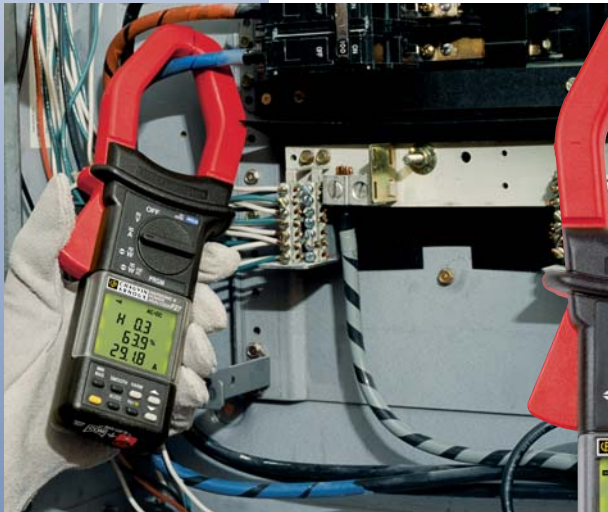


CLAMP-ON HARMONIC METER

Models F23, F25 & F27



- ▶ True RMS
- ▶ Current: 1000 and 1500A peak (Models F23 and F27)
- ▶ Voltage: 600 and 1500V peak (Models F23 and F27)
- ▶ Recording mode for Min, Max, Avg, Max Peak (Model F25)
- ▶ Peak measurements (AC or DC) (+ or -) (Model F25)
- ▶ EN 61010-1, 600V Cat. III (Model F25)
- ▶ EN 61010-2-032, 600V Cat. III (Models F23 & F27)

CLAMP-ON HARMONIC POWER METER

Model F23



FEATURES

- True RMS
- Current: 1000A and 1500A pk
- Voltage: 600V and 1500V pk
- Power: 600kW, VA or VAR
- Power factors and power shift
- Measurement of total harmonic distortion
- Large backlit display with three reading levels (3 x 10,000cts)
- EN 61010-2-032, 600V Cat. III
- Includes test leads

APPLICATIONS

- Measure True RMS voltage and current values
- Identify harmonic distortion patterns and sources of voltage harmonics
- Identify dominant load types in circuits
- Identify linear and nonlinear loads
- Locate sources of harmonic current
- Track down overloaded or unbalanced circuits
- Reduce system overloads
- Measure output frequency of adjustable speed drive controllers

SPECIFICATIONS

MODEL	F23	
ELECTRICAL		
Current (True RMS)	300mA to 1000AAC/DC (1500A peak)	
Voltage (True RMS)	50mV to 600VAC/DC (1500V peak)	
Peak Value (PEAK)	PEAK ± 2ms	
Crest Factor (CF)	1 to 10	
Frequency	0.5 to 20kHz	
Power		
Active	10W	600kWAC/DC
Reactive	10VAR	600kVARAC/DC
Apparent	10VA	600kAAC/DC
Power Factor (PF)	0 to 1	
Displacement Power Factor (DPF)	-1 to +1	
Total Harmonic Distortion (THD)	0.2 to 600%	
Distortion Factor (DF)	0.2 to 100%	
Record (RECORD)	Min, max and average value	
Smoothed Value (SMOOTH)	Over 3s	
Display Hold (HOLD)	Available for every function	
Monitoring (SCAN) Mode	Programmable rate: 1 to 60 minutes	
Power Source	Four 1.5V Alkaline batteries	
Battery Life	40 hours	
MECHANICAL		
Jaw Opening	1.7" (43mm)	
Conductor Size	1.97" (50mm); Two Busbars: 1.97 x 0.20" (50 x 5mm) One Busbar: 3.15 x 0.20" (80 x 5mm)	
Dimensions	10.8 x 4 x 2" (275 x 103 x 50mm)	
Weight	1.7 lbs (680g)	
SAFETY		
Safety Rating	EN 61010-2-032, 600V Cat. III	
CE Mark	Yes	

CLAMP-ON HARMONIC METER Model F25



SPECIFICATIONS

MODEL	F25
ELECTRICAL	
AC Current (True RMS)	0.3 to 1000.0Arms, ± 0.5 to ± 1500 A peak
AC Voltage (True RMS) Input Range Crest Factor Input Impedance	0.05 to 600Vrms, 0.05 to ± 1500 V peak >5 below 300V 1M Ω
DC Current	± 0.03 to ± 1500 A
DC Voltage	± 0.05 to ± 600 V
Total Harmonic Distortion (%THD)	0.2% to 1000% (to RMS or Fund)
Distortion Factor (%DF)	0.2% to 100%
Individual Harmonics	0.2% to 300% (% THD or %DF)
Transformer Harmonic Derating Factor (CBEMA THDF)	0.10 to 1.00
Transformer K Factor Rating	1 to 30
Frequency (HZ)	0.5 to 20,000Hz
Power Source	Four 1.5V Alkaline batteries
Battery Life	40 hours
MECHANICAL	
Jaw Opening	1.7" (43mm)
Conductor Size Conductor	1.97" (50mm); Two Busbars: 1.97 x 0.20" (50 x 5mm) One Busbar: 3.15 x 0.20" (80 x 5mm)
Dimensions	10.8 x 4 x 2" (275 x 103 x 50mm)
Weight	1.7 lbs (680g)
SAFETY	
Safety Rating	EN 61010-1, 600V Cat. III
CE Mark	Yes

