





IGM technology guides you where to measure



Verify amperage measurements

# FLIR CM174

Imaging 600A AC/DC Clamp Meter with IGM™

The FLIR CM174 Imaging 600A AC/DC Clamp Meter with IGM is the first clamp meter equipped with a built-in thermal imager that can quickly lead you to problems you can't see with a standard clamp meter. Featuring Infrared Guided Measurement (IGM) technology, the CM174 visually guides you to the precise location of a potential electrical problem, identifying dangerous and unknown problem areas safely. Confirm your findings with accurate amperage and voltage measurements, and center-point temperature readings. The narrow jaw enables greater accessibility, and its compact form-factor fits easily into your back pocket - so you can have thermal imaging at your fingertips everywhere you go. The FLIR CM174 will quickly become your primary electrical troubleshooting tool.

#### Find problems faster with IGM.

Visually identify electrical issues with the first thermal imaging clamp meter

- Conquer cluttered wires and cables IGM can quickly guide you in the right direction
- All-in-one tool carry just one device and always have access to thermal imaging
- Work safely scan a panel or cabinet for hazards using IGM without direct contact

### **Confirm your findings.**

Verify problems, check load, and validate hot spots

- Center-point temperature to confirm hot spot
- Amperage and voltage measurements to check the load
- Laser and crosshair pinpoint the location of the problem found in thermal image

### Solve complex electrical issues.

Design and functionality vital to professionals

- Narrow jaw and built-in worklights help you access difficult locations with lighting issues
- Advanced electrical features: True RMS, LoZ, VFD Mode, Inrush, Smart Diode with Disable
- Expandable to 3000 Amps AC with FLIR flex accessories



## Specifications

| FLIR CM174: Imaging Clamp Me                 |   | <sup>®</sup> microbolometer      |  |  |
|--|---|----------------------------------|--|--|
| Imaging Detector<br>Thermal Image Resolution |   |                                  |  |  |
| 0  |   | 4800 pixels (60 × 80)            |  |  |
| Field of View (V x H)                        | 38.6° x 50.0°   |                                  |  |  |
| Color Palettes                               | Iron, Rainbow, Grayscale  |                                  |  |  |
| Image Frame Rate                             | 9Hz   |                                  |  |  |
| Temperature Measurement                      | Center point of thermal image   |                                  |  |  |
| Temperature Range                            | -13°F to 302°F (-25°C to 150°C)   |                                  |  |  |
| Temperature Distance to Spot Ratio           | :   | 30:1                             |  |  |
| Temperature Accuracy                         | ±5.4°F (3°C) or ±3% of rdg  |                                  |  |  |
| Spectral Response                            | 8 to 14µm   |                                  |  |  |
| Temperature Targeting                        | Class 1 Laser Pointer and Crosshair on display  |                                  |  |  |
| Emissivity Settings                          | 4 Presets with 0  | 4 Presets with Custom Adjustment |  |  |
| Electrical Measurements                      | Range   | Basic Accuracy                   |  |  |
| AC/DC Voltage                                | 1000V   | ±1.0%                            |  |  |
| VFD AC Voltage                               | 1000V   | ±1.0%                            |  |  |
| LoZ Mode AC Voltage                          | 1000V   | ±1.0%                            |  |  |
| LoZ Mode DC Voltage                          | 1000V   | ±1.0%                            |  |  |
| DC Current                                   | 600.0A  | ±2.0%                            |  |  |
| AC Current                                   | 600.0A  | ±2.0%                            |  |  |
| VFD AC Current                               | 600.0A  | ±2.0%                            |  |  |
| Inrush AC Current                            | 600.0A  | ±3.0%                            |  |  |
| Inrush AC Current Threshold                  | Min 0.5A<br>Integration Time 100ms  |                                  |  |  |
| Frequency                                    | 60.00kHz  | ±0.1%                            |  |  |
| Resistance                                   | 6000Ω   | ±1.0%                            |  |  |
| Continuity                                   | 600.0Ω  | ±1.0%                            |  |  |
| Capacitance                                  | 1000µF  | ±1.0%                            |  |  |
| Diode  | 1.5V  | ±1.5%                            |  |  |
| General information                          |   |                                  |  |  |
| Display                                      | 6000 Count 2.0"   | 6000 Count 2.0" (50mm) Color TFT |  |  |
| Jaw Opening                                  | 1.38" (35mm), 1250MCM   |                                  |  |  |
| Category Rating                              | CAT IV-600V, CAT III-1000V  |                                  |  |  |
| Certifications                               | UL  |                                  |  |  |
| Battery Type                                 | 4 x AAA   |                                  |  |  |
| Warranty                                     | 10 Years on Product and Detector*   |                                  |  |  |
| Includes                                     | Clamp Meter, 4 x AAA Batteries, Premium Silicone Test Leads,<br>Quick Start, User Manual (CD), Extended Warranty<br>Registration Card |                                  |  |  |

\*See FAQs at flir.com/CM174





-Test Leads Input

| 600 /<br>AC<br>Current           | C/DC         |   | Tan  |  |
|----------------------------------|--------------|---|--|--|
| Temperature<br>Measurement       |              | 11  | CM174<br>E:0.00  | Thermal<br>Image                         |
| Selec<br>Butt                    | tion<br>tons | 235.2<br>AUTO<br>RANGE<br>V VPU<br>CONT   | .v<br>HOLD ↔<br>Tur ox   | Electrical<br>Measurement                |
| Activ<br>Therr<br>Imag           | mal          |   | A dettermined of the second se | Extended<br>-Rubberized<br>Function Knob |
|                                  |              |   | 2  |  |
| Lepton<br>Thermal<br>Imager—     |              | IGM<br>vared Builded Measurement  |  | -Worklight<br>-Laser Pointer             |
| Optional<br>Accessories<br>Mount |              | A CANCE OF<br>A CANCE OF<br>The analysis of the analysis<br>A Cancel of the | E  | ool Less<br>Sattery<br>Compartment       |

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| Ordering Information                                       | UPC          | EAN           |
|--|--------------|---------------|
| FLIR CM174 Imaging 600A AC/DC Clamp Meter with IGM™        | 793950371749 | 0793950371749 |
| FLIR TA72 Universal Flex Current Probe Accessory 10"(25cm) | 793950377727 | 0793950377727 |
| FLIR TA74 Universal Flex Current Probe Accessory 18"(45cm) | 793950377741 | 0793950377741 |
| FLIR TA15 Soft Sided Carrying Case                         | 793950377154 | 0793950377154 |
| FLIR TA55 Line Splitter                                    | 793950377550 | 0793950377550 |
| FLIR TA52 Magnet Mount                                     | 793950377529 | 0793950377529 |
| FLIR TA42 Belt Clip  | 793950374207 | 0793950374207 |
| FLIR TA80 Premium Silicone Test Leads                      | 793950377802 | 0793950377802 |
| FLIR TA70 Alligator Clips                                  | 793950377703 | 0793950377703 |

