MAC ONE BEAM

ULTRA-COMPACT BEAM MOVING HEAD

The **MAC One Beam** from Martin Professional is the newest member of the MAC One family—designed to deliver tight, high-intensity beams and captivating eye-candy effects in a compact, lightweight form. Built for lighting designers and rental professionals, MAC One Beam expands creative possibilities, free from weight, size or budget constraints.

At its core sits an automotive-grade LILI (Laser Illuminated Lighting Instrument) engine, engineered for precision and reliability. This compact light source produces an exceptionally sharp beam with an intensity of 7 million candela—more than enough for bold aerial effects in concert, TV, and event environments. MAC One Beam's optimized output alleviates growing industry concerns around eye safety, offering a responsible balance of performance and protection.

MAC One Beam excels in three key areas. First, its razor-sharp beam and fast CMY color mixing deliver dynamic, high-contrast effects with snappy responsiveness. Second, its compact footprint and sub-5 kg weight allow dense fixture deployment, unlocking bold looks while reducing transport costs and rigging complexity. Third, a mesmerizing three-dimensional backlight effect—featuring individually controllable light guides behind a bold 120 mm lens—adds visual depth and stage presence, even when the beam is idle.

Designed for versatility, MAC One Beam integrates seamlessly with its sibling, the MAC One wash fixture, using a unified ecosystem of rigging accessories, including the MAC One Fourbar and VDO Grid Mount System. This compatibility empowers designers to mix fixture types freely—combining beam and wash functionality within the same rig, layout, or flightcase—without sacrificing efficiency or cohesion.

Whether building dynamic arrays, linear matrices, or immersive light walls, shared accessories simplify setup and expand design flexibility. With the MAC One Beam and the MAC One wash fixtures working in tandem, designers gain more creative freedom to craft layered, multidimensional looks using compact fixtures that rig fast and scale effortlessly.

From low-ceiling installations to high-impact concert rigs, MAC One Beam empowers designers to think bigger, rig smarter, and elevate every show with compact brilliance and eye-catching flair.

COMPACT & LIGHTWEIGHT
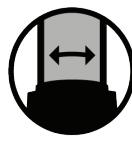
SHARP HIGH INTENSITY BEAM

3-DIMENSIONAL BACKLIGHT EFFECT
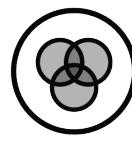
FAST CMY COLOR MIXING

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FEATURE HIGHLIGHTS

COMPACT FORM + MASSIVE IMPACT

MAC One Beam delivers an intense 7 Mcd beam from a fixture weighing under 5 kg, offering an exceptional output-to-size ratio. Its compact footprint enables dense deployment without compromising punch or precision.

AUTOMOTIVE-GRADE LILI ENGINE + SAFER BEAM PERFORMANCE

Powered by an automotive-grade LILI engine, MAC One Beam produces a razor-sharp, high-contrast beam while alleviating growing industry concerns around eye safety, offering a responsible and unmatched balance of performance and protection.

FAST CMY MIXING + SPLIT COLOR CREATIVITY

The fixture's rapid CMY color mixing enables smooth transitions and vibrant split-color effects. Designers can achieve dynamic looks with snappy responsiveness and rich tonal control.

THREE-DIMENSIONAL BACKLIGHT EYE CANDY

Behind the bold 120 mm lens, 24 RGB LEDs create a captivating backlight effect with pixel control. Even when the beam is idle, MAC One Beam adds visual depth and stage presence.

RIGGING VERSATILITY + SEAMELSS INTEGRATION

MAC One Beam shares accessories with the MAC One wash fixture, including the Fourbar and VDO Grid Mount System. Designers can mix fixture types freely, creating cohesive rigs, matrix layouts, and "walls of light" with ease.

P3 CONTROL + STREAMLINED SETUP

In addition to DMX, Art-Net, and sACN, MAC One Beam supports Martin P3 control for simplified mapping, addressing, and video integration. Ideal for large deployments, it reduces setup time and expands creative possibilities.

