

PL-M-300LB



► Overview

The PL-M-300LB is a professional-grade lighting fixture designed for stage, event, and installation applications, delivering powerful brightness, precise control, and reliable performance in demanding environments.

Equipped with a high-output 300W white LED engine, it produces up to 120,000 lux at 10 meters (4° beam angle), ensuring strong long-throw illumination suitable for large venues and touring productions. The motorized zoom range of 4°–37° allows smooth transitions between narrow beam effects and wide wash coverage, providing maximum flexibility for different stage designs.

An advanced optical system with multi-layer lens technology delivers high uniformity and low distortion, while integrated gobo and prism effects (static and rotating) create dynamic and creative visual projections. The fixture also supports precision beam shaping, enhancing its versatility for professional lighting design.

Movement performance is highly accurate with 16-bit Pan (540°) and Tilt (270°) control, achieving smooth operation with $\pm 0.1^\circ$ repeatability for precise positioning in complex lighting setups.

For intensity control, the fixture features 16-bit smooth dimming from 0–100% with selectable curves, combined with high-speed strobe effects up to 13 Hz, including random and pulse modes for enhanced visual impact.

It utilizes 25 kHz flicker-free PWM technology, making it fully suitable for HD and 4K camera recording environments without visible flicker.

Control is fully professional with DMX512 / RDM compatibility across 16 channels, supporting multiple operating modes including DMX, Auto, Master-Slave, and Sound Active, making it adaptable for both simple and advanced setups.

Operational reliability is ensured by an intelligent cooling system with low-noise performance, maintaining stable operation during long-term use. The fixture also includes PowerCon In/Out and 3-pin & 5-pin XLR DMX connectivity, ensuring secure and professional-grade connections.

Powered by an auto-sensing universal power supply (AC 90–260V, max 450W), it is suitable for global deployment. Its compact and durable IP20-rated design makes it ideal for both touring productions and fixed installations where performance and reliability are critical.

► Feature

- 300W White LED module, up to 120,000 lux @ 10 m (4° beam)
- Motorized Zoom 4°–37° – flexible beam-to-wash transition for versatile stage applications
- Advanced Optical System – multi-layer lens design ensures high uniformity and low distortion
- Gobo & Prism Effects – static/rotating gobos combined with prism for dynamic visual effects
- Precision Pan/Tilt Movement – 540° pan / 270° tilt with 16-bit resolution and $\pm 0.1^\circ$ repeatability
- Smooth 16-bit Dimming – 0–100% linear dimming with multiple selectable curves
- High-Speed Strobe Effects – up to 13 Hz with random and pulse modes
- 25 kHz PWM for flicker-free HD/4K recording
- DMX512 / RDM Control (16 channels) – professional control compatibility for stage systems
- Multiple Operating Modes – DMX, Auto, Master-Slave, and Sound Active
- Intelligent Cooling System – low-noise operation ≤ 32 dB(A) with thermal control
- Professional Connectivity – PowerCon In/Out and 3-pin & 5-pin XLR DMX ports
- Auto-sensing power supply AC 90–260V, max 450W
- Compact & Durable Design – IP20-rated housing optimized for touring and fixed installations



PL-M-300LB

► Product Specification

Specification	Details	Specification	Details
Light Source	300W White LED module, lifespan ≥ 50,000 hours (L70), high-power stable LED technology	Pan/Tilt Movement	Pan: 540°, Tilt: 270°, 16-bit resolution, ±0.1° repeatability
Optical System	Multi-layer lens system, high uniformity, low distortion, high center intensity with sharp beam edges	Flicker Control	Flicker-free operation (PWM ≥2 kHz – 25 kHz, 25 kHz optimized for HD/4K recording)
Beam Angle (Zoom)	4°–37° motorized zoom	DMX Channels	16 DMX channels
Light Intensity	120,000 lux @ 10 m (4° beam angle)	Control Protocols	DMX512 / RDM
Effects System	Static & rotating gobo, multi-facet prism, frost effect, beam shaping (circular / geometric projections)	Control Modes	DMX / Auto / Master-Slave / Sound Active/RDM
Prism	Multi-facet prism for beam splitting	Display	Graphic LCD backlit B/W display
Frost	Yes – for soft wash effect	User Interface	RDM-supported remote setup & diagnostics
Dimmer	0–100% linear dimming, 16-bit resolution, multiple dimming curves	Cooling System	Intelligent temperature-controlled fan, low-noise
Strobe	Up to 13 Hz, random & pulse modes	Power Supply	AC 90–260V, 50/60Hz auto-sensing
		Power Consumption	Max ~450W
		Connections	PowerCon In/Out; DMX 3-pin & 5-pin XLR In/Out
		Ingress Protection	IP20 (indoor use only)
		Dimensions	430 × 380 × 550 mm
		Weight	16 kg