



sPDS-480ca

Power/data supply for large-scale
Ethernet installations

Product Guide

sPDS-480ca

Power/data supply for large-scale Ethernet installations

sPDS-480ca is a power/data supply designed for large-scale Ethernet LED lighting installations using low-voltage luminaires from Color Kinetics.

sPDS-480ca includes 7.5 V and 24 V versions to meet the power requirements of different luminaires.



Take a closer look

sPDS-480ca 24 V delivers 480 watts of output via eight 60-watt ports. The 7.5 V version delivers 480 watts of output via 16 30-watt ports.

Both automatically accommodate input voltages ranging from 100 VAC to 240 VAC. Short-circuit protection prevents device failure due to incorrectly wired luminaires. The standard IEC power inlet accepts both North American and international power cables.

With onboard controls, sPDS-480ca incorporates automatic luminaire discovery and testing, eliminating the need for additional addressing tools or software. sPDS-480ca features a backlit LCD for easy menu viewing.

Housed in a 2U rack-mountable enclosure, sPDS-480ca includes rack handles and surface-mount brackets, for versatile mounting options.

Over-temperature detection and selectable shutdown options protect sPDS-480ca against operation beyond its rated temperature specification. Variable-speed fans keep noise levels low and include user serviceable air filters.

Provides power to up to 1,152 nodes. Features include short-circuit protection, on-board controls, and diagnostic functions to assist with the proper operation of Color kinetics lighting systems.

Specifications and information

Due to continuous improvements and innovations, specifications may change without notice.

General information

Electrical	sPDS-480ca 7.5 V	sPDS-480ca 24 V
Input Voltage	100 to 240 VAC, auto-ranging, 50/60 Hz	
Power Consumption	8 A at 100 VAC, 7 A at 120 VAC, 3.5 A at 240 VAC	6 A at 100 VAC, 5 A at 120 VAC, 2.5 A at 240 VAC
Power Output	7.5 VDC, 480 W (30 W per power port)	24 VDC, 480 W (60 W per power port)
Fuse Rating	(16) 5 A, 125 V, 5 x 20 fast blow fuses	(8) 4 A, 125 V, 5 x 20 fast blow fuses

Connections

Data Input Source	Color Kinetics full range of Ethernet controllers, or KiNET-compatible* third-party Ethernet controller	
Data Input	RJ-45 input connector	
Power/Data Output (To luminaire)	(16) 4-pin output receptacles	(8) 4-pin output receptacles
Power Input	IEC 320 receptacle type C13, locking clamp	

Physical

Dimensions (Height x Width x Depth)	89 x 483 x 457 mm (3.5 x 19 x 18 in)
Weight	13 kg (28.7 lb)
Housing Material	2U aluminium chassis
Finish	Black matte
Mounting	Rack and surface-mountable
Temperature Ranges	-10 to 50 °C (14 to 122 °F) Operating -10 to 50 °C (14 to 122 °F) Startup -40 to 80 °C (-40 to 176 °F) Storage
Humidity	0 to 95%, non-condensing
Cooling	(2) speed-configurable fans, with serviceable air filters
Airflow	Front panel input, back panel output
Heat Dissipation	25% of total power input

Certification and Safety

Certification	UL./cUL	UL/cUL, Class A, CE
Classification	UL Class 2 power supply	
Environment	Dry/Damp Location, IP20	

* KiNET is the Ethernet lighting protocol from Color kinetics.

