

MAC ENCORE^{TWO}

HIGH-PERFORMANCE LED MOVING HEAD

SPEC SHEET



MAC Encore Two from Martin Professional redefines performance lighting for stage, broadcast, and touring. As the evolution of the MAC Encore lineup, it delivers 21,000 lumens from a proprietary 760 W LED engine—a 75% increase—while producing a rich 5,600 K neutral white output. Quieter than its predecessor, it's ideal for noise-sensitive environments with selectable output and noise optimization. With native TLCI, CRI, and TM-30 scores of 90 (boosted to 95 with Spectrum Enhancement Filter), enhanced CMY color rendering, a 1:10 zoom system, advanced optics, gobo wheels, smooth dimming, and multiple control options, MAC Encore Two elevates the story and shapes atmosphere, emotion, and unforgettable experiences.

MAC Encore Two is the ideal choice for theatrical, broadcast, and touring productions where high output and low-noise performance are essential. Designed for lighting designers, rental companies, and performance venues, it also excels in TV studios and concert environments that demand advanced follow-spot capability, precision optics, and flawless color reproduction.

FEATURES

- 21,000 Lumen output at 5,600 K
- Proprietary 760 W LED White Light Engine
- Native CRI, TM-30, and TLCI of 90 (boosted to 95 with Spectrum Enhancement Filter)
- Broad color spectrum with enhanced CMY color mixing
- 5°-54° zoom range with 150 mm front lens
- High lumen maintenance across zoom range (60% at narrow)
- Precision optics with sharp gobo framing
- Two gobo wheels (7 rotating, 11 static)
- Dual frost system with heavy frost across entire zoom range
- High-resolution low-level dimming (Tungsten-smooth)
- Pure white output on blackbody curve
- Light recycling technology for ~25% output boost with gobos
- Highly-responsive and smooth pan/tilt, CMY, and zoom
- Low noise operation with selectable output/noise modes
- Best-in-class weight-to-size-to-output ratio (36.8 kg)
- DMX, Art-Net, sACN, and Martin P3 Control

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FEATURE HIGHLIGHTS

HIGH-OUTPUT WHITE LIGHT ENGINE

Delivers 21,000 lumens—a 75% increase over MAC Encore—with a preferred 5,600 K neutral white output and stable color temperature for demanding stage, studio, and broadcast environments.

EXCEPTIONAL COLOR ACCURACY

Native TLCI, CRI, and TM-30 scores of 90, boosted to 95 with the integrated Spectrum Enhancement Filter, for rich, natural rendering across the full color spectrum.

EXPANSIVE ZOOM AND INTENSITY

1:10 zoom range (5°-54°) with a 150 mm front lens and up to six times the intensity at narrow compared to MAC Encore, making it ideal for follow-spot use and long-throw applications.

RAZOR-SHARP OPTICAL SYSTEM

High-definition optics maintain uniform beam focus across the entire projection field for precise gobo projection and stunning theatrical effects.

FULL-FEATURED EFFECTS PACKAGE

Two gobo wheels (7 rotating and 11 static) plus a redesigned CMY system for saturated color mixing, dual frost with heavy frost available across the entire zoom range, and light recycling for increased output with gobos.

QUIET PERFORMANCE MODES

Ultra-low noise operation—even quieter than MAC Encore—with selectable output/noise optimization modes, making MAC Encore Two ideal for the most demanding noise-sensitive theater, TV, and corporate environments.

