

P3 PowerPort 500 IP Install

INDOOR/OUTDOOR POWER+DATA UNIT FOR MARTIN CREATIVE LED FIXTURES

SPEC SHEET



OVERVIEW

The Martin P3 PowerPort 500 IP Install delivers seamless power and data to Martin's Creative LED fixtures and is ideal for indoor/outdoor install applications. It merges stable power delivery with high-speed, high-capacity data distribution, simplifying fixture deployment. The housing is designed for installation in the most harsh environments.

To ensure utmost flexibility for designers and integrators, it can be driven using industry standard protocols, including Art-Net and sACN as well as Martin's award-winning P3 control protocol. It requires no local configuration or setup, enabling easy deployment and allowing power supplies to be located at significant distances from the lighting fixtures. It supports longer cables, more fixtures per daisy chain, and split branches. The built-in network switch eliminates the need for third-party switches, and power limiting control increases the number of fixtures per daisy-chain while implementing energy-saving measures.

The P3 PowerPort 500 IP Install is a robust and reliable solution, as it protects all inputs and outputs against overload and surge conditions and built-in fail-safe bypass technology prevents single unit failures from disrupting the entire network. In addition, it is a single unit that provides data and power over a single cable to the fixtures. Furthermore, it features local status indication LEDs and a test button, eliminating the need for a person to be physically located at the controller or computer.

All P3 PowerPort-enabled Creative LED fixtures can be paired with the P3 PowerPort 500 IP Install, even on the same daisy-chain.

KEY MESSAGES

ENABLES CONTROL OF MARTIN LED FIXTURES WITH ANY PROTOCOL

The combination of Martin Creative LED fixtures + Martin P3 PowerPort products is compatible with industry-standard protocols Art-Net and sACN in addition to Martin's proprietary P3 protocol to provide maximum flexibility to system designers and integrators.

MORE CABLING FREEDOM

Support for longer cables between P3 PowerPort and fixtures, compared to previous generation or competitor solutions, allows for more fixtures per daisy chain, and the creation of split branches. Moreover, P3 PowerPort half-power mode doubles the quantity of fixtures per daisy-chain, enabling enhanced energy savings.

HIGHLY ERGONOMIC INSTALLATION

The P3 PowerPort family does not require any local configuration or setup. The family offers a wide variety of solutions suitable for any installation method or environment. These solutions feature local status indication LEDs and a test button, eliminating the need for a person to be physically located at the controller or computer.

ROBUST AND RELIABLE SOLUTION

The P3 PowerPort system protects all inputs and outputs against overload and surge conditions. Built-in fail-safe bypass technology ensures that a single unit failure will not disrupt the entire network. Furthermore, P3 PowerPorts are single units that provide data and power over a single cable to the fixtures.

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FEATURES

- Indoor/Outdoor power+data supply unit for install Martin Creative LED fixtures
- Ideal for install applications
- Features 1 power+data output for connection of fixtures
- Built-in network switch for easy daisy-chaining
- Status LEDs providing real-time feedback
- Local test button for easy diagnostics
- Built-in power-control enables more fixtures per daisy-chain when full output is not needed
- Built-in Hibernation mode enables energy-saving when system not in use
- Compatible with Art-Net, sACN and Martin P3
- Fitted with internal wiring terminals, to facilitate customization of cable lengths on-site
- Can be wall-mounted
- IP66 rated

ORDERING INFORMATION

- Martin P3 PowerPort 500 IP Install.....P/N MAR-90721202

INCLUDED ITEMS

- 1x Multi-Language Safety & Installation Manual
- Closing plugs installed in all cable glands

RELATED ITEMS

- Martin P3 PowerPort 2000.....P/N MAR-90721200
- Martin P3 PowerPort 500 IP Rental.....P/N MAR-90721201
- Martin DCE PSU 240 IP..... P/N MAR-90721203
- Martin DCE DataSplitterBooster IP.....P/N MAR-90721204
- Martin Companion Firmware Upload, Addressing and Stand-Alone Programming Software Free download from martin.com

