VDO ATOMIC™ DOT

2,700K WARM | 5,700 K COLD | BLINDER. STROBE. BEAM. SPOT. PIXEL.

SPEC SHEET



The Martin VDO Atomic Dot WRM and CLD hybrid lighting and video fixtures combine a small blinder, compact strobe, video-pixel and small spotlight.

By combining a video-controlled Aura backlight and a bright blinder/strobe dot in one fixture, lighting designers are empowered with greater creative potential to make a bigger impact with audiences than ever before. The fixtures' compact design also gives designers the ability to place VDO Atomic Dots just about anywhere and deploy them in larger quantities. Integrated support for P3, DMX, Art-Net and sACN eliminates the need for additional interface boxes and onboard P3 eases pixel mapping and using the product as a video controlled blinder or strobe.

VDO Atomic Dots are ideal for rental customers and lighting designers working in concert/touring and TV show sets as well as supporting corporate and nightclub clients.

KEY MESSAGES

DUAL LAYER FIXTURE

A high-power, warm (WRM) or cold (CLD) white beam combined with a pixel-controllable RGB Aura backlight enables truly, unique effects. Both layers can be controlled individually via P3, DMX, Art-Net, sACN or a mix.

COMPACT AND LIGHTWEIGHT

Packs a lot of punch from a very compact fixture that can be used and hidden in any application. Internal power supply and IP65-rated housing increase usability of this fixture in various applications.

EASILY COMBINE MULTIPLE FIXTURES IN ARRAYS

The smart interlocking mechanics allow fixtures to be combined into battens, arrays or creative shapes. Creative imagination is your only limit.

HYBRID DATA AND POWER CABLE

The hybrid power and data cable carries all power and data for the fixtures, allowing them to be daisy-chained very easily in large quantities.

FRONT-ACCESSORY HOLDER

The industry-standard PAR30-sized front-accessory holder can hold a diffuser to widen the beam-angle of the fixture. It also fits standard barndoors to give the fixture an artistic look on stage.

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FEATURES

- VDO Atomic Dot WRM high power warm white beam (2700K)
- VDO Atomic Dot CLD high power cold white beam (5700K)
- Beam angle of 11 degrees
- Field angle of 22 degrees
- Pixel-controllable RGB Aura backlight
- Compact form-factor
- Built-in power supply (100-240V)
- Power and Data IN & THRU via hybrid cable
- P3, DMX, Art-Net & sACN compatible
- Built-in pixel-FX on backlight and beam
- Front-accessory holder for barndoors and/or diffuser/lens
- Detachable yoke-assembly
- Smart interlocking mechanics to build battens, arrays and creative shapes
- Passive cooling
- IP65-rated





ORDERING INFORMATION

- Martin VDO Atomic Dot WRM
  (in cardboard box polystyrene packaging) ..... P/N 90357702
- Martin VDO Atomic Dot CLD
  (in cardboard box polystyrene packaging) ..... P/N 90357701

DEMO KIT

- VDO Atomic Dot Demo Kit ..... P/N 91311001

ACCESSORIES

JUNCTION BOX

- Junction Box Power-DMX-Ethernet to PDE ..... P/N 91610001

OPTICAL ACCESSORIES

- VDO Atomic Dot Diffuser 60 Degrees..... P/N 91610002
- VDO Atomic Dot Diffuser 30 Degrees..... P/N 91610005

MECHANICAL ACCESSORIES

- Super Lightweight Half Coupler
  Rigging Clamp, black..... P/N 91602018
- G-clamp (vertical hanging installation only)..... P/N 91602003
- Half-coupler clamp..... P/N 91602005
- Quick trigger clamp
  (vertical hanging installation only)..... P/N 91602007
- 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
- Set of 10 VDO Atomic Dot Couplers ..... P/N 91610003
- VDO Atomic Dot Half Coupler..... P/N 91610004
- VDO Atomic Dot Interlock Adapter..... P/N 91610006
- VDO Atomic Dot Pivot Coupler..... P/N 91610007
- VDO Atomic Dot Double Width Bracket..... P/N 91616117
- VDO Atomic Spigot Adapter 28mm .....P/N MAR-91616118

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ORDERING INFORMATION

PRE-ASSEMBLED HYBRID PDE CABLES

- Power+Data Cable Rental PDE-PDE 1m ..... P/N 91616001
- Power+Data Cable Rental PDE-PDE 2,5m ..... P/N 91616002
- Power+Data Cable Rental PDE-PDE 5m ..... P/N 91616003
- Power+Data Cable Rental PDE-PDE 10m ..... P/N 91616004
- Power+Data Cable Rental PDE-PDE 25m ..... P/N 91616005

BULK HYBRID PDE CABLE AND CONNECTORS

- Power+Data Connector PDE Male ..... P/N 91611701
- Power+Data Connector PDE Female ..... P/N 91611702
- Power+Data Cable Power-DMX-Ethernet Rental 100m..... P/N 91616006

