

P/N: CM82

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Document identity

Publ. No.: CM82

Commit: 61689

Language: en-US

Modified: 2019-12-05

Formatted: 2019-12-05

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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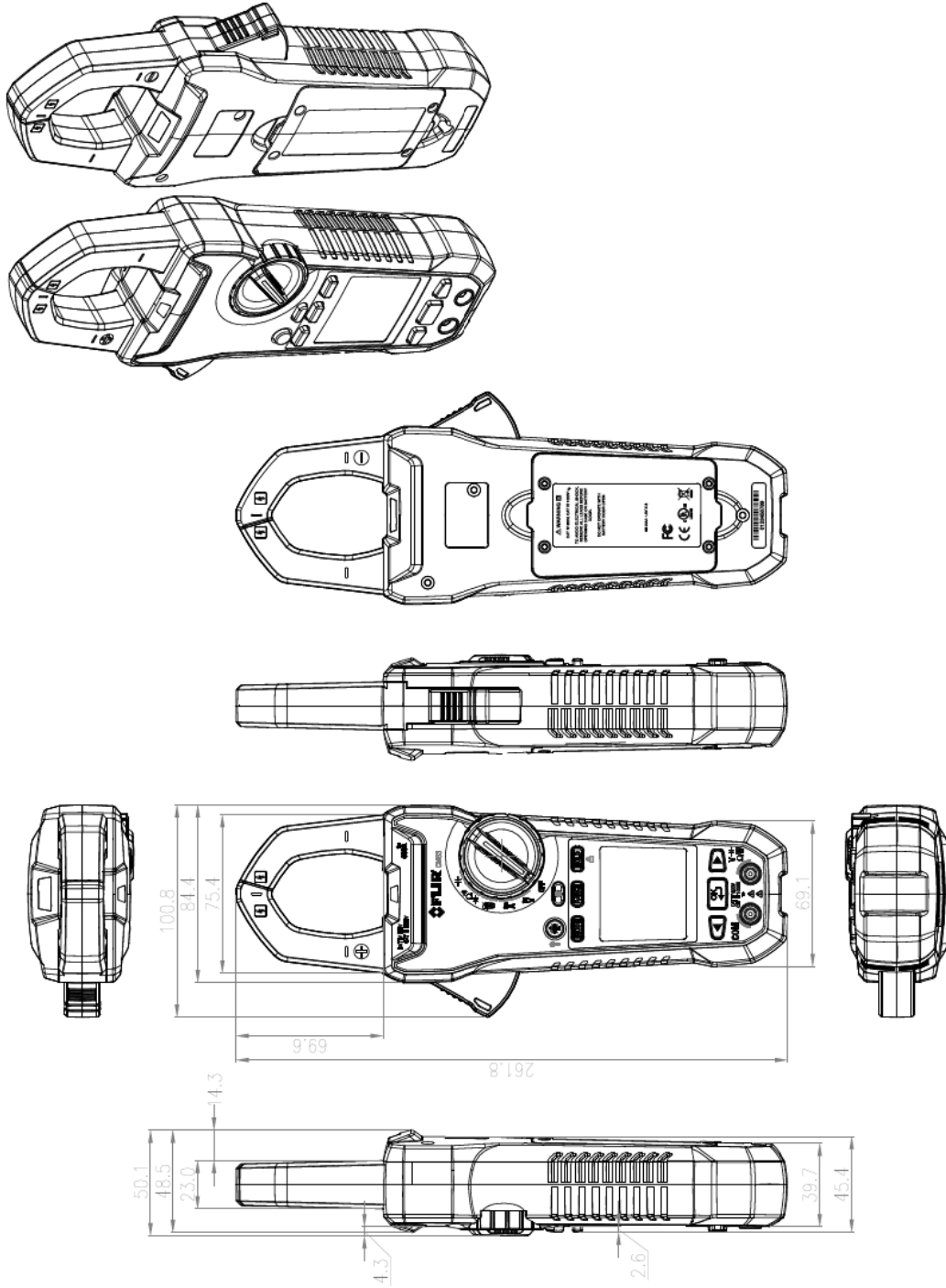
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| Environmental data | |
|----------------------------------|---|
| Pollution degree | 2 |
| EMC | EN 61326-1 |
| Shock vibration | Random vibration per MIL-PRF-28800f Class 2 (5-55 Hz, 3g maximum) |
| Meter physical data | |
| Weight | 20.8 oz. (590 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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| Modified Date Monday, August 18, 2014 | Modified By T&M Engineering |
| Description FLIR CM82, Units in mm | |