ACCESSORIES

Pre-Assembled Hybrid DCE Cables

- DC + Ethernet Cable DCE-DCE 1m: P/N MAR-91700100
- DC + Ethernet Cable DCE-DCE 2.5m: P/N MAR-91700101
- DC + Ethernet Cable DCE-DCE 5m: P/N MAR-91700102
- DC + Ethernet Cable DCE-DCE 10m: P/N MAR-91700103
- DC + Ethernet Cable DCE-DCE 25m: P/N MAR-91700104

Bulk Hybrid DCE Cables

- DC + Ethernet Cable 100m: P/N MAR-91700105
- DC + Ethernet Cable LSZH 100m: P/N MAR-91700106

Field-Installable DCE Connectors

- Field-installable Connector DCE Male:..... P/N MAR-91700107
- Field-installable Connector DCE Female: P/N MAR-91700108

Closing Caps for DCE Connectors

- Closing Cap Male DCE Connector:..... P/N MAR-91700109
- Closing Cap Female DCE Connector:..... P/N MAR-91700110

Hybrid DCE Adapters

- DC + Ethernet Adapter DCE Male-Male:..... P/N MAR-91700111
- DC + Ethernet Adapter DCE Female-Female: ... P/N MAR-91700112
- DC + Ethernet Adapter EtherCON+Wires to DCE: P/N MAR-91700113
- DC + Ethernet Adapter DCE to EtherCON: P/N MAR-91700114

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TECHNICAL SPECIFICATIONS

CONTROL AND PROGRAMMING

Control Protocols:..... P3, sACN, Art-Net and RDM over Art-Net
Protocol Detection:..... Automatic
Setting:..... P3 or RDM over Art-Net
Fixture identification:..... User-settable ID number
Art-Net Compliance:..... Art-Net 1, 2, 3 and 4; including RDM over Art-Net
sACN Compliance:..... ANSI E1.31 - 2018
Martin P3 Compliance:..... P3 System Controller Software 6.1.0 or newer
Ethernet Transceiver IN:..... 100/1000Mbit (with fail-safe bypass to Ethernet THRU)
Ethernet Transceiver THRU:..... 100/1000Mbit (with fail-safe bypass to Ethernet IN)
Ethernet Transceiver OUT:..... 100Mbit
Firmware Update:..... via Ethernet using Martin Companion or P3 System Controller

CONTROL/USER INTERFACE EXTERNAL

Power Out Status:..... 1x Green LED
Ethernet Out Status:..... 1x Amber LED
Ethernet In/Thru Status 1-2:..... 2x Green + Amber LED
Device Status:..... 1x RGB LED
Device test and reset:..... Pushbutton to call up test pattern on fixtures connected to DCE output and reset device

CONTROL/USER INTERFACE INTERNAL

Fixtures Power Mode:..... DIP switch to force all connected fixtures in normal power, force all connected fixtures in half power or let controller decide (P3 or RDM)
User Interface Disable:..... DIP switch to disable all (5) external Status LEDs and the external pushbutton

CONSTRUCTION

Color:..... Matte Black
Housing Material:..... Aluminum
Protection Rating:..... IP 66
NEMA Enclosure Rating:..... Type 3
Impact Resistance:..... IK 08
Corrosion Resistance:..... ISO 12944-6: 2018; C5 High, Test regime ISO 9227, 1440h
Vibration Resistance:..... 1.0g Sinusoidal (IEC 60068-2-6) and 0.7g RMS Random (IEC 60068-2-64)

INSTALLATION

Orientation:..... Any
Mounting:..... Flanges for installation on flat surface
Location:..... Indoor or permanent outdoor use

CONNECTIONS

Power In/Thru:..... Toolless terminal block
Cable Glands:..... 2x M20*1.5 (power in/thru, supporting cables 8-13 mm) incl. closing plug

