

DATASHEET



- **Exceptional efficiency $\geq 93\%$.**
- **Robustness and reliability**
- **High MTBF**
- **Latest technology in lamp current control.**
- **Without Flicker**
- **Protection devices in Input and Output.**
- **Power Factor Correction ($\cos\phi = 0.99$)**
- **Extensible 2 year warranty**

LCA-240M5/240M5-006-BALLAST-01

General description

Electronic Ballasts manufactured by SUPSONIK, S.L. are power units designed for high power balloon lamps (HMI - Metal Halide Lamp) used to:

- Recording films for cinema
- Stage and theatre lighting

Equipment commonly called ballasts are devices used to limit and keep stable the current intensity supplied for discharge lamps.

Electronic Ballasts developed by SUPSONIK, S.L. Are equipments that feed the metal halide discharge lamps with a square wave. This feature allows you to avoid the flicker effect, so undesirable when recording movies.

The Square Wave Electronic Ballast keeps the light flow virtually constant during an AC network cycle. The continuous light flow allows to record movies with "slow motion", that is, with any frame rate.

The Electronic Ballasts of SUPSONIK, S.L. Can tolerate large variations of input voltage and frequency without causing any undesirable effect on the output voltage, such as changing the temperature of light produced by the lamps. This feature is achieved thanks to the Booster stage incorporated in the input rectifier. At the same time, the output current - which keeps stable, without ups and downs makes it possible to increase the lamp lifetime by up to 20%

In addition, SUPSONIK, S.L. electronic Ballasts Include:

- Adjustment of light intensity from a front panel potentiometer (50% - 100%)
- Electronic control of output current (protections against short circuit and overload)
- Built-in Lamp Ignitor
- Double outlet for connections of two lamps of 120V / 2.5 kW in series or a lamp of 120V of 6kW.
- Input Ground Detector
- Input power factor correction (PFC) reaching levels close to 1 ($\cos\phi = 1$)
- Input voltage variation + 10% / - 20%

*Supsonik S.L. Offer customized development with special features and adapted to your needs.
For further information please contact the manufacturer.*

AC INPUT

Rated voltage	230 Vac ~1N
Voltage range	180 V – 254 V
Rated frequency	50 Hz
Frequency range	48 Hz – 62 Hz
Rated current (100% -load @ Vinput-nom)	28 A
Power factor (100% -load @ Vinput-nom)	0.99

BOOSTER

Rated DC voltage	380 Vdc
Switching Frequency	15 kHz

CHOPER

Topology	2 Converters interspersed at 180 °
Switching Frequency	26 kHz [13 kHz each with a phase difference at 180 °]

AC OUTPUT

Rated frequency	112 Hz ± 1% (Square Wave) *
Maximum voltage	290 V rms
Operation mode # 1	
Rated voltage	120 Vac
Nominal current	50 A rms
Rated power	6 kW
Operation mode # 2	
Rated voltage	240 Vac
Nominal current	21 A rms
Rated power	5 kW [2x2.5kW]

PERFORMANCE

Performance (100% -load @ Vinput-nom)	≥ 93%
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REGULATION

Front panel potentiometer	50 – 100% Iout
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ENVIRONMENTAL CHARACTERISTICS

Protection degree	IP21
Working temperature	0°C a 50°C
Storage temperature	-15°C to 55°C
Relative humidity	15% to 95% with no condensation
Altitude	1000 m.

WEIGHT

Dimensions (Width x Depth x Height)	600 x 700 x 300 mm (without charging connector outlets)
Weight	35 Kg

PROTECTIONS

Protections	<ul style="list-style-type: none"> • Grid Overvoltage / Undervoltage • Magnetothermal switch for AC side protection. • Earth fault detector. • Output Overload • Output Short Circuit
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USER INTERFACE

- LED operation status indicator
- LED ground fault indicator
- RS-232 PC communications software for alarm monitoring, parameter modification, etc. (optional)

CERTIFICATES AND STANDARDS

EC Marking	Directive EMC 61000-6-2, 61000-6-3 Low Voltage Directive EN 50178
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* without Flicker