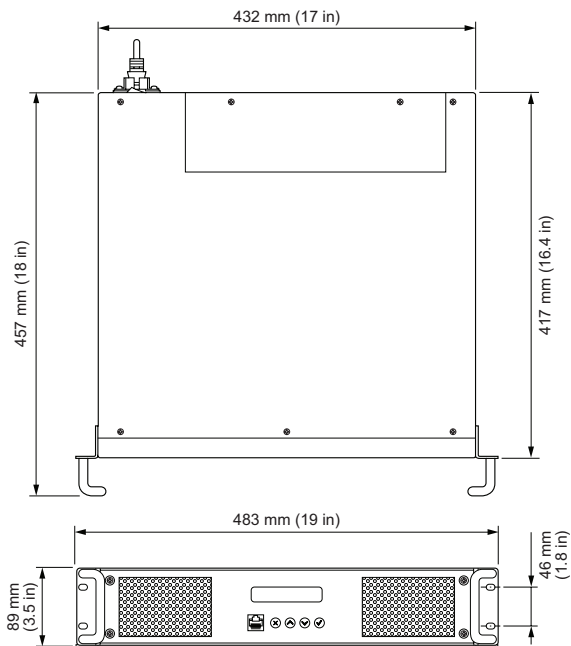
Part Numbers

Use Item Number when ordering in North America.

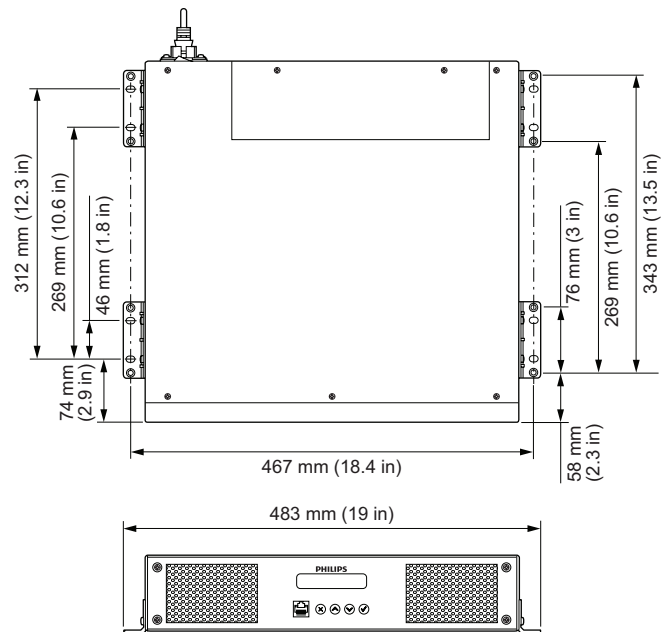
	Item Number	Item 12NC
sPDS-480ca 7.5 V	109-000022-00	910503700107
sPDS-480ca 24V	109-000026-01	912400133528