Ethernet In/Thru:..... 2x Toolless splice connection
Cable Glands:..... 2x M12*1.5 (ethernet in/thru, supporting cables 5-8 mm) incl. closing plug
DC Power output:..... Toolless terminal block
Network output:..... Toolless splice connection
Cable Gland:..... 1x M20*1.5 (DC power and network output, supporting cables 6.5-10.5 mm) incl. closing plug
Surge protection:..... 4 KV
All connections hot plugging compatible

OUTPUT PORTS

Quantity:..... 1
Power:..... 48 VDC / 10 A
Ethernet:..... 100Mbit (P3, sACN, Art-Net)

ELECTRICAL

AC power:..... 100-277 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:..... 7.7 A
Typical earth-leakage current:..... 0.56 mA
Power Factor:..... 0.99 @ 100 V / 120 V / 208 V / 230 V / 240 V / 277 V
Max current draw:..... 5.5 A @ 100 V / 120 V, 3.0 A @ 208 V / 230 V / 240 V / 277 V
Typical current draw:..... 5.3 A @ 100 V / 120 V, 2.8 A @ 208 V / 230 V / 240 V / 277 V *

Power Consumption:

Maximum:..... 500 W
Typical:..... 500 W *
Idle:..... 11 W *
Hibernation:..... 10 W *

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

Typical: output at full capacity with all connected fixtures at full output white.

Idle: output at full capacity with all connected fixtures at zero output.

Hibernation: output disabled; wake-up procedure required to re-use fixtures.

THERMAL

Cooling:..... Convection
Maximum Ambient Temperature (Ta max):..... 55° C (131° F)
Minimum Ambient Temperature (Ta min):..... -30° C (-22° F)
Maximum Surface Temperature, steady state, at 40° C ambient:..... 61° C (142° F)
Typical Heat Dissipation:..... 1705 BTU/hr. (including connected fixtures, calculated, +/- 10%)

ENVIRONMENTAL

RoHS:..... Compliant
REACH:..... Compliant
WEEE:..... Compliant
Proposition 65:..... Compliant
FSC:..... Certified cardboard inlay and outer packaging

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APPROVALS

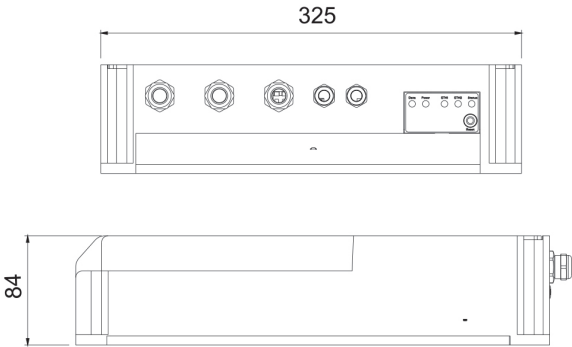
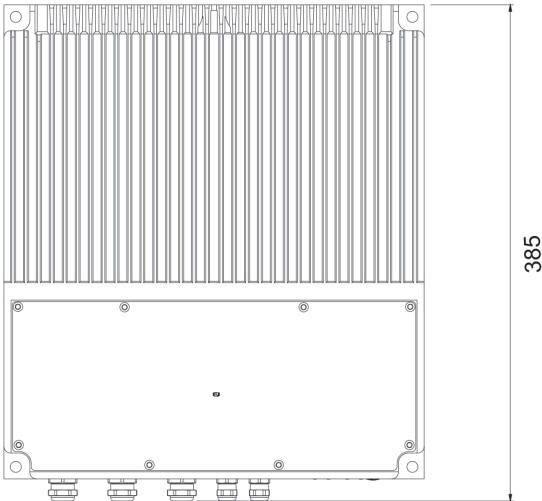
Global CB Certification/IECEE: .. IEC 62368-1
EU safety:..... EN 62368-1
EU EMC: EN 55032, EN 55035, EN 61000-3-2,
EN 61000-3-3
US safety:..... UL 62368-1
US EMC: FCC Part 15 Class B
Canadian safety:..... CSA C22.2 No. 62368-1
Canadian EMC: ICES-003 Class B
Australia/NZ:..... RCM
United Kingdom: UKCA



DIMENSIONS

PHYSICAL

Width..... 325.0 mm (12.8 in.)
Height..... 84.0 mm (3.3 in.)
Depth..... 385.0 mm (15.2 in.)
Weight..... 9.5 kg (20.9 lbs.)