FEATURES

Beam

- Automotive-grade LILI (Laser Illuminated Lighting Instrument) engine
- 7 Mcd beam intensity
- Fast CMY color mixing, offering smooth gradients and stunning split colors
- Color Temperature Control
- Tint Control

Backlight

- 24 RGB backlight LEDs
- Three-dimensional effect behind 120 mm lens

Dynamic Effects

- More than 200 built-in FX macros with control of foreground color, background color, speed and direction
- P3 video mapping of fixture beam and/or backlight pixels
- P3 Mix allowing crossfade between video looks and DMX looks
- Extreme-speed pan, tilt and CMY

Cooling and Noise

- Ultra-quiet cooling system (no fans in base, only fans in head)
- Theater / Broadcast mode at just 21.5 dB(A)
- Low noise pan, tilt and CMY mode

Construction

- Weight: 4.95 kg / 10.91 lbs.
- Dimensions: 254 mm (10.00 in.) x 303 mm (11.93 in.) x 233 mm (9.17 in.)

Control

- DMX, Art-Net, sACN & Martin P3 control
- Fail-safe bypass on Ethernet ports
- Battery-powered display for setup and configuration

Installation

- Single omega bracket attachment
- M12 threaded holes for direct clamp attachment or attachment to four-bar accessory
- Optional four-bar accessory
- Optional VDO Grid Mount Ring accessory

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ORDERING INFORMATION

MAC One Beam in Cardboard (in cardboard box with cardboard inlay):
P/N MAR-90250500HU

MAC One Beam in dual SiP (in cardboard box with dual SiP foam flight case insert): P/N MAR-90250505HU (to be ordered in multiples of 2)

MAC One Beam white in Cardboard (in cardboard box with cardboard inlay): P/N MAR-90250510HU

INCLUDED ITEMS

• Single omega bracket with 1/4 turn fasteners for rigging clamp attachment

• Multi-Language Safety and Installation Manual

RELATED ITEMS

• MAC One in dual SiP: P/N MAR-90250205HU

• MAC One in cardboard: P/N MAR-90250200HU

• MAC One white in cardboard: P/N MAR-90250210HU

• VDO Atomic Bold in cardboard: P/N MAR-90357703

• VDO Atomic Dot CLD in cardboard: P/N 90357701

• VDO Atomic Dot WRM in cardboard: P/N 90357702

• Martin Companion Cable (for firmware update over DMX): P/N 91616091

• Martin Companion Software (for firmware update over DMX/Ethernet): Free download from **martin.com**

ACCESSORIES

TRANSPORT AND STORAGE

• Flightcase for 8 x MAC One
(fits MAC One Beam and MAC One)...............P/N MAR-91515058

• Additional dual SiP Foam Flightcase
Insert for MAC One Beam and MAC One .. P/N MAR-91611865HU

CONSUMABLES

• 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 TRUE 1, 2.5 m (8.2 ft.) .... P/N 91611796

• Power relay cable, SJOOW, 12 AWG,
TRUE1 to TRUE 1, 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

PDE ADAPTER CABLES (for use in matrix with VDO Atomic Bold/Dot)

