

Electronic Metal Halide Ballast for 20 Watt Lamps

DRIVING the Future of Luminaires!

Miniaturized Size! 50% smaller than the Industry Standard Case!

- Resonance Start Technology
- Superior Lamp Starting
- Improved Hot restrike Characteristic



Shown with side leads

Features & Benefits:

- Fantastic 74% Energy Savings vs. 90W HIR Lamp
- HID Lamp life approximately 4-6 times more than halogen lamps
- Excellent line regulation; $\pm 0.5\%$ output variation with $\pm 10\%$ change in line voltage.
- Reduction in visual flicker & increased lamp life.
- Increased reliability and safety with lamp "Turn-off Function": (Resets by cycling line voltage "off-then-on")
- Ease of assembly; only one unit to mount.
- Extremely Light weight; ~8 ounces
- Eliminates long term lamp cycling. No need to wait for lamps to cycle to identify replacement.
- Sound Rated "A" for indoor applications.
- Thermally protected/ Transient protected.

Lamp Maintenance Notice:

- To start new lamps or replaced lamps, turn off the ballast input voltage for 10 seconds then back on.
- If lamp or wiring is defective the ballast will "shut down" in 1.5 to 30 minutes depending on the fault condition.

Specifications:

Lamps ¹	20W Metal Halide M156 Ceramic
Input Voltage	120V 50/60 hertz
Power Factor	High
Input Power	23W
Input Current (Maximum)	120V: 0.20A
Harmonic Distortion	<20%
Lamp Frequency	170 Hertz Square-Wave
EMI/ RFI	Complies with FCC 18C, non consumer limits
Lamp Current Crest Factor	1.4 Typical
Safety	UL Outdoor Type 1, Suitable for Recessed Use
Thermal Protection	Functions at approximately 100°C hot spot
Warranty ²	3 years-max. case temperature <85°C or 5 years if critical components meet Aromat limits (See Notes on page 2)
Minimum Ballast Temp.	-15° C/ +5° F
Maximum Mounting Distance ³	See Remote Wiring Section on Page 2

Note 1: Consult lamp manufacturers for lamp compatibility approval.

Note 2: Warranty is based on maximum operating time of 4000 hours per year. For additional operating hours consult with Aromat Application Engineering.

Note 3: Effective 2nd Quarter 2005; contact Aromat for availability.

Product Summary

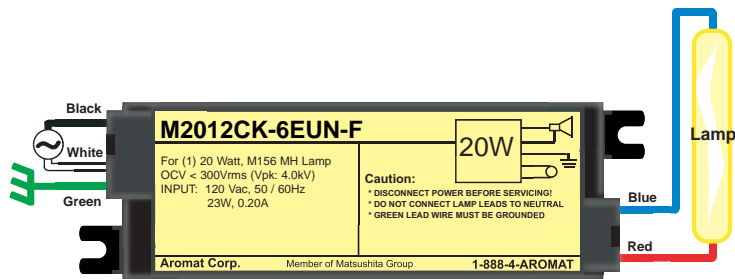
LAMP	20W Metal Halide M156 Ceramic
Input Volts	120V 50/60Hz
Model Number	M2012CK-6EUN-F
Mounting/ Lead Exit	Feet with Side Leads Exit
Safety	Listed;  US
Lamp Holder	Minimum 4KV Pulse Rated

Aromat reserves the right to change any of the above performance characteristics without notice.

For More Information, call: 1-888-4-AROMAT
Visit our Web Site: www.aromat.com

Aromat Corporation
(Matsushita Electric Works, America)

Wiring Diagram:

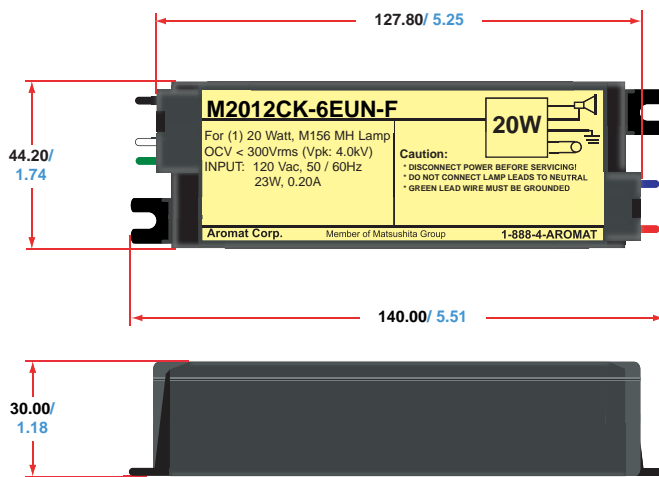


Safety Instructions:

- Always disconnect power to the entire fixture before installation and/or removal of ballasts or controls.
- Ballast green wire must be grounded.
- Install per national and local electrical codes.
- Dispose of any replaced ballasts and lamps properly.
- **DO NOT** connect lamp leads to ground or neutral.

Dimensions: Millimeters / Inches

M2012CK-6EUN-F



CONSTRUCTION NOTES

1. For additional installation and operational information, please refer to: *Aromat Application Guidelines*.
2. **Dimensional Tolerances:**
 - **Case:** $\pm 1.0\text{mm} / \pm 0.039"$
 - **Lead Wires:** $+50\text{mm}/ +2"$ or $-30\text{mm}/ -1"$
 - **Lead Length:** Nominal 10"
 - **Slot width on "F" mounting tabs:** 5.0mm/ 0.197"
3. **Remote Wiring Guidelines:**
 - Each lamp's lead wires must be run in a separate conduit from the input power leads to achieve good EMI performance and maximum remote capabilities.
 - Individual lamp lead wires must be used for external fixture extensions using wire types SF-2 (Equivalent to SEW-2 or 3071) or SFF-2 (Equivalent to SEWF-2 or 3070) or alternately, if approved by Aromat, high voltage fixture wire with a 18 AWG conductor and a 1000VAC minimum voltage rating. Temperature rating is especially critical if the lamp lead extension wires are directly connected to lamp-holder terminals.
 - Maximum Remote Distances: 10 feet in a minimum 1/2" internal diameter conduit, pipe or flexible conduit
 - Using Service Power cords (types SJ, SV, SO, etc.) or metal clad cable assemblies for lamp lead extension wire are **NOT** recommended as they are not compatible with the above characteristics, can cause starting problems and shall not be used unless Aromat gives written approval.

MOUNTING & TESTING NOTES

1. In many fixture housings, thermal gradients can vary significantly depending on housing material, fixture design and ballast mounting. It is recommended that ballast critical component temperatures be measured during the initial & final performance testing of the fixture design to assure proper ballast life.
2. Aromat recommends that all ballasts be securely mounted against a fixture-housing surface to adequately provide proper heat transfer and cooling for the ballast.
3. The worst case end-use fixture application temperature must be factored into the ballast component temperature limits so ballast perform properly at expected higher ceiling temperature ambients. Consult Aromat for maximum component temperature limits.