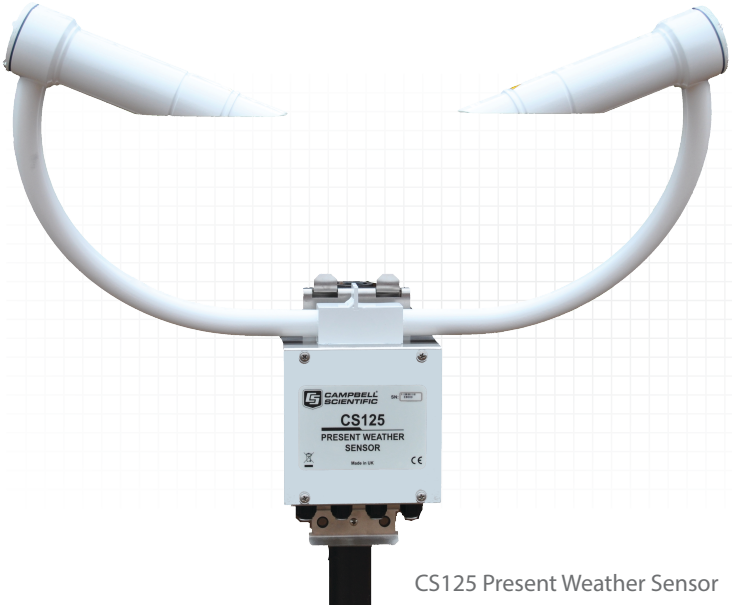
CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

OPTICAL SENSOR POWER SUPPLIES

Power supply options for the CS120, CS125, CS140 and PWS100



CS125 Present Weather Sensor

CS140 Background Luminance Sensor

Overview

There are 3 options available for powering Campbell Scientific optical sensors. They may also be used for other equipment requiring similar power.

The CS120A PSU kit, 010818 and PWS100 PSU kit, 010498 are kits including a DIN-rail mounting switch mode convertor. They both provide 24VDC. These are intended to be installed within an enclosure (not included) either alone or along with other equipment such as data loggers or modems.

The Power Supply Units 010470 and 010479 in contrast are supplied with an enclosure. The Power Supply Unit type 010479 has a PS150 regulator and back-up battery to provide an additional backed-up 12V supply.

CS120A PSU kit, 010818

This is a kit of parts including:

- A DIN rail mounting mains to 24V DC convertor
- DIN rail, glands, labels.
- The cost of assembly into an enclosure.

It does NOT include an enclosure or battery back-up.

This is intended to power the CS120A, CS125 or CS140 products or other equipment with similar requirements. It can power the hood heaters and electronics of a CS120A, CS125 or CS140. It can also power a PS150 power supply with a back-up battery to power the sensor during short power supply interruptions.

It can power both a CS120A/CS125 visibility sensor and a CS140 luminance sensor if both need to be co-located.

Specifications

Input

- Voltage requirements: 90-132/180-264 V AC, auto select
- Current requirements: 2.20 A at 115 V AC, 0.83 A at 230 V AC typical.
- Input frequency 47-63 Hz

Output

- 24V DC +/-1% 5A maximum

Operating temperature range

- -35°C to +50°C

PWS100 PSU kit, 010498

This is a kit of parts including:-

- A DIN rail mounting mains to 24V DC converter
- DIN rail, glands, labels
- The cost of assembly into an enclosure.

It does NOT include an enclosure or battery back-up.

This is intended to power the PWS100 or other equipment with similar requirements. The 24V DC supply can power the hood heaters and electronics of a PWS100. Alternatively it can power a PS150 power supply with a back-up battery to provide a 12V supply to power the sensor during short power supply interruptions.

Specifications

Input

- Voltage requirements: 90-132/180-264 V AC, auto select
- Current requirements: 4.00 A at 115 VAC, 1.55 A at 230 V AC typical.
- Input frequency 47-63 Hz

Output

- 24V DC +/-1% 10A maximum

Operating temperature range

- -35°C to +50°C

Power supply unit 010479

This is intended for use with the PWS100 present weather sensor or any application requiring a high current at 24V DC and a battery-backed 12V supply. It is supplied in an ENC 12/14 enclosure. There is some spare space inside for communication equipment.

Specifications

Input

- Voltage requirements: 90-132/180-264 V AC, auto select
- Current requirements: 4.00 A at 115 V AC, 1.55 A at 230 V AC typical.
- Input frequency: 47-63 Hz.

Outputs

- Output 1: 24V DC +/-1% 10A maximum
- Output 2: Nominal 12 V DC from 7Ah lead acid battery
- 4 A nominal maximum output via.Self-Resettable Thermal Fuse Hold Current Limits

  <20°C: > 4 A
  20°C: 4.0 A
  50°C: 3.1 A
  60°C: 2.7 A

Battery back up

- 12V, 7Ah

Dimensions

- 30.5 x 35.6 x 14 cm

Environmental specifications

- -25°C to +50°C

Power supply unit 010470

This is intended for use with the CS120A, CS125 or CS140 Visibility, present weather or background luminance sensors sensor or any application requiring a high current at 24V DC. It is supplied in an ENC 10/12 enclosure. There is some spare space inside for communication equipment.

It can power both a CS120A or CS125 visibility sensor and a CS140 if both need to be co-located.

Specifications

Input

Voltage requirements: 90-132/180-264 V AC, auto select
Current requirements: 2.20 A at 115 V AC, 0.83 A at 230 V AC typical.
Input frequency: 47-63 Hz.

Outputs

Output: 24V DC +/-1% 5A maximum

Dimensions

25.4 x 30.5 x 11.4 cm

Environmental specifications

-25°C to +50°C

PWS100 Present Weather Sensor