FEATURES

- True RMS measurements
- 31-segment analog bargraph
- Low battery indicator level check
- Audible control/warning indications
- Recording mode for Min, Max, Avg and Max Peak
- Direct reading %THD, %DF, CF, Peak (+ or -)
- Smooth function for stable readings
- Auto or manual ranging
- Peak measurements (AC or DC) (+ or -)
- Percent ripple for DC
- Auto-Off
- Designed to EN 61010, 600V Cat. III safety standards
- Includes test leads

APPLICATIONS

- True RMS and DC voltage and current measurements
- Determine levels of voltage and current distortion
- Identify harmonic distortion patterns and sources of voltage harmonics
- Locate sources of harmonic current
- Measure individual harmonics
- Identify nonlinear loads
- Prevent overheating in electrical distribution equipment, false circuit breaker tripping
- Power factor correction capacitor failure
- Locate overloaded neutral wires
- Derate transformers and generators to prevent overheating
- Measure crest factor to evaluate harmonic content and determine CBEMA derating factor

CLAMP-ON HARMONIC POWER METER

Model F27



FEATURES

- True RMS
- Current: 1000A and 1500A pk
- Voltage: 600V and 1500V pk
- Power: 600kW, VA or VAR
- Power factors and power shift
- Special measurements on transformers in the presence of harmonics
- Harmonics distortion parameters from the 1st to the 25th
- Large backlit display with three reading levels (3 x 10,000cts)
- RS-232 optical output for processing results on a PC or printer
- EN 61010-2-032, 600V Cat. III
- Includes test leads

APPLICATIONS

- Measure True RMS voltage and current values
- Identify harmonic distortion patterns and sources of voltage harmonics
- Identify dominant load types in circuits
- Identify linear and nonlinear loads
- Locate sources of harmonic current
- Track down overloaded or unbalanced circuits
- Reduce system overloads
- Measure output frequency of adjustable speed drive controllers

SPECIFICATIONS

MODEL	F27
ELECTRICAL	
Current (True RMS)	300mA to 1000AAC/DC (1500A peak)
Voltage (True RMS)	50mV to 600VAC/DC (1500V peak)
Peak Value (PEAK)	PEAK ± 2ms
Crest Factor (CF)	1 to 10
Ripple Rate (RIPPLE)	2 to 1000%
Frequency	0.5 to 20kHz
Power	
Active	10W
Reactive	10VAR
Apparent	10VA
Power Factor (PF)	0 to 1
Displacement Power Factor (DPF)	-1 to +1
K Factor (K)	1 to 30
CBEMA Factor (THDF)	0.2 to 1
Total Harmonic Distortion or order by order to the 25th	Absolute value (A or V) or relative value (%) of THD and DF
Total Harmonic Distortion (THD)	0.2 to 600%
Distortion Factor (DF)	0.2 to 100%
Record (RECORD)	Min, max and average value
Smoothed Value (SMOOTH)	Over 3s
Display Hold (HOLD)	Available for every function
Monitoring (SCAN) Mode	Programmable rate: 1 to 60 minutes
Power Source	Four 1.5V Alkaline batteries
Battery Life	40 hours
MECHANICAL	
Jaw Opening	1.7" (43mm)
Conductor Size	1.97" (50mm); Two Busbars: 1.97 x 0.20" (50 x 5mm) One Busbar: 3.15 x 0.20" (80 x 5mm)
Dimensions	10.8 x 4 x 2" (275 x 103 x 50mm)
Weight	1.7 lbs (680g)
COMMUNICATION	
RS-232 Optical Output	Configurable (PGRM function)
SAFETY	
Safety Rating	EN 61010-2-032, 600V Cat. III
CE Mark	Yes

CONSTRUCTION



ORDERING INFORMATION	CATALOG NO.
Clamp-On Power Meter Model F23 (TRMS, 1000Aac/dc, 600Vac/dc, 600kW, Frequency)	Cat. #1208.56
Clamp-On Harmonic Meter Model F25 (600Vac/dc and 1500Aac/dc)	Cat. #2111.39
Clamp-On Power Meter Model F27 (TRMS, 1000Aac/dc, 600ac/dc, 600kW, Frequency, RS-232)	Cat. #1208.57

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