

Product Datasheet - Technical Specifications



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FLIR CM82: 600 Amp Power Clamp Meter with VFD Mode

P/N: CM82

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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Part number	CM82
Part name	600 Amp Power Clamp Meter with VFD Mode
Part description	The FLIR CM82 is an industrial-grade power clamp meter engineered with advanced power analysis and variable-frequency drive (VFD) filtering functions required by electrical troubleshooters.
<ul style="list-style-type: none"> 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. 	

Measurement	
DC voltage	99.99 V \pm (0.7% + 2 digits) 999.9 V \pm (0.7% + 2 digits)
AC voltage	0.05–99.99 V \pm (1.0% + 5 digits) 999.9 V, 50–500 Hz
VFD AC voltage	0.05–99.99 V, 50–60 Hz \pm (1% + 5 digits) 999.9 V, 50–60 Hz \pm (1% + 5 digits)
DC current	99.99 A \pm (2% + 0.5 A) 599.9 A \pm (2% + 5 digits)*
AC current	0.10–99.99 A, 50–60 Hz \pm (2% + 5 digits)* 599.9 A, >60–400 Hz \pm (2.5% + 5 digits)*
VFD AC current	0.10–99.99 A, 50–60 Hz \pm (2% + 5 digits)* 599.9 A, 50–60 Hz \pm (2% + 5 digits)*
Peak hold AC voltage	140.0 V \pm (3.0% + 15 digits) 1400 V \pm (3.0% + 15 digits)
Peak hold AC current	140.0 A \pm (3.5% + 15 digits) 850 A \pm (3.5% + 15 digits)
Frequency	20.00–99.99 Hz \pm (0.5% + 3 digits) 20.0–999.9 Hz \pm (0.5% + 3 digits) 0.020–9.999 kHz \pm (0.5% + 3 digits)
Total harmonic distortion (AC A/AC V)	99.9% \pm (3.0% + 10 digits)



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Measurement	
Harmonic distortion H01–H12	99.90%
Harmonic distortion H13–H25	99.90%
Inrush current (AC)	99.99 A ± (3% + 0.3 A) 599.9 A ± (3% + 5 digits)*
Watts (DC)	9.999 kW (10 V, 5 A min) ± (3% + 0.05 kW) 99.99 kW (10 V, 5 A min) ± (3% + 0.5 kW) 599.9 kW (10 V, 5 A min) ± (3% + 10 digits)
Watts (AC)	9.999 kW (10 V, 5 A min) ± (3% + 10 digits) 99.99 kW (10 V, 5 A min) ± (3% + 10 digits) 599.9 kW (10 V, 5 A min) ± (3% + 10 digits)
Power factor	–1.00 to 0.00 to +1.00 ± (3% ± 1 digit)
Resistance	999.9 Ω ± (1.0% + 5 digits) 9.999 kΩ ± (1.0% + 3 digits) 99.99 kΩ ± (1.0% + 3 digits)
Continuity	999.9 Ω ± (1.0% + 5 digits)
Diode	0.40–0.80 V ± 0.1 V
Capacitance	3.999 μF ± (1.9% + 8 digits) 39.99 μF ± (1.9% + 8 digits) 399.9 μF ± (1.9% + 8 digits) 3.999 mF, ± (1.9% + 8 digits)
Measuring rate	3 times per second
Meter data	
Jaw opening	1.45" (37 mm)
Category rating	CAT IV—600 V, CAT III—1000 V
Data recording	N/A
Warranty	https://www.flir.com/testwarranty
Calibration cycle	Once per year
Certifications	
Certifications	UL, CE, FCC
Safety standards compliance	IEC 61010-1 CAT IV—600 V, CAT III—1000 V, IEC 61010-2-033
Power system	
Power requirements	6 × 1.5 V AAA alkaline batteries
Battery life	Approximately 50 hours with alkaline batteries (backlight and work light are off)
Auto power off	Approximately 30 minutes
Environmental data	
Operating ambient temperatures and relative humidity (RH)	32–50°F (0–10°C) (non-condensing) 50–86°F (10–30°C) (≤ 80% RH) 86–104°F (30–40°C) (≤ 75% RH) 104–122°F (40–50°C) (≤ 45% RH)
Storage temperature and RH	
Temperature coefficient	0.2 × (specified accuracy)/°C, <18°C, >28°C
Operating altitude	6562' (2000 m)



