

Control solution for UV-C surface disinfection systems

The Philips Dynalite PDUVCC-NA control solution is a vital part of a properly designed and installed UV-C lighting system, that allows the system to be used and operated with greater safety than a system without an equivalent control solution in place.

This preconfigured solution incorporates switched outputs for driving Philips UV-C lamps and third-party audio alarms and warning lights. It also features an onboard settings interface, authorized key switch activation, lamp maintenance reporting, integrated Dynalite motion sensors, checkpoint buttons, and inputs for peripheral emergency shutoff buttons and area safeguard door switches.

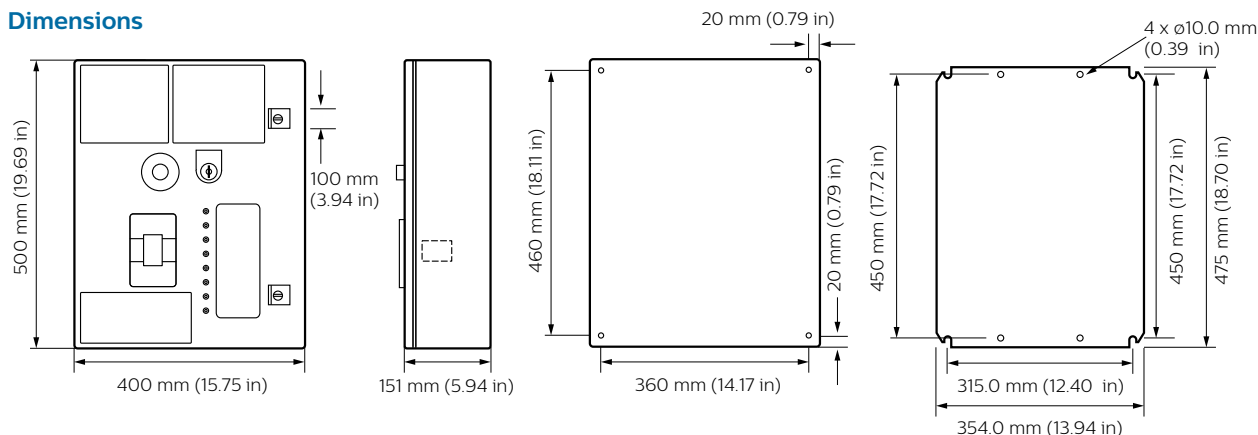
PDUVCC Control solution for UV-C surface disinfection

Features



- Single-box solution**
 Assembled, programmed, and tested in the factory to provide complete out-of-the-box functionality.
- Integrated AntumbraDisplay**
 Allows authorized users to adjust UV-C disinfecting dosage and monitor lamp life management. Includes multi-language support.
- Physical key switch protection**
 Helps to ensure that only authorized users can modify settings or activate the system.
- External control inputs**
 Robust, reliable connection to door switches, emergency shutoff buttons, and vacancy confirmation checkpoints.
- Motion sensor integration***
 Designed to work with Dynalite's best-in-class network sensors to automatically shut down the UV lamps if motion is detected in the disinfection area.
- System status indicators**
 Eight clearly labelled LEDs on the front of the enclosure show the device's status at a glance.
- Onboard event logging**
 All system events are logged and timestamped for reporting.
- Ethernet connectivity**
 Enables secure network access to configuration and event logs via System Manager head-end software.

Dimensions



Peripheral Devices

Devices peripheral to the PDUVCC-NA cabinet and Philips UV-C luminaires and lamps supplied separately.

Occupant warning alarm	Warns occupants that the UV-C lamp cycle is about to begin	Flashing lights, audio alarm, or any other warning devices as per local regulations	max 16 A, 120 VAC
Emergency stop button (red)	Immediately stops the UV-C lamp cycle	Normally closed momentary push-button switch	Rated switching voltage: ≥ 24 VAC/DC Rated switching current: ≥ 0.5 A Minimum switching capacity: ≤ 10 mA @ ≤ 5 VAC/DC
Door switch	Ensures that all doors to the UV-C area are closed before UV-C cycle can begin	Closed contact when door is closed.	
Checkpoint button (yellow)	Confirms that the authorised user has physically inspected the area for occupants before UV-C cycle can begin	Normally open momentary push-button switch	

* Sensors must not be relied on as a safety measure. The authorized user must always perform a visual check of the area before starting the disinfection cycle.