• BreakIn Cable
Power-DMX-Ethernet to PDE ....P/N MAR-91700000

• BreakOut Cable
PDE to Power-DMX-Ethernet .... P/N MAR-91700001

INSTALLATION HARDWARE

• MAC One Family Fourbar .... P/N MAR-91616127HU

• MAC One Family VDO Grid Mount Ring.... P/N MAR-91616128HU

• Set of 10 VDO Couplers .... P/N MAR-91616129HU

• Dual VDO Header..................................... P/N MAR-91616130HU

• Set of 10 Single VDO Adapters ....P/N MAR-91616135

• 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

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TECHNICAL SPECIFICATIONS

DYNAMIC EFFECTS

Beam Dimmer/Shutter	0-100% continuous dimming, regular and random strobe, instant open and blackout
Beam Dimming options	Choice of four dimming curves
Beam Color Mixing	CMY, independently variable 0-100%
Beam Virtual Color Temperature Control	Variable 2,000-12,850 K
Beam Virtual Tint Control	Variable green-magenta shift Δuv -0.05 - +0.05
Beam Virtual Color Wheel	16 color presets, 18 split color presets, 18 split color shakes & random color
Pan	Motorized 540°
Tilt	Motorized 240°
Beam P3 Mix	Videomapping of fixture with variable crossfade between DMX control and video control
Backlight Dimmer/Shutter	0-100% continuous dimming, regular and random strobe, instant open and blackout
Backlight Dimming options	Choice of four dimming curves
Backlight Color Mixing	RGB, independently variable 0-100%
Backlight Color Temperature Control	Variable 2,000-12,850 K
Backlight Tint Control	Variable green-magenta shift Δuv -0.05 - +0.05
Backlight Virtual Color Wheel	48 color presets, continuous rotation & random color
Backlight Pixelmapping	Individual RGB control of each of the 24 Backlight pixels
Backlight P3 Mix	Videomapping of fixture with variable crossfade between DMX control and video control
Pre-programmed effects	Two ranges of FX on Beam, Backlight or Combination; independent or synchronized/combined
Dimming Zones control	Up to 8 dimming zones featuring remote programming, preview & easy-adjust
Light Engine Frequency control	Variable Light Engine PWM control

CONTROL AND PROGRAMMING

Control Protocols	DMX, RDM, Art-Net, RDM over Art-Net, sACN and Martin P3
Protocol Detection	Automatic
DMX Modes	Compact, Basic & Ludicrous
DMX Channels	19, 35 & 107
Multi-Universe Overflow	Yes, in all DMX Modes
16-bit Controllable Parameters	Beam & Backlight Dimming, Beam Color Mixing, Pan and Tilt
Setting and Addressing	Display Menu, RDM, RDM over Art-Net or Martin P3
Local User Interface	Backlit LCD Display with battery-powered operation
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
DMX/RDM Daisy-Chain Limit	32 fixtures
Ethernet Transceiver	10/100Mbit (with fail-safe bypass)
Ethernet Daisy-Chain Limit Recommendation	50 fixtures
Firmware Update	via DMX using Martin Companion or via Ethernet using Martin Companion / P3 System Controller

OPTICS

Front Lens Diameter	120 mm (4.72 in.)
Beam Angle (Half Peak)	0.40°
Field Angle (Tenth Peak)	0.80°
Beam Light Source	1 x 20 W Laser Illuminated Light Engine
Backlight Light Source	24 x 0.25 W RGB LED
Max. Total Beam Engine Power	20 W
Max. Total Backlight LED Engine Power	6 W
Minimum LED Lifetime	> 50.000 hours (to > 70% luminous output)*

*Figure obtained under manufacturer's test conditions

PHOTOMETRIC DATA

Peak Luminous Intensity Narrow	7,000,000 cd
CCT	Variable 2,000 K - 12,850 K
CRI (Color Rendering Index)	≥ 72
CQS (Color Quality Scale)	≥ 61
TM-30 Rf (IES TM-30-15 Fidelity Index)	≥ 65
TM-30 Rg (IES TM-30-15 Gamut Index)	≥ 89
TLCI (Television Lighting Consistency Index)	≥ 37
Beam Light Engine Refresh Rate	19,200 Hz with adjustment (+/- 2%) via DMX
Backlight LED Refresh Rate	1,200 Hz
Binning	Tight color and flux binning
Calibration	Full Gamut Color Calibration of Backlight
Color Modes	Direct Color Mode, Extended Gamut Mode and Calibrated Color Mode

*All Photometric Data measured in steady state (30 minutes warm-up time) at 25°C ambient

*All Photometric Data measured at 7500 K white

CONSTRUCTION

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

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TECHNICAL SPECIFICATIONS

INSTALLATION

Mounting options.................................. Clamps on fixture, omega on fixture, Fourbar or VDO Grid Mount Ring

Mounting points on Fixture .... 1 pair of 1/4-turn points for 106 mm (4.17 in.) center-to-center omega bracket and two M12 threaded holes

