

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



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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, SJ00W, 12 AWG, bare ends to TRUE1, 1.5 m (4.9 ft.)..... P/N 91610173
- Power Input Cable, SJ00W, 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
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 3000 lumens VDO Atomic DOT CLD 3600 lumens
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

AURA BACKLIGHT LEDS

Color Temperature.....	variable
Resolution.....	16-bit per color per pixel
Minimum LED lifetime.....	50 000 hours

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

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)



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.



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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

