

## P/N: CM83

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### Document identity

Publ. No.: CM83

Release:

Commit: 29700

Language: en-US

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### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

### Disclaimer

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The FLIR CM83 is an industrial-grade power clamp meter engineered with advanced power analysis and variable-frequency drive (VFD) filtering functions required by electrical troubleshooters.

- VFD mode provides superior accuracy for working on VFD-controlled equipment.
- Advanced power efficiency and harmonics measurements for system-level performance analysis.
- Powerful work lights not only assist with clamping but are bright enough to serve as a primary work light.
- FLIR Tools Mobile connects the FLIR CM83 to your compatible smartphone and tablet via Bluetooth.
- METERLiNK technology wirelessly integrates electrical readings on your infrared image with FLIR thermal cameras.

### Features:

Voltage and current, bright white LED backlight, analog bargraph, power factor, phase rotation, integrated non-contact voltage detector, minimum, maximum, average, auto power off, data hold, relative, peak hold, DCA zero, battery status

Measurement	
AC/DC current	600 A ± 2%
AC/DC voltage	1000.0 V ± 1%/0.7%
Harmonics (1st–25th order)	5%
Inrush	600 ACA ± 3% (integration time 100ms)
Active power	10–600 kW ± 3% (10 V, 5 A minimum)
Diode test	0.4–0.8 V ± 0.1 V
Capacitance	3.999 mF maximum ± 1.9%
Resistance	99.99 kΩ maximum ± 1%
Continuity threshold	30 Ω ± 1%
Frequency	20.00 Hz to 9.999 kHz ± 0.5%

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<b>Measurement</b>	
Maximum voltage applied to any terminal	1000 V DC or 1000 V AC RMS
Measuring rate	3 samples per second
<b>Meter data</b>	
Jaw opening	37 mm (1.45", 1000 MCM)
Bluetooth range (maximum)	10 m (32')
Category rating	CAT IV-600 V, CAT III-1000 V
Data recording	N/A
Warranty	Limited lifetime
Calibration cycle	Once per year (suggested)
<b>Certifications</b>	
Certifications	UL, CE, FCC, CB
Complies with safety standards	IEC 61010-1 CAT IV-600 V and CAT III-1000 V, IEC 61010-2-33
<b>Power system</b>	
Power requirements	6 × 1.5 V AAA alkaline batteries
Battery life	~50 hours with alkaline batteries (backlight, work light, and Bluetooth off)
Auto power off	Default: 30 minutes
<b>Environmental data</b>	
Operating ambient temperature and relative humidity (RH)	<ul style="list-style-type: none"> <li>• -10 to 30°C (14–86°F), &lt;85% RH</li> <li>• 30–40°C (86–104°F), &lt;75% RH</li> <li>• 40–50°C (104–122°F), &lt;45% RH</li> </ul>
Storage temperature and RH	-10 to 50°C (-22 to 140°F), 0–80% RH (batteries not fitted)
Temperature coefficient	0.2 × (specified accuracy)/°C, <18°C, >28°C
Operating altitude	2000 m (6550')
Pollution degree	2
Electromagnetic compatibility	EN 61326-1
Shock vibration	Random vibration per MIL-PRF-28800f Class 2 (5–55 Hz, 3g maximum)
Environmental conditions	Indoor use
<b>Meter physical data</b>	
Weight	0.59 kg (1.29 lb.), including batteries
Dimensions (H × W × L)	49 mm × 100 mm × 262 mm (1.9" × 3.9" × 10.3").
Material	<ul style="list-style-type: none"> <li>• Polycarbonate and acrylonitrile butadiene styrene (PC-ABS)</li> <li>• Thermoplastic elastomer (TPE)</li> </ul>
Color	Gray, black



