

QUICKTRONIC® Electronic Metal Halide Systems



Normal Ballast Factor

High Efficiency Series

QHE MH 208-277V

Lamp / Ballast Guide

QHE1x200MH 208-277V
C190

QHE1x250MH 208-277V
M153*

QHE1x320MH 208-277V
M154*

QHE1x350MH 208-277V
M131*

QHE1x400MH 208-277V
M155*

*or ceramic equivalent "C"

Key System Features

- Constant power regulation
- High power factor
- Low harmonic distortion
- Compact size and lightweight
- 90°C case temperature
- UL, FCC
- End-of-life shut down
- Internal IDTP (Insulation Detection Thermal Protector)
- QUICK 60+® warranty
- 120V auxiliary circuit
- Low frequency square wave
- Suitable for both quartz and ceramic lamps
- Compliant with Energy Independence and Security Act of 2007
- RoHS compliant
- Lead-free solder, printed circuit board and manufacturing process

Application Information

SYLVANIA QUICKTRONIC High Efficiency MH

is ideally suited for:

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

SYLVANIA QUICKTRONIC MH High Efficiency electronic HID (eHID) ballasts feature a state of the art electronic design to deliver performance levels unattainable with standard magnetic lighting systems.

SYLVANIA QUICKTRONIC MH High Efficiency ballasts operate METALARC® and METALARC POWERBALL® CERAMIC lamps with maximum efficacy, high lumen output, and provides up to 25% energy savings when compared to magnetic ballasts.

Installation is simplified by a single-piece ballasts that incorporate the ballast, capacitor, ignitor and mounting brackets of conventional systems.

QUICKTRONIC MH eHID ballasts are RoHS compliant and feature lead-free solder, printed circuit boards and manufacturing process.

OSRAM SYLVANIA's QUICKTRONIC High Efficiency ballasts utilize a *low frequency square wave* lamp operation to avoid acoustic resonance issues. High frequency waveforms have been known to create

System Information

SYLVANIA QUICKTRONIC QHE MH ballasts and SYLVANIA METALARC® POWERBALL® CERAMIC lamps are perfectly matched to provide optimal system performance.

Our electronically controlled system delivers several advantages over conventional components, including improved lumen maintenance and extended photometric life.

The superior power regulation design produces consistently brilliant light output and color throughout the life of the lamp. This circuitry also provides constant light output during periods of fluctuating supply voltage.

All QUICKTRONIC MH electronic HID (eHID) ballasts are equipped with end-of-life shut down function. This prevents continuous starting after lamps extinguish which may cause permanent damage to the ballast.



mechanical vibrations within the lamp structure resulting in an audible noise or acoustic resonance. Acoustic resonance issues may cause visual flickering, lamp cycling, shortened lamp life, and in extreme cases may result in non-passive failure. This low frequency square wave approach is robust with respect to acoustic stabilities and is immune to variations in lamp geometry, fill chemistry and mercury dose.

This design is suitable for use with both quartz and ceramic lamps.

Setting the standard for quality, QUICKTRONIC MH is also covered by a QUICK 60+® warranty, the first and most comprehensive system warranty in the industry.

All high wattage (>150W) QUICKTRONIC MH eHID ballasts are equipped with an internal IDTP (Insulation Detection Thermal Protector). The internal thermal protection feature affords an original equipment manufacturer (OEM) the ability to remove all external thermal protection devices. In order to maximize the benefits of this unique feature the ballast must be properly installed. (See "installation notes" for detail).

SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

High Efficiency Electronic Metal Halide Systems



Item Number	OSRAM SYLVANIA Description	Input Voltage (VAC)	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Internal IDTP ³	Ballast Factor (BF)	System Lumens	Input Wattage (W) ²	System Efficacy (lm/W)
51980	QHE1x200MH 208-277V	208-277	1.06/0.79	200W E39 ¹	21,000	1	Yes	1.0	21,000	215/214	98/98
51981	QHE1x250MH 208-277V	208-277	1.32/0.99	250W EX39 ¹	24,000	1	Yes	1.0	24,000	267/266	90
51982	QHE1x320MH 208-277V	208-277	1.71/1.29	320W EX39 ¹	37,500	1	Yes	1.0	37,500	343/341	109/110
51983	QHE1x350MH 208-277V	208-277	1.87/1.40	350W EX39	33,000	1	Yes	1.0	33,000	374/372	88/89
51984	QHE1x400MH 208-277V	208-277	2.12/1.58	400W E39	42,000	1	Yes	1.0	42,000	428/426	98/99

⊗ New Product. Contact OSRAM SYLVANIA for product availability.

¹: Data based on ceramic lamp types.

