

## P/N: CM82

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### Document identity

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Release:

Commit: 29700

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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	<p>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.</p> <ul style="list-style-type: none"> <li>VFD mode provides superior accuracy for working on VFD-controlled equipment.</li> <li>Advanced power efficiency and harmonics measurements for system-level performance analysis.</li> <li>Powerful work lights not only assist with clamping but are bright enough to serve as a primary work light.</li> </ul>

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)



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<b>Measurement</b>	
Frequency	20.00–99.99 Hz ± (0.5% + 3 digits) 20.0–999.9 Hz ± (0.5% + 3 digits) 0.020–9.999 kHz ± (0.5% + 3 digits)
Total harmonic distortion (AC A/AC V)	99.9% ± (3.0% + 10 digits)
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
<b>Meter data</b>	
Jaw opening	1.45" (37 mm)
Category rating	CAT IV—600 V, CAT III—1000 V
Data recording	N/A
Warranty	Limited lifetime
Calibration cycle	Once per year
<b>Certifications</b>	
Certifications	UL, CE, FCC
Safety standards compliance	IEC 61010-1 CAT IV—600 V, CAT III—1000 V, IEC 61010-2-033
<b>Power system</b>	
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



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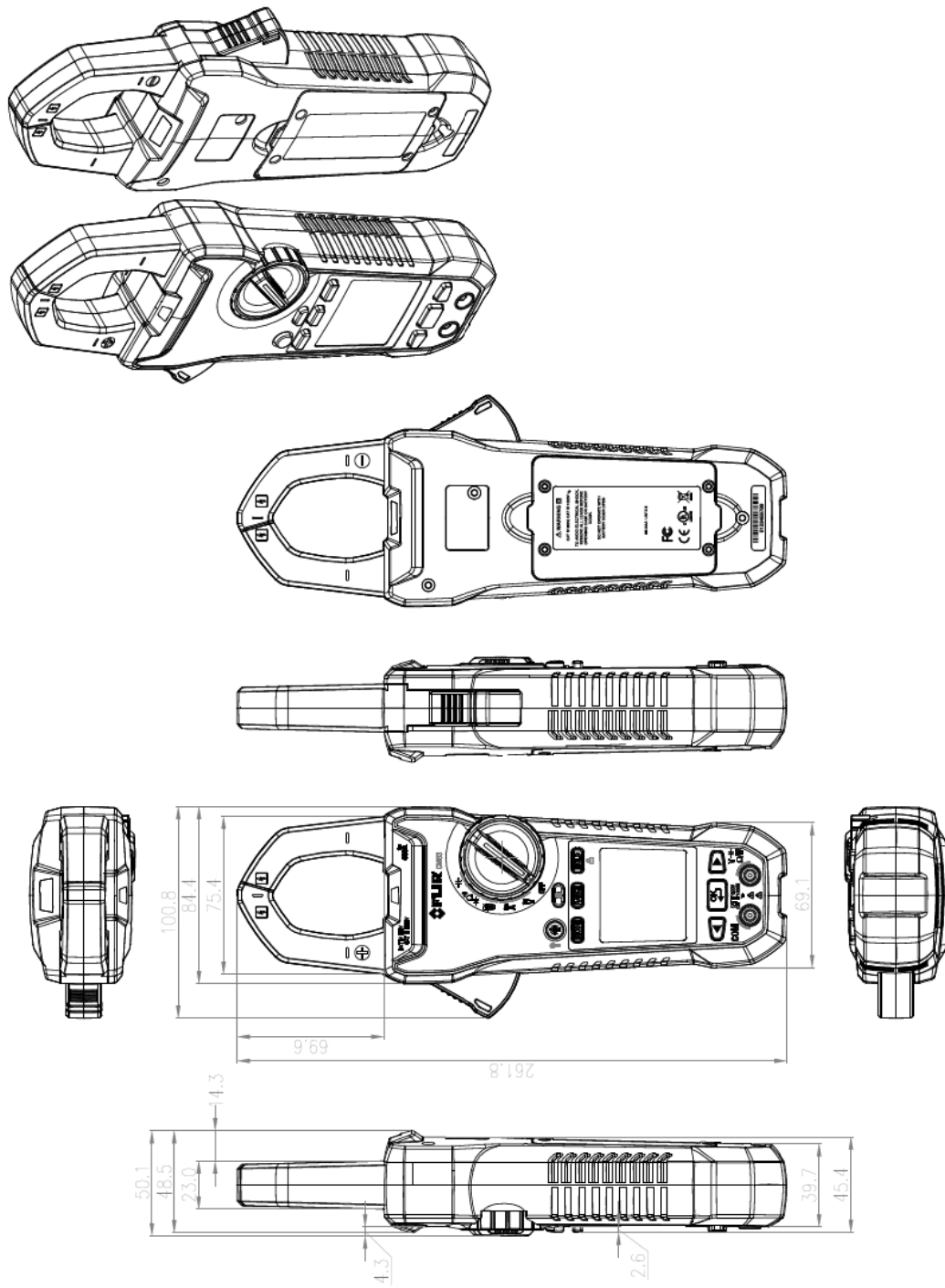
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Environmental data	
Operating ambient temperatures and relative humidity (RH)	32–50°F (0–10°C) (non-condensing) 50–86°F (10–30°C) (≤ 80% RH) 86–104°F (30–40°C) (≤ 75% RH) 104–122°F (40–50°C) (≤ 45% RH)
Storage temperature and RH	
Temperature coefficient	0.2 × (specified accuracy)/°C, <18°C, >28°C
Operating altitude	6562' (2000 m)
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 × W × L)	1.9" × 3.9" × 10.3" (49 mm × 100 mm × 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 × 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	13.6 kg (30 lb.)
Carton dimensions (H × W × L)	13 7/8" × 11 1/2" × 24-1/8"
Carton quantity	12
EAN-13	0793950370827
UPC-12	793950370827
Country of origin	Taiwan
Tariff code	9030310000
Technical support	
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>
Accessories	
TA11. EVA Protective case for CM8x and CM7x Series	
TA55. AC Current Line Splitter	
TA70. CAT IV Insulated Alligator Probes	
TA80. CAT IV Silicone Test Leads	



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<b>Modified Date</b> Monday, August 18, 2014	<b>Modified By</b> T&M Engineering
<b>Description</b> FLIR CM82, Units in mm	

