






specifications:

GreenLight Ventures GLV eBallast 450 Smart Electronic Ballast for HID

100/150/250/400 Watt - HPS
175/200/250/320/350/400/450 Watt - MH

Operating Specifications

The GLV eBallast 450 is designed to suit most lighting solutions. This section lists the SmartHID™ Ballast's operating specifications, input and output characteristics and its built-in protections.

Dimensions (LxWxH)	8.46"x3.43"x2.16" / 215x87x55mm
Weight	3.08lb / 1.4kg
Operating temperature range	-30°C to +65°C / -22°F to 149°F
Maximum case temperature (Tc)	85°C
Operating Humidity	0 to 95% RH non-condensing
EMC	FCC Title 47 Part 18 C (non-consumer); EN55015:2006 EN61547 EN61000-3-2 EN6100-3-3
Regulation	UL1029 & UL935, Outdoor Type 1, suitable for recessed use. EN 61347-2-12 UL Listed    Nr. 40026719
Surge Protection	IEEE C62.41 Category C Low Between phase and neutral 6KV/3KA Between line and ground 10KV/1KA



Input Specifications

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

Lamp Power, Voltage and Current Specifications

450W MH lamp (U.S. only)

Input Power	478W
Input Voltage	277VAC (+10% to -15%)
Input Current	1.75A @ 277V, 2.24A @ 220V, 2.02A @ 240V
Power Factor (at nominal conditions and full power)	>0.97

400W MH or HPS lamp

Input Power	426W
Input Voltage	200 – 277VAC (+10% to -15%)
Input Current	2.1A @ 208V, 1.98A @ 220V, 1.83A @ 240V, 1.58A @ 277V
Power Factor (at nominal conditions and full power)	>0.96

350W MH lamp

Input Power	375W
Input Voltage	200 – 277VAC (+10% to -15%)
Input Current	1.8A @ 208V, 1.74A @ 220V, 1.61A @ 240V, 1.4A @ 277V
Power Factor (at nominal conditions and full power)	>0.96

320W MH lamp

Input Power	344W
Input Voltage	200 – 277VAC (+10% to -15%)
Input Current	1.7A @ 208V, 1.6A @ 220V, 1.48A @ 240V, 1.2A @ 277V
Power Factor (at nominal conditions and full power)	>0.96

250W MH or HPS lamp

Input Power	269W
Input Voltage	120 – 277VAC (+10% to -15%)
Input Current	2.3A @ 120V, 1.26A @ 220V, 1.16A @ 240V, 1.0A @ 277V
Power Factor (at nominal conditions and full power)	>0.95

200W MH lamp

Input Power	208W
Input Voltage	120 - 277VAC (+10% to -15%)
Input Current	1.82A @ 120V, 1.0A @ 220V, 0.9A @ 240V, 0.78A @ 277V
Power Factor (at nominal conditions and full power)	>0.95

175W MH lamp

Input Power	192W
Input Voltage	120 - 277VAC (+10% to -15%)
Input Current	1.6A @ 120V, 0.88A @ 220V, 0.8A @ 240V, 0.7A @ 277V
Power Factor (at nominal conditions and full power)	>0.94

150W HPS lamp

Input Power	165W
Input Voltage	120 - 277VAC (+10% to -15%)
Input Current	1.4A @ 120V, 0.76A @ 220V, 0.7A @ 240V, 0.6A @ 277V
Power Factor (at nominal conditions and full power)	>0.92

100W HPS lamp

Input Power	111W
Input Voltage	120 - 277VAC (+10% to -15%)
Input Current	0.95A @ 120V, 0.52A @ 220V, 0.47A @ 240V, 0.41A @ 277V
Power Factor (at nominal conditions and full power)	>0.90

General Input Specifications

Frequency	50/60Hz
Inrush current	<25A
Harmonics (at nominal conditions)	Fully complies with EN61000-3-2
Input current protection	Fuse (internal)
Continuous full range dimming	<ul style="list-style-type: none"> • 50% - 100% of full power • Optional: 35% - 100% of full power, subject to Metrolight approval • Optional: Reverse dimming 100% - 50%
Dimming options	<ul style="list-style-type: none"> • Analog dimming by dimmer, ambient sensor, light sensor or any other compatible sensor • Digital dimming - Connection to control software • Automatic dimming profile
Lumen maintenance	>90% over lamp life (dependent on lamp type)

Output Specifications

Open circuit voltage	300V
Ignition voltage	<4kV
Frequency	>106KHz

The GLV eBallast 450 has been designed to comply with the following ANSI standards:

