185°F
Lifetime at Tc = 75°C / 167F	80,000 hours
Remote installation losses	Depend on wires' distance, significantly lower than class II low voltage related losses.

General Specifications Continued	
EMC	FCC Title 47 Part 18 C (non-consumer): EN55015:2006 When the driver is installed inside a lighting fixture, an external dedicated Metrolight line adapter may be required (EU only). Contact Metrolight customer support for more information. EN61547; EN61000-3-2; EN61000-3-3
Regulatory Approvals	CE c UL us
Surge Protection	IEEE C62.41 Category C Low Between phase and neutral 6KV / 3KA Between line and ground 10KV / 1KA

Protections	
Self-protection mechanisms	In the event of a short circuit, or open circuit; If the LED fails to light; In the end of the LED's life; Input current protection by internal fuse; Advanced surge protection between phase and neutral and between line and ground; Advanced output protection against arching or shorting to ground
Heat Management	If driver temperature rises beyond maximum level, driver will gradually reduce its output power to 10%. When the driver's temperature returns to the allowed temperature range, the driver will return to full output power

Dimming Specifications	
Analog dimming (standard configuration)	10V or gray/purple wires separated - 100% power; 0V or gray/purple shorted together - 10% power. Dimming is continuous for dimming signal between 0 to 10V. Dimming can be reversed or maximum dimming value can be set to any level from 10-99% by special configuration
Analog dimming fade time (standard configuration)	Fade time from 10% to 100% power - 10 seconds Fade time from 100% to 10% power - 10 seconds (Dimming fade time can be individually modified to any value from 10 seconds to 30 minutes through configuration)
Auto profile dimming (standard auto dimming configuration)	Designed for outdoor applications such as parking lots, drivers utilizing the auto profile dimming will automatically dim to 50% power without any external controls or triggers, starting one hour before the midpoint (based on the average of the previous three days' operating hours) for a period of 6 hours. In outdoor applications where the midpoint is ~ midnight, dimming will automatically take place between ~ 11p.m. - 5a.m. (23:00hr - 05:00hr). The auto profile dimming times and percentages can be modified by special configuration to include up to 16 different steps per cycle. NOTE: There is no extra charge for this feature, that must be requested by ordering the appropriate part number.
MADLI digital control	Metrolight Addressable Digital Lighting Interface (MADLI) is intended for use with Metrolight's LED drivers to control lighting networks. The control protocol enables two way communication between the LampID concentrator, a state-of-the-art, robust and reliable web-based controller, and the drivers, providing ultimate controllability Each fixture is assigned a MADLI address between 1 and 1023, By using the digital control feature, each driver can be individually turned on, off or dimmed. The drivers are connected to the control system by low voltage cabling, wireless or PLC. The drivers also provide real time feedback on operational status, power consumption, array voltage, driver temperature and other driver and LED parameters.

Reconfiguration	
Configuration capability	Using Metrolight's Smart Tool control software, the driver can be reconfigured to: #1. Any power from 50W - 150W #2. Change the MADLI address #3. Any other variable as noted in this specification sheet

Note: The driver is specified as class one therefore, adequate installation is required between LED conductors and Ground.
For more details, please contact us.