TECHNICAL SPECIFICATIONS

DYNAMIC EFFECTS

Pre-programmed effects:	Two ranges of FX, independent or synchronized/combined
Color mixing:	CMY, independently variable 0 - 100%
Color wheel:	5 x dichroic filters + open (incl. Spectral Enhancement Filter), indexing, continuous rotation, random color
Gobo animation:	Interchangeable animation wheel, indexing, continuous rotation with variable angle, speed and direction
Iris:	Variable 0 - 100%, pulse effects
Zoom:	Motorized
Color temperature control:	Variable 5,600 - 2,600 K
Framing:	Rotatable framing module, +/- 83°, 4 x individually controllable full curtain blades with full variable angle (+/- 30°) through the entire insertion path from 0 - 100%
Prism:	4-facet, indexing and continuous rotation
2 x Frost:	Variable 0 - 100%, Heavy and Light
Dimmer/shutter:	0 - 100% continuous dimming, regular and random strobe and pulse effects, instant open and blackout
Dimming options:	Choice of four dimming curves
Pan:	540°, coarse & fine control and speed
Tilt:	268°, coarse & fine control and speed
P3:	Videomapping of fixture color and/or intensity with variable crossfade between DMX control and video control
Focus:	Motorized, range varies with zoom angle, from approx. 4.5 m (14.8 ft.) to infinity
Rotating gobo wheel:	7 x interchangeable gobos + open, indexing, continuous rotation and shake, gobo wheel continuous rotation

Static gobo wheel:	11 x gobos + open, gobo wheel shake, and continuous rotation
Gobo Color Temperature Correction:	Automatic

CONTROL AND PROGRAMMING

Control Protocols:	DMX, RDM, Art-Net, RDM over Art-Net, sACN and P3
Protocol detection:	Automatic
Setting and addressing:	Display Menu, RDM, RDM over Art-Net or P3
DMX Modes:	3, Basic, Extended and Ludicrous
DMX channels:	54 (Basic), 62 (extended), 68 (Ludicrous)
16-bit Controllable Parameters:	Dimming, Color Mixing + CTO, Gobo Rotation, Framing/Framing rotation, Iris, Prism Rotation, Animation wheel Rotation, Zoom, Focus, Pan and Tilt
Fixture Identification:	User-settable ID number
DMX compliance:	USITT DMX512-A
RDM compliance:	ANSI/ESTA E1.20
Art-Net Compliance:	Art-Net 1, 2, 3 and 4; including RDM over Art-Net
sACN Compliance:	ANSI E1.31 - 2016
Martin P3 Compliance:	P3 System Controller Software 5.1.0 or newer
DMX/RDM Transceiver:	Galvanic-isolated RS-485
Ethernet Transceiver:	10/100Mbit (with fail-safe bypass)
Firmware update:	USB memory device, via DMX using Martin Companion or via Ethernet using P3 System Controller
NFC Interface:	Martin Companion iOS and Android App
Local User Interface:	Backlit LCD Display with battery-powered operation
Wireless DMX:	via Universal Connect Module

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TECHNICAL SPECIFICATIONS (Cont.)

OPTICS

Front Lens Diameter: 150 mm
Zoom Range: 1:10 zoom range (5.7° - 54° field angle)
Light Source: 55 x 18 W "High light quality" white LEDs in a custom Martin engine
Minimum LED lifetime: 30,000 hours (to >80% luminous output*)
Maximum Total LED Engine Power: 760 W

**Figure obtained under manufacturer's test conditions*

PHOTOMETRIC DATA

Light Engine Luminous Output: 57,000 lumens
LED refresh rate: 2,400 Hz

STANDARD

Fixture luminous output: 21,000 lumens
CRI [Color Rendering Index]: 90 (+/- 3)
TM-30 Rf [IES TM-30-15 Fidelity Index]: 90 (+/- 3)
TM-30 Rg [IES TM-30-15 Gamut Index]: 100 (+/- 3)
TLCI [Television Lighting Consistency Index]: 90 (+/- 3)
CCT: 5,600 K (+/- 300 K)
Peak Luminous Intensity: 2.0 Mcd

WITH SPECTRAL ENHANCEMENT FILTER

Fixture luminous output: 13,600 lumens
CRI [Color Rendering Index]: 95 (+/- 3)
TLCI [Television Lighting Consistency Index]: 95 (+/- 3)
TM-30 Rf [IES TM-30-15 Fidelity Index]: 95 (+/- 3)