Mounting points on Fourbar................. 1 fixed and 2 repositionable M12 threaded holes

Mounting points on VDO Grid
Mount Ring .... 6 receivers for VDO Couplers (compatible with VDO Atomic Bold/Dot)

Mounting points on Dual VDO
Header... 2 repositionable M12 threaded holes and 4 receivers for VDO Couplers (compatible with VDO Grid Mount Ring and VDO Atomic Bold/Dot)

Mounting points on Single VDO
Adapter.. 1 fixed M12 threaded hole, 4 fixed M6 threaded holes and 1 receiver for VDO Coupler (compatible with VDO Grid Mount Ring and VDO Atomic Bold/Dot)

Maximum vertical column height
in VDO Grid Mount Rings .... 12 fixtures

Location.. Indoor or outdoor protected from elements

Orientation .... Any

Minimum distance to combustible
materials .... 0.20 m (7.87 in.)

Minimum distance to illuminated
surfaces... 1.75 m (68.90 in.)

CONNECTIONS

AC mains power in/thru .... Neutrik powerCON TRUE1 TOP

DMX and RDM data in/thru................... Neutrik 5-pin locking XLR

Ethernet (Art-Net, sACN and P3)
in/thru, including fail-safe bypass .... Neutrik etherCON

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 .... 3.2 A

Typical earth-leakage current.............. 0.50 mA

Power Factor .... 0.85 @ 100 V, 0.82 @ 120 V, 0.59 @ 208 V, 0.57 @ 230 V, 0.55 @ 240 V

Max current draw .... 0.6 A @ 100 V / 120 V, 0.4 A @ 208 V / 230 V / 240 V

Typical current draw .... 0.5 A @ 100 V, 0.4 A @ 120 V, 0.3 A @ 208 V, 0.3 A @ 230 V, 0.3 A @ 240 V*

Power Consumption

    Maximum .... 55 W

    Typical .... 45 W*

    Idle .... 12 W*

    Hibernation .... 8 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, user-definable levels)

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

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

Max. surface temperature, steady
state, at 40° C ambient .... 65° C (149° F)

Total heat dissipation
(calculated +/- 10%) .... 154 BTU/hr.

ACOUSTIC DATA

Sound Pressure Level (LpA) @ 1m (default
regulated fan mode, full output)............. 21.0 dB(A)

Sound Pressure Level (LpA) @ 1 m
(constant fan mode ultra low) .... 21.5 dB(A)

ENVIRONMENTAL

RoHS... Compliant

REACH .... Compliant

WEEE .... Compliant

Proposition 65 .... Compliant

FSC .... Certified cardboard inner and outer packaging

Efficacy (max output)............................ 216,583 cd/W

LWR (Lumen-to-Weight Ratio) .... 1,414,141 cd/kg (641,613 cd/lbs.)

APPROVALS

Global CB Certification/IECEE.............. IEC 60598-2-17 (IEC 60598-1)

EU safety .... EN 60598-2-17 (EN 60598-1), EN 60825-1, EN 61547, EN 62493

EU EMC... EN 55015; EN 55032; EN 55035; EN 61547; EN 61000-3-3

US safety .... UL 1573 *Pending*

US EMC... FCC Part 15 Class B *Pending*

Canadian safety .... CSA C22.2 No. 166 *Pending*

Canadian EMC .... ICES-003 Class B, ICES-005 Class B *Pending*

Australia/NZ... RCM *Pending*

United Kingdom.................................... UKCA

Thailand.. TIS *Pending*

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DIMENSIONS

PHYSICAL

MAC One Beam Fixture

Width (across yoke) .... 226 mm (8.90 in.)
Width (base) .... 254 mm (10.00 in.)
Height (head forward) .... 303 mm (11.93 in.)
Height (maximum)................................. 350 mm (13.78 in.)