Dimensions

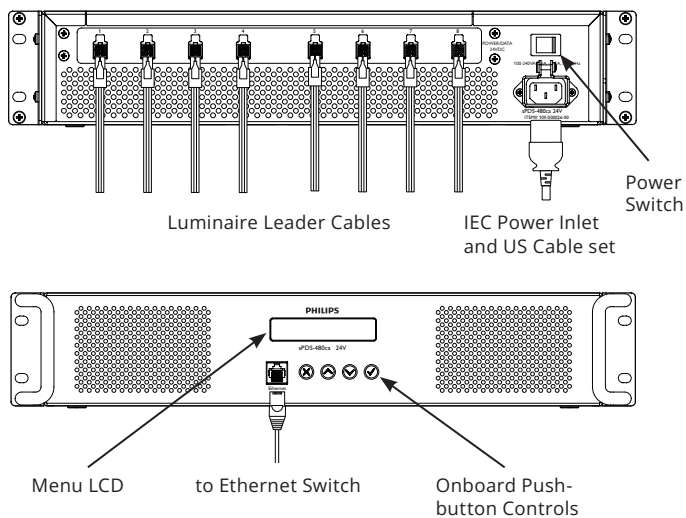
sPDS-480ca - Rack Mount Configuration



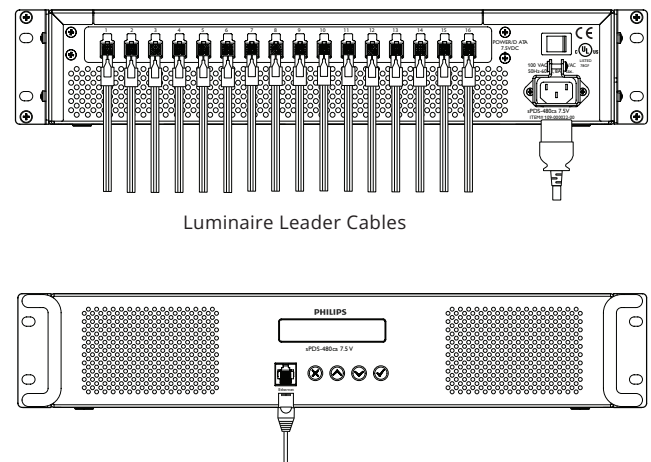
sPDS-480ca - Surface Mount Configuration



sPDS-480ca 24V



sPDS-480ca 7.5V



For further information

Details including Installation Instructions, Specification Sheets, and product drawings can be found on the related product pages.



sPDS-480ca 7.5 V



sPDS-480ca 24 V

Configuration and planning

Multi-language installation instructions can be found at: www.colorkinetics.com/global/products/pds/spds480 or www.colorkinetics.com/global/products/pds/spds48024

Installation

sPDS-480ca is a power/data supply designed for large-scale Ethernet LED lighting installations using low-voltage luminaires from Color kinetics. sPDS-480ca delivers 480 watts of output and automatically accommodates input voltages ranging from 100 VAC to 240 VAC. Onboard controls incorporate automatic luminaire discovery, addressing, and testing. sPDS-480ca is available in 7.5 V and 24 V versions to meet the power requirements of different luminaires.

Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate sPDS-480ca in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

Plan the Installation

To streamline installation and ensure accurate configuration, start with a layout or a lighting design plan that shows the physical layout of the installation and identifies the locations of all lighting luminaires, power/data supplies, controllers, switches, and cables.

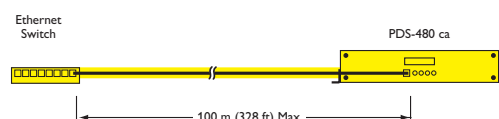
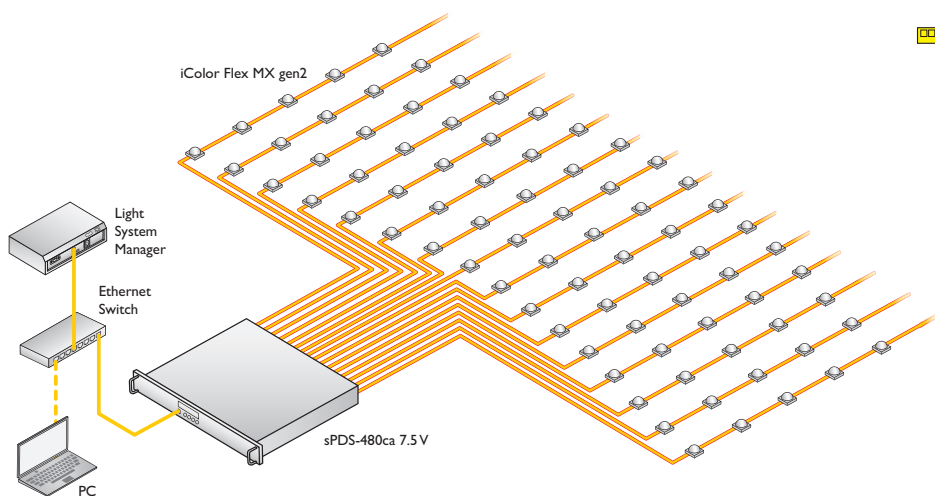
Ethernet Configuration Guidelines

sPDS-480ca is designed for use in Ethernet networks. Typical Ethernet installations with Color kinetics LED luminaires include an Ethernet switch, an Ethernet controller such as Light System Manager or Video System Manager Pro, Ethernet Controller Keypads for light show triggering, and one or more sPDS-480ca devices.

In an Ethernet environment, each Color kinetics power/data supply has a unique IP address. Each luminaire connected to the device is automatically assigned unique identifiers that controllers use to identify and manage the luminaire.