Ballast	ANSI Lamp Code
100W	HPS (100V) & S54 (55V)
150W	HPS S56 (100V) & S55 (55V)
175W	MH M152
200W	MH M136, HPS S66
250W	MH M153, M80, HPS S50
320W	MH M132, M154
350W	MH M131, HPS S129
400W	MH M135, M155, HPS S51
450W	MH M144

Protections

Self-protection mechanisms:

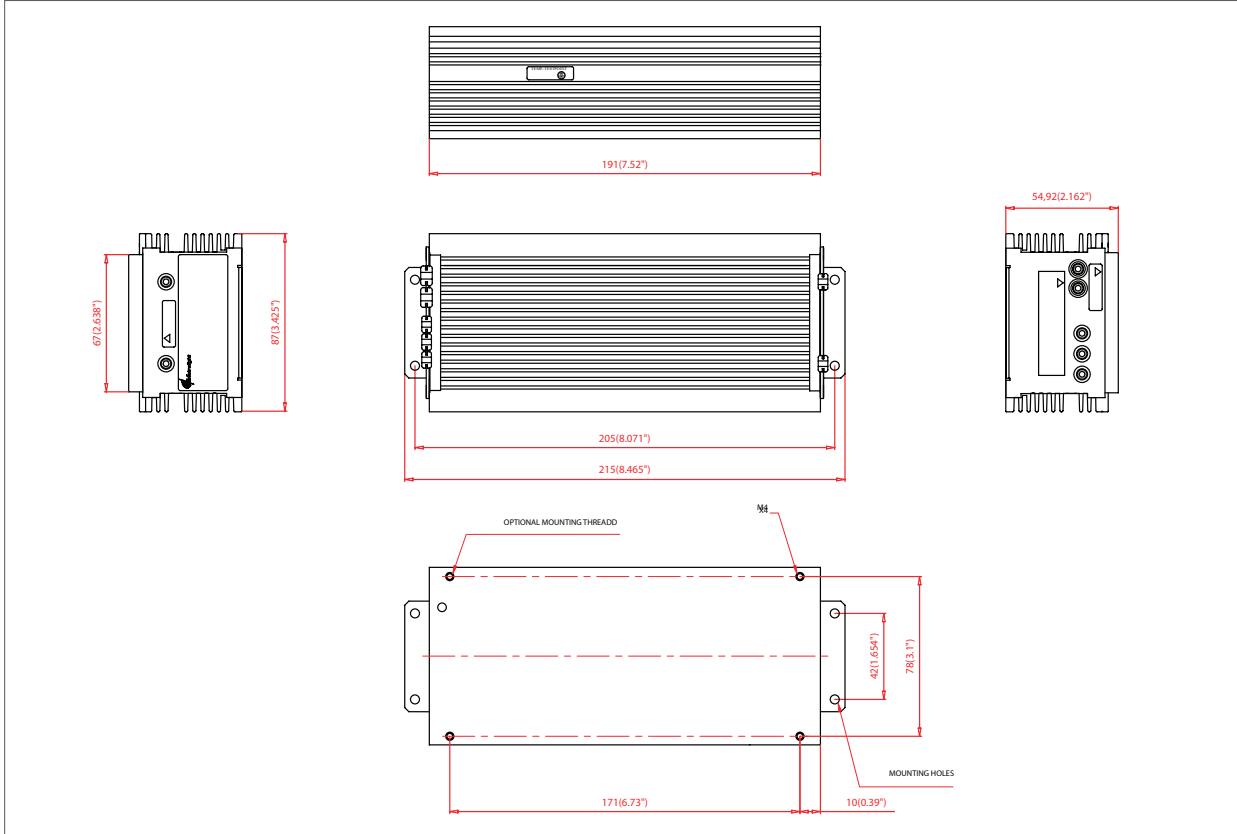
- In the event of a short circuit, or open circuit
- If the lamp fails to light
- At the end of the lamp's life
- Input current protection by internal fuse
- Advanced surge protection between phase and neutral and between line and ground
- Advanced output protection against arching or shorting to ground

Heat Management:

If the Tc rises beyond 90°C during use, the Smart Ballast may switch itself off.

If the ballast's Tc temperature reaches beyond 85°C during use, the SmartHID™ Ballast will gradually reduce its output power to 50%, allowing the ballast to cool. When the Tc falls below 85°C again, the ballast will return to full output power.

GLV eBallast 450
 Mechanical Dimensions



GLV eBallast 450
 Wiring Diagram