Depth (head) .... 233 mm (9.17 in.)
Depth (base) .... 177 mm (6.97 in.)
Min. center-to-center distance in
side-by-side installation .... 300 mm (11.81 in.)
Weight .... 4.95 kg (10.91 lbs.)
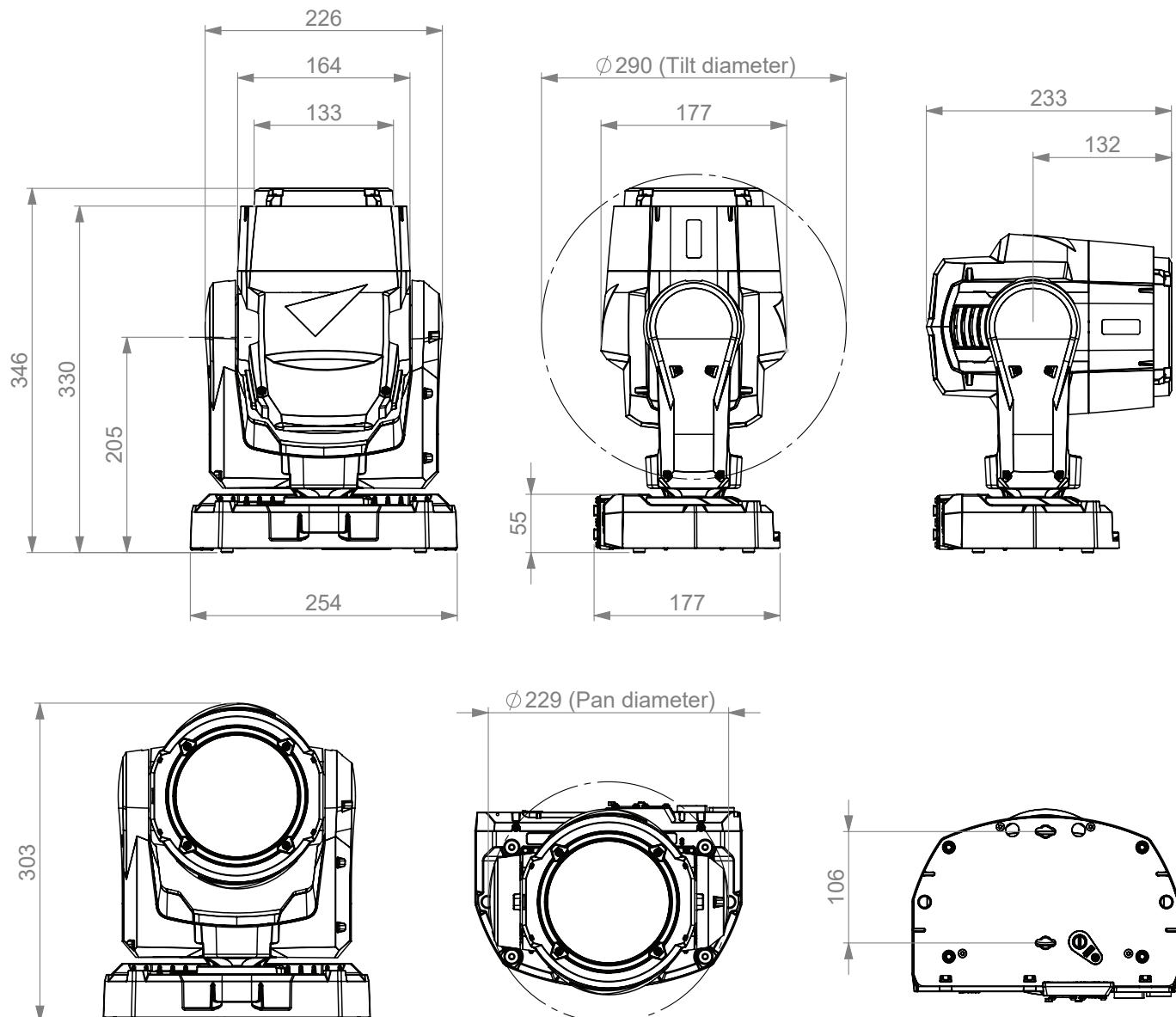
All dimensions are in mm

