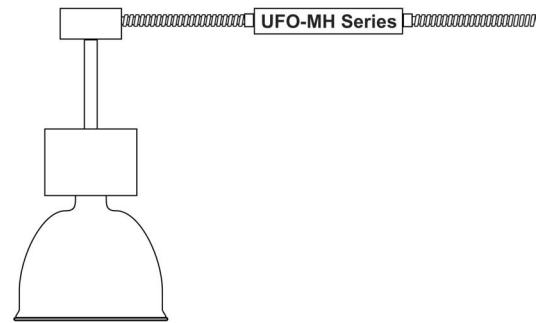


# LAMPAK® UFO-MH Series

**HID backup ballast.**

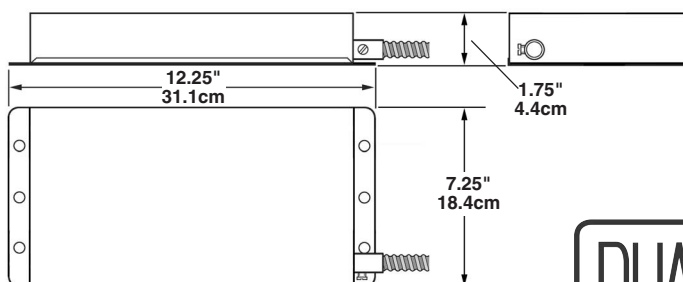
**Arc saving device for use with metal halide high intensity discharge (HID) lamps**



## Features

- Catches and maintains the arc of one metal halide HID lamp during AC power sags
- Provides two minutes of continuous arc maintenance
- Maintains lamp at 20-30% normal operating power
- Multiple catches from one recharging
- Works in conjunction with standard constant wattage autotransformer (CWA) magnetic ballasts
- Compatible with most standard 150 to 400 watt probe-start metal halide M57, M58 and M59 HID lamps
- Easy installation remote from fixture
- Battery case made of heavy 22-gauge steel
- Reliable, high-frequency inverter
- Premium sealed nickel-cadmium battery
- Universal 120/277VAC operation
- LED charge indicator light supplied standard
- Low power consumption
- Temperature range: 0°C to 55°C (32°F to 131°F)
- UL 924 Listed (Auxiliary Lighting)
- UL Damp Location Listed

## Dimensions



## Product Selector

Fixt Type	Model Number	Lamp Type	Max. Distance From Lamp	Run Time
	UFO-MH175	175W or energy-saving 150W probe-start MH (M57)	30 Feet	2 Min.
	UFO-MH250	250W or energy-saving 225W probe-start MH (M58)	50 Feet	2 Min.
	UFO-MH400	400W or energy-saving 360W probe-start MH (M59)	80 Feet	2 Min.

## Application

The Dual-Lite Lampak UFO-MH Series devices are battery-operated backup ballasts that catch and maintain the arc of one metal halide HID lamp during AC power sags, interruptions or failures. The UFO-MH Series device works in conjunction with standard constant wattage autotransformer (CWA) magnetic ballasts. The UFO-MH device detects AC power line disturbances and operates the HID lamp with sufficient power to keep the lamp arc from extinguishing during power line disturbances. The lamp arc, in a typical HID lamp, will extinguish if an AC power failure persists for more than four milliseconds. The UFO-MH unit detects AC power line disturbances, then supplies supplemental power to the lamp within approximately two milliseconds, thereby maintaining the lamp arc. The UFO-MH Series is suitable for damp location use. It is also for use with listed indoor fixtures EXCEPT air handling heated air outlets and wet or hazardous location fixtures. The UFO-MH Series may be used with an auxiliary generator and the unit's two-minute time limit allows more than ample time for an auxiliary generator to pick up and support the metal halide lamp for emergency lighting purposes.



### Description

Dual-Lite LAMPAK UFO-MH Series emergency backup ballasts are designed to be connected to planned or existing metal halide HID lighting fixtures, eliminating the need to install additional emergency lighting units. All unit housings are constructed of 22 gauge sheet metal finished in white enamel. The unit contains a solid-state charger with automatic transfer circuit, LED charge indicator light, a dependable, high-frequency inverter and a high-temperature, nickel-cadmium battery.