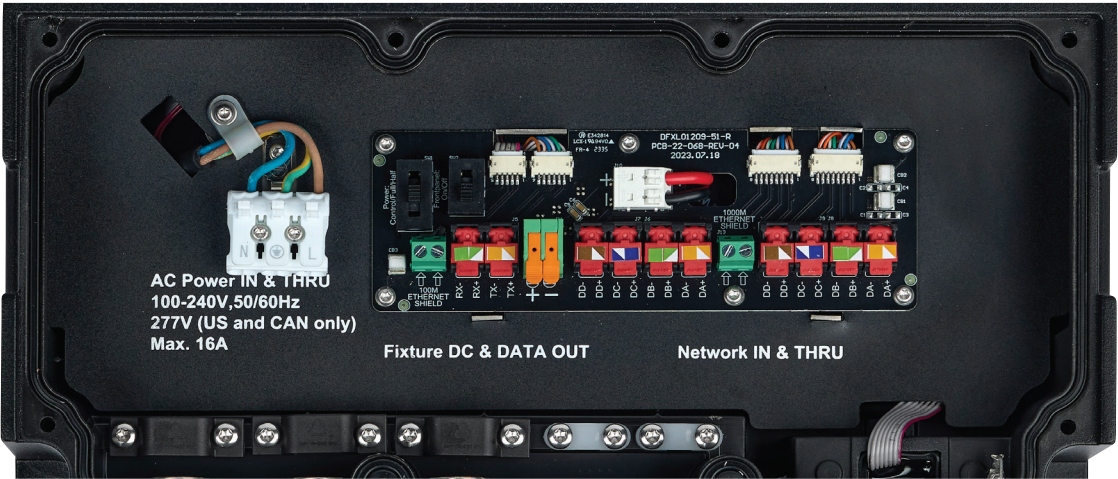
All measurements are in mm

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CONNECTIONS



P3 POWERPORT FAMILY COMPARISON

	P3 PowerPort 2000	P3 PowerPort 500 IP Rental	P3 PowerPort 500 IP Install	DCE PSU 240 IP
Output Capacity	4 x 480 W	1 x 480 W	1 x 480 W	1 x 240 W
Output Power Control	Full / Half / Hibernation	Full / Half / Hibernation	Full / Half / Hibernation	-
Input / Output	Connectors	Connectors	Cable Glands & Wiring Terminals	Cable Glands & Wiring Terminals
Control	Art-Net, sACN & Martin P3	Art-Net, sACN & Martin P3	Art-Net, sACN & Martin P3	Art-Net, sACN & Martin P3
Daisy-Chaining	Yes	Yes	Yes	No
Local Status Indication	Status Indication LEDs	Status Indication LEDs	Status Indication LEDs	-
Local Test Function	Multi-Function Pushbutton	Multi-Function Pushbutton	Multi-Function Pushbutton	-
Environmental Rating	IP20	IP65	IP66	IP66
Installation	Rack / Truss / Wall	Rack / Truss / Wall	Wall	Wall
Size	482 x 44 x 375 mm (19" rack-mount 1U)	217 x 44 x 365 mm (19" rack-mount 1/2U)	325 x 84 x 385 mm	420 x 39 x 86 mm
Weight	6.8 kg (15.0 lbs)	3.5 kg (7.7 lbs)	9.5 kg (20.9 lbs)	1.6 kg (3.6 lbs)