

# CIR-e<sup>3</sup>

Portable power analyzer



## Description

- Measure in 2 quadrants the main parameters for single-phase and three-phase electrical networks with 3 and 4 wires.
- True root mean square measure
- Energy meter.
- 4 voltage channels and 3 current channels.
- Configurable via PC application.
- Recording of parameters on SD card (up to 2 Gb).
- Compatible with Power Vision software.
- Possibility of custom-made independent power supply allowing power supply ranges of 100 to 400 Vac and 70 to 315 Vdc.
- Reduced size which allows installation in boxes with standard double insulation.
- Light
- Automatic detection of pins.
- Indication of poor connection of voltages and current pins.
- 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.

## Application

- Equipment for performing energy audits

## Features

Power circuit			
Voltage	100 to 400 Vac, 70 to 315 Vdc		
Frequency	50 to 60 Hz		
Consumption	9 VA		
Measurement circuit			
Voltage (f-N)	10 to 400 Vac (f-N) ± 10%		
Voltage f-f	17 to 690 Vac (f-f) ± 10%		
Current (.../2 V)	2.5 to 100% F.E. of clamp (within class)		
Frequency	45 to 65 Hz		
Minimum/maximum current, in accordance with the clamp and scale			
Clamp		Scale	Range
E-FLEX 20/54 cm	L1/sc1	200 A	5 to 200 A
	L2/sc2	2 000 A	50 to 2000 A
	L3/sc3	20 000 A	500 to 20,000 A
CP-5		5 A	0.05 to 5 A
CP-100		100 A	1 to 100 A
Accuracy			
Voltage	0,5 % F.E.		
Current	1 % F.E.		
Power	2 % F.E.		
Energy	2 % F.E.		
Build features			
Operating temperature	10 to 50°C		
Altitude	2 000 m		
Humidity	95% RH without condensation		
Storage temperature	-10 to 65°C		
Protection degree	IP 53		
Weight (only CIRe3)	0.677 kg		
Weight (with packaging)	0.733 kg		
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 61000-6-11, ENV 50141			

# CIR-e<sup>3</sup>

Portable power analyzer



## Parameters measured

Parameter	Symbol (unit)	L1	L2	L3	III	Max./Min.
Voltage	V	•	•	•	-	•
Current	A	•	•	•	-	•
Frequency	Hz	•	-	-	-	•
Active power	W	•	•	•	•	•
Reactive power factor (L and C)	varL, varC	•	•	•	•	•
Apparent power	V·A	•	•	•	•	•
Power factor	PF	•	•	•	•	•
Active energy	W·h	-	-	-	•	-
Reactive energy (L and C)	var·hL, var·hC	-	-	-	•	-
Apparent energy	VAh	-	-	-	•	-
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	•	•	•	•	•

