

# CIRWATT B 101

# CIRWATT B 102

Single-phase energy meter

## Description

**CIRWATT B 101-102** are single phase residential meters with class B (class 1) in active energy and class 2 in reactive energy. It has 4 tariffs and a flexible configuration. An advanced design offers high features and versatility to fulfill requirements in domestic applications.

These meters have memory to record load profile for 400 days, 12 billing closures and moreover tamper registers and power quality information.

As an option it has a backlight display to help in reading energy consumptions or any other information showed if there is no enough light.



## Application

Using an RS-485 communication port it is possible to connect up to 32 meters in the same bus and download data remotely using a GSM/GPRS modem.

These meters have many options to detect tampering or any unauthorized access to the meter such as: magnetic field detection, reverse current detection, terminal cover removed, neutral current measurement.

Using **CIRWATT B 101-102** pulse output, user can add a **CIRCUTOR** impulse concentrator **LM**, which allows to centralize energy consumptions and send all data remotely to an energy management software **Power Studio**.

## Features

Power supply	
Nominal voltage	127 V or 230 V
Tolerance	80%...115% $U_n$
Consumption	<2 W; 10 V-A
Frequency	50 Hz or 60 Hz
Voltage measurement	
Connection	Asymmetrical or Symmetrical
Reference voltage	127 V or 230 V
Frequency	50 Hz or 60 Hz
Current measurement	
Nominal reference current ( $I_{ref}$ )	5 A
Maximum current ( $I_{max}$ )	65 A
Minimal current ( $I_{min}$ )	250 mA
Starting current ( $I_{st}$ )	20 mA
Accuracy class	
Active energy	Class 1 - IEC 62053-21 / Class B - EN 50470
Reactive energy	Class 2 - IEC 62053-21

Battery	
Type	Lithium
Duration	> 20 years @ 30 °C
Environmental influence	
Operating temperature range	40 °C ... +70 °C
Storage temperature	-40 °C ... +85 °C
Humidity	95% max.
Isolation	
Insulation voltage	4 kV a 50 Hz durante un minuto
Impulse voltage 1.2/50 us - IEC 62052-11	6 kV
Protection degree (IEC 62052-11)	II
Display	
Type	LCD
Number of data digits	Up to 7
Read without supply	Yes
Backlight	Yes (optional)

Features

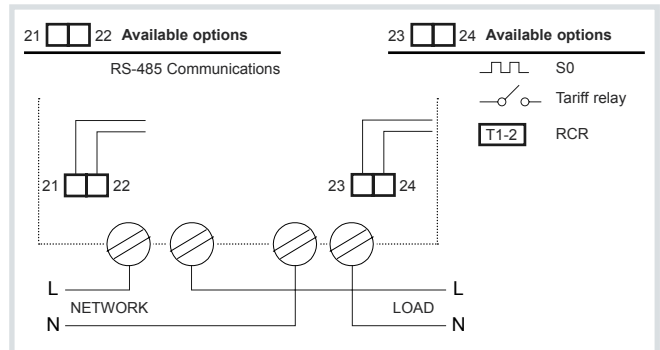
Optical port	
Type	Serial, bi-direccional
Protocol	IEC 62056-21 Mode C
Communication port RS-485 (in model 102)	
Type	Serial, bi-direccional
Protocol	IEC 62056-21 Mode C / MODBUS
Construction features	
IP Degree (IEC 60529)	IP 53
External dimmensions	DIN 43857
Enclosing features	DIN 43859

Data configuration	
Memory type	FIFO
Tariffs	Up to 4
Billing clousures	15
Load profile	Yes (optional)
Registers for load profile	9600
Anti-tampering features	
Terminal cover detection	Yes (micro-switch)
Reverse wiring detection	Yes
Current measurement	Yes (optional)
Manipulation register	Yes, up to 200 registers

Features

	CIRWATT B 101	CIRWATT B 102
Communication port RS-485		•
Pulse output (IEC 62053-31)	•	•
Input for tariff control (Ripple control)	•	•
Relay output for tariff indication	•	•
Electromagnetic field detection	•	•

Connections



Dimensions