POWER CABLES FOR JUNCTION BOX

- Power Input Cable, H07RN-F, 2.5 mm2, bare ends to TRUE1, 1.5 m (4.9 ft.)..... P/N 91611797
- Power Input Cable, H07RN-F, 2.5 mm2, bare ends to TRUE1, 5 m (16.4 ft.)..... P/N 91611786
- Power Input Cable, SJOOW, 12 AWG, bare ends to TRUE1, 1.5 m (4.9 ft.)..... P/N 91610173
- Power Input Cable, SJOOW, 12 AWG, bare ends to TRUE1, 5 m (16.4 ft.)..... P/N 91610174
- Cable Connector, Neutrik PowerCON TRUE1 Female ..... P/N 91611789HU

FLIGHTCASE

- Flightcase for 15 x VDO Atomic Dot ..... P/N 91515053
- Flightcase Extender for 15 x VDO Atomic Dot ..... P/N 91515054

RELATED ITEMS

- Martin Companion Cable (for firmware update over DMX) ..... P/N 91616091
- Martin RDM 5.5 Splitter ..... P/N 90758150
- Martin P3-050™ System Controller ..... P/N 90721090
- Martin P3-150™ System Controller ..... P/N 90721015
- Martin P3-300™ System Controller ..... P/N 90721060
- Martin P3-PC™ System Controller..... P/N 90721030



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TECHNICAL SPECIFICATIONS

DYNAMIC EFFECTS

Strobe	0.289 – 16.667Hz, variable flash rate, intensity and duration (incl. blinder mode)
Aura	RGB control per pixel, 16 pixels
Built-in FX	Various pre-programmed FX on Strobe, Aura and combination of both

CONTROL AND PROGRAMMING

Control Protocols	DMX, RDM, Art-Net, sACN and P3
Protocol Detection	Automatic
DMX Channels	1, 3, 4, 19, 64
Setting and Addressing	RDM or P3
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
Martin P3 Compliance	P3 System Controller Software 5.1.0 or newer
DMX/RDM Transceiver	RS-485
Ethernet Transceiver	10/100Mbit
Firmware Update	via DMX using Martin Companion or via Ethernet using P3 System Controller

P3 VIDEO PROCESSING

Color Resolution	16 bit per color (48 bit per pixel)
Color Temperature Control	2000-11000 K (Aura)
Color Gamut Control	full spectrum control (Aura)
Synchronization	system-wide
Frame Rate	up to 75 frames/sec
Brightness Control	0-100% (maintaining full color depth)
Gamma Correction and Control	fully controllable

CONTROL/USER INTERFACE

Device Status	Multi-color status LED
Device test and reset	Pushbutton to call up local test patterns and reset device









OPTICS AND PHOTOMETRIC DATA

BEAM/STROBE LED

Max. total lumen output	VDO Atomic DOT WRM 2850 lumens VDO Atomic DOT CLD 3350 lumens
CRI (Color Rendering Index)	VDO Atomic Dot WRM >84 VDO Atomic Dot CLD >80
Beam Angle	11 Degrees (half peak)
Field Angle	22 Degrees (one-tenth peak)
Color Temperature	VDO Atomic DOT WRM 2700 K VDO Atomic DOT CLD 5700 K
Resolution	16-bit
Minimum LED lifetime	50 000 hours (to >70% luminous output)

AURA BACKLIGHT LEDS

Color Temperature	variable
Resolution	16-bit per color per pixel
Minimum LED lifetime	50 000 hours (to >70% luminous output)

CONSTRUCTION

Color	Black
Housing Material	Aluminum
Protection Rating	IP 65
RoHS	Compliant
REACH	Compliant

INSTALLATION

Mounting Options	hanging from bracket, hanging from clamp attached directly to fixture or hanging from other fixture using interlock mechanism
Clamp attachment to hanging bracket	M12
Clamp attachment directly to fixture	M8
Maximum vertical column height	16 fixtures
Orientation	Any
Minimum distance to combustible materials	0.1 m
Minimum distance to illuminated surfaces	0.2 m
Location	indoor or temporary outdoor use

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TECHNICAL SPECIFICATIONS

CONNECTIONS

VDO ATOMIC DOT FIXTURE

AC Power, DMX and Network input ..... cable tail with PDE hybrid connector (IP65)

AC Power, DMX and Network thru..... chassis-mount PDE hybrid connector (IP65)

All connections hot plugging compatible

PDE JUNCTION BOX

AC Power input ..... Neutrik powerCON TRUE1 TOP (IP65 when mated with matching Neutrik cable connector)

DMX input..... Neutrik XLR 5-pin Male TOP (IP65 when mated with matching Neutrik cable connector) (compatible with standard 5-pin XLR connectors)

Ethernet input..... Neutrik etherCON TOP (IP65 when mated with matching Neutrik cable connector) (compatible with standard etherCON Cat 5E and Cat 6A) (NOT compatible with etherCON Cat 6 push-pull)

AC Power, DMX and Network thru ..... chassis-mount PDE hybrid connector (IP65)

