



Circutor CVM-C4 Multi Function Panel Mount Multimeter User Guide

[Home](#) » [Circutor](#) » Circutor CVM-C4 Multi Function Panel Mount Multimeter User Guide 

Circutor



**CVM-C4
POWER ANALYZER**

Contents

- [1 CVM-C4 Multi Function Panel Mount Multimeter](#)
- [2 DESCRIPTION](#)
- [3 INSTALLATION](#)
- [4 CONNECTION](#)
- [5 Technical features](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)

CVM-C4 Multi Function Panel Mount Multimeter

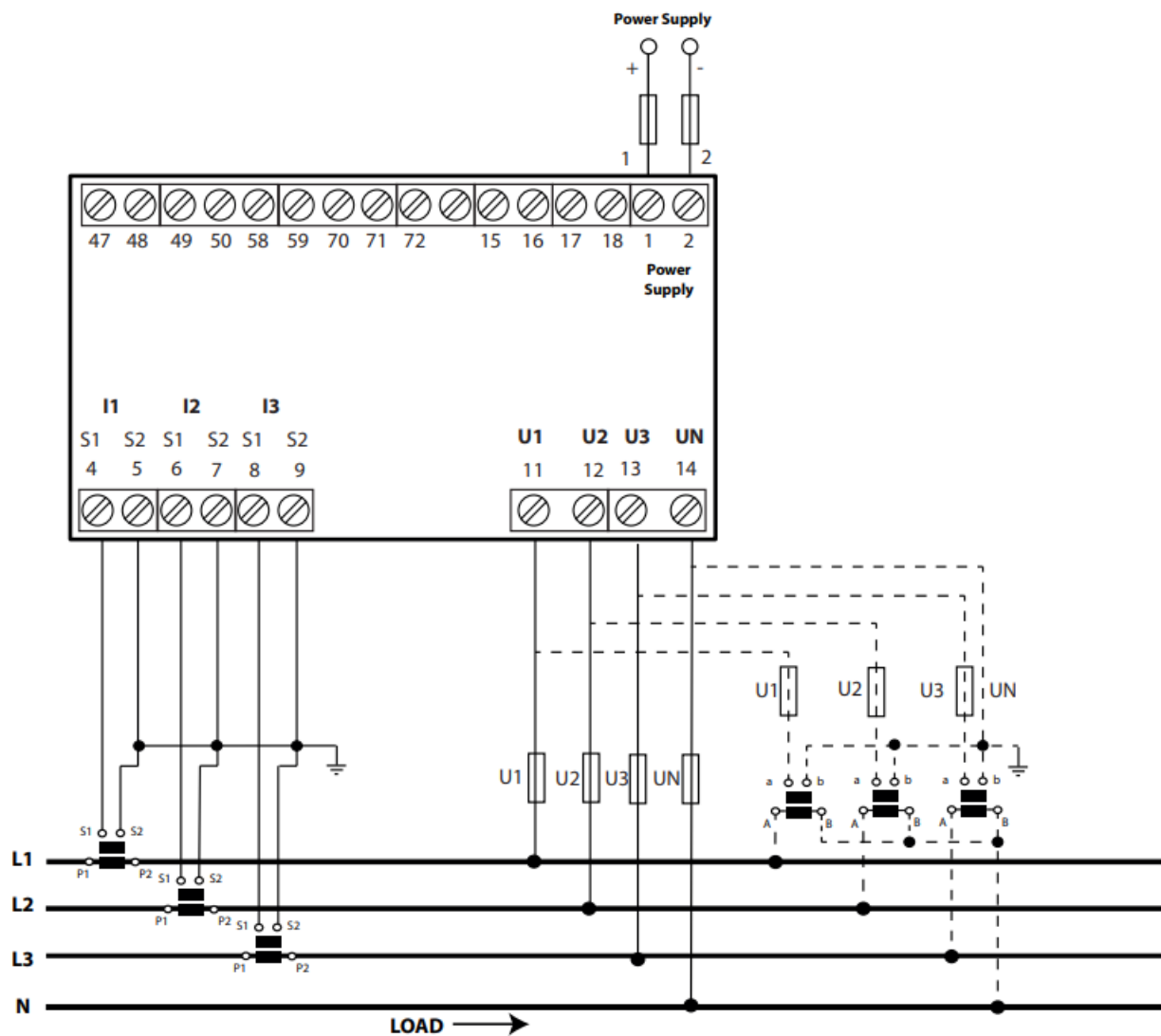


| Terminal connections designations | |
|-----------------------------------|--------------------------------|
| 1 | L/+, Power supply |
| 2 | N/-, Power supply |
| 4 | I1 S1, Current input L1 |
| 5 | I1 S2, Current input L1 |
| 6 | I2 S1, Current input L2 |
| 7 | I2 S2, Current input L2 |
| 8 | I3 S1, Current input L3 |
| 9 | I3 S2, Current input L3 |
| 11 | U1, Voltage input L1 |

