High Efficiency Series

Lamp / Ballast Guide

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<th>Lamp Type</th>
<th>Ballast Code</th>
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<td>M135, M155</td>
<td>QHE1x400MH 208-277V DIM</td>
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Key System Features

- Low frequency square wave
- Suitable for both quartz and ceramic lamps
- Constant power regulation
- High power factor
- Continuous dimming (0-10V)
- Step dim to 50% of rated power
- 15 minutes at full power warm-up time delay
- Full light output from 50% in less than 1 minute
- Low harmonic distortion
- Compact size and lightweight
- 90ºC case temperature
- UL, FCC
- End-of-lamp-life shut down
- Internal IDTP (Insulation Detection Thermal Protector)
- QUICK 60+ warranty
- 120V auxiliary circuit, up to 200W
- Compliant with Energy Independence and Security Act of 2007
- RoHS compliant
- Lead-free solder and manufacturing process

System Information

SYLVANIA QUICKTRONIC QHE MH electronic HID (eHID) Dimming ballasts are perfectly matched with SYLVANIA METALARC® and METALARC POWERBALL® CERAMIC lamps to provide optimal system performance. This electronically controlled system delivers several advantages over conventional systems, including improved lumen maintenance and extended photometric life.

- Provides a robust approach with respect to acoustic stabilities and is immune to variation in lamp geometry, fill chemistry and mercury dose

More Energy Management Strategies:

- Ballasts allow simple energy management strategies
- Occupancy control by using Bi-level dimming
- Daylight harvesting by using 0-10V continuous dimming

End-of-lamp-life shutdown:

- Prevents continuous starting after lamps extinguish which may cause permanent damage to the ballast

15 min. warm-up time:

- Ballasts will operate lamps at full power for the first 15 minutes to allow the lamps to warm up before dimming

System Warranty:

- Ballasts are covered by a QUICK 60+ warranty, the first comprehensive system warranty in the industry
- QUICK 60+ Warranty: Setting the standard for quality, QUICKTRONIC MH ballasts deliver several advantages over standard magnetic lighting systems. These ballasts operate METALARC® and METALARC POWERBALL® CERAMIC lamps to provide optimal system performance. This electronically controlled system delivers several advantages over conventional systems, including improved lumen maintenance and extended photometric life.

Application Information

SYLVANIA QUICKTRONIC High Efficiency MH dimming ballasts are ideally suited for:

- High bay
- Low bay
- Institutional
- Commercial
- Big box retail

Unmatched Energy Efficiency:

- Ballasts provide up to 94% efficiency allowing maximum energy savings when compared to magnetic ballasts

Industry’s Most Adaptable Dimming:

- Ballasts allow 100% to 50% Bi-level or 0-10V continuous dimming which provides true versatility in controls selection
- Standard switches (Bi-level control)
- Low voltage controls (Continuous 0-10V dimming control)
- Any line voltage from 208V to 277V

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is permitted in accordance with the NEMA Lighting Systems Division Document LSD 14-2010 – Guidelines on the Application of Dimming to High-Intensity Discharge Lamps

Internal IDTP (Insulation Detection Thermal Protector):

- Affords original equipment manufacturers (OEMs) to remove all external thermal protection devices
- Reduces wiring complexity and installation time (to maximize the benefits of IDTPs, the ballast must be properly installed – See “installation notes” for details)
### SPECIFICATION DATA

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<th>Occupancy Sensors</th>
<th>Building Management Systems</th>
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<td>The Watt Stopper, Inc</td>
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Please contact controls manufacturers to order/specify controls. For the latest controls list go to www.sylvania.com
Also for more information, check out the LCA (Lighting Controls Association) site: www.aboutlightingcontrols.org

### WARNING:

Install and wire these ballasts and controls in accordance with the National Electrical Code (NEC), all applicable Federal, State and local electrical codes, as well as the specific instructions provided with the compatible control that you purchased.

Installation should be performed by qualified personnel only.

These instructions are guidelines only. Installation may vary for different controls/fixtures/applications. Be sure to follow the control instructions and all applicable codes and standards when installing dimming systems.

Please contact controls manufacturer listed in the OSRAM SYLVANIA Inc. controls cross reference for compatible controls and instruction wiring.

NOTES:
1. Dimming ballasts source < 0.5mA (0-10VDC control input).
2. Do NOT use fluorescent or incandescent powerline controls; fluorescent and incandescent dimmers are not rated for HID loads and are NOT compatible with MH dimming ballasts.

Specifications subject to change without notice.
**QUICKTRONIC® MH Dimming Ballast – Dimming Control Wiring Examples**

**Industry’s 1st Ballast that allows Bi-Level Dimming AND 0-10Vdc Control Input simultaneously**

Please refer to Installation Notes for additional details.

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**Bi-Level AND 0-10Vdc Control Wiring Diagram**

To Additional Ballasts

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**Occupancy Sensor or Wall-Box Step Dimming Control Wiring Example**

(Cap off/insulate violet and grey leads individually as shown)

**Photo Sensor or Wall-Box 0-10V Continuous Dimming Control Wiring Example**

(Cap off/insulate orange lead individually as shown)

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**Dimming Effects on Lamp Performance**

Shaded areas depict output based on lamp type, wattage tolerances, & system variations. – Dimming levels meet &/or exceed the NEMA recommended guidelines. (LSD 14-2010)

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**Effects of Dimming on CRI**

% Relative Change in CRI

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**Effects of Dimming on CCT**

% Relative Change in CCT

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**Effects of Dimming on Lumen Output**

% Relative Change in Lumens
High Efficiency, Dimmable Electronic Metal Halide Systems (208-277V)

安装注意事项

1. 球茎安装时必须保持温度在允许的最大值，以防止热保护。
2. 应使用不同的颜色区分不同类型的连接线，如：黑线、橙线、紫线和灰线。
3. 对于未使用的导线，应逐一绝缘或密封。
4. 在断开电源时，应确保球茎的中心连接端与地线相连。
5. 当电流波动超过10秒时，应确保系统散热。
6. 安装时应按照国标和地方电气规定。

性能规格

电压范围：±10%的208-277V额定电压
输入频率：50/60Hz
功率因数：>98%
低频：<10%
起始温度：-22°F (-30°C) 最低
灯的频率：160Hz方波

系统寿命 / 保修

quaTRONIC®产品由OSRAM SYLVANIA保修。

OSRAM SYLVANIA
National Customer Service and Sales Center
1-800-LIGHTBULB (1-800-544-4828)
www.sylvania.com

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