



# FLIR CM78-PV

CAT III 1500 V Solar Clamp Meter



## Key Features

- Measures solar string DC power and performance up to 1500 kVA at CAT III 1500 V rating
- Safely locates and identifies overheating components with a non-contact IR thermometer and laser pointer
- Performs accurate measurements with TRMS readings, VFD mode, and Low Impedance (LoZ) mode
- Includes CAT III-1500 V double-molded test leads and CAT III-1500 V MC4 PV plugs
- Supports wireless METERLiNK® connectivity for quick data collection and sharing

## Main Applications

- Verify the performance and safety of installed solar systems
- Monitor and maintain large-scale solar power plants
- Ensure the quality of solar panels during production

## SPECIFICATIONS

| Electrical Measurement           | Range                              | Accuracy                |
|----------------------------------|------------------------------------|-------------------------|
| Display count                    | 6000                               |                         |
| True RMS                         | Yes                                |                         |
| AC V                             | 1000 V                             | ±1.0%                   |
| DC V                             | 1500 V                             | ±1.0%                   |
| VFD AC V                         | 1000 V AC                          | ±2.0% at 45 Hz to 65 Hz |
| AC LoZ V                         | 1000 V                             | ±1.5%                   |
| DC LoZ V                         | 1500 V                             | ±1.5%                   |
| AC/DC A                          | 1000 A                             | ±2.0%                   |
| VFD AC A                         | 1000 A                             | ±5.0%                   |
| AC Inrush A                      | 1000 A                             | ±3.0%                   |
| Frequency counter                | 60 kHz                             | ±1.0%                   |
| Resistance                       | 60 KΩ                              | ±1.0%                   |
| Continuity check                 | <50 Ω beeper on, >150 Ω beeper off |                         |
| Diode test                       | 3.0 V                              | ±1.5%                   |
| Capacitance                      | 6000 μF                            | ±3.0%                   |
| Flex AC A                        | 3000 A                             | ±3.0%                   |
| PV DC V                          | 1500 V                             | ±2.0%                   |
| PV DC Power                      | 1500 kVA                           | ±2.0%                   |
| Measuring rate                   | 3 samples per second               |                         |
| Over- and under-range indication | OL                                 |                         |

| Static Datalogging and Storage |  |
|--------------------------------|--|
| Data storage interval          | 1 second   |
| Readings per memory set        | 999 set per file   |
| Connectivity                   |  |
| Wireless technology            | Bluetooth BLE  |
| Communications protocol        | METERLiNK  |
| Bluetooth range                | 10 m (32 ft)   |
| Power System                   |  |
| Battery                        | 6 × AAA Alkaline batteries   |
| Battery life                   | Approx. 50 hours, with alkaline batteries  |
| Auto power off                 | After approximately 15 minutes of inactivity   |
| General Information            |  |
| Display                        | 6000 count display   |
| Worklight                      | 2 × White LED  |
| Jaw opening                    | 42 mm (1.7 in)   |
| Category rating                | CAT IV-600 V, CAT III-1500 V   |
| Warranty                       | Limited Lifetime Warranty  |
| Calibration cycle              | Once per year, recommended   |
| Certifications                 |  |
| Certifications                 | ETL, CE, FCC, FDA, RCM   |
| Safety standards               | IEC 61010-1 CAT IV-600 V, CAT III-15000 V  |
| EMC standards                  | EN61326-1, EN61326-2-2, EN300328, EN301489-1, EN301489-17, EN62478, FCC PART 15B/15C |



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### SPECIFICATIONS, CONT.

| Environmental Data  |   |
|---|---|
| Operating ambient temperatures and relative humidity (RH) | –10°C to 30°C (14°F to 86°F), <85% RH<br>30°C to 40°C (86°F to 104°F), <75% RH<br>40°C to 50°C (104°F to 122°F), <45% RH  |
| Storage temperature and RH                                | –20°C to 60°C (–4°F to 140°F), 0 to 80% RH (without batteries)  |
| Temperature coefficient                                   | 0.2 × (specified accuracy)/°C, <18°C (64.4°F), >28°C (82.4°F)   |
| Operating altitude  | 2000 m (6560 ft)  |
| Pollution degree  | 2   |
| Meter Physical Data                                       |   |
| Weight  | 630 g (1.39 lbs)  |
| Dimensions (L × W × H)                                    | 257 mm × 110 mm × 50 mm (10.2 in × 4.3 in × 2 in)   |
| Included in the box                                       | CM78-PV<br>Carrying Pouch (TA91)<br>CAT III-1500 V double molded test leads (TA90)<br>CAT III-1500 V MC4 PV Plugs (TA89)<br>6 × AAA (LR03) Battery<br>User Manual |

Specifications subject to change.

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