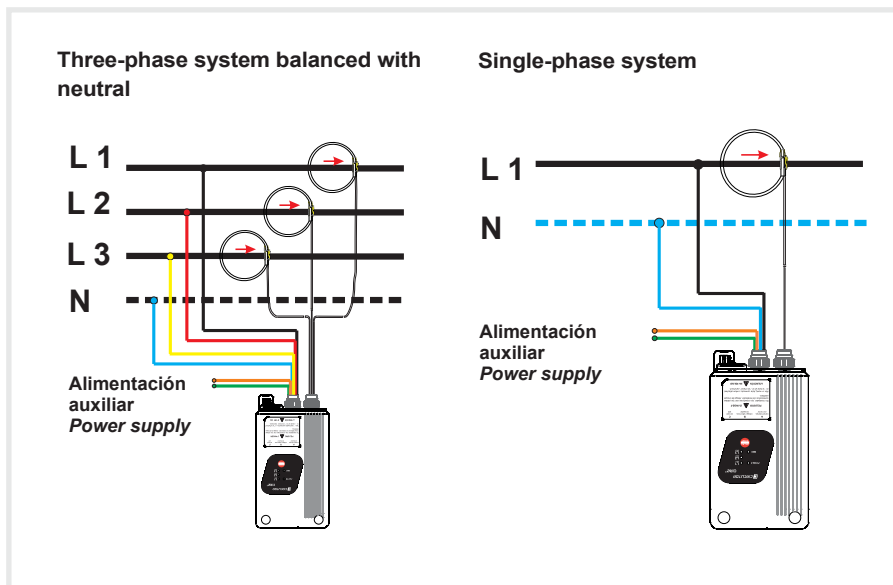


## References

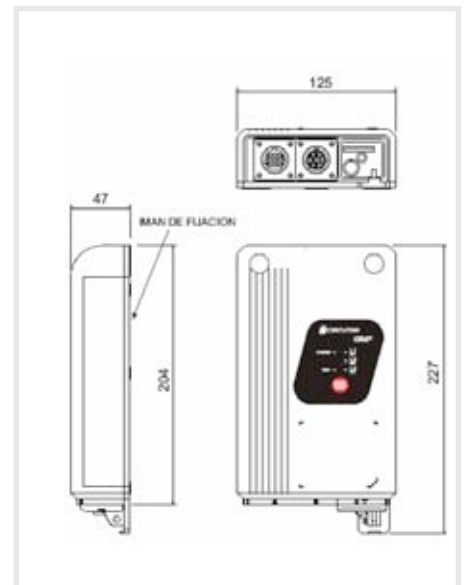
Analyzer	Pins	Type	Code
CIR-e <sup>3</sup>	-	CIR-e <sup>3</sup>	M85020
CIR-e <sup>3</sup>	E-FLEX 54	CIR-e <sup>3</sup> E-FLEX 54	M85000

**Accessories**  
See page M.8-45

## Connections



## Dimensions



# CIR-e<sup>Q</sup>

Portable power quality analyzer



## Description

- Standard measurement of voltage parameters.
- Parameters for live power quality.
- Configurable via PC application.
- Recording of electrical parameters and quality events in SD (up to 2 Gb).
- Light.
- Reduced size which allows installation in boxes with standard double insulation.
- Possibility of custom-made independent power supply allowing power supply ranges of 100 to 400 Vac and 70 to 315 Vdc.
- Compatible with CIR-e WEB application for processing data via a web site (STD files).
- Has a magnet to facilitate fastening on electric panel or metal supports.

## Application

- Device which has been designed to incorporate the most recent technologies offering the most advanced services on the market for measuring and recording quality events in electrical networks.

## Features

Power circuit	
Voltage	100 to 400 Vac, 70 to 315 Vdc
Frequency	50 to 60 Hz
Consumption 100/400 Vac	5.2/22 VA
Consumption 70/315 Vdc	3 W
Measurement circuit	
Voltage (f-N)	10 to 400 Vac (f-N)
Voltage f-f	17 to 520 Vac (f-f)
Frequency	45 to 65 Hz
Accuracy	0.5 % F.E.
Build features	
Operating temperature	10 to 50°C
Altitude	2 000 m
Humidity	95% RH without condensation
Storage temperature	-10 to 65°C
Protection degree	IP 53
Weight (only CIR-e <sup>Q</sup> )	0.677 kg
Weight (with packaging)	0.713 kg
Standards	
<b>ELECTRICAL SAFETY STANDARD:</b> IEC 60664-1, IEC 61010-1, 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	