| | |
|----|---|
| 12 | U2 , Voltage input L2 |
| 13 | U3 , Voltage input L3 |
| 14 | UN / U2 , Voltage input N/L2 |
| 15 | RO1 , Relay output 1 (Common) |
| 16 | Relay output 1 (NO) / Relay output 2 (Common) |
| 17 | RO2 , Relay output 2 (NO) |
| 47 | + , Impulse output |
| 48 | - , Impulse output |
| 49 | + , Impulse output |
| 50 | - , Impulse output |
| 58 | A , RS-485 |
| 59 | B , RS-485 |
| 70 | C , Common digital inputs |
| 71 | DI1 , Digital input 1 |
| 72 | DI2 , Digital input 2 |

Connections

Measuring three-phase networks with a 4-wire connection.



Measuring three-phase networks with a 3-wire connection.

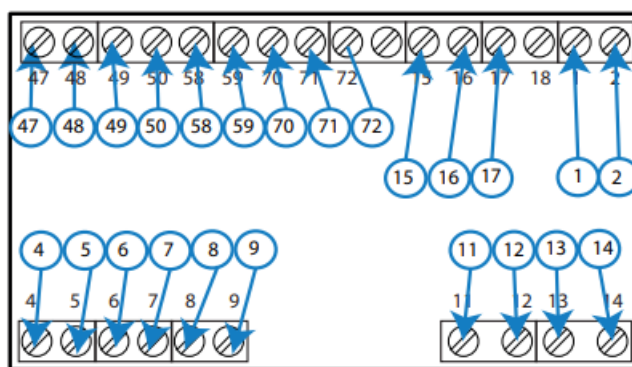
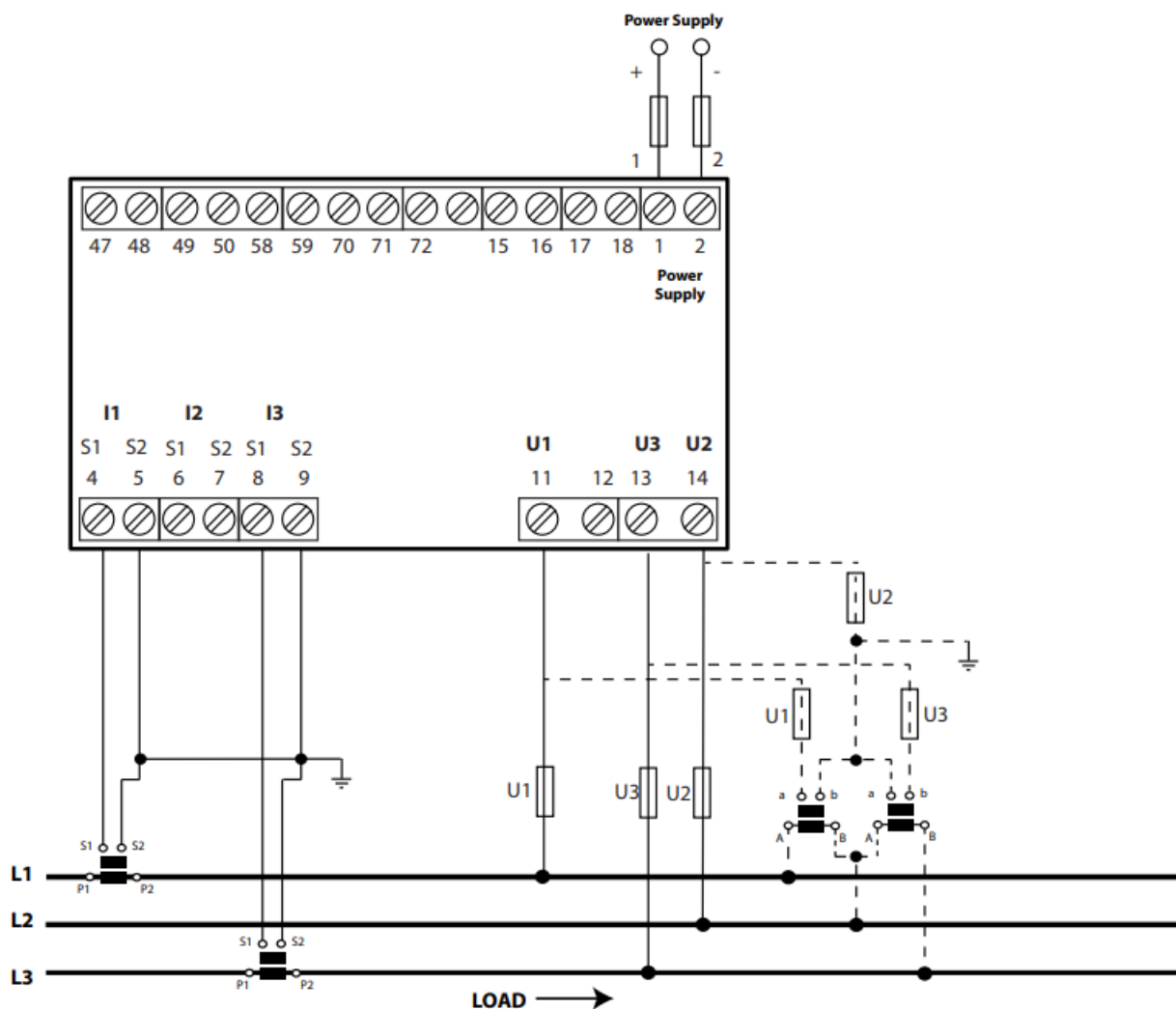


