**Quicker and Easier Inspections During Solar Panel Installation and Maintenance with High-Performance FLIR Testing Solutions**

*Solar Installers, Utility Companies, and PV Panel Manufacturers can Verify Panel Performance and Wirelessly Document and Share Findings, Including from the Field*

**April. 29, 2025** – [FLIR](https://www.flir.com/), a Teledyne Technologies company, today introduced its PV range of inspection solutions to expedite panel installation and maintenance at solar farms, commercial buildings, and residential buildings. With these easy-to-use new products - which include a clamp meter, irradiance meter, and I-V curve tracer - users can verify the performance and safety of installed solar systems, monitor and maintain large-scale solar power plants, and ensure the quality of solar panels during production.

Those tasked with installing, maintaining and manufacturing solar panels face a growing number of challenges, including the need to scale-up testing due to exponential growth in demand for photovoltaic (PV) technology. Further pain points involve complying with the latest solar safety regulations, easily documenting and sharing findings (including from the field), and sourcing rugged products with screens that are easy to read in direct sunlight. To help overcome these challenges, FLIR is releasing a new range of solutions, comprising:

* The CM78-PV CAT III 1,500V DC solar panel clamp meter with built-in IR thermometer and METERLiNK ® connectivity.
* The PV78 solar panel irradiance and temperature meter with tilt sensor and METERLiNK ® connectivity.
* The PV48 solar panel tester and I-V curve tracer with temperature measurement capability.
* The PV-KIT-1 solar panel troubleshooting kit with clamp, irradiance meter, and test leads.
* The PV-KIT-2 pro solar panel kit with clamp, irradiance meter, panel tester, and infrared (IR) camera.

**CM78-PV**

The FLIR CM78-PV is ideal for both commercial and industrial electrical inspections. It measures solar string DC power and performance up to 1,500kVA at CAT III 1500V rating, and handles up to 1,000A DC or AC via the clamp jaw for DC power measurements. The device offers features such as inrush AC current readings, variable frequency drive (VFD) mode, True RMS readings, and low impedance (LoZ) mode to meet demand for advanced electrical testing and accurate measurements.

The built-in non-contact IR thermometer and laser pointer help troubleshoot panels, conduits, and motors, supporting issue diagnosis and confirmation through contact measurements or by capturing intermittent faults with its datalogging function. Notably, the CM78-PV supports wireless FLIR METERLiNK® app connectivity for quick data collection and sharing from the field.

**PV78**

The compact FLIR PV78 solar panel irradiance meter facilitates instant measurements to help users determine solar irradiation from 0W to 1400W/m², as required by IEC 62446-1. Users can measure temperature by placing the meter directly on the panel or by connecting an external probe for continuous measurements. The device also includes a compass to find the predominant direction and a tilt function to verify the inclination of a roof array or panel. Its high-contrast, large LCD display is easy to read in direct sunlight, while wireless FLIR METERLiNK® app connectivity allows for quick data collection and sharing from the location of use.

**PV48**

The FLIR PV48 PV tester instantly measures essential parameters such as maximum power, voltage, current, open circuit voltage (VOC), short circuit current (ISC), and ambient temperature. This innovative I-V curve tracer facilitates intuitive and visual analysis of up to 800W per solar panel, verifying optimal performance. Equipped with a built-in lithium battery, the FLIR PV48 supports full-day operation, while its high-contrast, large LCD screen remains easily readable even in direct sunlight. Solar technicians will also gain from the ability to document the performance degradation of solar panels. As panels age, expected output naturally decreases. However, the FLIR PV48 tester is able to verify that the level of performance degradation is in line with expectations. Documenting output in this way will save considerable time and effort in the event of warranty claims.

**PV-KIT-1 and PV-KIT-2 solar toolkits**

Also introduced by FLIR are two Solar Tool Kits that ensure a complete and comprehensive approach to solar panel testing and verification:

* The PV-KIT-1 solar panel troubleshooting toolkit consists of the CM78-PV 1,500V DC clamp meter, 3,000A flex clamp accessory, PV78 irradiance meter, and test leads.
* The PV-KIT-2 pro solar toolkit comes with the CM78-PV 1,500V DC clamp meter, 3,000A flex clamp accessory, PV78 irradiance meter, PV48 panel tester (I-V curve tracer), and FLIR thermal spot camera.

“We wanted to provide those undertaking test and inspection tasks with an easier and faster way to check the performance of solar panels during solar site surveys, panel installations, and the maintenance of PV systems,” says David Ko, Product Manager, FLIR. “Users of our new solar panel tools can leverage capabilities that include measuring solar string DC power and performance, safely locating and identifying overheating components, making instant measurements to determine panel performance, and measuring solar irradiance with panel temperature, array direction, and inclination.”

To learn more about the CM78-PV, PV78, PV48, PV-KIT-1and PV-KIT 2 please visit:

<https://www.flir.eu/products/cm78-pv/>

<https://www.flir.eu/products/pv78/>

<https://www.flir.eu/products/pv48/>

<https://www.flir.eu/products/pv-kit>

**ABOUT FLIR, A TELEDYNE TECHNOLOGIES COMPANY**

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