# CIR-e<sup>Q</sup>

Analizador portátil de calidad de suministro



## Parameters measured

Parameter	Symbol (unit)	L1	L2	L3	III	Max./Min.
Phase-neutral voltage	V	Yes	Yes	Yes		Yes
Phase-phase voltage	V	Yes	Yes	Yes		Yes
Frequency	Hz	Yes				Yes
THD V		Yes	Yes	Yes		Yes
Fundamental V		Yes	Yes	Yes		
Harmonic decomposition V (50°)	Har	Yes	Yes	Yes		
Quality percentage		Yes	Yes	Yes		
Crest factor		Yes	Yes	Yes		
WA flicker	WA	Yes	Yes	Yes		
PST flicker	Pst	Yes	Yes	Yes		Yes
Imbalance	kd V				Yes	Yes
Asymmetry	Ka V				Yes	Yes
<b>Quality</b>						
Overtoltage		Yes	Yes	Yes		
Voltage gaps		Yes	Yes	Yes		
Interruptions		Yes	Yes	Yes		

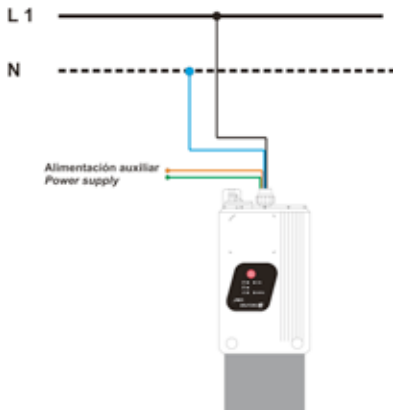


## References

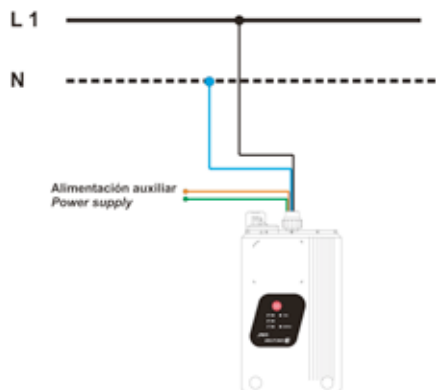
Analyzer	Code
CIR-e <sup>Q</sup>	M85010
<b>Accessories</b>	
See page M.8-45	

## Conexiones

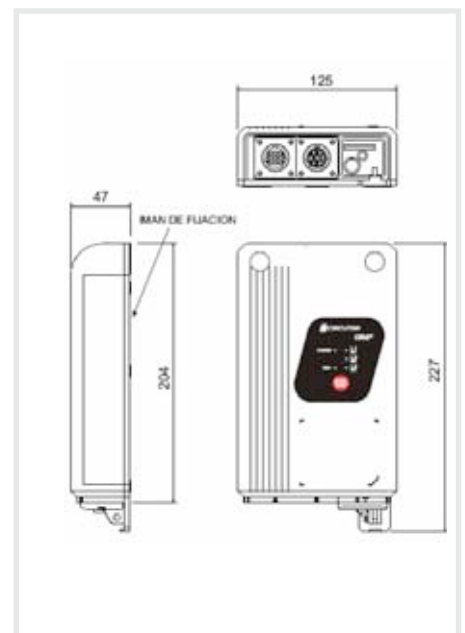
### Unbalanced three-phase system with neutral



### Balanced single-phase system



## Dimensions



# CIR-e<sup>3</sup> / CIR-e<sup>Q</sup> accessories

## Kit with 3 E-FLEX clamps

### Description

- Kit with 3 E-FLEX 54 200/2.00/20.000 A clamps for CIR-e<sup>3</sup>

Code M86010



## Kit with 3 CP-5 clamps

### Description

- Kit with 3 CP-5 clamps for CIR-e<sup>3</sup>

Code M86011



## Kit with 3 CP-100 clamps

### Description

- Kit with 3 CP-100 clamps for CIR-e<sup>3</sup>

Code M86012



## Kit with 6 voltage cables

### Description

- Kit with 6 voltage cables for CIR-e<sup>3</sup> or CIR-e<sup>Q</sup>

Code M86020



## CIR-e<sup>3</sup> or CIR-e<sup>Q</sup> case

### Description

- Transport case for CIR-e<sup>3</sup> or CIR-e<sup>Q</sup>

Code M89931