**Weight:** 6.5 lbs (2.9 kg) -all models

**Dimensions:** 12.25" (31.1cm) L by 7.25" (18.4cm) W by 1.75" (4.4cm) H.

### Applications

The UFO-MH Series devices are battery-operated backup ballasts that catch and maintain the arc of one metal halide HID lamp during AC power sags, interruptions or failures. The UFO-MH Series device works in conjunction with standard constant wattage autotransformer (CWA) magnetic ballasts. The UFO-MH device detects AC power line disturbances and operates the HID lamp with sufficient power to keep the lamp arc from extinguishing during power line disturbances. The lamp arc, in a typical HID lamp, will extinguish if an AC power failure persists for more than four milliseconds. The UFO-MH unit detects AC power line disturbances, then supplies supplemental power to the lamp within approximately two milliseconds, thereby maintaining the lamp arc. Model UFO-MH175 operates one (M57) 175 watt or energy-saving 150 watt metal halide probe-start lamp. Model UFO-MH250 operates one (M58) 250 watt or energy-saving 225 watt metal halide probe-start lamp. Model UFO-MH400 operates one (M59) 400 watt or energy-saving 360 watt metal halide probe-start lamp. The UFO-MH Series is suitable for damp location use. It is also for use with listed indoor fixtures EXCEPT air handling heated air outlets and wet or hazardous location fixtures. The UFO-MH Series may be used with an auxiliary generator and the unit's two-minute time limit allows more than ample time for an auxiliary generator to pick up and support the metal halide lamp for emergency lighting purposes.

### Operation

During normal operation, the battery charger charges the battery while the AC power line voltage monitor monitors the line voltage waveform. The CWA magnetic ballast is allowed to operate the lamp as normal. When there is a voltage sag, power interruption or failure of the AC power normally supplied to the CWA magnetic ballast, the UFO-MH device will detect this problem and respond within approximately two milliseconds. The UFO-MH device will apply high-frequency power to the lamp to supplement the low-frequency 60 Hz power normally supplied to the lamp by the CWA magnetic ballast. In this manner, the lamp arc is maintained and kept from extinguishing. The low-pass filter network attenuates high-frequency current and prevents it from flowing to the low-frequency CWA magnetic ballast. When the AC power interruption event is over, the UFO-MH device will withdraw supplemental high-frequency power from the lamp only after the AC power line has stabilized. When AC power is restored and deemed stable, the UFO-MH device returns to the monitoring mode as well as the battery-charging

mode. If, on the other hand, there is a long-term power failure such that the power failure persists for more than two minutes, the UFO-MH device inverter ballast will operate the lamp arc for two minutes maximum, then turn off. A full 24 hours of charge is required for full recharge. During day-to-day normal operation, the UFO-MH device will not try to maintain the lamp arc immediately when the lamp is first turned on; rather, there will be a five-minute delay before UFO-MH device will attempt to "catch" the arc. This delay allows the lamp to warm up each time it is turned on from a cold start. If the wall switch is turned off, in order to turn the lamp off, the UFO-MH device will recognize that switched power has been turned off but unswitched power is still applied. The UFO-MH device will release control of the arc and allow the lamp to turn off as intended, then return to the battery-charging mode. Full battery recharge is accomplished within acceptable UL time standards. A test switch and LED status indicator light is provided with all models for testing and monitoring of unit performance. Universal input allows operation from either 120 or 277VAC.

### Maximum Power Consumption:

**All Models:** 6.0 watts (120V), 10 watts (277V)

### Battery

Type: Maintenance-free nickel-cadmium 7.2 V, 2.3 Ah (minimum) - all models

**Operating Temperature Range:** 0°C to 55°C (32°F to 131°F)

### Warranty

**Unit and Electronics:** 5 years full (all models)

**Battery:** 5 years full (all models)

### Suggested Specification

Arc maintenance shall be provided by using one \_\_\_\_\_-Watt constant wattage autotransformer (CWA) magnetic ballast with one (M57)(M58)(M59) metal halide probe-start lamp and one Lampak Model UFO-MH(175)(250)(400). The UFO-MH device backup ballast shall consist of EMI filters; a rechargeable, high-temperature 7.2 V, 2.3 Ah (minimum) nickel-cadmium battery; a battery charger; a high-frequency inverter ballast; an AC power line voltage monitor; control circuitry; and a low-pass filter network contained in one 12 1/4" x 7 1/4" x 1 3/4" white metal case. A solid-state charging indicator light, which is an integral part of the UFO-MH device unit, is provided to monitor the charger to indicate the presence of battery charging current. Installation hardware shall be provided. The UFO-MH device shall be capable of maintaining the arc of one [(M57) 175 watt or energy-saving 150 watt][(M58) 250 watt or energy-saving 225 watt][(M59) 400 watt or energy-saving 360 watt] metal halide probe-start lamp for two minutes continuous during on AC power failure. The UFO-MH device shall have an input power of 6.0 W at 120 VAC, 50/60 Hz and 10 W at 277 VAC, 50/60 Hz. The UFO-MH device shall be UL Listed for damp location installation. Dimensions shall be 12.25" (31.1cm) L by 7.25" (18.4cm) W by 1.75" (4.4cm) H. Unit warranty shall be for 5 full years from date of purchase.

### Installation

The UFO-MH device must be powered from the same branch circuit for both the switched and unswitched hot leads. The CWA magnetic ballast is fed from the UFO-MH device. See wiring diagram below. The UFO-MH device may be installed in close proximity or remote from the fixture.

