

CIR-e³

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
- Built-in 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			
ELECTRICAL SAFETY STANDARD: IEC 60664-1, IEC 61010-1, IEC 62053-21, UL 94, VDE 110			
ELECTROMAGNETIC EMISSIONS: IEC 61000-3-2, IEC 61000-3-3, IEC 61000-6-4, EN 55011, EN 55022			
ELECTROMAGNETIC IMMUNITY: 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-e³

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 <i>U, I</i> (50)		•	•	•	-	-
THD (%) <i>U, I</i>	% THD	•	•	•	-	-
MD (Max demand) - Active power	W (MD)	-	-	-	•	•
MD (Max demand) - Apparent power	VA (MD)	-	-	-	•	•
Fundamental <i>U, I</i>		•	•	•	-	-
WA flicker	WA	•	•	•	-	-
PST flicker	Pst	•	•	•	•	•



References

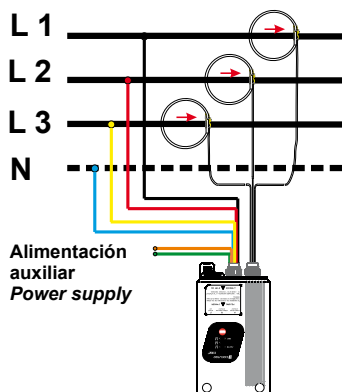
Analyzer	Pins	Type	Code
CIR-e ³	-	CIR-e ³	M85020
CIR-e ³	3 x 3 x CP-100	CIR-e ³ / 3 CP-100	M85030
CIR-e ³	E-FLEX 54	CIR-e ³ E-FLEX 54	M85000

Accessories

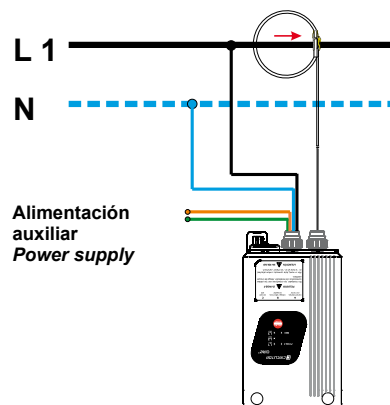
See page M.8-45

Connections

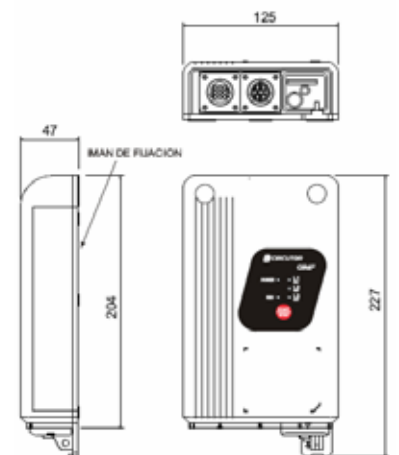
Three-phase system balanced with neutral



Single-phase system



Dimensions



CIR-e^Q

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 ^Q)	0.677 kg
Weight (with packaging)	0.713 kg
Standards	
ELECTRICAL SAFETY STANDARD: IEC 60664-1, IEC 61010-1, UL 94, VDE 110	
ELECTROMAGNETIC EMISSIONS: IEC 61000-3-2, IEC 61000-3-3, IEC 61000-6-4, EN 55011, EN 55022	
ELECTROMAGNETIC IMMUNITY: 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-e³

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
Quality						
Oversvoltage		Yes	Yes	Yes		
Voltage gaps		Yes	Yes	Yes		
Interruptions		Yes	Yes	Yes		

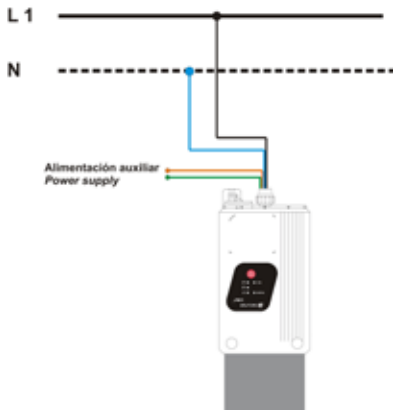


References

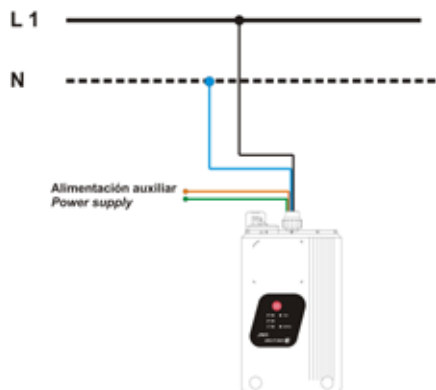
Analyzer	Code
CIR-e ³	M85010
Accessories	
See page M.8-45	

Conexiones

Unbalanced three-phase system with neutral



Balanced single-phase system



Dimensions