All connections hot plugging compatible

ELECTRICAL

AC power..... 100-240 V AC nominal, 50/60Hz

Power Supply Unit ..... Auto-ranging electronic switch mode

Maximum power consumption..... 55 W

Typical half-cycle RMS inrush current..... 1.12 A

Typical earth-leakage current ..... 0.25 mA

TYPICAL POWER AND CURRENT

100V, 60Hz ..... 49.0 W, 0.49 A, PF 0.99

120V, 60Hz ..... 48.9 W, 0.41 A, PF 0.98

208V, 60Hz ..... 48.6 W, 0.24 A, PF 0.95

230V, 50Hz ..... 50.2 W, 0.23 A, PF 0.96

240V, 50Hz ..... 49.6 W, 0.22 A, PF 0.94

Measurements made at nominal voltage with all LEDs at full intensity.
Allow for a deviation of +/- 10%.

PF = power factor.

THERMAL

Cooling ..... Convection

Maximum Ambient Temperature (Ta max) ..... 40 C

Minimum Ambient Temperature (Ta min) ..... 0 C

Typical Heat Dissipation (calculated, +/- 10%) ..... 171 BTU/hr

APPROVALS

EU Safety..... EN 60598-2-17 (EN 60598-1), EN 62471, EN 62493

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

US Safety..... UL1573

US EMC ..... 47 CRF §15 Class B

Canadian Safety..... CSA 22.2 No. 166

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

Australia/NZ ..... RCM (pending)









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DIMENSIONS

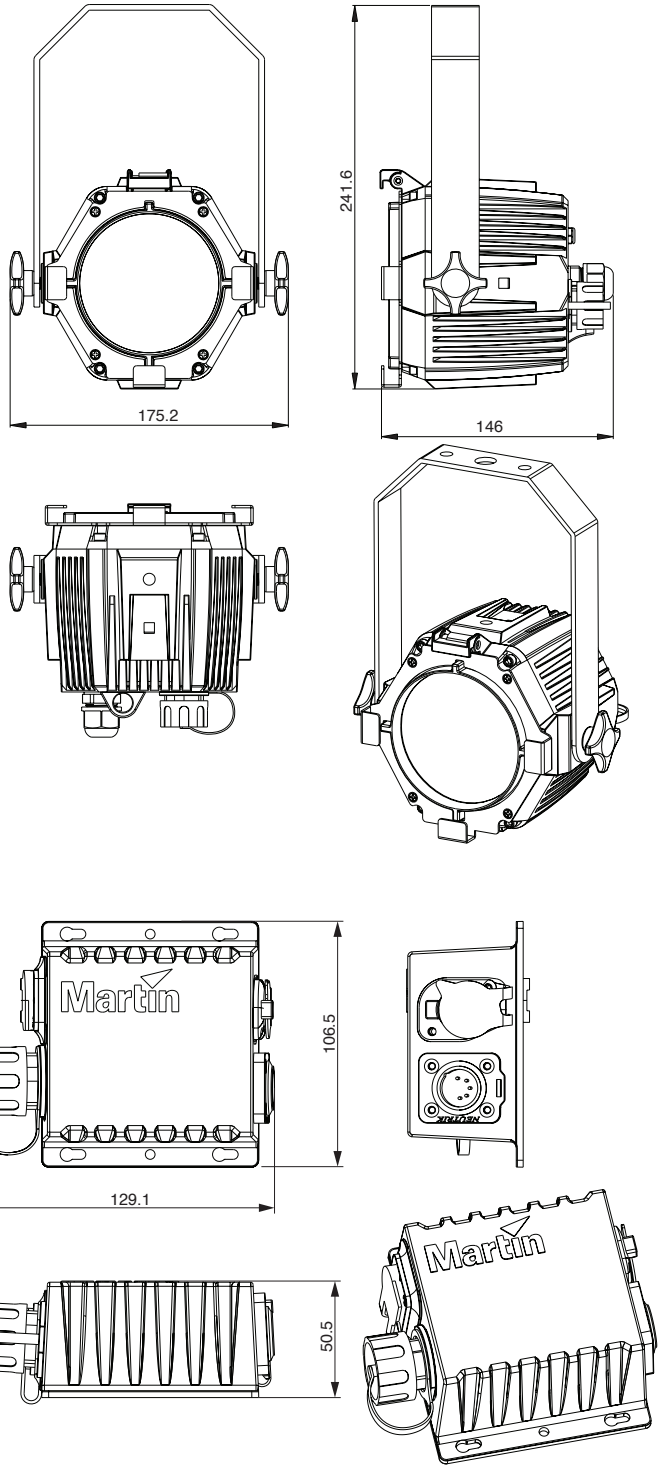
PHYSICAL

FIXTURES

Width	175mm (incl. hanging bracket) (150mm fixture center-to-center using interlock couplers)
Height	138mm (150mm fixture center-to-center using interlock couplers)
Depth	146mm
Weight	2.2 kg

PDE JUNCTION BOX

Width	94mm
Height	50mm
Depth	106mm
Weight	0.5 kg



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