

specifications:

# Metrolight CompactHID™

## Electronic Ballast

50/70/100/150 Watt

### Operating Specifications

The Metrolight CompactHID™ Electronic Ballast is designed to suit most Metal Halide or HPS lighting applications. These ballasts are dimmable via approved 0-10V sensor or relay. This section lists the CompactHID™ Ballasts operating specifications, input and output characteristics and its built-in protections.

#### General Input Specifications

Voltage	120 - 277VAC (+10% to -15%)
Frequency	50/60Hz
Inrush current	<5A for 1ms
Harmonics (at nominal conditions)	Fully complies with EN61000-3-2 /Typical THD: 120-208V<10% and 277V<15%
Input current protection	Fuse (Internal)
Continuous full range dimming	50% - 100% of full power, by relay, ambient sensor, daylight sensor or any other compatible 0-10V sensor. Fade up time (50 - 100%) is 15 seconds and fade down time (100% - 50%) is 10 minutes. Analog dimming current draw 1.5mA per ballast. Maximum number of fixtures: 1.5mA x Sensor current
Bi level dimming	Bi level dimming by relay or dry contact closure
Control Signal	Grey/Purple control wires separated / 10V = 100% power Grey/Purple control wires shorted / 0V = 50% power Dimming is continuous for control signal values >0V and <10V



#### General Output Specifications

Open circuit voltage	<300V
Ignition voltage	<4kV
Frequency	166Hz ± 10% square wave

#### General Specifications

Dimensions (LxWxH)	50W, 70W,100W	.70" x 3.03" x 1.25" / 119.3 x 77 x 31.4mm (includes mounting feet)
	150W	4.646" x 3.37" x 1.497" / 118 x 85.6 x 38mm (includes mounting feet)
Weight	50W, 70W,100W	0.56lb / 254g
	150W	0.7lb / 318g
Operating temperature range	-25°C to +65°C / -13°F to 149°F	
Maximum case temperature (Tc)	85°C / 185°F	
Operating Humidity	0 to 95% RH non-condensing	
EMC	FCC Title 47 Part 18 C (non-consumer); EN55015; EN61547	
	(If the CompactHID™ Ballast is installed within a lighting fixture, an external dedicated Metrolight Line Adapter may be required (EU only). Contact Metrolight customer support for more information.)	

### General Specifications Continued

Regulation	UL 1029 & UL 935, Outdoor Type 1, suitable for recessed use. EN61347 UL Listed  
Surge Protection	IEEE C62.41 Category A ( for indoor applications) IEEE C62.41 Category C Low (for outdoor applications using additional surge protection) Between phase and neutral 6KV / 3KA Between line and ground 10KV / 1KA *ADDITIONAL SURGE PROTECTION REQUIRED IN OUTDOOR APPLICATIONS

### Protections

Self-protection mechanisms	In the event of a short circuit, or open circuit; If the lamp fails to light; At the end of the lamp's life; Input current protection by internal fuse; Optional surge protection adaptor for outdoor installations
Heat Management	If the Tc rises beyond 86°C / 186.8°F during use, the CompactHID™ ballast may switch itself off

## Input Specifications

Input values for power, voltage and current are dependant on the lamp wattage. Other input values apply across all CompactHID™ Ballasts.

### Lamp Power, Voltage and Current Specifications

#### 150W lamp

	@208V, 230V,277V	@120V
Input Power	150W	160W
Input Current	0.76A, 0.69A, 0.57A	1.33A
Power Factor (at nominal conditions and full power)	>0.9	>0.98

#### 100W lamp

	@208V, 230V,277V	@120V
Input Power	108W	110W
Input Current	0.52A, 0.47A, 0.39A	0.92A
Power Factor (at nominal conditions and full power)	>0.9	>0.98

#### 70W lamp

	@208V, 230V,277V	@120V
Input Power	76W	78W
Input Current	0.37A, 0.33A, 0.27A	0.65A
Power Factor (at nominal conditions and full power)	>0.9	>0.98

#### 50W lamp

	@208V, 230V,277V	@120V
Input Power	56W	58W
Input Current	0.27A, 0.24A, 0.2A	1.0.48A
Power Factor (at nominal conditions and full power)	>0.8	>0.98

The CompactHID™ Electronic Ballasts 50W-150W have been designed to comply with the following ANSI standards:

Ballast	ANSI Lamp Code
150W	MH M81, M102, HPS S56
150W Ceramic	MH M81, M102, M107, M142
100W	MH M90, M91, M92
100W Ceramic	C90
70W	MH M98
70W Ceramic	C198, C98, M139
50W	MH M110