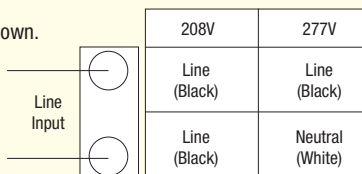
²: Input wattage shown @ 208V/277V

³: Internal IDTP - Insulation Detection Thermal Protector (see system information for detail)

Installation Notes

1. Proper ballast mounting must be followed to allow for maximum thermal dissipation:

- F can ballast should be mounted with the "feet" side placed tightly against the inside of the fixture
- Lamp holders and conductors:
 - Use minimum 4kV pulse rated lamp holder.
 - Use minimum 4kV pulse rated or UL style 3561 wire for lamp connections. The red lead must be connected to center terminal of lamp. Do not connect any lamp lead to neutral or ground.
- Grounding:
 - The ballast case and fixture must always be grounded. The grounding helps assure safety, proper lamp starting, and acceptable EMI/RFI performance. Install ballast in accordance with national and local electrical codes.
- Auto shut down function including end-of-life and thermal protection:
 - Disconnect power when servicing. Cycle power to reset ballast after auto shutdown.
- If connecting the ballast input to 208V line with two "hot" leads, be sure to wire per NEC code: Re-Mark (re-identify) the ballast white neutral wire to another color (i.e. black). Be sure to simultaneously disconnect all ungrounded line conductors per NEC codes (i.e. switch both hot legs).
- Control: Do not operate with dimmer or occupancy sensor.



More installation considerations are in the QUICKANSWER section of the Ballast Technology and Specification Guide.

Wiring:

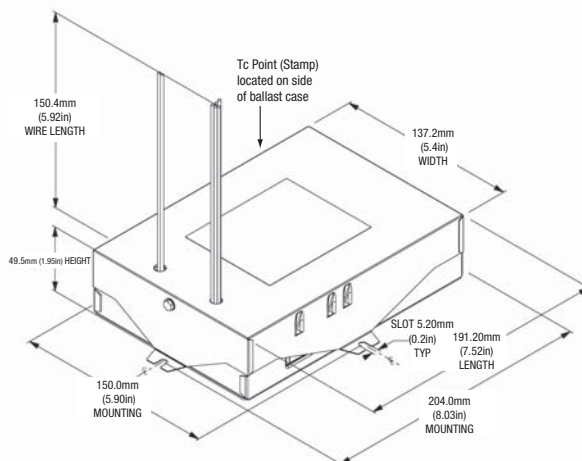
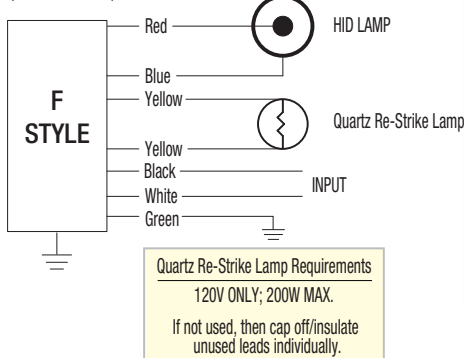
Lead Wires: Min. 6.0"

Packaging:

Quantity: 10 pieces per carton

Weight: 35 lbs per carton

(3.5 lbs each)



Item Number — 51980 QHE 1 x 200 MH 208-277V — Line Voltage
 QUICKTRONIC High Efficiency — Metal Halide
 Number of Lamps (1) — Primary Lamp Wattage

Normal Ballast Factor

MH QUICKTRONIC®

High Efficiency

Performance Guide

Ballast shall be a metal halide SYLVANIA QUICKTRONIC MH electronic ballast.

Specifications³

Input Voltage: 208-277V

Input Frequency: 50/60 Hz

Lamp Frequency: 160Hz Square Wave

Power Factor: >98%

Low THD: <10%

Starting Temp: -22°F/-30°C min.

UL listed and UL listed to Canadian

safety standard, Type 1, Outdoor

90°C Max. Case Temperature,

Thermally Protected

FCC 47CFR Part 18 Non-Consumer

Sound Rated A

ANSI C62.41 Cat. A Transient Protection

Remote mounting capability³

Lamp current crest factor <1.2

RoHS Compliant⁴

³ Remote Mounting (max. wire length from ballast case to lampholder): Typically 6ft. but varies by application. For remote mounting distances up to 15 ft, use #18 AWG minimum 7.5kV pulse rated wire. Output wires should be enclosed in 1/2" metal conduit to minimize EMI (electromagnetic interference). Wire and ground ballast, fixture, conduit & lighting system per NEC (National Electric Code).

⁴ Complies with European Union Restriction of Hazardous Substances Directive.

System Life / Warranty

QUICKTRONIC products are covered by the QUICK 60+ warranty, a comprehensive lamp and ballast system warranty. For additional details, refer to the QUICK 60+ warranty bulletin.

Max. Case Temp.

Measured at

Tc Point (stamp)

<70°C

<90°C

Warranty Period

5 years

3 years

OSRAM SYLVANIA
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 www.sylvania.com

Specifications subject to change without notice.