



# e-Vision™

for 35-175W Metal Halide Lamps



electronic HID

# Dual-wattage Electronic Ballasts for

Exclusively from  
**ADVANCE**



## Advance Electronic HID Ballast for 35-175W Metal Halide Lamps

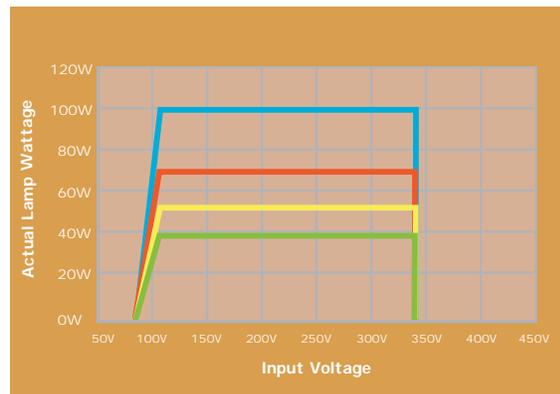
Introducing the new e-Vision™ ballast from Advance. The world's first electronic HID ballast with dual wattage operation. A versatile new standard in electronic HID ballasts, incorporating IntelliVolt™ technology. IntelliVolt™ permits inventory and SKU reduction throughout the supply chain, since the same ballast can operate on any system voltage from 120V to 277V, 50/60Hz.

This ballast is the ideal choice for lighting applications utilizing low wattage Metal Halide lamps, especially those with ceramic arc tube construction.

## Applications

- Retail lighting  
*(downlighting, accent lighting, display windows)*
- Institutional lighting  
*(museums, houses of worship)*
- Office lighting  
*(conference rooms, offices & foyers)*
- Outdoor lighting  
*(building floodlighting, walkway lighting, and landscape lighting)*

## Constant Lamp Power vs Input Voltage



## Design Highlights

- IntelliVolt™
  - Accepts nominal input voltage of 120 through 277V, 50 or 60 Hz
  - Fewer SKU's required in inventory
  - Eliminates misapplication and incorrect shipment incidents
  - Accepted and approved by leading lamp manufacturers
- Dual-wattage lamp operation  
(35/50W or 70/100W, or 150/175W)
  - One ballast operates two different lamp wattages
  - Fewer SKU's required in inventory
- Industry accepted compact footprint
  - Fits into existing fixtures
  - Provides greater fixture design flexibility
- Excellent lamp wattage regulation
  - Optimizes lamp color stability over life
  - Reduces lamp-to-lamp color variations
- Automatic Lamp Power Control
  - Limits available energy to prevent lamp overpowering and thermal stress during severe high-line and low-line conditions
  - Prevents non-passive failure of End-of-Life lamps
- Automatic Lamp Monitoring
  - Safely shuts system down should lamp fail to ignite
  - Safely shuts system down if lamp is out of spec. (wrong wattage, damaged, etc.)
- Power Control Fault Monitor
  - Safely shuts system down if an internal power control fault occurs
- Output Short Circuit Protection
  - Shorting of lamp leads together (i.e. shorted lamp) does not damage ballast
- Internally Fused
  - Safely shuts system down should an unexpected internal component failure occur
- Auto-Reset Thermal Protector
  - Safely shuts system down should extreme thermal conditions be encountered

# Metal Halide Lamps

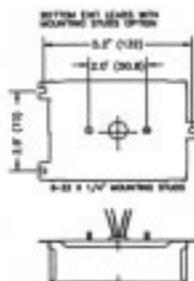
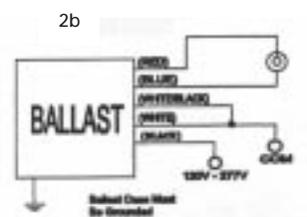
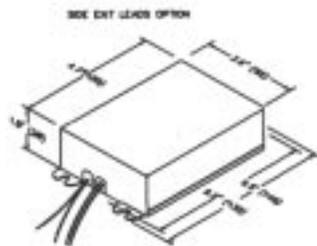
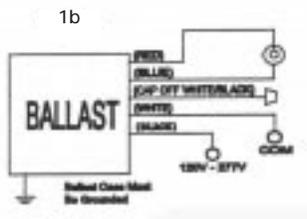
Lamp Data		Input Volts	Min. Starting Temp. (F/C)	Catalog Number	Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Max. THD (%)	Min. Power Factor	Wiring Diagram
Number	Watts									
35/39 Watt Lamp, ANSI Code M130										
1	39	120	-20/-30	IMH-50-A-XXX	0.38	45	1.0	15	90	1b
		277			0.16	44				
50 Watt Lamp, ANSI Code M110 or M148										
1	50	120	-20/-30	IMH-50-A-XXX	0.47	56	1.0	15	90	1b
		277			0.20	55				
70 Watt Lamp, ANSI Code M98 or M143 M139 (Philips T-6, CDM-T, -TD 70)										
1	70	120	-20/-30	IMH-100-A-XXX	0.68	82	1.0	15	90	2b
		277			0.30	81				
100 Watt Lamp, ANSI Code M90 or M140										
1	100	120	-20/-30	IMH-100-A-XXX	0.93	112	1.0	15	90	2b
		277			0.40	110				
150 Watt Lamp, ANSI Code M102 or M142										
1	150	120 277	-20/-30	IMH-175-C-XXX	Under Development Consult Factory for Availability					
175 Watt Lamp, ANSI Code M137										
1	175	120 277	-20/-30	IMH-175-C-XXX	Under Development Consult Factory for Availability					