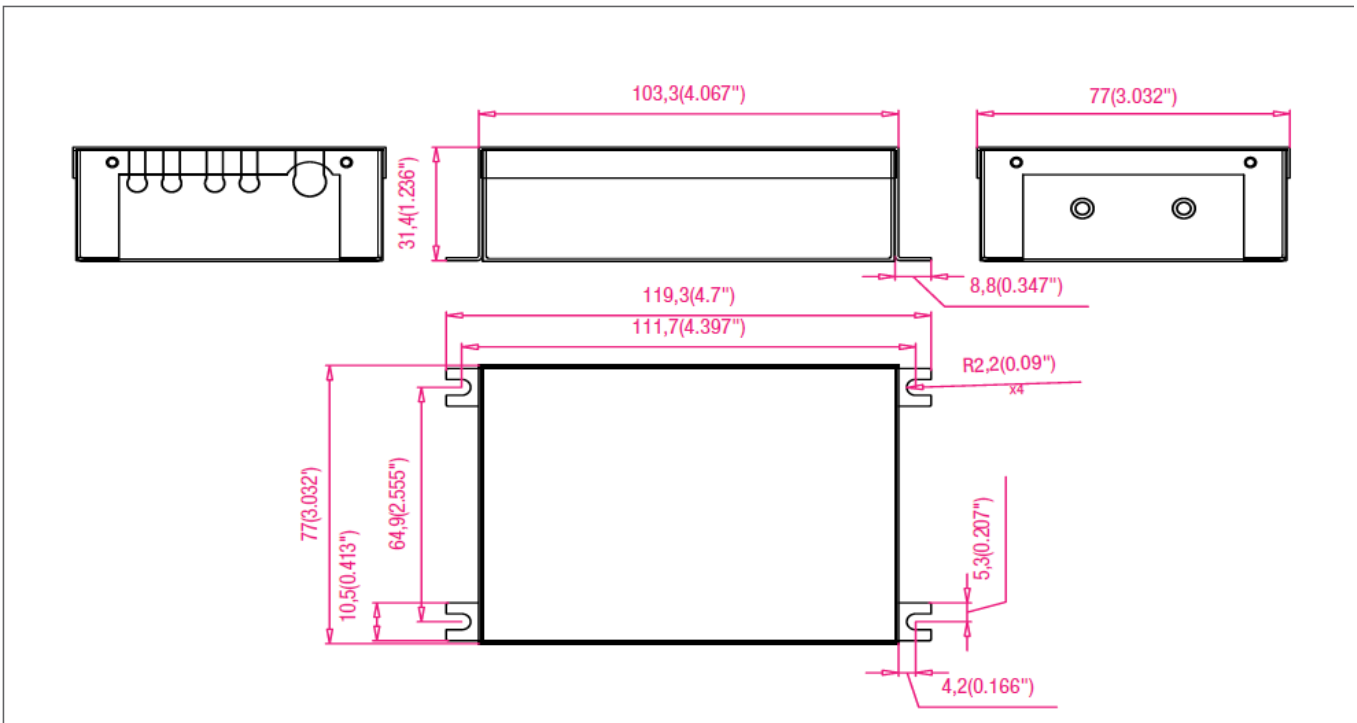
Note: Consult factory for lamps not listed above

Type	Power	US Description*	Part Number
CompactHID™	150W	M150MHS-U-US-C-AD-NC	8827752
	100W	M100MHS-U-US-C-AD-NC	8827654
	70W	M70MHS-U-US-C-AD-NC	8816754
	50W	M50MHS-U-US-C-AD-NC	8816744