CONSTRUCTION

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

GOBOS (ROTATING)

Maximum image diameter: 22 mm (0.866 in.)
External diameter: 27.1 mm +0 / -0.2 mm (1.067 in. +/- in.)
Maximum gobo thickness: 1.1 mm (0.04 in.)
Coating: Heavy matted aluminum
Material: Borofloat 33

INSTALLATION

Mounting points: 2 pairs of 1/4-turn points for 106 mm (4.17 in.) center-to-center omega brackets
Location: Dry location only, must be fastened to surface or structure
Orientation: Any
Min. distance to combustible materials: 0.2 m (8 in.)
Min. distance to illuminated surfaces: 3.25 m (10.7 ft.)

CONNECTIONS

AC mains power in/thru: Neutrik Rean powerCON TRUE1 TOP
Firmware from flash memory: USB 2.0 type C port
DMX and RDM data in/out: Neutrik 5-pin locking XLR TOP
Ethernet (Art-Net, sACN and P3) in/thru, including fail-safe bypass: Neutrik etherCON TOP
Accessory Plug-In: Universal Connect Module Slot

ELECTRICAL

AC power: 100-240 V AC nominal, 50/60 Hz
Power supply unit: Auto-ranging electronic switch mode
Typical half-cycle RMS inrush current at 230 V, 50 Hz: 17.0 A
Typical earth-leakage current: 0.7 mA
Power Factor: 0.99 @ 100 V / 120 V / 208 V / 230 V, 0.98 @ 240 V
Max current draw: 11.0 A @ 100 V / 120 V, 5.2 A @ 200 V, 4.6 A @ 240 V
Typical current draw: 9.5 A @ 100 V, 7.8 A @ 120 V, 4.4 A @ 208 V, 4.0 A @ 230 V, 3.9 A @ 240 V *

Power Consumption

Maximum: 1040 W
Typical: 945 W *
Idle: 68 W *
Hibernation mode: 6 W *

** Measurements made at nominal voltage. Allow for a deviation of +/- 10%*

Typical: full output white, no effects moving, regulated fan speed.

Idle: no output, no effects moving, regulated fan speed.

Hibernation: no output, motors de-energized, fans stopped, wake-up procedure to re-use fixture.

THERMAL

Cooling: Forced air (temperature regulated, low noise)
Maximum Ambient Temperature (Ta max): 40° C (104° F)
Minimum Ambient Temperature (Ta min): 5° C (41° F)
Maximum surface temperature, steady state, at 40° C ambient: 80° C (176° F)
Total heat dissipation (calculated, +/- 10%): 3550 BTU/hr.

ACOUSTIC DATA

Sound Pressure Level (LpA) @ 1 m (regulated high fan mode, full output): 36.2 dB(A)
Sound Pressure Level (LpA) @ 1 m (regulated medium fan mode): 31.7 dB(A)
Sound Pressure Level (LpA) @ 1 m (regulated low fan mode): 27.6 dB(A)
Sound Pressure Level (LpA) @ 1 m (regulated ultra-low fan mode): 27.2 dB(A)

WARRANTY

Fixture: 2 years
Light Engine: 5 years

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TECHNICAL SPECIFICATIONS (Cont.)

ENVIRONMENTAL

RoHS: Compliant
REACH: Compliant
WEEE: Compliant
Proposition 65: Compliant
FSC:..... Certified cardboard outer packaging.
Recycled EPS inner packaging
Efficacy (max output): 22.2 lm/w
LWR*: 580 lm/kg (262 lm/lb)
LWR = Lumen-to-Weight Ratio

APPROVALS (PENDING)

