



Slim design, unlimited possibilities

Philips Advance e-Vision TrakStick and Mini Square eHID ballasts for 20W, 22W, 39W, 50W and 70W metal halide lamps

Offering design freedom in a slim, compact housing, e-Vision TrakStick and Mini Square electronic ballasts for 20W, 22W, 39W, 50W and 70W metal halide lamps are ideal for a variety of downlighting, track lighting, and accent lighting applications. Optimized for outstanding performance with the latest Philips CDM Elite lamps, these ballasts are perfect in retail, hospitality, commercial and institutional settings.

These versatile ballasts provide an energy-efficient, long-lasting and cost-effective* alternative to halogen and first generation ceramic metal halide lighting options. With many safety and convenience features, these ballast also include a desirable 90°C maximum case temperature rating to ensure long life in the most demanding applications, and have a cold-start capability down to -20°C for use in exterior conditions.

Superior lamp wattage regulation

- Optimizes lamp color quality over life
- Minimizes lamp-to-lamp variations
- Minimizes re-lamping requirements, reducing product and maintenance costs

IntelliVolt multiple-voltage technology (operates 120 to 277V, 50/60 Hz)

- Enhances accuracy and ease of ordering, reducing stocking/SKU requirements

All metallic enclosures

- Superior heat transfer relative to plastic, enhancing safety and durability

Enhanced safety features include automatic lamp power control, lamp monitoring and end-of-life (EOL) detection

- Reduction of lamp overpowering and/or thermal stress by shutting down should the lamp behave erratically or fail to ignite
- EOL detection removes power from lamps when they reach end-of-life, enhancing safety and preventing lamp cycling

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Mini Square Ballasts

Lamp Data		Input Volts	Catalog Number	Certifications		Line Current (Amps)	Input Power ANSI (Watts)	Max. Case Temp.	Wiring Diag.	Fig.	Weight (lb.)	Max. Distance to Lamp (ft.)
Number	Watts			UL	SA							
20W Lamp, ANSI Code MI56 /C156 Minimum Starting Temp -20°C/-4°F												
	20	120	IMH-G20-G-LF	✓	✓	0.20	24	90°C	3	G	0.90	5
	20	277	IMH-G20-G-BLS	✓	✓	0.09	24	90°C	3	G	0.95	5
39W Lamp, ANSI Code MI30/C130, Minimum Starting Temp. -20°C/-4°F												
	39	120	IMH-39-G-LF	✓	✓	0.37	44	90°C	3	G	0.90	3
	39	277	IMH-39-G-BLS	✓	✓	0.17	43	90°C	3	G	0.95	3
39W Mini MasterColor Lamp, CDM-Tm 35W/930, ANSI Code MI79 /C179 Minimum Starting Temp -20°C/-4°F												
	39	120	IMH-P39-G-LF	✓	✓	0.39	46	90°C	3	G	0.90	5
	39	277	IMH-P39-G-BLS	✓	✓	0.17	45	90°C	3	G	0.95	5
50W Lamp, ANSI MI10, C193 (Philips CDM Elite), Minimum Starting Temp -20°C/-4°F												
	50	120	IMH-50-G-LF	✓	✓	0.47	56	90°C	3	G	0.90	3
	50	277	IMH-50-G-BLS	✓	✓	0.21	55	90°C	3	G	0.95	3
70W Lamp, ANSI Code M98/C98 or MI43 or MI39/C139, Minimum Starting Temp -20°C/-4°F												
	70	120	IMH-70-G-LF	✓	✓	0.66	79	90°C	3	G	0.90	3
	70	277	IMH-70-G-BLS	✓	✓	0.28	76	90°C	3	G	0.95	3

Trakstick Ballasts

Lamp Data		Input Volts	Catalog Number	Certifications		Line Current (Amps)	Input Power ANSI (Watts)	Max. Case Temp.	Wiring Diag.	Fig.	Weight (lb.)	Max. Distance to Lamp (ft.)
Number	Watts			UL	SA							
20W Lamp, ANSI Code MI56/C156 Minimum Starting Temp -20°C/-4°F												
	20	120	IMH-G20-E-LF	✓	✓	0.21	24	90°C	3	E	0.80	5
	20	277	IMH-G20-E-LF	✓	✓	0.09	24	90°C	3	E	0.80	5
39W Lamp, ANSI Code MI30/C130, Minimum Starting Temp. -20°C/-4°F												
	39	120	IMH-39-E-LF	✓	✓	0.38	44	90°C	3	E	0.80	5
	39	277	IMH-39-E-LF	✓	✓	0.16	43	90°C	3	E	0.80	5
50W Lamp, ANSI MI10, C193 (Philips CDM Elite), Minimum Starting Temp -20°C/4°F												
	50	120	IMH-50-E-LF	✓	✓	0.48	57	90°C	3	E	0.80	5
	50	277	IMH-50-E-LF	✓	✓	0.20	56	90°C	3	E	0.80	5
70W Lamp, ANSI Code M98/C98 or MI43 or MI39/C139, Minimum Starting Temp -20°C/-4°F												
	70	120	IMH-70-E-LF	✓	✓	0.68	80	90°C	3	E	0.80	5
	70	277	IMH-70-E-LF	✓	✓	0.29	78	90°C	3	E	0.80	5

Ballast Case Temperature Measurement Location

Case temperature measurement location differs with each ballast model and are designated on the individual ballast labels. Consult ballast labels and ballast specification sheets for measurement locations.