Maximum data cable lengths are 100 m (328 ft) between Ethernet devices without a repeater. The number of luminaires that each sPDS-480ca unit can support depends on the power requirements of the specific luminaires that you are using. See the table on the following page for the maximum quantities of each luminaire that you can connect per device.

Typical Ethernet Installation



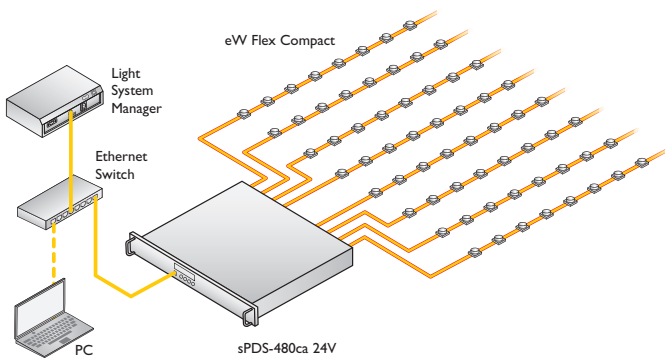
Electrical Configuration Guidelines

You can install one string of Flex luminaires per port.

Each sPDS-480ca connects to line power with a standard IEC inlet and power cable, which can be secured using a locking clamp located on the back of the device's housing.

The sPDS-480ca should be installed in a dry location.

Typical eW Flex Compact Installation



Assemble Additional Items

The following additional items are required to mount and connect sPDS-480ca:

- The 2 included rack mount brackets with handles (if rack mounting)
- 4 screws (typically 10-32) and lock washers suitable for mounting the device to a rack (if rack mounting)
- The 4 included surface mount brackets (if surface mounting)
- 16 screws suitable for the surface (if surface mounting)
- A power screwdriver (if surface mounting)
- A Phillips screwdriver (if surface mounting)
- The 8 included screws, 0.7 x 10 mm
- The 8 included lock washers
- The included IEC power cable
- CAT 5e or better data cable, as required

You must also have access to a dedicated Ethernet network, an Ethernet switch, and a controller that is compatible with a KiNET-based lighting system, such as Color kinetics Light System Manager, or ColorDial Pro.

Configuration

QuickPlay Pro 2 enables discovery, configuration, testing and demonstration of all luminaires and devices, including sPDS-480ca Controllers, on your lighting network.

Commissioning sPDS-480ca with QuickPlay Pro 2 software (Optional)

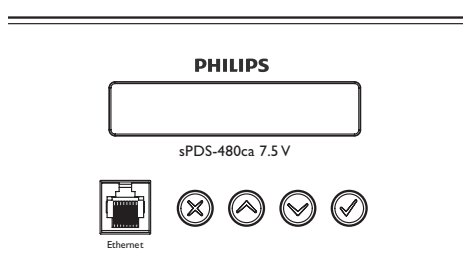
You can commission sPDS-480ca devices using **QuickPlay Pro 2 software**. Automatically discover luminaires, sPDS-480ca devices, and power supplies using QuickPlay Pro 2 with a computer connected to your lighting network.

The **Quick Start Guide** is a comprehensive guide to help you start using QuickPlay Pro2. It contains everything from Device Configuration through to Live Demonstration.

Updating sPDS-480ca Firmware

sPDS-480ca firmware is periodically updated to improve system performance and functionality. We recommend confirming that your devices are running the most recent firmware version at: www.colorkinetics.com/global/support/downloads/firmware

After downloading firmware, you can use QuickPlay Pro 2 to update your sPDS-480ca devices.



To navigate the on-board menu:

- Press the Up and Down buttons (▲ ▼) to move up and down in the current menu's set of options.
- Press the Select button (✓) to select a menu item or display its submenu.
- Press the Cancel button (✕) to return to the previous menu level.

© 2023 Signify Holding. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

All trademarks are owned by Signify Holding or their respective owners.

Cover photography credits: Petar Cholakov with all usage rights

www.colorkinetics.com