

Test, monitor and analyse your electrical power, even on disturbed networks (AC+DC)

F 27

Power and harmonic
clamp

Other model: F 23
for AC networks

DC and AC (\approx) single and
three-phase balanced

1 kA AC/DC / 1.5 kA peak

600 V AC/DC / 1.5 kV peak

600 kW AC/DC, VA or var

Harmonics up
to the 25th order



IEC 1010-2-032. 600 V Cat III

Perfectly designed for maintenance and monitoring of electrical installations (AC + DC). This worksite tool, easy to handle and simple to use, offers rapid analysis of your power measurements and disturbances.

- Large display with backlighting. Simultaneous reading of 3 values (3 x 10 000 counts)
- True RMS voltage and current in AC, AC + DC or DC mode
- Wattmeter: power factor and displacement power factor
- Harmonic Distorsion order by order
- Measurements on transformers: K and CBEMA* factors
- RS 232 optical output and software for printing or processing on PC

* Derating factor of a transformer as a function of harmonic distortion



 **CHAUVIN
ARNOUX**

2 models for your power and harmonic measurements		
Measurements	F23	F27
Currents and voltages (True RMS)		
AC	●	●
AC+DC		●
DC ⁽¹⁾		●
Ripple rate		●
Peak and smoothed values	●	●
Crest factor	●	●
Frequency	●	●
Active, reactive and apparent power (balanced single-phase and 3-phase currents)		
AC	●	●
AC+DC		●
DC ⁽¹⁾		●
Power factor	●	●
Displacement power factor	●	●
K and CBEMA ⁽²⁾ factors		●
Total Harmonic Distorsion	●	●
Harmonic distorsion order by order		●
Optical RS 232 output and software ⁽³⁾		●

(1) Auto zero adjustment on DC

(2) Derating factor of a transformer as a function of harmonic distorsion

(3) For recording and processing the results on a PC

The F27 clamp-on ammeter is shipped in a carrying case with leads and crocodile clips, RS 232 output adapter and software operating under Windows.



Specifications of the F27 clamp	
Three-function display	3 x 10 000 counts
Current (True RMS)	300 mA...1000 A AC/DC (1500 A peak)
Clamping	cable Ø 50 mm or busbar 80 x 5 mm
Voltage (True RMS)	50 mV...600 V AC/DC (1500 V peak)
Peak value (PEAK)	PEAK "+" or "-" (2 ms)
Crest factor (CF)	1 ... 10
Ripple rate (RIPPLE)	2% ... 1000%
Frequency	0.5 Hz ... 20 kHz
Active power	10 W ... 600 kW AC/DC
Reactive power	10 var ... 600 kvar AC/DC
Apparent power	10 VA ... 600 kVA AC/DC
Power factor (PF)	0 ... 1
Displacement power factor (DPF)	- 1 ... + 1
K factor (KF)	1 ... 30
CBEMA factor (THDF)	0.2 ... 1
Total Harmonic Distorsion or order by order to the 25th	absolute value (A or V) or relative value (%) of THD and DF
Total Harmonic Distorsion (THD)	0.2 ... 600%
Distorsion factor (DF)	0.2 ... 100%
Record (RECORD)	min, max and average value
Smoothed value (SMOOTH)	over 3 s
Display hold (HOLD)	available for every function
Monitoring (SCAN mode)	programmable rate: 1 to 60 min.
RS 232 optical output	configurable (PRGM function)

To order

F 27 clamp P01.1207.57

• Shipped in a carrying case with a set of 2 leads with prods, 2 voltages leads, 2 crocodile clips, a RS 232 optical output adapter and software, 4 batteries 1.5V, a mini reference guide and a user manual.

Spares

- Set of 2 leads n°181 A/B P01.2950.84
- Set of 2 crocodile clips IEC 1010 P01.1018.14
- Set of 4 batteries 1.5V (LR6) P01.1007.59
- Carrying case MLT 101 P01.2980.17
- CA transfert 2 software P01.1019.08A

Your distributor

Electrical safety

- Conforms to IEC 1010-1 standards
 - double insulation
 - installation category III
 - Degree of pollution 2
 - service voltage 600 V

Conformity with other international standards

- EMC (to IEC 1000-4)
- Resistance to drops, shocks, vibrations (IEC 68.2)
- Watertightness: protection index IP 40 (to IEC 529)

Power supply

- 4 alkaline batteries 1.5 V (type LR6)
- Battery life: 40 hours (battery status indicated on the display)
- Low battery indicator

Climatic conditions

- Operating temperature: -10°C to +55°C
- Relative humidity: 0 to 90% RH to 40°C
- Storage temperature: -40°C to +70°C

Dimensions and weight

- Clamp: 275 x 103 x 50 mm - 670 g with the batteries
- Carrying case: 320 x 250 x 90 mm - 770 g

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