



# MAC Encore Performance WRM

MAC Encore™ Performance WRM integrates cutting-edge LED technology with a proprietary and innovative light engine carefully engineered to generate pristine, full spectrum light with ultra-high color rendition. The feature-packed moving head offers unparalleled 3000 K warm tungsten emulation that truly challenges the output quality of a real incandescent light source. Its advanced color mixing system delivers the full palette from smooth and subtle pastels to rich and vibrant saturated colors. Moreover, it offers a fully variable color correction to blue/daylight.

Unparalleled 3000 K warm white light quality

Super silent cooling and effects operation

Best-in-class size/weight/performance ratio

## GALLERY



## FEATURES

- Pure white LED engine with 3000 K CCT
- A flat field without color temperature variation during zoom and dimming.
- Flicker-free operation—LED driver frequency suitable for all camera applications.
- Ultra-low noise—Combines convection and forced air cooling with user-selectable output vs. sound level control.
- Fully electronic dimmer/shutter control with various dimming curves and tungsten red-shift emulation.
- Vibrant CMY color mixing with a superior palette of colors ranging from light and smooth pastel shades to rich, saturated primaries.
- Variable CTB—tungsten to daylight CCT control and expansion of the CMY palette that stays true to the black body curve.
- Color wheel—6 interchangeable dichroic filters + open.
- 1:4 zoom—precise and fast, silent zoom with auto-linked focus.
- Four framing shutter blades with individual +/- 30° adjustment and entire system rotation of +/- 55° allow for high-precision cue repeats.
- Five rotating glass gobos with next to zero focal separation from the framing system.
- Animation wheel with continuous multi-directional rotation and indexing with variable angle, speed and direction.
- Animation™ FX System—internal dimming effect macros for stunning 3D mid-air and projection effects.
- Precise and tight iris with adjustable dynamic effects.
- Soft frost—a light frost that leaves gobo artwork and framed images visible with a beautiful soft edge.
- Heavy frost available as an optional accessory.
- Super precise and silent pan/tilt movement and positioning due to 3-phase stepper motor technology and absolute position monitoring.
- Compact size—L: 452 mm x W: 480 mm x H: 733 mm (L: 17.8 in x W: 18.9 in x H: 28.9 in).

- Low weight—31 kg/68 lbs.
- Foam rubber (SiP) flightcase insert for secure shipment.

## TECHNICAL SPECIFICATIONS

### Physical

Length: 452 mm (17.8 in.)  
 Width (across yoke): 480 mm (18.9 in.)  
 Height (maximum): 740 mm (29.2 in.)  
 Height (head straight up): 731 mm (28.8 in.)  
 Weight: 31 kg (68.4 lbs.)  
 Minimum center-to-center distance in side-by-side installation: 700 mm (27.6 in.)

### Dynamic Effects

Color mixing: CMY, independently variable 0 - 100%  
 Color temperature control: Variable 3000 - 7000 K  
 Color wheel: 6 x interchangeable dichroic filters + open, indexing, continuous rotation, random color  
 Rotating gobo wheel: 5 x interchangeable texture/breakup gobos + open, indexing, continuous rotation and shake  
 Gobo animation: Interchangeable animation wheel, indexing, continuous rotation with variable speed and direction  
 Framing: Rotatable framing module, +/- 55°, 4 x individually controllable blades with variable angle and position  
 Iris: Variable 0 - 100%  
 Frost: Variable 0 - 100%  
 Dimmer/shutter: 0 - 100% continuous dimming, regular and random strobe and pulse effects, instant open and blackout  
 Dimming options: Choice of four dimming curves  
 Pre-programmed effects: Two ranges of FX, independent or synchronized/combined  
 Focus: Range varies with zoom angle, from approx. 2 m (6.6 ft.) / 6 m (19.7 ft.) to infinity  
 Zoom: Motorized  
 Pan: 540°  
 Tilt: 268°  
 Position correction system: Absolute position monitoring

### Control and Programming

DMX channels: 38  
 Setting and addressing: Control panel with backlit graphic display and jog wheel or via DMX  
 16-bit control: Dimming, rotating gobos, zoom, focus, pan and tilt  
 Movement control options: Tracking and vector  
 Fixture identification: User-settable ID number  
 DMX compliance: USITT DMX512-A  
 RDM compliance: ANSI/ESTA E1.20  
 Transceiver: Opto-isolated RS-485  
 Fixture software update: USB memory device or over DMX link

### Optics

Light source: 3000 K white LEDs  
 Total LED engine power: 468 W  
 Minimum LED lifetime: 50 000 hours (to >80% luminous output)\*  
 Zoom range: 12° - 48° one-tenth peak (1:4)  
 \*Figure obtained under manufacturer's test conditions

