



# ENCLOSURE PROTECTION VENTS FOR SOLAR APPLICATIONS

Integrated Venting Solutions

Donaldson's enclosure protection vents provide protection to the critical parts of solar panels, including junction box seals, power, and thermo collectors which are frequently subjected to harsh environmental conditions. Integrating Donaldson's Tetratex® ePTFE membrane into the vents allows air to flow freely from the enclosure to equalize pressure and avoid moisture condensation. The hydrophobic and oleophobic properties of the membrane prevent environmental contaminants entering while maintaining airflow.

## TYPICAL APPLICATIONS

- Solar panels
- Junction boxes
- Inverters
- CPV modules
- String combiner boxes

## FEATURES & BENEFITS

- Diffusion of moisture vapor
- Prevention of condensation
- Rapid pressure equalization
- Protection from dust, rain, and other environmental contaminants
- Prevention of corrosion and electrical shorts
- Reduction of stress on seals
- Ingress protection rating up to IP67/68

## TESTING CAPABILITIES & ANALYSIS

- Filter efficiency testing
- Permeability testing
- SEM/EDX examination and evaluation
- Oleophobicity analysis
- Hydrophobicity analysis
- Environmental testing
- Aiflow analysis
- MVTR testing
- Diffusion rate testing



## VENTING PRODUCTS



### PRESS-FIT ENCLOSURE PROTECTION VENTS

Donaldson's Press-Fit enclosure protection vents provide protection from dust, dirt, water, oils, and liquids while allowing air to pass in both directions. Comprised of a filtration membrane and a pressure-sensitive adhesive ring for securing the filter to the device, the uniquely designed adhesive vent integrates easily into existing equipment and can be customized to accommodate a variety of applications.



### WELD-FIT ENCLOSURE PROTECTION VENTS

Donaldson Weld-Fit enclosure protection vents combine various component solutions into an Integrated Venting Solution that will ensure your application's performance, no matter what the environment. Weld-Fit solutions may include the ePTFE media paired with the correct welding process applied to a configurable plastic housing. Donaldson engineers will work with you to ensure the proper media treatments (e.g. oleophobic, hydrophobic) and the proper welding method to guarantee your integrated venting solution is the perfect one.



### SCREW-FIT ENCLOSURE PROTECTION VENTS

Donaldson's Snap-Fit enclosure protection vents provide protection from dust, dirt, water, oils, and liquids while allowing pressure equalization. The durable vent is available in two sizes – standard and low profile – and is easily integrated into existing equipment. Snap-Fit Vents can be used in a variety of automotive applications such as sensors, ECU's, and lighting as well as protective cases, lighting enclosures, appliances and general enclosures. Donaldson vents are the right choice anywhere protective venting is required.



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Donaldson is IATF 16949:2016 certified and our focus is on high quality manufacturing, responsive customer service, and tailored solutions that can be easily integrated into our customer's device or application. Our unique, proprietary membrane and oleophobic treatment processes allow us to select the best types of materials to meet your application requirements.

Donaldson Company is a leading global provider of filtration products, with sales and manufacturing of venting products in the U.S., Europe and Asia. Let Donaldson be your partner in problem-solving.

#### Important Notice

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.



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