Input Specifications

Input values for power, voltage and current are LED wattage dependent

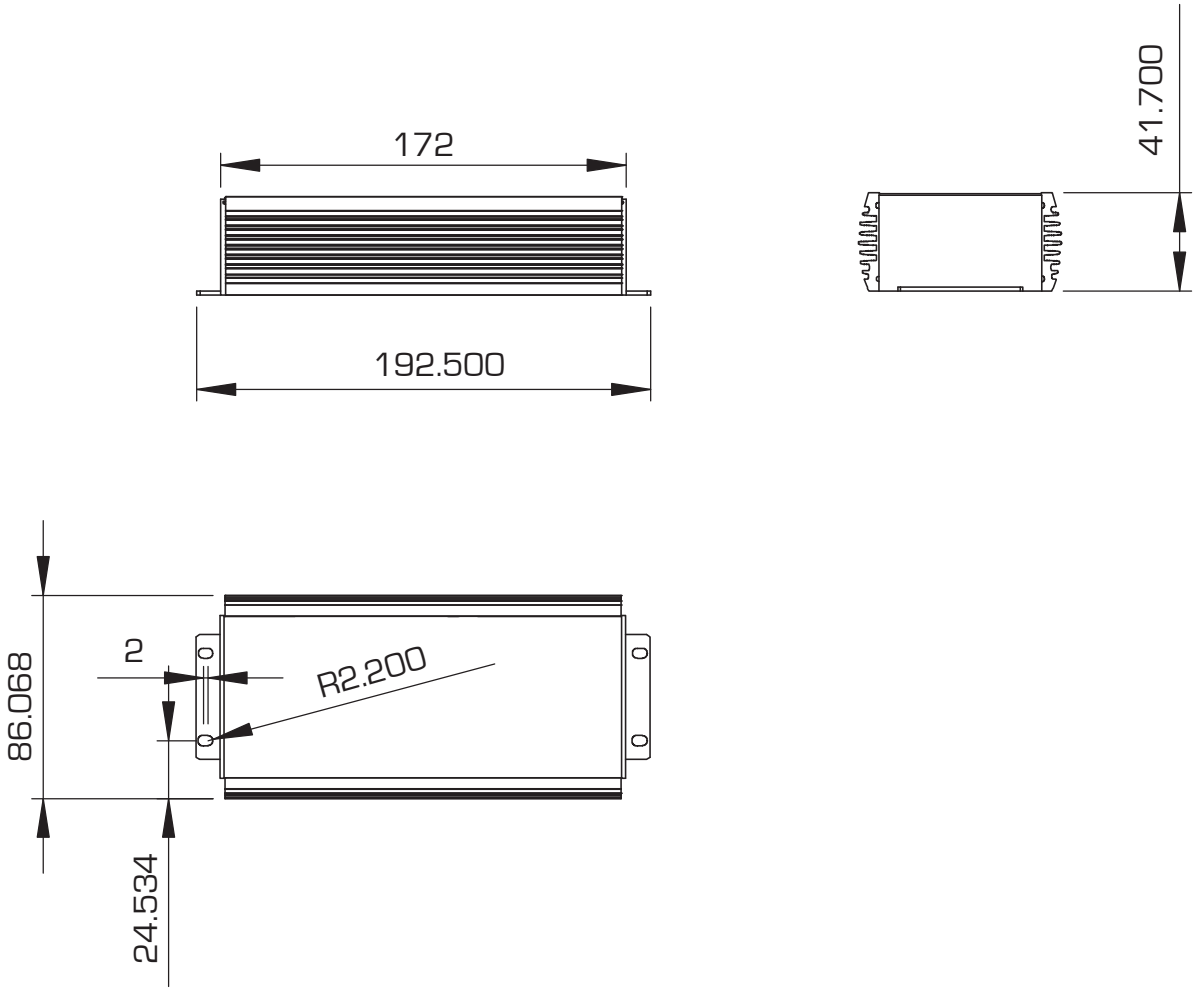
LED Power, Voltage and Current Specifications

150W LED Power	
Input Power	160W
Input Voltage	120 - 277VAC (+10% to –15%) , 140-420VDC
Input Current	0.59A@277V, 0.71A@230V, 1.4A@120v
Power Factor (at nominal conditions and full power)	>0.98

100W LED Power	
Input Power	109W
Input Voltage	120 - 277VAC (+10% to –15%) , 140-420VDC
Input Current	0.43A@277V, 0.49A@230V, 0.95A@120V
Power Factor (at nominal conditions and full power)	>0.97

50W LED Power	
Input Power	55W
Input Voltage	120 - 277VAC (+10% to –15%) , 140-420VDC
Input Current	0.2A@277V, 0.24A@230V, 0.46@120V
Power Factor (at nominal conditions and full power)	>0.95

LED Driver 50W - 150W | Mechanical Dimensions



METROLIGHT

LIGHT FORWARD

About Metrolight

Metrolight provides proven energy-efficient eHID and LED solutions for high-power lighting. Metrolight's ballasts, drivers and managed lighting solutions are used in retail, industrial, commercial and municipal installations to reduce energy consumption and carbon emission by 70%. Pioneering lighting energy solutions since 1996, Metrolight operates worldwide with over 800,000 systems deployed and over 8 billion hours in operation. For more information, please visit our website at: **www.metrolight.com**

Israel Corporate Headquarters
Metrolight Ltd.
9 Haomanut St.
P.O. Box 8865, Netanya, 42160
T:+(972) 9.863.3060
F:+(972) 9.863.3050
info@metrolight.com

U.S. Headquarters
Metrolight Inc.
34197 Pacific Coast Highway
Dana Point, CA 92629
T: 949.542.7048
F: 949.542.7050
info-us@metrolight.com

E.U. Headquarters
6 Kean Street
London, WC2B 4AS UK
United Kingdom
(at Virgin Green Fund)
T: 44.77.6089.9070
info@metrolight.com

www.metrolight.com