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

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Specifications

Electrical

Cabinet Supply	240 VAC @ 20 A
Switched UV-C Lamp Rating	See Output Ratings table below
Switched Alarm Rating	See Output Ratings table below
Peripheral Output	12 VDC @ 0.5 A (max)
DyNet Output	12 VDC @ 0.5 A (Class 2)
Electrical Protection	20 A (max) per input
Short Circuit Current Rating (SCCR)	14,000 A
IEC Overvoltage Category	III

Control

Serial Ports	1 x RS-485, 1 x Ethernet 10/100 baseT (Future provision)
Supported Protocols	DyNet
External Control Inputs	1-4 x Area checkpoint channel 1 x Door switch channel 1 x Emergency stop channel 1 x Extended area checkpoint channel (max 20 devices)
Diagnostic Functions	Device online/offline status, 28-day rolling event log
User Controls	3-position key switch (Off, Armed, Start) 6-button AntumbraDisplay Emergency Stop button
Indicators	8 x status LED, AntumbraDisplay LCD screen

Output Ratings

Load Type	UV-C Lamps	Alarms
Electronic Ballast	3 x single-phase 16 A max @ 120 / 277 / 347 VAC (500 A inrush)	–
General Use	–	12 A max, 120 VAC (single-phase only)

Compliance

Certification	UL/cUL
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Physical

Dimensions (H x W x D)	500 x 400 x 151 mm (19.69 x 15.75 x 5.94 in)
Packed Weight	PDUVCC-NA: 15.7 kg (34.6 lb) PDUVCC-NA-10: 19.8 kg (43.7 lb) PDUVCC-NA-20: 24.4 kg (53.8 lb) PDUVCC-NA-30: 26.6 kg (58.6 lb)
Construction	Steel wall mount enclosure Powder coat finish
Color	RAL7035 (Grey)
Serial Ports	1 x 5-way pluggable screw terminal 1 x RJ45 (future provision)
Serial Port Conductor Size	0.1-2.5 mm ² (28-12 AWG)
Supply Terminals	5 x spring cage clamp terminal
Supply Terminal Conductor Size	0.5-6 mm ² (20-10 AWG) solid or stranded wire
Output Terminals	5 x spring cage clamp terminal
Output Terminal Conductor Size	0.5-6 mm ² (20-10 AWG) solid or stranded wire
External Control Input Terminals	1 x 9-way pluggable screw terminal 1 x 6-way pluggable screw terminal
External Control Input Terminal Conductor Size	0.1-2.5 mm ² (28-12 AWG)
External Control Max Wiring Distance	75 m (82 yd) @ 0.75 mm ² (18 AWG)
Earth Bar Terminals	7 x screw terminal
Earth Bar Terminal Conductor Size	2.1-21 mm ² (14-4 AWG)