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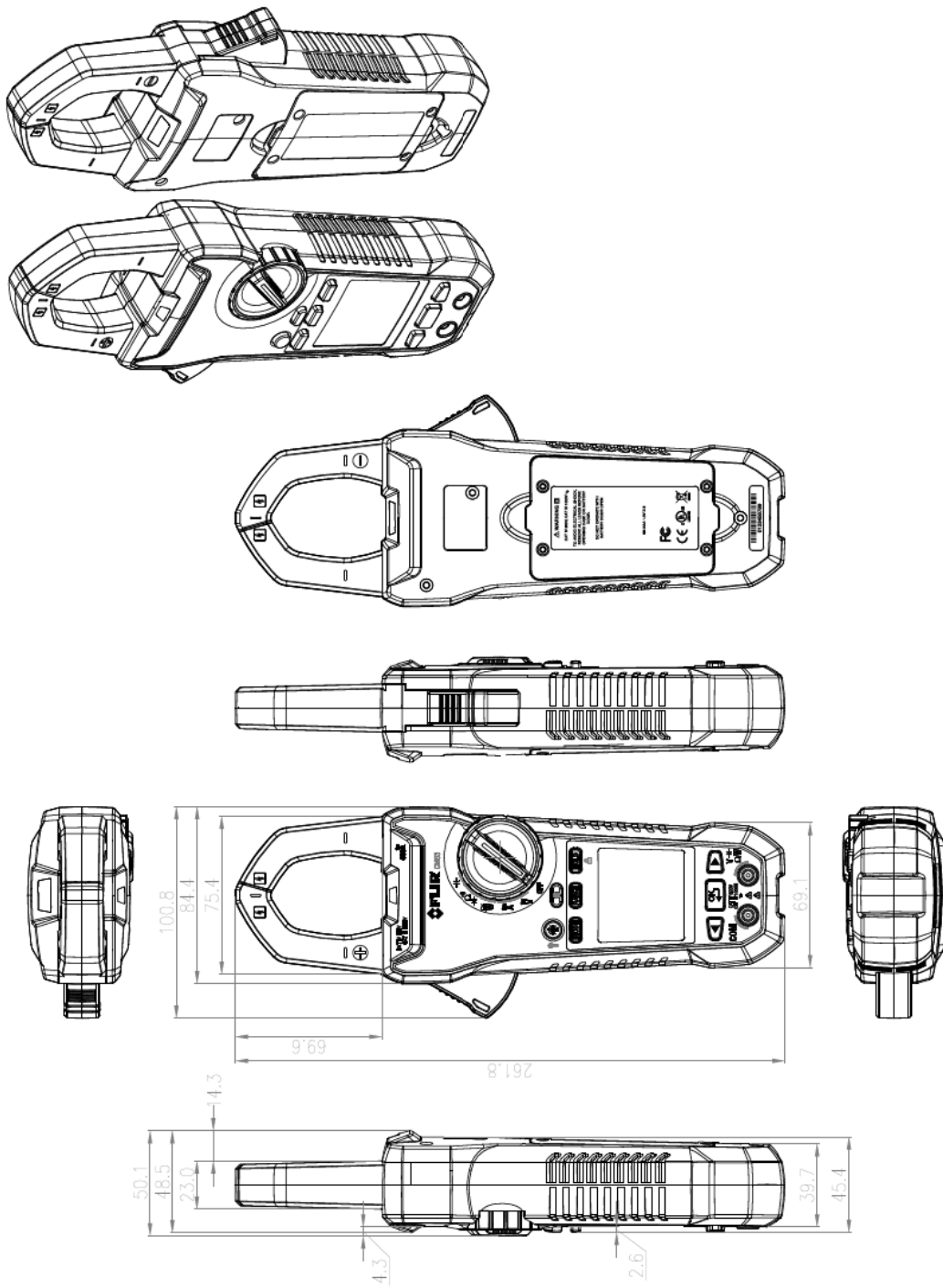
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Environmental data	
Pollution degree	2
EMC	EN 61326-1
Shock vibration	Random vibration per MIL-PRF-28800f Class 2 (5-55 Hz, 3g maximum)
Meter physical data	
Weight	20.8 oz. (590 g) including batteries
Dimensions (H x W x L)	1.9" x 3.9" x 10.3" (49 mm x 100 mm x 262 mm)
Material	PC-ABS, TPE
Color	Grey and black
Shipping information	
Packaging type	Color box with view of product in clamshell
Packaging contents	CM82 FLIR meter, TA80 CAT IV silicon test leads, 6 x AAA Energizer batteries, user manual (English)/CD (translations)
Packaging weight	1.02 kg (2.25 lb.)
Packaging dimensions (H x W x L)	32 cm x 14 cm x 11 cm (12.6" x 5.5" x 4.3")
Carton weight	13.6 kg (30 lb.)
Carton dimensions (H x W x L)	13 7/8" x 11 1/2" x 24-1/8"
Carton quantity	12
EAN-13	0793950370827
UPC-12	793950370827
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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Description FLIR CM82, Units in mm	

