

PowerVent Battery Box Vent Fan by Zephyr Industries



Price: CAD \$129.00 - CAD \$179.00

Product Categories: [Appliances](#), [Battery Boxes](#), [Battery Installation](#), [Greenhouses](#), [In The Field](#), [Shop](#), [Wiring & BOS](#)

Product Tags: [12v](#), [24V](#), [48v](#), [battery box](#), [battery box vent](#), [canada](#), [circulation](#), [greenhouse](#), [hydrogen gas](#), [powervent canada](#), [ventilation](#), [ventillation](#), [zephyr power vent](#), [zephyr powervent](#)

Product Page:

<https://www.modernoutpost.com/product/powervent-battery-box-vent-fan-by-zephyr-industries/>

Product Variants

- PowerVent Battery Box Vent Fan by Zephyr Industries - 12V ()
- PowerVent Battery Box Vent Fan by Zephyr Industries - 24V ()
- PowerVent Battery Box Vent Fan by Zephyr Industries - 48V ()

Product Description

This is the PowerVent battery box vent fan by Zephyr Industries. This is a robust vent fan that is commonly used to vent gasses out of flooded lead-acid battery boxes, but can also find application in many other off-grid systems. With its built-in damper, this fan can be used to move air within or through small spaces like tiny homes, greenhouses, attics, and storage spaces.

Available in 3 voltage models: 12, 24 and 48 Volts DC

PowerVent Features...

- Positive venting of hydrogen gas - Stops back drafting - Keeps batteries warmer in cold climates by pulling air from the surrounding room into the box.
- Uses very little power.

As a Battery Box Vent...

The **Zephyr POWER VENT** was designed for use in remote home power systems. The concept arose from field experience of systems with enclosed battery boxes. Quite often the NEC required venting was found back drafting, thus cooling the battery bank and lowering its' capacity as well as venting hydrogen gas into the structure.

The PowerVent alleviates this condition by keeping a gravity operated damper closed within the vent pipe except at times when the batteries are being charged and producing hydrogen gas. During these times the battery box is force vented with a low power, sparkless fan which overcomes the damper sending the gas outdoors. The "fan on" mode is determined by the battery voltage (your inverter system or charge controller can determine this state). When the batteries are "gassing" during charge periods the battery voltage will read above normal. A voltage sensitive switch is required in the system to make the on/off determination. All TRACE SW model inverters have a programmable auxiliary relay which can operate the POWER VENT. Other systems require the addition of a voltage controlled switch.

The POWER VENT is designed around typical home power systems with battery banks under 2,200 amp hours and charge rates under 150 dc amperes. Systems

larger than this can produce more hydrogen gas than the expel rate of the POWER VENT which operates in the 5 to 8 cubic foot per minute range. Two vents may be used for higher volume.

As Low-Volume Air Ventilation...

Got a small greenhouse that needs some minor air flow? Need a simple fresh air vent for a small living space? Want to build your own geo-exchange ventilation system? This fan is a great option. Air exchange rate for a 12 x 8 x 8 room will be roughly once every 2hrs.

Need something more substantial? **Check out SnapFan Direct-Drive Solar Options**

Since "12V" nominal solar panels are really 18V (22Voc), and 24V & 48V systems are multiples of this, you will ideally want to use solar modules that are actually 12V.

Check out the [Voltaic project modules](#)] to create your solution.

Two [6W/6V modules](#)] or two [3.5W/6V modules](#)] in series will often be the right choice.

PowerVent Specifications 12V & 24V Models Weight: 3 Lbs

Size: 4" Dia. x 7.25" long

Power consumption: 3 watts or less

Voltage: 12V or 24V DC input (two different models)

Air Volume: 6 cfm with 360° maximum change of direction

48V Model Weight: 4 Lbs.

Size: 4" Dia. x 10" Long

Power consumption: 6 watts or less

Voltage: 48V DC input

Air Volume: 8 cfm with 360° maximum change of direction

Warranty (all models) : 2 Years (if installed in accordance with instructions.)

Limitations & Disclaimer

The PowerVent only moves a small volume of air. It is designed for home systems with a typical charging capability of 150ADC or less.

Hydrogen gas vented from flooded lead-acid batteries presents an explosion risk at concentrations of only 4%. Please ensure vent openings are free and clear of debris and obstructions, including the safety vent at the bottom of the PowerVent.

Periodically check to make sure the fan is running during charge periods. Keep your batteries and connections clean & tight.

During equalization charges on large systems, provide additional ventilation.

Having no control over the use or installation of this product, Modern Outpost assumes no liability connected with its use.

Product Attributes

- Dimensions: 2 × 2 × 2 cm
- Weight: 1.4 kg
- Voltage: 12V, 24V, 48V

Product Gallery



POWER VENT INSTALLATION DIAGRAMS

MECHANICAL DIAGRAM

