

# CVM BD

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



## Description

Three-phase power analyzer (balanced and unbalanced) assembled on DIN rail, measuring in 4 quadrants (consumption and generation).

Other features include:

- Current measuring .../5 or .../1 A
- Measuring of active (kW·h) and reactive (kvarh) energy consumed and generated, both capacitive and inductive. (4 quadrants)
- 8 module DIN Rail format
- Adjustable dual kW/MW scale
- Modbus -RTU Communications protocol
- Optional second RS-485 port to connect I/O peripherals, depending on the type.
- ITF Technology: galvanic insulation protection inputs, depending on the type
- Selection of the parameters displayed
- Selection of the default page
- Internal clock used to program and classify the three hourly rates

## Application

- Application for the control of switchboards and low and medium voltage connection points, where an analyzer must be installed on the DIN rail
- Control of instantaneous, maximum and minimum values of the electrical parameters metered
- Alarm station of alarms with analogue signal
- Rate establishing control for up to three different rates

## Features

<b>Power supply circuit</b>	230 Vac (-15...+10%) For other values, see the coding table
Consumption	6 V·A
Frequency	45..0.65 Hz
<b>Metering circuit</b>	
Nominal voltage	500 Vac (ph-n) / 866 Vac (ph-ph)
Frequency	40..0.65 Hz
Current consumption of the circuit	0.6 V·A
Nominal current	... / 5 A
Overload (permanent)	1.2 I <sub>n</sub>
<b>Class/Accuracy</b>	
Voltage	0.5 % ± 2 digits
Current	0.5 % ± 2 digits
Power rating	1 % ± 2 digits
<b>Ambient conditions</b>	
Operating temperature	-10 ... +50 °C
Relative humidity (non-condensing)	5 ... 95%
<b>Build features</b>	
Type of box	VO self-extinguishing plastic
Degree of protection	Embedded equipment: IP 41 Terminals: IP 20
Dimensions	140 x 110 x 70 mm (3 modules)
Weight	520 g
<b>Safety</b>	
Designed for CAT III 300/520 Vac installations, in accordance with <b>EN 61010</b> Double-insulated electric shock protection, class II	
<b>Standards</b>	
<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</b>	

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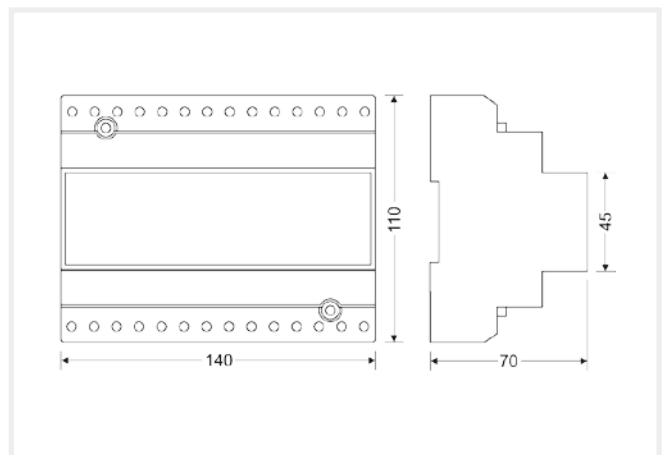
## References

Quadrants	Class (V/A)	Clock	THD/D (V/A)	Maximum demand	MODBUS / RTU Communications	RED Communications	Relay output	Output 4...20 mA	Type	Code
4	0,5	Yes	Yes	Yes	RS-485	RS-485	-	-	CVM-BD-RED-H	M52110
4	0,5	Yes	Yes	Yes	RS-485	RS-485	2	-	CVM-BD-RED-C2-H	M52111
4	0,5	Yes	Yes	Yes	-	-	-	8	CVM-BD-420-8-H	M52105
4	0,5	Yes	Yes	Yes	RS-485	RS-485	1	1	CVM-BD-RED-C420-H	M52122
4	0,5	Yes	Yes	Yes	RS-485	RS-485	-	2	CVM-BD-RED-420-H	M52123

## Coding table

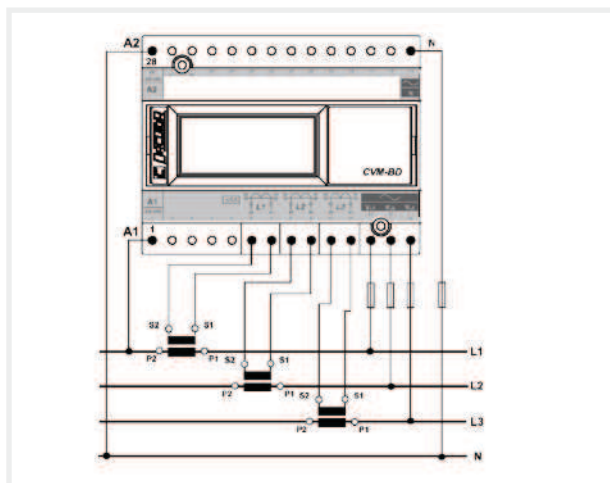
M	5	X	X	X	X	0	0	X	X	X	X	X
Code						Internal Code						
Power Supply Voltage (PSV)	Standard (230 Vac)					0						
	110 Vac					1						
	24...0.120 Vdc					5						
Voltage metered (VM)	Standard (300 V <sub>ph-n</sub> /520 V <sub>ph-ph</sub> )					0						
	110 V <sub>ph-n</sub> / 190 V <sub>ph-ph</sub>					1						
	500 V <sub>ph-n</sub> / 866 V <sub>ph-ph</sub>					3						
Current input (CI)	Standard (.../ 5 A)					0						
	.../ 1 A (Only ITF)					1						
Other (only CVM-BD-RED/ BDM)	Standard					0	0					
	RS-232 Communications					0	1					

## Dimensions

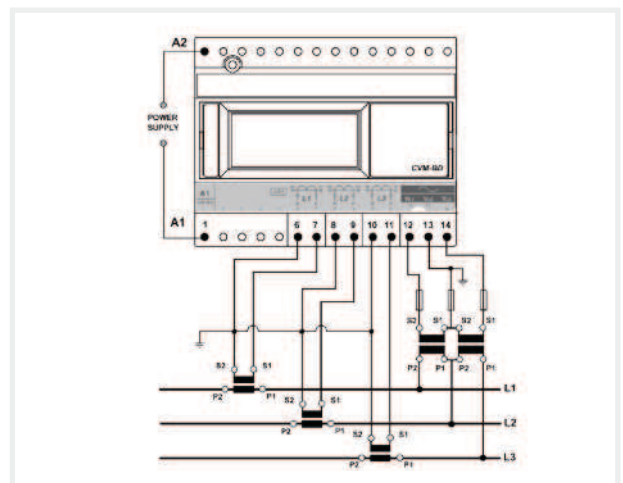


## Connections

### Three-phase network (low voltage)



### 3 current transformers + 2 voltage transformers



See the user manual for other types of connections