## FLIR CM83

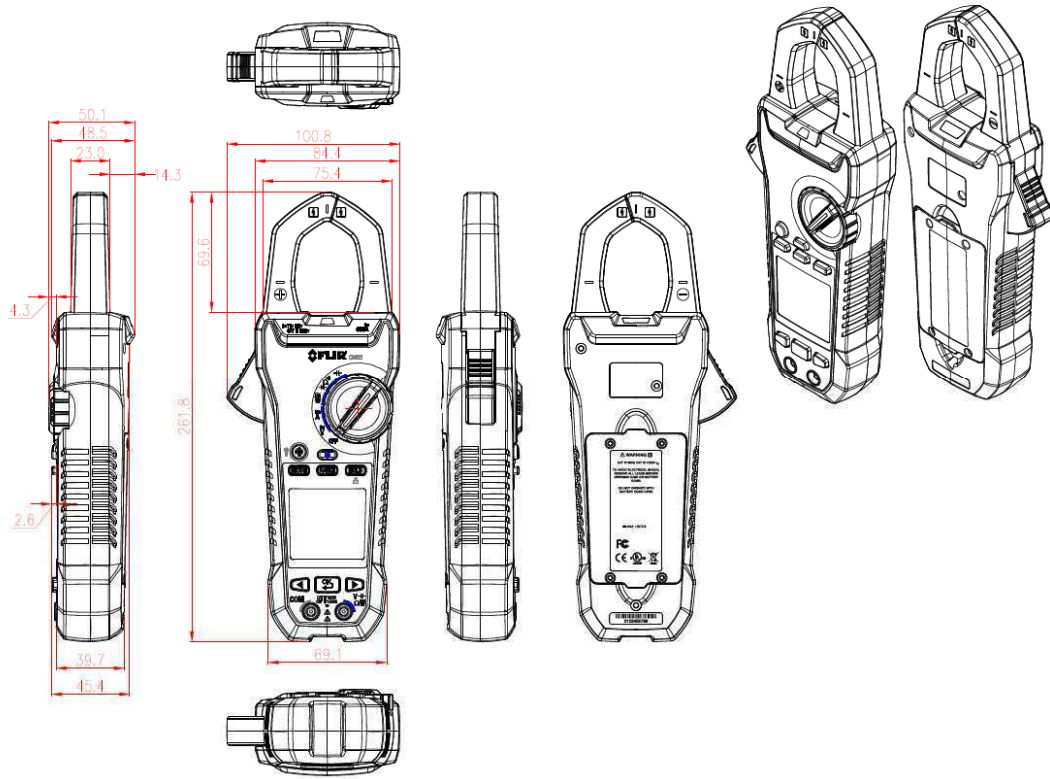
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<b>Shipping information</b>	
Packaging type	Color box with view of product in clamshell
Packaging contents	<ul style="list-style-type: none"><li>• CM83 FLIR meter</li><li>• TA80 CAT IV silicon test leads</li><li>• 6 × AAA Energizer batteries</li><li>• User manual (English), CD (translations)</li></ul>
Packaging weight	1.02 kg (2.25 lb.)
Packaging dimensions (H × W × L)	32 cm × 14 cm × 11 cm (12.6" × 5.5" × 4.3")
Carton weight	23.0 kg (50.7 lb.)
Carton dimensions (H × W × L)	56 cm × 30 cm × 65 cm (22.0" × 11.8" × 25.6")
Carton quantity	20
EAN-13	0793950370834
UPC-12	793950370834
Country of origin	Taiwan
Tariff code	9030310000
<b>Accessories</b>	
TA80	CAT IV silicon test leads
<b>Technical support</b>	
Website	<a href="http://support.flir.com">http://support.flir.com</a>
E-mail	<a href="mailto:TMSupport@flir.com">TMSupport@flir.com</a>
Phone	855-499-3662
Repairs	<a href="mailto:repair@flir.com">repair@flir.com</a>

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<b>Modified Date</b> Monday, March 17, 2014	<b>Modified By</b> T&M Engineering
<b>Description</b> FLIR CM83, Units in mm	

