

P/N: CM83

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Document identity

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Commit: 80051

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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% RH• 30–40°C (86–104°F), <75% RH• 40–50°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 meter• TA80 CAT IV silicon test leads• 6 × AAA Energizer batteries• User 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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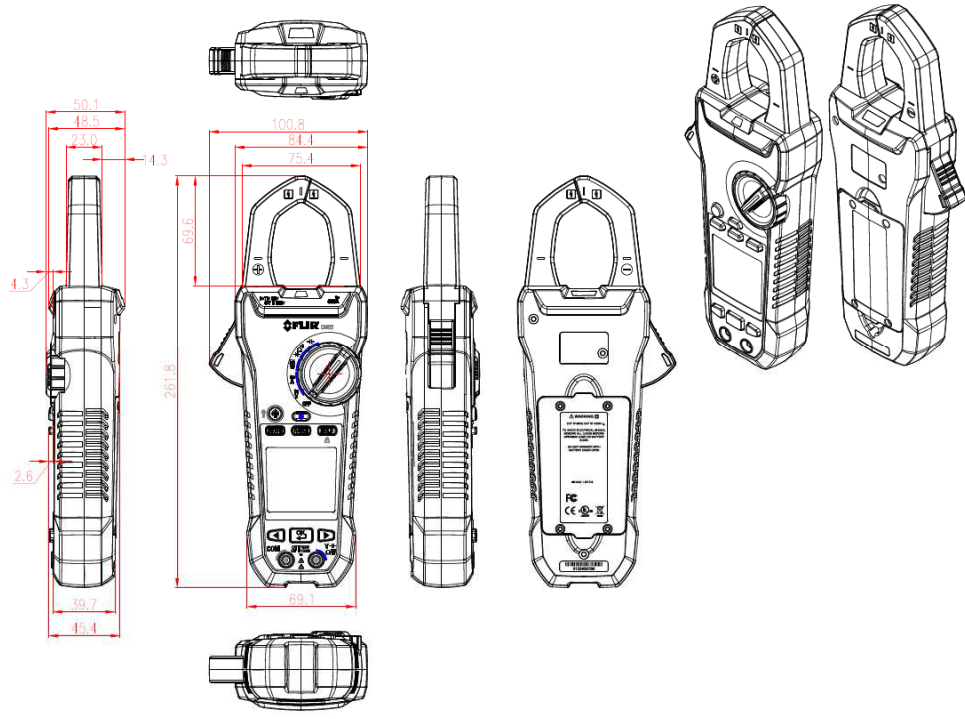
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Shipping information	
Country of origin	Taiwan
Tariff code	9030310000
Technical support	
Website	http://support.flir.com

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



Teledyne FLIR LLC**9 Townsend West, Nashua NH 03063 / Phone: 603.324.7800 / Fax: 603.324.7864**

Declaration of Conformity

Flir Model: CM83
Description: Clamp Meter w/BlueTooth
Date of Issue: 01-Oct-21

We, Teledyne FLIR LLC., 9 Townsend West, Nashua, NH 03063 declare that a sample of the product listed above has been tested by a third party for CE marking according to:

EMC Directive: 2014/30/EU
Report Number: TECC1307083
TEEX1307083

Report Date of Issue: 8/14/2013

Standards:

EN 301 489-1 V1.9.2 (2011-09)
EN 301 489-17 V2.1.1 (2009-05)
EN 55011
EN 61000-3-2/-3-3

IEC 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11

LVD Directive: 2014/35/EU
Report Number: T1307083-213
Report Date of Issue: 8/19/2013

Standards:

EN 61010-1:2010 (Edition 3.0)
EN 61010-2-032:2012 (Edition 3.0)
EN 61010-2-033:2012 (Edition 1.0)

RED Directive: 2014/53/EU
Report Number: TECI1307083
Report Date of Issue: 8/23/2013

Standards:

EN 300 328 V1.7.1 (2006-10)

RoHS Directive: EU Directive 2015/863/EU (RoHS 3)

The test reports show that the product fulfills the requirement in the EC Low Voltage Directive, EMC Directive, RED Directive, and RoHS Directive for CE Marking. On this basis, together with the manufacturer's own documented production control, the manufacturer (or his European authorized representative) can in his EC Declaration of Conformity verify compliance with the EC Low Voltage Directive, EMC Directive, RED Directive, and RoHS Directive.



Mark Sultzbach / QA Manager

Taipei, Taiwan Oct 6, 2021

UK Declaration of Conformity

Product: FLIR CM83

Name and address of the manufacturer: Teledyne FLIR LLC,
9 Townsend West,
Nashua, NH 03063

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration: FLIR CM83

The object of the declaration described above is in conformity with the relevant statutory requirements applicable to the specific product:

Standards review between UK and EU

UK legislation refr.	UK designated standard*	EU regulation refr.	EU harmonised standard
EMC		EMC	
S.I. 2016 No. 1091	EN 61000-3-2/3-3	2014/30/EU	EN 61000-3-2/3-3
S.I. 2016 No. 1091	EN 301 489-1 V1.9.2	2014/30/EU	EN 301 489-17 V1.9.2
S.I. 2016 No. 1091	EN 301 489	2014/30/EU	EN 301 489-17 V2.2.1
S.I. 2016 No. 1091	EN 55011:2009	2014/30/EU	EN 55011
S.I. 2016 No. 1091	EN 61000	2014/30/EU	IEC 61000-4-2/4-3/4-4/4-5/4-6/4-8/4-11
LVD Directive		LVD Directive	
S.I. 2016 No. 1101	IEC 61010-1 (Ed. 3)	2014/35/EU	IEC 61010-1:2010 (Ed. 3)
S.I. 2016 No. 1101	IEC 61010-1-032 (Ed. 3)	2014/35/EU	IEC 61010-2-032 (Ed. 3)
S.I. 2016 No. 1101	IEC 61010-1-033 (Ed. 1)	2014/35/EU	IEC 61010-2-033 (Ed. 1)
RoHS		RoHS	
S.I. 2012 No. 3032	EN 50581:2012	2015/65/EU (RoHS)	EN 50581:2012

* <https://www.gov.uk/guidance/designated-standards>

Designated standards: EMC – consolidated list, version 1, 1 January 2021

Designated standards: RoHS – consolidated list, version 1, 1 January 2021

Designated standards: low voltage – notice of publication, 1 January 2021

FLIR Commercial Systems

Quality Assurance



Hank Tsai
Quality Manager