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DIMENSIONS

PHYSICAL

MAC One Family Fourbar

Length .... 1168 mm (45.98 in.)
Length (installed end-to-end) .... 1200 mm (47.24 in.)
Width .... 88 mm (3.46 in.)
Height (without feet)............................ 42 mm (1.65 in.)
Height (with feet)................................. 60 mm (2.36 in.)
Weight .... 3.20 kg (7.05 lbs.)
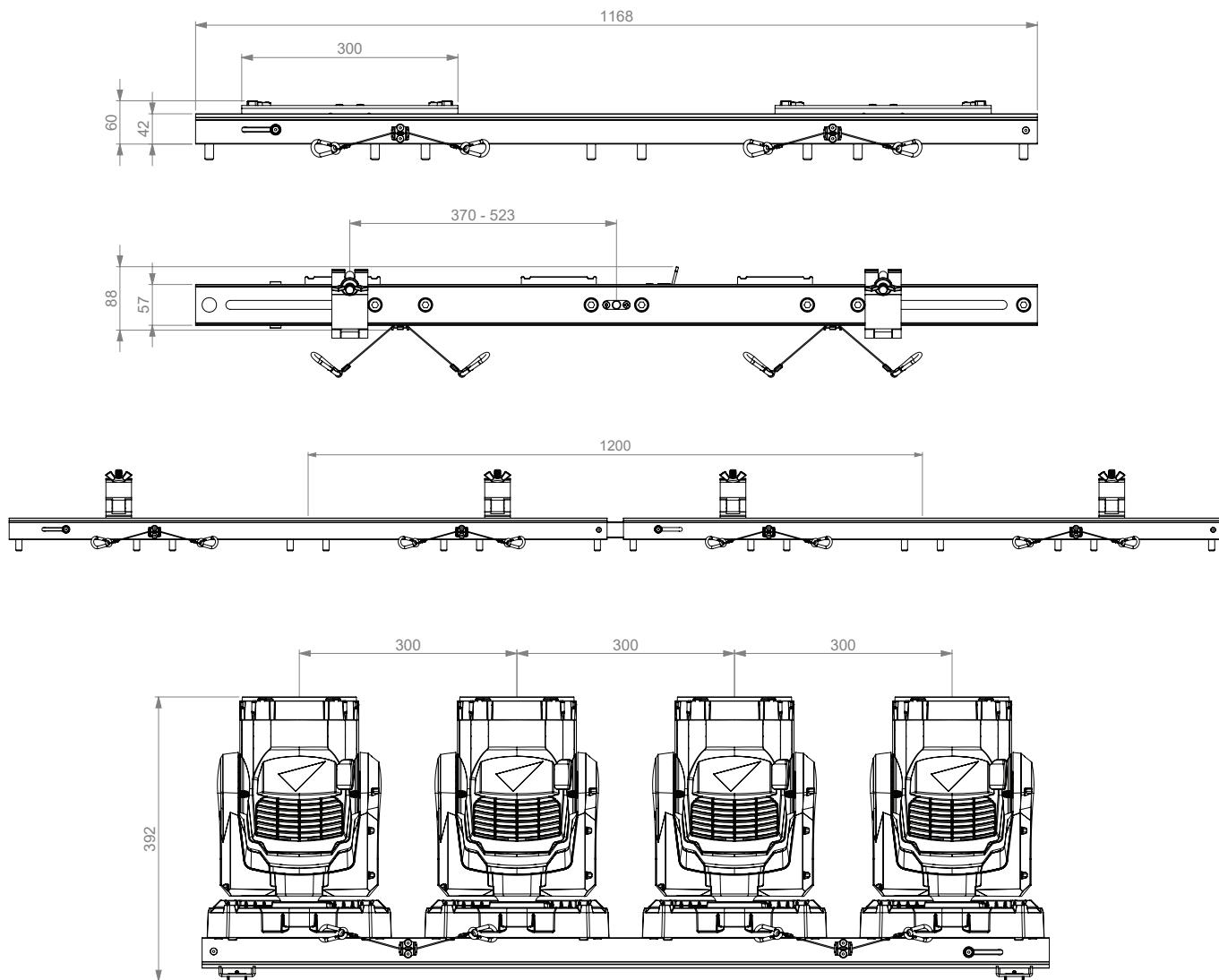
All dimensions are in mm

