FLIR CM85-2™

True RMS Power Clamp



Key Features:

- VFD Mode for superior accuracy on VFD-controlled equipment
- Inrush mode to capture AC Current spikes during start-up
- Bluetooth® connectivity up to 10 m (32 ft)

Main Applications:

- Advanced power analysis and variable frequency drive (VFD) filtering functions
- Accurately analyze voltage in complex machinery
- Harmonics, inrush, current, and phase rotation testing

www.flir.com/CM85-2

SPECIFICATIONS

Measurement Ranges and Accuracy	
Voltage DC	99.99 V, ±(0.7% + 2 digits) 999.9 V, ±(0.7% + 2 digits)
Voltage AC	0.05 V to 99.99 V, ±(1.0% + 5 digits) 999.9 V, 50 Hz to 500 Hz
VFD, ACV	0.05 V to 99.99 V, 50 Hz to 60 Hz ±(1% + 5 digits) 999.9 V, 50 Hz to 60 Hz ±(1% + 5 digits)
Current DC	99.99 A, ±(2% + 0.5 A) 999.9 A, ±(2% + 5 digits)
Current AC	0.10 A to 99.99 A, 50 Hz to 60 Hz ±(2% + 5 digits) 999.9 A, >60 Hz to 400 Hz ±(2.5% + 5 digits)
VFD, ACA	0.10 A to 99.99 A, 50 Hz to 60 Hz ±(2% + 5 digits) 999.9 A, 50 Hz to 60 Hz ±(2% + 5 digits)
Peak Hold ACV	140.0 V, ±(3.0% + 15 digits) 1400 V, ±(3.0% + 15 digits)
Peak Hold ACA	140.0 A, ±(3.5% + 15 digits) 1400 A, ±(3.5% + 15 digits)
Frequency	20.00 Hz to 99.99 Hz, ±(0.5% + 3 digits) 20.0 Hz to 999.9 Hz, ±(0.5% + 3 digits) 0.020 kHz to 9.999 kHz, ±(0.5% + 3 digits)
Total harmonic distortion ACA/ACV	99.9%, ±(3.0% + 10 digits)
Harmonic distortion H01–H12	99.9%, ±(5% + 10 digits)
Harmonic distortion H13–H25	99.9%, ±(10% + 10 digits)
Inrush current ACA	99.99 A, ±(3% + 0.3 A) 999.9 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) 999.9 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) 999.9 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 V to 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	45 mm (1.77 in)
Bluetooth range	10 m (32 ft)
Category rating	CAT IV-600 V, CAT III-1000 V
Data recording	Available via METERLiNK App
Warranty	Limited Lifetime Warranty www.flir.com/testwarranty
Drop test	1.2 m (4 ft)
Certifications	
Certifications	UL, CE, FCC, IC, UKCA, CSAUS
Complies with Safety Standards	IEC 61010-1:2010, IEC 61010-2-032:2012, IEC 61010-2-033:2012
(continued)	

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

For more information contact: **Sales@TeledyneFLIR.com**
or to find your local support number, visit: **flir.com/contactsupport**
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SPECIFICATIONS, CONT.

EMC	FCC: 47 CFR Part 15 Subpart B CE: EN IEC 61326-1:2021 EN IEC 61326-2-2:2021 EN 301 489-1 V2.2.3 (2019-11) EN 301 489-17 V3.2.4 (2020-09) RF: ETSI EN 300 328 V2.2.2 EN 62479:2010 EN 50663:2017
Power System	
Power requirements	6 × 1.5 V AAA alkaline batteries
Battery life	50 hours with alkaline batteries (backlight, worklight, and Bluetooth off)
Auto power off	Approx. 30 minutes
Environmental Data	
Operating ambient temperatures and relative humidity	0°C to 10°C (32°F to 50°F) (non-condensing) 10°C to 30°C (50°F to 86°F) (≤80% RH) 30°C to 40°C (86°F to 104°F) (≤75% RH) 40°C to 50°C (104°F to 122°F) (≤45% RH)
Storage temperature and relative humidity	-10°C to 50°C (14°F to 122°F). 0 to 80% RH (batteries not fitted)
Temperature coefficient	0.2 × (specified accuracy)/° C, <18°C, >28°C.
Operating altitude	2000 m (6562 ft)
Pollution degree	2
Shock vibration	Random vibration per MIL-PRF-28800f Class 2 (5 to 55 Hz, 3 g maximum)
Meter Physical Data	
Weight	0.65 kg (1.43 lb), including batteries
Dimensions (L × W × H)	276 mm × 101 mm × 50 mm (10.87 in × 3.98 in × 1.97 in)

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For more information contact: **Sales@TeledyneFLIR.com**
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