

3-phase AC Flexible Current Clamp A 1257



A 1257 is a 3-phase flexible current sensor. It consists of three current coils utilizing Rogowski measuring principle.

High measuring accuracy is assured via three measuring ranges 30 A, 300 A and 3000 A AC.

Large sensor length will easily accommodate bus bars and power cables.

A 1257 is powered either by mains or rechargeable batteries.

Technical specification

Electrical Characteristics	
Current Ranges	30 A / 300 A / 3000 A AC RMS
Output Sensitivity	33.3 mV/A; 3.33 mV/A; 0.333 mV/A
Load Impedance	10 k Ω Minimum
Accuracy	± 1 %
Linearity (10% to 100% of range)	± 0.2 %
Noise	<4 mV, AC RMS (30 A) <1 mV, AC RMS (300 A, 3000 A)
Frequency Range	10 Hz – 8 kHz
Phase Error	< 1° at 50 Hz < 10° at 1.5 kHz
Position Sensitivity	± 2 % of full scale
External Fields	± 1 % of full scale
Temperature Coefficient	0.02 % of reading/ °C
Power Supply	12 V DC, 300 mA or mains voltage over integrated charger
Battery Life	>120 h
General Characteristics	
Number of current sensors	3
Sensor Length	48 cm
Sensor Cable Diameter	14 mm
Maximum Cable Diameter	15 cm
Cable Length (head to electronics)	1 m (other lengths available upon request)
Operating Temperature Range	Sensor: -20 °C to +85 °C Module: -20 °C to +70 °C
Storage Temperature Range	Sensor: -20 °C to +85 °C Module: -20 °C to +70 °C
Operating Humidity	15% to 85% RH, without condensing
IP protection degree	Sensor: IP 64; Electronic Module: IP 40
Overvoltage category	CAT III / 1000 V
Dimensions and Weight	Electronic Module: 120 x 65 x 22 mm; 220 g Sensor: $\Phi = 15$ cm, 130 g

Product's highlights:

- Three measuring ranges 30 A, 300 A and 3000 A
- Simultaneous measurement on all three phases
- Over - range detection with LED indication
- Waterproof sensor (IP 64)
- High accuracy (1 %) with a total rejection of DC component
- Wide frequency bandwidth (10 Hz to 8 kHz)
- Electronic module is either mains or battery charged with LOW BATTERY indication
- Battery charger and a set of rechargeable batteries included in a standard delivery

Special note:

A1257 flex kit has been originally designed to fit Metrel Power Quality Analysers only. However, a connection to other meters (scopes, DMM, power analysers, etc.) is available on request. Flex kit has an 1V AC output. Please contact us for further details.