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DIMENSIONS

PHYSICAL

MAC One Family VDO Grid Mount Ring

Width	282 mm (11.10 in.)
Width (installed side-to-side)...............	300 mm (11.81 in.)
Height	282 mm (11.10 in.)
Height (installed side-to-side)	300 mm (11.81 in.)
Depth	80 mm (3.15 in.)
Weight	0.75 kg (1.65 lbs.)
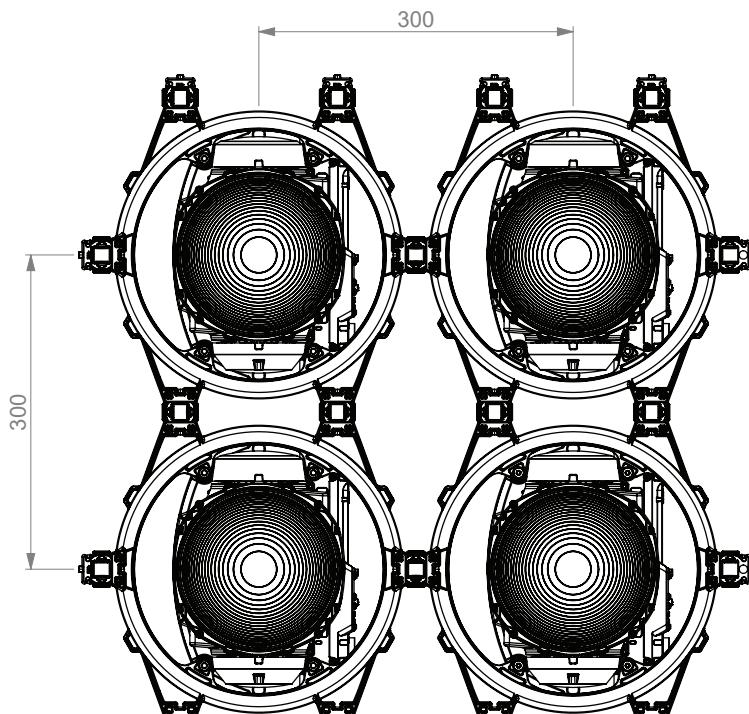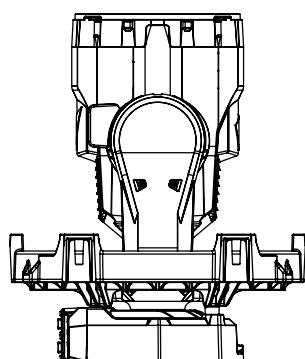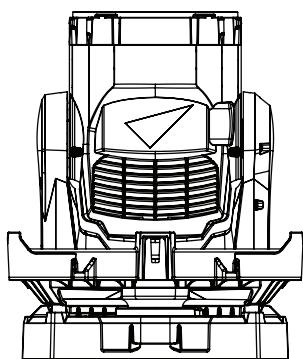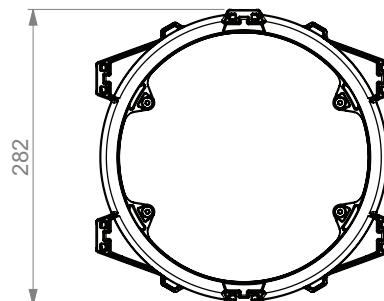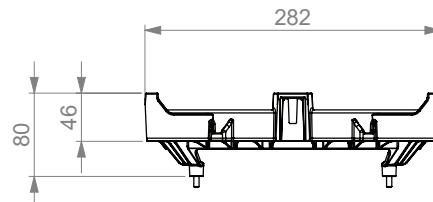
All dimensions are in mm

