

# POINT SURGE PROTECTOR UNIT SPU LED LIGHTING CIRCUIT

POINT LIGHTING CORPORATION IS AN INTERTEK ETL CERTIFIED BUILDER OF INDUSTRIAL CONTROL PANELS UNDER UL 508A 2<sup>ND</sup> AND CSA C22.2 No. 286. PHC PANELS ARE LABELED WITH THE ETL LISTED MARK.

The PL10770 Surge Protector Unit protects one heliport or obstruction lighting circuit. It is to be located near the lighting system and in the circuit powering the system. The enclosure water and corrosion protection is NEMA 4X equivalent to IP65. A green Power ON light indicates the presence of line power.

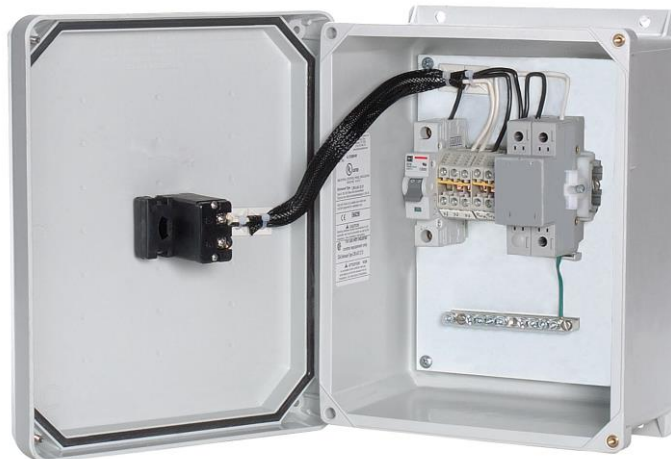
A Point Lighting Corporation LED light incorporates an electronic power supply that is protected from transient voltage spikes by a metal oxide varistor. However, larger surges that exceed that capacity must be clamped and shunted to ground to prevent equipment damage. A facility service entrance surge protector is not sufficient. Surges can originate from lightning strikes, but also from sources internal to the site electrical system such as air conditioners, elevators, switching power supplies. These internal transients will affect any load connected to the same distribution panel.

The standard Point Lighting warranty is limited to manufacturing defect. Damage from external events such as voltage spikes and surges are not covered. Almost all failures of Point LED lights will be caused by

Point Type	— Voltage —	Options (see page 2)
SPU-10770	1: 120v AC	SW: Rotary Power Switch 1-circuit (OFF-ON)
	2: 230v AC	SW2: Rotary Power Switch 2-circuit (OFF – A - A+B)
	5: 48v DC	SW3: Rotary Power Switch 1-circuit (OFF-ON-AUTO)
	6: 277v AC	CF: Cable Compression Fitting
		LA: Lightning Arrestor
		EX: Explosion-Proof Class 1, Division 2



SURGE PROTECTOR UNIT  
SPU-10770-1





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## SPU-10770 SPECIFICATION

The LED lighting system shall be protected from transient voltage spikes and other surges by means of a POINT LIGHTING CORPORATION surge protector unit type SPU-10770. Surges must be clamped and shunted to ground to prevent equipment damage.

The SPU enclosure shall be rated NEMA 4X (IP66) fiberglass reinforced polyester in gray (RAL 7036) with stainless steel piano hinged door and seamless gasket. The door is to be secured by two captive screws. All components shall be panel mounted. The dimensions in inches (mm): 11.31(287) x 9.31(236) x 5.43(138). The enclosure may be punched or drilled for conduit entry. The enclosure shall be manufactured by Vynckier and certified to IEC 529, CSA, KEMA and UL 508A Type 4X & 12, IP66 watertight and dust-tight.

All internal wiring and component spacing shall comply with the US National Electric Code. All components shall be prewired to IEC terminal blocks. Power shall be single phase measured line to neutral, 50 or 60 Hz.

The lighting circuits shall be protected from transient voltage spikes by a DIN-rail mounted surge suppressor with a 50kA maximum surge current to IEC 61643-1.

There shall be a 30mm industrial grade pilot light on the door: green **POWER ON** indicating power is present at the input terminals of the SPU. All door mounted components shall be rated for outdoor installation.

The load output shall be protected by a DIN-rail mounted current limiting 15-amp circuit breaker providing thermal magnetic overcurrent protection in accordance with UL, CSA and IEC standards. The UL and IEC rated short circuit capacity shall be 10,000 amps. The breaker is resettable and the status is color coded.

A wiring schematic shall be included with each SPU.

The surge protector unit shall be type SPU-10770 manufactured by POINT LIGHTING CORPORATION.

Note: If required, PRC series FAA radio controller or PPC series FAA photoelectric controller must be ordered separately.

Option –SW: There shall be a two (2) position rotary switch OFF-ON to switch the lighting circuit.

Option –SW2: There shall be a two (2) lighting circuits protected by the SPU. There shall be a three (3) position rotary switch OFF – A – A+B where “A” is typically the perimeter lights and “B” is typically the surface floodlights. Normally the floodlights are on a separate circuit.

Option –SW3: There shall be a three (3) position rotary switch ON-OFF-AUTO mounted on the door. In the AUTO position, the circuit shall operate automatically from a pilot actuated radio controller or an FAA photoelectric controller (order PRC or PPC separately).

Option –LA: A lightning arrester is added internally and wired across the power input to protect the power source. Clamps a maximum current of 60,000 amps. Response time to clamp 50KA is 25 nanoseconds. Available for AC and DC units.

## POINT LIGHTING CORPORATION

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