

P/N: CM82

Copyright

© 2015, FLIR Systems, Inc.

All rights reserved worldwide. Names and marks appearing herein are either registered trademarks or trademarks of FLIR Systems and/or its subsidiaries. All other trademarks, trade names or company names referenced herein are used for identification only and are the property of their respective owners.

Document identity

Publ. No.: CM82

Release:

Commit: 23377

Language: en-US

Modified: 2015-02-24

Formatted: 2015-03-16

Corporate Headquarters

FLIR Systems, Inc.

27700 SW Parkway Ave.

Wilsonville, OR 97070

USA

Telephone: +1-503-498-3547

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.



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"> 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)



FLIR CM82: 600 Amp Power Clamp Meter with VFD Mode

P/N: CM82

© 2015, FLIR Systems, Inc.

#CM82; r. /23377; en-US

Measurement	
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
Meter data	
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
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



FLIR CM82: 600 Amp Power Clamp Meter with VFD Mode

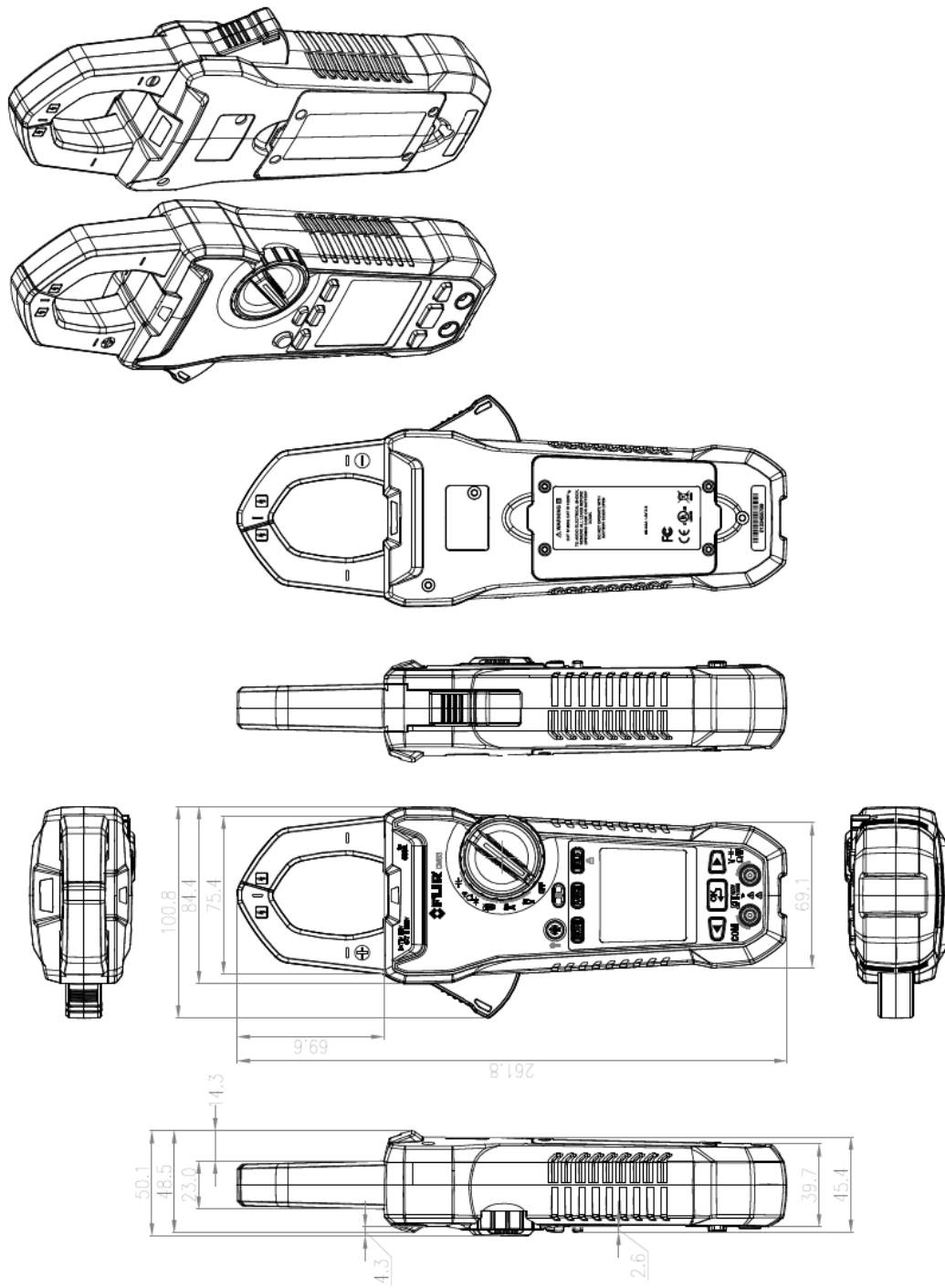
P/N: CM82

© 2015, FLIR Systems, Inc.

#CM82; r. /23377; en-US

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	http://support.flir.com
E-mail	TMsupport@flir.com
Phone	855-499-3662
Repairs	repair@flir.com
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	

© 2014, FLIR Systems, Inc. All rights reserved worldwide. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from FLIR Systems, Inc. Specifications subject to change without further notice. Dimensional data is based on nominal values. Products may be subject to regional market considerations. License procedures may apply. Product may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions. Diversion contrary to US law is prohibited.



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