Global CB Certification/IECEE: IEC 60598-2-17 (IEC 60598-1)
EU safety: EN 60598-2-17 (EN 60598-1),
EN 62471, EN 62493
EU EMC: EN 55015; EN 55032; EN 55035;
EN 61547; EN 61000-3-3
US safety: UL 1573
US EMC: FCC Part 15 Class B
Canadian safety: CSA C22.2 No. 166
Canadian EMC: ICES-003 Class B, ICES-005 Class B
Australia/NZ: RCM
United Kingdom: UKCA
Thailand: TIS



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INCLUDED ITEMS

- Two omega brackets with 1/4 turn fasteners for rigging clamp attachment
- Multi-language Safety and Installation Manual

RELATED ITEMS

- Martin Companion Cable (for firmware update over DMX): P/N 91616091
- Martin Companion Software (for firmware update over DMX): Free download from www.martin.com

ACCESSORIES

OPTICAL

- MAC Viper XIP / Encore Two Hotspot Filter (Gobo Replacement): P/N MAR-91614065HU

TRANSPORT AND STORAGE

- Flightcase for 1 x MAC Viper XIP / MAC Encore Two: P/N MAR-91515060
- Flightcase for 2 x MAC Viper XIP / MAC Encore Two: P/N MAR-91515061
- MAC Viper Flightcase XIP Upgrade Kit: P/N MAR-91515062
- Additional SiP Foam Flightcase Insert for MAC Encore Two MAR-91611866HU

CONSUMABLES

- Air filter, MAC Quantum / MAC Ultra / Viper XIP / Encore Two, set of 12: P/N 50400765
- CR123A 3-volt lithium battery: P/N 05801011

POWER INPUT CABLES

- Power Input Cable, H07RN-F, 2.5 mm², bare ends to TRUE1 NAC3FX-W TOP (female), 1.5 m (4.9 ft.) P/N 91611797
- Power Input Cable, SJOOW, 12 AWG, bare ends to TRUE1 NAC3FX-W TOP (female), 1.5 m (4.9 ft.) P/N 91610173

POWER LINKING CABLES

- Power Relay Cable, H07RN-F, 2.5 mm², TRUE1 to TRUE1, 2.5 m (8.2 ft.) P/N 91611796
- Power Relay Cable, SJOOW, 12 AWG, TRUE1 to TRUE1, 2.5 m (8.2 ft.) P/N 91610172

POWER CONNECTORS

- Cable Connector, Neutrik powerCON TRUE1 TOP Female: P/N 91611789HU
- Cable Connector, Neutrik powerCON TRUE1 TOP Male: P/N 91611788HU

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

VERIFIED THIRD-PARTY ACCESSORIES

BEAM CONTROL

- MAC Viper XIP / Encore Two Concentric Ring: P/N City Theatrical 2816
- MAC Viper XIP / Encore Two Hexcel Louver: P/N City Theatrical 2817

FOLLOWSPOT

- MAC Viper XIP / Encore Two Follow Spot Handle: P/N City Theatrical 2815

UNIVERSAL CONNECT MODULE

- Multiverse Connect Module 2.5GHz: P/N City Theatrical 5914
- Multiverse Connect Module 900MHz: P/N City Theatrical 5915

ORDERING INFORMATION - FIXTURES

- MAC Encore Two in Cardboard (in cardboard box with EPS, reused material): P/N MAR-90250600HU
- MAC Encore Two White in Cardboard (in cardboard box with EPS, reused material) P/N MAR-90250610HU
- MAC Encore Two in SIP (in cardboard box with SIP foam flight case insert): P/N MAR-90250605HU