## Enclosure Dimensions, Wiring Diagrams and Catalog Number Explanation

### † Ordering Information:

- Add proper suffix to catalog number\*;
- LF includes ballast with side exit leads
- BLS includes ballast with bottom exit leads and mounting stud

Wire Color	Function
Black	Input Power
White	Input Power
Black/White	Hi Power Lamp Input
Red	Lamp
Blue	Lamp Screwshell



### User-Friendly Catalog Numbers

I	MH	100	A	BLS
Lead Exit / Mounting Options: BLS = Bottom Leads with Studs LF = Leads (side edit) with mounting Feet				
Can Material / Size: A = Metal case 5.5" L x 3.6" W x 1.5" H				
Maximum Lamp Wattage 50 = either 35 or 50W lamp 100 = either 70 or 100W lamp)				
Lamp Type: MH = Metal Halide				
Input Voltage: I = Intellivolt™ (accepts input of 120 thru 277V, 50/60 Hz nominal)				

# ELECTRONIC HID BALLASTS

For 35-175 Metal Halide Lamps

## Ballast Specifications

### Section I - Physical Characteristics

1.0 The electronic ballast shall be furnished with integral, color-coded leads.

### Section II - Performance Requirements

2.0 The electronic ballast shall be IntelliVolt™ and operate from a nominal line voltage of 120-277 volts, +/-10%, 50/60 Hz.

2.1 The electronic ballast input current shall have Total Harmonic Distortion (THD) of less than 15%.

2.2 The electronic ballast shall have a Power Factor greater than 90%.

2.3 The electronic ballast shall have a lamp end-of-life detection and shutdown circuit.

2.4 The electronic ballast shall be Sound Rated A.

2.5 The electronic ballast output frequency shall be less than 200 Hz to prevent acoustic resonance inside the lamp arc tube and to minimize visible flicker.

2.6 The electronic ballast shall provide a "Lamp Current Crest Factor" of less than 1.5.

2.7 The electronic ballast shall be thermally protected to shut off when operating temperatures reach unacceptable levels.

### Section III - Regulatory Requirements

3.0 The electronic ballast shall meet the requirements of the Federal Communications Commission rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.

3.1 The electronic ballast shall be Underwriters Laboratories (UL) Listed (Class P) and CSA Certified.

### Section IV - Other

4.0 The electronic ballast shall not contain Polychlorinated Biphenyls (PCB's).

4.1 The electronic ballast shall carry a five-year warranty from the date of manufacture for operation at a case temperature of 75°C or less. When operated at a case temperature between 76°C and 85°C, the warranty shall be 3 years from the date of manufacture.

4.2 The manufacturer shall have a twenty-five year history of producing HID lamp ballasts for the North American market.

4.3 The electronic ballast shall be produced in a factory certified to ISO 9002 Quality System Standards

## Installation Notes

1. Red lead must be connected to center terminal of lamp. Do not connect red or blue lead to neutral.
2. Use 4.0 kV pulse rated lamp holder.
3. Maximum ballast-to-lamp distance is 5 ft. using typical wiring methods and materials. Additional distance up to 15 ft. may be possible using special, low capacitance wire such as rubber insulated wire rated 10kV or higher. The total capacitance of this output (lamp) wire must be 100 picofarads or less.

## How to Measure the Ballast Hot Spot

The maximum case temperature of the ballast should be measured on the right heatsink clip side on the width side of the ballast, which has the two silver heatsink clips. The maximum allowable temperature at this point is 85°C. A drawing of the hot spot location is given below:



Specifications subject to change without notice.  
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