Measurement and Control

CVM-B100
CVM-B150

Much more than a power analyzer

The new generation of CVMs

CIRCUTOR

Technology for energy efficiency

Technologically advanced

- **CVM-B** can be integrated with remote management systems (XML, WEB, SNMP)
- Customisable display of parameters, in accordance with configurable ratios
- Elegant design, with a colour VGA graphics display and tactile buttons, as well as a high front panel protection (IP65 * with sealing joint).

and...

- Displays the electrical consumption by tariff in your country's currency, according to three tariffs or the source of consumed electrical energy.
- Calculates the indicator of emitted or avoided $kgCO^2$ for each tariff.

“Accurate, innovative and elegant measurement”

CVM-B100 and CVM-B150 are panel mounted equipment, with the following dimensions: 96x96 mm and 144x144 mm, respectively. The user can enjoy a new concept of power analyzers based on the new SCV interface (slide, choose & view) with 3.5" and 5.6" colour VGA screens, which have been fully and exclusively designed by CIRCUTOR. CVM-B series offers top-performance features and their measurement engine allows the user to analyse countless electrical parameters, as well as the harmonic breakdown in terms of voltage and current, up to the 50th order harmonic.

Thanks to the CVM-B's expansion possibilities, these equipment are more versatile, and they can even display data gathered from other systems on their interface. They offer endless possibilities as measurement terminals during on-site electric energy management and monitoring processes.

Versatile

expandable, accurate, intuitive and customizable

The NEW and RENEWED image of the CVM analyzer range is one of the keys to its evolution, offering a discreet, elegant and industrial design. All details of the front panel have been carefully designed, offering the best performance features in this segment to the customer.

Integral parameter measurement with analogue display

V, A, kW, kW·h, hours, kvar, cos φ, kgCO$_2$, Costs

Quick display on the screen with the SCV interface

4-quadrant measurement

Neutral current measurement

Modular, expandable

New redesigned interface

- Screen with SCV interface (Slide, Choose & View)
- Backlit touch-screen (capacitive)
- High-resolution colour display
- Red high bright alarm LED indicator

- **CVM-B** analyzers have a modern design and they feature **many different options, thanks to their expansion modules**.

- **CVM-B** can be expanded and they are prepared for future evolutions, i.e., they can **adapt to new technologies**.

Parameters and variables

- **kW·h, hours, Cost, kgCO_2**

  Energy, Hours, Cost and Emissions

- **T1 / T2 / T3**

  3 Tariffs (digital input selection) or communications

- **V, A, W, VA, var, varL, varC, Demand, PF, cosφ**
  Instantaneous parameters, three-phase and by phase.
  Harmonics up to the 50th order

And more....

- Expandable high-end CVM range
- Indirect power analyzer with 4-quadrant measurement
- Compact enclosure: 96x96 and 144x144 mm
- Touch keyboard
- IP65 front panel protection
- VGA Colour Screen
- SCV (Slide, Choose & View) Screen interface
- 4 digital outputs
- Universal power supply 85...265 Vac / 95...300 Vdc
- 5 Voltage inputs (3 phases + Neutral + Earth)
- 300 Vac P-N / 520 Vac P-P
- 4 channels current inputs (/5 or /1, /250mA)
- 0.2 class in voltage and current
- 0.5 class in power
- 0.5S class in Energy

Technical features

Power circuit	100...230 V_{ac} +/-15% / 100...260 V_{dc} +/-15%	
	AC Frequency	45...65 Hz
	AC Consumption	min. 4 VA / max. VA (25 VA with all expansion options)
	DC Consumption	min. 4 VA / max. VA (25 W with all expansion options)
Voltage measurement circuit	Voltage range	12.7 V...400/600 V p-n / p-p
	Frequency	40 / 70 Hz (360...440 Hz)
	Measurement margin	2.54 %...120% of the Un for Un=500Vac (p-n)
	Admissible overvoltage	750 Vac
	Maximum consumption (limited current)	< 0.1 VA
Current measurement circuit	Current measurement channels	4 (3 phases +1 Neutral)
	Input current	.../5A or .../1A .../250mA (MC-ITF)
	Minimum current for class	250 mA
	Start-up current	10 mA
	Measurement margin	0.010 .. 8.48 A
	Allowable overload	10A permanent, 100 A t<1s
	Consumption	< 0.15 VA
Maximum transformation ratios	Primary V : 6,000,000 (phase-neutral) Primary A : 50,000 Product of Primary V x Primary A<300,000,000,000	
Maximum meter value (total)	Yes (Primary A / Secondary A) <1000 (2 GW)	
	Yes (Primary A / Secondary A) >=1000 (2 TW)	
Accuracy class	Class 0.2 V, A / Class 0.5 +/- 1 digit for power / class 0.5S for active energy / class 2 for reactive energy	
Display of harmonics, up to the 50th order harmonic		
Standards	IEC 62053-22, ANSI (class 0.5S), IEC 62053-23 ANSI C12.1 (class 2), IEC 61010, IEC 61000, UNE-EN 55022 Measurement in accordance with MID, design in accordance with UL, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-11, IEC 61000-4-4, IEC 61000-4-5	

References

96x96

Current measuring secondaries	Type	Code
/5 , /1A or 250mA	**CVM-B100-ITF-RS485-ICT2**	M56011

144x144

Current measuring secondaries	Type	Code
/5 , /1A or 250mA	**CVM-B150-ITF-RS485-ICT2**	M56111

www.circutor.com
CIRCUTOR, SA - Vial Sant Jordi, s/n
08232 Viladecavalls (Barcelona) Spain
Tel. (+34) **93 745 29 00** - Fax: (+34) **93 745 29 14**
central@circutor.es

@circutor youtube.com/circutoroficial circutor

Designed by the Image and Communications Dept. - **CIRCUTOR**, SA.

Code: C2M5F3-01