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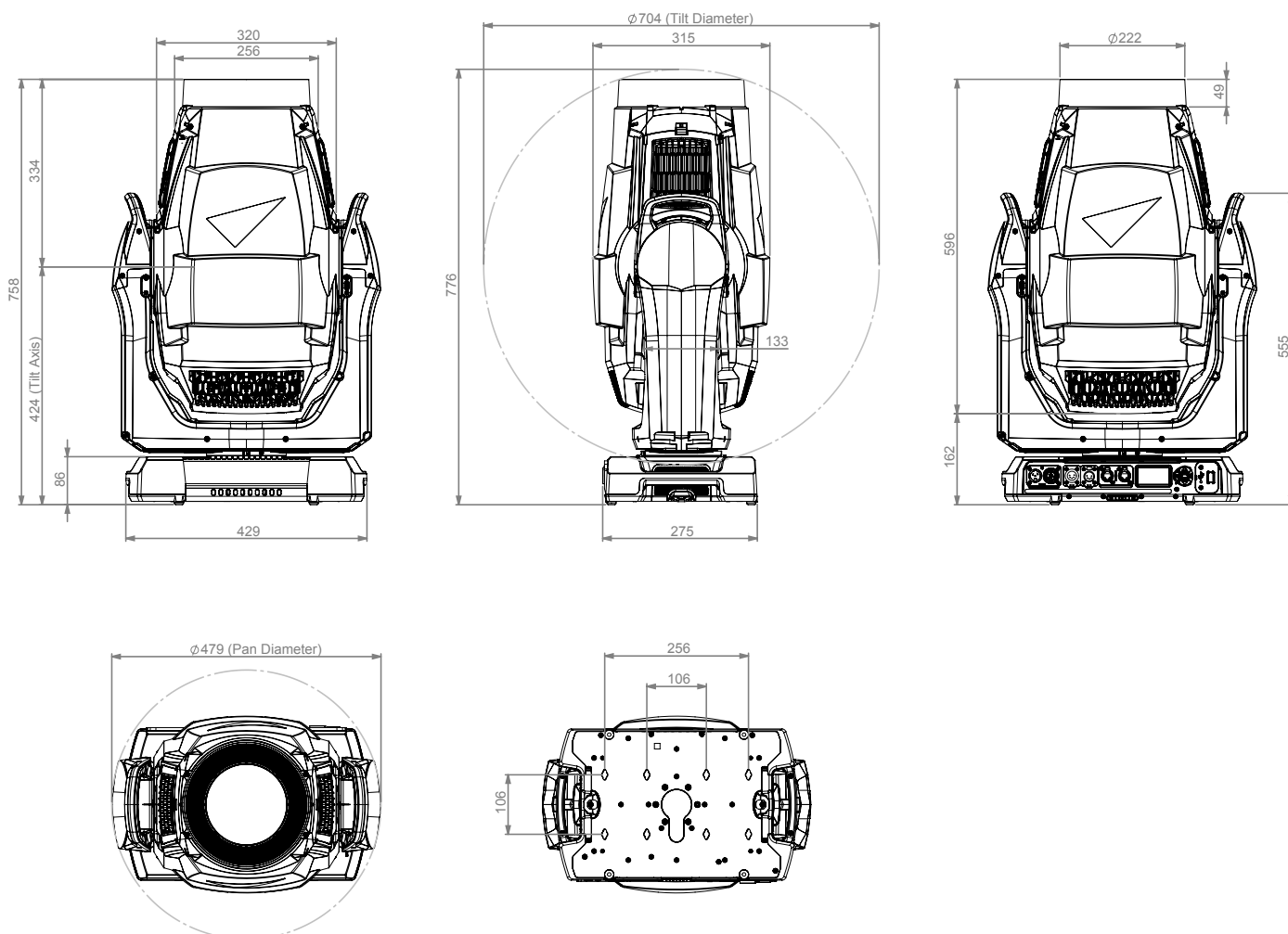
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DIMENSIONS

PHYSICAL

Weight:	36.8 kg (81 lbs.)
Minimum center-to-center distance in side-by-side installation:	704 mm (27.7 in + Clearance)
Length (head):	594 mm (23.4 in.)
Length (base):	429 mm (16.9 in.)
Width (base):	281 mm (11.1 in.)
Width (across yoke):	479 mm (18.9 in.)
Height (head straight up):	758 mm (29.8 in.)
Height (maximum):	776 mm (30.6 in.)



All dimensions are in mm