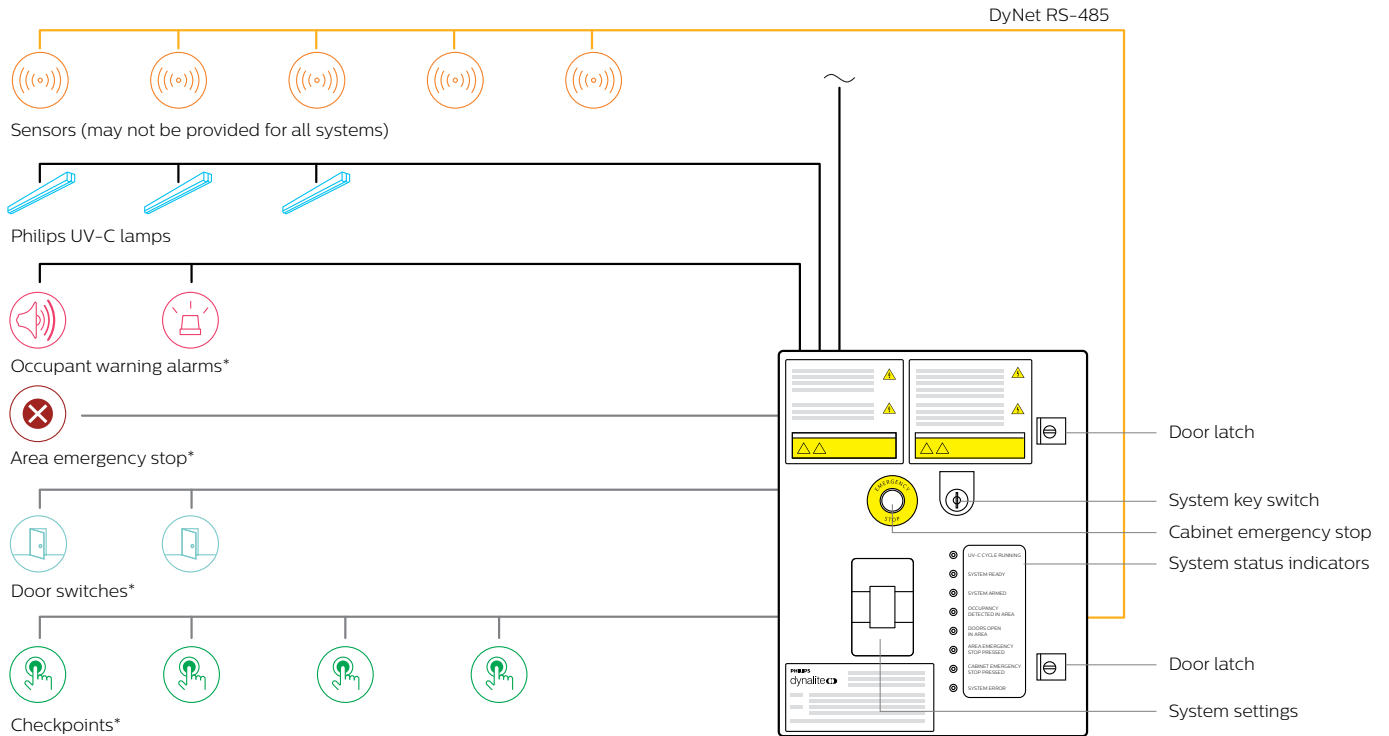
Environment

Operating Temperature	0° to 40°C ambient (32° to 104°F)
Storage/Transport Temperature	-25° to 60°C ambient (-13° to 140°F)
Relative Humidity	0 to 90% non-condensing
IP Rating	IP30 - Type 1 indoor use only (see PDUVCC-NA Installation Instructions)
IEC Pollution Degree	II

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System Overview



* Peripheral devices and Philips UV-C luminaires & lamps supplied separately

Ordering Code

Ordering Code	Description	12NC
PDUVCC-NA	UV-C Controller	912401425140
PDUVCC-NA-10CS*	UV-C Controller + 10 Sensors	912401425147
PDUVCC-NA-20CS*	UV-C Controller + 20 Sensors	912401425150
PDUVCC-NA-30CS*	UV-C Controller + 30 Sensors	912401425153

Auxiliary components

PDUVCC-CPB-Y-FM	Philips Dynalite UVC yellow flush mount checkpoint station, single gang	912401425138
PDUVCC-CPB-Y-SM	Philips Dynalite UVC yellow surface mount checkpoint station	912401425139
PDUVCC-ESTOP-R-FM	Philips Dynalite UVC red flush mount E-Stop checkpoint station, single gang	912401425141
PDUVCC-ESTOP-R-SM	Philips Dynalite UVC red surface mount E-Stop checkpoint station	912401425142
PDUVCC-MAG SENSOR-1	Philips Dynalite UVC door sensor w/ actuator	912401425143
PDUVCC-STROBE-120R	Philips Dynalite UVC red strobe light indicator	912401425144

* Ensure that only the required number of sensors are installed for your space. Remaining sensors can be kept as spares. Only install sensors supplied with the system.

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