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 50ºC	
Altitude		2 000 m	
Humidity		95% RH without condensation	
Storage temperature		-10 to 65ºC	
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 61000-4-11, ENV 50141			

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Parameters measured

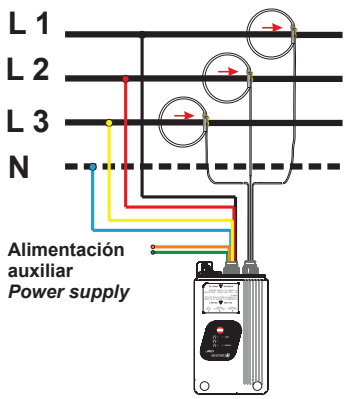
Parameter	Symbol (unit)	L1	L2	L3	III	Max./ Min.
Voltage	V	•	•	•	-	•
Current	A	•	•	•	-	•
Frequency	Hz	•	-	-	-	•
Active power	W	•	•	•	•	•
Reactive power factor (L and C)	varL, varC	•	•	•	•	•
Apparent power	V·A	•	•	•	•	•
Power factor	PF	•	•	•	•	•
Active energy	W · h	-	-	-	•	-
Reactive energy (L and C)	var·hL,var·hC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

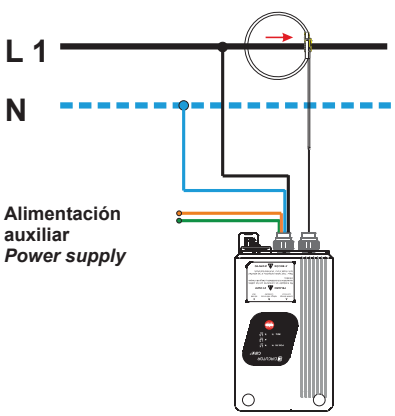
Analyzer	Pins	Type	Code
CIR-e³	-	**CIR-e³**	**M85020**
CIR-e³	3 x 3 x CP-100	**CIR-e³ / 3 CP-100**	**M85030**
CIR-e³	E-FLEX 54	**CIR-e³ E-FLEX 54**	**M85000**
Accessories			
See page M.8-45			

Connections

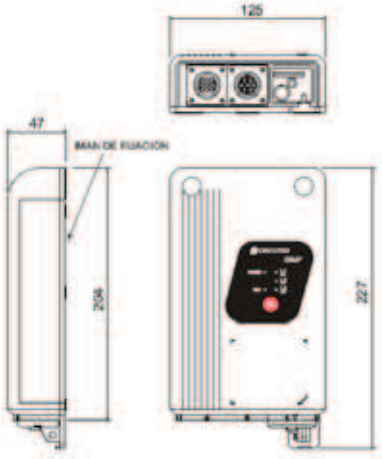
Three-phase system balanced with neutral



Single-phase system



Dimensions



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