Installation Notes

1. Red lead must be connected to center terminal of lamp (for Edison screw base lamps). Do not connect red or blue lead to neutral or ground.
2. Use an appropriately rated lamp holder.
3. Maximum ballast-to-lamp distance is provided in this bulletin as well as on each ballast's data sheet and label. For maximum lamp starting performance, this specification should followed using typical wiring methods and materials.
4. Power mains must be cycled off and then on to reset ballast after failed lamps are replaced.

Dimensions

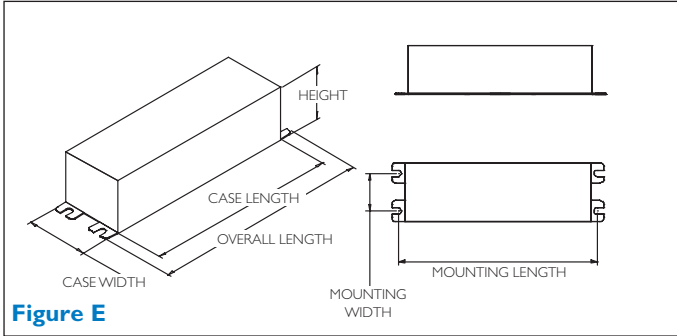


Figure E

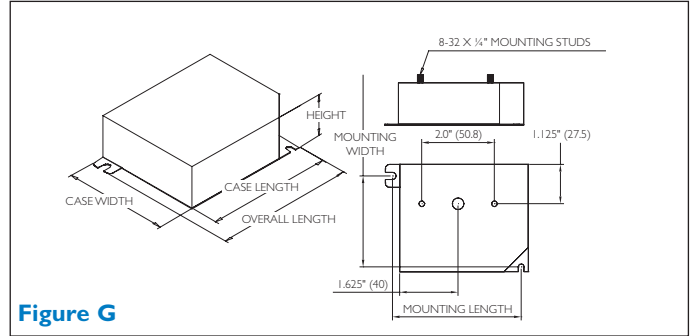


Figure G

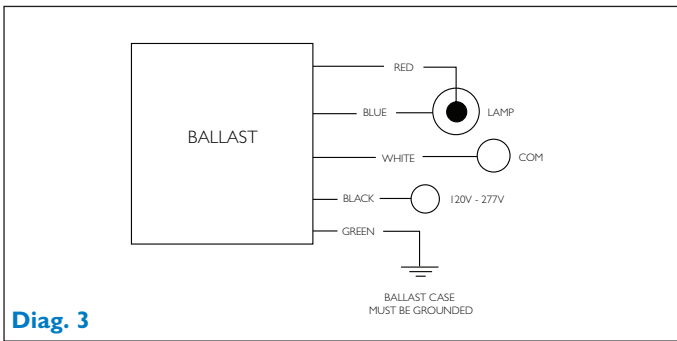
Trakstick Ballasts

Case Figure	Overall Length	Case Length	Case Width	Height	Mounting Length	Mounting Width
E	140mm [5.5"]	127mm [5.0"]	44mm [1.7"]	30mm [1.2"]	135mm [5.3"]	26mm [1.0"]

Mini Square Ballasts

Case Figure	Overall Length	Case Length	Case Width	Height	Mounting Length	Mounting Width
G	97mm [3.8"]	90mm [3.5"]	77mm [3.0"]	30mm [1.2"]	87mm [3.4"]	67mm [2.6"]

Wiring Diagrams



Diag. 3

TrakStick or Mini Square Ballasts

Ballast Specification for e-Vision

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 range of 120-277V, +/-10%, 50/60 Hz unless stated otherwise.
- 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 to the lamps 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 and CSA Certified.
- 3.2 The electronic ballast shall comply with ANSI C62.41 Category A for transient protection.
- 3.3 Ballast shall comply with RoHS.

Section IV - Other

- 4.0 The electronic ballast shall not contain Polychlorinated Biphenyl (PCB's).
- 4.1 The electronic ballast shall carry a three-year limited warranty from the date of manufacture against defects in material or workmanship for operation at marked maximum case temperature or less. (Go to our website for up-to-date warranty information: www.philips.com/advance).
- 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 9001 Quality System Standards.



* Comparison based on published data of Philips Halogen 70PAR38 IRC lamps (140 System Watts), Philips MasterColor CDM70/Par30L/M/FL (79 System Watts) vs. Philips Matercolor Elite CDM MR16 (57 System Watts).

**Restrictions on Hazardous Substances (RoHS) is a European directive (2002/95/EC) designed to limit the content of 6 substances [lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)] in electrical and electronic products. For products used in North America compliance to RoHS is voluntary and self-certified.



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