

# CVM MINI

Three-phase power analyzer (balanced and unbalanced) for DIN rail mounting



## Description

Three-phase power analyzer(balanced and unbalanced) for its assembly on DIN rails with very small dimensions, measuring in 4 quadrants.

Other features include:

- Current measuring .../5 or .../1 A
- DIN rail format with only 3 modules
- Assembly on the 72 x 72 mm panel with frontal adaptor (cod. M5ZZF1)
- RS-485 Communications (Modbus-RTU)
- Two transistor outputs
- ITF technology: galvanic insulation protection inputs inputs, depending on the type
- Selection of parameters displayed
- Default page selection
- Universal power supply for the Plus type
- Sealable

## Features

<b>Power supply circuit</b>	230 V ac (-15...+10%) Plus: 85...265 V ac / 95...300 V dc
Consumption	3 V·A
Frequency	45...65 Hz
<b>Metering circuit</b>	
Nominal voltage	300 V ac (ph-n) / 520 Vac (ph-ph)
Frequency	40.0-65 Hz
Voltage consumption of the circuit	0.7 V·A
Current consumption of the circuit	ITF 0.9 / Shunt 0.75 V·A
Transformadores	.../5 A ó.../1 A / 250 mA
Minimum direct current	110 mA
Maximum direct current	6 A
Maximum current con transformador	$I_n/5$ 1,2 $I_n$
<b>Class/Accuracy</b>	
Voltage	0.5 % ± 1 digit
Current	0.5 % ± 1 digit
Power rating	1 % ± 1 digit
<b>Ambient conditions</b>	
Operating temperature	-10 ... +50 °C
Relative humidity (non-condensing)	5 ... 95%
Altitud	2000 m
<b>Output transistor</b>	Optoisolated (collector open) NPN
Maximum switching voltage	24 Vdc
Maximum switching current	50 mA
Maximum impulse frequency	5 impulse / s
Duration of the impulse	100 ms / 100 ms
<b>Build features</b>	
Type of box	VO self-extinguishing plastic
Degree of protection	Embedded equipment: IP 41 Terminals: IP 20
Dimensions	52.5 x 85 x 67.9 mm (3 modules)
Weight	210 g
<b>Safety</b>	
Designed for CAT III 300/520 Vac installations, in accordance with EN 61010.	
Double-insulated electric shock protection, class II	
<b>Standards</b>	
IEC 664, VDE 0110, UL 94, IEC 801, IEC 348, IEC 571-1, EN 61000-6-3, EN 61000-6-1, EN 61010-1	



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### References

Quadrants	Class (V, A)	Communications	Protocol	Digital output	Harmonics	Type	Code
4	0,5	-	-	-	-	CVM-MINI	M52000
4	0,5	-	-	-	-	CVM-MINI-ITF	M52010
4	0,5	RS-485	MODBUS / RTU	2	-	CVM-MINI-ITF-RS-485-C2	M52021
4	0,5	RS-485	MODBUS / RTU	2	V and I (15°)	CVM-MINI-ITF-HAR-RS-485-C2	M52031
4	0,5	RJ-45	MODBUS/TPC	2	-	CVM-MINI-ITF-ETHERNET-C2	M520J1
4	0,5	-	BACnet	2	-	CVM-MINI-ITF-BACnet-C2	M520F1
4	0,5	LonTalk ISO/IEC 14908 ANSI/EIA 7091	LonWorks	2	-	CVM-MINI-ITFLonWorks-C2	M52091

### CVM MINI-MC, Efficient measuring Systems

4	0,5	-	-	Si	-	CVM MINI-MC-ITF	M52070
4	0,5	RS-485	1	Si	-	CVM MINI-MC-ITF-RS-485-C2	M52081

### MC1 single-phase and MC3 three-phase Efficient Transformers, MC Series

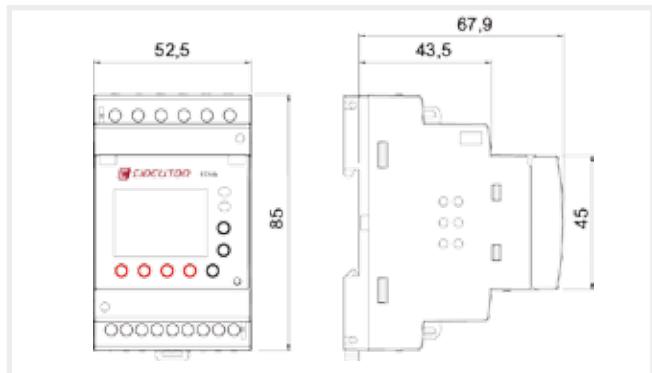
Max. A	Ranges	Class 0,5 Power	Measurement	Internal diameter	Type	Code
63	-	0,1 VA	3 phase	7,1 mm	MC3-63	M73121
125	-	0,1 VA	3 phase	14,6 mm	MC3-125	M73122
250	150/200/250	0,25 VA	1 phase	20 mm	MC1-20-150/200/250	M73113
250	-	0,25 VA	1 phase	26 mm	MC3-250	M73123
500	250/400/500	0,25 VA	1 phase	30 mm	MC1-30-250/400/500	M73114
1500	500/1000/1500	0,25 VA	1 phase	55 mm	MC1-55-500/1000/1500	M73115

### Coding table

M	5	X	X	X	0	0	X
↑ Internal Code							
Code							
Power Supply Voltage (PSV)		Standard 230 Vac		0			
		85...285 Vac		C			
		95...300 Vdc					
		20...120 V c.c.		5*			

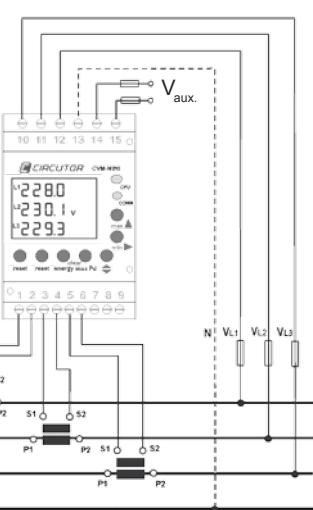
\* MC transformer's connection

### Dimensions

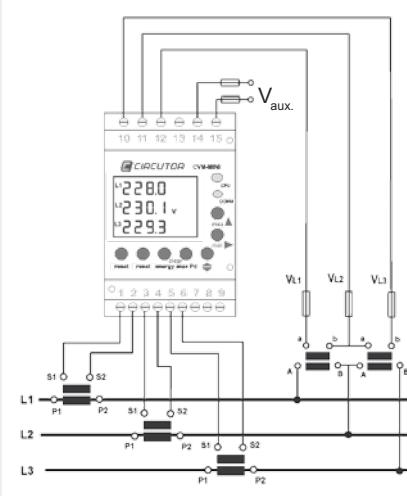


### Connections

#### CVM MINI, 3 or 4 wires (low voltage)



#### CVM MINI, 3 wires (2 Voltage transformers and 3 Current transformers)



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