Figure 1

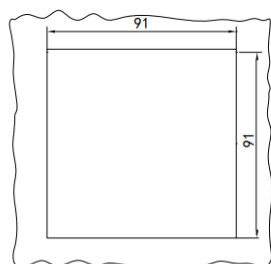


Figure 2

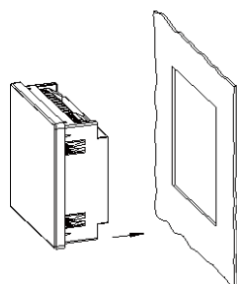
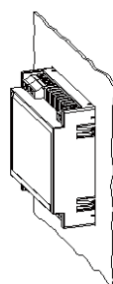
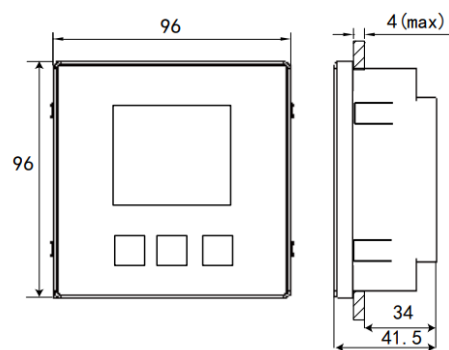


Figure 3



Dimensions



IMPORTANT!

The device must be disconnected from its power supply sources (power supply and measurement) before undertaking any installation, repair or handling operations on the device's connections. Contact the after-sales service if you suspect that there is an operational fault in the device. The device has been designed for easy replacement in case of malfunction.

The manufacturer of the device is not responsible for any damage resulting from failure by the user or installer to heed the warnings and/or recommendations set out in this manual, nor for damage resulting from the use of non-original products or accessories or those made by other manufacturers.

DESCRIPTION

The CVM-C4 is a device that measures, calculates and displays the main electrical parameters in single-phase and three-phase mains.

The device has RS-485 communications, relay outputs, impulse outputs and digital inputs.

Current measurement is indirectly carried out by /5A or /1A transformers.

INSTALLATION

The device should be installed inside an electric panel or enclosure, and panel-mounted.

IMPORTANT!

Take into account that when the device is connected, the terminals may be hazardous to the touch, and opening the covers or removing elements may provide access to parts that are dangerous to the touch. Do not use the device until it is fully installed.

To install it, take the following steps:

1. Make a cut in the panel, according to the dimensions in Figure 1.
2. From outside, insert the device into the panel cut-out (Figure 2).
3. Fully insert the device and fasten it securely by using the spring (Figure 3)

CONNECTION

The device should be connected to a power circuit protected by a fuse with a maximum rated current of 0.25 A.

If the voltage to be measured is higher than the rated input voltage, a voltage transformer must be connected to the device.

If more than one device is connected to the current transformer, they must be connected in series.

Before disconnecting the current measurement connection cables, be sure to disconnect the transformer's primary cables and bridge the secondary.



