



Fusion UV® LHP10L Mark IIM Power Supply

The new LHP10L Mark IIM makes upgrading your Legacy Fusion UV microwave system and/or power supply easy!

The LHP10L Mark IIM power supply was designed to replace an existing Excelitas Fusion UV P150/P155/P160 or VPS power supply in a retrofit installation. The existing I250-series irradiator/blower and RF detector can be used and do not need to be replaced.

The new LightHammer® LHP10L Mark IIM power supply features...

- State-of-the-art electronics technology
- Power Factor Correction (PFC) of ~99% at full load
- Minimum Total Harmonic Distortion (THD)
- 200–480 VAC, 50/60 Hz universal input voltage
- Higher reliability
- Multiple communications protocols enabled (DeviceNet™, Profibus®, Profinet®, EtherNet/IP™, Dry Contact)
- Real-time diagnostic capability
- Light weight and compact design

- Improved total cost of ownership
- The irradiator can be mounted vertically using “D” bulbs

LHP10L Mark IIM requires less power than the legacy systems due to much improved efficiency and incorporation of power factor correction circuitry. Therefore, less current is required, and thus lower costs for electricity. Furthermore, with the power supply’s completely balanced current draw from the 3-phase, your plant’s existing electrical system will see an improved load handling capability. All reasons to upgrade to this new, state-of-the-art technological power supply.

IMPORTANT NOTE: When installing the LHP10L Mark IIM into an existing legacy installation, all power supplies in a control group/row must be replaced. Differing power supplies cannot be mixed in a control group. Some PLC remote input commands may need to be reprogrammed.

Fusion UV®


excelitas®

Specifications: LHP10L Mark IIM

In many existing installations, interconnecting cables are located in cable trays/raceways; Excelitas Fusion UV has created adapter cables so the existing cables do not need to be removed. An adapter cable is supplied to connect the existing irradiator control and blower (if applicable) cables to the LHP10L Mark IIM power supply. An adapter cable is provided to connect the existing P150/P155/P160 RF-1 RF detector cable to the rear of the LHP10L Mark IIM. The VPS RF detector cable, however, does need to be replaced since this connection is made through the Multi-Row I/O or Customer I/O modules and is not directly connected to the power supply.

A pigtail input power adapter cable is available to connect the J101 terminal block of the LHP10L Mark IIM to the P101 input power connector used for the existing power supply.

NOTE: The I223 irradiators cannot be connected to the LHP10L Mark IIM power supply.

Power Supply: Model LHP10L Mark IIM

Weight: 27 kg (60 lbs.).

Dimensions (W x H x L): 419 mm x 217 mm x 777 mm with connector (16.48" x 8.54" x 30.6" with connector).

Cooling: Internal fans.

Input Voltages: 200 V–480 V (auto-ranging), 3-phase, 50/60 Hz.

Max Line Current: At 380–480 V: 10–8 A, at 200–240 V: 19–16 A.

Mounting position: Horizontal—unit can be free standing, stacked, or rack mounted.

Line Power at 100%: 10 kVA.

Clearance: Allow 305 mm (12 in.) clearance front and rear of the power supply for cooling air flow and cable connections.

Safety Interlocks: E-stop, external interlocks (customer I/O), RF fault.

Mag Current @ 100% Power: 890 mA/magnetron.

Mag Current Output Accuracy: ±1%.

Power Factor @ 100% power: 99%.

I/O Communications: Master/Slave (dry contact)(S), DeviceNet™ (O), Profibus® (O), Profinet® (O), EtherNet/IP™ (O).

Power Level Control: 4–20 mA, 0–10 vdc, 4-bit binary, front panel.

Front Panel Indicators/Controls: Power On/Off switch, USB port, display unit with ON/Standby/OFF buttons and Power Level control buttons.

Output Range: 35% to 100%.

Audible Noise Level: 65 dBa @ 1 m (at lamp Off/Reset).

3-phase: 50/60 Hz.

Enclosure Rating: IP20 (NEMA 1).

Stacking: 5 units maximum.

Specifications subject to change without notice.

NOTE: Care should be taken in operating I250 irradiators at 410 W/in., particularly if the power supply being replaced was capable of only 300 W/in. operation. Should this be the case, then the following is recommended...

- Additional irradiator cooling air may be required.
- Use of swept reflectors may not be desirable. Basic, non-swept reflectors maintain higher internal irradiator air pressures.
- Depending on temperatures and air flow, operation of 9 mm bulbs at 410 W/in. may result in shorter bulb life. 11 mm and 13 mm bulbs will typically operate at 410 W/in. more efficiently.

The new power supply is **AIMS® (Automated Intelligent Monitoring System)** enabled and available with additional hardware and software. This feature provides careful on-board monitoring and analysis of system parameters, which can provide valuable information regarding the system performance and status. The result is improved system uptime and maintenance.

LHP10L Mark IIM Power Supply Features & Applicability

Features	LHP10L
S / W Update	
USB port	S
Communication	
Master / Slave (dry contact)	S
DeviceNet™, Profibus®, Profinet®, EtherNet / IP™	O
Monitoring	
AIMS®	O
Possible replacement for Power Supply:	
P300S, LHP6 (legacy), LHP10 (legacy)	NA
P150*, P155*, P160*, VPS-4*	A
P600M	NA
VPS-6* (only when configured for 375 W / in.)	A
For use with Irradiator – Mounting position: Any orientation	
I300M series	NA
16 / 16LH (legacy and Mark II) series	NA
I6B Mark II	NA
I250* series	A
I600M series	NA
LHI10 (legacy and Mark II) series	NA
LHI10B Mark II	NA
For use with Modular Blower:	
K6 (legacy)	NA
K6 Mark II	NA
K250*	A
K600 (legacy)	NA
K600 Mark II	NA

S = standard

NA = not available/applicable

O = optional

A = available

* = requires adapter cables or new cables



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