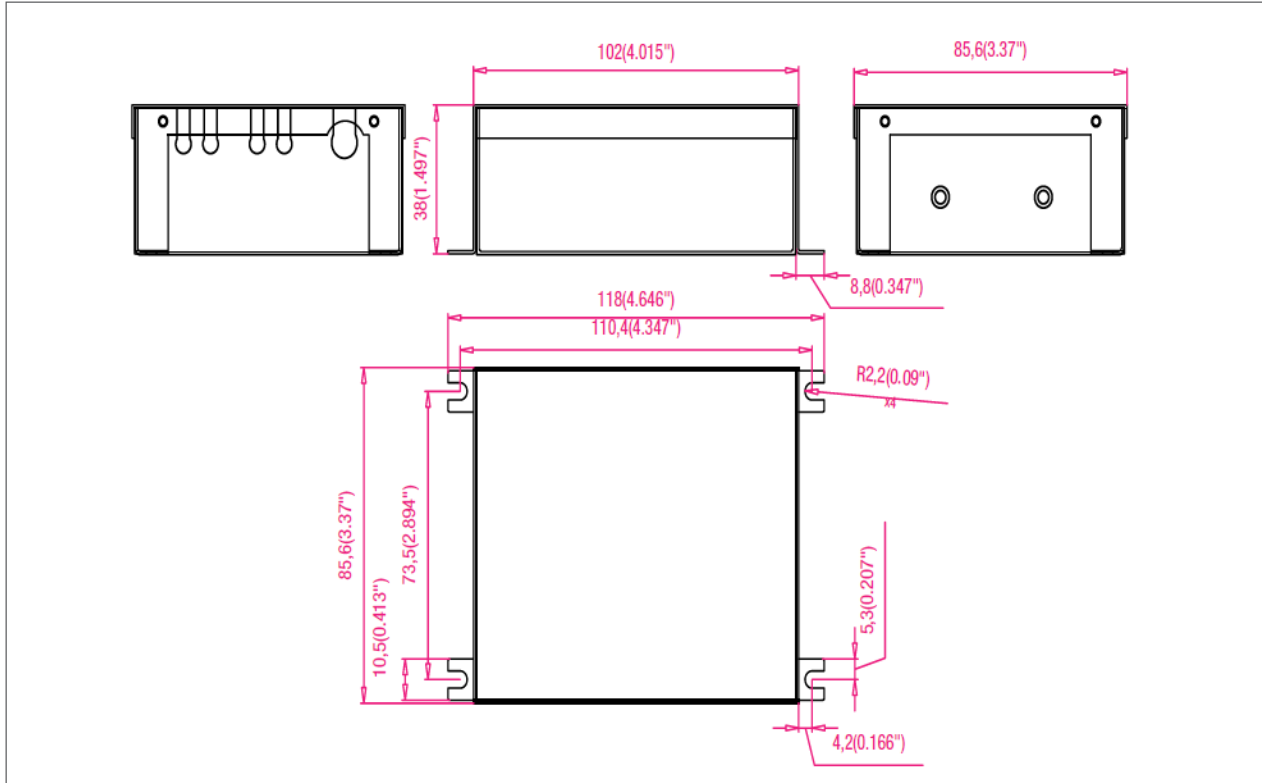
\*US HPS lamps are 100V only

Note: Ballasts will operate either MH or 100V HPS lamps of the respective rated wattage

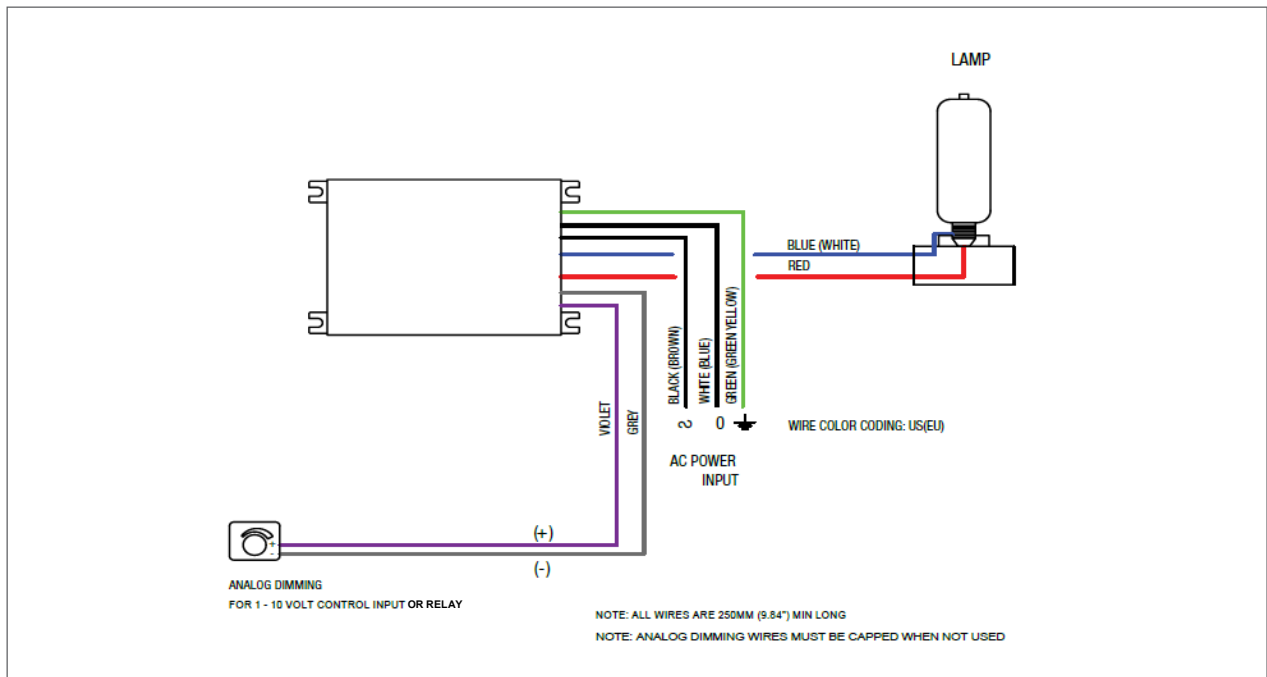
**CompactHID™ Electronic Ballast 50-100W  
Mechanical Dimensions**



**CompactHID™ Electronic Ballast 150W**  
**Mechanical Dimensions**



**CompactHID™ Electronic Ballast 50-150W**  
**Wiring Diagram**



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