

# Clamps

## Current sensors for portable power analyzers



### Description

**CIRCUTOR** offers a wide range of current sensors for its portable power analyzers. The products included in this range can be used to measure current levels from a few mA up to several thousand amperes. In addition, the models are available in flexible and rigid format, offering the best solution for each installation.

### Applications

— Measurement of energy values via portable power analyzers.

### Technical features

CLAMPS	CFG-5	CFG-10	CPG-5	CPG-100	CPRG-500	CPRG-1000	CPG-200/2000	
Measurement range	0,1...5 Aa.c.	0,1...10 Aa.c.	0,05...5 Aa.c.	1...100 Aa.c.	1...500 Aa.c.	1...1000 Aa.c.	1...200 Aa.c. 10...2000 Aa.c.	
Frequency	48...65 Hz	48...65 Hz	48...65 Hz	48...65 Hz	48...65 Hz	48...65 Hz	48...65 Hz	
Output voltage	2 Va.c.	2 Va.c.	2 Va.c.	2 Va.c.	2 Va.c.	2 Va.c.	2 Va.c.	
Dielectric rigidity	5200 V, 50 Hz, 1 min	5200 V, 50 Hz, 1 min	5200 V, 50 Hz, 1 min	5200 V, 50 Hz, 1 min	5200 V, 50 Hz, 1 min	5200 V, 50 Hz, 1 min	5200 V, 50 Hz, 1 min	
Full scale error	1 % (to 0,1 A) 0,5 % (To 5 A)	-0,35 %	1 %	0,5 %	0,7 %	0,7 %	Scale 200: 0,5 % (+70 mA) Escala 2000: 0,5% (+100 mA)	
Maximum conductor diameter	20 mm	100 mm	20 mm	20 mm	52 mm	52 mm	64 mm	
Maximum busbar	1 x (50 x 5) mm 4 x (30 x 5) mm	5 de 80 x 5 mm ou 3 de 80 x 10 mm	20 x 5 mm	20 x 5 mm	1 x (50 x 5) mm 4 x (30 x 5) mm	1 x (50 x 5) mm 4 x (30 x 5) mm	5 x (125 x 5) mm 3 x (100 x 10) mm	
1 clamp	Type	CFG-5	CFG-10	CPG-5	CPG-100	CPRG-500	CPRG-1000	CPG-200/2000
	Code	M810BD	M810BE	M810B1	M810B2	M810B3	M810B4	M810B5
Kit with 3 clamps	Type	-	-	Kit 3 CPG-5	Kit 3 CPG-100	Kit 3 CPRG-500	Kit 3 CPRG-1000	Kit 3 CPG-200/2000
	Code	-	-	M810C1	M810C2	M810C3	M810C4	M810C5
Kit with 4 clamps	Type	-	-	Kit 4 CPG-5	Kit 4 CPG-100	Kit 4 CPRG-500	Kit 4 CPRG-1000	Kit 4 CPG-200/2000
	Code	-	-	M810D1	M810D2	M810D3	M810D4	M810D5

### Measurement range

CLAMPS	CFG-5	CFG-10	CPG-5	CPG-100	CPRG-500	CPRG-1000	CPG-200/2000	200 A	2000 A
Current	0,01...100 mA	5...100 mA	50...500 mA	1...10 A	1...5 A	1...5 A	1...3 A	10...150 A	
Tolerance	1% + 0,4 mV	1,5% + 0,4 mV	2%	1%	3%	3%	0,5% + 70 mV	0,5% + 250 mA	
Phase	NC	NC	NC	NC	NC	NC	NC	NC	
Current	0,1...5 A	0,1...1 A	0,5...1 A	10...100 A	5...50 A	5...20 A	3...10 A	150...2000 A	
Tolerance	0,5%	1,5%	1 %	0,5%	0,7%	0,7%	0,5% + 70 mV	0,5% + 100 mA	
Phase	10°	< 4°	3°	1,5°	NC	NC	NC	0,5°	
Current		1...10 A	1...5 A		50...500 A	20...1000 A	10...50 A		
Tolerance		1%	1%		0,7%	0,7%	0,5% + 70 mV		
Phase		< 3°	1,7°		1°	1°	1,5°		
Current							50...2000 A		
Tolerance							0,5% +70 mA		
Phase							1°		