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DIMENSIONS

PHYSICAL

MAC One Family Dual VDO Header

Length .... 568 mm (22.36 in.)
Length (installed end-to-end) .... 600 mm (23.62 in.)
Width .... 85 mm (3.35 in.)
Height .... 58 mm (2.28 in.)
Weight .... 2.20 kg (4.85 lbs.)
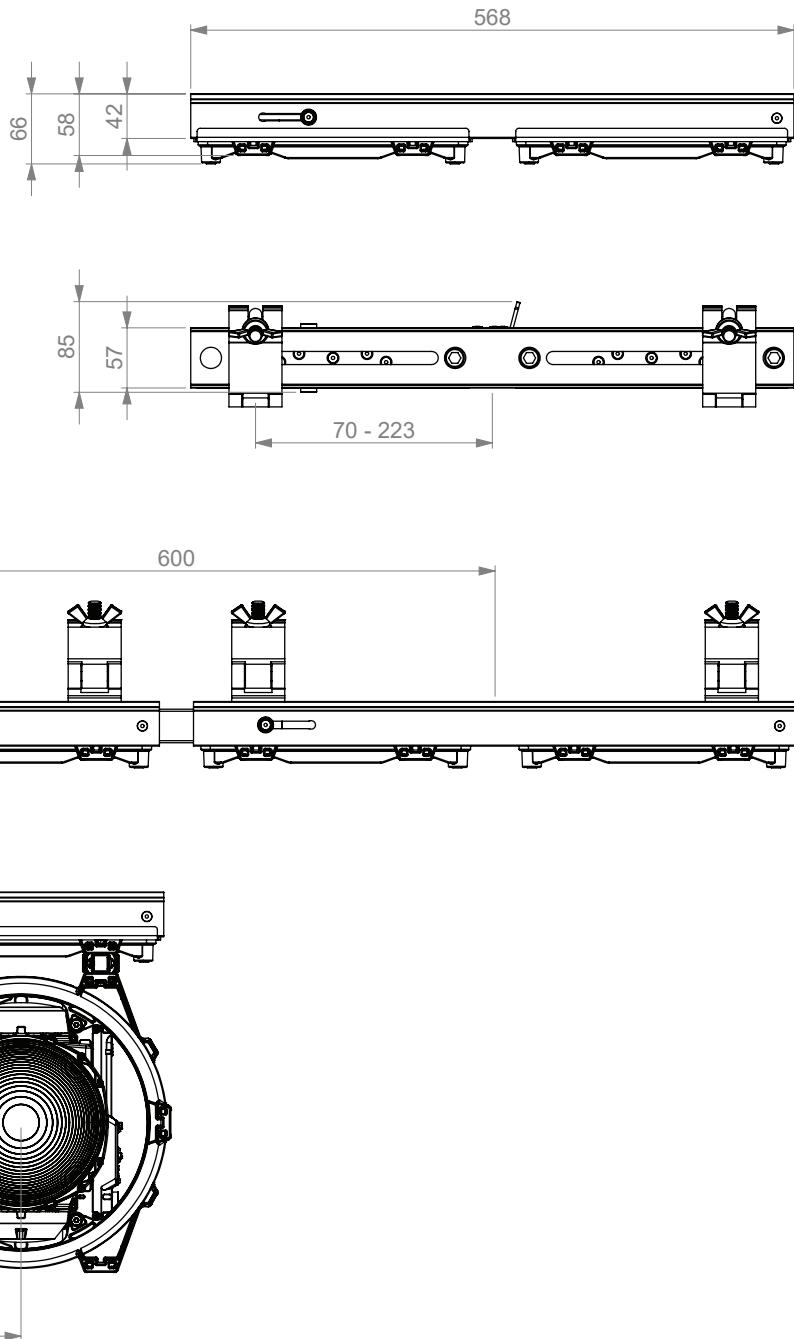
All dimensions are in mm

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DIMENSIONS

PHYSICAL

MAC One Family Single VDO Adapter

Length .... 50 mm (1.97 in.)
Width .... 57 mm (2.24 in.)
Height .... 58 mm (2.28 in.)
Weight .... 0.20 kg (0.44 lbs.)

All dimensions are in mm

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