The device can operate in three-wire, three-phase mode or four-wire, three-phase mode, the user selecting the corresponding connection mode according to the installation. An incorrect type of connection or an error in phase sequence may cause measurement errors.

Technical features

| | |
|------------------|----------------|
| AC Power supply" | |
| Rated voltage | 80 ... 270 V – |
| Frequency | 50/60 Hz |

| | | |
|---|--|---------------|
| Consumption | 6 ... 18 VA | |
| Installation category | CAT III 300V | |
| DC Power supply" | | |
| Rated voltage | 80 270 V ...=_ | 18 ... 36 V |
| Consumption | 1.5 1.8 W | 1.8 ... 2.2 W |
| Installation category | CAT III 300V | |
| Voltage measurement circuit | | |
| Rated voltage (Un) | 100 277 V, vc, – t 8% | |
| Frequency measurement margin | 45 ... 65 Hz | |
| Overload | 1.2Un continuo / continuous, 2Un instantaneo / instantaneous (1min) | |
| Consumption | < 0.2 VA (por fase / per phase) | |
| Impedance | > 1.7 MO | |
| Installation category | CAT III 300V | |
| Current measurement circuit | | |
| Rated current (In) | 1 A/ 5 A – | |
| Frequency measurement margin | 45 ... 65 Hz | |
| Overload | 1.2In continuo / continuous, 10In ins tantaneo / instantaneous (55) | |
| Consumption | < 0.2 VA (por fase / per phase) | |
| Impedance | < 20 mO | |
| Installation category | CAT III 300V | |
| Accu racy | | |
| Voltage measurement | 0.2 % t 1 digito / digit | |
| Current measurement | 0.2 % t 1 digito / digit | |
| Active and Reactive Power mea surement | 0.5 % t 2 digitos / digits | |
| Relays outputs | | |
| Quantity | 2 | |
| Contact capacity (resistive) | CA/AC: 5A / 250V – , CC/DC: 5A / 30V -= | |




| | |
|---------------------------------|--|
| Max. voltage open contacts | 277V – / 30V _..= |
| Maximum current | 5 A |
| Maximum switching power | 1385 VA/ 150 W |
| Electrical life (250V -/ 5A) | 11105 |
| Digital inputs | |
| Quantity | 2 |
| Type | Contacto libre de potencial / Potential free contact |
| Insulation | 3.5 kV rms |
| Maximum short-circuit current | 4 mA |
| Maximum voltage in open circuit | 30 V |
| Impulse output | |
| Type | Pulso pasivo / Passive pulse |
| Maximum voltage | 27 V |
| Maximum current | 27 mA |
| Maximum frequency | 10 Hz |
| Minimum pulse width | 80 mA |
| RS-485 communications | |
| Communications protocol | Mod bus RTU |
| Baud rate | 2400- 4800 – 9600 -19200 bps |
| Data bits | 8 |
| Stop bits | 1- 2 |
| Parity | sin, par, impar /without, even, odd |
| User interface | |
| Display | LCD |
| Keyboard | 3 teclas / keys |
| Environmental features | |
| Operating temperature | -10°C... +60°C |
| Storage temperature | -20°C ... +70°C |
| Relative humidity | 5 ... 95% |

| | | |
|---|---|--|
| Maximum altitude | 2000 m | |
| Protection degree | Frontal / Front: IP54, Posterior/ Rear case: IP20 | |
| Pollution degree | | |
| Mechanical features | | |
| filthening II |  |  |
| 1,2, 4 ... 9,11 ...18, 47 ...50, 58, 59,70 ... 72 | 2.5 mm? | 0.5 Nm Plano / Flat (SZS 0.6×3.5) |
| Dimensions | 96 x 96 x 41.5 mm | |
| Weight | 265 g. | |
| Enclosure | pc + abs | |

Standers

IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61010-1

Depending on model:

| Key | |
|---|--|
|  | Previous screen |
|  | Next screen |
|  | Long keystroke (>3s): Enter in configuration menu |

Note: Device images are for illustrative purposes only and may differ from the actual device.

Technical service

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M267A01-60-21B

Documents / Resources



[Circutor CVM-C4 Multi Function Panel Mount Multimeter](#) [pdf] User Guide
CVM-C4, Multi Function Panel Mount Multimeter, Panel Mount Multimeter, Multi Function Mount Multimeter, Mount Multimeter, Multimeter

References

- [🔍 Productos y soluciones integrales para la eficiencia energética eléctrica](#)
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