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CLAMPS	AMS14-FLEX	AMS54-FLEX	PS-FLEX/C-FLEX	E-FLEX 54
Use with:	AR6		AR5-L	CIR-e <sup>3</sup>
Scale	100 / 200 A	100/1000/10000 A	200/2000/20000 A	200/2000/20000 A
Frequency range	20 Hz...10kHz	20 Hz...10kHz	10 Hz...100kHz	20 Hz...10kHz
Operating voltage	600 Vac	600 Vac	600 Vac	600 Vac
Output voltage	1.28 Vac	1.28 Vac	2 Vac	2 Vac
Dielectric rigidity	<b>IEC 61010-2-32</b> 5,4 kV, 50 Hz	<b>IEC 61010-2-32</b> 5,4 kV, 50 Hz	<b>IEC 61010-2-32</b> 5,4 kV, 50 Hz	<b>IEC 61010-2-32</b> 5,4 kV, 50 Hz
Sensor length	14 cm	54 cm	45 / 80 / 120 cm	54 cm
Overvoltage category	CAT III - 600 V CAT IV - 300 V	CAT III - 600 V CAT IV - 300 V	CAT III - 600 V	CAT III - 600 V CAT IV - 300 V
Protection class	CAT II <b>IEC 61010-1</b>	CAT II <b>IEC 61010-1</b>	CAT II <b>IEC 61010-1</b>	CAT II <b>IEC 61010-1</b>
IP degree	IP 54 / IP 65 (opc.)	IP 54	IP 54	IP 54
Operating Temp.	-10...+60 °C	-10...+60 °C	-20...+60 °C	-10...+60 °C

### Measurement range

CLAMPS	AMS14-FLEX	AMS54-FLEX	C-FLEX	E-FLEX 54
Multi-scale	100/200 A	100/1000/10000 A	200/2000/20000 A	200/2000/20000 A
Measurement range	1...100 A	1...100 A	100...20000 A (scale de 20000 A)	2000...20000 A 1000...10000 A 100...20000 A (scale de 20000 A)
Measurement range	100...200 A	100...1000 A	10...2000 A (scale de 2000 A)	200...2000 A 100...1000 A 10...2000 A (scale de 2000 A)
Tolerance	± 1%	± 1%	± 1%	± 1%
Angle	< 1°	< 1°	< 1°	< 1°

### References

Type	Code	Description	Sensor length	Scales
Kit 4 AMS14-FLEX	<b>M82539</b>	4 clamps Kit AMS14-FLEX	14 cm	100/200 A
Kit 4 AMS54-FLEX	<b>M82533</b>	4 clamps Kit AMS54-FLEX	54 cm	100/1000/10000 A
Kit 3 AM54-FLEX	<b>M82532</b>	3 clamps Kit AM54-FLEX	54 cm	100/1000/10000 A
AM54-FLEX	<b>M82531</b>	Single clamp AM54-FLEX	54 cm	100/1000/10000 A

  

Type	Code	Description	Sensor length	Scales
Kit 3 C-FLEX A-45	<b>M81141</b>	3 clamps Kit C-FLEX A-45	45 cm	200 A / 2000 A / 20 kA
Kit 3 C-FLEX A-80	<b>M81142</b>	3 clamps Kit C-FLEX A-80	80 cm	200 A / 2000 A / 20 kA
Kit 3 C-FLEX A-120	<b>M81143</b>	3 clamps Kit C-FLEX A-120	120 cm	200 A / 2000 A / 20 kA

Includes clamps + amplifier + 9 V power supply

### Dimensions

	CPG-5	CPG-10	CPG-5	CPG-100	CPRG-500	CPRG-1000	CPRG-2000/200
Clamp length	210x97x45 mm	275x165x45 mm	135x51x30 mm	135x51x30 mm	210x97x45 mm	210x97x45 mm	340x132x53 mm
Weight	0,65 kg	1,15 kg	0,55 kg	0,55 kg	0,65 kg	0,65 kg	1,53 kg

  

	AMS14-FLEX	AMS54-FLEX	C-FLEX	E-FLEX
Clamp length	14 cm	54 cm	45 / 80 / 120 cm	54 cm
Weight	0,11 kg	0,25 kg	0,13 kg	0,25 kg