

Product Datasheet - Technical Specifications



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P/N: CM83

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.



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 \pm 2%
AC/DC voltage	1000.0 V \pm 1%/0.7%
Harmonics (1st–25th order)	5%
Inrush	600 ACA \pm 3% (integration time 100ms)
Active power	10–600 kW \pm 3% (10 V, 5 A minimum)
Diode test	0.4–0.8 V \pm 0.1 V
Capacitance	3.999 mF maximum \pm 1.9%
Resistance	99.99 k Ω maximum \pm 1%
Continuity threshold	30 Ω \pm 1%
Frequency	20.00 Hz to 9.999 kHz \pm 0.5%
Maximum voltage applied to any terminal	1000 V DC or 1000 V AC RMS
Measuring rate	3 samples per second

Meter data	
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



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Meter data	
Warranty	https://www.flir.com/testwarranty
Calibration cycle	Once per year (suggested)

Certifications	
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

Power system	
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

Environmental data	
Operating ambient temperature and relative humidity (RH)	<ul style="list-style-type: none">-10 to 30°C (14–86°F), <85% RH30–40°C (86–104°F), <75% RH40–50°C (104–122°F), <45% RH
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

Meter physical data	
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">Polycarbonate and acrylonitrile butadiene styrene (PC-ABS)Thermoplastic elastomer (TPE)
Color	Gray, black

Shipping information	
Packaging type	Color box with view of product in clamshell
Packaging contents	<ul style="list-style-type: none">CM83 FLIR meterTA80 CAT IV silicon test leads6 × AAA Energizer batteriesUser manual (English), CD (translations)
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



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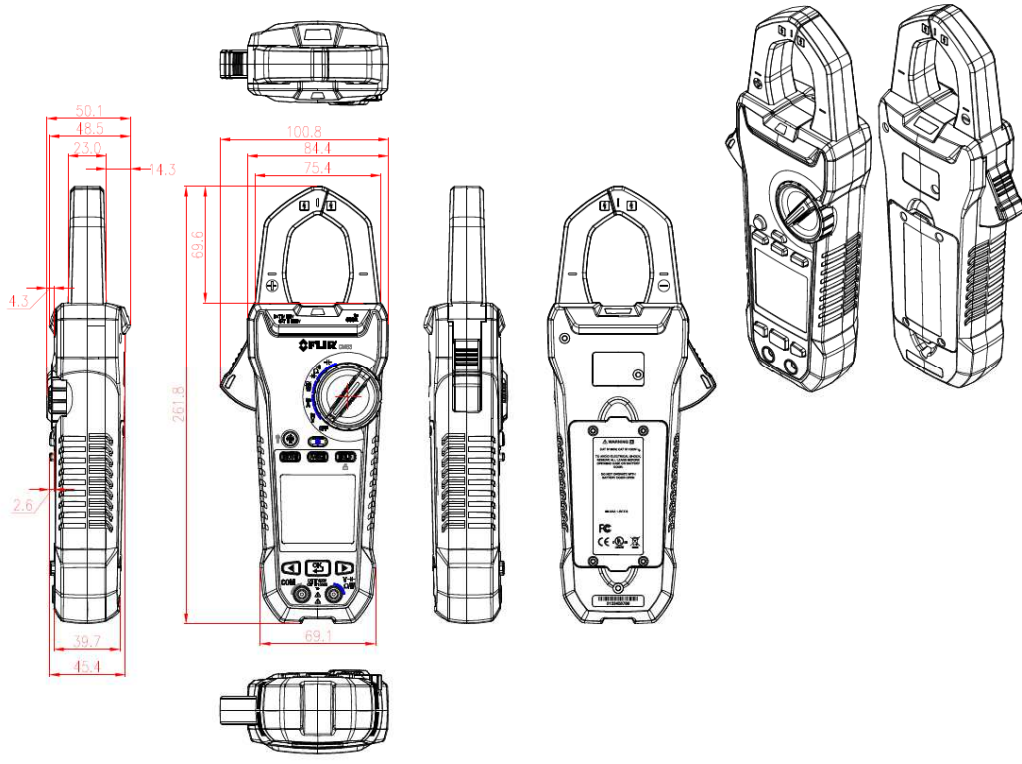
Shipping information	
Country of origin	Taiwan
Tariff code	9030310000

Technical support	
Website	http://support.flir.com

Supplies & accessories:

- TA03-KIT; NiMH Rechargeable Battery Kit
- TA11; Protective case for CM7x and CM8x Series
- TA15; Universal Soft Sided Case
- TA55; AC Current Line splitter
- TA70; CAT IV Insulated Alligator Probes
- TA80; CAT IV Silicone Test Leads

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