### Photometric Data

Light engine luminous output: ≥ 31 500 lumens  
 Fixture luminous output: 9200 lumens  
 CRI (Color Rendering Index): >90  
 CQS (Color Quality Scale): >90  
 TM-30 Rf (IES TM-30-15 Fidelity Index): >90  
 TM-30 Rg (IES TM-30-15 Gamut Index): >98  
 TLCI (Television Lighting Consistency Index): >90

### Construction

Color: Black  
 Housing: High-impact flame-retardant thermoplastic  
 Protection rating: IP20

### Installation

Mounting points: 4 pairs of 1/4-turn locks  
 Location: Dry location only, must be fastened to surface or structure  
 Orientation: Any  
 Minimum distance to combustible materials: 0.2 m (8 in.)  
 Minimum distance to illuminated surfaces: 2.0 m (6.6 ft.)

### Connections

AC power input: Neutrik TRUE1 socket (accepts Neutrik TRUE1 NAC3FX-W connector)  
 DMX and RDM data in/out: 5-pin locking XLR

### Electrical

AC power: 120-240 V nominal, 50/60 Hz  
 Power supply unit: Auto-ranging electronic switch-mode  
 Power consumption, all effects static, zero light output: 64 W  
 Half-cycle RMS inrush current at 230 V, 50 Hz: 10.3 A

### Typical Power and Current

120 V, 60 Hz: 5.0 A, 596 W, PF 0.998  
 208 V, 60 Hz: 2.9 A, 581 W, PF 0.988  
 230 V, 50 Hz: 2.6 A, 580 W, PF 0.981  
 240 V, 50 Hz: 2.2 A, 585 W, PF 0.979

*Figures are typical, not maximum. Measurements made at nominal voltage with all LEDs at full intensity.*

Allow for a deviation of +/- 10%.

PF = power factor

#### Thermal

Cooling: Combined convection and forced air (temperature-regulated, low noise, user-definable levels)

Maximum surface temperature, steady state, Ta=40° C: 75° C (167° F)

Maximum ambient temperature (Ta max.): 40° C (104° F)

Minimum ambient temperature (Ta min.): 5° C (41° F)

Total heat dissipation (calculated, +/- 10%): 2000 BTU/hr.

#### Approvals

EU safety: EN 60598-2-17, EN 62471, EN62493

EU EMC: EN 55015, EN 55032, EN 55103-2, EN 61000-3-2, EN 61000-3-3, EN 61547

US safety: UL 1573

US EMC: FCC Part 15 Class A

Canadian safety: CSA C22.2 No. E598-2-17

Canadian EMC: ICES-003 Class A

Australia/NZ: RCM

#### Included Items

Two omega brackets with 1/4 turn fasteners for rigging clamp attachment

#### Accessories

##### Cables and connectors

Power Input Cable, H07RN-F, 2.5 mm<sup>2</sup>, bare ends to Neutrik TRUE1 NAC3FX-W (female), 1.5 m (4.9 ft.): P/N 91611797

Power Input Cable, H07RN-F, 2.5 mm<sup>2</sup>, bare ends to Neutrik TRUE1 NAC3FX-W (female), 5 m (16.4 ft.): P/N 91611786

Power Input Cable, SJOOW, 12 AWG, bare ends to TRUE1 NAC3FX-W (female), 1.5 m (4.9 ft.): P/N 91610173

Power Input Cable, SJOOW, 12 AWG, bare ends to TRUE1 NAC3FX-W (female), 5 m (16.4 ft.): P/N 91610174

Cable Connector, Neutrik PowerCON TRUE1 NAC3FX-W (female): P/N 91611789

##### Installation hardware

G-clamp (suspension with fixture hanging vertically downwards only): P/N 91602003

Quick Trigger Clamp (suspension with fixture hanging vertically downwards only): P/N 91602007

Half-coupler Clamp: P/N 91602005

Safety Cable, SWL 60 kg, BGV C1 / DGUV 17, black: P/N 91604006

Safety Cable, SWL 60 kg, BGV C1 / DGUV 17, silver: P/N 91604007

##### Flightcases

Two-unit Flightcase for MAC Encore™\*: P/N 91515048

\*Please order SIP variant fixtures to obtain the required SIP foam flightcase inserts

##### Related Items

Martin® M-PC 2U incl. Martin® M-DMX USB-DMX Interface : P/N 90737070

Martin® M-PC Pro-64 / LJ-4 Controller Kit incl. Martin® M-DMX USB-DMX Interface: P/N 90737060

Martin® RDM 5.5 Splitter: P/N 90758150

##### Ordering Information

MAC Encore™ Performance WRM EPS (in cardboard box, polystyrene packaging): P/N 90234015

MAC Encore™ Performance WRM SIP (in cardboard box with SIP foam flightcase insert): P/N 90234016

