



### Description

- It measures the main parameters of 3- and 4-wire single-phase and three-phase electrical networks in 2 quadrants
- True root mean square measure (TRMS)
- Measurement of power quality supply parameters in voltage
- Energy meter (4 quadrants)
- 4 voltage channels and 3 current channels
- Configurable via a PC application
- Recording of parameters and quality events on SD card (up to 2 GB)
- Compatible with PowerVision software **EN 50160**
- Possibility of custom-made independent power supply allowing power supply ranges of 100...400 Vac and 70...315 Vdc.
- Compact size, allowing the unit to be installed in standard double insulation boxes
- Light and easy to transport
- Self-detection of clamps
- Indication of poor connection of voltages and current clamps
- Compatible with CIR-e web application for processing data via a web site.
- Magnetic attachment to facilitate fastening to an electric panel or metal supports.

### Applications

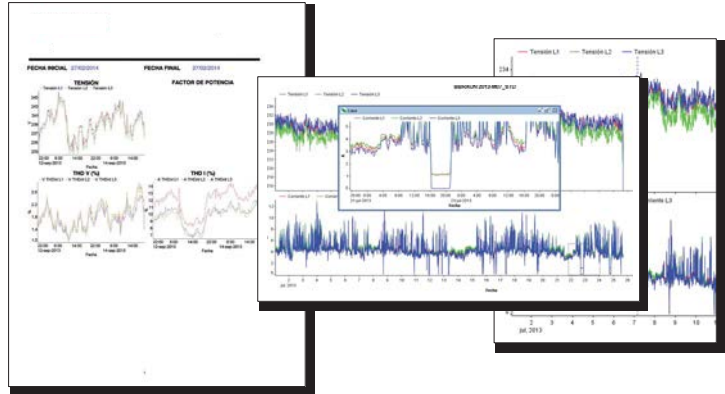
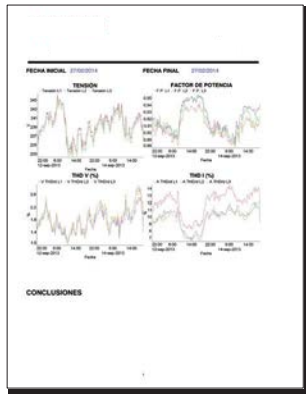
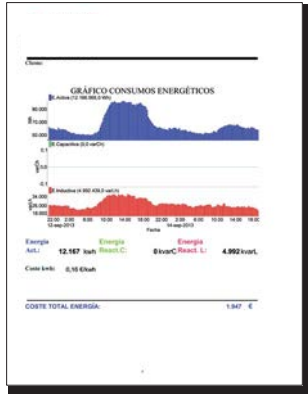
- The perfect unit for performing energy audits.
- Analysis of networks with power quality supply problems

### Technical features

<b>Power circuit</b>	Voltage	100...400 Vac, 70...315 Vdc	
	Frequency	50...60 Hz	
	Consumption	9 VA	
	$I_{min}$	0.01 x $I_n$	
<b>Measurement circuit</b>	Voltage (V P-N)	10...400 Vac $\pm$ 10%	
	Voltage (V P-P)	17...690 Vac $\pm$ 10%	
	Current (.../2 V)	2.5%...100% F.E. of clamp (within class)	
	Frequency	45...65 Hz	
<b>Minimum/maximum current, in accordance with the clamp and scale</b>			
<b>Clamp</b>	<b>Scale</b>	<b>Range</b>	
	L1 / sc1	200 A	5...200 A
<b>E-FLEX 20/54 cm</b>	L2 / sc2	2,000 A	50...2,000 A
	L3 / sc3	20,000 A	500...20,000 A
<b>CP-5</b>	5 A	0.05...5 A	
<b>CP-100</b>	100 A	1...100 A	
<b>Accuracy</b>	Voltage	0.5% F.E.	
	Current	1% F.E.	
	Power	2% F.E.	
	Energy	2% F.E.	
<b>Build features</b>	Operating temperature	10 °C...50 °C	
	Altitude	2,000 m	
	Humidity	95% RH without condensation	
	Storage temperature	-10 °C...65 °C	
	Protection degree	IP 53	
	Weight (only CIR-e <sup>+</sup> )	0.677 kg	
	Weight (with packaging)	0.733 kg	
<b>Standards</b>	ELECTRICAL SAFETY STANDARD: <b>IEC 60664-1, IEC 61010-1, IEC 62053-21, UL 94, VDE 110</b> ELECTROMAGNETIC EMISSIONS: <b>IEC 61000-3-2, IEC 61000-3-3, IEC 61000-6-4, EN 55011, EN 55022</b> ELECTROMAGNETIC IMMUNITY: <b>IEC 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-8, IEC 61000-6-1, IEC 61000-4-11, ENV 50141</b>		

# CIR-e+

## Portable power analyzer



### Parameters measured

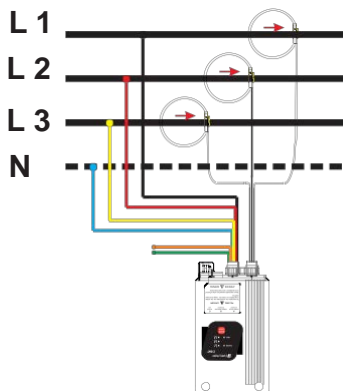
Parameter	Symbol (unit)	L1	L2	L3	LIII	Max / Min
Voltage	V	●	●	●	●	●
Current	A	●	●	●	●	●
Frequency	Hz	●	●	●	●	●
Active power	W	●	●	●	●	●
Reactive power (L and C)	varL, varC	●	●	●	●	●
Apparent power	V · A	●	●	●	●	●
Power factor	FP	●	●	●	●	●
Active energy	W·h	●	●	●	●	●
Reactive energy (L and C)	var·hL, var·hC	●	●	●	●	●
Apparent energy	VA·h	●	●	●	●	●
Harmonic decomposition U, I (50)		●	●	●	●	●
THD (%) U, I	% THD	●	●	●	●	●
MD (Max. demand) - Active power	W (MD)	●	●	●	●	●
MD (Max. demand) - Apparent power	VA (MD)	●	●	●	●	●
Fundamental U, I		●	●	●	●	●
WA flicker	WA	●	●	●	●	●
PST flicker	Pst	●	●	●	●	●
Imbalance	kd V	●	●	●	●	●
Asymmetry	Ka V	●	●	●	●	●
Overvoltage		●	●	●	●	●
Voltage gaps		●	●	●	●	●
Interruptions		●	●	●	●	●

### References

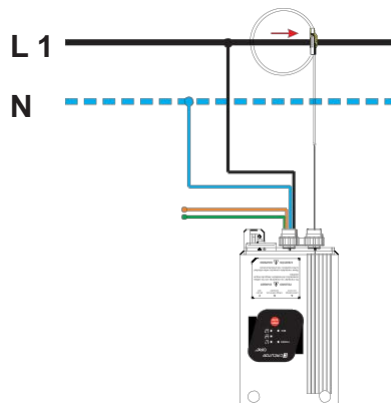
Kit type	Clamps	Code
CIR-e+	-	M85060
CIR-e+ / 3 CPG-100	3x 3x CP100	M85070
CIR-e+ / 3 EFLEX 54	3 x E-FLEX 54 cm	M85050

### Connections

Unbalanced three-phase system with neutral



Single-phase system



### Dimensions

